

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 0204-DTDJH5

Issue Date: May 4, 2026

Alamos Gold Inc.  
15 Goudreau Road  
Dubreuilville, Ontario  
P0S 1B0

**Site Location:** Island Gold Mine

15 Goudreau Road  
approximately 15 kilometres east of Dudreuilville and approximately 70 kilometres  
north-east of Wawa  
Finan Unorganized Township, District of Algoma

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act ,  
R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:*

sewage Works for the collection, treatment and disposal of mill tailings, process water, and mine water from the Lochalsh underground workings from the Island Gold Mine operations and processing facilities to be operated at a production rate not to exceed 461,760 tonnes per year of gold bearing ore, discharging up to approximately 27,214 m<sup>3</sup>/day to Goudreau Creek discharging to Goudreau Lake, with the discharge of treated effluent maintained to concur with high flow periods within the spring and fall periods and discharges of treated effluent over the winter months minimized in order to best represent true background conditions, and only undertaken when absolutely necessary for maintaining integrity of the Works and sewage Works for the treatment of sanitary sewage and subsurface disposal of treated effluent, rated at a total Maximum Daily Flow of 86,500 litres per day, consisting of the following:

**PROPOSED SANITARY SEWAGE AND SUBSURFACE DISPOSAL WORKS:****Sewage Works 'C'**

proposed sewage Works for the treatment of sanitary sewage and subsurface disposal of treated effluent from the Island Gold Mine Phase III expansion site for a new shaft area worker's camp, rated at a Maximum Daily Flow of 52,500 litres per day (L/day), consisting of the following:

- three (3) two-compartment septic tanks, operating in series, the first two having a minimum capacity of 68,500 L and the third one having a minimum capacity of 37,500 L completed with an effluent filter, discharging to a pump chamber;
- one (1) 43,500 L pump chamber equipped with two pumps (one duty and one standby), each rated at 350 litres per minute, equipped with high level alarm system, discharging via an approximately 900 m forcemain to the leaching bed;

- one (1) raised absorption trench leaching bed having a contact area of approximately 8,750 square metres (94 metres by 93.1 metres), equipped with infiltration chamber system (Equalizer 36) with a total length of 1,050 m arranged in thirty-five (35) parallel runs spaced at a minimum centre-line distance of 1.6 m, each run of infiltration chamber having a bottom depth of 600 m and each equipped with a 75 mm diameter perforated pipe, installed on an sand layer with a minimum thickness of 900 m and a percolation time of 4 minutes per centimetres, including a sand mantle with a minimum thickness of 250 mm extending 15 m beyond the outermost distribution pipe in a direction where the effluent entering the soil will move horizontally;
- Contaminant Attenuation Zone (CAZ): an area of approximately 215,000 square metres extending approximately 0.5 km south downgradient of the absorption trench leaching bed to the wetland area northeast of Unnamed Lake #10, as per the geographic points described in preliminary plan of reference prepared for the Crown S-25-10229 Crown Plan Septic R D3 described as: "PART OF MINING CLAIMS 117580, 175176, 229084 AND 229085 UNSUBDIVIDED GEOGRAPHIC TOWNSHIP OF JACOBSON, DISTRICT OF ALGOMA".

and all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned Works;

**EXISTING MINE WASTEWATER WORKS:** existing Works for the collection, treatment and disposal of mill tailings, process water, and mine water from the Lochalsh underground workings from the Island Gold Mine operations and processing facilities to be operated at a production rate not to exceed 461,760 tonnes per year of gold bearing ore, discharging up to approximately 27,214 m<sup>3</sup>/day to Goudreau Creek discharging to Goudreau Lake, with the discharge of treated effluent maintained to concur with high flow periods within the spring and fall periods and discharges of treated effluent over the winter months minimized in order to best represent true background conditions, and only undertaken when absolutely necessary for maintaining integrity of the Works, consisting of two (2) existing ponds constructed as part of the tailing management facility, known as the Primary Pond and the Secondary Pond, consisting of the following:

Primary Pond

- one (1) tailings and Primary Pond, also known as Miller Lake (having a surface area of approximately 46 hectares at a crest elevation of 427.0 m), formed by the construction of five (5) earth and rock fill dykes, with an impervious membrane on its upstream face, completely cutting off natural drainage from Miller Lake to Maskinonge Lake, discharging into the Secondary Pond, noted below via a siphon system;

- seepage pumps and pump back systems at dyke No. 2 at the pond, one (1) tailing pond seepage sump, approximately 12 m by 10 m, enclosed on three sides by 1 m high till core berm with an open area facing dike No. 2, with the centre of the sump excavated with a slope of 1H:2V to a depth of 1.7 m and filled with crushed rock;
- seepage pump and pump back system at dyke No. 1 at the pond, one (1) tailing pond seepage and emergency pond catchment sump, approximately 60 m by 30 m, enclosed on all sides to a minimum height of 2.7 m by geotextile and earthen fill, with a pump back station directing all inflows into the Primary Pond;
- two (2) submersible pumps installed in the centre of the pond, in a 2.4 m diameter corrugated and perforated pipe placed vertically in the crushed rock, complete with a control panel and an alarm mechanism;
- an emergency spillway at elevation 425.8 m, and 8.0 m wide channel;
- a pressurized tailings line from the mill to the pond and a water reclaim line from the pond to the mill;
- four (4) water transfer syphon lines for transferring water to the Secondary Pond;
- two (2) emergency catchment areas, approximately 1.2 hectares and 0.4 hectare, provided at the tailings line at its lowest points and reinforced by construction of earthen berms to prohibit any natural drainage to the Maskinonge watershed;
- one (1) 1,100 m long, 200 mm diameter winterized (heat traced) dewatering line pumping from the underground workings to the Primary Pond;

## Secondary Pond

- one (1) Secondary Pond (having a surface area of approximately 22 hectares at a crest elevation of 400.1 m), providing a storage volume of approximately 400,000 m<sup>3</sup>, formed by the construction of three (3) rock and earth fill dykes with a filter fabric barrier placed on the upstream face with a controlled-discharge decant structure across the outflow from a small boggy lake, located approximately 1,000 m south of Miller Lake, discharging up to approximately 27,214 m<sup>3</sup>/day to Goudreau Creek discharging to Goudreau Lake, with the discharge of treated effluent maintained to concur with high flow periods within the spring and fall periods and discharges of treated effluent over the winter months minimized in order to best represent true background conditions, and only undertaken when

absolutely necessary for maintaining integrity of the Works;

- an emergency spillway for the Secondary Pond at elevation 399.0 m, and 5.0 m wide channel;
- a flow measurement device consisting of four (4) magnetic flowmeters, equipped with a data logger located at the gate house for effluent monitoring, all decant structures and pumping facilities;

and all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned sewage Works;

### **EXISTING SANITARY SEWAGE AND SUBSURFACE DISPOSAL WORKS**

existing Works for the treatment of sanitary sewage and subsurface disposal of treated effluent from the Island Gold Mine sanitary sewage facilities serving employees and contractors, rated at a Maximum Daily Flow of 16,750 litres per day (L/day), consisting of the following:

Sewage Works 'A'

- two (2) two-compartment septic tanks, operating in series, the first one having a minimum capacity of 27,000 L and the second one having a minimum capacity of 17,650 L, each complete with an effluent filter, discharging to a pump chamber;
- one (1) 27,000 L pump chamber/dosing tank, equipped with two (2) pumps with high level alarm system and control panel, discharging via a distribution box to a leaching bed at a dosing rate of 1,600 L within 15 minutes;
- one (1) partially raised leaching bed having a contact area of approximately 572.5 square metres (22.9 m by 25 m), equipped with infiltration chamber system (Equalizer 36) with a total length of 350 m arranged in fourteen (14) parallel runs spaced at a minimum centre-line distance of 1.6 m, each run of infiltration chamber having a minimum bottom depth of 0.6 m and each equipped with a 75 mm diameter perforated pipe, installed on an sand layer with a thickness of 1.0 m and a percolation time of 4 minutes per centimetres;
- sand mantle for a total area of 4,020 square metres, with minimum thickness of 250 mm, covering the aforementioned leaching beds and extending beyond the outer distribution pipe in a direction where the effluent entering the soil will move horizontally;
- and all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned Works;

existing Works for the treatment of sanitary sewage and subsurface disposal of treated effluent from the Island Gold Mine sanitary sewage facilities serving employees and contractors, rated at a Maximum Daily Flow of 17,250 litres per day (L/day), consisting of the following:

Sewage Works 'B'

- two (2) two-compartment septic tanks, operating in series, the first one having a minimum capacity of 22,750 L and the second one having a minimum capacity of 13,650 L, each complete with an effluent filter, discharging to a pump chamber;
- one (1) 22,750 L pump chamber/dosing tank, equipped with two (2) pumps with high level alarm system and control panel, discharging via a distribution box to a leaching bed at a dosing rate of 1,200 L within 15 minutes;
- one (1) partially raised leaching bed having a contact area of approximately 632 square metres (28.1 m by 22.5 m), equipped with infiltration chamber system (Equalizer 36) with a total length of 400 m arranged in fourteen (18) parallel runs spaced at a minimum centre-line distance of 1.6 m, each run of infiltration chamber having a minimum bottom depth of 0.6 m and each equipped with a 75 mm diameter perforated pipe, installed on an sand layer with a thickness of 1.0 m and a percolation time of 4 minutes per centimetres;
- one (1) sand mantle, with minimum thickness of 250 mm and total area of 1,725 square metres, covering the aforementioned leaching bed and extending beyond the outer distribution pipe in a direction where the effluent entering the soil will move horizontally;
- and all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned Works;

all in accordance with the submitted supporting documents listed in Schedule A.

*For the purpose of this environmental compliance approval, the following definitions apply:*

1. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;
2. "Daily Maximum Concentration" means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;

3. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
4. "District Manager" means the District Manager of the Sudbury District Office of the Ministry;
5. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
6. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
7. "Grab Sample" means an individual sample of at least 1000 millilitres collected in an appropriate container at a randomly selected time over a period of time not exceeding 15 minutes;
8. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28;
9. "Limited Operational Flexibility" (LOF) means the conditions that the Owner shall follow in order to undertake any modification that is pre-authorized as part of this Approval;
10. "Maximum Daily Flow" means the largest volume of flow to be received during a one-day period for which the Works is designed to handle;
11. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;
12. "Modifications" means any addition, replacement, alteration, expansion or optimization for the Works as specified under Limited Operational Flexibility;
13. "Monthly Average Effluent Concentration" is the mean of all Single Sample Results of the concentration of a contaminant in the final effluent sampled or measured during a calendar month;
14. "Notice of Modifications" means the form entitled "Notice of Modifications to Sewage Works"
15. "OBC" means the Ontario Building Code, Ontario Regulation 163/24 (Building Code) as amended to January 1, 2025, made under the *Building Code Act*, 1992, S.O. 1992, c. 23;

16. "Owner" means any person that is responsible for the establishment of the Works being approved by this Approval, and includes Owner's Legal Name and its successors and assigns;

17. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40;

18. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;

19. "Single Sample Result" means the test result of a parameter in the effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, as required;

20. "Works" means the approved sewage works, and includes Proposed Works, Existing Works and modifications made under Limited Operational Flexibility.

*You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **1. GENERAL PROVISIONS**

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.
3. Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
4. Where there is a conflict between the documents listed in the Schedule A, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
5. The conditions of this Approval are severable. If any condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held

invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

6. This Approval is based upon a review of the Works in the context of its effect on the environment, its process performance using principles of sanitary and chemical engineering. The review did not include an evaluation of the architectural, mechanical, structural, electrical or instrumentation components of the Works.
7. The issuance of, and compliance with the conditions of, this Approval does not:
  - a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement necessary to construct or operate the Works; or
  - b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

## **2. CHANGE OF OWNER**

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:
  - a. change of address of Owner;
  - b. change of Owner, including address of new owner;
  - c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act, R.S.O. 1990, c. B.17*, as amended, shall be included in the notification;
  - d. change of name of the corporation and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C.39*, as amended, shall be included in the notification.
2. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.
3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

## **3. CHANGES IN PROCESS OR PROCESS MATERIALS**

1. The Owner shall give written notice to the District Manager of any plans to change the processes or process materials in the Owner's enterprise serviced by the Works where the change may significantly alter the quantity or quality of the influent to or effluent from the Works, and no such change(s) shall be made unless with the written concurrence of the District Manager.

