Manitoba
Environment and Climate Change
Environmental Approvals Branch
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EABDirector@gov.mb.ca

File No.: 5463.10

March 4, 2026

Jim Rondeau
Managing Director
Minago Development GP Inc.
Thompson Dorfman Sweatman, % Jamie Kagan
1700 - 242 Hargrave Street
Winnipeg MB R3C 0V1
b4jim@hotmail.com

Dear Jim Rondeau:

Re: Minago Development GP Inc. - Minago Mining Project - Environment Act Licence No. 2981 R

Please find enclosed the Environment Act Licence in response to your notices of alteration dated December 8, 2013 and July 21, 2022.

The licensee must apply for a Water Use Rights Licence under The Water Rights Act for the use of groundwater including groundwater dewatering.

The licensee must apply for all required permits and/or permissions for site access, proposed signs, proposed structures and site drainage from Manitoba Transportation and Infrastructure. Please contact the Northern Region at mi.utilities.northern@gov.mb.ca.

All licence requirements and federal, provincial, and municipal regulations and by-laws must be followed. The licensee must get approval from the director per The Environment Act to alter the development.

The licensee is reminded that, as per Clause 18 of the licence, the licensee is required to adhere to the commitments made to implement an Environmental Management and Monitoring Committee with participation from potentially affected Indigenous Nations and develop a comprehensive Indigenous awareness training program.

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Anyone affected by this decision may appeal, in writing, to the Minister of Environment and Climate Change at minecc@manitoba.ca by April 3, 2026. The licence is available on the public registry at https://www.gov.mb.ca/sd/eal/registries/index.html.

If you have any questions regarding this approval, please contact Cristal Huculak, Regional Supervisor, Environmental Compliance and Enforcement Branch at EnvCENorth@gov.mb.ca or 204-620-5797.

Sincerely,

Original Signed By
Agnes Wittmann
Director
The Environment Act

Enclosure

c. Cristal Huculak - Environmental Compliance and Enforcement
Jennifer Winsor - Environmental Approvals

THE ENVIRONMENT ACT
LOI SUR L'ENVIRONNEMENT

Manitoba

LICENCE

File No.: 5463.10

Licence No. / Licence n°: 2981 R
Issue Date / Date de délivrance : August 23, 2011
Revised : March 4, 2026

In accordance with The Environment Act (C.C.S.M. c. E125) /
Conformément à la Loi sur l'environnement (C.P.L.M. c. E125)

Under Section 11(1) and 14(2) / Conformément au Paragraphe 11(1) et 14(2)

THIS LICENCE IS ISSUED TO: / CETTE LICENCE EST DONNÉE À:

Minago Development GP Inc.; "the licensee"

for the construction and operation of the development being a 10,000 tonnes per day open pit nickel ore mine, milling facility and concentrator, mining and processing of 4,100 tonnes per day of frac sand at a frac sand processing facility, trenching and mining of peat overburden, construction of a 4.2 kilometer access road, construction and operation of a tailings and waste rock management facility and polishing pond, semi-passive water treatment system, two open channel drainage swales and two polishing ponds, groundwater drawdown wells, a 113,800 L/day wastewater treatment plant, camp and supporting site infrastructure collectively called the "Minago Mining Project" located on Highway No. 6 at a site approximately 225 kilometers south of Thompson, on Mineral Lease ML-002, comprised of Lots 1 to 12, Group 372, Plans 17614 to 17650, as shown on Director of Surveys in accordance with the proposal filed under The Environment Act on April 30, 2010, and notices of alteration filed on December 8, 2013 and July 21, 2022, and subject to the following specifications, limits, terms, and conditions:

DEFINITIONS

In this licence,

"accredited laboratory" means an analytical facility accredited by the Standards Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Environment and Climate Change to be equivalent to the SCC, or be able to demonstrate, upon request, that it has the quality assurance/quality control (QA/QC) procedures in place equivalent to accreditation based on the international standard ISO/IEC 17025, or otherwise approved by the director;

"affected area" means a geographical area, excluding the property of the development;

"AP" means the maximum acid-generation potential, expressed as tonnes of $CaCO_3$ per 1000 tonnes of a material tested, determined in accordance with a static Acid-Base Accounting method satisfactory to the director;

"approved" means approved by the director or assigned environment officer in writing;

“aquatic life guidelines" means the most stringent parameter for the protection of aquatic life identified in the Manitoba Water Quality Standards, Objectives and Guidelines, and/or CCMEC guidelines, and/or Federal Environmental Quality Guidelines (FEQG);

"CCME" means the Canadian Council of Ministers of the Environment;

"Closure Plan" means a plan indicating the actions to be taken for the closure of the development;

"composite sample" means as defined in the federal Metal and Diamond Mining Effluent Regulations (MDMER);

"contaminant" means a contaminant as defined in The Dangerous Goods Handling and Transportation Act;

"contaminated soil" means soil which contains contaminant concentrations in excess of the applicable remediation criteria cited in the CCME's “Canadian Environmental Quality Guidelines” report ISBN 896-997-34-1, update 5.0, 2006, or any future amendment thereof;

"contractor" means any party entered into a contract with the licensee;

"dangerous good" means a product, substance or organism as defined in The Dangerous Goods Handling and Transportation Act, or any amendments thereto;

"day" or "daily” means any 24-hour period;

"director" means an employee so designated under The Environment Act;

"Director of Mines" means the director of the branch responsible for administration of The Mines and Minerals Act or any amendments thereto;

“Director of Wildlife” means the director of the branch responsible for the administration of The Wildlife Act or any amendments thereto**;**

"EEM" means Environmental Effects Monitoring as defined in the federal Metal and Diamond Mining Effluent Regulations (MDMER);

"effluent" means mine water released from the development into the environment;

"environment officer" means an employee so designated under The Environment Act;

"environmental approvals branch" means the Environmental Approvals Branch of Manitoba Environment and Climate Change, or any future branch responsible for issuing licences under The Environment Act;

"Environmental Management System (EMS)" means the part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy;

"final discharge point" means the outfall discharge location as shown in Figure 2 of this licence located at N = 6004683.360 m, E = 488156.670 m, and as defined under the federal Metal and Diamond Mining Effluent Regulations (MDMER);

"fugitive emissions" means particulate matter escaping from sources within the development into the atmosphere other than through any of the emission stacks or vents;

"grab sample" means a grab sample as defined in the federal Metal and Diamond Mining Effluent Regulations (MDMER);

"groundwater" means water below the ground surface in a zone of saturation;

"hazardous waste" means a product, substance or organism as defined in The Dangerous Goods Handling and Transportation Act, or any amendments thereto;

"MDMER" means the Metal and Diamond Mining Effluent Regulations (SOR/2002-222), or any future amendments thereto, promulgated under the federal Fisheries Act;

"Mine Environment Neutral Drainage (MEND)" means the Mine Environment Neutral Drainage report Price, W.A. 2009. Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials, Report prepared for MEND. Report 1.20.1, p. 1-579, or future amendment thereto;

"Metal and Diamond Mining Effluent Regulations" means the Metal and Diamond Mining Effluent Regulations (SOR/2002-222), or any future amendments thereto, promulgated under the federal Fisheries Act;

