

**Environment and Climate** 

Environmental Approvals Branch Box 35, 14 Fultz Boulevard Winnipeg MB R3Y 0L6 T 204-945-8321 F 204-945-5229 EABDirector@gov.mb.ca

File No.: 2435.40

September 13, 2023

Shaun Heinrichs, President and CEO 1911 Gold Corporation PO Box 1000 Bissett MB R0E 0J0 sheinrichs@1911gold.com

Dear Shaun Heinrichs:

#### Re: Environment Act Licence No. 2628 RRRR

This is further to my letter of July 19, 2023, concerning your notice of alteration dated May 11, 2022. The alteration aligns discharge monitoring requirements with those of the federal Metal and Diamond Mining Effluent Regulations.

I indicated in my letter approving the alteration that a revised licence would be issued incorporating this alteration. Environment Act Licence No. 2628 RRRR is attached.

We appreciate the cooperation of Amanda Jacobs of 1911 Gold in initiating and reviewing this revised licence.

If you have any questions regarding this approval, please contact Jennifer Winsor, Senior Environmental Engineer, Environmental Approvals Branch at Jennifer.Winsor@gov.mb.ca.

For questions relating to the ongoing administration of the licence, please contact Allan Cyrenne, Acting Regional Supervisor, Environmental Compliance and Enforcement Branch at <a href="mailto:EnvCEEastern@gov.mb.ca">EnvCEEastern@gov.mb.ca</a> or 204-485-6410.

Sincerely,

Original Signed By Agnes Wittmann Director The Environment Act

#### Attachment

c. Amanda Jacobs Jennifer Winsor Allan Cyrenne THE ENVIRONMENT ACT LOI SUR L'ENVIRONNEMENT



# **LICENCE**

THE ENVIRONMENT ACT
LOI SUR L'ENVIRONNEMENT



# **LICENCE**

File No.: 2435.40 Licence No. / Licence n°: 2628 RRRR

Issue Date / Date de délivrance : November 6, 2003

Revised: July 14, 2004
Revised: August 1, 2013
Revised: September 16, 2016
Revised: September 13, 2023

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 sections 11(1) and 14(2) / Conformément au paragraphes 11(1) et 14(2)

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

#### 1911 Gold Corporation; the licensee

for the operation of the development, being a 2,500 tons per day gold and silver mining, milling, and refining operation, known as the "True North Gold Mine" and including the existing and expanded tailings management area located in Mineral Lease 63, Township 24, Range 13 and 14 EPM approximately one kilometre north of the Town of Bissett with release of treated effluent from the polishing pond to No Name Creek and subsequently to the Wanipigow River between June 15<sup>th</sup> and November 30<sup>th</sup> of any year in accordance with the proposal received March 23, 2012, and subsequent information provided on August 21, 2012, September 18, 2012, March 12, 2013, and April 3, 2013, and notices of alteration dated June 16, 2014, June 24, 2014, June 3, 2015, July 22, 2015, April 18, 2016, April 27, 2016, May 3, 2016, June 28, 2016, and May 11, 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 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

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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<sub>3</sub> 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;
- "CCME" means the Canadian Council of Ministers of the Environment;
- "composite sample" means as defined in the federal Metal and Diamond Mining Effluent Regulations (MDMER);
- "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;
- "director" means an employee so designated under The Environment Act;
- "director of mines" means the director of mines under The Mines and Minerals Act;
- "effluent" means mine water released from the development into the environment;
- "EEM" means environmental effects monitoring;
- **"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;
- "environment officer" means an employee so appointed under The Environment Act;
- "final discharge point" means an identifiable discharge point at the mine, beyond which the licensee no longer exercises any further control over the quality of the effluent, which for the purposes of this licence is the mine water effluent discharge weirs located on the outfall from the final polishing pond of the tailings management area into No Name Creek;
- "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);
- "Metal and Diamond Mining Effluent Regulations (MDMER)" means the Metal and Diamond Mining Effluent Regulations, or any future amendments, under the federal Fisheries Act;