#### **4. RECORD DRAWINGS**

1. One (1) week prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
2. A set of record drawings of the Works shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.

#### **5. OPERATION AND MAINTENANCE (MINE WASTEWATER WORKS)**

1. The Owner shall ensure that at all times, the Works and related equipment and appurtenances, which are installed or used to achieve compliance with this Approval, are properly operated and maintained. The Owner shall also ensure that all monitoring programs and maintenance schedules for the Works and related equipment are complied with.
2. In furtherance of, but without limiting the generality of, the obligation imposed by subsection 1, the Owner shall ensure that:
  - a. funding, staffing, training of staff, laboratory and process controls, quality assurance and quality control procedures of or in relation to the Works are adequate to achieve compliance with this Approval; and
  - b. equipment and material are kept on hand and in good repair for immediate use in the event of:
    - i. upset;
    - ii. bypass;
    - iii. abnormal loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment or interior of any building; or
    - iv. spill within the meaning of Part X of the Environmental Protection Act, and staff are trained in the use of said equipment and material and in the methods and procedures to be employed upon the occurrence of such an event.

3. The Owner shall ensure that the discharge of treated effluent from the Secondary Pond to Goudreau Creek is maintained to concur with high flow periods within the spring and fall periods and discharges of treated effluent over the winter months minimized in order to best represent true background conditions, and only undertaken when absolutely necessary for maintaining integrity of the Works.
4. The Owner shall adhere to the monthly average loadings range predicted for each parameter within the document titled: "Letter Report, Reference: "MECP Information Request during meeting held on July 11, 2023 for Alamos's request to change the ECA-ISW from monthly tonnage limit of 38,760 to its equivalent annual tonnage limit of 461,760 for the Island Gold Mine Site." from N. Logeswaran, Alamos Gold Inc.; to S. Han, MECP; dated August 3, 2023.
5. Within **three (3)** months of the issuance date of this Approval, the Owner shall update an operations manual that includes, but not necessarily limited to, the following information:
  - a. operating procedures for routine operation of the Works;
  - b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
  - c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;
  - d. contingency plans and procedures for dealing with potential spill, bypasses and any other abnormal situations and for notifying the District Manager; and
  - e. complaint procedures for receiving and responding to public complaints.
6. The Owner shall maintain the operations manual up to date through revisions undertaken from time to time and retain a copy at the location of the Works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

## **6. OPERATIONS AND MAINTENANCE (SANITARY SEWAGE WORKS)**

1. The Owner shall ensure that, at all times, the Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and regulations, adequate laboratory facilities, process controls and alarms and

the use of process chemicals and other substances used in the Works.

2. The Owner shall ensure that all septic tanks are pumped out every 3-5 years or when the tank is 1/3 full of solids and the effluent filters are cleaned out at minimum once a year (or more often if required).
3. The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal beds and that adequate steps are taken to ensure that the area of the underground Works is protected from vehicle traffic.
4. The Owner shall visually inspect the general area where Works are located for break-out once every month.
5. In the event a break-out is observed from a subsurface disposal bed, the Owner shall do the following:
  - a. sewage discharge to that subsurface disposal system shall be discontinued;
  - b. the incident shall be immediately reported verbally to the Spills Action Centre (SAC) at (416) 325-3000 or 1-800-268-6060;
  - c. submit a written report to the District Manager within one (1) week of the break-out;
  - d. access to the break-out area shall be restricted until remedial actions are complete;
  - e. during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to the environment; and
  - f. sewage generated at the site shall be safely collected and disposed of through a licensed waste hauler to an approved sewage disposal site.
  - g.
6. The Owner shall maintain a logbook to record the results of operation and maintenance activities specified in the above sub-clauses, and shall keep the logbook at the site and make it available for inspection by the Ministry staff.
7. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the operation and maintenance activities required by this Approval.

## **7. EFFLUENT OBJECTIVES**

1. The Owner shall design and undertake everything practicable to operate the

Works in accordance with the following objectives:

- a. Effluent parameters design objectives listed in the table(s) included in Schedule B.
  - b. The Owner shall ensure that the effluent from all discharges from the Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film, sheen or foam on the receiving waters.
2. For the purposes of determining achievement of the effluent objectives and determining need for potential enhancements to meet the effluent objectives in Schedule B, the exceedance of the daily concentration is deemed to have occurred when the maximum concentration of any single sample analyzed for a parameter named in Schedule B is greater than the corresponding daily concentration value set out in Schedule B.
  3. In the event that the effluent monitoring indicates that the objectives noted in Schedule B are exceeded the Owner shall review plant operation and potential enhancements to ensure that best efforts are undertaken to attain and maintain the effluent objectives noted in Schedule B.
  4. The Owner shall provide a quarterly report to the District Manager, in a format and content that is acceptable to the District Manager indicating the actual effluent values, technical knowledge and steps that are being taken in best operating and enhancements efforts.

## **8. EFFLUENT LIMITS**

1. The Owner shall design, construct, operate and maintain the Works such that the concentrations of the materials named as effluent parameters in the Effluent Limits Table in Schedule C are not exceeded in the effluent from the Works.
2. For the purposes of determining compliance with and enforcing subsection 1:
  - a. non-compliance with respect to a Daily Maximum Concentration Limit is deemed to have occurred when any single grab sample analyzed for a parameter named in Column 1 of Schedule C is greater than the corresponding Daily Maximum Concentration Limit set out in Column 2 of Schedule C;
  - b. non-compliance with respect to a Monthly Average Concentration Limit is deemed to have occurred when the arithmetic mean concentration of all samples taken in a month analyzed for a parameter named in Column 1 of Schedule C is greater than the

corresponding Monthly Average Concentration Limit set out in Column 3 of Schedule C; and

- c. non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range in Schedule C.

3. The Owner shall ensure that the final effluent discharged from the Secondary Pond is not acutely toxic to Rainbow Trout or to *Daphnia magna*. Non-compliance with this condition is deemed to have occurred when each rainbow trout acute lethality test and each *Daphnia magna* acute lethality test performed on any grab sample of effluent shall result in mortality of more than 50 per cent of the test organisms in 100 per cent effluent. Methods shall conform with the "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (EPS 1/RM/13 Second Edition - December 2000) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna*" (EPS 1/RM/14 Second Edition - December 2000), as amended from time to time by more recently published editions.

## 9. SAMPLING AND MONITORING

1. The Owner shall carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in Schedule D and record all results.
2. Any of the sampling locations in Schedule D may be changed or abandoned, and new locations may be added following issuance of this Approval if, in the opinion of the District Manager, it is necessary to do so to ensure representative samples being collected.
3. The monitoring requirements specified in Schedule D in respect to any parameter are minimum requirements which may, after two (2) years of monitoring in accordance with this condition, be modified by the District Manager in writing from time to time.
4. The Owner shall collect surface water composite samples from the photic zone of Unnamed Lake #10's water column, at the deepest location on the lake. Samples should be collected in the spring following ice-off, during lake turnover for three (3) years (2024-2025 complete, 2026 remaining) to characterize baseline conditions, followed by resampling ten years later (2034-2036) to assess for long-term impact from potential effluent-impacted groundwater migration to Unnamed Lake #10. Samples are to be analyzed for total phosphorus, nitrite nitrogen, nitrogen (ammonia + ammonium), nitrogen (nitrate + nitrite), nitrate nitrogen, total nitrogen,

dissolved organic and inorganic carbon, silicon (reactive silicate), dissolved and suspended solids, conductivity, pH, alkalinity, colour (true), hardness, chloride, sulphate, calcium, potassium, magnesium, and sodium. The photic zone should also be measured using Secchi disc.

5. The Owner shall also collect dissolved oxygen and temperature profiles at the lake sample location during each spring sampling event and during end-of-summer lake stratification during sample years 2024-2026 (2024-2025 complete, 2026 remaining) and 2034-2036. Photic zone measurements should also be collected during the end-of-summer profile collections.
6. Within six (6) months following completion of the two sampling programs of Unnamed Lake #10 as required by Conditions 9.4 and 9.5 above, the Owner shall prepare, and submit to the District Manager, reports that assess the monitoring data. The reports shall be prepared and signed by a Qualified Person and shall contain an interpretive analysis of the results. The second report for the years 2034-2036 shall include an interpretive analysis of the results and discussion as to whether Unnamed Lake #10 is experiencing impacts from the installed septic system. The reports shall be submitted in accessible, unprotected electronic formats, accompanied by all monitoring data included as Excel files.
7. The Owner shall ensure that samples and measurements taken for the purposes of this Approval are taken at a time and in a location or locations characteristic of the quality and quantity of the effluent from the Works or receiving water body, as the case may be, over the time period being monitored.
8. The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:
  - a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
  - b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions;
  - c. the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (EPS 1/RM/13 Second Edition - December 2000) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna*" (EPS 1/RM/14 Second Edition - December 2000), "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran *Ceriodaphnia*

*dubia*” (EPS 1/RM/21 Second Edition February 2007), “Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows” (EPS 1/RM/22 2nd Edition February 2011), “Biological test method: test for measuring the inhibition of growth using the freshwater macrophyte *Lemna minor* .” (EPS 1/RM/37, 2nd edition, January 2007), and “Biological test method: growth inhibition test using a freshwater alga.” (EPS 1/RM/25, 2nd edition, March 2007), as amended from time to time by more recently published editions; and

d. in respect of any parameters not mentioned in documents (a) to (c) above, the written approval of the District Manager shall be obtained prior to sampling.

9. The temperature and pH of the effluent from the Works shall be determined in the field at the time of sampling for Total Ammonia Nitrogen. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).
10. Within **six (6)** months of the issuance of this Approval, the Owner shall submit for approval to the District Manager, a Contingency Plan prepared by a qualified person. The Contingency Plan shall establish and describe remediation actions/measures to be implemented when the established trigger levels in Schedule D Table 3 are exceeded for two consecutive sampling events.
11. The Owner shall install and maintain continuous flow measuring device(s), to measure the flow rate of the effluent from the Secondary Pond with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flow rate for the entire design range of the flow measuring device, and record the flow rate at a daily frequency.
12. The Owner shall employ measurement devices to accurately measure quantity of effluent being discharged to each individual subsurface disposal bed, including but not limited to water/wastewater flow meters, event counters, running time clocks, or electronically controlled dosing, and shall record the daily volume of effluent being discharged to the subsurface disposal bed.
13. The Owner shall ensure that the flow of treated effluent discharged into the subsurface disposal bed of Sewage Works 'C' does not exceed 52,500 litres per day.
14. The Owner shall ensure that the flow of treated effluent discharged into the subsurface disposal bed of Sewage Works 'B' does not exceed 17,250 litres per day.

15. The Owner shall ensure that the flow of treated effluent discharged into the subsurface disposal bed of Sewage Works 'A' does not exceed 16,750 litres per day.
16. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

## 10. REPORTING

1. The Owner shall report to the District Manager or designate, any exceedance of any parameter specified in Condition 8 orally, as soon as reasonably possible, and in writing within three (3) days of receiving the results of an exceedance.
2. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.
3. The Owner shall prepare, and submit to the District Manager, a performance report on an annual basis, by March 31 for the previous calendar year. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:
  - a. a summary analysis/interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 8, including an overview of the success and adequacy of the Works;
  - b. a comprehensive interpretation of all data, including statistical evaluation (minimum, maximum, average), graphical presentation, trend analysis and an assessment of loadings/impacts within the receiver;
  - c. a summary of all the exceedances of the established trigger levels outlined in Schedule D Table 3 and all remediation actions/measures implemented when the established trigger levels are exceeded, as outlined in the approved Contingency Plan;
  - d. a report outlining the plant operation improvements, potential enhancements, measures identified, and that best efforts to attain

- and maintain the effluent objectives noted in Condition 7;
- e. a description of any operating problems encountered and corrective actions taken;
  - f. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
  - g. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
  - h. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
  - i. a summary and interpretation of all daily flow data and results achieved in not exceeding the maximum daily sewage flow discharged into each subsurface disposal bed;
  - j. results of stormwater monitoring;
  - k. a copy of all Notice of Modifications submitted to the District Manager as a result of Schedule E, Section 1, with a status report on the implementation of each modification;
  - l. a report summarizing all modifications completed as a result of Schedule E, Section 3; and
  - m. any other information the District Manager requires from time to time.

