



Blackwater Mine



2025 Blackwater Gold Project Annual Report for PE- 110650

Executive Summary (Plain Language)

Blackwater Gold Mine (the Mine) started construction in October 2022 and continued through 2025, with first gold pour in January 2025. By May 2025 commercial production was achieved, and operations continued through the year. This report includes how the project followed the requirements of the *Environmental Management Act* (EMA) Permit 110650 (PE-110650) issued on May 2, 2023 (amended on September 9, 2024), and the Air Quality Fugitive Dust Management Plan.

Construction activities occurred through 2025 with a focus on the list below.

- Continued development of Tailing Storage Facility Dam C
- Development of the Low Grade Ore stockpile foundation panels
- Construction of water management infrastructure
- Establishing ancillary buildings and associated facilities

Tree clearing and soil salvage occurred where needed to support those activities

Several wildfires occurred in the vicinity of the Mine in 2025; however, construction, operations and monitoring activities were less impacted compared to previous years.

Particulate Matter air quality results in 2025 showed:

- PM_{2.5} exceeded the Permit and Trigger Response Plan medium trigger 4 times.
- PM₁₀ exceeded the Permit and Trigger Response Plan medium trigger 5 times.

These exceedances were likely caused by the nearby wildfires. All exceedances were reported to the BC Ministry of Environment and Parks (BC ENV) and First Nations (Section 3.1).

In 2025 sulphur dioxide, nitrogen dioxide or carbon monoxide did not exceed the BC Ambient Air Quality Objectives. No equipment failures occurred in 2025.

In 2025, point source discharge monitoring occurred at completed authorize works: Primary Crusher, Secondary Crusher, Tertiary Crusher, Cyanide Prep Area, Copper Sulphate Mix Tank, Fire Assay Sample Prep and Fire Assay Lab Dust Collector/Furnace (Section 2.1).

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Acronyms and Abbreviations

Aboriginal Groups or Indigenous Nations	Aboriginal Groups include: Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Stelat'en First Nation, Saik'uz First Nation, and Nazko First Nation
AAQO	Ambient Air Quality Objective
AEMP	Aquatic Environmental Management Plan
ALS	ALS Environmental Laboratory
AQFDMP	Air Quality and Fugitive Dust Management Plan
Artemis	Artemis Gold Inc.
Avison	Avison Management Services Ltd.
BC	British Columbia
BCFSM	BC Field Sampling Manual
Blackwater or Mine	Blackwater Gold Mine
BWG	BWG LTD.
CAAQS	Canadian Ambient Air Quality Standards
CALA	Canadian Association for Laboratory Accreditation
CCME	Canadian Council of Ministers of the Environment
CFMP	Country Foods Monitoring Plan
COA	Certificate of Analysis
CO	Carbon monoxide
COI	Conflict of Interest
CR	Community Relations
DOC	Declaration of Competency
D1HM	Percentiles of daily 1-hour maximum
DL	Detection Limit
DS	Decision Statement
EAC	Environmental Assessment Certificate
ELoMC	Environmental Life of Mines Committee
EMA	Environmental Management Act



ENV	Ministry of Environment and Parks
EnMoDS	Environmental Management Data System
ERT	Emergency Response Team
FSR	Forest Service Road
IAAC	The Impact Assessment Agency of Canada
IECD	Interim Environmental Control Dam
Indigenous groups or Aboriginal Peoples	Lhoosk'uz Dené Nation, Ulkatcho First Nation, Nadleh Whut'en First Nation, Saik'uz First Nation, Stelat'en First Nation, Nazko First Nation, Skin Tyee Nation, Tsilhqot'in Nation, Métis Nation British Columbia, and Nee-Tahi-Buhn Band (as defined in the Project's federal Decision Statement)
HH:mm	Total sample run time
K	Kelvin
kg	Kilogram
km	Kilometre
KP	Knight Piésold Ltd.
kPa	Kilopascals
L	Litres
LDN	Lhoosk'uz Dené Nation
LGO	Low Grade Ore
m	Metre
m ³	Cubic metres
mE	Meters easting
mN	Meters northing
MOTI	Ministry of Transportation and Infrastructure
NAAQO	National Ambient Air Quality Objectives
NAPS	National Air Pollution Surveillance
NA	Not Applicable
NC	Not Calculable
New Gold Inc.	New Gold
NFNs	Nechako First Nations



NO ₂	Nitrogen Dioxide
PAG	Potential Acid Generating
Partisol	Thermo Scientific Partisol FRM Model 2025i-D dichotomous sequential PM sampler
PASS	Passive Air Sampling System
Ppb	Parts Per Billion
PM	Particulate matter
PM ₁₀	Inhalable particulate matter with a diameter of 10 micrometres or less
PM _{2.5}	Fine particulate matter with a diameter of 2.5 micrometres or less
PM _{coarse}	The particulate matter size fraction between 2.5 to 10 micrometres. The PM _{coarse} term is specifically used by dichotomous sequential Partisol samplers. The mass component of PM ₁₀ is calculated from the sampled mass components of PM _{coarse} plus PM _{2.5} .
Purple Air	Purple Air monitors
Q	Quarter
QA/QC	Quality assurance/quality control
QP	Qualified Professional (as defined by Permit PE-110650)
RPD	Relative percent difference
SO ₂	Sulphur Dioxide
SOP	Standard Operating Procedure
TARP	Trigger Action Response Plan
TRP	Trigger Response Plan
TSF	Tailings Storage Facility
UFN	Ulkatcho First Nation
µm	Micrometres (Microns)
WRMP	Waste (and Refuse) Management Plan
YRB	Yellowhead Road & Bridge

1 Introduction

The Blackwater Gold Mine (the Mine) is an open pit gold and silver mine located in central British Columbia (BC), approximately 112 kilometres (km) southwest of Vanderhoof, 160 km southwest of Prince George, and 446 km northeast of Vancouver (Figure 1). Construction of this facility initiated in October 2022 and continued through 2025, with first gold pour in January 2025. By May 2025 commercial production was achieved, and operations continued through the year.

The Mine is located on the ancestral lands of the Lhoosk'uz Dene Nation (LDN) and Ulkatcho First Nation (UFN). While other aspects and infrastructure, are located on the Nadleh Whut'en, Saik'uz, Stellat'en, and Nazko First Nations (collectively referred to as the Nechako First Nations, NFNs).

1.1 Existing Permits

New Gold Inc. (New Gold) was issued Environmental Assessment Certificate #M19-01 (EAC) on June 21, 2019, and a Decision Statement (DS) on April 15, 2019, under the Canadian Environmental Assessment Act, 2012. In August 2020, Artemis Gold Inc. (Artemis) acquired the mineral tenures, assets and rights in the Blackwater Project, which had previously been owned by New Gold. On August 7, 2020, the EAC was transferred to BWG LTD (BWG), a wholly owned subsidiary of Artemis, under the 2018 Environmental Assessment Act. The Impact Assessment Agency of Canada (IAAC) informed BWG on September 25, 2020, to verify that written notice had been provided within 30 days of the change of proponent as required by the DS.

As part of the Joint Mines Act/Environmental Management Act Permitting Process BWG was issued three permits to support major works and operations. These included Mines Act Permit M-246 (M-246) (issued March 8, 2023), Environmental Management Act (EMA) Permit 110652 (PE-110652 issued May 2, 2023) to authorize the release of effluent, and EMA Permit 110650 (PE-110650 issued May 2, 2023) to authorize release to air.

PE-110650 authorizes the discharge of air contaminants from the mine in accordance with its conditions. The list of authorized discharge points is provided in Section 2.1. On September 9, 2025, PE-110650 was amended to facilitate the relocation of the Partisol Particulate Matter (PM) monitoring unit and Passive Air Sampling System (PASS) monitoring units from the construction camp to the newly constructed operations camp as it became the closest on-site receptor with personnel relocating to the new facility. This was an anticipated activity reflected in the Joint Mines Act/Environmental Management Act application. On June 11, 2025 BWG was given Approval for Passive Carbon Monoxide Monitoring equipment for the use of Passam AG laboratory for laboratory analysis of the passive CO sample.

BWG also holds an Environmental Management Act Authorization #106530 for a permitted diesel-fired putrescible waste incinerator located at the exploration camp location near the construction camp.

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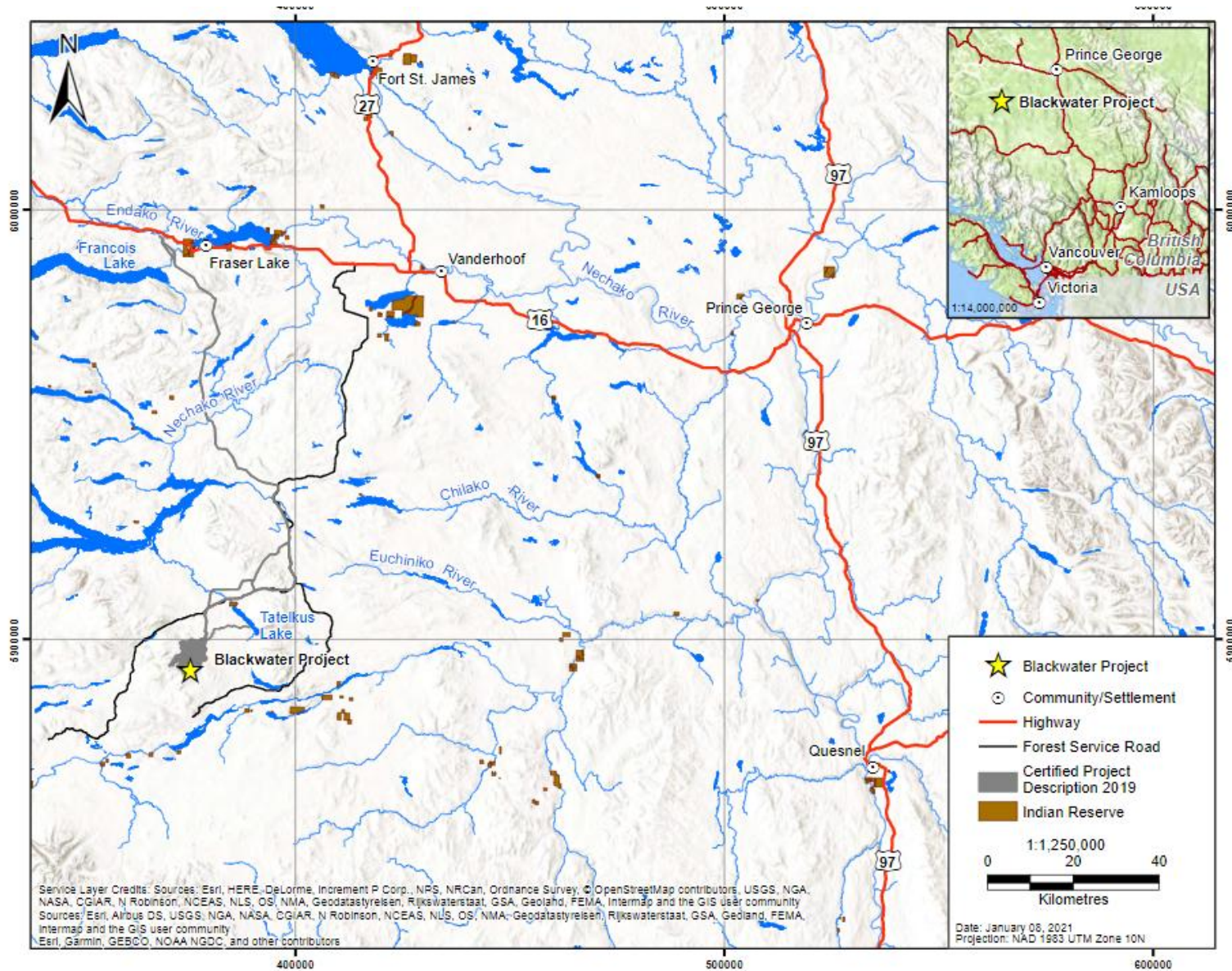


Figure 1 Blackwater Gold Mine

1.2 Purpose and Scope

The Air Quality and Fugitive Dust Management Plan (AQFDMP), developed and submitted with BWG's Joint Application for Mines Act/ Environmental Management Act permits, fulfills the requirements of EAC #M19-01 Condition 20, federal Decision Statement (DS) Conditions 6.1, 6.3, 6.12 and 6.15, and addresses Condition C.10 of Mine's Act Permit M-246.

The purpose of this 2025 Annual report is to fulfill the reporting requirements describe in the AQFDMP.

The report will provide a summary of:

- Environmental incidents, complaints and non-compliance events;
- Identify measures taken to minimize effects of the Project's air emissions on human health and the natural environment;
- All monitoring under the permits and AQFDMP;
- An assessment of the data;
- Identifies the Mine's fugitive dust-emitting sources and mitigation and contingency measures in the event the primary control measures are not effective; and
- Recommendations as appropriate.

1.2.1 Exclusions

Consistent with the Guidance (BC EMLI & ENV, 2023), this report does not address occupational health and safety requirements pertaining to workplace exposures to dust for on-duty workers. Worker health and safety at mine sites is regulated by the Health, Safety and Reclamation Code for Mines in British Columbia (EMLI 2025).

1.3 Facility and Process Description

Operations began in 2025, including continued development of the open pit using conventional drill-and-blast, load-and-haul methods, operation of the mill, deposition of material into the tailings storage facility (TSF), and placement of Low Grade Ore (LGO) on the LGO Stockpile.

As operations of the mill commenced in January 2025 discharge from point sources identified occurred. Additional information on these discharges can be seen in Section 2.1.

Construction activities occurred through 2025 with a focus on the list below.

- Continued development of TSF Dam C
- Development of the LGO stockpile foundation panels
- Construction of water management infrastructure
- Establishing ancillary buildings and associated facilities

Tree clearing and soil salvage occurred where needed to support those activities.



These construction activities and the movement of material during operations produced fugitive dust. Additional information on these discharge can be seen in Section 2.2.

No burning occurring at the putrescible waste incinerator (PE-106530), or the refuse incinerator authorized through PE-110650, which has not yet been established.

1.3.1 2025 Wildfire Season

Several wildfires occurred in the vicinity of the Mine in 2025, however construction, operations and monitoring activities at the Mine were less impacted than compared to the wildfire impacts in 2024 and 2023. No evacuations occurred, no fires intercepted the mine site, Forest Service Road (FSR), transmission line, or planned offsetting sites, and the timing and completion of monitoring was not impacted. Smoke produced from those fires did impact air quality at the mine and in the general region outside of the mine during the summer months (see Section 2.4.3).

1.4 Regulatory Requirements

The annual status form summarizing the compliance status with all conditions of PE-110650 is presented in Appendix 1-1. Each permit condition with its corresponding report section is provided in Table 1-1.

Table 1-1 PE110650 Concordance Table

Condition No.	Condition	Section
6.1	The permittee must cause a Qualified Professional to prepare an Annual Report and the permittee must submit the Annual Report in a form and manner acceptable to the director, on or before March 31 of each year, for the previous years operations. The annual report must include, but not be limited to, the following information [6.1.a – 6.1.r]	Section 8 Authorship and Declaration
6.1.a	The annual metrics of PM _{2.5} and PM ₁₀ concentrations (e.g. daily mean, annual mean, maximum, minimum, days of exceedances, etc.), calculated from the data collected throughout the reporting period by the particulate matter monitor referenced in permit Section 5.1.2;	Section 2.4 Particulate Matter Monitoring
6.1.b	A summary of all data collected from the passive monitors identified in Section 5.1.2;	Section 2.5 Passive Air Quality Monitoring
6.1.c	All stack test reports for stack tests conducted during the calendar year, as required by Section 5.7;	Section 2.1 Point Source Discharge Monitoring
6.1.d	The rate of discharge of the piece of equipment that is being tested at the time each stack test is conducted, the daily throughput for the six months up to the sample date, and the average daily rate of discharge for that period. These rates need to be compared to the normal operating conditions . These rates must all be in the same units;	Section 2.1 Point Source Discharge Monitoring
6.1.e	A summary of the record of occurrences outside the normal operating parameters for all pollution control equipment equipped with pressure differential sensors, as required by Section 5.7, and actions taken to address these occurrences;	Section 2.1 Point Source Discharge Monitoring
6.1.f	An interpretation, prepared by a Qualified Professional , of all monitoring data required by this authorization, including, where applicable, a comparison of results against applicable permit limits/provincial air quality objectives, and a discussion about the results to include, but not be limited to, any outstanding results , trend analysis and observations regarding conditions and particulate sources made during sample collection;	Section 2 Monitoring
6.1.g	A summary of all quality assurance information that is provided by the analytical laboratories;	Section 2 Monitoring
6.1.h	Data capture results including the following as per Section 5.1.4 and 5.2.3: i) The percentage of days the each of the monitors were available for the calendar year; ii) The percentage of days the each of the monitors were available per quarter; iii) Confirmation that the each of the monitors were serviced in accordance with the BCFSM (for meteorological stations); iv) Confirmation that the results have not been invalidated by a quality assurance failure of as the result of the Province's data validation procedures (for meteorological stations).	Section 2.4.3 Results Section 2.4.4 Quality Assurance and Quality Control Section 2.6 Meteorological Monitoring, and Appendix 1-5 KP Annual Climate Report
6.1.i	Results of the calibrations conducted on monitors referenced in Table 1, as required by Section 5.1.5;	Section 2.4.5 Inspection, Maintenance, and Calibration
6.1.j	Results of the audit conducted on the monitors referenced in Table 2, as required by Section 5.2.4, including any remedial action implemented in response to audit findings;	Section 2.6 Meteorological Monitoring, and Appendix 1-5 KP Annual Climate Report

Condition No.	Condition	Section
6.1.k	A summary of the data collected for the Incinerator Operating Plan as required by Section 3.3;	Section 5 Waste Management
6.1.l	Results of the AQFDMP Review Report, as required by Section 4.1.7;	Section 1.5.1 Management Plan Review
6.1.m	Results of the TRP Review Report, as required by Section 4.2.7;	Section 1.5.1 Management Plan Review
6.1.n	A summary of inspection and maintenance activities of the Authorized Works ;	Section 2.1 Point Source Monitoring
6.1.o	A summary of all non-compliances with the requirements of this permit, including stand time of the non-compliance, the nature of the non-compliance, and remedial actions implemented to prevent the reoccurrence of the non-compliance;	Section 3.1 PE-110650 Reported Events
6.1.p	Occurrences or observations of wildlife accessing waste, ash, or the incinerator area at the site; incidents of killing wildlife on the mine site due to potential concerns related to human-wildlife interactions; and mitigation measures taken;	Section 5.1 Wildlife Observations
6.1.q	A summary of all spills, that were equal to or greater than the volumes defined in the Spills Reporting Regulation, that occurred during the previous calendar year, including date and time of the incident, material spilled, volume spilled, actions taken to clean up the spill, and remedial actions implemented to prevent the reoccurrence of the spills;	Section 3.2 Spill Reporting
6.1.r	The Annual Status Form required by Section 6.5.	Section 1.4 Regulatory Requirements

1.5 Management Plans

Under PE-110650, a series of management plans are required and relevant details are provided in Table 1-2. Those listed plans, which represent the most current versions implemented at the Mine in 2025, are available on-site.