"mine" means any of the surface and sub-surface workings, overburden, waste rock and ore stockpiles, all ancillary buildings, wastewater treatment facilities, impoundment or control facilities, tailings management areas and such other on-site infrastructure as may be located on the mine site and associated with the development;

"mine site" means the entire operational, disturbed or impacted surface area of land and water located within the boundaries of those surface rights acquired and held by the licensee for the construction and operation of the development;

"mine water" means water pumped to the surface from underground mine workings or from an open pit, or contaminated runoff or leachate from ore or waste rock stockpiles exposed to precipitation, or polluted mine site runoff, or any combination thereof, but excluding sewage;

"mothballed" means placed into a state of non use, or temporarily closed, while at the same time maintained in a state of readiness for potential re-use or re-opening;

"noise nuisance" means an unwanted sound, in an affected area, which is annoying, troublesome, or disagreeable to a person:

(a) residing in an affected area;
(b) working in an affected area; or
(c) present at a location in an affected area which is normally open to members of the public;

if the unwanted sound

(d) is the subject of at least 5 written complaints, received by the director in a form satisfactory to the director and within a 90-day period, from 5 different persons falling within clauses (a), (b) or (c), who do not live in the same household; or
(e) is the subject of at least one written complaint, received by the director in a form satisfactory to the director, from a person falling within clauses (a), (b) or (c) and the director is of the opinion that if the unwanted sound had occurred in a more densely populated area there would have been at least 5 written complaints received within a 90-day period, from 5 different persons who do not live in the same household;

"non acid-generating" means having a NPR greater than 4, until or unless an appropriate alternate NPR cut-off value is determined, to the satisfaction of the director, through detailed characterizations, evaluations and interpretations, or through kinetic testing, carried out on representative test material by qualified individuals;

"NP" means the maximum neutralizing potential, expressed as tonnes of $CaCO_3$ per 1,000 tonnes of material tested, determined in accordance with a static Acid-Base Accounting method satisfactory to the director;

"NPR" means the neutralizing potential ratio as determined from the ratio of NP/AP;

"odour nuisance" means a continuous or repeated odour, smell, or aroma, in an affected area, which is offensive, obnoxious, troublesome, annoying, unpleasant, or disagreeable to a person:

a) residing in an affected area;
b) working in an affected area; or
c) present at a location in an affected area which is normally open to members of the public;

if the odour, smell, or aroma is

d) the subject of at least 5 written complaints, received by the director in a form satisfactory to the director and within a 90-day period, from 5 different persons falling within clauses (a), (b), or (c), who do not live in the same household; or
e) is the subject of at least one written complaint, received by the director in a form satisfactory to the director, from a person falling within clauses (a), (b), or (c), and the director is of the opinion that if the odour, smell, or aroma had occurred in a more densely populated area, there would have been at least 5 written complaints received within a 90-day period, from 5 different persons who do not live in the same household;

"opacity" means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background;

"ore" means mineralized rock containing sufficient mineral value for the purposes of this development;

"PAG" means potentially-acid generating;

"particulate matter" means any finely divided liquid or solid matter other than water droplets;

"particulate residue" means that part or portion of an atmospheric emission which is deposited onto a surface;

"PM_{10}" means particulate matter that is 10 micrometres (µm) or less in diameter;

"$PM_{2.5}$" means particulate matter that is 2.5 micrometres (µm) or less in diameter;

"point source" means any point of emission from a development where pollutants are emitted to the atmosphere by means of a stack;

"pollutant" means a pollutant as defined in The Environment Act;

"potentially acid-generating" means having the potential or uncertain ability to generate acid as indicated by a NPR of 4 or less, until or unless an appropriate alternate NPR cut-off value is determined, to the satisfaction of the director, through detailed characterizations, evaluations and interpretations, or through kinetic testing, carried out on representative test material by qualified individuals;

"QA/QC" means quality assurance/quality control;

"record drawings" means engineering drawings complete with all dimensions which indicate all features of the development as it has actually been built;

"restoration" means the re-establishment of the site of the development with characteristics as close as possible to pre-development conditions;

"SDS" means safety data sheets;

"sewage" means household and commercial wastewater that contains human waste;

"solid waste" means solid waste as defined in Waste Management Facilities Regulation, or any future amendments thereto, respecting waste management facilities, excluding waste rock;

"stack" means a duct, pipe, chimney, vent, opening or other structure through which pollutants are emitted to the atmosphere;

"Standard Methods for the Examination of Water and Wastewater" means the most recent edition of Standard Methods for the Examination of Water and Wastewater published jointly by the American Public Health Association, the American Waterworks Association and the Water Environment Federation;

"surface runoff" means any overland flow of liquid off the developed area;

"tailings" means those granular solids which are discarded as waste material in the process of concentrating commercial minerals present in milled ore;

"visible emissions" means any air-borne particulate matter which obscures visibility;

"waste management facility" means a landfill, a composting facility, a transfer station, a material recovery facility or a remote seasonal waste facility approved for use in accordance with Waste Management Facilities Regulation, or any future amendments thereto, or a licence pursuant to The Environment Act;

"waste rock" means rock containing insufficient mineral value to the development, excepting such rock which is inadvertently present in mined ore;

"wastewater" means the spent or used water of a community or industry which contains dissolved and suspended matter;

"wastewater collection system" means the sewer and pumping system used for the collection and conveyance of domestic, commercial and industrial wastewater;

"wastewater treatment plant" means the component of this development which consists of the central facility of the wastewater treatment facilities which contains all treatment processes exclusive of the wastewater collection systems; and

"WHMIS" means Workplace Hazardous Materials Information System.

GENERAL TERMS AND CONDITIONS

Note: Notwithstanding this Environment Act Licence, this development is also subject to the federal Metal and Diamond Mining Effluent Regulations. If any specification, limit, term or condition prescribed in this licence or in any subsequent revision thereto, results in a contradiction of one or more requirements of the federal Metal and Diamond Mining Effluent Regulations, then the most stringent limit, term, or condition shall apply.

Retain Copy of Licence

1. The licensee shall at all times maintain a copy of this licence at the development or at the premises from which the development's operations are managed.

Sampling

2. In addition to any of the limits, terms and conditions specified in this licence, the licensee shall, upon the request of the director:
   a) sample, monitor, analyze and/or investigate specific areas of concern regarding any segment, component or aspect of pollutant storage, containment, treatment, handling, disposal or emission systems, for such pollutants or ambient quality, aquatic toxicity, leachate characteristics and discharge or emission rates, for such duration and at such frequencies as may be specified;
   b) determine the environmental impact associated with the release of any pollutant(s) from the development;

c) conduct specific investigations in response to the data gathered during environmental monitoring programs; or
d) provide the director, within such time as may be specified, with such reports, drawings, specifications, analytical data, descriptions of sampling and analytical procedures being used, bioassay data, flow rate measurements and such other information as may from time to time be requested.