## **11. LIMITED OPERATIONAL FLEXIBILITY**

1. The Owner may make modifications to the Works in accordance with the Terms and Conditions of this Approval and subject to the Ministry's "Limited Operational Flexibility Criteria for Modifications to Sewage Works", included under Schedule E of this Approval, as amended.
2. Works proposed under Limited Operational Flexibility shall adhere to the design guidelines contained within the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended.
3. The Owner shall ensure at all times, that the Works, related equipment and appurtenances which are installed or used to achieve compliance are operated in accordance with all Terms and Conditions of this Approval.
4. For greater certainty, the following are not permitted as part of Limited Operational Flexibility:

- a. Modifications to the Works that result in an increase of the Rated Capacity of the Works;
  - b. Modifications to the Works that may adversely affect the approved effluent quality criteria or the location of the discharge/outfall;
  - c. Modifications to the treatment process technology of the Works, or modifications that involve construction of new reactors (tanks) or alter the treatment train process design;
  - d. Modifications to the Works approved under s.9 of the EPA; and
  - e. Modifications to the Works pursuant to an order issued by the Ministry.
5. Implementation of Limited Operational Flexibility is not intended to be used for piecemeal measures that result in major alterations or expansions.
  6. If the implementation of Limited Operational Flexibility requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan, the Owner shall, provide a revised copy of this plan for approval to the local fire services authority prior to implementing Limited Operational Flexibility.
  7. For greater certainty, any modification made under the Limited Operational Flexibility may only be carried out after other legal obligations have been complied with, including those arising from the Environmental Protection Act, Lakes and Rivers Improvements Act and the Mining Act.
  8. At least thirty (30) days prior to implementing Limited Operational Flexibility, the Owner shall complete a Notice of Modifications describing any proposed modifications to the Works and submit it to the District Manager.
  9. The Owner shall not proceed with implementation of Limited Operational Flexibility until the District Manager has provided written acceptance of the Notice of Modifications or a minimum of thirty (30) days have passed since the day the District Manager acknowledged the receipt of the Notice of Modifications.

## **12. SURFACE WATER ASSESSMENT**

1. Based on the Ministry's on-going assessment of the surface water impacts at the mine site and of Goudreau Lake watershed, and based on the conclusions/recommendations of previous studies, the District Manager may alter the effluent limits in Condition 8 and require the Owner to provide further information, carry out additional study and/or construct additional works and surface water monitoring. The Owner may have to apply for an amendment to the

Approval depending on the direction provided by the District Manager.

### 13. **UPDATING INFORMATION - CONTAMINANT ATTENUATION ZONE (CAZ)**

1. The Owner shall continue to seek an easement with respect to the lands proposed to be used as a Contaminant Attenuation Zone (CAZ) by way of a groundwater easement for assessing groundwater impact from Sewage Works 'C'.
2. The Owner shall, within two (2) months from the date of issuance of the easement, if issued, submit to the Director:
  - a. a copy of the easement;
  - b. a plan of survey signed and sealed by an Ontario Land Surveyor for the CAZ; and
  - c. proof of registration on title of the easement to the Director and District Manager.
3. The Owner shall, within two (2) months from the date of issuance of the easement, if issued, provide the Director and District Manager with a revised description of the location of the CAZ set out above in the description of proposed Sewage Works 'C' if and when an easement has been granted in order to reflect the easement that has been registered on title.

### 14. **ADDITIONAL REQUIREMENTS**

1. In addition to the requirements outlined in the above conditions, the Owner shall also comply with requirements listed in Schedule F.

*The reasons for the imposition of these terms and conditions are as follows:*

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. In addition, this condition is included to emphasize that the issuance of the Approval does not diminish any other statutory and regulatory obligations to which the Owner is subject in the construction, maintenance and operation of the Works.
2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in

compliance with it.

3. Condition 3 is included to ensure that the Works is operated in accordance with the information submitted by the Owner relating to the process and materials which are served by the Works, and to ensure that any contemplated changes in them which could potentially affect the characteristics of effluent from the Works will be properly reviewed and approved.

4. Condition 4 regarding record drawings is included to ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.

5. Condition 5 and 6 are included to ensure that a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner and made available to the Ministry. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.

6. Condition 5 and 6 are included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.

7. Condition 7 is imposed to establish non-enforceable design objectives to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.

8. Conditions 8 and 12 are imposed to ensure that the effluent discharged from the Works to the receiving waters meets the Ministry's effluent quality requirements as specified on a continual basis thus minimizing any potential adverse environmental impact on the receiving waters and ensure protection of the receiving watershed.

9. Condition 9 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and compliance limits.

10. Condition 10 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for this Approval.

11. Condition 11 is included to ensure that the Works are operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider. These conditions are also included to ensure that a Professional Engineer has reviewed the proposed Modifications and attests that the Modifications are in line with that of Limited Operational Flexibility, and provide assurance that the proposed Modifications comply with the Ministry's requirements stipulated in the terms and conditions of this Approval, Ministry policies, guidelines, and industry engineering standards and best management practices.

12. Condition 13 is included to require the Owner to obtain an easements on land(s) required for a Contaminant Attenuation Zone that is necessary for attenuation of contamination resulting from the operation of the Site to bring the Site into compliance with Reasonable Use Guideline B-7. Condition 13 is also included to help ensure that the Ministry has accurate information regarding the CAZ location.

13. Condition 14 is included (with Schedule F) to provide for the substantially equivalent requirements that were set out in Ontario Regulation 560/94 as it read prior to its revocation on July 1, 2021 such that there is a continued protection of the environment.

## **Schedule A**

### **List of Supporting Documents**

1. Application for Environmental Compliance Approval dated March 17, 2025 and received on March 24, 2025, including all supporting documentation and information.
2. Environmental Compliance Approval Application submitted by Nish Logeswaran, Environment and Community Relations Superintendent, Environment, Alamos Gold Inc., dated August 25, 2023 and received on August 25, 2023, including all supporting information.
3. The design report titled "Correspondence with MECP" dated June 28, 2023 and prepared by Alamos Gold Inc.
4. Application for Environmental Compliance Approval submitted by Desheng Deng, P.Eng. of Wood PLC received on December 23, 2019 for the proposed sewage Works, including design report, final plans, specifications and all supporting documentation.

## **Schedule B**

## Effluent Objectives (for Mine Wastewater only)

Parameter	Daily Average Concentration Objective (in mg/L unless stated otherwise)
Column 1	Column 2
Iron	1.0
Total Phosphorus	0.1
Total Ammonia Nitrogen	10.0
Oil and Grease	10.0

## Schedule C

### Effluent Limits (for Mine Wastewater only)

Effluent Parameter	Daily Maximum Concentration Limit (milligrams per litre except pH)	Monthly Average Concentration Limit (milligrams per litre except pH)
Column 1	Column 2	Column 3
Total Suspended Solids	30	15
Total Cyanide	2.0	1.0
Copper	0.6	0.3
Nickel	1.0	0.5
Lead	0.4	0.2
Zinc	1.0	0.5
Un-ionized Ammonia	0.2	0.1
Oil and Grease	-	10.0
Arsenic	1.0	0.5
pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times		

# Schedule D

## Monitoring Program

### Table 1 - Surface Water Monitoring

Location	UTM Coordinates	Minimum Frequency	Parameters
IG-1/R-1 Primary Pond Effluent (R-1 replaces IG-1 when Primary Pond is covered in ice)	5353448 N/ 689739 E 5353611 N/ 689697 E	Once per week	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
IG-2 Secondary Pond effluent	5351835 N/ 690000 E	Once per week (during discharge)	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
		Three times per week (during discharge)	Total Suspended Solids, Total Cyanide, pH
		Once per month (during discharge)	Acute Lethality to Rainbow Trout and <i>Daphnia magna</i>
IG-3 from beaver pond at Goudreau Road	5351835 N/ 690000 E	Once per week	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
IG-9 (SW3) between PP and	5354003 N/ 689822 E	Two times per year	Total Suspended Solids, Total Ammonia Nitrogen, Unionized

Maskinonge Lake		(if runoff, post precipitation event)	ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
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(Table 1 continued)

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
IG-10 downgradient of waste rock pile	5352596 N/ 690693 E	Two times per year (if runoff, post precipitation event)	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
GL-2 Goudreau Lake upstream of where IG-3 enters Goudreau lake, downstream of inflow from Pine Lake and Bearpaw Lake	5351734 N/ 690441 E	Once per month	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
GL-3 Goudreau Lake Middle Basin outside mixing zone	5351473 N/ 690105 E	Four times a year	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
GL-4 IG-3 release to Goudreau Lake	5351627 N/ 690096 E	Once per month	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free

			Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
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(Table 1 continued)

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
GL-5 Goudreau Lake Western Basin - downstream of discharge point	5351356 N/ 689874 E	Four times a year	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
GL-7 Goudreau Lake Eastern Basin - near shaft area	5352114 N/ 691471 E	Four times a year	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
SW-6 Maskinonge Lake downstream IG-9/SW-3	5354436 N/ 690555 E	Once per month (during ice free conditions when it is safe)	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)
Mask-Up Between mill area and Maskinonge Lake	5353868 N/ 690933 E	Once per month	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, Temperature (field) and pH (field)

(Table 1 continued)

Location	UTM Coordinates	Minimum Frequency	Parameters
UL10-SW-01 South of proposed septic system at the inlet of Unnamed Lake #10	5351267 N/ 692814 E	Three times a year seasonally (Spring, Summer, Fall) (during ice free conditions when it is safe)  <b>For the years 2024-2026 and 2034-2036</b>	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, field Temperature, field pH, field conductivity, Flow rates Total Nitrogen, Dissolved Organic and Inorganic Carbon, Silicon (reactive silicate), Dissolved Solids, colour (true), Chloride, Calcium, Potassium, Magnesium and Sodium
UL10-SW-02 South of proposed septic system at the middle of Unnamed Lake #10	5351091 N/ 692533 E	Three times a year seasonally (Spring, Summer, Fall) (during ice free conditions when it is safe)	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, field Temperature, field pH, field conductivity, Flow rates Total Nitrogen, Dissolved Organic and Inorganic Carbon, Silicon (reactive silicate), Dissolved Solids, colour (true), Chloride, Calcium, Potassium, Magnesium and Sodium
UL10-SW-03 South of proposed septic system at the outlet of Unnamed Lake #10	5350753 N/ 692181 E	Three times a year seasonally (Spring, Summer, Fall) (during ice free conditions when it is safe)	Total Suspended Solids, Total Ammonia Nitrogen, Unionized ammonia (as N), Iron, Phosphorus, Conductivity, Total Hardness, Total Alkalinity, Sulphates, Total Cyanide, Free Cyanide, Arsenic, Copper, Lead, Nickel, Zinc, Cobalt, Nitrate, field Temperature, field pH, field

			conductivity, Flow rates Total Nitrogen, Dissolved Organic and Inorganic Carbon, Silicon (reactive silicate), Dissolved Solids, colour (true), Chloride, Calcium, Potassium, Magnesium and Sodium
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**Table 2 - Groundwater Monitoring**

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
MW-1-D downgradient of northwest dyke #2, shallow bedrock well	5354027 N/ 689003 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-1-S downgradient of northwest dyke #2, overburden well	5354027 N/ 689003 E	Two times per year	Water Level
MW-3 Overburden downgradient of mill area upgradient of the Secondary Pond	5353298 N/ 690139 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-5 downgradient of the Secondary Pond between dyke #3 and dyke #5 in shallow overburden	5353234 N/ 689511 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free

			Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
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(Table 2 continued)

