



Environment and Climate
Environmental Approvals Branch
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File No.: 5991.00

July 27, 2023

Alasdair Knox
Canadian Premium Sand Inc.
2000, 715 5th Avenue SW
Calgary Alberta T2P 2X6
alsadair.knox@cpsmail.com

Dear Alasdair Knox:

**Re: Canadian Premium Sands - Wanipigow Sand Extraction Project -
Environment Act Licence No. 3285 R**

Thank you for your notice of alteration dated November 10, 2022. You wish to reduce production capacity and revise certain project components.

I approve the alteration per Section 14(2) of The Environment Act and Environment Act Licence No. 3285 R is enclosed.

Canadian Premium Sands must follow all licence requirements and federal, provincial, and municipal regulations and by-laws. The licensee must get approval from the director per The Environment Act to alter the development.

Anyone affected by this decision may appeal, in writing, to the Minister of Environment and Climate at minec@leg.gov.mb.ca by August 26, 2023. The licence is available on the public registry at <https://www.gov.mb.ca/sd/eal/registries/index.html>.

If you have any questions relating to the ongoing administration of this licence, please contact Allan Cyrenne, Regional Supervisor, Environmental Compliance and Enforcement Branch at EnvCEEastern@gov.mb.ca or 204-485-6410.

Sincerely,

Original Sign By
Agnes Wittmann
Director
The Environment Act

Enclosure

c. Allan Cyrenne

LICENCE

File No.: 5991.00

Licence No. / Licence n°: 3285 R
Issue Date / Date de délivrance : July 27, 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)

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

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

CANADIAN PREMIUM SAND INC.; "the licensee"

for the construction and operation of the Wanipigow Sand Extraction Project, a 300,000 tonnes per year open pit silica sand mine and processing facility located in the Incorporated Community of Seymourville approximately 160 kilometers northeast of Winnipeg in multiple Sections of Township 25 and Range 8 and 9 EPM. The proposed Wanipigow Sand Extraction Project consists of an active open pit silica sand mine for each year of operation, including progressive annual site reclamation of closed mines, 7.9 kilometer access road, powerline and ancillary facilities, and in accordance with the Proposal filed under The Environment Act on December 18, 2018, the notice of alteration filed on March 18, 2019, and additional information submitted on March 12, 2019, March 18, 2019, April 24, 2019, and notice of alteration filed on November 10, 2022, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this licence,

"access road" means a road that leads from a Provincial Trunk Highway, Provincial Road, or a municipal road;

"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 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;

"ambient concentration" means the measurement of a substance contained in an air sample (corrected to a temperature of 25° C and to a pressure of 101.3 kilopascals) which has been collected from any point beyond the property line of the development;

"AP" means the maximum acid-generation potential, expressed as tonnes of CaCO₃ 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;

"approved facility" means a facility operating in accordance with the requirements of The Environment Act and the regulations thereunder;

"body of water" means any body of flowing or standing water whether natural or artificially created;

"buffer" means a strip of land that is managed to reduce or eliminate the impacts of land use practices on sensitive areas or natural features;

"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;

"contact water" means water, surface water and/or groundwater water that contacts mine workings or interacts with mine rock material and may also include dewatering associated with the development;

"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 pursuant to 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;

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

"Environmental Management Program (EMP)" means the component of the Environmental Management System which includes the Dust Management Plan, Air Quality Monitoring Plan, Erosion and Sediment Control Plan, Wildlife Monitoring Plan, Surface Water Management Plan, Heritage Resources Management Plan, Progressive Rehabilitation Plan, Groundwater Monitoring Plan, Revegetation Monitoring Plan, and Emergency Response Plan;

"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 and the Environmental Management Program (EMP);

"Environment Officer" means an employee so designated pursuant to The Environment Act;

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

"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;