3. The licensee shall, unless otherwise specified in this licence:
   a) carry out all preservations and analyses on liquid samples in accordance with the methods prescribed in the most current edition of Standard Methods for the Examination of Water and Wastewater or in accordance with equivalent preservation and analytical methodologies approved by the director;
   b) carry out all sampling of, and preservation and analyses on, soil, compost, and air samples in accordance with methodologies approved by the director;
   c) have all analytical determinations undertaken by an accredited laboratory; and
   d) report the results to the director, in writing and in an electronic format acceptable to the director, within 60 days of the samples being taken.

Reporting Format

4. The licensee shall submit all information required to be provided to the director or environment officer under this licence, in written and electronic format, in such form (including number of copies) and of such content as may be required by the director or environment officer, and each submission shall be clearly labeled with the licence number and file number associated with this licence.

Odour Nuisances

5. The licensee shall not cause or permit an odour nuisance to be created as a result of the construction, operation, or alteration of the development, and shall take such steps as the director may require to eliminate or mitigate an odour nuisance.

Noise Nuisances

6. The licensee shall not cause or permit a noise nuisance to be created as a result of the construction, operation, or alteration of the development, and shall take such steps as the Director may require to eliminate or mitigate a noise nuisance

Equipment Breakdown or Process Upset

7. The licensee shall, in the case of physical or mechanical equipment breakdown or process upset where such breakdown or process upset results or may result in the release of a pollutant in an amount or concentration, or at a level or rate of release, that causes or may cause a significant adverse effect, immediately report the event by calling the 24-hour environmental accident reporting line at 204-944-4888 (toll-free 1-855-944-4888). The report shall indicate the nature of the event, the time and estimated duration of the event and the reason for the event.

8. The licensee shall, following the reporting of an event pursuant to clause 7,
   a) identify the repairs required to the mechanical equipment;

b) undertake all repairs to minimize unauthorized discharges of a pollutant;
c) complete the repairs in accordance with any written instructions of the director; and
d) submit a report to the director about the causes of breakdown and measures taken, within one week of the repairs being done.

9. The licensee shall, during construction and operation of the development, report spills of fuels or other contaminants to an environment officer in accordance with the requirements of the Environmental Accident Reporting Regulation or any future amendment.

Approvals and Permits

10. The licensee shall obtain all necessary provincial and federal permits and approvals for construction of relevant components of the development prior to commencement of construction.

Alterations

11. The licensee shall notify the director and receive the approval of the director for any alterations to the development as licensed, prior to proceeding with such alterations.

Safety and Security

12. The licensee shall continually maintain an up-to-date inventory of any process and cleaning chemicals used and/or stored on-site that would be captured by any applicable federal/provincial WHMIS regulations and protocols and make this information and applicable SDS sheets available to an environment officer upon request.

13. The licensee shall prepare, within 90 days of the date of issuance of this licence and maintain an emergency response contingency plan in accordance with the Canadian Centre for Occupational Health and Safety “Emergency Response Planning Guide” or other emergency planning guidelines acceptable to the director.

14. The licensee shall implement and continually maintain in current status, an Environmental Management System (EMS) for the development which is acceptable to the director.

Fire Reporting

15. The licensee shall, in the event of a fire which continues in excess of thirty (30) minutes or requires fire suppression assistance from personnel outside of the facility (example: fire department):
    a) call the fire department; and
    b) report the fire by calling the Environmental Emergency Report Line (204-944-4888 or toll free 1-855-944-4888), identifying the type of materials involved and the location of the fire.

Environmental Coordinator

16. The licensee shall designate an employee, within 60 days of the date of issuance of this licence, as the licensee's Environmental Coordinator, whose job description will include assisting the licensee in complying with the limits, terms and conditions in this licence and assisting Senior Management of the licensee to manage environmental issues at the development. The name of the Environmental Coordinator shall be submitted in writing to the director within 14 days of appointment and any subsequent appointment.

Future Studies

17. The licensee shall actively participate in any future watershed-based management study, plan or nutrient reduction program, approved by the director.

Compliance

18. The licensee shall adhere to the commitments made in the proposal, notice of alterations and additional information submitted during the environmental assessment review and approved pursuant to this licence during construction and operation of the development.

Engagement

19. The licensee shall submit an annual report documenting the licensee's process and outcomes of engagement with Indigenous Nations during the construction and operation of the development to the director by June 30th of each year. The report will include a summary of engagement activities including environmental issues raised by Indigenous Nations and how issues are being addressed.

Certification

20. The licensee shall obtain and maintain classification of the wastewater treatment plant pursuant to the Water and Wastewater Facility Operators Regulation or any future amendment thereof and maintain compliance with all requirements of the regulation including, but not limited to, the preparation and maintenance of a Table of Organization, Emergency Response Plan and Standard Operating Procedures.

Environmental Management Plans

21. The licensee shall prepare, implement and continuously maintain in current status, each Environmental Management Plan for the development in a manner acceptable to the director and submit to the director an annual summary of the actions undertaken over the previous year to minimize or improve upon the environmental effects at the development.

SPECIFICATIONS, LIMITS, TERMS, AND CONDITIONS

Construction and Operation - General

22. The licensee shall notify the assigned environment officer prior to beginning construction of the development. The notification shall include the intended starting date of construction and the name of the contractor responsible for the construction.

23. The licensee shall restrict construction and operational activities to only such lands to which the licensee possesses the mineral rights, surface rights or complete ownership, or which the licensee has leased from another owner, wherein the leasing agreement clearly identifies the party which accepts full responsibility for any environmental liabilities incurred by the activities of the licensee.

24. The licensee shall:
    a) conduct all ditch related work activities during no flow or dry conditions and not during the April 1 to June 15 fish spawning and incubation period;
    b) not construct components of the development involving earthwork during periods of heavy rain;
    c) place and/or isolate all excavated and construction material where it will not erode into any watercourse;
    d) implement effective long-term sediment and erosion control measures to prevent soil-laden runoff and/or silt from entering any watercourse during construction and operation and until vegetation is established;
    e) routinely inspect all erosion and sediment control structures and immediately complete any necessary maintenance or repair;
    f) revegetate soil exposed during the construction of the development with native grasses, suited to the location, and the soil-moisture regime; and
    g) use rock that is free of silt and clay for riprap.

25. The licensee shall establish and maintain an undisturbed native vegetation area located upslope from the ordinary high water mark and adjacent to all waterbodies and waterways connected to the provincial surface water network in accordance with the following:
    a) a 30-metre undisturbed native vegetation area for lands located adjacent to surface waters;
    b) permanent development is prohibited within an undisturbed vegetation area;
    c) new and existing structures within this undisturbed native vegetation area is limited to a maximum of 25% of the shoreline length (for example: 25 metres per 100 metres of shoreline length) of each lot; and
    d) alteration within this undisturbed native vegetation area—including the removal of near shore or stream aquatic habitat—shall not occur unless an activity conforms to a Department of Fisheries and Oceans Canada Operational Statement or an activity is reviewed by the Department of Fisheries and Oceans Canada.

26. The licensee must, within three months of the completion of construction of the development, contact the Director of Drainage and Water Rights Licensing to determine if an approval is needed to ensure that there is no net loss of wetland benefits related to Class 3, 4, and 5 wetlands (as defined by Schedule C of the Water Rights Regulation) that are altered or destroyed during construction of the development. A minimum 15 metre buffer zone of no development from the historical wetland boundary must be implemented by the licensee.