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
MW-7 downgradient of waste rock pile	5352472 N/ 690458 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-18-01 in overburden on the eastern toe of waste rock pile	5352919 N/ 690723 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-20-1D south of shaft area, shallow bedrock well	5351761 N/ 691721 E	Two times per year	Water Level
MW-20-1S south of shaft area, overburden well	5351761 N/ 691721 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus,

Sulphates

(Table 2 continued)

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
MW-20-3D between shaft area and Goudreau Lake, downgradient of the shaft, shallow bedrock well	5352031 N/ 691619 E	Two times per year	Water Level
MW-20-3S between shaft area and Goudreau Lake, downgradient of the shaft, overburden well	5352031 N/ 691619 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-21-1D northwest of the Primary Pond, shallow bedrock well	5353802 N/ 688863 E	Two times per year	Water Level
MW-21-1S northwest of the Primary Pond, overburden well	5353802 N/ 688866 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-21-2D downgradient of northern portion of Primary Pond, shallow bedrock well	5354077 N/ 689676 E	Two times a year	Water Level
MW-21-2S downgradient of northern portion of	5354076 N/ 689676 E	Two times a year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity,

Primary Pond, overburden well			Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
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(Table 2 continued)

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
MW-21-3 downgradient of eastern portion of Primary Pond	5353798 N/ 689931 E	Two times a year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-21-5 downgradient of the southern portion of the Primary Pond	5353248 N/ 689464 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-21-8D downgradient of mill area (septic system) towards Maskinonge Lake, shallow bedrock well	5353779 N/ 690766 E	Two times per year	Water Level
MW-21-8S downgradient of mill area (septic system) towards Maskinonge Lake,	5353818 N/ 690737 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness.

overburden well			Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
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(Table 2 continued)

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
MW-21-9D upgradient of waste rock pile, shallow bedrock well	5353102 N/ 690595 E	Two times per year	Water Level
MW-21-9S upgradient of waste rock pile, overburden well	5353105 N/ 690592 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates
MW-21-10 downgradient of waste rock pile	5352523 N/ 690518 E	Two times per year	Water Level, pH (field), Conductivity (field), Total Suspended Solids, Total Alkalinity, Acidity, Hardness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Phosphorus, Sulphates

(Table 2 continued)

<b>Location</b>	<b>UTM Coordinates</b>	<b>Minimum Frequency</b>	<b>Parameters</b>
MW-24-01 Approx. 50 m east and downgradient of the sewage bed of the	5351738.96 N/ 692618.41 E	Three times per year (Spring, Summer and	Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential, Total Suspended Solids, Total Alkalinity, Acidity,

Septic System in the overburden aquifer		Fall)	Harness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Nitrite, TKN, Phosphorus, Sulphates, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved metals
MW-24-02 Upgradient of the Septic System in the overburden aquifer. Background monitor	5351919.75 N/ 692443.67 E	Three times per year (Spring, Summer and Fall)	Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential, Total Suspended Solids, Total Alkalinity, Acidity, Harness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Nitrite, TKN, Phosphorus, Sulphates, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved metals
MW-24-03 West of the Septic System in overburden aquifer cross-gradient of the Septic System	5351769.57 N/ 692450.98 E	Three times per year (Spring, Summer and Fall)	Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential, Total Suspended Solids, Total Alkalinity, Acidity, Harness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Nitrite, TKN, Phosphorus, Sulphates, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved

			metals
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(Table 2 continued)

Location	UTM Coordinates	Minimum Frequency	Parameters
<p>MW-24-04 Approx. 100 m southeast and downgradient of the sewage bed of the Septic System</p>	<p>5351636.49 N/ 692612.16 E</p>	<p>Three times per year (Spring, Summer and Fall)</p>	<p>Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential, Total Suspended Solids, Total Alkalinity, Acidity, Harness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Nitrite, TKN, Phosphorus, Sulphates, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved metals</p>
<p>MW-24-05 Approx. 150 m southeast and downgradient of the sewage bed of the Septic System</p>	<p>5351690.93 N/ 692711.59 E</p>	<p>Three times per year (Spring, Summer and Fall)</p>	<p>Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential, Total Suspended Solids, Total Alkalinity, Acidity, Harness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Nitrite, TKN, Phosphorus, Sulphates, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved metals</p>
<p>MW-24-06 Approx. 200 m southwest of the Septic System in the overburden aquifer cross-gradient of the Septic System</p>	<p>5351455.87 N/ 692505.77 E</p>	<p>Three times per year (Spring, Summer and Fall)</p>	<p>Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential <b>First year of operation:</b> Nitrate, Nitrite, Ammonia, TKN, Total Phosphorus, Dissolved oxygen, DOC, pH, electrical conductivity,</p>

			sodium, potassium, chloride, dissolved metals
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(Table 2 continued)

Location	UTM Coordinates	Minimum Frequency	Parameters
MW-24-07 Approx. 400 m southeast and downgradient of the sewage bed of the Septic System	5351404.47 N/ 692791.9 E	Three times per year (Spring, Summer and Fall)	Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential, Total Suspended Solids, Total Alkalinity, Acidity, Harness. Arsenic, Aluminium, Cadmium, Calcium, Copper, Cobalt, Free Cyanide, Total Cyanide, Iron, Lead, Mercury, Molybdenum, Nickel, Zinc, Ammonium, Total Ammonia Nitrogen, Nitrate, Nitrite, TKN, Phosphorus, Sulphates, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved metals
MW-24-08 Approx. 600 m southeast and downgradient of the Septic System	5351198.54 N/ 692943.56 E	Three times per year (Spring, Summer and Fall)	Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential <b>First year of operation:</b> Nitrate, Nitrite, Ammonia, TKN, Total Phosphorus, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved metals
MW-24-09 Approx. 700 m southeast and downgradient of the Septic System	5351475.93 N/ 693238.53 E	Three times per year (Spring, Summer and Fall)	Water level, field temperature, field pH, dissolved oxygen, conductivity, redox potential <b>First year of operation:</b> Nitrate Nitrogen, Nitrite Nitrogen, Ammonia, TKN, Total Phosphorus, Dissolved oxygen, DOC, pH, electrical conductivity, sodium, potassium, chloride, dissolved metals

**Table 3 - Trigger Levels (Surface Water and Groundwater Monitoring)**

<b>Parameter</b>	<b>Location</b>	<b>Trigger Levels (mg/L)</b>
Nitrate Nitrogen	<b>MW-24-01</b>	<b>40</b>
	<b>MW-24-04</b>	<b>35</b>
	<b>MW-24-05</b>	<b>30</b>
	<b>MW-24-07</b>	<b>18</b>
	MW-24-03 MW-24-06 MW-24-08 MW-24-09	2.5
Total Phosphorus	UL10-SW-01 UL10-SW-02 UL10-SW-03	0.02
Unionized Ammonia	UL10-SW-01 UL10-SW-02 UL10-SW-03	0.02

## **Schedule E**

### **Limited Operational Flexibility Criteria for Modifications**

#### **to Industrial Sewage Works**

1. The modifications to sewage works approved under an Environmental Compliance Approval (Approval) that are permitted under the Limited Operational Flexibility (LOF), are outlined below and are subject to the LOF conditions in the Approval, and require the submission of the Notice of Modifications. If there is a conflict between the sewage works listed below and the Terms and Conditions in the Approval, the Terms and Conditions in the Approval shall take precedence.

#### **1.1 Sewage Pumping Stations**

- a. Alter pumping capacity by adding or replacing equipment where new equipment is located within an existing sewage treatment plant site or an existing sewage pumping station site, provided that the modifications do not result in an increase of the sewage treatment plant Rated Capacity and the existing flow process and/or treatment train are maintained, as applicable.
- b. Forcemain relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200 mm.

#### **1.2 Sewage Treatment Process**

- a. Installing additional chemical dosage equipment including replacing with alternative chemicals for pH adjustment or coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.
- b. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.
- c. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations provided that existing sewage treatment plant rated capacity is not exceeded and where no land acquisition is required.
- d. Optimizing existing sewage treatment plant equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the works that result in an increase of the approved rated capacity, and may have adverse effects to the effluent quality or location of the discharge.
- e. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of equipment is kept the same or exceeded. For clarity purposes, the following equipment can be considered under this provision: pumps, screens, grit separators, blowers, aeration equipment, sludge thickeners, dewatering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

### 1.3 Sewage Treatment Plant Outfall

- a. Replacement of discharge pipe with similar pipe size or diffusers provided that the outfall location is not changed.

### 1.4 Sanitary Sewers

- a. Pipe relining and replacement with similar pipe size within the

Sewage Treatment Plant site, where the nominal diameter is not greater than 1,200 mm.

## 1.5 Pilot Systems

a. Installation of pilot systems for new or existing technologies provided that:

i. any effluent from the pilot system is discharged to the inlet of the sewage treatment plant or hauled off-site for proper disposal,

ii. any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and

iii. the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and District Manager three months after completion of the pilot project.

## 1.6 Tailings Management Facilities

a. Routine dam raises and dam extensions to allow continued management of tailings and storage of mineral materials and sewage, provided that:

i. Routine dam raises and extensions are in adherence with a tailings management plan prepared by a Professional Engineer licensed under the Professional Engineers Act in Ontario.

ii. Routine dam raises and extensions are sealed by a

Professional Engineer licensed under the Professional Engineers Act in Ontario.

- iii. Routine dam raises and extensions have an associated Erosion and Sediment Control Plan applying best management practices that is to be implemented during construction.
- b. New dams are not eligible under LOF, unless already included as part of the Works for which an Environmental Compliance Approval or an amended Environmental Compliance Approval has already been issued describing how new Works would affect the management of tailings and water at the site.
- c. Pipe replacement or extension with similar pipe size within the Tailings Management area, where the nominal diameter is not greater than 1,200 mm.
- d. Clause 1.6 does not relieve the Owner of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain necessary approval from Ministry of Natural Resources and Forestry (MNRF) and Ministry of Energy, Northern Development and Mines (ENDM) to proceed with the undertaking.

2. Sewage works that are exempt from section 53 of the OWRA by O. Reg. 525/98 continue to be exempt and are not required to follow the notification process under this Limited Operational Flexibility.

3. Normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning, renovations to existing approved sewage works equipment, provided that the modification is made with Equivalent Equipment, are considered pre-approved.

4. The modifications noted in section (3) above are not required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change. This page contains an image of the form entitled "Notice of Modification to Sewage Works". A digital copy can be obtained from the District Manager.

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA AND SEND A COPY TO THE WATER SUPERVISOR (FOR MUNICIPAL) OR DISTRICT MANAGER (FOR NON-MUNICIPAL SYSTEMS)

**Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility**

*(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)*

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)
ECA Owner		Municipality

**Part 2: Description of the modifications as part of the Limited Operational Flexibility**

*(Attach a detailed description of the sewage works)*

Description shall include:

1. A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)
2. Confirmation that the anticipated environmental effects are negligible.
3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)

**Part 3 – Declaration by Professional Engineer**

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:

1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print)	PEO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

**Part 4 – Declaration by Owner**

I hereby declare that:

1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the *Environmental Assessment Act*.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

**Schedule F**

**Notice due to MISA Revocation**

*This Schedule is to provide for the substantially equivalent requirements that were set out in Ontario Regulation 560/94: Effluent Monitoring and Effluent Limits – **Metal Mining Sector** discharging through Municipal and Industrial Strategy for Abatement (MISA) Sampling Points as it read prior to its revocation on July 1, 2021 such that there is a continued protection of the environment.*

This Schedule applies both to effluent streams that discharge continuously and to effluent streams that discharge intermittently.