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"mine" means all of the surface and sub-surface workings, overburden, waste rock and ore stockpiles, crusher, mill, concentrator, 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 fluids used to transport tailings, or contaminated runoff or leachate from ore or waste rock stockpiles exposed to precipitation, or polluted mine site runoff, or seepage or run-off losses from tailings deposits stored on the surface of land, or any combination thereof, but excluding sewage;

"MSDS" means material safety data sheets;

"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<sub>3</sub> 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:

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- 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

- 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 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;

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

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

"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;

"polishing pond" means a pond of the tailings management area which receives the partially treated tailings from tailings ponds;

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

"primary pond" means the first in a series of ponds of the tailings management area which is the pond that receives the tailings directly from the mill;

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

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

"solid waste" means solid waste as defined in the Waste Management Facilities Regulation or future amendments, respecting waste, excluding waste rock;

"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 sample" means a grab sample of mine water from within one metre of the surface;

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

"tailings management area" means the tailings and mine water management area, including all ponds used to contain mine water and tailings as shown in Appendix A of this licence;

"TMA" means the tailings management area;

"undiluted" means free of extraneous unpolluted sources of water which could feasibly be prevented from mixing with the mine water or effluent prior to its discharge at a designated final discharge point(s), and not having water added for the purpose of meeting any effluent quality limits specified in this licence or in the MDMER;

"waste disposal ground" means an area of land designated by a person, municipality, provincial government agency, or crown corporation for the disposal of waste and approved for use in accordance with the Waste Management Facilities Regulation, or any future amendments, or a licence under The Environment Act;

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

- 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.
- 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

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

## **Reporting Format**

5. 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.

#### **Equipment Breakdown**

- 6. 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.
- 7. The licensee shall, following the reporting of an event pursuant to clause 6,
  - 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/or environment officer; and
  - d) submit a report to the director about the causes of breakdown and measures taken, within one week of the repairs being done.

#### Safety and Security

8. The licensee shall implement and continually maintain in current status, an Environmental Management System (EMS) for the development, as approved by the director.

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- 9. 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 MSDS sheets available to any environment officer upon request.
- 10. The licensee shall:
  - continually maintain, in current status, 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, and the requirements of the federal Metal and Diamond Mining Effluent Regulations, that is satisfactory to the director; and
  - b) continually maintain, in current status, contingency plans for matters such as spills, ruptures, or any unexpected seepage losses from the tailings management area or any of its components and details on the locations and containment provisions for any existing and/or proposed chemical and fuel storage areas, and on how and where the tailings line would be drained under pipeline freezing, pipeline rupture, or pump shutdown events.
- 11. The licensee shall implement a high standard of equipment maintenance and good housekeeping and operational practices at the development, at all times.

## **Environmental Coordinator**

12. 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.

#### SPECIFICATIONS, LIMITS, TERMS, AND CONDITIONS

## **Mining Operation**

- 13. 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.
- 14. The licensee shall carry out all activities related to this development in accordance with any applicable work permits and/or timber cutting permits as may be required by Manitoba Natural Resources and Northern Development.
- 15. The licensee shall obtain all necessary federal, provincial, and/or municipal licences, authorizations, permits, and/or approvals for construction of relevant components of the development prior to commencement of any construction.