27. The licensee shall dispose of non-reusable construction debris from the development at a waste management facility operating under the authority of a permit issued under the Waste Management Facilities Regulation, or any future amendments, or a licence issued under The Environment Act.

28. The licensee shall, during construction and maintenance of the development, prevent the introduction and spread of foreign aquatic and terrestrial biota by cleaning equipment prior to its delivery to the site of the development and complying with the requirements of the Aquatic Invasive Species Regulation, or any future amendments.

29. The licensee shall locate fuel storage and equipment servicing areas established for the construction and operation of the development a minimum distance of 100 metres from any waterbody, and shall comply with the requirements of the Storage and Handling of Petroleum Products and Allied Products Regulation, or any future amendments.

30. The licensee shall, during construction and maintenance of the development, operate, maintain and store all materials and equipment in a manner that prevents any deleterious substances (fuel, oil, grease, hydraulic fluids, coolant, paint, uncured concrete, and concrete wash water, etc.) from entering the discharge route, and watercourses, and have an emergency spill kit for in-water and land use available on site during construction.

31. The licensee shall not remove, destroy or disturb species unless otherwise authorized pursuant to Manitoba Regulation 25/98, respecting Threatened, Endangered and Extirpated Species, or any future amendment thereof, and pursuant to the federal Species at Risk Act.

32. The licensee shall not undertake construction or maintenance activities in connection with the development in fish bearing waters or potentially fish bearing waters between April 15 and June 30 of any year or during periods of high stream flow, unless otherwise authorized by the director.

33. The licensee shall not direct pollutants into any surface drainage route leading off the property of the development or into the local groundwater.

34. The licensee shall prepare a wildlife monitoring program in consultation with the Wildlife Branch and shall implement the plan as approved by the director of the Wildlife Branch.

Respecting Heritage Resources

35. The licensee shall comply with the requirements of The Heritage Resources Act and a heritage resource management plan will be developed for the lifetime of the project to guide on-site operations and, if heritage resources and/or human remains are encountered during the construction of the development, suspend construction and immediately notify the Historic Resources Branch.

36. The licensee shall notify local Indigenous Nations engaged on the project should heritage resources and/or human remains be uncovered within the project area of the development.

37. The licensee shall, in an effort to eliminate or mitigate potential impacts to heritage resources and/or human remains, provide training and guidance, acceptable to the director of the Historic Resources Branch, on recognizing heritage resources (including archaeological, palaeontological, and natural heritage objects) and human remains to all employees and contractors working at the development.

Respecting Solid Waste

38. The licensee shall dispose of all domestic solid waste generated at the development, which is not recycled, only to a waste management facility operating under the authority of a permit issued under the Waste Management Facilities Regulation or any future amendments, or a licence issued under the Environment Act.

39. The licensee shall not undertake any on-site burning of solid waste.

Respecting Chemical Storage and Spill Containment

40. The licensee shall provide containment for all vessels containing chemicals in each area of the development where the chemicals are stored, loaded, transferred, used or otherwise handled, in compliance with the current Manitoba Fire Code Regulation, or any future amendment.

41. The licensee shall prevent pollution of groundwater and surface water from any product leakage or spillage and any contaminated liquid generated on site.

42. The licensee shall store and handle all dangerous goods and chemicals in a manner acceptable to the director or environment officer.

43. The licensee shall remove and dispose of all spilled dangerous goods and pollutants at a facility approved under the Environment Act or Dangerous Goods Handling and Transportation Act to handle that type of waste.

44. The licensee shall comply with all the applicable requirements of:
    a) the Storage and Handling of Petroleum Products and Allied Products regulation or any future amendment;
    b) the Dangerous Goods Handling and Transportation Act, and its regulations; and
    c) the Office of the Fire Commissioner – Province of Manitoba.

45. The licensee shall not receive at the development any hazardous waste from any generator off site of the development.

46. The licensee shall install and maintain spill recovery equipment at the development.

Respecting Air Emissions – Sampling and Analysis

47. The licensee shall, upon written request from the director, perform stack sampling and analysis in accordance with Schedule A of this licence.

Respecting Air Emissions - Limits

48. The licensee shall not emit particulate matter from the development such that:
    a) particulate matter:
        i) exceeds 0.23 grams per dry standard cubic metre calculated at 25 degrees Celsius and 760 millimetres of mercury, corrected to 12 percent carbon dioxide for processes involving combustion, from any point source of the development;
        ii) exhibits a visible plume with an opacity of greater than 5 percent at any point beyond the property line of the development; or
        iii) results in the deposition of visible particulate residue at any time beyond the property line of the development; or
    b) opacity from any point source of the development equals or exceeds:
        i) 20 percent as the average of any 24 consecutive opacity observations taken at 15 second intervals;
        ii) 20 percent for more than 16 individual opacity observations within any 1 hour period; or
        iii) 40 percent for any individual opacity observation.

Respecting Waste Rock

49. The licensee shall treat all waste rock at the development as potentially acid-generating rock unless and until it is proven to be non-acid generating through analytical testing.

50. The licensee shall not, other than on the designated waste rock pads, temporarily store waste rock at the development site.

51. The licensee shall:
    a) not use, nor release to any person, any contaminated soil, or potentially acid-generating rock/materials, as a construction material; and
    b) undertake such remedial work as may be specified by the director should any of the construction materials used by the licensee in the course of constructing or altering this development be determined to be contaminated soil or acid generating rock/material.

Respecting Wastewater Treatment Facility

52. The licensee shall construct and operate an extended aeration wastewater treatment plant at the mine site in accordance with the specifications, limits, terms and conditions prescribed under Schedule B of this Licence.

53. The licensee shall dispose of waste solids from the wastewater treatment facility within the tailings management area, or at an approved waste management facility or as approved by the director.

54. The licensee shall discharge all treated wastewater effluent into the tailings management area.

Respecting the Tailings Management Area

55. The licensee shall:
    a) design containment structures for the tailings management area in accordance with the most current Canadian Dam Association Dam Safety Guidelines;
    b) inspect and maintain the condition of all the embankments used to contain any waste solids and mine water within the tailings management area to the satisfaction of the director; and
    c) investigate and correct any condition of deteriorated structural integrity or excessive seepage losses associated with the embankments in such a manner and within such a time frame as is satisfactory to the director.

56. The licensee shall construct and maintain the entire base and inner banks of the tailings management area lined with a minimum 1.0 metre thickness of compacted clay, or other material acceptable to the director, possessing a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec.

57. The licensee shall, in accordance with the MDMER, and prior to the commencement of mining:
    a) install, operate, maintain and annually calibrate a continuous effluent flow measuring device, at the final discharge point, rated to an accuracy within ± 15%; and
    b) measure and record each monthly volume (in cubic metres) of effluent released through the final discharge point.