For clarity, the Incinerator Operations Plan was not implemented in 2025, as the incinerator was not used, and waste was disposed off-site.

Table 1-2 Applicable Management Plans

PE-110650 Condition	Management Plan*	Latest Version/Date	Scheduled Review
3.1	Waste (and Refuse) Management Plan	F.1 / April 30, 2025	2026
3.3	Incinerator Operating Plan	A.1 / June 30, 2023	2029
4.1	Air Quality and Fugitive Dust Management Plan**	J.1 / April 30, 2025	2026
4.2	Air Quality Trigger Response Plan for non-point source discharges to air (Fugitive Dust TRP)**	D.1 / April 30, 2025	2026
5.4	Station Operational and Quality Assurance Plan	A.1 / June 23, 2023	As required

*Submission for each of these plans included ENV as well LDN, UFN, and the NFNs

**Submission of these plans included a cover letter summarizing consultation with LDN, UFN, and the NFNs

1.5.1 Management Plan Reviews

In 2025 the Waste (and Refuse) Management Plan (WRMP) and the AQFDMP underwent Qualified Professional (QP; as defined by Permit PE-110650) review per Permit conditions 3.1.4 and 4.1.6.

To support the findings from these review QPs were provided with a variety of information regarding implementation of the Plans. For additional reference, comments provided by Aboriginal groups following their reviews of the 2024 PE-110650 report were provided for consideration in the development of recommendations.

The results of those reviews can be found in Appendix 1-2. The majority of elements in both plans were implemented appropriately, with those mitigations in place showing to be effective. As required by Permit conditions 3.1.5 and 4.1.8 these documents will be updated within 30 days of the submission of this report.

As part of the AQFDMP review and update process, the Ministry of Environment and Parks (ENV) provided comments on June 25, 2025. These comments will be incorporated into the next version of the AQFDMP, as summarized in Table 1-2.

In addition to the QP review findings, updates were also made to the Waste (and Refuse) Management Plan in response to direction received from ENV. Specifically, portions of Section 8.2, Contaminated Soil and Snow Management, were redacted to remove reference to hydrocarbon-contaminated material going through the mill. This redaction was the only change and was completed to ensure alignment with the requirements of Permit PE-110650.

2 Monitoring

Monitoring summarized in this section was implemented following the listed management plans and trigger response plans. These documents have been developed to meet conditions of PE-110650:

- WRMP
- Incinerator Management Plan
- AQFDMP
- Fugitive Dust TRP
- Station Operational and Quality Assurance Plan

BWG collected monitoring data for ambient particulate matter (PM), nitrogen dioxide (NO₂), sulphur dioxide (SO₂) and carbon monoxide (CO). The list below summarizes consultants providing additional support:

- CD Nova provided technical support as needed for the Thermo Scientific Partisol Equipment.
- Avison Management Services Ltd. (Avison) as well as BWG with guidance from Knights Piesold Ltd. completed the Meteorological monitoring; and,
- ERM provided technical review of the AQFDMP document as QP for air quality, and provided AQFDMP implementation guidance when requested.

As per Condition 4.3 of PE-110650, the particulate matter data is compared to the provincial air quality objectives: PM₁₀, with a limit of 50 µg/m³ for a 24-hour average; PM_{2.5}, with a limit of 25 µg/m³ for 24-hour; and PM_{2.5}, with a limit of 8 µg/m³ for an annual average. In addition, not specifically referenced in PE-110650, the following BC Ambient Air Quality Objectives and Canadian Ambient Air Quality Standards were used to compare air quality data as described in the AQFDMP. These are summarized in Table 2-1 for reference.

- The *Canadian Environmental Protection Act, 1999* established *National Ambient Air Quality Objectives* (NAAQOs) and *Canadian Ambient Air Quality Standards* (CAAQS) to protect human health and the environment.

- BC established *Ambient Air Quality Objectives* (AAQOs) pursuant to the EMA.

Table 2-1: Canadian and BC Ambient Air Quality Objectives

Contaminants	Averaging Period	Permit Requirements	2025 Objectives and Standards	
			BCAAQO ^(a)	CAAQS ^(b)
PM ₁₀	24-Hour	50 µg/m ³	50 µg/m ³	-
PM _{2.5}	24-Hour	25 µg/m ³	25 µg/m ³ ^(c)	27 µg/m ³ ^(d)
	Annual	8 µg/m ³	8 µg/m ³ ^(e)	8.8 µg/m ³ ^(f)
CO	1-hour	-	14,300 µg/m ³ or 13 ppm ^(m)	-
	8-hour	-	5,500 µg/m ³ or 5 ppm ^(m)	-
NO ₂	1-hour	-	60 ppb ^(g)	42 ppb ^(h)
	Annual	-	17 ppb ⁽ⁱ⁾	12 ppb ⁽ⁱ⁾
SO ₂	1-hour	-	-	65 ppb ^(k)
	Annual	-	-	4 ppb ^(l)

Notes:

µg/m³ = micrograms per cubic metre; PM₁₀ = Particulate matter less than 10 µm (microns) in diameter; PM_{2.5} = Particulate matter less than 2.5 µm (microns) in diameter; CO = carbon monoxide; NO₂ = nitrogen dioxide; SO₂ = sulphur dioxide, ppb = parts per billion,

“-“ signifies no air quality objective is available.

^(a) BC Ambient Air Quality Objectives.

^(b) Canadian Ambient Air Quality Standards.

^(c) Achieved based on annual 98th percentile of daily average, over one year.

^(d) Achieved based on 98th percentile of daily average, averaged over three consecutive years.

^(e) Achievement based on annual average, over one year.

^(f) Achievement based on annual average, averaged over three consecutive years.

^(g) Achievement based on annual 98th percentile of D1HM, averaged over three consecutive years.

^(h) Achievement based on annual 98th percentile of D1HM, averaged over three consecutive years.

⁽ⁱ⁾ Achievement based on annual average of 1-hour average concentrations over one year.

^(j) compliance based on a one-calendar-year average of all the 1-hour average concentrations.

^(k) Achievement based on annual 99th percentile of D1HM, averaged over three consecutive years, effective January 1, 2020.

^(l) Achievement based on all 1-hour average concentrations over a single calendar year.

^(m) Pollution Control Objectives were developed by the BC Ministry of Environment and the BC Department of Lands, Forest and Water Resources in the 1970s for five source sectors. These criteria, which referred to all discharges to the environment, were rescinded in 2006, but the ambient air quality objectives continue to be used for reference purposes.

2.1 Point Source Discharge Monitoring (Condition 5.7)

The Mine commenced operations of the mill on January 22, 2025.

A summary of the 2025 monitoring results is presented in Table 2-2; no permit limit exceedances were observed during the sampling event. Full details are provided in Appendix 1-3.

Point source sampling of the reclaim tunnel was missed during the 2025 sampling event, and an additional sampling event is planned for 2026 to address this. No sampling of the incinerator occurred, as the facility was not in place in 2025.

Table 2-2 Point Source Discharge Monitoring

Equipment	EMS No.	Monitoring Date	Average Mass Emission Rate (kg/hr)	Rate of Discharge (m ³ /hr)	Permit Limit Maximum Rate of Discharge (m ³ /hr)	Total Particulate Matter – Max Concentration (mg/m ³)	Permit Limit Total Particulate Matter – Max Concentration (mg/m ³)	Estimated Average Daily Rate of Discharge (m ³ /hr) ¹	Mill Feed, dry (t/day)	Normal Operation Conditions (t/day) ²
Primary Crusher Dust Collector	E328676	July 10, 2025	0.04	Average: 4,879.01 Max: 4,941.40	14,040	Average: 8.02 Max: 11.8	15.00	4,473.81	20,054	11,360
Secondary Crusher Dust Collector	E328677	July 10, 2025	0.03	Average: 4,206.53 Max: 4,260.00	39,348	Average: 6.19 Max: 8.36	15.00	3,911.18	20,054	11,360
Tertiary Crusher Dust Collector	E328679	July 10, 2025	0.05	Average: 5,217.59 Max: 5,248.61	69,264	Average: 9.63 Max, 11.25	15.00	4,401.62	20,054	11,360
Cyanide Prep Area Dust Collector	E328683	July 9, 2025	0.00	Average: 314.21 Max: 317.89	828	Average: 3.37 Max: 3.99	15.00	302.65	19,727	11,331
Copper Sulphate Mix Tank Dust Collector	E328684	July 8, 2025	0.00	Average: 331.92 Max: 337.90	828	Average: 4.22 Max: 7.15	15.00	312.59	19,626	11,331
Fire Assay Sample Prep Dust Collector	E328686	July 8, 2025	0.05	Average: 11,102.37 Max: 11,130.24	11,268	Average: 4.21 Max: 7.49	15.00	Not Available	19,626	11,331
Fire Assay Lab Dust Collector/Furnace Exhaust	E328687	July 7, 2025 July 8, 2025	0.04	Average: 8,274.27 Max: 8,332.88	8,460	Average: 4.57 Max: 5.32	15.00	Not Available	11,414 19,626	11,273 11,301

¹ There is no requirement to continuously monitor the discharge flowrate of these units. The average daily rate of discharge in the past 6-months was estimated by taking the average dry flow rate of the stack test data, multiplying it by the total operating hours over the past 6-months, then dividing by: 24-hours multiplied by the number of days operating in the past 6-months).

² Per PE-110650 'normal operating conditions', means operating conditions that are defined as those that are greater than 80% of the average daily production throughput for the last 6 months. Mill daily throughput data did not become available until January 21st.

2.1.1 Inspection and Maintenance of Authorized Works (Condition 2.1)

The following is a summary of 2025 inspection and maintenance activities of discharge locations and Authorized Works complete in 2025. The incinerator is not included because it was not used in 2025.

Table 2-3 provides an overview of the scheduled maintenance frequency. Inspection activities occur as part of the preventative maintenance described in Table 2-3. These activities occur based on manufacturers recommendations.

Table 2-3 Schedule for Inspection and Preventative Maintenance of Authorized Works

Equipment	Specified Works	Scheduled Preventative Maintenance Frequency
Primary Crusher Dust Collector	Dust Collector	Weekly <ul style="list-style-type: none"> - Listen and inspect for unusual sounds and vibrations - Ensure proper operation, ensure all solenoids are firing, factory set cycles at 10 seconds.
Secondary Dust Collector	Compressor	Weekly <ul style="list-style-type: none"> - Record hours - Check and record load and unload pressures - Check oil level - Ensure proper orientation of auto drain 500 Hours <ul style="list-style-type: none"> - Weekly activities - Clean air suction filter - Check belt tension 2000 Hours <ul style="list-style-type: none"> - Weekly and 500 Hours activities - Change oil and oil filters - Replace filter on automatic condensate drain - Clean finned surface of air-oil cooler 4000 Hours <ul style="list-style-type: none"> - Weekly activities - Replace drive belts - Change oil and oil filters - Change separator filter - Replace drain kit - Clean finned surface of air-oil cooler
Tertiary Dust Collector		
Reclaim Tunnel Ventilation Fan		Monthly <ul style="list-style-type: none"> - Reliability check Three Months <ul style="list-style-type: none"> - Clean fan blades to remove build up - Clean guide vanes - Check condition of fan shaft - Check conditions of bearings - Inspect drive belt
Lime Silo Dust Collector		Weekly <ul style="list-style-type: none"> - Listen and inspect for unusual sounds and vibrations - Ensure proper operation, ensure all solenoids are firing, factory set cycles at 10 seconds.
Lime Silo Wet Scrubber		Weekly <ul style="list-style-type: none"> - Inspect mechanical components to confirm the vessel, gas path, liquid path, internals, pumps, fans, and instrumentation are structurally sound, unobstructed, leak-free, and operating correctly - Check for abnormal noise, vibration, or visible corrosion
Cyanide Prep Area Exhaust Fan		Weekly <ul style="list-style-type: none"> - Check condition of filter, change if needed
Copper Sulphate Mix Tank Exhaust Fan		Weekly <ul style="list-style-type: none"> - Check condition of filter, change if needed
Fire Assay Sample Prep Dust Collector		Weekly <ul style="list-style-type: none"> - Check drum volumes and air lines
Fire Assay Lab Dust Collector/Furnace Exhaust		Annual <ul style="list-style-type: none"> - Air balancing

In addition to scheduled inspection and maintenance activities, operators follow a standardized process for reporting equipment issues as they arise. When an irregular condition is observed, the operator initiates a work order in the maintenance management system, documenting the issue and identifying the affected equipment. This approach allows the maintenance team to review the information, assign an appropriate priority, and plan corrective actions in line with established procedures. Instances where equipment operates outside normal parameters are captured through this system, these occurrences are observed through real-time monitoring and integrated high and low differential pressure alerts, and the resulting maintenance activities are summarized in Table 2-4.

Table 2-4 Maintenance Activities Undertaken Based on Pressure Differential Notifications Outside of Normal Operating Parameters.

Equipment	Pressure Differential High or Low Alert	Date	Action
Primary Crusher Dust Collector	High	December 22	Air compressor repaired and filters replaced.
Secondary Crusher Dust Collector	High	June 4	Filters replaced and hoses adjusted.
	High	May 31	Filters replaced and hoses adjusted.
	High	December 22	Filters replaced.

2.2 Fugitive Dust Management

In 2025 the following activities were conducted at the mine site that may have resulted in emissions of fugitive dust:

- Land clearing and earthworks for operations camp, and mine infrastructure;
- Construction and use of unpaved access and mine roads;
- Material handling/ re-handling at aggregate and topsoil stockpiles;
- Parking lot and road grading;
- Construction of water management structures (e.g., diversion channels);
- Construction of TSF dams, and Interim Environmental Control Dam (IECD);
- Aggregate extraction from borrow pits;
- Borrow and aggregate crushing and screening;
- Concrete Batch Plant operations;

- Open Pit;
- Processing plant operations;
- Surface blasting, drilling and material handling for starter pit; and
- Construction of transmission line.

Table 2-55 provides further information on dust emissions by Project Components.

Table 2-5 Potential Dust Emissions by Project Components

Component	Potential Source	Dust-generating Material	Environmental Generating Conditions
Concrete Batch Plant	Material handling	Cement, aggregate	Any conditions
Aggregate screening areas	Material handling / rehandling, vehicle traffic	Aggregate	Windy, dry, hot days or extremely cold days
Borrow Areas	Material handling / rehandling, vehicle traffic	Overburden, waste rock and aggregate	Windy, dry, hot days or extremely cold days
Stockpiles	Wind erosion, material handling, vehicle traffic	Topsoil, Ore	Wind, dry, hot days, or extremely cold weather
Mine access road	Vehicle traffic, grading	Aggregate	Wind, dry, hot days, or extremely cold weather
TSF, mine site haul and service roads	Vehicle traffic, grading	Aggregate	Any conditions
Construction (Interim Environmental Control Dam, TSF, Freshwater Reservoir, etc.)	Excavation, compaction, material placement and handling, vehicle traffic	Cement, aggregate	Wind, dry, hot days, or extremely cold weather
Open Pit	Overburden and waste rock removal, blasting, drilling, material handling/re-handling, vehicle traffic	Overburden, waste rock, ore, aggregate, waste rock	Any conditions, pit will become deeper and wetter as it is developed, helping to mitigate fugitive dust reaching the surface
Processing Plant	Conveyor drop, primary crusher building, secondary and tertiary crusher building, reclaim tunnel, rotary kiln, propane smelting, fire assay furnace	Ore	Windy, dry, hot days or extremely cold weather

2.2.1 Mitigation Measures

Site-specific mitigation measures, including best management practices, were applied to all active dust sources. See Table 2-66 which is condensed to show only activities that occurred in 2025. For a full list of emission sources please refer to Section 8.2 of the AQFDMP.

Table 2-6 Best Management and Mitigation Measures

Emission Source	Best Management and Mitigation Measures
Open Pit	<ul style="list-style-type: none"> • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise and vibration. • Utilize available fleet of water trucks, weather depending. • Use weather forecasts to inform blasting plan (e.g., wind forecast, lightning and thunder warnings).
Concrete batch plant	<ul style="list-style-type: none"> • When unloading material, piles should form low piles (target height of approximately 10 m) that extend horizontally, where practical. • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise and vibration.
Aggregate crushing and screen areas	<ul style="list-style-type: none"> • Equip the crusher and/or screener circuits with onboard water dosing during times of the year above freezing temperatures or other dust suppression measures (e.g., reagents) systems. • Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Stockpiles should form low piles (target height of approximately 10 m) that extend horizontally as determined by the Construction Manager, where practical. • Use screener and crusher covers. • Check cover for tears, holes, and cracks on a monthly basis. Repair as soon as possible.
Borrow areas	<ul style="list-style-type: none"> • Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Employees involved in material handling or management will receive instruction by a qualified person on the importance of minimizing material drop height (from excavator to truck conveyor to stockpile, etc.) to reduce fugitive dust, noise, vibration.