"holding tank" means a watertight receptacle, conforming to the requirements of the latest edition of Canadian Standards Association (Association) Standard B66-10, *Prefabricated Septic Tanks and Sewage Holding Tanks*, and bearing a valid stamp or mark indicating certification by the Association, designed to retain sewage wastewater, wastewater, greywater, or wastewater effluent;

"industrial wastewater" means wastewater derived from an industry which manufactures, handles, or processes a product and does not include wastewater from commercial and residential buildings;

"in-situ" means on the site;

"mine" means any of the surface and sub-surface workings, overburden, mine 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 mine 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
- 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;

"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;

"PM10" means particulate matter that is 10 micrometres (μm) or less in diameter;

"PM2.5" means particulate matter that is 2.5 micrometres (μm) or less in diameter;

"point source" means any point of emission from the 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;

"rehabilitate" means physical treatment of a disturbed site to reclaim its productive potential. This may include, but is not limited to, levelling the surface, establishing appropriate slopes to prevent erosion, reintroduction of topsoils and overburden, loosening compacted surface soils to enable vegetation to root successfully, and revegetation to promote the development of the former species composition;

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

"sand processing facility" means all of the physical structures on site required for silica sand processing;

"sewage" means human body, toilet, liquid, waterborne culinary, sink, or laundry waste;

"SDS" means safety data sheet;

"solid waste" means solid waste as defined in Manitoba Regulation 37/2016, or any future amendments thereto, respecting waste disposal grounds, 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;

"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 Manitoba Regulation 37/2016, 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; and

"WHMIS" means Workplace Hazardous Materials Information System.

GENERAL TERMS AND CONDITIONS

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.

Future 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/or 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

5. 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.
6. The licensee shall, following the reporting of an event pursuant to clause 5,
 - 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.

Safety and Security

7. 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.
8. The licensee shall prepare 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.

9. The licensee shall implement and continually maintain in current status, an Environmental Management System (EMS) for the development which is acceptable to the director.
10. The licensee shall install and maintain fencing, signage and lockable gates, acceptable to the director, at the development to control access. The locking gates shall be locked at all times except to allow access to the development.
11. The licensee shall prepare and submit an Access Management Plan, acceptable to the director, to address site safety, security and access at the development.

Fire Reporting

12. 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 reporting line (204-944-4888 or toll free 1-855-944-4888), identifying the type of materials involved and the location of the fire.

On-Site Wastewater

13. The licensee shall comply with the provisions of Manitoba Regulation 83/2003 respecting Onsite Wastewater Management Systems and its amendment, or any future amendment thereto.

Heritage and Cultural Resources

14. The licensee shall comply with the requirements of The Heritage Resources Act and a heritage resource protection plan will be developed for lifetime of the project to guide on-site operations and, if heritage resources are encountered during the construction of the development, suspend construction and immediately notify the Historic Resources Branch.
15. The licensee shall notify local Indigenous communities should heritage or cultural resources be uncovered within the project area of the development.
16. The licensee shall, with guidance from local Indigenous communities, undertake surveys for traditional use plant species used for medicinal or cultural purposes within the project area of the development and implement appropriate mitigation measures where traditional use plant species are located.
17. The licensee shall, where possible, make efforts to retain low-lying vegetation, fruit bearing trees and traditional and medicinal plants important to the local Indigenous communities within the project area of the development.
18. The licensee shall work with local Indigenous communities to identify appropriate setback areas and mitigation strategies for locations where Indigenous members practice ceremonial and customary land practices in close proximity to the project area of the development.

19. The licensee shall, in an effort to eliminate or mitigate potential impacts to heritage or cultural resources, provide training and guidance, acceptable to the director, on recognizing cultural and/or sensitive sites to all employees and contractors working at the development.
20. The licensee shall work with local Indigenous communities to identify and mitigate adverse impacts to local trappers due to the development.