*This Schedule shall come into force on the day it is issued.*

*For the purpose of this approval, the following definitions apply:*

1. "Assessment Parameter" means a parameter that is listed in **Schedule 2 or 3** in this Schedule;
2. "Blowdown Water" means water that is discharged from a recirculating cooling water system or a boiler system for the purpose of controlling the level of water in the system or for the purpose of discharging from the system materials contained in the system the further build-up of which would impair the operation of the system;
3. "Cooling Water Effluent" means water and associated material that is used in an industrial process for the purpose of removing heat and that has not, by design, come into contact with Process Materials, but does not include Blowdown Water;
4. "Cooling Water Effluent Monitoring Stream" means a cooling water effluent stream on which a sampling point is maintained under Condition 3 of Schedule F;
5. "Cooling Water Effluent Sampling Point" means a sampling point maintained on a cooling water effluent stream under Condition 3 of Schedule F;
6. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
7. "Discharger" means **Alamos Gold Inc.** or person in occupation or having the charge, management or control of **ISLAND GOLD DISTRICT** the plant to which this Approval applies;
8. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Plant is geographically located;
9. "EPA" means *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
10. "Eight (8)-hour Period" means between,
  - a. midnight and 8 a.m.,
  - b. 8 a.m. and 4 p.m., or
  - c. 4 p.m. and midnight;

11. "Limited Parameter" means a parameter for which a limit is specified in Column 3 or 4 of **Schedule 1** in this Approval;
12. "Metal" means antimony, bismuth, cadmium, chromium, cobalt, copper, gold, iron, lead, manganese, mercury, molybdenum, niobium, nickel, palladium, platinum, silver, tantalum, tellurium, thorium, tin, titanium, tungsten, uranium, vanadium or zinc, or any combination thereof;
13. "Metal Mining Plant" means any opening or excavation in, or working of, the ground for the purpose of winning any Metal, Metal concentrate or Metal-bearing substance and includes all associated,
  - a. ways, works, machinery, buildings or premises below or above the ground,
  - b. waste disposal sites, wastewater treatment facilities, and
  - c. roasting or smelting furnaces, refineries, concentrators or mills, wherever located, that are used in connection with washing, crushing, grinding, sifting, reducing, leaching, roasting, smelting, refining or treating of any Metal, Metal concentrate or Metal-bearing substance;
14. "Minewater Effluent Monitoring Stream" means a process effluent monitoring stream,
  - a. that flows from any opening or excavation in, or working of, the ground at the plant for the purpose of winning any Metal, and
  - b. that does not flow from a Tailings Area or other Wastewater Treatment Facility associated with a Tailings Area;
15. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on

its behalf;

16. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;
17. "Overflow Effluent" means effluent discharged from a Tailings Area through a spillway or other engineered structure designed to protect the Tailings Area from failure in the event of an extraordinary thaw or storm event;
18. "Overflow Effluent Monitoring Stream" means an overflow effluent stream on which a sampling point is maintained under Condition 3 of Schedule F;
19. "Overflow Effluent Sampling Point" means a sampling point maintained on an overflow effluent stream under Condition 3 of Schedule F;
20. "Pick-Up", in relation to a sample, means pick-up for the purpose of storage, including storage within an automatic sampling device, and transportation to and analysis at a laboratory;
21. "Plant" means the industrial facility that produces Metal, Metal concentrates or Metal-bearing substances and the developed property, waste disposal sites and wastewater treatment facilities associated with it;
22. "Process Change" means a change in equipment, production processes, Process Materials or treatment processes;
23. "Process Effluent" means,
  - a. effluent that, by design, has come into contact with Process Materials other than Process Materials stored in a materials storage site, including but not limited to a waste rock storage site or a slag storage site,
  - b. Blowdown Water,
  - c. effluent that results from cleaning or maintenance operations at the plant during a period when all or part of the plant is shut down, and
  - d. any effluent described in paragraphs (a) to (c) combined with Cooling Water Effluent or Storm Water Effluent;

24. "Process Effluent Monitoring Stream" means a process effluent stream on which a sampling point is maintained under Condition 3 of Schedule F;
25. "Process Effluent Sampling Point" means a sampling point maintained on a process effluent stream under Condition 3 of Schedule F;
26. "Process Materials", in relation to the Discharger's plant, means raw materials for use in an industrial process at the plant, manufacturing intermediates produced at the plant, or products or by-products of an industrial process at the plant, but does not include chemicals added to cooling water for the purpose of controlling organisms, fouling and corrosion;
27. "Quarter" means a period of three (3) consecutive months beginning on the first day of January, April, July or October;
28. "Semi-annual Period" means a period of six (6) months beginning on the first day of January or July;
29. "Storm Water Effluent" means run-off from a storm event or thaw that is not used in any industrial process;
30. "Tailings Area" means an area that is confined by artificial or natural structures or both and that is used for the disposal of finely divided solid waste materials produced as a result of the processing of Metal, Metal concentrates or Metal-bearing substances;
31. "Wastewater Treatment Facility" includes a Tailings Area.

*You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:*

## **TERMS AND CONDITIONS**

### **1. BYPASSES**

1. The Discharger shall not permit effluent that would ordinarily flow past a sampling point maintained under this Approval to be discharged from the Discharger's plant without flowing past that sampling point, regardless of whether it would be convenient to do so because of a maintenance operation, a breakdown in equipment or any scheduled or unscheduled event.
2. The Discharger shall not permit Overflow Effluent to be discharged from the Discharger's plant unless it is unavoidable as a result of an extraordinary thaw or storm event.

### **2. SAMPLING AND ANALYTICAL PROCEDURES**

1. Subject to Condition 21 of Schedule F, the Discharger shall carry out the maintenance of sampling point obligations of this Approval and the sampling and analysis obligations of this Approval, including quality control sampling

and analysis obligations, in accordance with the procedures described in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

2. The Discharger shall maintain the sampling equipment used at the Discharger's plant for sampling required by this Approval in a way that ensures that the samples collected at the plant under this Approval accurately reflect the level of discharge of each Limited Parameter and Assessment Parameter from the plant.

### **3. SAMPLING POINTS**

1. The Discharger shall maintain, a sampling point on each Process Effluent, Cooling Water Effluent and overflow effluent stream at the Discharger's plant, as necessary so that the plant loadings calculated under Conditions 7, 8 and 9 of Schedule F for each Limited Parameter and Assessment Parameter and the concentrations determined under Conditions 10, 11 and 12 of Schedule F for each Limited Parameter and Assessment Parameter accurately reflect the level of discharge of each such parameter from the plant.
2. Despite subsection (1) of this condition, the Discharger need not maintain a sampling point on a by-pass.
3. If circumstances change so that a new sampling point is necessary at the Discharger's plant in order to permit the calculation of plant loadings under Conditions 7, 8 and 9 of Schedule F for each Limited Parameter and Assessment Parameter and the determination of concentrations under Conditions 10, 11 and 12 of Schedule F for each Limited Parameter and Assessment Parameter that accurately reflect the level of discharge of each such parameter from the plant, the Discharger shall, within thirty (30) days of the change, establish the new sampling point and notify the District Manager in writing.
4. The Discharger may, after notifying the District Manager in writing, eliminate a sampling point maintained under subsection (1) or established under subsection (3) of the this condition if the sampling point is no longer necessary to permit the calculation of plant loadings under Conditions 7, 8 and 9 of Schedule F for each Limited Parameter and Assessment Parameter and the determination of concentrations under Conditions 10, 11 and 12 of Schedule F for each Limited Parameter and Assessment Parameter that accurately reflect the level of discharge of each such parameter from the Plant.
5. The plant loading for a parameter or the concentration for a parameter that is based on analytical results that are significantly affected by dilution or masking due to the merging of streams upstream of a sampling point at the

plant is not a loading or a concentration that accurately reflects the level of discharge of the parameter from the plant.

#### **4. REPORTS ON SAMPLING POINTS**

1. The Discharger shall keep an updated list and plot plan showing the sampling points maintained under this Approval at the Discharger's Plant and submit to the Ministry upon request.

#### **5. USE OF SAMPLING POINTS**

1. Subject to Condition 20 of Schedule F, the Discharger shall use the sampling points maintained under this Approval for all sampling required by this Approval.

#### **6. CALCULATION OF LOADINGS — GENERAL**

1. For the purposes of performing a calculation under Condition 7 to 12 of Schedule F, the Discharger shall use the actual analytical result obtained by the laboratory.
2. Despite subsection (1) of this condition, where the actual analytical result is less than one-tenth of the analytical method detection limit set out in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time, the Discharger shall use the value zero for the purpose of performing a calculation under Conditions 7 to 12 of Schedule F.
3. The Discharger shall ensure that each calculation of a process effluent loading required by Condition 7 of Schedule F and each calculation of a process effluent concentration required by Condition 10 of Schedule F is performed as soon as reasonably possible after the analytical results on which the calculation is based become available to the Discharger.
4. The Discharger shall ensure that each calculation of a cooling water effluent loading required by Condition 8 is performed in time to comply with Condition 33(4) of Schedule F and each calculation of a cooling water effluent concentration required by Condition 11 of Schedule F is performed in time to comply with Condition 33(7) of Schedule F.
5. The Discharger shall ensure that each calculation of an overflow effluent loading required by Condition 9 of Schedule F is performed in time to comply with Condition 33(5) of Schedule F and each calculation of an overflow effluent concentration required by Condition 12 of Schedule F is performed in time to comply with Condition 33(8) of Schedule F.

#### **7. CALCULATION OF LOADINGS — PROCESS EFFLUENT**

1. The Discharger shall calculate, in kilograms, a daily process effluent stream

loading for each Limited Parameter in each Process Effluent Monitoring Stream of the Discharger for each day on which a sample is collected under this Approval from the stream for analysis for the parameter.

2. When calculating a daily stream loading under subsection (1) of this condition, the Discharger shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for the parameter by the daily volume of effluent, as determined under Condition 26 of Schedule F, for the stream for the day.
3. The Discharger shall calculate, in kilograms, a daily process effluent plant loading for each Limited Parameter for each day for which the Discharger is required to calculate a daily process effluent stream loading for the parameter under subsection (1) of this condition.
4. For the purposes of subsection (3) of this condition, a daily process effluent plant loading for a parameter for a day is the sum, in kilograms, of the daily process effluent stream loadings for the parameter calculated under subsection (1) of this condition for the day.
5. Where the Discharger calculates only one daily process effluent stream loading for a parameter for a day under subsection (1) of this condition, the daily process effluent plant loading for the parameter for the day for the purposes of subsection (3) of this condition is the single daily process effluent stream loading for the parameter for the day.
6. The Discharger shall calculate, in kilograms, a monthly average process effluent plant loading for each Limited Parameter for each month in which a sample is collected under this Approval more than once from a Process Effluent Monitoring Stream at the Discharger's plant for analysis for the parameter.
7. For the purposes of subsection (6) of this condition, a monthly average process effluent plant loading for a parameter for a month is the arithmetic mean of the daily process effluent plant loadings for the parameter calculated under subsection (3) of this condition for the month.

#### **8. CALCULATION OF LOADINGS — COOLING WATER EFFLUENT**

1. The Discharger shall calculate, in kilograms, a daily cooling water effluent stream loading for each Assessment Parameter, in **Schedule 2** in this Approval, in each Cooling Water Effluent Monitoring Stream of the Discharger for each day on which a sample is collected under this Approval from the stream for analysis for the parameter.
2. When calculating a daily stream loading under subsection (1) of this condition, the Discharger shall multiply, with the necessary adjustment of

units to yield a result in kilograms, the analytical result obtained from the sample for the parameter by the daily volume of effluent, as determined under Condition 26 of Schedule F, for the stream for the day.

3. The Discharger shall calculate, in kilograms, a daily cooling water effluent plant loading for each Assessment Parameter, in **Schedule 2** in this Approval, for each day for which the Discharger is required to calculate a daily cooling water effluent stream loading for the parameter under subsection (1) of this condition.
4. For the purposes of subsection (3) of this condition, a daily cooling water effluent plant loading for a parameter for a day is the sum, in kilograms, of the daily cooling water effluent stream loadings for the parameter calculated under subsection (1) of this condition for the day.
5. Where the Discharger calculates only one daily cooling water effluent stream loading for a parameter for a day under subsection (1) of this condition, the daily cooling water effluent plant loading for the parameter for the day for the purposes of subsection (3) of this condition is the single daily cooling water effluent stream loading for the parameter for the day.
6. The Discharger shall calculate, in kilograms, a monthly average cooling water effluent plant loading for each Assessment Parameter, in **Schedule 2** in this Approval, for each month in which a sample is collected under this Approval more than once from a Cooling Water Effluent Monitoring Stream at the Discharger's plant for analysis for the parameter.
7. For the purposes of subsection (6) of this condition, a monthly average cooling water effluent plant loading for a parameter for a month is the arithmetic mean of the daily cooling water effluent plant loadings for the parameter calculated under subsection (3) of this condition for the month.