Emission Source	Best Management and Mitigation Measures
	<ul style="list-style-type: none"> • Develop new borrow areas only when and as required (to be determined by the Mine Manager). • Once suitable materials have been salvaged, place topsoil on disturbed areas and seed once they are sloped to final grade and at an appropriate time of year for seeding using a native seed mix to re-establish vegetative cover as soon as reasonably possible. • When unloading material, piles should form low piles (target height of approximately 10 m) that extend horizontally. • Minimize drop height from loaders and excavators (shovels) to the truck.
Topsoil Stockpiles	<ul style="list-style-type: none"> • When unloading material, the piles should form low piles that extend horizontally. • Seed stockpiles to reduce erosion and establishment of invasive species.
Plant site Stockpile	<ul style="list-style-type: none"> • When unloading material, piles should form low piles (target height of approximately 10 m) that extend horizontally
Mine Access Road	<ul style="list-style-type: none"> • Speed limits will be established based on road design class, with the maximum speed limit of 50 km/hr on all Project roads. • Reduce speed limits on Project-owned roads if weather conditions cause fugitive dust emissions and dust cannot be controlled by watering. • Speed limits are clearly marked through signage and enforced by site security through periodic checks using a radar speed gun. Personnel caught speeding will face disciplinary measures, and if violators are encountered, they will be provided with constructive instructions on the importance of adhering to speed limits to limit dust generation. • Manage dust emissions from roadways in accordance with the Fugitive Dust Management SOP. • Water roads in accordance with Section 5.1.1 (watering) of the Fugitive Dust Management SOP. • Apply dust suppressant reagents after spring melt (e.g., calcium chloride, magnesium chloride or other equivalent) as approved by the Mine Manager. • Grader maintenance with road crush as required. • Regular compaction. • Use coarse aggregate on roads with low silt content to reduce silt loading on roads.

Emission Source	Best Management and Mitigation Measures
<p>TSF and mine haulage and service roads</p>	<ul style="list-style-type: none"> • Speed limits will be established based on road design class, with the maximum speed limit of 50 km/hr on all Project roads. • Reduce speed limits on Project-owned roads if weather conditions cause fugitive dust emissions and dust cannot be controlled by watering. • Speed limits are clearly marked through signage and enforced by site security Personnel caught speeding may face disciplinary measures and if violators are encountered, they will be provided with constructive instruction on the importance of adhering to speed limits to limit dust generation. • Manage dust emissions from roadways in accordance with the Fugitive Dust Management Plan. • Visual inspections for dust emissions for roadways and active stockpiles – mine and infrastructure supervisors, or designate, as well as the mine dispatch office who have a number of real-time stationary but rotating cameras with multiple angles of the open pit and haul roads will monitor for visible emissions from the truck equipment, and active stockpiles on the site during moderate weather conditions. A hot, dry day is defined as a day with less than 0.25 mm of rainfall for the preceding 24 hours and a temperature greater than 20°C. • Utilize available fleet of water trucks, weather depending (non-freezing conditions) • Apply dust suppressant reagents after spring melt (e.g., calcium chloride, magnesium chloride or other equivalent) as approved by the Mine Manager. • Use coarse aggregate on roads with low silt content to reduce silt loading on roads. • Grader maintenance with road crush as required. • Regular compaction.
<p>Vehicles</p>	<ul style="list-style-type: none"> • Maintain equipment in good working condition according to manufacturer's recommendations. • Restrict speeds and reducing idling. • Use Tier IV engines for mine fleet.
<p>Production Drilling / Grade Control Drilling</p>	<ul style="list-style-type: none"> • Use wet drilling during very dry conditions (less than 0.25 mm/day of precipitation in the previous week)

Emission Source	Best Management and Mitigation Measures
Production Blasting	<ul style="list-style-type: none"> • Immediately prior to blasting, the “Drill and Blast Engineer / Blast Coordinator” will check weather conditions to determine if the blast is likely to cause any dust or fume impacts on the surrounding environment • Blasting may be postponed until wind direction is not forecasted to disperse emissions towards employees or local sensitive receptors when dust or fume impacts on employees and environment cannot be avoided. The Mine Drill and Blast Superintendent and Mine Manager will ultimately decide when to postpone blasting (the H&S Manager and the Project Occupational Health and Safety Program can inform this decision).
Processing Plant	<ul style="list-style-type: none"> • Apply water when temperatures are above freezing and there are very dry conditions (less than 0.25 mm/day of precipitation in the previous week). • Use screener and crusher covers. • Employees involved in material handling or management will receive instruction by a QP on the importance of minimizing material drop height (from excavator to truck, conveyor to stockpile, etc.) to reduce fugitive dust, noise, and vibration. • Baghouse, control emissions from fully enclosed conveyor. • Enclosed conveyors. • Check cover for tears, holes and cracks on approved inspections and maintenance schedule. Repair or replace as soon as possible.
Low Grade Ore Stockpile	<ul style="list-style-type: none"> • When unloading material, stockpile lifts should form low piles (target height of approximately 10m) that extends horizontally and conform to the stockpile design report.
Primary and Secondary Crusher Circuits, Conveyors and Stockpile Drop Points	<ul style="list-style-type: none"> • Install spray bar sprinklers at material transfer points to limit dust emissions. • During periods of air temperatures below 0°C, reagents can be used to limit the formation of frost balls.

2.2.2 Water Truck

In accordance with the TRP outlined in the AQFDMP for managing fugitive dust caused by traffic on unpaved roads and construction activities, BWG deployed water trucks to help suppress fugitive dust emissions. Site personnel informally conducted visual inspections to identify areas requiring dust control, and radio communication would allow for water trucks to be promptly dispatched to these active areas. The water trucks, capable of holding approximately 20,000 L (20 m³) of water, operated between March and November, running 24-hours a day when weather conditions were favorable. Additionally, in line with the TRP Management Responses, reduced speed limits and reduction in haul traffic were implemented when fugitive dust was observed. Table 2-7 below shows the number of water truck loads per month and estimated water used. Figure 2 shows the route of the water truck.

Table 2-7 2025 Water Truck Count

Truck No	March	April	May	June	July	August	September	October	November
AT991		3	176	198	45	91	216	20	1
AT988	13	260	44	54	68	17	0	2	0
AT982	5	5	23	81	99	137	18	13	133
Totals Loads	18	268	243	333	212	245	234	35	134
Estimated Volume of Water (m³)	360	420	4860	6660	4240	4900	4680	700	2680

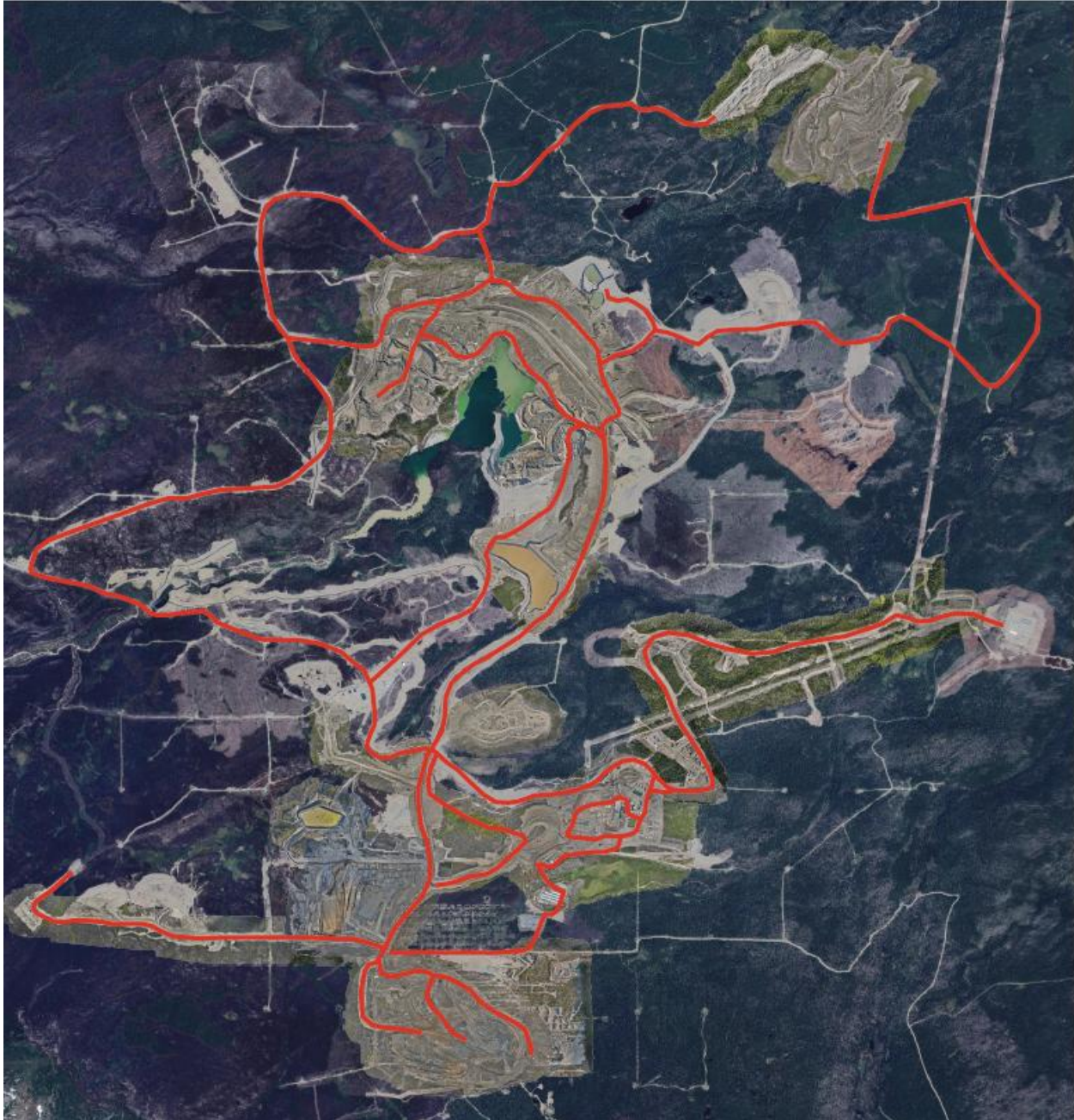


Figure 2 Water Truck Route

2.3 Dustfall Monitoring

According to the ENV Technical Guidance *Dustfall Monitoring and Pollution Control Objectives, 2020* (ENV 2020), dustfall monitoring and dustfall Pollution Control Objectives are considered outdated. It is no longer recommended as a primary method of monitoring, unless in specific limited circumstances. If the goal is to protect human health, monitoring of PM_{2.5} and PM₁₀ is more suitable, and in compliance with the Ambient Air Quality Objectives. When the objective is to protect soil, water, vegetation or track the accumulation of metals and other contaminants in

the environment, it is more appropriate to sample the specific media of concern directly.

Dustfall monitoring is not required by PE-110650; however, under the AQFDMP, dustfall monitoring is considered a practical approach for tracking impacts related to the Country Foods Monitoring Plan (CFMP). Based on the CFMP, the dustfall sampling frequency is set for every 3-years, with the next sampling scheduled for 2026.

2.4 Particulate Matter Monitoring (Condition 5.1.2)

Airborne particulate matter (PM) is generated by activities such as wind erosion of exposed landscapes, the movement of vehicles and equipment on paved and unpaved roads, construction activities such as earthworks, crushing and transportation of rock material, combustion of gasoline and diesel fuel, and wildfires. Airborne PM was monitored for two size fractions:

- PM₁₀: Inhalable PM with aerodynamic diameter of less than 10 µm.
- PM_{2.5}: Respirable particulate matter with aerodynamic diameter of less than 2.5 µm.

A Thermo Scientific Partisol FRM Model 2025i-D dichotomous sequential PM sampler (Partisol) is used to monitor PM at the Mine. The instrument is suitable for ambient air monitoring within the provincial jurisdiction of BC and is one of the approved samplers listed in ENV's *British Columbia Field Sampling Manual* (BCFSM,2023) for monitoring PM₁₀ and PM_{2.5}.

2.4.1 Monitoring Locations

The Partisol unit operated at the Operations Camp centered at 5895516 N and 378940 E (UTM Zone 10 NAD83). Figure 3 provides the location of the Partisol unit, NO₂, SO₂ and CO monitoring, as well as Meteorological High and Low Stations.

2.4.2 Sampling Methodology

BWG personnel collected PM samples in accordance with ENV's *British Columbia Field Sampling Manual* (2023).

Ambient air is sucked in by the Partisol and passes through a PM₁₀ filtering head, and then the resulting PM₁₀ air stream is split into a PM_{2.5} stream and the remaining PM_{coarse} air stream (PM₁₀ airflow with PM_{2.5} removed, equivalent to particulate matter between 2.5 to 10 microns). The dichotomous sequential Partisol then samples PM_{2.5} and PM_{coarse} and collects these PM size fractions onto 47-millimetre (mm) filter discs. The PM_{coarse} term is specifically used by dichotomous sequential Partisol samplers, due to the way a dichotomous sequential Partisol operates. Using the sampled PM_{2.5} and PM_{coarse} mass components, the PM₁₀ mass can then be calculated from the sampled mass components of PM_{coarse} plus PM_{2.5} (Thermo Scientific 2015).

PM_{2.5} and PM_{coarse} particulate were collected onto qualified laboratory pre-dried and pre-weighed filters that are then post-dried and post-weighed in a qualified laboratory to determine the mass of PM_{2.5} and PM_{coarse} deposited on the filters. ALS Environment Laboratories (ALS) were used for the supplying and analyzing the pre-weighed and post-weight filters.

The PM₁₀ inlet flow rate has a target of 1 m³/hr (16.7 L/minute), and then the separated air flow streams have a target flow rate of 15.0 L/minute for the PM_{2.5} sample and 1.67 L/minute for the PM_{coarse} sample. Total air flow volumes are measured and recorded by the Partisol and the air volumes for each sample were provided to ALS for calculation of the resulting PM_{2.5} and PM₁₀ concentrations.

Samples were collected over a 24-hour period on scheduled dates following the National Air Pollution Surveillance Program (NAPS) sampling schedule. During the months of May to October, PM sampling occurs every three days, simultaneously for PM_{2.5} and PM_{coarse}. During November to April, sampling occurs every six days simultaneously for PM_{2.5} and PM_{coarse}.

The following procedure were completed for cassette deployment and retrieval.

- ALS Environment Laboratory (ALS; accredited by Canadian Association for Laboratory Accreditation (CALA)) prepare the Partisol's PM filter cassettes with new pre-dried and pre-weighed 47mm filter paper discs for BWG use.
- BWG loads received cassette filters into the Partisol, inputting individual filter numbers and schedule into the Partisol, as well as collecting field data (personnel, date, time, weather, etc.)
- NAPS sampling schedule is set and followed.
- BWG collects the cassettes on a weekly basis, recording field notes (date, weather, time, etc.) as well as sample information such as Standard Volume (m³) and total sample run time (HH:mm) from the Partisol.
- The Partisol samples are stored in coolers and transported under chain of custody protocol to ALS for analysis.

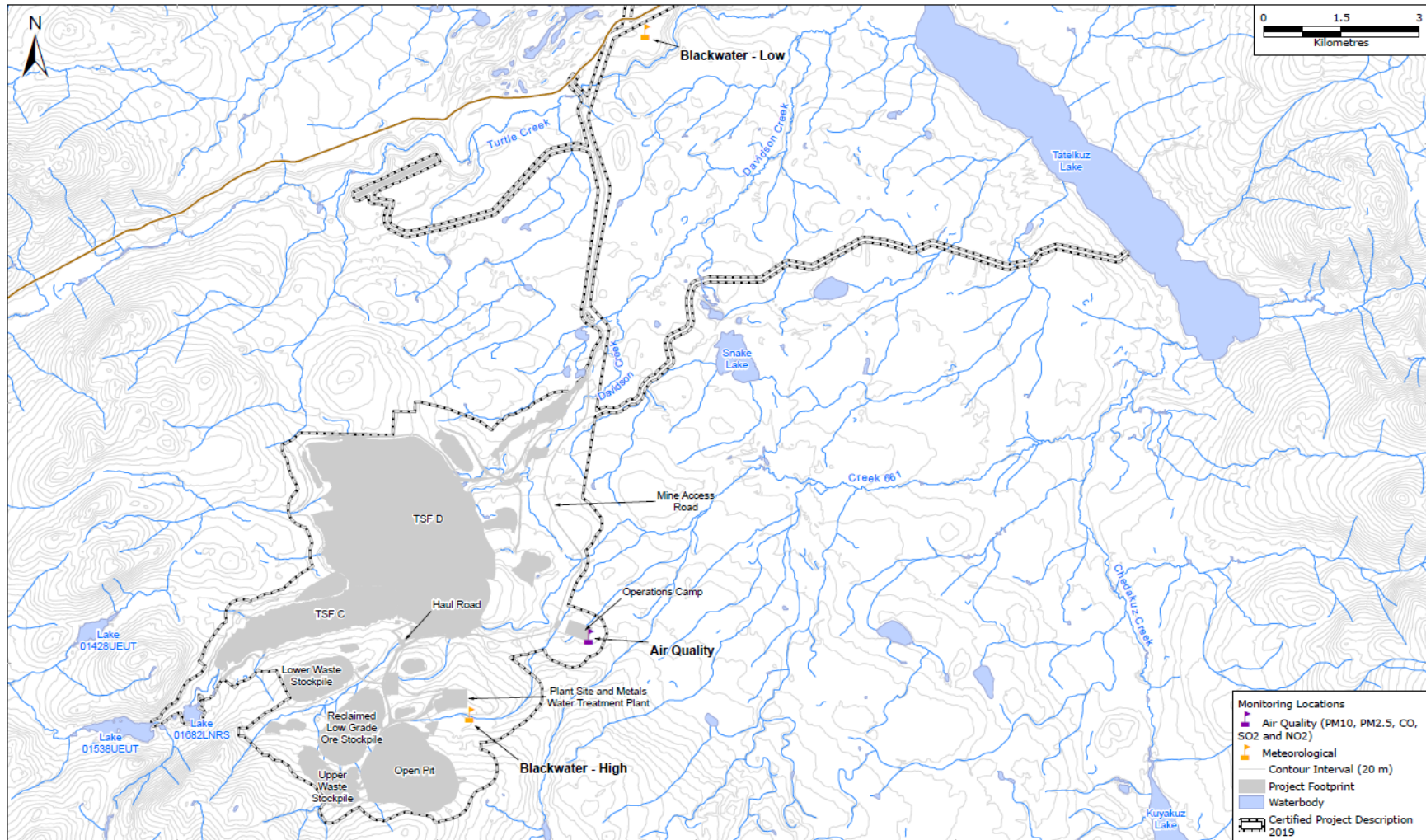


Figure 3 Air Quality Monitoring Locations

2.4.3 Results

The 2025 PM concentrations were compared to the Permit Objectives as well as the TRP Triggers and the BC Air Quality Objectives (BCAAQO).