58. The licensee shall not discharge, or cause or allow the release of, any effluent from the tailings management area into the environment:
    a) other than through the final discharge point as identified in accordance with the MDMER;
    b) if the effluent is acutely lethal, as defined in the MDMER;
    c) if the effluent exceeds 1mg/L total phosphorus or 15 mg/L total nitrogen;
    d) if the effluent has a pH less than 6.0 or greater 9.5;
    e) when such a discharge would cause or contribute to flooding in or along the effluent drainage route; or

f) if the quality of effluent is in non-compliance with the water quality criteria set out in Schedule 4 of the MDMER or any amendment thereto, specifically:

Item	Deleterious Substance	Maximum Authorized Monthly Mean Concentration	Maximum Authorized Concentration in a Composite Sample	Maximum Authorized Concentration in a Grab Sample
1	Arsenic	0.30 mg/L	0.45 mg/L	0.60 mg/L
2	Copper	0.30 mg/L	0.45 mg/L	0.60 mg/L
3	Cyanide	0.50 mg/L	0.75 mg/L	1.00 mg/L
4	Lead	0.10 mg/L	0.15 mg/L	0.20 mg/L
5	Nickel	0.50 mg/L	0.75 mg/L	1.00 mg/L
6	Zinc	0.50 mg/L	0.75 mg/L	1.00 mg/L
7	Suspended Solids	15.00 mg/L	22.50 mg/L	30.00 mg/L
8	Radium 226	0.37 Bq/L	0.74 Bq/L	1.11 Bq/L
9	Un-ionized ammonia	0.50 mg/L expressed as nitrogen (N)	Not applicable	1.00 mg/L expressed as nitrogen (N)

59. The licensee shall not discharge or cause or allow the release of any effluent from the tailings management area into the environment if the effluent quality is resulting in, or is likely to directly or cumulatively result in, a downstream degradation of the water quality immediately beyond a maximum 10% mixing zone (by volume) within the Minago River relative to the Manitoba Water Quality Standards, Objectives and Guidelines Regulation under The Water Protection Act and/or nutrient control strategies and regulations developed by the Manitoba Environment and Climate Change.

Record Drawings

60. The licensee shall:
    a) prepare "record drawings" for the development and shall label the drawings "Record Drawings"; and
    b) provide to the director, within 120 days of completion of construction, an electronic copy of the "record drawings".

MONITORING AND REPORTING

Respecting Air Quality Monitoring

61. The licensee shall submit, upon the written request and for the approval of the director, a program for:
    a) the sampling, analysis and reporting of levels of pollutants, as determined by the director, at a selected location(s) beyond the property boundaries of the development; and
    b) the location, installation and operation of a meteorological monitoring station.

62. The licensee shall:
    a) implement the program approved pursuant to clause 61 of this licence within a time frame stipulated by the director; and
    b) submit a report within 60 days of the receipt of the analytical results of the sampling program pursuant to clause 61 of this licence for the approval of the director containing at minimum:
        a. the raw data collected;
        b. a discussion of the sampling and analytical portions of the program including any anomalies of sampling and analysis; and
        c. a discussion of the significance of the data gathered with specific attention to:
            i. the significance for potential acute and chronic impacts to health or environment from exposure to concentrations of the compounds detected;
            ii. the need for risk assessment of the impact of emissions;
            iii. the need for the establishment of ambient air monitoring stations;
            iv. results and conclusions of the QA/QC program; and
            v. other issues as may be determined by the director.

Respecting Tailings Management Area Wastewater Effluent Sampling

63. The licensee shall:
    a) collect sufficient undiluted composite or grab samples, as necessary, of effluent being released at the final discharge point of the development once per week and at least 24 hours apart, as specified in the MDMER, and have the samples analyzed for pH and each deleterious substance and characteristic as set out in Appendix A including such additional parameters, characteristics and information as may otherwise be requested by the director; and
    b) collect sufficient undiluted and representative samples of effluent released from the final discharge point of the development once per month but not less than 15 days apart and have each sample subjected to acute lethality tests as per MDMER requirements;
    c) unless otherwise requested by the director, collect, on a quarterly basis, composite or grab samples of the final effluent and have these samples analyzed for the parameters listed in Appendix B; and
    d) following twelve consecutive samples in accordance with a, b and c, modify sampling frequency in accordance with exemption criteria and reduced monitoring criteria as outlined the MDMER and as approved by the director.

Respecting Upstream and Downstream Water Sampling

64. The licensee shall:
    a) identify upstream and downstream water quality sampling locations, including GPS coordinates to the environment officer;
    b) collect water samples at these locations, a minimum of one-month apart, from the Minago River on a quarterly basis per year or as approved by the director;
    c) analyze the water samples for the parameters listed in Appendix B of this licence; and
    d) notify the environment officer of any exceedances to aquatic life guidelines.

Respecting Acid Rock Drainage Monitoring

65. The licensee shall, upon commencement of operation:
    a) conduct site specific testing and investigations for prediction of acid rock drainage chemistry in accordance with the Mine Environment Neutral Drainage (MEND) report or other methods approved by the director;
    b) assess the results of the investigations with respect to the NPR at the mine site; and
    c) submit testing and investigation results and conclusions to the director within three months of commencement of operation, for approval.

Records Maintenance and Reporting

66. The licensee shall during each year maintain the following records:
    a) the total volume (expressed as cubic metres) of wastewater effluent directed to the tailings management area;
    b) the total flow rate (cubic metres per day) of effluent discharged from the final discharge point;
    c) the original copies of laboratory analytical results of the sampled wastewater effluent from the tailings management area, comparing analytical results to detection limits outlined in Appendix B;
    d) the original copies of the laboratory analytical results of upstream and downstream water samples, comparing analytical results to detection limits outlined in Appendix B and to provincial and federal water quality guidelines;
    e) the monthly average and peak milling production rates (expressed as tonnes/day) for the mill at the development;
    f) the monthly average and peak production rates (expressed as tonnes/day) for frac sand processing at the development;
    g) the total volume of ore (expressed as tonnes/day) mined at the development;
    h) the total volumes of waste rock, dolomite, country rock, sandstone, and peat (expressed as tonnes) stockpiled on site at the development;
    i) equipment maintenance and repairs; and
    j) other reporting as requested by the director.

67. The licensee shall submit an annual report including a discussion and trend analysis of analytical values and measurements to the environment officer by March 15 of the following year including all records required by clause 66 of this licence.

Environmental Effects Monitoring (EEM)

68. The licensee shall:
    a) carry out the environmental effects monitoring program, as required by the federal Metal and Diamond Mining Effluent Regulations, in consultation with Manitoba Environment and Climate Change, and incorporate such additional monitoring requirements as may be requested in writing by the director; and
    b) submit to the director a copy of each environmental effects monitoring report, submitted by the licensee to Environment Canada in accordance with the federal Metal and Diamond Mining Effluent Regulations, at the same time as each such report is submitted to the federal authorization officer.

Respecting Closure

69. The licensee shall:
    a) provide the director with:
        i. written notice six months in advance of any imminent permanent closure of this development; or
        ii. an immediate notice of any sudden decision to temporarily close this development whereby the development would be placed in a mothballed state for re-opening in the foreseeable future;
    b) comply with Manitoba Regulation 67/99, or any future amendment thereto, issued under The Mines and Minerals Act, respecting closure plans for mining developments; and
    c) upon permanent or temporary closure of this development, implement the environmentally related aspects of the Closure Plan approved pursuant to Manitoba Regulation 67/99, or any future amendment thereto, to the satisfaction of the Director of Mines.