## 9. CALCULATION OF LOADINGS — OVERFLOW EFFLUENT

1. The Discharger shall calculate, in kilograms, an overflow effluent stream loading for each Assessment Parameter, in **Schedule 3** in this Approval, in each Overflow Effluent Monitoring Stream of the Discharger for each Eight (8)-hour Period during which a sample is collected under this Approval from the stream for analysis for the parameter.
2. When calculating a stream loading under subsection (1) of this condition, the Discharger shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for the parameter by the volume of effluent, as determined under Condition 26 of Schedule F, for the stream for the Eight (8)-hour Period.
3. The Discharger shall calculate, in kilograms, a daily overflow effluent stream

loading for each Assessment Parameter, in **Schedule 3** in this Approval, in each Overflow Effluent Monitoring Stream of the Discharger for each day for which the Discharger is required to calculate an overflow effluent stream loading for the parameter under subsection (1) of this condition.

4. For the purposes of subsection (3) of this condition, a daily overflow effluent stream loading for a parameter for a day is the sum, in kilograms, of all the Eight (8)-hour period overflow effluent stream loadings for the parameter calculated under subsection (1) of this condition for the day.
5. Where the Discharger calculates only one overflow effluent stream loading for a parameter under subsection (1) of this condition for a stream for a day, the daily overflow effluent stream loading for the parameter for the day for the purposes of subsection (3) of this condition is the single overflow effluent stream loading calculated for the parameter under subsection (1) of this condition.

#### 10. **CALCULATION OF CONCENTRATIONS — PROCESS EFFLUENT**

1. The Discharger shall calculate, in milligrams per litre, a monthly average concentration for each Limited Parameter in each Process Effluent Monitoring Stream of the Discharger for each month.
2. For the purposes of subsection (1) of this condition, a monthly average concentration for a parameter for a month is the arithmetic mean of the analytical results obtained for the parameter from the samples collected under Condition 17 or 18 of Schedule F, as the case may be, from the stream for the month.

#### 11. **CALCULATION OF CONCENTRATIONS — COOLING WATER EFFLUENT**

1. The Discharger shall calculate, in milligrams per litre, a monthly average concentration for each Assessment Parameter, in **Schedule 2** in this Approval, in each Cooling Water Effluent Monitoring Stream of the Discharger for each month.
2. For the purposes of subsection (1) of this condition, a monthly average concentration for a parameter for a month is the arithmetic mean of the analytical results obtained for the parameter from the samples collected under Condition 24 of Schedule F from the stream for the month.

#### 12. **CALCULATION OF CONCENTRATIONS — OVERFLOW EFFLUENT**

1. The Discharger shall calculate, in milligrams per litre, a daily concentration for each Assessment Parameter, in **Schedule 3** in this Approval, in each Overflow Effluent Monitoring Stream of the Discharger for each day on which a sample is collected under this Approval from the stream for analysis for the parameter.

2. For the purposes of subsection (1) of this condition, a daily concentration for a parameter for a stream for a day is the arithmetic mean of the analytical results obtained for the parameter from the samples collected under Condition 25 of Schedule F from the stream for the day.
3. Where there is only one analytical result obtained for a parameter from the stream for a day, the daily concentration for the parameter for the stream for the day for the purposes of subsection (1) of this condition is the single analytical result obtained for the parameter.

### 13. **PARAMETER LIMITS**

1. The Discharger shall ensure that each analytical result obtained for each Limited Parameter from each sample collected from a Process Effluent Monitoring Stream at the Discharger's plant does not exceed the daily concentration limit specified for the parameter in Column 3 of **Schedule 1** in this Approval.
2. The Discharger shall ensure that each monthly average concentration calculated for a Limited Parameter under Condition 10 of Schedule F in connection with the Discharger's plant does not exceed the monthly average concentration limit specified for the parameter in Column 4 of **Schedule 1** in this Approval.
3. Subject to subsection (4) of this condition, the Discharger shall control the quality of each Process Effluent Monitoring Stream at the Discharger's plant to ensure that the pH value of any sample collected at a Process Effluent Sampling Point at the plant is within the range of 6.0 to 9.5.
4. Throughout any day on which the Discharger has used an alternate sampling point on a Process Effluent Monitoring Stream for sampling, as permitted by Conditions 20(7) and (8) of Schedule F, the Discharger,
  - a. shall control the quality of the stream to ensure that the pH value of any sample collected at the alternate sampling point on the stream is within the range of 6.0 to 9.5; and
  - b. need not comply with subsection (3) of this condition with respect to the stream.

### 14. **LETHALITY LIMITS**

1. The Discharger shall control the quality of each Process Effluent Monitoring Stream and each Cooling Water Effluent Monitoring Stream at the

Discharger's plant to ensure that each rainbow trout acute lethality test and each *Daphnia magna* acute lethality test performed on any grab sample collected at a Process Effluent Sampling Point or Cooling Water Effluent Sampling Point at the plant results in mortality for no more than fifty (50) per cent of the test organisms in hundred (100) per cent effluent.

#### 15. **MONITORING - GENERAL**

1. Despite Conditions 17 to 25 of Schedule F, the Discharger need not collect samples from any stream at the Discharger's plant on a day on which Process Effluent is not being discharged from the plant.
2. Despite Conditions 17, 19 and 25 of Schedule F, the Discharger need not collect or analyze samples for total cyanide if cyanide is not used at the Discharger's plant.
3. Despite Condition 17 and 19 of Schedule F, the Discharger need not collect or analyze samples for total cyanide from a Minewater Effluent Monitoring Stream.
4. Where the Discharger is required by this Approval to pick up a set of samples and analyze it for certain parameters, the Discharger shall pick up a set of samples sufficient to allow all the analyses to be performed.
5. The Discharger shall use all reasonable efforts to ensure that all analyses required by this Approval are completed as soon as reasonably possible and that the results of those analyses are made available to the Discharger as soon as reasonably possible.
6. Subject to subsection (7) of this condition, the Discharger shall pick up all samples required to be picked up at the Discharger's plant under Conditions 17, 18 and 24 of Schedule F between the hours of 7 a.m. and 10 a.m.
7. If the District Manager is satisfied, on the basis of written submissions from the Discharger, that the circumstances at the Discharger's Plant are such that it would be impractical to pick up a set of samples from each sampling point maintained at the Plant under this Approval within the time period specified in subsection (6), the District Manager may give the Discharger a written notice in respect of the Plant, varying the time period specified in subsection (6).
8. Subject to subsections (9) of this condition, where the Discharger is required by Condition 17, 18 or 24 of Schedule F to pick up samples, the Discharger shall pick up samples collected over the twenty four (24)-hour period immediately preceding the Pick-Up.
9. The twenty four (24)-hour period referred to in subsection (8) of this condition may be shortened or enlarged by up to three (3) hours to permit the Discharger to take advantage of the three(3)-hour range specified in

subsection (6) of this condition or of a different three (3)-hour period.

**16. MONITORING – ALTERNATE SAMPLING PROCEDURES**

1. Where the Discharger is, in accordance with Condition 2(1) of Schedule F, required by the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time, to collect a composite sample for any sample required to be picked up at a stream at the Discharger's plant under this Approval, the Discharger may collect the composite sample by collecting three (3) equal volume grab samples from the stream at intervals of at least two (2) hours and combining them.
2. Instead of collecting composite sample from a Process Effluent Monitoring Stream under Condition 17 or 18 of Schedule F the Discharger may collect a single grab sample from the stream if,
  - a. the Process Effluent Monitoring Stream flows from a Tailings Area or any other Wastewater Treatment Facility associated with a Tailings Area and the retention time calculated under subsection (3) of this condition in relation to the stream is thirty (30) days or more; or
  - b. the Process Effluent Monitoring Stream does not flow from a Tailings Area or any other Wastewater Treatment Facility associated with a Tailings Area and the retention time calculated under subsection (3) of this condition in relation to the stream is five (5) days or more.
3. Retention time in relation to a Process Effluent Monitoring Stream is the period of time in days that results from dividing the total available volume, expressed in cubic metres, of the wastewater treatment facilities on the stream by the average daily flow, expressed in cubic metres, of the stream.
4. For the purposes of subsection (3) of this condition, the total available volume of the wastewater treatment facilities on the Process Effluent Monitoring Stream is the volume of the wastewater treatment facilities that may be occupied by water on any day within the ninety (90)-day period preceding the date of the calculation of the retention time, taking into account,

- a. any requirements that apply in respect of the operation of those facilities in any Act or in any approval, order, direction or other instrument issued under any Act; and
  - b. any solid waste or sludge contained within those facilities on the day of the calculation of the total available volume of those facilities.
5. For the purposes of subsection (3) of this condition, the average daily flow of the Process Effluent Monitoring Stream is the arithmetic mean of the thirty (30) highest daily volumes calculated under Condition 26 of Schedule F in relation to the stream within the ninety (90)-day period preceding the date of the calculation of the retention time.
6. The Discharger may sample at a Process Effluent Monitoring Stream in the manner described in subsection (2) of this condition for the period of time during which the retention time calculated in relation to the stream is in effect.
7. A retention time calculated under this condition expires 365 days after the date on which the calculation is made or on the date that a new retention time is calculated under this condition, whichever date is sooner.

**17. MONITORING – PROCESS EFFLUENT – THRICE WEEKLY**

1. The Discharger shall, on three (3) days in each week, pick up a set of samples collected at each Process Effluent Sampling Point at the Discharger's plant and shall analyze each set of samples for the parameters for which the frequency of monitoring, as set out in Column 2 of **Schedule 1** in this Approval, is thrice weekly.
2. There shall be an interval of at least twenty (24) hours between successive Pick-Up days at the plant under subsection (1) of this condition.
3. All samples picked up under subsection (1) of this condition in a week shall be picked up on the same three (3) days in the week.

**18. MONITORING – PROCESS EFFLUENT – WEEKLY**

1. The Discharger shall, on one day in each week, pick up a set of samples collected at each Process Effluent Sampling Point at the Discharger's plant and shall analyze each set of samples for the parameters for which the frequency of monitoring, as set out in Column 2 of **Schedule 1** in this Approval, is weekly.

2. There shall be an interval of at least four days between successive Pick-Up days at the plant under subsection (1) of this condition.
3. All samples picked up under subsection (1) of this condition in a week shall be picked up on the same day in the week.

**19. MONITORING – PROCESS EFFLUENT – QUALITY CONTROL**

1. On one day in each year, on a day on which samples are picked up at the plant under Condition 17(1) of Schedule F, the Discharger shall collect and pick up a duplicate sample for each sample picked up on that day under Condition 17(1) of Schedule F at one Process Effluent Sampling Point at the Discharger's plant and shall analyze each duplicate sample for the parameters for which the frequency of monitoring, as set out in Column 2 of **Schedule 1**, is thrice weekly.
2. On one day in each year, on a day on which samples are picked up at the plant under Condition 18(1) of Schedule F, the Discharger shall collect and pick up a duplicate sample for each sample picked up on that day under Condition 18(1) of Schedule F at one Process Effluent Sampling Point at the Discharger's plant and shall analyze each duplicate sample for the parameters for which the frequency of monitoring, as set out in Column 2 of **Schedule 1**, is weekly.
3. The Discharger shall ensure that the same Process Effluent Sampling Point is used at the Discharger's plant for the purposes of sampling under subsections (1) and (2) of this condition in a year.
4. The Discharger shall prepare a travelling blank and travelling spiked blank sample for each sample for which a duplicate sample is picked up at the plant under subsection (1) or (2) of this condition and shall analyze the travelling blank and travelling spiked blank samples in accordance with the directions set out in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.
5. There shall be an interval of at least six (6) months between successive Pick-Up days at the plant under subsections (1) and (2) of this condition.