PM concentrations are generally the lowest during the fall and winter months, due to frozen ground and snow cover. Limited exceedances of the Permit Objectives and TRP triggers were observed on June 9th and between September 1st to September 13th, 2025. The exceedances were considered to be attributed to the nearby wildfires (Section 1.3.1).

PM_{2.5} and PM₁₀ results from April 27, 2025 to August 22, and September 28 to November 5, 2025 are considered invalid due to one or both of the following issues: as-found flow(s) are beyond the BCFSM Acceptance Criteria of 7% or leak check fails were identified. Please refer to Section 2.4.540 for more information. Data results are still presented for these periods. After review of the PM data, it is the air quality QP's opinion that the actual ambient PM concentrations during the periods flagged as invalid are likely low, when considering the low measured concentrations compared to the impact of the flow and leak check issues, and comparing against the PM concentrations measured by the nearby Ops Purple Air monitoring station. With the exception being during the period of regional wildfire smoke. As such, while the data cannot be formally validated following the BCFSM procedures, the evidence strongly suggests that true ambient PM concentrations during these periods were low and below the Permit Objectives and TRP thresholds.

During the summer months when elevated PM concentrations are more likely to occur at the Mine site, Purple Air monitors (Purple Air) were positioned around the Mine to measure surrounding concentrations. These monitors use two particle detectors to provide redundancy and help with sensor accuracy. The Purple Air is capable of detecting PM_{2.5} and PM₁₀ concentrations. These sensors are not approved for use to meet the Permit conditions and are not approved air monitoring sensors in the *British Columbia Field Sample Manual* due to their accuracy limitations; however, they can be used to provide supplemental data. The evaluation of ambient PM concentrations as they relate to the Permit conditions and thresholds are determined by the Partisol monitoring station.

Four Purple Air monitors were located around the mine site: Operations Camp, Mine Access Road offices at 14.5km, Construction Camp and U-Dorms. These locations were determined by the industrial hygienist site team and differed from the locations in 2024. The data from these monitors indicated that the elevated PM concentrations observed during the summer months were likely due to surrounding wildfires, rather than site activities. Additionally, Regional Air Quality stations including the Vanderhoof Court House and Quesnel Johnson Avenue (both operated by ENV¹), along with wildfire related PM_{2.5} modelling at firesmoke.ca² were used to further inform the assessment of onsite and offsite influences.

Purple air monitors also confirm that any dust entrained by wind on site dissipated quickly and was not present throughout the entire Mine.

The locations of the 2025 Purple Air monitors are presented in Table 2-8 below.

¹ <https://envistaweb.env.gov.bc.ca/>

² <https://firesmoke.ca/>

Table 2-8 2025 Purple Air Monitor Locations

Monitor Location	UTM Coordinates (mE, mN)
U-Dorm	375681, 5894192
Operations Camp	379022, 5895559
Access Road 14.5km	374814, 5895193
Construction Camp	375912, 5893773

In 2025, the Partisol PM_{2.5} exceeded the Permit and TRP medium trigger level four times and the Partisol PM₁₀ exceeded five times. The greatest PM_{2.5} and PM₁₀ measurement occurred on September 1, 2025, with concentrations of 68.2 µg/m³ and 74.2 µg/m³, respectively. Partisol PM concentrations for the month of January were reported in Actual volume, although Permit Condition 2.5 requires all air monitoring results be reported in Standard Conditions, this discrepancy was rectified after the error was identified during the 2024 reporting period. Table 2-9 below provides the analytical results for PM_{2.5} and PM₁₀ compared to the Permit Objectives and TRP and provides the suspected cause and the Purple Air monitor concentrations reported for the non-compliance.

A Summary of the Partisol PM data including comparison to the annual and 24-hour average BCAAQO and data completeness are provided in Table 2-10. The 24-hour average BCAAQO for PM_{2.5} (25 ug/m³) requires calculating the daily PM average over one year, compared to the annual 98th percentile daily average value. The 98th percentile was calculated using 85 samples for 2025 and was calculated to be 32.8 ug/m³, which is above the BCAAQO.

Laboratory certificates of analysis can be found in Appendix 1-4.

Table 2-9 January to December 2025 Particulate Matter Results

Location	Sample Date	Parameter	Particulate, PM10	Particulate, PM2.5	Suspected Cause of Exceedance	Purple Air Monitoring Concentrations Daily average ambient concentration around the Mine Site
		PE 110650 - Medium Trigger	40 ug/m ³	20 ug/m ³		
		PE110650 - High Trigger and Permit Level	50 ug/m ³	25 ug/m ³		
		Unit				
Partisol1	2025-01-01	ug/Am ³	M	M		
Partisol1	2025-01-07	ug/Am ³	M	M		
Partisol1	2025-01-08 ^a	ug/Am ³	< 3.0	< 2.3		
Partisol1	2025-01-13	ug/Am ³	M	M		
Partisol1	2025-01-14 ^{ab}	ug/Am ³	< 6.2	< 4.8		
Partisol1	2025-01-19	ug/Am ³	< 3.0	< 2.3		
Partisol1	2025-01-25	ug/Am ³	< 3.0	< 2.3		
Partisol1	2025-01-31	ug/Am ³	< 3.0	< 2.3		
Partisol1	2025-02-06	ug/m ³	M	M		
Partisol1	2025-02-12	ug/m ³	3.8	< 2.4		
Partisol1	2025-02-18	ug/m ³	< 3.1	< 2.4		

Location	Sample Date	Parameter	Particulate, PM10	Particulate, PM2.5	Suspected Cause of Exceedance	Purple Air Monitoring Concentrations
		PE 110650 - Medium Trigger	40 ug/m ³	20 ug/m ³		
		PE110650 - High Trigger and Permit Level	50 ug/m ³	25 ug/m ³		
		Unit				
Partisol1	2025-02-24	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-03-02	ug/m ³	M	M		
Partisol1	2025-03-08	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-03-14	ug/m ³	< 3.1	< 2.4		
Partisol1	2025-03-20	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-03-26	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-04-01	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-04-07	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-04-13	ug/m ³	8.6	2.6		
Partisol1	2025-04-19	ug/m ³	14.5	< 2.5		
Partisol1	2025-04-25	ug/m ³	29.4	7.1		
Partisol1	2025-05-01	ug/m ³	25.2	5.8		
Partisol1	2025-05-04	ug/m ³	11	< 2.5		
Partisol1	2025-05-07	ug/m ³	6.4	2.8		
Partisol1	2025-05-10	ug/m ³	< 3.1	< 2.4		
Partisol1	2025-05-13	ug/m ³	16	3.4		
Partisol1	2025-05-16	ug/m ³	4	< 2.5		
Partisol1	2025-05-19	ug/m ³	5	< 2.5		
Partisol1	2025-05-22	ug/m ³	18	3.4		
Partisol1	2025-05-25	ug/m ³	8.9	3.9		
Partisol1	2025-05-28	ug/m ³	5.8	< 2.6		
Partisol1	2025-05-31	ug/m ³	10.7	< 2.5		
Partisol1	2025-06-03	ug/m ³	19.4	3		
Partisol1	2025-06-06	ug/m ³	8	< 2.6		
Partisol1	2025-06-09	ug/m ³	45.5	11.6	Nearby Wildfires and Site-related dust emissions including vehicle movement on unpaved roads and wind driven dust.	
Partisol1	2025-06-12	ug/m ³	24	15.3		Ops PM _{2.5} 42 ug/m ³ PM ₁₀ 49.7 ug/m ³
Partisol1	2025-06-15	ug/m ³	7.9	4.2		Ops PM _{2.5} 3.8 ug/m ³ PM ₁₀ 4.2 ug/m ³
Partisol1	2025-06-18	ug/m ³	6.8	3.6		Ops PM _{2.5} 2.7 ug/m ³ PM ₁₀ 3 ug/m ³

Location	Sample Date	Parameter	Particulate, PM10	Particulate, PM2.5	Suspected Cause of Exceedance	Purple Air Monitoring Concentrations Daily average ambient concentration around the Mine Site
		PE 110650 - Medium Trigger	40 ug/m ³	20 ug/m ³		
		PE110650 - High Trigger and Permit Level	50 ug/m ³	25 ug/m ³		
		Unit				
Partisol1	2025-06-21	ug/m ³	< 3.3	< 2.6		Ops PM _{2.5} 27.9 ug/m ³ PM ₁₀ 33.2 ug/m ³
Partisol1	2025-06-24	ug/m ³	25.7	18.4		Ops PM _{2.5} 23.5 ug/m ³ PM ₁₀ 26.8 ug/m ³
Partisol1	2025-06-27	ug/m ³	6.3	6.3		Ops PM _{2.5} 0.5 ug/m ³ PM ₁₀ 0.6 ug/m ³
Partisol1	2025-06-30	ug/m ³	9.7	3.3		Ops PM _{2.5} 0.6 ug/m ³ PM ₁₀ 1 ug/m ³
Partisol1	2025-07-03	ug/m ³	M	M		Ops PM _{2.5} 0.4 ug/m ³ PM ₁₀ 1.2 ug/m ³
Partisol1	2025-07-06	ug/m ³	< 3.3	< 2.6		Ops PM _{2.5} 0.8 ug/m ³ PM ₁₀ 1.7 ug/m ³
Partisol1	2025-07-09	ug/m ³	6.4	< 2.6		Ops PM _{2.5} 0.8 ug/m ³ PM ₁₀ 1.4 ug/m ³
Partisol1	2025-07-12	ug/m ³	14.4	< 2.6		Ops PM _{2.5} 0.3 ug/m ³ PM ₁₀ 0.9 ug/m ³
Partisol1	2025-07-15	ug/m ³	13.1	6		Ops PM _{2.5} 16.6 ug/m ³ PM ₁₀ 17.5 ug/m ³
Partisol1	2025-07-18	ug/m ³	15.9	3.8		Ops PM _{2.5} 5.6 ug/m ³ PM ₁₀ 6.3 ug/m ³
Partisol1	2025-07-21	ug/m ³	19	11.8		Ops PM _{2.5} 23.2 ug/m ³ PM ₁₀ 26.8 ug/m ³
Partisol1	2025-07-24	ug/m ³	11	< 2.6		Ops PM _{2.5} 1.6 ug/m ³ PM ₁₀ 3.1 ug/m ³
Partisol1	2025-07-27	ug/m ³	< 3.3	3		Ops PM _{2.5} 1.9 ug/m ³ PM ₁₀ 2.1 ug/m ³
Partisol1	2025-07-30	ug/m ³	M	M		Ops PM _{2.5} 7.6 ug/m ³ PM ₁₀ 8.2 ug/m ³
Partisol1	2025-08-02	ug/m ³	3.8	< 2.6		Ops PM _{2.5} 4.9 ug/m ³ PM ₁₀ 5.7 ug/m ³
Partisol1	2025-08-05	ug/m ³	< 3.3	< 2.6		Ops PM _{2.5} 0.4 ug/m ³ PM ₁₀ 0.7 ug/m ³
Partisol1	2025-08-08	ug/m ³	7.9	< 2.6		Ops PM _{2.5} 0.3 ug/m ³ PM ₁₀ 0.8 ug/m ³
Partisol1	2025-08-11	ug/m ³	15.8	< 2.6		Ops

Location	Sample Date	Parameter	Particulate, PM10	Particulate, PM2.5	Suspected Cause of Exceedance	Purple Air Monitoring Concentrations
		PE 110650 - Medium Trigger	40 ug/m ³	20 ug/m ³		
		PE110650 - High Trigger and Permit Level	50 ug/m ³	25 ug/m ³		
		Unit				
						PM _{2.5} 0.4 ug/m ³ PM ₁₀ 1.1 ug/m ³
Partisol1	2025-08-14	ug/m ³	< 3.3	< 2.6		<u>Ops</u> PM _{2.5} 0.2 ug/m ³ PM ₁₀ 0.3 ug/m ³
Partisol1	2025-08-17	ug/m ³	< 3.3	< 2.6		<u>Ops</u> PM _{2.5} 0.1 ug/m ³ PM ₁₀ 0.2 ug/m ³
Partisol1	2025-08-20	ug/m ³	7.5	< 2.5		<u>Ops</u> PM _{2.5} 0.9 ug/m ³ PM ₁₀ 1.4 ug/m ³
Partisol1	2025-08-23	ug/m ³	7.2	3.3		<u>Ops</u> PM _{2.5} 3.1 ug/m ³ PM ₁₀ 3.6 ug/m ³
Partisol1	2025-08-26	ug/m ³	21.9	9.5		<u>Ops</u> PM _{2.5} 12 ug/m ³ PM ₁₀ 13.3 ug/m ³
Partisol1	2025-08-29	ug/m ³	27.3	15.2		<u>Ops</u> PM _{2.5} 25.8 ug/m ³ PM ₁₀ 30.6 ug/m ³
Partisol1	2025-09-01	ug/m ³	74.2	68.2	Nearby Wildfires	<u>U-Dorm</u> PM _{2.5} 88.50 ug/m ³ PM ₁₀ 102.7 ug/m ³ 14.75 km PM _{2.5} 280.5 ug/m ³ PM ₁₀ 289.34 ug/m ³ <u>Ops</u> PM _{2.5} 129.08 ug/m ³ PM ₁₀ 139.44 ug/m ³
Partisol1	2025-09-04	ug/m ³	44.5	39.1	Nearby Wildfires	<u>U-Dorm</u> PM _{2.5} 89.6 ug/m ³ PM ₁₀ 106.5 ug/m ³ 14.75km PM _{2.5} 69.7 ug/m ³ PM ₁₀ 80.0 ug/m ³ <u>Ops</u> PM _{2.5} 86.5 ug/m ³ PM ₁₀ 98.9 ug/m ³ <u>Construction Camp</u> PM _{2.5} 91.9 ug/m ³ PM ₁₀ 116.3 ug/m ³
Partisol1	2025-09-07	ug/m ³	51.9	14.8	Nearby Wildfires	<u>U-Dorm</u> PM _{2.5} 63.6 ug/m ³ PM ₁₀ 75.1 ug/m ³ <u>Ops</u> PM _{2.5} 71.1 ug/m ³ PM ₁₀ 80.6 ug/m ³ <u>Construction Camp</u> PM _{2.5} 56.8 ug/m ³ PM ₁₀ 73.6 ug/m ³
Partisol1	2025-09-10	ug/m ³	46.5	29.9	Nearby Wildfires	<u>U-Dorm</u> PM _{2.5} 35 ug/m ³ PM ₁₀ 41.4 ug/m ³ <u>Ops</u> PM _{2.5} 34.8 ug/m ³

Location	Sample Date	Parameter	Particulate, PM10	Particulate, PM2.5	Suspected Cause of Exceedance	Purple Air Monitoring Concentrations
		PE 110650 - Medium Trigger	40 ug/m ³	20 ug/m ³		
		PE110650 - High Trigger and Permit Level	50 ug/m ³	25 ug/m ³		
		Unit				
						PM ₁₀ 39.3 ug/m ³ Construction Camp PM _{2.5} 37.3 ug/m ³ PM ₁₀ 49.6 ug/m ³
Partisol1	2025-09-13	ug/m ³	34.3	29.7	Nearby Wildfires	U-Dorm PM _{2.5} 51.8 ug/m ³ PM ₁₀ 61.3 ug/m ³ Ops PM _{2.5} 49.8 ug/m ³ PM ₁₀ 58.4 ug/m ³ Construction Camp PM _{2.5} 51.1 ug/m ³ PM ₁₀ 62.2 ug/m ³
Partisol1	2025-09-16	ug/m ³	16.1	12.1		Ops PM _{2.5} 11.2 ug/m ³ PM ₁₀ 12.3 ug/m ³
Partisol1	2025-09-19	ug/m ³	11.4	6.3		Ops PM _{2.5} 4.6 ug/m ³ PM ₁₀ 5.4 ug/m ³
Partisol1	2025-09-22	ug/m ³	6.9	4.1		Ops PM _{2.5} 2.6 ug/m ³ PM ₁₀ 3.1 ug/m ³
Partisol1	2025-09-25	ug/m ³	< 3.2	< 2.5		Ops PM _{2.5} 1.6 ug/m ³ PM ₁₀ 2.1 ug/m ³
Partisol1	2025-09-29	ug/m ³	< 3.2	< 2.5		Ops PM _{2.5} 1.3 ug/m ³ PM ₁₀ 1.8 ug/m ³
Partisol1	2025-10-02	ug/m ³	< 3.3	< 2.6		Ops PM _{2.5} 0.1 ug/m ³ PM ₁₀ 0.4 ug/m ³
Partisol1	2025-10-04	ug/m ³	< 3.2	< 2.5		Ops PM _{2.5} 0 ug/m ³ PM ₁₀ 0.1 ug/m ³
Partisol1	2025-10-07	ug/m ³	5.7	< 2.5		Ops PM _{2.5} 1.3 ug/m ³ PM ₁₀ 3.8 ug/m ³
Partisol1	2025-10-10	ug/m ³	11.7	3.2		Ops PM _{2.5} 4.3 ug/m ³ PM ₁₀ 4.8 ug/m ³
Partisol1	2025-10-13	ug/m ³	7.7	< 2.4		Ops PM _{2.5} 0.5 ug/m ³ PM ₁₀ 1 ug/m ³
Partisol1	2025-10-16	ug/m ³	27.2	4.1		Ops PM _{2.5} 1.3 ug/m ³ PM ₁₀ 2.8 ug/m ³
Partisol1	2025-10-19	ug/m ³	M	M		Ops PM _{2.5} 0.3 ug/m ³ PM ₁₀ 0.4 ug/m ³
Partisol1	2025-10-22	ug/m ³	< 3.2	< 2.5		Ops PM _{2.5} 0.4 ug/m ³ PM ₁₀ 0.7 ug/m ³
Partisol1	2025-10-25	ug/m ³	< 3.2	< 2.5		Ops PM _{2.5} 1.2 ug/m ³

Location	Sample Date	Parameter	Particulate, PM10	Particulate, PM2.5	Suspected Cause of Exceedance	Purple Air Monitoring Concentrations Daily average ambient concentration around the Mine Site
		PE 110650 - Medium Trigger	40 ug/m ³	20 ug/m ³		
		PE110650 - High Trigger and Permit Level	50 ug/m ³	25 ug/m ³		
		Unit				
						PM ₁₀ 1.5ug/m ³
Partisol1	2025-10-28	ug/m ³	3.7	< 2.5		Ops PM _{2.5} 0.1 ug/m ³ PM ₁₀ 0.2 ug/m ³
Partisol1	2025-10-31	ug/m ³	< 3.2	< 2.5		Ops PM _{2.5} 0 ug/m ³ PM ₁₀ 0.1 ug/m ³
Partisol1	2025-11-03	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-11-09	ug/m ³	M	M		
Partisol1	2025-11-15	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-11-21	ug/m ³	15.2	< 2.5		
Partisol1	2025-11-27	ug/m ³	11.7	7.3		
Partisol1	2025-12-03	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-12-09	ug/m ³	3.3	< 2.5		
Partisol1	2025-12-15	ug/m ³	< 3.2	< 2.5		
Partisol1	2025-12-21	ug/m ³	< 3.0	< 2.3		
Partisol1	2025-12-27	ug/m ³	< 3.0	2.3		

All units are in µg/m³ unless otherwise specified.