REVIEW AND REVOCATION

70. This licence replaces Licence No. 2981, which is hereby rescinded.

71. If, in the opinion of the director, the licensee has exceeded or is exceeding, or has failed or is failing to meet the specifications, limits, terms, or conditions set out in this licence, the director may, temporarily or permanently, revoke this licence.

72. If, in the opinion of the director, new evidence warrants a change in the specifications, limits, terms, or conditions of this licence, the director may require the filing of a new proposal under Section 11 of The Environment Act or request the filing of a Notice of Alteration.

Original Signed By
Agnes Wittmann
Director
The Environment Act

Appendix A To Environment Act Licence No. 2981 R

Sampling Variables Pursuant to Clause 63
These parameters are subject to change by the director

Arsenic
Copper
Lead
Nickel
Zinc
Radium 226
Total Suspended Solids
Un-Ionized Ammonia
pH
Total Ammonia (as Nitrogen)
Total Nitrogen
Total Phosphorus
Temperature

*all concentrations are total values

Appendix B To Environment Act Licence No. 2981 R

Sampling variables pursuant to Clauses 63 and 64
These parameters are subject to change by the director

Parameter	Detection Limit	Units
pH	0.1	pH units
Conductivity	1	µS/cm
Total Carbon	0.5	mg/L
Total Inorganic Carbon	0.5	mg/L
Dissolved Organic Carbon	0.5	mg/L
Nitrate (as N)	0.005	mg/L
Nitrite (as N)	0.001	mg/L
Ammonia-Total (as N)	0.005	mg/L
Kjeldahl Nitrogen-Total	0.05	mg/L
Nitrogen (N)-Total	0.05	mg/L
Phosphorus (P)-Total and Dissolved	0.001	mg/L
Phosphorus (P)-Inorganic	0.001	mg/L
Phosphorus (P)-Reactive	0.001	mg/L
Bicarbonate (HCO3)	1	mg/L
Alkalinity, Total (as CaCO3)	1	mg/L
Carbonate (CO3)	1	mg/L
Hydroxide (OH)	1	mg/L
Chloride (Cl)	0.1	mg/L
Sulfate (SO4)	0.3	mg/L
Total Suspended Solids	1	mg/L
Total Dissolved Solids	3	mg/L
Turbidity	0.1	NTU
Hardness (as CaCO3) - total and dissolved	0.5	mg/L
Aluminum (Al)-Total	0.003	mg/L
Aluminum (Al)-Dissolved	0.001	mg/L
Antimony (Sb)-Total and Dissolved	0.0001	mg/L
Arsenic (As)-Total and Dissolved	0.0001	mg/L
Barium (Ba)-Total and Dissolved	0.0001	mg/L
Beryllium (Be)-Total and Dissolved	0.00002	mg/L
Bismuth (Bi)-Total and Dissolved	0.00005	mg/L
Boron (B)-Total and Dissolved	0.01	mg/L
Cadmium (Cd)-Total and Dissolved	0.000005	mg/L
Calcium (Ca)-Total	0.01	mg/L
Calcium (Ca)-Dissolved	0.05	mg/L
Cesium (Cs)-Total and Dissolved	0.00001	mg/L
Chromium (Cr)-Total and Dissolved	0.0005	mg/L
Cobalt (Co)-Total and Dissolved	0.0001	mg/L
Copper (Cu)-Total	0.0005	mg/L
Copper (Cu)-Dissolved	0.0002	mg/L
Iron (Fe)-Total and Dissolved	0.01	mg/L
Lead (Pb)-Total and Dissolved	0.00005	mg/L
Lithium (Li)-Total and Dissolved	0.0002	mg/L

Magnesium (Mg)-Total and Dissolved	0.005	mg/L
Manganese (Mn)-Total and Dissolved	0.0001	mg/L
Molybdenum (Mo)-Total and Dissolved	0.00005	mg/L
Nickel (Ni)-Total and Dissolved	0.0005	mg/L
Potassium (K)-Total and Dissolved	0.05	mg/L
Rubidium (Rb)-Total and Dissolved	0.0002	mg/L
Selenium (Se)-Total and Dissolved	0.00005	mg/L
Silicon (Si)-Total	0.1	mg/L
Silicon (Si)-Dissolved	0.05	mg/L
Silver (Ag)-Total and Dissolved	0.00001	mg/L
Sodium (Na)-Total and Dissolved	0.05	mg/L
Strontium (Sr)-Total and Dissolved	0.0002	mg/L
Tellurium (Te)-Total and Dissolved	0.0002	mg/L
Thallium (Tl)-Total and Dissolved	0.00001	mg/L
Thorium (Th)-Total and Dissolved	0.0001	mg/L
Tin (Sn)-Total and Dissolved	0.0001	mg/L
Titanium (Ti)-Total and Dissolved	0.0003	mg/L
Tungsten (W)-Total and Dissolved	0.0001	mg/L
Uranium (U)-Total and Dissolved	0.00001	mg/L
Vanadium (V)-Total and Dissolved	0.0005	mg/L
Zinc (Zn)-Total	0.003	mg/L
Zinc (Zn)-Dissolved	0.001	mg/L
Zirconium (Zr)-Total and Dissolved	0.0002	mg/L
Mercury (Hg)-Total	0.000005	mg/L
Methyl-mercury (MeHg)-Total	0.00000005	mg/L
Fluoride	0.02	mg/L

*Field measurements must be collected for temperature, pH, conductivity, dissolved oxygen, turbidity, and suspended sediments.
*It is noted that detection limits may vary due to laboratory capabilities and sample interference. Best achievable detection limits must be attained at all times.

Schedule A to Environment Act Licence No. 2981 R

Air Emission Sampling and Analysis Pursuant to Clause 47

1. The licensee shall, upon written request by the director, provide and maintain a stack or stacks including all necessary sampling facilities for the sampling of air emissions at the development. The stack or stacks shall be provided:
   a) at a location(s) and within a time frame satisfactory to the director; and
   b) to the specifications and in accordance with the most recent version of Manitoba Conservation and Climate Change Guideline, Guideline for Stack Sampling Facilities, unless otherwise approved by the director.

2. The licensee, upon a written request from the director, shall submit a detailed plan for any area of the development which is acceptable to and approved by the director, for the sampling and analysis of potential air pollutants, released as stationary point and fugitive emissions, including any compounds determined by the director. The plan shall identify the rationale for the sampling, the ways and means by which the sampling program will be implemented including any special measures or methods which would be necessitated by influencing factors such as unfavourable weather conditions, the need for large or additional sample volumes, the need for multiple sampling runs, the methods used for the sampling and the analysis for each compound, the detection level to be attained, a comprehensive QA/QC program, and other items as may be identified by the director.

3. The licensee shall perform all stack sampling in accordance with the most recent version of Manitoba Conservation and Climate Change Report No. 96-07, Interim Stack Sampling Performance Protocol, unless otherwise approved by the director.