#### **Tailings Management Area Operation**

- 16. The licensee shall direct all mine water and tailings generated by the development into the tailings management area.
- 17. The licensee shall, with respect to the tailings management area:
  - a) not commence any expansion involving new or raised impoundment dykes until the submission of a set of the construction drawings for the new impoundment dykes, together with the engineering rationale for the proposed crest elevations and proposed future maximum crest elevations is approved by the director;
  - b) construct the existing and any new or raised impoundment dykes with a minimum one metre wide vertical clay core keyed into underlying impervious soils or bedrock, with the constructed clay core, the natural vertical impoundment features and the base of the tailings management area having a hydraulic conductivity of at least 1 x 10<sup>-7</sup> centimetres per second or less; and
  - c) maintain a minimum 0.5 metre freeboard in the main ponds and polishing ponds at all times.
- 18. The licensee shall:
  - engage the services of licensed professional geotechnical engineers to provide engineering and quality control during all construction activities for impoundment dykes;
  - b) submit a construction performance and quality control report for all impoundment dyke construction for approval by the director; and
  - c) submit impoundment dyke record drawings to the director for approval, clearly marked "Record Drawings", a minimum of two weeks prior to the proposed commencement of operation of newly constructed areas.
- 19. The licensee shall reclaim as much clarified water from the tailings management area as possible to supply the process water demands of the mill.
- 20. The licensee shall, with respect to on-site earthen construction works, construct and maintain silt fences in the drainage routes transporting surface runoff off the property of the development until vegetation has been re-established on the disturbed areas.
- 21. The licensee shall not release any effluent from the tailings management area into the environment:
  - other than through the final discharge point of the tailings management area, as identified through the provisions of the federal Metal and Diamond Mining Effluent Regulations;
  - b) at a rate in excess of 0.20 cubic metres per second;
  - c) if the quality or toxicity of the effluent is in non-compliance with the federal Metal and Diamond Mining Effluent Regulations;
  - d) 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 No Name Creek and/or the Wanipigow River, relative to the Manitoba Water Quality Standards, Objectives and Guidelines Regulation and/or nutrient control strategies and regulations developed by Manitoba Environment and Climate;

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- e) between the 1st day of December of any year and the 14th day of June of the following year; or
- f) when such a discharge would cause or contribute to flooding in or along the effluent drainage route.
- 22. The licensee shall take such corrective action and within such a time frame as is satisfactory to the director, to mitigate any seepage losses from the tailings management area, where such seepage losses and their quality are determined by the director to be unacceptable.

## **Solid Wastes**

- 23. The licensee shall minimize the generation of domestic solid waste and maximize, wherever possible, the collection and recycling of recyclable wastes generated through the operation of the development.
- 24. The licensee shall dispose of all solid waste generated at the development, which is not recycled, only to a waste disposal ground operating under the authority of a permit issued under the Waste Management Facilities Regulation or any future amendment, or a licence issued under The Environment Act.

## **Dangerous Goods or Hazardous Wastes**

- 25. The licensee shall not release dangerous goods or hazardous wastes into the sewage collection system.
- 26. The licensee shall not receive at the development any hazardous waste from any generator off site of the development.
- 27. The licensee shall comply with all the applicable requirements of:
  - a) The Manitoba Dangerous Goods Handling and Transportation Act, and its regulations for the handling, transport, storage and disposal of any dangerous goods brought onto or generated at the development;
  - b) The Manitoba Storage and Handling of Petroleum Products and Allied Products Regulation, or any future amendment; and
  - c) the Office of the Fire Commissioner Province of Manitoba.
- 28. The licensee shall store any petroleum product or allied product not captured under the Storage and Handling of Petroleum Products and Allied Products Regulation within a dyked or curbed storage holding area designed to contain a volume of liquid equal to 110% of the volume of the largest storage tank located in the holding area plus the effective displacement volume of all other tanks and structures located in it, and maintain the integrity of the facility by regularly removing precipitation accumulations (if located outdoors).
- 29. The licensee shall, from the date of issuance of this licence, not construct any new petroleum storage tanks within 100 metres of the shoreline of any waterway or water body.

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- 30. The licensee shall install spill recovery equipment at the development and maintain it at all times.
- 31. 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 National Fire Code of Canada (2010), or any future amendment, such that any product leakage or spillage and any contaminated liquid generated is contained within the development and contamination of groundwater and surface water is prevented.
- 32. The licensee shall collect, transport and store used oil or hydraulic fluids removed from on-site machinery in secure, properly labeled, non-leaking containers and shall regularly send them to a recycling or disposal facility approved to accept hazardous wastes.

## **Sewage Management**

33. The licensee shall comply with the provisions of the Onsite Wastewater Management Systems Regulation and any future amendment.