M-missing data.

*Partisol concentrations were reported as Actual volume from Jan 1 – February 1, 2025. Standard volume concentrations were reported February 1 – December 31, 2025.

A – not part of the NAPS scheduled but programmed to sample as previous day was missed.

B – runtime for sample was only 11h23mins.

Table 2-10 2025 Data Summary

	Partisol Particulate, PM₁₀		Partisol Particulate, PM_{2.5}	
BCAAQO Annual	-		8	
Permit Objective – Annual	-		8	
BCAAQO 24-hour	50		25 ^a	
Units	(µg/m ³)		(µg/m ³)	
	Partisol Particulate, PM₁₀ From All Sample Days	Partisol Particulate, PM₁₀ From Valid Sample Days	Partisol Particulate, PM_{2.5} From All Sample Days	Partisol Particulate, PM_{2.5} From Valid Sample Days
Annual Average Concentration (µg/m ³)	11.4	13.8	5.9	8.6
Number of Days PM _{2.5} was above 8 ug/m ³	-	-	12	9
Number of Days PM _{2.5} was above 25 ug/m ³	-	-	4	4
Number of Days PM ₁₀ was above 50 µg/m ³	2	2	-	
98 th percentile of daily average, averaged over 1 year	-		32.8 ^{b,c}	48.4 ^{bd}
Maximum Concentration (µg/m ³)	74.2	74.2	68.2	68.2
	PM₁₀ and PM_{2.5} Data Completeness Using All Available Data		PM₁₀ and PM_{2.5} Data Completeness Using Valid Data	
Q1 Completeness (Jan – Mar)	67%		67%	
Q2 Completeness (Apr – Jun)	97%		19%	
Q3 Completeness (July – Sept)	97%		40%	
Q4 Completeness (Oct – Dec)	90%		43%	
Data Completeness (Jan– Dec)	87%		42%	

All units are in µg/m³ unless otherwise specified.

- a- Achievement based on annual 98th percentile of daily average, over one year.
- b- For calculations purposes, samples that were below the detection limit were assumed to be the value of the detection limit.
- c- Using 85 sample days in 2025.
- d- Using 35 validated sample days in 2025.

2.4.4 Quality Assurance and Quality Control (Condition 5.1.4)

The Quality Assurance and Quality Control (QA/QC) program implemented during the monitoring period was designed to ensure the collection of representative samples and accurate laboratory results were reported. BWG followed these procedures for the QA/QC program:

- Field notes were taken during each deployment and retrieval of the Partisol magazines.
- Samples are submitted to ALS with a properly completed Chain of Custody.
- All employees were previously trained by CD Nova, demonstrated competency.
- BWG reviews the data download from the Partisol to ensure the accuracy and integrity of the samples collected.
- Samples submitted to ALS underwent laboratory QA/QC procedures (i.e., method blanks, laboratory control samples, lab duplicates, etc.).

Table 2-11 provides a summary of the sample days missed and rationale. Invalidated sample dates are described in Section 2.4.3.

Table 2-11 Sample Days Missed

Date	Rationale
January 1, 2025	Did not sample, was not in sample mode.
January 7, 2025	Did not sample, was not in sample mode. Sampled on January 8 th in lieu of January 7 th .
January 13, 2025	Sampled on January 14 th instead of January 13 th . Reason for delayed sample unclear as no error message present on machine. Possible that the schedule was not reset after the January 8 th make-up sample, resulting in the next sample occurring six days later. Sampling manually stopped at 11:23 and cassettes sent to lab.
February 6, 2025	Partisol lost power due to generator failure and did not sample.
March 2, 2025	Partisol lost power due to generator swap. BWG Infrastructure Department did not plug Partisol back in.
July 3, 2025	Did not sample. Power failure and shuttle return sensor errors were cleared before June 30 th sample. Two cassettes were pushed through on June 30 th , unclear why Partisol did not sample July 3 rd .
July 30, 2025	Calibration occurred July 29 th . Unclear why sample did not occur as cassettes were reloaded and schedule set post-calibration.
October 19, 2025	No record of sample on Partisol machine, schedule sample date incorrectly set.
November 9, 2025	Did not sample. Shuttle and no filter errors present. Likely, after calibration a filter was not put into the sample position.

Samples submitted to ALS underwent laboratory QA/QC procedures (i.e., method blanks, laboratory control samples, lab duplicates, etc.), which are documented in the laboratory Certificate of Analysis (COA) provided as part of Appendix 1-4. No laboratory outliers for method blanks, duplicates, test sample surrogate recovery, reference material sample, quality control sample frequency, or holding time were identified during 2025.

2.4.5 Inspection, Maintenance, and Calibration

2.4.5.1 Inspections and Maintenance

Inspections and maintenance of the Partisol are conducted in accordance with Chapter 10 of the Partisol 2025-iD manual, titled “Routine Maintenance Items” and Section 10 of the British Columbia Field Sampling Manual, SOP-05e, titled “Operational Requirements”. These inspections involve checking all external features and internal equipment for signs of dirt

accumulation, damage or loose components. Visual inspections are performed each time filter cassettes are deployed and retrieved.

2.4.5.2 Calibration

BWG Completed the calibration of the Partisol on April 26, May 03, July 29, and November 05, 2025, as per PE-110650, condition 5.1.5. The calibration procedure involves several parameters, including flow, temperature, ambient pressure, clock and date, and follows these steps:

1. As-found verification of flow, temperature, and pressure to confirm prior samples were obtained under valid conditions.
2. Leak checks help identify any internal or external leaks in the sample train. If any leaks are detected they are addressed.
3. Calibration of multi-point verification, if needed.
4. Adjustments to parameters to ensure they meet the required standards.

During the calibration the following components are also cleaned:

- PM₁₀ inlet head
- VSCC
- Inlet Tube
- Flow splitter
- Rain hoods
- Vent screens

The following parts are replaced as needed during the calibration:

- In-line Moisture Filters/ O-rings
- Fan Filters
- Ballston Filters
- V-seals
- System O-rings

The Calibration records are provided below as Figure 4 to Figure 7. The monthly Partisol audit records are provided below as Figure 8 to Figure 13.

To adhere to the BCFMS schedule requirements BWG began to conduct monthly Partisol audits in July 2025. These audits are completed by qualified technicians employed by BWG's Instrumentation Department. Logistical issues and lack of available qualified personnel prevented BWG from conducting monthly audits in the first half of 2025. BWG Environment and Instrumentation departments have implemented a schedule to ensure audits are completed in a timely manner without disrupting the NAPS sampling schedule going forward.

Partisol Calibration Inspection

Work Order Number	23575					
Customer Name	BW Gold					
Instrument Part Number	Partisol 2025iD					
Instrument Serial Number	202DIW202502205					
Date	26-Apr-25					
Description	As found	Standard	Variance	Allowable variance	Adjusted to	Final variance
Ambient Air Temperature	16.3	18.6	2.30	+/- 2°C	18.6	0.00
Ambient Pressure	639	639.5	-0.50	+/- 10 mmHg	639	-0.50
Filter Compartment Presure #1	638	639.5	-1.50	+/- 10 mmHg	639	-0.50
Filter Compartment Presure #2	638	639.5	-1.50	+/- 10 mmHg	638	-1.50
Sample Filter Compartment Temp #1	18.9	19.3	0.40	+/- 2°C	19.3	0.00
Sample Filter Compartment Temp #2	18.6	19.3	0.70	+/- 2°C	19.3	0.00
Internal Leak Check	7		Pass	140 mmHg	7	Pass
External Leak Check	3		Pass	25 mmHg	3	Pass
Ambient Relative Humidity	25.00	25.80	0.80	+/- 1.5%	25	0.80
Flow #1, point 1	13.50	13.71	1.57%	+/- 4%	13.71	0.00%
Flow #1, point 2	15.00	15.23	1.52%	+/- 4%	15.18	-0.33%
Flow #1, point 3	16.50	16.74	1.43%	+/- 4%	16.72	-0.12%
Flow#1 Final	14.98	15.00	0.13%	+/- 4%		0.13%
Flow #1 initial slope	1.02		Final Slope		1	
Flow #1 initial intercept	-0.1		Final Intercept		0.19	
Flow #2, point 1	1.503	1.458	-2.99%	+/- 4%	1.458	0.00%
Flow #2, point 2	1.67	1.615	-3.29%	+/- 4%	1.615	0.00%
Flow #2, point 3	1.837	1.76	-4.19%	+/- 4%	1.76	0.00%
Flow #2 final	1.67	1.670	0.00%	+/- 4%		0.00%
Flow #2 initial slope	0.99		Final Slope		0.88	
Flow #2 initial intercept	0.3		Final Intercept		0.15	
FCOMP Temperature	21.1	19.8	-1.30	+/- 2°C	19.8	0.00
Standards Used	Description	S/N	Calibration Date			
Flow	TetraCal	212473	8-Nov-23			
Temperature	TetraCal	212473	8-Nov-23			
Pressure	TetraCal	212473	8-Nov-23			
Relative Humidity	Vaisala HM40	V4620616	9-Nov-23			
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015					
Firmware updated to file 2025i020863						
Calibration Complete By	Kimberley Kenyon+ Dan Toole (instrumentation)					

Figure 4 April 26, 2025 Calibration Records

Partisol Calibration Inspection						
Work Order Number	23575					
Customer Name	BW Gold					
Instrument Part Number	Partisol 2025iD					
Instrument Serial Number	202DIW202502205					
Date	3-May-25					
Description	As found	Standard	Variance	Allowable variance	Adjusted to	Final variance
Ambient Air Temperature	17.7	18	0.30	+/- 2°C	18	0.00
Ambient Pressure	639	640	-1.00	+/- 10 mmHg	640	0.00
Filter Pressure #1	638	640	-2.00	+/- 10 mmHg	640	0.00
Filter Pressure #2	638	640	-2.00	+/- 10 mmHg	640	0.00
Sample Filter Temp #1	14.4	14.2	-0.20	+/- 2°C	14.2	0.00
Sample Filter Temp #2	14.6	14.3	-0.30	+/- 2°C	14.3	0.00
Internal Leak Check	7		Pass	140 mmHg	7	Pass
External Leak Check	3		Pass	25 mmHg	3	Pass
Ambient Relative Humidity	24.00	23.40	-0.60	+/- 1.5%	24	-0.60
Flow #1, point 1	13.50	16.08	19.11%	+/- 4%	16.08	0.00%
Flow #1, point 2	15.01	17.68	17.81%	+/- 4%	17.86	1.02%
Flow #1, point 3	16.50	19.64	19.00%	+/- 4%	19.64	0.00%
Flow#1 Final	14.98	15.00	0.13%	+/- 4%		0.13%
Flow #1 initial slope	1.19		Final Slope		1.18	
Flow #1 initial intercept	-0.2		Final Intercept		0.1	
Flow #2, point 1	1.503	1.793	19.29%	+/- 4%	1.458	-18.68%
Flow #2, point 2	1.669	1.957	17.26%	+/- 4%	1.615	-17.48%
Flow #2, point 3	1.83	2.12	15.85%	+/- 4%	1.76	-16.98%
Flow #2 final	1.67	1.670	0.00%	+/- 4%		0.00%
Flow #2 initial slope	0.97		Final Slope		0.99	
Flow #2 initial intercept	0.33		Final Intercept		0.3	
FCOMP Temperature	18.5	19.2	0.70	+/- 2°C	19.2	0.00
Standards Used	Description		S/N	Calibration Date		
Flow	TetraCal	Qa	212473	8-Nov-23		
Temperature	TetraCal		212473	8-Nov-23		
Pressure	TetraCal		212473	8-Nov-23		
Relative Humidity	Vaisala HM40		V4620616	9-Nov-23		
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015					
Firmware updated to file 2025i020863						
Calibration Complete By Kimberley Kenyon+ Dan Toole (instrumentation)						

Figure 5 May 3, 2025 Calibration Record

Partisol Calibration Inspection

Work Order Number	30641					
Customer Name	BW Gold					
Instrument Part Number	Partisol 2025iD					
Instrument Serial Number	202DIW202502205					
Date	29-Jul-25					
Description	As found	Standard	Variance	Allowable variance	Adjusted to	Final variance
Ambient Air Temperature	18.5	18.9	0.40	+/- 2°C	18.9	0.00
Ambient Pressure	644	644	0.00	+/- 10 mmHg	644	0.00
Filter Pressure #1	645	645	0.00	+/- 10 mmHg	645	0.00
Filter Pressure #2	645	645	0.00	+/- 10 mmHg	645	0.00
Sample Filter Temp #1	18.4	18.6	0.20	+/- 2°C	18.6	0.00
Sample Filter Temp #2	17.9	18.4	0.50	+/- 2°C	18.4	0.00
Internal Leak Check	12		Pass	140 mmHg	12	Pass
External Leak Check	25		Pass	25 mmHg	25	Pass
Ambient Relative Humidity	40.00	45.00	5.00	+/- 1.5%	44.4	0.60
Flow #1, point 1	13.50	16.08	19.11%	+/- 4%	16.87	4.91%
Flow #1, point 2	15.01	17.86	19.01%	+/- 4%	18.58	4.03%
Flow #1, point 3	16.50	19.64	19.00%	+/- 4%	20.32	3.46%
Flow#1 Final	14.95	15.00	0.33%	+/- 4%		0.33%
Flow #1 initial slope	1.18		Final Slope		1.18	
Flow #1 initial intercept	0.1		Final Intercept		1.34	
Flow #2, point 1	1.503	1.793	19.29%	+/- 4%	1.876	4.63%
Flow #2, point 2	1.669	1.957	17.26%	+/- 4%	2.03	3.73%
Flow #2, point 3	1.83	2.12	15.85%	+/- 4%	2.18	2.83%
Flow #2 final	1.65	1.670	1.21%	+/- 4%		1.21%
Flow #2 initial slope	0.99		Final Slope		0.89	
Flow #2 initial intercept	0.3		Final Intercept		0.3	
FCOMP Temperature	19.7	19.3	-0.40	+/- 2°C	19.3	0.00
Standards Used	Description	S/N	Calibration Date			
Flow	TetraCal	Qa	212473	3-Jun-25		
Temperature	TetraCal		212473	3-Jun-25		
Pressure	TetraCal		212473	3-Jun-25		
Relative Humidity	Vaisala HM40		V4620616	3-May-25		
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015					
Firmware updated to file 2025i020863						
Calibration Complete By	Lloyd Kenny+ Dan Toole (instrumentation)					

Figure 6 July 29, 2025 Calibration Record

Partisol Calibration Inspection

Work Order Number	30641					
Customer Name	BW Gold					
Instrument Part Number	Partisol 2025iD					
Instrument Serial Number	202DIW202502205					
Date	5-Nov-25					
Description	As found	Standard	Variance	Allowable variance	Adjusted to	Final variance
Ambient Air Temperature	20.9	19.9	-1.00	+/- 2°C	19.9	0.00
Ambient Pressure	622	621.5	0.50	+/- 10 mmHg	622	0.50
Filter Pressure #1	621	621	0.00	+/- 10 mmHg	621	0.00
Filter Pressure #2	622	622	0.00	+/- 10 mmHg	622	0.00
Sample Filter Temp #1	21	19.7	-1.30	+/- 2°C	18.6	1.10
Sample Filter Temp #2	20.5	19.9	-0.60	+/- 2°C	18.4	1.50
Internal Leak Check	8		Pass	140 mmHg	8	Pass
External Leak Check	23		Pass	25 mmHg	23	Pass
Ambient Relative Humidity	32.40	29.50	-2.90	+/- 1.5%	29.5	0.00
Flow #1, point 1 (13.50)	16.87	16.61	-1.54%	+/- 4%	16.61	0.00%
Flow #1, point 2 (15.00)	18.58	18.42	-0.86%	+/- 4%	18.42	0.00%
Flow #1, point 3 (16.50)	20.32	20.21	-0.54%	+/- 4%	20.21	0.00%
Flow#1 Final	14.99	14.67	-2.13%	+/- 4%		-2.13%
Flow #1 initial slope	1.2		Final Slope		1.2	
Flow #1 initial intercept	1.34		Final Intercept		0.43	
Flow #2, point 1 (1.50)	1.876	2.06	9.81%	+/- 4%	2.06	0.00%
Flow #2, point 2 (1.67)	2.03	2.25	10.84%	+/- 4%	2.25	0.00%
Flow #2, point 3 (1.83)	2.18	2.43	11.47%	+/- 4%	2.43	0.00%
Flow #2 final	1.67	1.726	3.35%	+/- 4%		3.35%
Flow #2 initial slope	0.89		Final Slope		1.1	
Flow #2 initial intercept	0.3		Final Intercept		0.41	
FCOMP Temperature	20.4	20	-0.40	+/- 2°C	20	0.00
Standards Used	Description	S/N	Calibration Date			
Flow	TetraCal	Qa	212473	3-Jun-25		
Temperature	TetraCal		212473	3-Jun-25		
Pressure	TetraCal		212473	3-Jun-25		
Relative Humidity	Vaisala HM40		V4620616	3-May-25		
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015					
Firmware updated to file 2025i020863						
Calibration Complete By	Lloyd Kenny					