**20. MONITORING – PROCESS EFFLUENT – pH MEASUREMENT**

1. The Discharger shall, on three (3) days in each week, during the time period applicable to the plant under Condition 15(6) or (7) of Schedule F, collect a grab sample from each Process Effluent Monitoring Stream at the Discharger's plant and shall analyze each sample for the parameter pH.
2. There shall be an interval of at least twenty four (24) hours between each of the three (3) collections at a stream under subsection (1) of this condition in each week.

3. All samples collected under this condition shall be collected at the same time as samples collected under Condition 17 of Schedule F.
4. Each grab sample collected under subsection (1) of this condition shall be picked up within four (4) hours of when it was collected.
5. All samples picked up under subsection (1) of this condition in a week shall be picked up on the same three (3) days in the week.
6. The Discharger shall ensure that each grab sample picked up under subsection (1) of this condition is analyzed within four (4) hours of when it is picked up.
7. Instead of collecting a grab sample under subsection (1) of this condition from a stream, the Discharger may use an on-line analyzer at the sampling point on the stream and analyze the effluent at the sampling point for the parameter pH once on each of three (3) days in each week during the time period applicable to the plant under Condition 15(6) or (7) of Schedule F.
8. For the purposes of this condition, the Discharger shall use either the sampling point maintained under Condition 3 of Schedule F on the stream or an alternate sampling point located downstream of the sampling point but before the point of discharge of the stream to surface water or to an industrial sewer used in common with another plant.
9. Before using an alternate sampling point under subsection (8) of this condition, the Discharger shall give the District Manager a written notice describing the location of the alternate sampling point, together with a revised version of the list and plot plan referenced under Condition 4 of Schedule F showing the alternate sampling point.

**21. MONITORING – ACUTE LETHALITY TESTING – RAINBOW TROUT**

1. Where the Discharger is required by this condition to perform a rainbow trout acute lethality test, the Discharger shall perform the test according to the procedures described in the Environment and Climate Canada publication entitled "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout", as amended from time to time.
2. Each rainbow trout acute lethality test required by this condition shall be carried out as a single concentration test using hundred (100) per cent effluent.
3. On one day in each month, on a day on which samples are picked up at the plant under Condition 18(1) of Schedule F, the Discharger shall collect and immediately pick up a grab sample at each Process Effluent Sampling Point at the Discharger's plant and shall perform a rainbow trout acute lethality test on each sample.

4. There shall be an interval of at least fifteen (15) days between successive Pick-Up days at the plant under subsection (3) of this condition.
5. All samples picked up under subsection (3) of this condition in a month shall be picked up on the same day in the month.
6. Where the Discharger has performed tests under subsection (3) of this condition for twelve (12) consecutive months, in accordance with MISA Regulation 560/94 before this amendment notice is issued, on samples collected from the same sampling point and the mortality of the rainbow trout in each test did not exceed fifty (50) per cent, the Discharger is relieved of the obligations under subsection (3) of this condition relating to the sampling point and shall instead collect and immediately pick up a grab sample at the sampling point on one day in each Quarter and perform a rainbow trout acute lethality test on each sample.
7. Samples picked up at the plant under subsection (6) of this condition shall be picked up on a day on which samples are picked up at the plant under subsection (3) of this condition.
8. If no samples are being picked up at the plant under subsection (3) of this condition during a Quarter, samples picked up at the plant during the Quarter under subsection (6) of this condition shall be picked up on a day on which samples are picked up at the plant under Condition 18(1) of Schedule F.
9. There shall be an interval of at least forty five (45) days between successive Pick-Up days at the plant under subsection (6) of this condition.
10. All samples picked up under subsection (6) of this condition in a Quarter shall be picked up on the same day in the Quarter.
11. If a rainbow trout acute lethality test performed under subsection (6) of this condition on any sample from a sampling point results in mortality of more than fifty (50) per cent of the test rainbow trout, subsections (6) to (10) of this condition cease to apply in respect to samples from that sampling point, and the Discharger shall instead comply with the requirements of subsection (3) of this condition relating to the sampling point, until the tests performed under subsection (3) of this condition on all samples collected from the sampling point for a further twelve (12) consecutive months result in mortality for no more than fifty (50) per cent of the rainbow trout for each test.
12. The Discharger shall notify the Director in writing of any change in the frequency of acute lethality testing under this Approval at the Discharger's plant, within thirty (30) days after the day on which the change begins.
13. Subsections (2) to (12) of this condition apply with necessary modifications to each Cooling Water Effluent Sampling Point and, for the purpose, the

reference in subsection (3) of this condition to each Process Effluent Sampling Point shall be deemed to be a reference to each Cooling Water Effluent Sampling Point and the reference in subsections (3) and (8) of this condition to Condition 18(1) of Schedule F shall be deemed to be a reference to Condition 24(1) of Schedule F.

**22. MONITORING – ACUTE LETHALITY TESTING – *DAPHNIA MAGNA***

1. Where the Discharger is required by this section to perform a *Daphnia magna* acute lethality test, the Discharger shall perform the test according to the procedures described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna*", as amended from time to time.
2. Conditions 21(2) to (13) of Schedule F apply with necessary modifications to *Daphnia magna* acute lethality tests and, for the purpose, a reference to rainbow trout shall be deemed to be a reference to *Daphnia magna*.
3. The Discharger shall pick up each set of samples required to be collected from a sampling point at the Discharger's plant under this condition on a day on which the Discharger collects a sample from the sampling point under Condition 21 of Schedule F, to the extent possible having regard to the frequency of monitoring required at the sampling point under this condition and Condition 21 of Schedule F.

**23. MONITORING – CHRONIC TOXICITY TESTING – FATHEAD MINNOW AND *CERIODAPHNIA DUBIA***

1. Where the Discharger is required to perform a seven-day fathead minnow growth inhibition test, the Discharger shall perform the test according to the procedure described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows", as amended from time to time.
2. Where the Discharger is required to perform a seven-day *Ceriodaphnia dubia* reproduction inhibition and survivability test, the Discharger shall perform the test according to the procedure described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran *Ceriodaphnia dubia*", as amended from time to time.
3. On one day in each Semi-annual Period, on a day on which samples are picked up at the plant under Condition 18(1) of Schedule F, the Discharger shall collect and immediately pick up a grab sample from each Process Effluent Sampling Point at the Discharger's plant, and shall perform a seven-day fathead minnow growth inhibition test and a seven-day *Ceriodaphnia*

*dubia* reproduction inhibition and survivability test on each sample.

4. There shall be an interval of at least ninety (90) days between successive Pick-Up days at the plant under subsection (3) of this condition.
5. All samples picked up under subsection (3) of this condition in a Semi-annual Period shall be picked up on the same day in the Semi-annual Period.
6. The Discharger need not collect a sample from a sampling point in accordance with subsection (3) of the condition until twelve (12) consecutive monthly rainbow trout acute lethality tests and twelve (12) consecutive monthly *Daphnia magna* acute lethality tests performed on samples collected at the sampling point at the Discharger's plant result in mortality for no more than fifty (50) per cent of the test organisms in hundred (100) per cent effluent.

**24. MONITORING – COOLING WATER EFFLUENT – WEEKLY ASSESSMENT**

1. The Discharger shall, on one day in each week, pick up a set of samples collected at each Cooling Water Effluent Sampling Point at the Discharger's plant and shall analyze each set of samples for each Assessment Parameter in **Schedule 2** in this Approval.
2. There shall be an interval of at least four (4) days between successive Pick-Up days at the plant under subsection (1) of this condition.
3. All samples picked up under subsection (1) of this condition in a week shall be picked up on the same day in the week.

**25. MONITORING – OVERFLOW EFFLUENT – ASSESSMENT**

1. The Discharger shall, during each Eight (8)-hour period in which Overflow Effluent is discharged from the plant, collect a grab sample at each Overflow Effluent Sampling Point at the Discharger's plant and shall analyze each sample for each Assessment Parameter in **Schedule 3** in this Approval.
2. Each grab sample collected under subsection (1) of this condition shall be picked up within four (4) hours of when it was collected.

**26. EFFLUENT FLOW MEASUREMENT**

1. Subject to subsection (7) of this condition, for the purposes of this condition, a volume of effluent for a stream for a day is the volume that flowed past the sampling point maintained in this Approval on the stream during the twenty four (24)-hour period preceding the Pick-Up of the first sample picked up from the stream for the day.
2. The Discharger shall determine in cubic metres a daily volume of effluent for each process effluent stream at the Discharger's plant for each day on which a sample is collected under this Approval from the stream.

3. The Discharger shall use flow measurement methods that allow the daily volumes for process effluent streams to be determined to an accuracy of within plus or minus fifteen (15) per cent.
4. The Discharger shall determine in cubic metres a daily volume of effluent for each cooling water effluent stream at the Discharger's plant for each day on which a sample is collected under this Approval from the stream.
5. The Discharger shall use flow measurement methods that allow the daily volumes for cooling water effluent streams to be determined to an accuracy of within plus or minus twenty (20) per cent.
6. The Discharger shall determine in cubic metres a volume of effluent for each Overflow Effluent Monitoring Stream at the Discharger's plant for each Eight (8)-hour period for which a sample is collected under this Approval from the stream.
7. For the purposes of subsection (6) of this condition, a volume of effluent for an Overflow Effluent Monitoring Stream is the volume that flowed past the Overflow Effluent Sampling Point on the stream during the Eight (8)-hour period.
8. The Discharger shall use flow measurement methods that allow the volumes for overflow effluent streams to be determined to an accuracy of within plus or minus twenty (20) per cent.
9. The Discharger shall determine by calibration or confirm by means of a certified report of a registered professional engineer of the Province of Ontario that each flow measurement method used under subsection (2) of this condition meets the accuracy requirements of subsection (3) of this condition, that each flow measurement method used under subsection (4) of this condition meets the accuracy requirements of subsection (5) of this condition, and that each flow measurement method used under subsection (6) of this condition meets the accuracy requirements of subsection (8) of this condition.
10. Where the Discharger uses a new flow measurement method or alters an existing flow measurement method, the Discharger shall determine by calibration or confirm by means of a certified report of a registered professional engineer of the Province of Ontario that each new or altered flow measurement method meets the accuracy requirements of subsection (3), (5) or (8) of this condition, as the case may be, within two weeks after the day on which the new or altered method or system is used.
11. The Discharger shall develop and implement a maintenance schedule and a calibration schedule for each flow measurement system installed at the Discharger's plant and shall maintain each flow measurement system

according to good operating practices.

12. The Discharger shall use reasonable efforts to set up each flow measurement system used for the purposes of this section in a way that permits inspection by a provincial officer.

## **27. CALCULATION OF PLANT VOLUMES**

1. The Discharger shall calculate, in cubic metres, a daily process effluent plant volume for each day.
2. For the purposes of subsection (1) of this condition, a process effluent plant volume for a day is the sum of the daily process effluent volumes determined under Condition 26 of Schedule F for the day.
3. The Discharger shall calculate, in cubic metres, a monthly average process effluent plant volume for each month, by taking the arithmetic mean of the daily process effluent plant volumes calculated under subsection (1) of this condition for the month.
4. The Discharger shall calculate, in cubic metres, a daily cooling water effluent plant volume for each day.
5. For the purposes of subsection (4) of this condition, a cooling water effluent plant volume for a day is the sum of the daily cooling water volumes determined under Condition 26 of Schedule F for the day.
6. The Discharger shall calculate, in cubic metres, a monthly average cooling water effluent plant volume for each month, by taking the arithmetic mean of the daily cooling water effluent plant volumes calculated under subsection (4) of this condition for the month.

## **28. STORM WATER CONTROL STUDY**

1. The Discharger shall complete a storm water control study in respect of the Discharger's plant, in accordance with the requirements of the Ministry publication entitled "Protocol for Conducting a Storm Water Control Study", dated August, 1994 as amended from time to time.
2. The Discharger need not comply with subsection (1) of this condition in respect of the Discharger's plant if,
  - a. the plant meets the exemption criteria set out in the Ministry publication entitled "Protocol for Conducting a Storm Water Control Study", dated August, 1994 as amended from time to time; and

- b. the Discharger had notified the Director in writing, before 1997, that the plant meets the exemption criteria referred to in paragraph (a).
3. The Discharger shall ensure that a copy of each study completed under this condition is available to Ministry staff at the Discharger's plant, on request, during the plant's normal office hours.