4. The licensee shall arrange the scheduling of the sampling program submitted pursuant to clause 2 of this schedule such that a representative of Manitoba Environment and Climate Change could be available to monitor and audit the implementation of the sampling program.

5. The licensee shall complete the sampling of emissions according to the approved plan submitted pursuant to clause 2 of this schedule, within a timeframe to be determined by the director.

6. The licensee shall submit a report, for the approval of the director, of the completed sampling and analysis plan approved pursuant to clause 2 of this schedule, within 90 days of the receipt of the analytical results of that sampling plan. The report shall contain at minimum:
   a) the raw data collected;
   b) calculation of emission rates for all parameters;
   c) a discussion of the sampling and analytical portions of the program including any anomalies of sampling and analysis; and
   d) a discussion of the significance of the data gathered with specific attention to:
      i) the significance for potential acute and chronic impacts to health or environment from exposure to concentrations of the compounds detected;
      ii) the need for risk assessment of the impact of emissions;
      iii) the need for the establishment of ambient air monitoring stations;
      iv) the need for dispersion modeling of emissions;
      v) results and conclusions of the QA/QC program; and
      vi) other issues as may be determined by the director.

Schedule B to Environment Act Licence No. 2981 R

In accordance with clause 52 of this licence, this schedule outlines the specifications, limits, terms and conditions for the construction, operation and maintenance of the wastewater collection system and wastewater treatment plant.

DEFINITIONS

"composite sample" means a quantity of wastewater consisting of a minimum of 10 equal volumes of effluent, or flow proportional volumes collected over a 24-hour period, and may be collected manually or by means of an automatic sampling device;

"effluent" means treated wastewater flowing or pumped out of the wastewater treatment plant;

"fecal coliform" means aerobic and facultative, Gram-negative, nonspore-forming, rodshaped bacteria capable of growth at 44.5°C, and associated with fecal matter of warm blooded animals;

"final discharge point" means the outlet of the UV disinfection system at which an effluent monitoring station is located;

"five-day carbonaceous biochemical oxygen demand (CBOD5)" means that part of oxygen demand usually associated with biochemical oxidation of carbonaceous organic material within 5 days at a temperature of 20°C, excluding the oxygen demand usually associated with biochemical oxidation of nitrogenous organic matter;

"grab sample" means a quantity of wastewater taken at a given place and time;

"headworks" means the initial structures and devices of the wastewater treatment plant;

"influent" means water, wastewater, or other liquid flowing into the wastewater treatment plant;

"MPN index" means the most probable number of coliform organisms in a given volume of wastewater as determined by statistical estimation;

"record drawings" means engineering drawings complete with all dimensions which indicate all features of the wastewater collection system and wastewater treatment plant as they have actually been built;

"sewage" means household and commercial wastewater that contains human waste;

"sludge" means accumulated solid material containing large amounts of entrained water which has separated from wastewater during processing;

"sludge solids" means solids in sludge;

"wastewater effluent" means wastewater after it has undergone at least one form of physical, or biological treatment;

"wastewater treatment plant" means the component of this development which consists of the central facility, of the wastewater treatment facilities, which contains all treatment processes exclusive of the wastewater collection system;

"UV disinfection" means a disinfection process for treating wastewater using ultraviolet radiation;

"UV germicidal dose" means the units of intensity of ultraviolet light that is required to kill bacteria and viruses present in the wastewater effluent;

"waste management facility" means a landfill, a composting facility, a transfer station, a material recovery facility or a remote seasonal waste facility approved for use in accordance with Waste Management Facilities Regulation, or any future amendments thereto, or a licence pursuant to The Environment Act;

"wastewater" means the spent or used water of a community or industry which contains dissolved and suspended matter;

"wastewater collection system" means the sewer and pumping system used for the collection and conveyance of domestic, commercial and industrial wastewater; and

"wastewater effluent" means wastewater after it has undergone at least one form of physical, chemical or biological treatment.

GENERAL SPECIFICATIONS

1. The licensee shall operate the wastewater treatment plant in such a manner that:
   a) all wastewater generated at the development is directed toward the wastewater treatment plant or other approved wastewater treatment facilities;
   b) only wastewater as defined in this licence is discharged into the wastewater treatment plant;
   c) sludge solids are disposed in a waste management facility approved for use in accordance with Waste Management Facilities Regulation, or any future amendment thereof; or a licence issued under The Environment Act; and
   d) sludge solids are transported in containers in such a manner to prevent loss of solids to the satisfaction of an environment officer.

2. The licensee shall install, operate and maintain the wastewater collection system and wastewater treatment plant such that freezing of the effluent in the pipes is prevented.

3. The licensee shall not spill, or allow to be spilled, wastewater and/or sludge in the area around the wastewater treatment plant.

4. The licensee shall undertake a regular program of maintenance for the wastewater treatment plant.

5. The licensee shall carry out the operation of the wastewater treatment plant with individuals properly certified to do so pursuant to the Water and Wastewater Facility Operators Regulation or any future amendment thereof. In the event that the development is

reclassified pursuant to the Regulation, the licensee shall provide a development plan to the director to have certified operator(s) upgrade their certification.

6. The licensee shall have adequate instrumentation installed to provide constant monitoring of the UV process to ensure compliance with the disinfection requirements. Such instrumentation shall include but not be limited to the following:
   a) a UV sensor to monitor lamp intensity;
   b) an appropriate alarm and shutdown systems;
   c) a lamp monitoring system to identify the location of individual lamp failures;
   d) an hour meter which cannot be reset to display actual hours of UV lamp operation; and
   e) protective circuits for overcurrent and ground current leakage detection.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

7. The licensee shall, prior to construction of the wastewater treatment plant, submit a design report to the director, for approval, that includes a description of how the maximum daily flow rate and maximum organic loading was determined. The licensee shall operate and maintain the wastewater treatment plant in such a manner that the maximum daily flow rate and organic loading are not in excess of the design approved by the director.

8. The licensee shall notify the assigned environment officer not less than two weeks prior to beginning construction of the wastewater treatment plant. The notification shall include the intended starting date of construction and the name of the licensee's contact person at the construction site.

9. The licensee shall utilize UV lamps that have a rated output of at least 254 nanometres (nm) capable of delivering a germicidal dose in excess of 30,000 microwatt seconds/sq cm.

10. The licensee shall operate and maintain the UV units to give a germicidal dose of 80% or more of the design germicidal dose, at the end of the lamp life.

11. The licensee shall install and maintain a security fence around all components of the wastewater treatment plant that are not buried or enclosed within secured buildings.

12. The licensee shall, prior to disposal at a waste management facility, subject all sludge to aerobic digestion, or an equivalent digestion process acceptable to the director.

13. The licensee shall not discharge effluent from the wastewater treatment plant, as sampled at the monitoring station located after UV disinfection, where:
   a) the organic content of the effluent, as indicated by the five-day carbonaceous biochemical oxygen demand (CBOD5), is in excess of 25 milligrams per litre;
   b) the fecal coliform content of the effluent, as indicated by the MPN index, is in excess of 200 per 100 millilitres of sample;
   c) the total suspended solids content of the effluent, as indicated by the nonfilterable residue is in excess of 25 milligrams per litre; and
   d) the concentration of unionized ammonia is in excess of 1.25 mg/L, expressed as nitrogen (N), at 15°C ± 1°C.