Figure 7 November 5, 2025 Calibration Record

Partisol Monthly Audit

Work Order Number	30138			
Customer Name	BW Gold			
Instrument Part Number	Partisol 2025iD			
Instrument Serial Number	202DIW202502205			
Date	July 19 2025			
Complete By	Kimberley Kenyon, Lloyd Kenny			
Description	Partisol reading	Standard (field observation)	Variance	Allowable variance
Ambient Air Temperature	11.7	13.4	1.70	+/- 2°C
Ambient Pressure	655	655	0.00	+/- 10 mmHg
Sample Filter Temp #1	11.9	13.4	1.50	+/- 2°C
Sample Filter Temp #2	11.9	13.4	1.50	+/- 2°C
Internal Leak Check	13		Pass	140 mmHg
External Leak Check	26		Fail	25 mmHg
Ambient Relative Humidity	76.00	83.20	7.20	+/- 1.5%
Flow #1 Final (Qa from BGI)	14.98	15.03	0.33%	+/- 4%
Flow #2 final (Qa from BGI)	1.67	1.489	-10.84%	+/- 4%
Standards Used	Description	S/N	Calibration/ Certification Date	
Flow	BGI TetraCal (Qa)	212473	3-Jun-25	
Temperature	BGI TetraCal	212473	3-Jun-25	
Pressure	BGI TetraCal	212473	3-Jun-25	
Relative Humidity	Vaisala HM40	V4620616	3-May-25	
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015			
Firmware updated to file 2025i020863				

Figure 8 July 16, 2025 Monthly Audit Record

<u>Partisol Monthly Audit</u>				
Work Order Number	30138			
Customer Name	BW Gold			
Instrument Part Number	Partisol 2025iD			
Instrument Serial Number	202DIW202502205			
Date	August 23 2025			
Complete By	Kimberley Kenyon, Lloyd Kenny			
Description	Partisol reading	Standard (field observation)	Variance	Allowable variance
Ambient Air Temperature	13.5	14.8	1.30	+/- 2°C
Ambient Pressure	660	661	-1.00	+/- 10 mmHg
Sample Filter Temp #1	12.5	13.5	1.00	+/- 2°C
Sample Filter Temp #2	12.5	13.5	1.00	+/- 2°C
Internal Leak Check	13		Pass	140 mmHg
External Leak Check	failing at 6 seconds left		Fail	25 mmHg
Ambient Relative Humidity	42.40	43.60	1.20	+/- 1.5%
Flow #1 Final (Qa from BGI)	15.00	14.36	-4.27%	+/- 4%
Flow #2 final (Qa from BGI)	1.67	1.742	4.31%	+/- 4%
Standards Used	Description	S/N	Calibration/ Certification Date	
Flow	BGI TetraCal (Qa)	212473	3-Jun-25	
Temperature	BGI TetraCal	212473	3-Jun-25	
Pressure	BGI TetraCal	212473	3-Jun-25	
Relative Humidity	Vaisala HM40	V4620616	3-May-25	
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015			
Firmware updated to file 2025i020863				

Figure 9 August 23, 2025, Monthly Audit Record

Partisol Monthly Audit

Work Order Number	W0043498			
Customer Name	BW Gold			
Instrument Part Number	Partisol 2025iD			
Instrument Serial Number	202DIW202502205			
Date	8-Dec-25			
Complete By	Lloyd Kenny			
Description	Partisol reading	Standard (field observation)	Variance	Allowable variance
Ambient Air Temperature	23.9	25.4	1.50	+/- 2°C
Ambient Pressure	623	623	0.00	+/- 10 mmHg
Sample Filter Temp #1	25	25.2	0.20	+/- 2°C
Sample Filter Temp #2	25.4	25.1	-0.30	+/- 2°C
Internal Leak Check	10		Pass	140 mmHg
External Leak Check	9 mmHG		Pass	25 mmHg
Ambient Relative Humidity	26.00	25.40	-0.60	+/- 1.5%
Flow #1 Final (Qa from BGI)	14.99	15.24	1.67%	+/- 4%
Flow #2 final (Qa from BGI)	1.67	1.600	-4.19%	+/- 4%
Standards Used	Description	S/N	Calibration/ Certification Date	
Flow	BGI TetraCal (Qa)	212473	3-Jun-25	
Temperature	BGI TetraCal	212473	3-Jun-25	
Pressure	BGI TetraCal	212473	3-Jun-25	
Relative Humidity	Vaisala HM40	V4620616	3-May-25	
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015			
Firmware updated to file 2025i020863				

Figure 12 December 8, 2025, Monthly Audit Record

Partisol Monthly Audit

Work Order Number				
Customer Name	BW Gold			
Instrument Part Number	Partisol 2025iD			
Instrument Serial Number	202DIW202502205			
Date	7-Jan-26			
Complete By	Lloyd Kenny			
Description	Partisol reading	Standard (field observation)	Variance	Allowable variance
Ambient Air Temperature	18.5	18.8	0.30	+/- 2°C
Ambient Pressure	622	621	1.00	+/- 10 mmHg
Sample Filter Temp #1	18.5	20.1	1.60	+/- 2°C
Sample Filter Temp #2	18.9	19.1	0.20	+/- 2°C
Internal Leak Check	12		Pass	140 mmHg
External Leak Check	6		Pass	25 mmHg
Ambient Relative Humidity	30.20	28.90	-1.30	+/- 1.5%
Flow #1 Final (Qa from BGI)	15.03	15.15	0.80%	+/- 4%
Flow #2 final (Qa from BGI)	1.68	1.730	2.98%	+/- 4%
				Calibration/ Certification Date
Standards Used	Description		S/N	
Flow	BGI TetraCal (Qa)		212473	3-Jun-25
Temperature	BGI TetraCal		212473	3-Jun-25
Pressure	BGI TetraCal		212473	3-Jun-25
Relative Humidity	Vaisala HM40		V4620616	3-May-25
Technical Data	Thermo Manual P/N 110100-00 dated 14 April 2015			
Firmware updated to file 2025i020863				

Figure 13 January 7, 2026, Monthly Audit Record

2.4.6 Equipment Failure (Condition 5.3)

No equipment failures occurred in 2025.

2.5 Passive Air Quality Monitoring (Condition 5.1.2)

A Passive Air Sampling System (PASS) is set up near the Partisol location to monitor nitrogen dioxide (NO₂), sulfur dioxide (SO₂) and carbon monoxide (CO) exposure.

Potential sources of NO₂ and SO₂ include combustion of fossil fuels and blasting material. CO is a gas that has no odour, taste or colour and can be caused by burning fuels, including gas, wood, and propane.

2.5.1 Radiello Sampling Methodology

BWG personnel collected radiello samples in general accordance with ENV's *British Columbia Field Sampling Manual* (2023).

The Radiello sampler (NO₂ and SO₂) were deployed in accordance with ENV's *Standard Operating Procedure for the Passive/ Diffusive Method of Air Sampling Collection* (SOP-07 dated May 5, 2020), found within the BCFSM Part B1 appendix (ENV, 2023). The user manual provided by ALS recommends a sampling period of 15-days or less, provided the relative humidity stays below 70% throughout the sampling period. If relative humidity exceeds 70%, it suggests limiting the sampling to 7-days (*Istituti Clinici Scientifici Maugeri, 2019*). To avoid potential bias from high humidity, the Radiello (NO₂ and SO₂) samples are deployed on average for 7-days, and monitoring occurred year-round.

BWG completes a visual inspection of the structure, checks for any abnormalities of the apparatus and influences to the Radiello during the deployment and retrieval of the sample. No calibration is required as the sorbet tubes are supplied by ALS and are of one-time use.

2.5.1.1 Radiello Results

In total 50 samples were collected between December 31, 2024, and December 30, 2025, with the highest SO₂ concentration of 0.72 parts per billion (ppb; 7-day average) observed between September 9 – 16, 2025 and highest NO₂ concentration of 15 ppb (7-day average) observed between November 25 to December 2, 2025. The 7-day results do not directly compare to the 1-hour standards and objectives due to the difference in time measurement; however, the annual average standard and objectives can be used (12 ppb for NO₂ and 4 ppb for SO₂). It is important to note that the annual average results were well below the annual average standard and objective, as approximately half of the samples were below detection limit, resulting in an average NO₂ concentration of 1.59 ppb and SO₂ concentration of 0.23 ppb.

It should be noted that ALS initiates the test for radiello using ug/sample units and later converts the results to ppbv for objective and standard comparison. ALS reports the concentrations as standard conditions 101.325 kPa and 298 K; however, Condition 2.5 of the PE-110650 require

results to be reported in standard conditions of 101.325 kPa and 293.15 K. ALS is unable to complete the testing at 293.15 K.

Laboratory Certificates of Analysis are provided in Appendix 1-4.

The results of the Radiello SO₂ and NO₂ samples are provided in the Table 2-12. Results of the 30-day mean concentrations are provided in Table 2-13.

Table 2-12 2025 Radiello Results

Client Sample ID	Start Sample Date (Deployment Date)	End Sample Date (Collection Date)	Nitrogen dioxide (as NO ₂)	Sulfur dioxide (as SO ₂)
BCAAQO Annual			17	-
CAAQS Annual			12	4
			Units	ppbv
			ppbv	ppbv
Rad1	2024-12-31	2025-01-07	0.71	< 0.21
Rad1	2025-01-07	2025-01-14	0.76	< 0.22
Rad1	2025-01-14	2025-01-21	0.75	< 0.21
Rad1	2025-01-21	2025-01-28	1.2	< 0.21
Rad1	2025-01-28	2025-02-04	<0.69	< 0.21
Rad1	2025-02-04	2025-02-11	< 0.73	< 0.22
Rad1	2025-02-11	2025-02-18	0.72	< 0.21
Rad1	2025-02-18	2025-02-25	< 0.69	< 0.21
Rad1	2025-02-25	2025-03-04	< 0.69	< 0.21
Rad1	2025-03-04	2025-03-11	0.88	0.61
Rad1	2025-03-11	2025-03-18	< 0.7	< 0.2
Rad1	2025-03-18	2025-03-25	< 0.69	< 0.21
Rad1	2025-03-25	2025-04-01	< 0.7	< 0.21
Rad1	2025-04-01	2025-04-08	< 0.73	< 0.22
Rad1	2025-04-08	2025-04-15	< 0.72	< 0.22
Rad1	2025-04-15	2025-04-22	< 0.7	0.24
Rad1	2025-04-22	2025-04-29	< 0.7	< 0.21
Rad1	2025-04-29	2025-05-06	< 0.68	< 0.21
Rad1	2025-05-06	2025-05-13	< 0.72	< 0.22
Rad1	2025-05-13	2025-05-20	< 0.7	< 0.21
Rad1	2025-05-20	2025-05-27	< 0.7	< 0.21
Rad1	2025-05-27	2025-06-03	< 0.71	< 0.21
Rad1	2025-06-03	2025-06-10	< 0.7	< 0.21
Rad1	2025-06-10	2025-06-17	< 0.75	< 0.23
Rad1 ^b	2025-06-17	2025-06-24	-	-
Rad1	2025-06-24	2025-07-01	< 0.72	< 0.22
Rad1	2025-07-01	2025-07-08	< 0.71	< 0.21

Client Sample ID	Start Sample Date (Deployment Date)	End Sample Date (Collection Date)	Nitrogen dioxide (as NO ₂)	Sulfur dioxide (as SO ₂)
BCAAQO Annual			17	-
CAAQS Annual			12	4
			Units	ppbv
			ppbv	ppbv
Rad1	2025-07-08	2025-07-15	< 0.68	< 0.21
Rad1	2025-07-15	2025-07-22	0.81	< 0.21
Rad1	2025-07-22	2025-07-29	< 0.71	< 0.21
Rad1	2025-07-29	2025-08-05	< 0.71	< 0.22
Rad1	2025-08-05	2025-08-12	< 0.72	< 0.22
Rad1	2025-08-12	2025-08-19	< 0.67	< 0.2
Rad1	2025-08-19	2025-08-26	< 0.74	< 0.22
Rad1	2025-08-26	2025-09-09	1.7	< 0.21
Rad1	2025-09-09	2025-09-16	1.6	0.72
Rad1	2025-09-16	2025-09-23	0.92	< 0.21
Rad1	2025-09-23	2025-09-30	1.5	< 0.21
Rad1	2025-09-30	2025-10-07	0.98	< 0.21
Rad1	2025-10-07	2025-10-14	0.77	< 0.21
Rad1	2025-10-14	2025-10-21	< 0.71	< 0.22
Rad1	2025-10-21	2025-10-28	9.6	< 0.22
Rad1	2025-10-28	2025-11-04	3.9	< 0.22
Rad1	2025-11-04	2025-11-11	3.4	< 0.2
Rad1	2025-11-11	2025-11-18	4.9	< 0.22
Rad1	2025-11-18	2025-11-25	7.5	< 0.21
Rad1	2025-11-25	2025-12-02	15	< 0.21
Rad1	2025-12-02	2025-12-09	< 0.73	< 0.22
Rad1	2025-12-09	2025-12-16	< 0.69	< 0.21
Rad1	2025-12-16	2025-12-23	< 0.72	< 0.21
Rad1	2025-12-23	2025-12-30	0.87	< 0.21
Annual Average			1.59	0.23

Notes:

sources: British Columbia Ministry of Environment and Parks (BCAAQO, 2025) and Canadian Ambient Air Quality Standards (CAAQS, 2025)

- a. To determine the average calculations, samples that were below the detection limit were assumed to be the value of the detection limit
- b. Radiello sample was deployed and retrieved from the field, and submitted to ALS laboratory. Upon arrival and sample log-in ALS could not locate the sample in the cooler and misplaced it in the lab.

Table 2-13 Radiello 30-day Mean Concentration

Client sample ID	30-day Mean Concentration Date Range	Nitrogen dioxide (as NO ₂ ; ppb)	Sulfur dioxide (as SO ₂ ; ppb)
Rad1	December 31, 2024 – January 28, 2025	0.86	0.21
Rad1	January 28, 2025 – February 25, 2025	2.83	0.21
Rad1	February 25, 2025 – March 25, 2025	0.74	0.31
Rad1	March 25, 2025 – April 29, 2025	0.71	0.22
Rad1	April 29, 2025 – May 27, 2025	0.70	0.21
Rad1	May 27, 2025 – July 1, 2025	0.72	0.22
Rad1	July 1, 2025 – July 29, 2025	0.73	0.21
Rad1	July 29, 2025 – August 26, 2025	0.71	0.22
Rad1	August 26, 2025 – September 30, 2025	1.43	0.34
Rad1	September 30, 2025 – October 28, 2025	3.02	0.22
Rad1	October 28, 2025 – November 25, 2025	4.93	0.21
Rad1	November 25, 2025 – December 30, 2025	3.60	0.21

a. To determine the average calculations, samples that were below the detection limit were assumed to be the value of the detection limit

2.5.1.2 Quality Assurance and Quality Control

The QA/QC program is implemented to ensure representative samples are collected and correct analytical data is being reported by the laboratory. BWG has completed the following procedures to implement a comprehensive QA/QC program:

- Recording field notes during the deployment and retrieval of the Radiello;
- Submitting one field duplicate and travel blank for laboratory analysis for 10% of samples collected.
- Samples submitted to ALS with a properly completed Chain of Custody.
- Samples submitted to ALS underwent laboratory QA/QC procedures (i.e., method blanks, laboratory control samples, lab duplicates, etc.).

Duplicate sample analysis supports laboratory quality control, as well as reproducibility of field sampling procedures.

The reproducibility of field sampling techniques is quantified by a parameter referred to as the relative percent difference (RPD). RPD is calculated using the following formula:

$$RPD = \frac{S - D}{0.5(S + D)} \times 100\%$$

Where:

- RPD = relative percent difference
- S = sample value
- D = duplicate value

Analytical error generally increases near the method reporting limit or lowest detection limit; therefore, the RPD calculation is not applied unless the concentration of both samples is greater than five times the detection limit (ENV, 2013). The analysis of the duplicate samples were not calculable (due to concentrations less than five times the detection limit) or non-detect, suggesting the sample and duplicate results are reproducible and reliable. Table 2-14 below provides the radiello QA/QC samples and Table 2-15 provides the Travel Blank Concentrations.