## **Air Emissions**

- 34. 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.
- 35. 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.
- 36. The licensee shall limit fugitive emissions from any source within the mine site such that:
  - a) distinct plume forming fugitive emissions do not exceed an opacity of 5%; and
  - b) non plume forming fugitive emissions are not visible at any time; when measured or viewed in the atmosphere at any point beyond the mine site in an area zoned commercial or residential.
- 37. The licensee shall ensure, when crusher operations are occurring, that at any downwind point of impingement of air emissions off the property of the development, ground level concentrations of suspended particulate matter (SPM) are not in excess of the corresponding limits for any of the listed measurement criteria:

<u>Air Pollutant</u> <u>Measurement Criteria</u> <u>Limits</u>

SPM 24-hour average 120 micrograms/cubic metre SPM annual geometric mean 70 micrograms/cubic meter as determined from any ambient air sample or samples collected and analyzed in accordance with procedures and methods satisfactory to the director, and corrected to a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals (760 millimeters of mercury). This requirement does not apply when crusher operations are suspended.

#### **Waste Rock Management**

- 38. The licensee shall, unless otherwise specified by the director, dispose of all waste rock hoisted to surface at the development by:
  - a) using, or releasing for use, non acid-generating waste rock as a construction material; or
  - b) stockpiling all new waste rock in the area designated as "Waste Rock Stockpile Area", as shown in Appendix B of this Licence.
- 39. The licensee shall operate the waste rock stockpile area, as shown in Appendix B of this licence, such that the height of any waste rock stockpile will be no higher than the local geodetic elevation of 265 metres above sea level.
- 40. The licensee shall:
  - a) prepare a waste rock stockpile area surface water management plan for the development;
  - b) submit the plan to the director for approval, within six months of the date of this licence; and
  - c) implement the plan as approved by the director.
- 41. The licensee shall:
  - a) not use, nor release to any person, any contaminated soil, or potentially acidgenerating 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 the development be determined to be contaminated soil or acid generating rock/material.
- 42. The licensee shall restrict the surface stockpiling of ore to:
  - a) the surface of the pad at the area designated as "Ore Rock Stockpile Area", as shown in Appendix B of this licence;
  - b) a maximum stockpile of no more than 9,072 tonnes (10,000 tons) at any time, unless otherwise specified in writing by the director; and
  - c) non acid-generating ore.

# Monitoring, Record Keeping and Reporting

- 43. The licensee shall in each year:
  - a) once each quarter (three month period) under open water conditions and following a
    precipitation event, collect a representative grab sample of run-off water from the
    down gradient collection ditch of the waste rock stockpile area; and
  - b) analyze the samples for those parameters listing in Appendix C of this licence.
- 44. The licensee shall in each year during which new waste rock or new ore is being deposited onto the respective surface waste rock stockpile area or ore rock stockpile area:
  - a) collect a representative bulk sample of each of the new waste rock and the new ore once every 3 months;