MONITORING AND REPORTING SPECIFICATIONS

14. The licensee shall monitor, and make the records of such monitoring available to the director as may be requested, the wastewater treatment process for the following parameters:
    a) total flow rate(s) into the wastewater treatment plant;
    b) pH, dissolved oxygen, temperature, and tank liquid levels of the digestion processes;
    c) flow rates into and through the UV disinfection system; and
    d) other process parameters approved or required by the director.

15. The licensee shall:
    a) construct and make available for use by an environment officer, a secured and heated effluent monitoring station, allowing direct access to the discharge pipeline following the UV disinfection;
    b) have the monitoring station accessible to an environment officer at all times;
    c) install and maintain a flow measuring device at the monitoring station or at a location acceptable to the director which is capable of measuring the volume of effluent with an accuracy of 2 percent;
    d) have the flow measuring device re-calibrated biannually or on the request of an environment officer;
    e) equip the monitoring station with a flow-proportional sampling device equipped to function with the flow measuring device and have the sampling device available on request for use by an environment officer; and
    f) equip the monitoring station with an electrical power source of 15 amperes at 110 volts.

16. The licensee shall arrange for the taking of samples of influent wastewater at the headworks and treated wastewater effluent at the final discharge point.

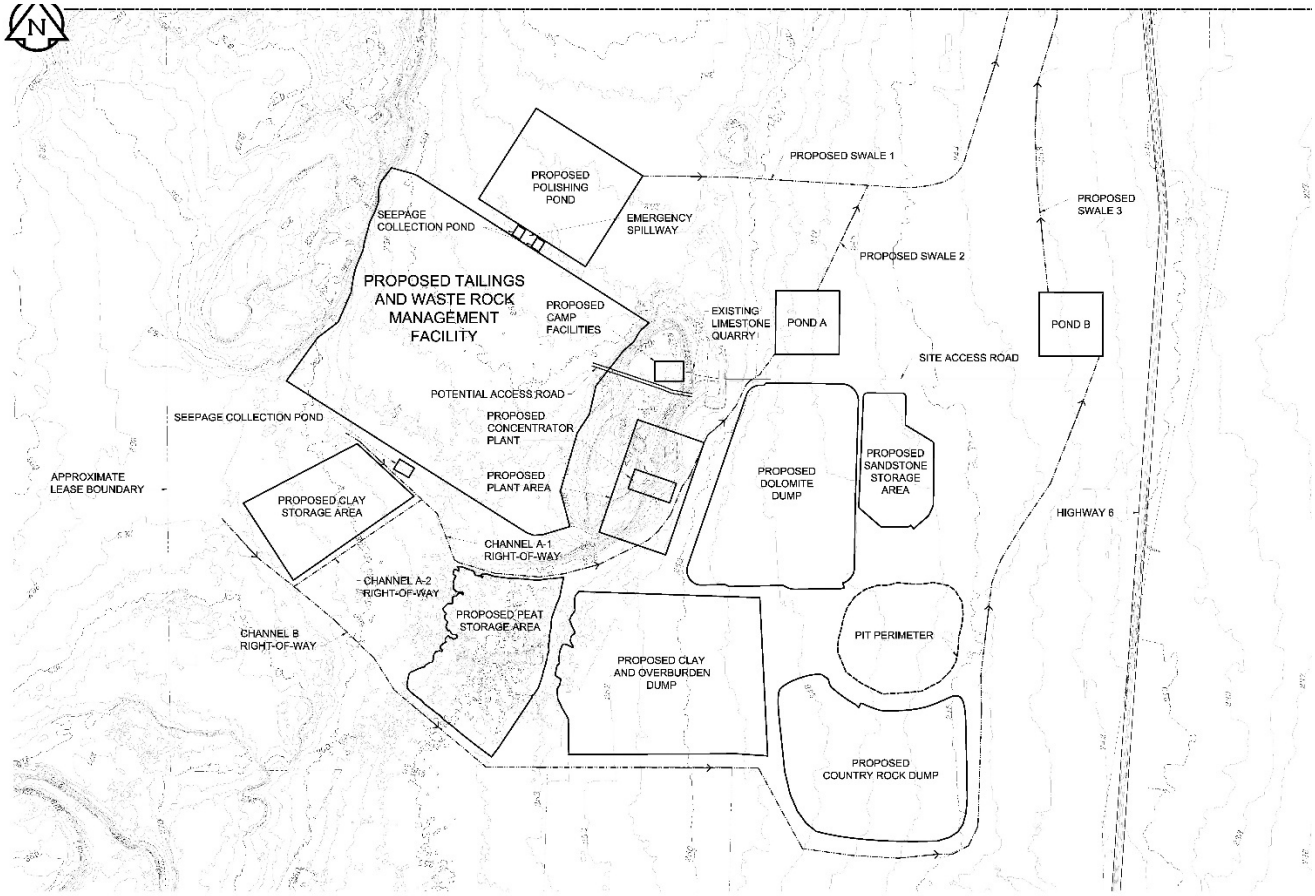
17. The licensee shall:
    a) take one composite sample of effluent from the effluent monitoring station during the discharge period once each month;
    b) take three grab samples of the effluent from the effluent monitoring station during the discharge period once each month;
    c) have the composite effluent sample analyzed for five-day carbonaceous biochemical oxygen demand, temperature, pH, ammonia and total suspended solids; and
    d) have the grab samples analyzed for fecal coliform content.

18. The licensee shall, in case of physical or mechanical breakdown of the wastewater collection system or wastewater treatment plant:
    a) notify the director immediately;
    b) identify the repairs required to the wastewater collection system or wastewater treatment plant; and
    c) complete the repairs in accordance with the written instructions of the director.

19. The licensee shall:
    a) prepare "record drawings" for the wastewater treatment plant and shall label the drawings "Record Drawings"; and
    b) provide to the director, within six months of approved commissioning of the wastewater treatment plant.

Figure 1 to Environment Act Licence No. 2981 R

Minago Mine Site Map



NOTES:

1. CONTOUR INTERVAL = 5m.
2. FOR MORE DETAIL ON MATERIAL STORAGE AND STOCKPILE AREAS AND SIZE DRAINAGE FEATURES REFER TO DRAWING 1, APPENDIX A.

SITE PLAN
SCALE : 1 : 17 000

0 500 1000 1500 2000 m
SCALE = 1 : 17 000

NO.	REVISION	YYYYMMDD	DRAWN	DESIGNED	CHECKED	APPROVED
2	ISSUED FOR REVISED FINAL REPORT	2021/12/13				
1	ISSUED FOR FINAL REPORT	2021/12/06	CT	RA	KS	KS
0	ISSUED FOR DRAFT REPORT	2021/11/30	CT	RA	KS	KS

PRELIMINARY DRAWING

NOT TO BE USED FOR CONSTRUCTION

Figure 2 to Environment Act Licence No. 2981 R

Minago Mine Final Discharge Point