## **29. RECORD KEEPING**

1. The Discharger shall keep records of all analytical results obtained under sections Conditions 17, 18, 20, 24 and 25 of Schedule F, all calculations performed under Conditions 7, 8, 9, 10, 11 and 12 of Schedule F and all determinations and calculations made or performed under Conditions 26 and 27 of Schedule F.
2. The Discharger shall keep records of all sampling and analytical procedures used in meeting the requirements of Condition 2 of Schedule F, including, for each sample, the date, the time of Pick-Up, the sampling procedures used, and any incidents likely to affect the analytical results.
3. The Discharger shall keep records of all retention times calculated under Condition 16 of Schedule F.
4. The Discharger shall keep records of the results of all monitoring performed under Conditions 19 and 21 to 25 of Schedule F.
5. The Discharger shall keep records of all maintenance and calibration procedures performed under Condition 26 of Schedule F.
6. The Discharger shall keep records of all problems or malfunctions, including those related to sampling, analysis, acute lethality testing, chronic toxicity testing or flow measurement, that result or are likely to result in a failure to comply with a requirement of this Approval, stating the date, duration and cause of each malfunction, and including a description of any remedial action taken.
7. The Discharger shall keep records of any incident in which Process Effluent is discharged from the Discharger's plant without flowing past a sampling point maintained on a process effluent stream in accordance with this Approval before being discharged, stating the date, duration, cause and nature of each incident.
8. The Discharger shall keep records of any incident in which Overflow Effluent is discharged from the Discharger's plant stating the date, duration, cause and nature of each incident.

9. Discharger shall keep records of all Process Changes and redirections of or changes in the character of effluent streams that affect the quality of effluent at any sampling point maintained under this Approval at the Discharger's plant.
10. The Discharger shall keep records of the location of each sampling point maintained at the Discharger's plant under this Approval.
11. The Discharger shall make each record required by this condition as soon as reasonably possible and shall keep each such record for a period of three (3) years.
12. The Discharger shall ensure that all records kept under this condition are available to Ministry staff at the Discharger's plant, on request, during the plant's normal office hours.

**30. REPORTS AVAILABLE TO THE PUBLIC**

1. On or before June 1 in each year, the Discharger shall prepare a report relating to the previous calendar year and including,
  - a. a summary of plant loadings calculated under Conditions 7, 8 and 9 of Schedule F;
  - b. a summary of concentrations determined under Conditions 10, 11 and 12 of Schedule F;
  - c. a summary of retention times calculated under Condition 16 of Schedule F;
  - d. a summary of the results of monitoring performed under Conditions 17, 18 and 20 to 25 of Schedule F;
  - e. a summary of calculations performed under Conditions 26(6), 27(1) and 27(4) of Schedule F;
  - f. a summary of the concentrations or other results that exceeded a limit prescribed by Condition 13 or 14 of Schedule F;
  - g. a summary of the incidents in which Process Effluent was discharged from the Discharger's plant without flowing past a sampling point maintained on a process effluent stream in accordance with this Approval before being discharged; and

h. a summary of the incidents in which Overflow Effluent was discharged from the Discharger's plant.

2. The Discharger shall ensure that each report prepared under subsection (1) of this condition is available to any person at the Discharger's plant, on request during the plant's normal office hours.
3. The Discharger shall provide the Director, upon request, with a copy of any report that the Discharger has prepared under subsection (1) of this condition.

**31. REPORTS TO THE DISTRICT MANAGER – GENERAL**

1. The Discharger shall notify the District Manager and the Director in writing of any change of name or ownership of the Discharger's plant, within thirty (30) days after the end of the month in which the change occurs.
2. The Discharger shall notify the District Manager in writing of any Process Change or redirection of or change in the character of an effluent stream that affects the quality of effluent at any sampling point maintained under this Approval at the Discharger's plant, within thirty (30) days of the change or redirection.
3. The Discharger need not comply with subsection (2) of this condition where the effect of the change or redirection on effluent quality is of less than one week's duration.

**32. REPORTS TO THE DISTRICT MANAGER**

1. The Discharger shall report any incident in which Process Effluent is discharged from the Discharger's plant without flowing past a sampling point maintained on a process effluent stream in accordance with this Approval before being discharged.
2. The Discharger shall report any incident in which Overflow Effluent is discharged from the Discharger's plant.
3. The Discharger shall report any concentration or other result that exceeds a limit prescribed by Condition 13 or 14 of Schedule F.
4. A report required under subsection (1), (2) or (3) of this condition shall be given orally, as soon as reasonably possible, and in writing, as soon as reasonably possible.

**33. QUARTERLY REPORTS TO THE DISTRICT MANAGER**

1. No later than forty five (45) days after the end of each Quarter, the Discharger shall submit a report to the District Manager containing information relating to the Discharger's plant throughout the Quarter as required by subsections (3) to (13) of this condition.
2. A report under this condition shall be submitted to the District Manager in the manner and form the District Manager specifies from time to time.
3. A report under this condition shall include all information included in a report given under Condition 32 of Schedule F during the Quarter.
4. The Discharger shall report, for each month in the Quarter, the monthly average plant loadings and the highest and lowest daily plant loadings calculated under Conditions 7 and 8 of Schedule F for each Limited Parameter and each Assessment Parameter in **Schedule 2** in this Approval.
5. The Discharger shall report, for each day in the Quarter, each daily overflow effluent stream loading calculated under Condition 9 of Schedule F for each Assessment Parameter in **Schedule 3** in this Approval.
6. The Discharger shall report, for each month in the Quarter, the monthly average concentrations calculated under Condition 10 of Schedule F and the highest and lowest analytical results obtained under Conditions 17 and 18 of Schedule F for each Limited Parameter in each Process Effluent Monitoring Stream at the Discharger's plant.
7. The Discharger shall report, for each month in the Quarter, the monthly average concentrations calculated under Condition 11 of Schedule F and the highest and lowest analytical results obtained under Condition 24 of Schedule F for each Assessment Parameter in **Schedule 2** in this Approval in each Cooling Water Effluent Monitoring Stream at the Discharger's plant.
8. The Discharger shall report, for each day in the Quarter, the daily concentrations calculated under Condition 12 of Schedule F and the highest and lowest analytical results obtained under Condition 25 of Schedule F for each Assessment Parameter in **Schedule 3** in this Approval in each Overflow Effluent Monitoring Stream at the Discharger's plant.
9. The Discharger shall report, for each month in the Quarter, the monthly average process effluent plant volume and the highest and lowest daily process effluent plant volumes calculated under Condition 27 of Schedule F.
10. The Discharger shall report, for each month in the Quarter, the monthly average cooling water effluent plant volume and the highest and lowest daily cooling water effluent plant volumes calculated under Condition 27 of Schedule F.
11. The Discharger shall report, for each day in the Quarter, the daily overflow

effluent stream volumes calculated under Condition 26 of Schedule F.

12. The Discharger shall report the number of days in each month in the Quarter on which Process Effluent or Overflow Effluent was discharged from the Discharger's plant.
13. The Discharger shall report, for each month in the Quarter, the highest and lowest pH results obtained under Condition 20 of Schedule F for each Process Effluent Monitoring Stream at the Discharger's plant.

**34. REPORTS TO THE DISTRICT MANAGER – CHRONIC TOXICITY TESTING**

1. A report under this condition shall be submitted to the District Manager in the manner and form the District Manager specifies from time to time.
2. A report under subsection (1) of this condition shall include a plot of percentage reduction in growth or reproduction against the logarithm of test concentration and shall include a calculation of the concentration at which a twenty (25) per cent reduction in growth or reproduction would occur.

**35. CONFLICT BETWEEN APPROVALS**

1. Where there is a conflict between a limit or monitoring or reporting requirement in this Schedule and a limit or monitoring or reporting requirement in the Terms and Conditions of the body of this Approval, the most stringent of the two requirements shall apply.

*The reasons for this amendment to the Approval are as follows:*

1. Conditions 1 to 34 of Schedule F are imposed to provide for substantially equivalent requirements as is currently provided in Ontario Regulation 560/94 (*Effluent Monitoring and Effluent Limits – Metal Mining Sector*) such that there is a continued protection of the environment in the event that Ontario Regulation 560/94 is revoked:
  - a. Effluent limits are imposed to ensure that the effluent discharged from the Discharger's Plant to the receiver meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.
  - b. Monitoring and recording requirements are included to require the Discharger to

demonstrate on a continual basis that the quality and quantity of the effluent from the Discharger's Plant is consistent with the effluent limits specified in this Approval and that the effluent does not cause any impairment to the receiving watercourse.

- c. Reporting requirements are included to provide a performance record for future references and to ensure that the Ministry is made aware of problems as they arise, so that the Ministry can work with the Discharger in resolving the problems in a timely manner.

- 2. Condition 35 of Schedule F is included to emphasize the precedence of the most stringent limit, if there are conflicting limits between this amendment notice and the ECA for the Plant.

## **SCHEDULE 1**

### **PROCESS EFFLUENT LIMITS AND MONITORING FREQUENCY**

**TABLE:**

<b>Item</b>	<b>Column 0.1 Analytical test group</b>	<b>Column 1 Parameter</b>	<b>Column 2 Monitoring frequency</b>	<b>Column 3 Daily concentration limit (mg/L)</b>	<b>Column 4 Monthly average concentration limit</b>
1.	2	Total Cyanide	Thrice weekly	2	1
2.	8	Total Suspended Solids (TSS)	Thrice weekly	30	15
3.	9	Copper	Weekly	0.6	0.3
4.	9	Lead	Weekly	0.4	0.2
5.	9	Nickel	Weekly	1	0.5
6.	9	Zinc	Weekly	1	0.5
7.	10	Arsenic	Weekly	1	0.5

## **SCHEDULE 2**

### **COOLING WATER ASSESSMENT MONITORING**

**TABLE:**

Item	Column 0.1 Analytical test group	Column 1 Parameter	Column 2 Monitoring frequency
1.	8	Total Suspended Solids (TSS)	Weekly

**SCHEDULE 3****OVERFLOW EFFLUENT ASSESSMENT MONITORING****TABLE:**

Item	Column 0.1 Analytical test group	Column 1 Parameter	Column 2 Monitoring frequency
1.	2	Total Cyanide	Every Eight (8)-hour Period
2.	8	Total Suspended Solids (TSS)	Every Eight (8)-hour Period
3.	9	Copper	Every Eight (8)-hour Period
4.	9	Lead	Every Eight (8)-hour Period
5.	9	Nickel	Every Eight (8)-hour Period
6.	9	Zinc	Every Eight (8)-hour Period
7.	10.	Arsenic	Every Eight (8)-hour Period

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5775-CVTHWE issued on September 29, 2023**

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land Tribunal and in accordance with Section 47 of the *Environmental Bill of Rights*, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act*, a hearing may not be available with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in

an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar\*  
Ontario Land Tribunal  
655 Bay Street, Suite 1500  
Toronto, Ontario  
M5G 1E5  
OLT.Registrar@ontario.ca

and

The Minister of the Environment,  
Conservation and Parks  
777 Bay Street, 5th Floor  
Toronto, Ontario  
M7A 2J3

and

The Director appointed for the purposes of  
Part II.1 of the *Environmental Protection Act*  
Ministry of the Environment, Conservation  
and Parks  
135 St. Clair Avenue West, 1st Floor  
Toronto, Ontario  
M4V 1P5

**\* Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or [www.olt.gov.on.ca](http://www.olt.gov.on.ca)**

This instrument is subject to Section 38 of the *Environmental Bill of Rights*, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act*.

DATED AT TORONTO this 4th day of May, 2026

Aziz Ahmed, P.Eng.

Director

appointed for the purposes of Part II.1 of the  
*Environmental Protection Act*

JY/

c: Area Manager, MECP Sault Ste. Marie

c: District Manager, MECP Sudbury

Adrien Powis-Clement and Kyle Wood, Alamos Gold Inc.