- b) annually have each bulk sample (collected over the preceding 12 months) subjected to acid-base accounting tests, carried out by qualified individuals, for the determination of the neutralization potential, acid generation potential, neutralization potential ration, and percent sulphur content of each bulk sample; and
- report the data determined pursuant to sub-clause 44 b) of this licence to the director, in writing and in an electronic format acceptable to the director, as soon as the analytical data becomes available.
- 45. The licensee shall, every month-end, record the elevation of the mine water level in each pond of the tailings management area relative to the lowest crest elevation of the perimeter dyke system.
- 46. The licensee shall notify the assigned environment officer should the freeboard in any pond become less than 0.5 metres.
- 47. The licensee shall during each month of each operating year determine by measurement, or by a method of estimation satisfactory to the director, the quantity of water being reclaimed from the tailings management area for the mill, and the percentage value of this quantity relative to the mill's process water requirements for that month's production rate.
- 48. The licensee shall, once every three months, collect a surface sample of mine water from each pond of the tailings management area and analyze the sample for those parameters listed in Appendix D attached to this licence.
- 49. The licensee shall, once every three months, and between the time that the polishing ponds have been filled with mine water from the tailings ponds and the time that effluent release from the polishing ponds is commenced, collect a surface sample of mine water from the polishing ponds and analyze the sample for those parameters listed in Appendix D of this licence.
- 50. The licensee shall, unless otherwise specified by the director:
  - a) annually monitor each accessible groundwater monitoring well designated as MW15-01, MW15-02, MW15-03, MW15-04, MW15-05, MW15-06, MW16-01, MW16-02, and MW16-03 and shown in Appendix A of this licence, for potentiometric elevation, field pH, conductivity, and temperature;
  - b) annually collect a groundwater sample from each of the accessible groundwater monitoring wells and analyze the samples for those parameters listed in Appendix D of this licence; and
  - c) establish and monitor as per sub-clauses 50 a) and 50 b) of this licence, any additional new groundwater monitoring wells at such locations as may be requested by the director.
- 51. The licensee shall submit to the director, in writing and in an electronic format acceptable to the director, the analytical data and information determined in accordance with clauses 43, 45, 47, 48, 49, and 50 of this licence, no later than 30 days following the end of the month in which the samples were taken.
- 52. The licensee shall notify the assigned environment officer a minimum of one week prior to the initiation of each effluent discharge campaign.

- 53. The licensee shall, prior to the initiation of any effluent discharge campaign, collect a sample from the surface of the polishing pond, analyze the sample for those parameters listed in Appendix D of this licence, and test the sample for acute lethality to rainbow trout and Daphnia magna by means of tests carried out in a manner consistent with the procedures identified in the federal Metal and Diamond Mining Effluent Regulations.
- 54. The licensee shall monitor the effluent quality and measure the rate of discharge at the final discharge point of the tailings management area over the course of each discharge campaign such that:
  - within 24 hours of the commencement of discharge, the first grab or composite
    effluent sample is collected and analyzed for those parameters listed in Appendix D
    of this licence and tested for acute lethality to rainbow trout and to Daphnia Magna
    by means of tests carried out in accordance with requirements of the MDMER;
  - an additional grab or composite effluent sample is collected at the final discharge weekly for the duration of the discharge, and analyzed for those parameters listed in Appendix D of this licence;
  - c) once in each month for the duration of discharge, a grab or composite effluent sample analyzed for those parameters listed in Appendix D of this licence must also be tested for acute lethality to rainbow trout and to Daphnia Magna by means of tests carried out in accordance with requirements of the MDMER, with the samples collected not less than 15 days apart; and
  - d) the maximum rate of effluent discharge (cubic metres per second), the daily volume of effluent discharged on each day on which an effluent sample was collected, and the total volume of effluent discharged over the duration of the each discharge campaign, are measured and recorded.
- 55. The licensee shall collect a sample of stream water at each of the receiving water monitoring stations designated as NNC-VR, NNC-GR, WR-US and WR-DS, as shown in Appendix E of this licence, and have each sample analyzed for those parameters listed in Appendix D of this licence:
  - a) prior to but within 14 days of the initiation of any polishing pond discharge;
  - b) at monthly intervals for the duration of the discharge;
  - c) at monthly intervals beginning 14 days after the completion of discharge, until the pre-discharge baseline condition is re-established to the satisfaction of the director; and
  - d) at monitoring station NNC-GR only when it is not the fall hunting season.
- 56. The licensee shall, within 30 days of the completion of each discharge campaign, collect sediment samples from the receiving stream at the stations designated as NNC-DP, NNC-VR and NNC-GR as shown in Appendix E of this licence (samples at location NNC-GR shall only be taken when it is not the fall hunting season) and have the samples analyzed for the following parameters:
  - a) total metals;
  - b) total organic carbon;
  - c) moisture content; and
  - d) pH.