Table 2-14 Radiello QAQC Table

				Location:	RAD1	RAD1	
				Sample ID:	RAD1_01212025	RAD1-DUP_01212025	
				Date Sampled:	2025-01-21	2025-01-21	
				Sample Type:	Primary	Duplicate	
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units				Relative Percent Difference
Nitrogen Dioxide	1	0.69	ppbv		0.75	<0.35	NA
Sulfur Dioxide	0.21	0.21	ppbv		<0.11	<0.11	NA

				Location:	RAD1	RAD1	
				Sample ID:	RAD1_04082025	RAD1-DUP_04082025	
				Date Sampled:	2025-04-08	2025-04-08	
				Sample Type:	Primary	Duplicate	
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units				Relative Percent Difference
Nitrogen Dioxide	0.73	0.73	ppbv		<0.37	<0.37	NA
Sulfur Dioxide	0.22	0.22	ppbv		<0.11	<0.11	NA

				Location:	RAD1	RAD1	
				Sample ID:	RAD1_05062025	RAD1-DUP_05062025	
				Date Sampled:	2025-05-06	2025-05-06	
				Sample Type:	Primary	Duplicate	
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units				Relative Percent Difference
Nitrogen Dioxide	0.68	0.68	ppbv		<0.34	<0.34	NA
Sulfur Dioxide	0.21	0.21	ppbv		<0.11	<0.11	NA

				Location:	RAD1	RAD1	
				Sample ID:	RAD1_08052025	RAD1-DUP_08052025	
				Date Sampled:	2025-08-05	2025-08-05	
				Sample Type:	Primary	Duplicate	
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units				Relative Percent Difference
Nitrogen Dioxide	0.71	0.71	ppbv		<0.36	<0.36	NA
Sulfur Dioxide	0.22	0.22	ppbv		<0.11	<0.11	NA

				Location:	RAD1	RAD1	
				Sample ID:	RAD1_09302025	RAD1-DUP_09302025	
				Date Sampled:	2025-09-30	2025-09-30	
				Sample Type:	Primary	Duplicate	
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units				Relative Percent Difference
Nitrogen Dioxide	0.71	0.71	ppbv		1.5	0.91	NC
Sulfur Dioxide	0.21	0.21	ppbv		<0.11	<0.11	NA

				Location:	RAD1	RAD1	
				Sample ID:	RAD1_12302025	RAD1-DUP_12302025	
				Date Sampled:	2025-12-30	2025-12-30	
				Sample Type:	Primary	Duplicate	
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units				Relative Percent Difference
Nitrogen Dioxide	0.72	0.72	ppbv		0.87	0.91	NC
Sulfur Dioxide	0.21	0.21	ppbv		<0.11	<0.11	NA

RPD Control Limits

NC – Not calculable (due to concentrations less than five times the detection limit)

NA – Not Applicable

Table 2-15 Radiello Travel Blanks

Sample Location Sample Date Sample Type		TB-RAD1 2025-01-21 TB	TB-RAD1 2025-05-06 TB	TB-RAD1 2025-08-05 TB	TB-RAD1 2025-09-30 TB	TB-RAD1 2025-12-30 TB
Parameter	Unit	Result	Result	Result	Result	Result
Nitrogen Dioxide	ppbv	< 0.69	< 0.68	< 0.71	< 0.71	< 0.72
Sulfur Dioxide	ppbv	< 0.21	< 0.21	< 0.22	< 0.21	< 0.21

2.5.2 CO Sampling Methodology

As per PE-110650, BWG is required to collect passive CO samples. While the BCFMS does not specify a passive sampling methodology for CO, PE-110650 Table 1 refers to Passive CO. BWG conducted an extensive search for alternative methods to collect passive CO samples and based on recommendations from our Air Quality Qualified Professional (QP), Passam Ag Laboratory was identified as a suitable source. North American laboratories were found to only analyze active CO samples. Passam Ag is an accredited laboratory with the Swiss Confederation. ENV approved this monitoring method and Passam Ag laboratory use in a June 11, 2025 addendum letter to PE-110650.

The Passive CO field sampling follows a methodology like the passive SO₂ and NO₂, as outlined in the ENV's *Standard Operating Procedure for the Passive/ Diffusive Method of Air Sampling Collection* (SOP-07 dated May 5, 2020), found within the BCFMS Part B1 appendix (*BC ENV, 2023*). The passive sampler collects pollutants over the entire exposure period (2-weeks) in a housing unit positioned 2 meters above the ground level, away from any obstructions such as trees and buildings. No calibration is required as the sorbet tubes are supplied by Passam Ag and are of one-time use.

The CO samples are deployed for a 2-week period; however, passive CO concentrations are monitored continuously throughout the year.

2.5.2.1 CO Results

In total 27 samples (including 1 duplicate) were collected between December 31, 2024, and January 13, 2026, with the highest passive CO concentration being 1041 µg/m³ observed between June 3 – 17. All remaining results except for two observed between March 25 – Apr 8 (529 µg/m³) and August 26 – September 9, 2025 (687 µg/m³), were non-detect (< 500 µg/m³). The analytical results from Passam Ag are presented in Table 2-16 and are reported as concentrations using ambient temperature and pressure. The 30-day mean concentrations are provided in Table 2-17.

The 1-hour and 8-hour BCAAQO are included for reference, as these Pollution Control Objectives were rescinded in 2006, the ambient air quality objectives continue to be used for reference purposes (ENV 2021). As outlined in the AQFDMP, CO monitoring would not typically be recommended for such low levels; however, it is a requirement of the DS Condition #6.12.

It should be noted that the results are not directly comparable to the referenced objectives due to difference in averaging times. Nonetheless, the three concentrations above detection limit are substantially below the 1-hour (14,300 $\mu\text{g}/\text{m}^3$) and 8-hour (5,500 $\mu\text{g}/\text{m}^3$) objectives.

Laboratory Certificates of Analysis are provided in Appendix 1-4.

Table 2-16 Passive CO Analytical Results

Sample Location	Start Sample Date (Deployment Date)	End Sample Date (Collection Date)	Passive CO
BCAAQO 1-hour Objective			14,300
BCAAQO 8-hour Objective			5,500
Unit			$\mu\text{g}/\text{Am}^3$
Passive-CO	2024-12-31	2025-01-14	< 500
Passive-CO	2025-01-14	2025-01-28	< 500
Passive-CO	2025-01-28	2025-02-11	< 500
Passive-CO	2025-02-11	2025-02-25	< 500
Passive-CO	2025-02-25	2025-03-11	< 500
Passive-CO	2025-03-11	2025-03-25	< 500
Passive-CO	2025-03-25	2025-04-08	529
Passive-CO	2025-04-08	2025-04-22	< 500
Passive-CO	2025-04-22	2025-05-06	< 500
Passive-CO	2025-05-06	2025-05-20	< 500
Passive-CO	2025-05-20	2025-06-03	< 500
Passive-CO	2025-06-03	2025-06-17	1041
Passive-CO	2025-06-17	2025-07-01	< 500
Passive-CO	2025-07-01	2025-07-15	< 500
Passive-CO	2025-07-15	2025-07-29	< 500
Passive-CO	2025-07-29	2025-08-12	< 500
Passive-CO	2025-08-12	2025-08-26	< 500
Passive-CO	2025-08-26	2025-09-09	687
Passive-CO	2025-09-09	2025-09-23	< 500
Passive-CO	2025-09-23	2025-10-07	< 500
Passive-CO	2025-10-07	2025-10-21	< 500
Passive-CO	2025-10-21	2025-11-04	< 500
Passive-CO	2025-11-04	2025-11-18	< 500
Passive-CO	2025-11-18	2025-12-02	< 500
Passive-CO	2025-12-02	2025-12-16	< 500
Passive-CO	2025-12-16	2025-12-30	< 500
Passive-CO	2025-12-30	2026-01-13	< 500
Maximum Concentration			1041
Average Concentration			528

Notes:

- a. To determine the average calculations, samples that were below the detection limit were assumed to be the value of the detection limit

Table 2-17 Passive CO 30-Day Mean Concentrations

30-day Mean Average Start Date	30-day Mean Average Finish Date	Passive CO 30-day Mean Concentration
2024-12-31	2025-01-28	500
2025-01-28	2025-02-25	500
2025-02-25	2025-03-25	500
2025-03-25	2025-04-22	514.5
2025-04-22	2025-05-20	500
2025-05-20	2025-06-17	770.5
2025-06-17	2025-07-15	500
2025-07-15	2025-08-12	500
2025-08-12	2025-09-09	593.5
2025-09-09	2025-10-07	500
2025-10-07	2025-11-04	500
2025-11-04	2025-12-02	500
2025-12-02	2025-12-30	500
2025-12-30	2026-01-13	500

Notes:

- a. To determine the average calculations, samples that were below the detection limit were assumed to be the value of the detection limit

2.5.2.2 Quality Assurance and Quality Control

The QA/QC program is implemented to ensure representative samples are collected and correct analytical data is being reported by the laboratory. BWG has completed the following procedures to implement a comprehensive QA/QC program:

- Recording field notes during the deployment and retrieval of the Passive CO Sampler;
- Submitted a field duplicate and travel blank for laboratory analysis.
- Samples submitted to Passam Ag with a properly completed Chain of Custody.

Duplicate sample analysis supports laboratory quality control, as well as reproducibility of field sampling procedures.

The reproducibility of field sampling techniques is quantified by a parameter referred to as the relative percent difference (RPD). RPD is calculated using the following formula:

$$RPD = \frac{S - D}{0.5(S + D)} \times 100\%$$

Where:

- RPD = relative percent difference
- S = sample value
- D = duplicate value

Analytical error generally increases near the method reporting limit or lowest detection limit; therefore, the RPD calculation is not applied unless the concentration of both samples is greater than five times the detection limit (ENV, 2013). The analysis of the duplicate samples was not calculable (due to concentrations less than five times the detection limit), suggesting the sample and duplicate results are reproducible and reliable. Table 2-18 below provides the QA/QC sample collected for passive CO. Table 2-19 provides concentrations for the travel blank submitted.

BWG has implemented a more robust tracking and scheduling system to ensure improved oversight and compliance for quality control sample collection.

Table 2-18 Passive CO Analytical QAQC Results

				Location:	Passive-CO	Passive-CO	
				Sample ID:	PASSIVE-CO_06172025	PASSIVE-CO_06172025_	
				Date Sampled:	2025-06-17	2025-06-17	
				Sample Type:	Primary	Duplicate	
Analyte	Detection Limit Pri.	Detection Limit Dup.	Units			Relative Percent Difference	
Passive CO	500	500	ug/m ³		1041	870	NA

RPD Control Limits

NC – Not calculable (due to concentrations less than five times the detection limit)

NA – Not Applicable

Table 2-19 Passive CO Analytical QAQC Travel Blank Results

Sample Location		TB-Passive-CO
Sample Date		2025-06-03
Sample Type		N
Parameter		Result
Passive CO	ug/m ³	- ^a

Note:

A – The Travel Blank was analysed with an ABS value of 0.004. There is no resulting concentration in ug/m³, as the value is below limit of detection and it was not exposed/ there is no exposure time. This indicates that there was no contamination or self-absorbance during travel.

2.6 Meteorological Monitoring (Condition 5.2)

Knights Piésold (KP) has provided technical support for the climate monitoring network since early 2011. KP provided BWG with an annual letter summarizing the continuous monitoring of meteorological parameters titled *2025 Climate Monitoring Program Review*. The letter is intended to certify compliance with Section 5.2 and to satisfy the meteorological portions of Section 6.1 h) and j) of PE-110650. This information is provided in Appendix 1-5.

3 Event Reporting (Condition 6.4)

Events are reported to ENV and First Nations. Reporting requirements are outlined by Permit conditions 4.2.5, 4.3, 5.3 and 6.4.

3.1 PE-110650 Reported Events

During 2025, non-compliance reports were issued as per Condition 4.2.5 and 4.3. All but one of them related to the Partisol PM monitoring, which recorded elevated PM concentrations and the remaining report was issued due to failing to meet the quarterly PM monitoring minimum requirement Condition 5.1.4.

The notifications include relevant test results, an explanation of the most probable cause(s) of the non-compliance and a description of the remedial action planned and/or taken to prevent similar non-compliances in the future. The root causes for the PM exceedances were nearby wildfires. Table 3-1 below lists all the non-compliance reports submitted in 2025. See the Annual Status Form (Appendix 1-1) for the assessment of compliance against all Permit requirements.

Table 3-1 PE-110650 Non-Compliance Notifications for Air Quality

Date of Exceedance	Notification Date	Condition	Trigger / Exceedance	Root Cause of Non-Compliance	Remedial Action
2025 Q1	April 4	5.1.4	Did not meet minimum quarterly monitoring of 75%.	User Error and Power Failure	To minimize future gaps in sampling events due to power failure, the Partisol was connected to a permanent power source on March 16, 2025
June 9	July 2	4.2.5	Elevated PM ₁₀ levels	Nearby wildfire and site-related dust emissions including vehicle movement on unpaved roads and wind-driven dust.	To support dust suppression, water trucks operate 24-hours a day along active roads and construction sites.
September 1	September 16	4.2.5 and 4.3	Elevated PM _{2.5} and PM ₁₀ levels	Nearby wildfires.	To support dust suppression, water trucks operate 24-hours a day along active roads, camp locations and construction sites.
September 4 and 7	September 24	4.2.5 and 4.3	Elevated PM _{2.5} and PM ₁₀ levels	Nearby and local wildfires	To support dust suppression, water trucks operate 24-hours a day along active roads, camp locations and construction sites.
September 10 and 13	October 2	4.2.5 and 4.3	Elevated PM _{2.5} and PM ₁₀ levels	Nearby and local wildfires	To support dust suppression, water trucks operate 24-hours a day along active roads, camp locations and construction sites.

3.2 Spill Reporting

Table 3-2 summarizes the spills (including any solids, liquids or gases) that occurred on Site that were greater than or equal to the volumes defined in the Spill Reporting Regulation for external notification.

Table 3-2 Summary of Reportable Spills

Regulation	Date Observed	Initial Notification	Event	Final Notification	Mitigation
Spill Reporting Regulation	January 17, 2025	January 19, 2025	Ammonium Nitrate Emulsion Spill	February 15, 2025	Pump was shut off and spill response initiated. Emulsion was loaded into bags which were placed in a tote. Affected ground was excavated and also placed into bags. Emulsion and contaminated material will be disposed of by including in scheduled blasts at Blackwater Mine
Spill Reporting Regulation	April 6, 2025	April 6, 2025	Waste oil drum tipped over as a result of melting snow and ice it was sitting on.	May 4, 2025	Spill cleanup was initiated immediately – emergency response team (ERT) was dispatched to the scene with the spill response trailer, the area was closed to traffic, and 15-20 personnel contributed to the cleanup. The source of the spill was ceased. Run off water was prevented from entering the contaminated area. Spill booms were placed in the ditch line to contain the spill and prevent hydrocarbons from leaving site. Spill pads were placed on the ground where waste oil and sheen were visible. A hydro-vac was utilized to remove contaminated water and snow from the ditch line. A backhoe was used to remove contaminated soil from the road.
Spill Reporting Regulation	May 14, 2025	May 16, 2025	Engine Coolant Hose clamp wear/failure on main suction line for left engine coolant system.	June 13, 2025	Spill pads were deployed for surface fluid. Mechanics called to fix and move excavator. Contaminated potential acid generating (PAG) material was collected by machinery and loaded into haul truck for placement in contaminated material transfer area in TSF.
Spill Reporting Regulation	May 17, 2025	May 19, 2025	Engine Coolant hose failure, line from engine to cab.	June 14, 2025	Spill booms were deployed to contain coolant in mud puddle, 2.5 gallon buckets were used to catch leaking coolant and minimize spill to ground. Affected solid material was collected and disposed of in contaminated soil bin. Remaining liquid from puddle was disposed of in hydrocarbon contaminated liquid tote.
Spill	May 28, 2025	June 18,	Sewage pipe failure dorm	July 4, 2025	Hydro-Vac truck company who handles waste water was brought to site. Split

Regulation	Date Observed	Initial Notification	Event	Final Notification	Mitigation
Reporting Regulation		2025	1 at the construction camp.		liquid was removed by Hydro-Vac truck and material was removed. Additional water was used to flush area and remove by Hydro-Vac suction. Hydrated lime was used to disinfect area and fans used to dry area.
Spill Reporting Regulation	June 14, 2025	June 15, 2025	Ammonium nitrate Slide gate operating chain derailed	July 4, 2025	Source of the spill was stopped. Material had a tarp placed over top and weighted down to protect from precipitation. Prills and contaminated material on ground were cleaned up immediately and bagged.
Spill Reporting Regulation	July 3, 2025	July 3, 2025	Processing plant slurry Diesel pump was transferring slurry from one tank to another when the outflow hose line failed resulting in spilled material reporting to the ground.	July 9, 2025	Spill was contained with bund and hydro-vac truck was brought to plant site to remove released material. Remaining contaminated ground material was cleaned up by machinery.
Spill Reporting Regulation	July 8, 2025	July 9, 2025	Operator of 1 Ton fuel truck was filling booster pump 1. After refueling, the truck was moved with nozzle still in place at booster pump 1. Fuel hose detached and spill to ground occurred	July 14, 2025	Shut off pump, placed spill tray where leak was from container of truck, placed spill pads in positions that would prevent spreading further. Excavator cleaned up contaminated material. Contaminated soil excavated and placed onto tarp until contaminated bins arrived. Contaminated material placed into truck and shipped off site for 3rd party disposal
Spill Reporting Regulation	July 25, 2025	July 26, 2025	During scheduled work to install new HDPE piping workers were instructed to have the pipe drained	Aug 25, 2025	Spill source was stopped using valves upstream of the leak. Environment notified. Skid steer cleaned up contaminated material and placed into dump truck. Contaminated material placed into truck and disposed of in the TSF.

Regulation	Date Observed	Initial Notification	Event	Final Notification	Mitigation
			prior to the maintenance taking place. When work began to install the new flange where the new HDPE pipe would be tied into the current pipe, the head pressure from the drain pushed a gasket out of its seat causing a leak.		
Spill Reporting Regulation	October 28, 2025	November 3, 2025	Spill site was Low Grade Ore stockpile, damaged coolant line fitting on equipment	November 3, 2025	The operator shut down the machine and placed a spill tray under the area leaking the fluid. Lube truck evacuated all surface Coolant that had pooled. EX scraped up contaminated soil and loaded it onto a HT. Loaded onto HT and brought to waste storage area.
Spill Reporting Regulation	November 26, 2025	November 26, 2025	Caustic Soda plant site, operator moving totes of caustic soda within storage seacan, telehandler punctured tote in second row with forks	December 26, 2025	Spill source was stopped by tilting the punctured section so remaining liquid would not spill out. Emergency response team responded for safety concerns. Sorbent pads and absorbent organic compound placed on spilt material immediately. Berm built around spilt area to contain spill. Spill clean up of contaminated material commenced. Vac Truck cleaned up caustic soda within containment. Contaminated materials clean up completed. Material held within containment berm temporarily. Contaminated materials placed into lined bag and moved to lined hazardous containment area for holding. Contaminated material run through plant site crusher and plant recovery system for processing
Spill Reporting Regulation	November 27, 2025	November 27, 2025	Open pit, hydraulic leak occurred in the swing circuit of the SH3601	December 23, 2025	Truck was shut down, dispatch was informed, maintenance was dispatched out to stop the leak, spill tray placed under area of leak, deployed absorbent pads around area, lube truck evacuated all surface hydraulic fluid, loaded onto



Regulation	Date Observed	Initial Notification	Event	Final Notification	Mitigation
			mechanical failure to hydraulic line		773HT for disposal.
Spill Reporting Regulation	December 6, 2025	December 6, 2025	Caustic Soda placing of caustic soda totes in secondary containment reagents storage seacan, while placing a tote with a zoom boom, a second tote that was in the seacan was punctured with the forks.	January 6, 2026	The operator stopped the source of the spill by tilting the punctured tote so the remaining liquid would not spill out. The area was flagged off with do not enter tape and sorbent socks placed around the affected area. Vac truck removed liquid caustic soda from the secondary containment seacan as well as the puddle of liquid caustic that went to the ground. Saturated snow outside contained area was found and sorbent socks were placed. Excavator began to remove top 4 inches of soil in the affected area. Excavator finished removing contaminated soils and contaminated material was run through plant site crusher and plant recovery system for processing.