- 57. The licensee shall, once every three years, and within 30 days of the completion of each discharge campaign collect sediment samples from the receiving stream at the stations designated as WR-US and WR-DS as shown in Appendix E of this Licence and have the samples analyzed for the following parameters:
  - a) total metals;
  - b) total organic carbon;
  - c) moisture content; and
  - d) pH.
- 58. The licensee shall obtain the samples required to be collected in clauses 56 and 57 of this licence such that:
  - a) the samples are taken by coring;
  - b) the top 5 centimetres of each core are submitted for analysis; and
  - c) a minimum of 5 individual core samples are taken at each location on each sampling event.

#### 59. The licensee shall:

- a) during each discharge campaign, submit to the director, in writing and in electronic format satisfactory to the director, the analytical data and information determined in accordance with Clauses 53, 54, and 55 of this licence monthly as the data becomes available:
- b) within two months of the termination of each effluent discharge campaign, submit to the director, in writing and in electronic format satisfactory to the director, and to the Hollow Water First Nation, an environmental monitoring report which summarizes the monitoring data collected during the discharge campaign in accordance with Clauses 54, 55, 56, and 57 of this licence and describes the environmental impact of the effluent on the receiving waterways relative to non-impacted or pre-impacted baseline data respecting the receiving water and sediment;
- c) submit to the director a copy of each quarterly and annual effluent monitoring report, submitted by the licensee to Environment and Climate Change 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; and
- d) notwithstanding sub-clause a) and b) above, if the results of effluent analysis during the discharge campaign exceed the discharge criteria specified in this licence, report the results to the director within 48 hours of receipt of the results.

#### 60. 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 the Water Science and Watershed Management Branch of Manitoba Environment and Climate, 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 and Climate Change 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.

## **Mine Closure**

- 61. The licensee shall:
  - a) provide the director with:
    - written notice three months in advance of any imminent permanent closure of this development; or
    - ii) provide the director with an immediate notice of any sudden decision to temporarily close the development whereby the development would be placed in a mothballed state for re-opening in the foreseeable future;
  - b) comply with the Mine Closure Regulation, or any future amendment, particularly addressing environmental issues including, but not necessarily limited to:
    - i) the decommissioning of the underground workings and surface infrastructure associated with the development;
    - ii) the decommissioning of access roads and stream crossings used to access the mine site:
    - iii) the containment, control or treatment of pollutants originating from the mine site of the development;
    - iv) the rehabilitation of the mine site area disturbed by the development;
    - v) the restoration or replacement of fish habitats disturbed, adversely affected or lost as a result of the development; and
    - vi) the strategy, scope, frequency and duration of post-closure environmental monitoring activities at the mine site;

where applicable; and

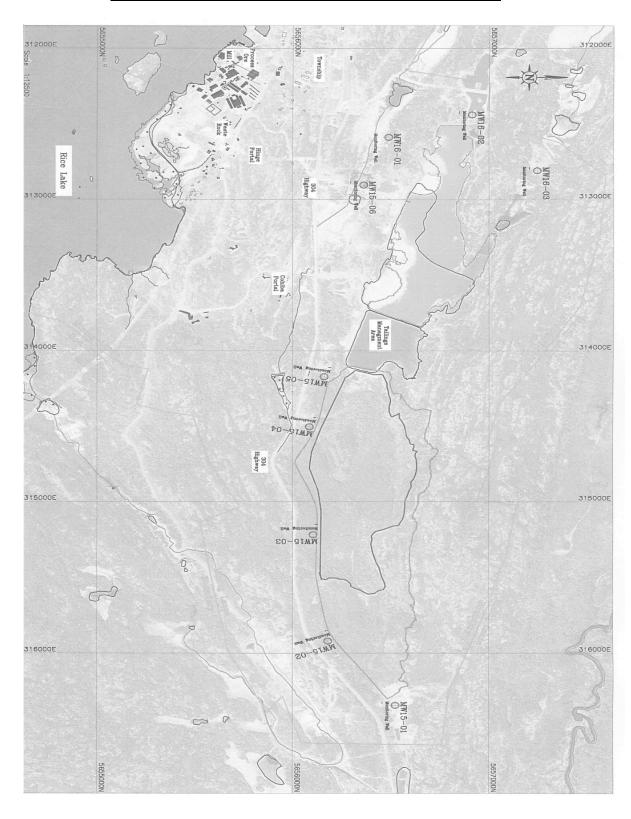
c) in the course of progressive rehabilitation, as well as upon permanent or temporary closure of the development, implement the environmentally related aspects of the closure plan approved under the Mine Closure Regulation, or any future amendment, to the satisfaction of the director.