4 Routine Reporting

In accordance with Section 6.9 of the Permit, available monitoring data for NO₂, SO₂ and particulate matter are uploaded to the ENV EMS data management system using established coding. Passive CO monitoring due to current system coding and the ENV EMS system ongoing upgrade to Environmental Monitoring Data System (EnMoDS) and implementation this data has not yet been uploaded to the new system. But will be uploaded as soon as EnMoDS becomes available.

5 Waste Management

The incinerator authorized by the Early Works EMA Permit 106530 was not utilized as a part of the waste management at the Mine in 2025.

The incinerator authorized by PE-110650 has not been established, and all waste produced by the Mine was disposed of off-site in 2025. As part of the waste management process, materials are sorted at the earliest possible stage (e.g. designated bins at each camp).

Throughout 2025, the same management actions that were implemented in 2024 as well as the updated WRMP were followed. Those management actions are:

- Environment representative present at orientation
- Increased focus on waste management through additional slides, delivery, and emphasis during site orientation
- Metals signs made for exterior waste transfer areas to indicate appropriate waste bins
- Developed a waste management Standard Operating Procedure (SOP)
- Poster placed at interior waste transfer areas indicating appropriate waste bins
- Corrective action measures communicated to area managers when waste issues are identified
- Emphasis on waste management at supervisory meetings
- Updated the type of domestic/ food waste bins on site
- Increased inspections around waste disposal areas to ensure proper waste sorting
- Ongoing education and follow-up with contractors
- Discussing waste management in toolbox meetings.

In addition to the items listed above, the following actions were implemented in 2025:

- Bermed and high-density polyethylene (HDPE) lined area was established on the plant site for storage of hazardous materials
- New bermed and HDPE lined area for hazardous waste storage was established near the plant site to replace the damaged hazardous waste storage area
- Daily inspections were implemented at the hazardous waste storage area.

5.1 Wildlife Observations

In 2025, twenty wildlife interactions were reported, one included the common raven, eleven were related to a red fox, one was a moose, and seven related to bears. Eleven of the interaction events were associated with accessing food waste or displays of food dependent behaviours. Two events were mortalities related to vehicle interactions.

Ravens:

- January 3/ 2025: Three common ravens observed eating food waste out of box of light vehicle at the security plant office.

Red Fox:

- January 27/ 2025: Single Red fox displaying food association and habituation behaviour with a parked light vehicle.
- February 10/ 2025: A Red fox in mobile maintenance approaching workers and vehicles in laydown, not showing signs of avoidance.
- February 15/ 2025: Red fox appeared to be interested in crews working outside Water Management Pond and kept returning to area numerous times.
- May 18/ 2025: Red fox located at the plant site approached truck while driving through the plant site. Health condition of the fox was reported to be skinny.
- May 30/ 2025: At KM14 on C-Trail, Red fox was reported to be sitting under the window of a parked truck waiting to be fed.
- September 25/ 2025: On operations camp road near the process plant, a healthy red fox was observed and reported eating food scraps. Red fox did not show signs of caution or fear of light vehicles.
- December 7/ 2025: At the MSA parking lot, Red fox was reported as sitting down and running in front of vehicles. Once light vehicles would stop, fox would wait outside window, indicating food habituation behaviours.
- December 25/ 2025: In the mobile maintenance yard, fox was observed near crews, displaying food dependence behaviours and habituation.
- December 27/ 2025: Red fox observed coming up to parked vehicles at freshwater reservoir.

Bear:

- August 11/ 2025: Black bear walked up the north ramp near the heavy equipment assembly pad.

Non-vehicle related incidents:

- January 7/ 2025: Red fox observed near kilometer 12 on the mine access road appeared to be limping.
- June 9/ 2025: Juvenile moose walked into middle of mobile maintenance yard. 50 metre

buffer no work zone was established, and all equipment was moved out of area. Juvenile moose walked out of area on own accord and flagging was taken down. No contact/interaction between humans and wildlife occurred.

Vehicle related incidents:

- July 29/ 2025: Worker was driving back to camp when a Red fox ran out of the ditch and onto the access road in front of the vehicle, causing a collision and mortality of the fox.
- June 10/ 2025: A collision occurred on the Kluskus FSR involving a black bear. A black bear carcass (presumed to be a result of a vehicle collision) was discovered and called into the Blackwater Gold environment department. This event did not get internally reported as a BWG incident and therefore unknown if the personnel involved in the incident is a Mine Personnel or non-Mine user.

Bear Management/ Hazing Occurrences:

- May 15/ 2025: Black bear wandered onto the operations camp road towards camp. Deterred off road with siren.
- May 23/ 2025: Bear was roaming around gravel trucks. After disturbance occurred, left area rapidly. 1 Bear banger was used. Reason for discharge was that bear was in very active dormitory area and unwilling to leave (exploration camp parking lot).
- May 28/ 2025 at 8:30pm: Bear at back of construction camp interested in reefer trailer and shoring alongside back of construction camp. Deterrent used was vehicle horn 10 times. Reason for discharge was bear was actively sniffing around food containment trailer at construction camp. After deterrence, bear left area. After disturbance occurred, vacated the area in a haste.
- May 28/ 2025 at 9:30pm: Bear at back of construction camp interested in reefer trailer and shoring alongside back of construction camp again. Deterrent used was vehicle horn 7 times. Reason for discharge was that showing interest in construction camp, needed to deter from reefer trailer (food) and so it would associate discomfort when attempting or interested in human food. After disturbance occurred, bear ran off. However, bear has been hazed before and continues to remain on site and in open.
- June 16/ 2025: Grizzly bear was curious in U-dorm activity while people were present outside. Deterrent used was ERT vehicle siren, 2 bear bangers and vehicle truck horn 5 times. Reason for discharge was that Bear entering active haul truck area and near U dorm parking lot. After disturbance occurred, bear was successfully deterred and avoided area, went back into the wooded area.

6 Community Feedback Mechanism

Pursuant to DS Condition 6.3, BWG has established a feedback mechanism to manage input and complaints related to exposure to dust from the Project during construction, operation, and decommissioning. Complaints may arise from mine-related use of the FSRs between Vanderhoof and the Mine site.

One Environmental complaint was filed in 2025 and described below in Table 6-1.

Table 6-1 Community Feedback

Date of Complaint	Complaint	Follow Up	Outcome
August 13, 2025	A community member raised concerns about dust from mine and logging traffic affecting his house and property along Bearhead Road. He requested BWG's assistance with dust control on a short section of road in front of his house.	The Community Relations (CR) Manager clarified that Bearhead Road is under the jurisdiction of the Ministry of Transportation and Infrastructure (MOTI) and maintained by Yellowhead Road & Bridge (YRB), and that BWG is only one of many road users. Nevertheless, he committed to looking into it.	The CR Manager followed up with YRB, who agreed to apply additional calcium dust control on the ~200m section in front of the resident's property before the end of summer. The resident did not leave contact information, so follow-up was not possible. The site team was informed, and the issue is now considered closed

7 Adaptive Management

The AQFDMP is designed to evolve over time based on ongoing monitoring results and changing conditions and development of the Mine. Through consultation with stakeholders and Aboriginal groups (Section 1.5), feedback from these parties is considered and incorporated, if applicable, to improve monitoring methods, support air quality, and regulatory compliance.

Engagement

As reflected in Section 1.5.1, part of this process includes QP review and consideration of feedback provided by Aboriginal Groups based on comments and questions raised through their review of the 2024 PE-110650 Report.

Engagement with Aboriginal Groups in 2025 occurred through review of the 2024 PE-110650 Report, written comments provided by LDN and UFN, and discussions at the Environmental Life of Mines Committee (ELoMC) meetings. Feedback focused primarily on dust management, monitoring reliability, and clarity of mitigation planning. During the July 24 ELoMC meeting, discussions centered on the March 2025 Independent Environmental Monitor (IEM) dust plume observation,.

To support a common understanding, BWG shared a summary of the dustfall technical assessment prepared by Lorax Environmental (2025), which quantified the extent of deposition and informed risk context and monitoring priorities for downstream receptors.

Changes to Mitigation

Engagement regarding the Q1 2025 dust plume focused on understanding potential impacts to country foods, human health, and the adequacy of mitigation actions. The Nations emphasized

the need for transparent communication about the extent of dust deposition, potential off-site effects, and how BWG evaluates and responds to dust events.

In response, BWG described the improved dust-suppression measures, including improved suppression at crusher and conveyor infrastructure, to reduce the potential for recurrence. Additional sediment and benthic sampling has also been incorporated into Aquatic Effects Management Plan (AEMP) monitoring to document aquatic pathways associated with dust deposition, if applicable.

To verify predictions related to dust-deposition pathways, BWG adopted targeted monitoring refinements recommended by Lorax: (i) freshet “3-in-30” water-quality sampling at Stations 661-05, 661-01, and 661-10, and (ii) surface-soil sampling after snowmelt in dust-affected areas. These additions supplement existing permit monitoring (sediment, benthic, periphyton, and water quality) and were selected to be adaptive and time-bound, focused on confirming near-field conditions and downstream attenuation.

Using sequential extraction results and modeled freshet flows for the receiving system, the Lorax assessment predicted that soluble loads from deposited dust would produce concentrations at Station 661-10 during freshet that are below background and below BC Water Quality Guidelines, indicating low likelihood of detectable effects at that downstream checkpoint. BWG provided this risk framing to the IEM and Aboriginal Groups to demonstrate how monitoring and analysis inform mitigation and verification priorities.

The QP review identified several improvements to support ongoing adaptive management, including:

- Strengthening consistency in documenting dust-mitigation actions in the visual observation log;
- Updating descriptions of dust-control systems (e.g., crusher spray bars, enclosed transfer points) to reflect actual site infrastructure; and
- Verifying proper operation of mitigation equipment (e.g., spray bars, suppression systems) through inspection follow-up

These updates and discussions reflect BWG’s adaptive management process to continuously improve the air quality and fugitive dust monitoring program.

8 Authorship and Declaration

This report represents a compilation of those works, and its development was overseen by a QP. Following completion of the document, it was finalized based on QP review as confirmed by the signature below and the Conflict of Interest (COI) and Declaration of Competency (DOC) forms in Appendix 1-6.



This signature denotes that:

- Any statements of fact included in the document are, to the best of the signatory’s knowledge and belief, are true based on appropriate review and investigation.
- Any opinions expressed in the document are, based on professional judgement and review of available information, fair and reasonable.

As required by Permit condition 6.8.2, this document has been prepared in accordance with the professional standards governing the QPs. Any statements of fact included in the document are, to the best of the knowledge and belief of the QPs true, based on appropriate review and investigation. Any opinions expressed in the document are, based on professional judgement and review of available information, fair and reasonable.

ERM Consultants Canada Ltd. (ERM) provided ad hoc air quality consulting services to BWG, including QP review of the air quality sections of this document that were prepared by BWG. BWG provided ERM with the 2025 monitoring data and the contents of this report for review. ERM provided review of the appendices for the AQFDMP Review Report, stack testing results, lab results and COI and DOC forms.

The *2025 Climate Monitoring Program Report (KP 2025)* presented in the Appendix 1-5 of this document includes the appropriate authorship and those forms (COI and DOC) required by PE-110650 condition 6.8. The climate monitoring report and program was overseen by a QP.

Name	Signature	Date
BWG Kelsey Tanaka Environmental Database Compliance Coordinator		March 30, 2026
ERM Daniel Casanova B.Sc., EP (Air Quality) Principal Technical Consultant, Atmospheric Scientist Provided QP review of this annual report document for the air quality topics.		March 30, 2026

9 Appendix List

- Appendix 1-1 Annual Status Form
- Appendix 1-2 Management Plan Reviews
- Appendix 1-3 Stack Testing Results
- Appendix 1-4 Lab Certificates
- Appendix 1-5 2025 Climate Monitoring Report (KP 2025)
- Appendix 1-6 COI and DOC Forms

10 References

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Blackwater
Mine

Blackwater Gold Mine Annual Report for PE-110650

Appendix 1-1 Annual Status Form



Blackwater
Mine

Blackwater Gold Mine Annual Report for PE-110650

Appendix 1-2 Management Plan Reviews



Appendix 1-3 Stack Testing Results Laboratory Certificates



Blackwater
Mine

Blackwater Gold Mine Annual Report for PE-110650

Appendix 1-4 2025 Climate Monitoring Program Report (KP 2025)



Blackwater
Mine

Blackwater Gold Mine Annual Report for PE-110650

Appendix 1-5 COI and DOC Forms

Conflict of Interest Disclosure Statement

A qualified professional ¹ providing services to either the Ministry of Environment and Climate Change Strategy (“ministry”), or to a regulated person for the purpose of obtaining an authorization from the ministry, or pursuant to a requirement imposed under the *Environmental Management Act*, the *Integrated Pest Management Act* or the *Park Act* has a real or perceived conflict of interest when the qualified professional, or their relatives, close associates or personal friends have a financial or other interest in the outcome of the work being performed.

A real or perceived conflict of interest occurs when a qualified professional has

- a) an ownership interest in the regulated person’s business;
- b) an opportunity to influence a decision that leads to financial benefits from the regulated person or their business other than a standard fee for service (e.g. bonuses, stock options, other profit sharing arrangements);
- c) a personal or professional interest in a specific outcome;
- d) the promise of a long term or ongoing business relationship with the regulated person, that is contingent upon a specific outcome of work;
- e) a spouse or other family member who will benefit from a specific outcome; or
- f) any other interest that could be perceived as a threat to the independence or objectivity of the qualified professional in performing a duty or function.

Qualified professionals who work under ministry legislation must take care in the conduct of their work that potential conflicts of interest within their control are avoided or mitigated. Precise rules in conflict of interest are not possible and professionals must rely on guidance of their professional associations, their common sense, conscience and sense of personal integrity.

Declaration

I, Daniel Casanova Print Name and Last Name, as a member of ECO Canada Print Name of Professional Association
declare

Select one of the following:

- Absence from conflict of interest

Other than the standard fee I will receive for my professional services, I have no financial or other interest in the outcome of this 2025 Blackwater Gold Project Annual Report for PE-110650.

I further declare that should a conflict of interest arise in the future during the course of this work, I will fully disclose the circumstances in writing and without delay to Neil Bailey Insert Ministry Contact Name, erring on the side of caution.

Real or perceived conflict of interest

Description and nature of conflict(s):

I will maintain my objectivity, conducting my work in accordance with my Code of Ethics and standards of practice.

In addition, I will take the following steps to mitigate the real or perceived conflict(s) I have disclosed, to ensure the public interest remains paramount:

Further, I acknowledge that this disclosure may be interpreted as a threat to my independence and will be considered by the statutory decision maker accordingly.

This conflict of interest disclosure statement is collected under section 26(c) of the *Freedom of Information and Protection of Privacy Act* for the purposes of increasing government transparency and ensuring professional ethics and accountability. By signing and submitting this statement you consent to its publication and its disclosure outside of Canada. This consent is valid from the date submitted and cannot be revoked. If you have any questions about the collection, use or disclosure of your personal information please contact the Ministry of Environment and Climate Change Strategy Headquarters Office at 1-800-663-7867.

Signature:

X


Daniel Casanova, signed 2026-3-30
Blackwelder Solar Project Annual Report for PE-446658
DocuSign, dated 2026-3-30

Witnessed by:

X


Marco Wong

Print name: Daniel Casanova

Print name: Marco Wong

Date: 2026-3-30

- ¹Qualified Professional, in relation to a duty or function under ministry legislation, means an individual who
- is registered in British Columbia with a professional association, is acting under that organization's code of ethics, and is subject to disciplinary action by that association, and
 - through suitable education, experience, accreditation and knowledge, may reasonably be relied on to provide advice within his or her area of expertise, which area of expertise is applicable to the duty or function.

Declaration of Competency

The Ministry of Environment and Climate Change Strategy relies on the work, advice, recommendations and in some cases decision making of qualified professionals¹, under government's professional reliance regime. With this comes an assumption that professionals who undertake work in relation to ministry legislation, regulations and codes of practice have the knowledge, experience and objectivity necessary to fulfill this role.

1. Name of Qualified Professional Daniel Casanova
Title Principle Technical Consultant, Atmospheric Scientist
2. Are you a registered member of a professional association in B.C.? Yes No
Name of Association: ECO Canada Registration # 20990
3. Brief description of professional services:
Air quality consulting services for Artemis Gold Inc.

This declaration of competency is collected under section 26(c) of the *Freedom of Information and Protection of Privacy Act* for the purposes of increasing government transparency and ensuring professional ethics and accountability. By signing and submitting this statement you consent to its publication and its disclosure outside of Canada. This consent is valid from the date submitted and cannot be revoked. If you have any questions about the collection, use or disclosure of your personal information please contact the Ministry of Environment and Climate Change Strategy Headquarters Office at 1-800-663-7867.

Declaration

I am a qualified professional with the knowledge, skills and experience to provide expert information, advice and/or recommendations in relation to the specific work described above.

Signature:

X 
Daniel Casanova, signed 2026-3-30
000 Blackwater Gold Project Annual Report for PE 446658
Document dated 2026-3-30

Print Name: Daniel Casanova

Date signed: 2026-3-30

Witnessed by:

X 

Print Name: Marco Wong

¹Qualified Professional, in relation to a duty or function under ministry legislation, means an individual who

- a) is registered in British Columbia with a professional association, is acting under that organization's code of ethics, and is subject to disciplinary action by that association, and
- b) through suitable education, experience, accreditation and knowledge, may reasonably be relied on to provide advice within his or her area of expertise, which area of expertise is applicable to the duty or function.