#### **REVIEW AND REVOCATION**

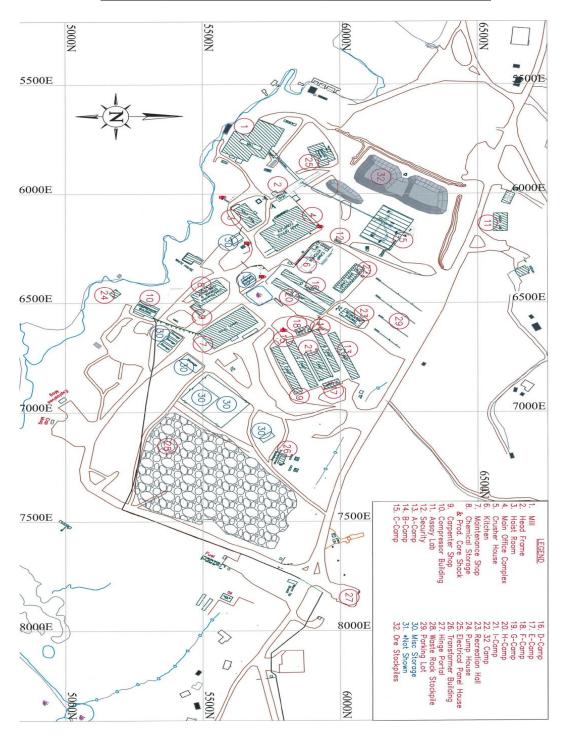
- A. Environment Act Licence No. 2628 RRR is rescinded.
- B. If, in the opinion of the director, the licensee has exceeded or is exceeding or has or is failing to meet the specifications, limits, terms, or conditions set out in this licence, the director may, temporarily or permanently, revoke this licence.
- C. 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 pursuant to section 11 of The Environment Act.

Original Signed By Agnes Wittmann Director The Environment Act

# Appendix A of Environment Act Licence No. 2628 RRRR



# Appendix B of Environment Act Licence No. 2628 RRRR



# Appendix C of Environment Act Licence No. 2628 RRRR

# **Waste Rock Runoff Analytical Parameters**

Inorganic Parameters	Metals
рН	Total Arsenic
Conductivity	Total Cadmium
Total Dissolved Solids	Total Chromium
Total Suspended Solids	Total Copper
Turbidity	Total Lead
Colour	Total Mercury
Hardness	Total Nickel
Sodium	Total Iron
Dissolved Chloride	Total Selenium
Dissolved Magnesium	Total Silver
Dissolved Calcium	Total Zinc
Dissolved Potassium	
Bicarbonate	
Dissolved Sulphate	
Dissolved Fluoride	
Nitrate + Nitrite (as N)	
Total Phosphorus (as P)	

These parameters are subject to change by the director

# Appendix D of Environment Act Licence No. 2628 RRRR

# **Groundwater, Mine Water and Effluent Analytical Parameters**

рН	
Conductivity	
Hardness	
Alkalinity	
Dissolved Calcium	
Dissolved Magnesium	
Sodium	
Dissolved Potassium	
Dissolved Suphate	
Dissolved Chloride	
Bicarbonate	
Total Suspended Solids	
Total Phosphorus	
Total Nitrate Nitrogen	
Total Ammonia (as N)	
Total and Dissolved Metals	
Total, Free and Weak Acid	
Dissociable (WAD) Cyanide	

These parameters are subject to change by the director

# Appendix E of Environment Act Licence No. 2628 RRRR