Environmental Coordinator

21. The licensee shall designate an employee, within 60 days prior to construction, 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

22. The licensee shall actively participate in any future watershed and/or aquifer based management study, plan, or nutrient reduction program, approved by the director, for the development area.

Approvals and Permits

23. The licensee shall obtain all necessary federal, provincial, and/or municipal licenses, authorizations, permits, and/or approvals for construction and operation of the development.

Respecting Complaint Handling

24. The licensee shall, within 60 days of the date of this Licence, submit a formal complaint handling plan acceptable to the director.
25. The licensee shall manage all complaints in accordance with the plan approved pursuant to clause 24 of this licence and prepare an annual report summarizing the complaints received and the action taken in response to each complaint by March 1 of the following calendar year.

Financial Assurance

26. The licensee shall prepare, prior to commencing construction of the development, a remediation and closure plan assessment, satisfactory to the director, that includes, but is not limited to, the following:
 - a) estimated cost to assess the impacts of the development to soil and groundwater;
 - b) estimated cost to remediate impacts of the development identified in the assessment referred to in clause 26 a); and
 - c) estimated cost to decommission the development.

27. The licensee shall maintain and post with Manitoba Environment and Climate, in the amount determined in clause 26 of this licence:
- a) a permit bond issued by a surety company licensed to do business in the Province of Manitoba;
 - b) an irrevocable letter of credit, or
 - c) another acceptable security satisfactory to the director.

This permit bond, irrevocable letter of credit, or other security and renewals thereof shall remain in place for the duration of the construction of the development and may be terminated upon implementation of the approved Closure Plan referred to in clause 105 of this licence. The director may order forfeiture of the permit bond, irrevocable letter of credit, or other security, either in whole or in part, by giving written notice to that effect to the licensee, upon the director being satisfied that the licensee is in breach of any specification, limit, term or condition of this licence, or for reimbursement of any costs or expenses incurred by the Province of Manitoba in rectifying environmental damage caused or contributed to by the construction of the facility.

28. The licensee shall maintain a valid Environmental Impairment Liability insurance providing coverage subject to a minimum limit of \$1,000,000 Cdn per occurrence or claim, including coverage for gradual, and sudden and accidental pollution. Coverage to include on-site and off-site clean-up costs, and be placed with insurers satisfactory to the Province of Manitoba. The Province of Manitoba is to be added as an Additional Insured on the policy. The policy shall contain a clause stating that the Insurer will give Manitoba 60 days prior written notice in case of a reduction in coverage or policy cancellation.

Compliance

29. The licensee shall adhere to the commitments made in the proposal and in additional information submitted during the environmental assessment review and approved pursuant to this licence during construction and operation of the development.
30. The licensee shall submit a notice of alteration and obtain director's approval for proposed changes to the development as licensed prior to implementing any changes.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Respecting the Environmental Management Program (EMP)

31. The licensee shall, prior to construction of the development:
- a) prepare and submit to the director for approval, the following comprehensive environmental management plans:
 - i) the Erosion and Sediment Control Plan;
 - ii) the Surface Water Management Plan;
 - iii) the Heritage Resources Management Plan; and
 - iv) the Emergency Response Plan; and
 - b) implement the environmental management plans in accordance with the director's approval.

32. The licensee shall, prior to operation of the development:
- a) prepare and submit to the director for approval, the following comprehensive environmental management plans:
 - i) the Dust Management Plan;
 - ii) the Air Quality Monitoring Plan;
 - iii) the Progressive Rehabilitation Plan;
 - iv) the Wildlife Monitoring Plan;
 - v) the Groundwater Monitoring Plan; and
 - vi) the Revegetation Monitoring Plan; and
 - b) implement the environmental management plans in accordance with the director's approval.
33. The licensee shall implement and continually maintain in current status, the environmental monitoring plans of the Environmental Management Program (EMP) for the development which is acceptable to the director.

Respecting the Progressive Rehabilitation Plan

34. The licensee shall prepare and maintain the progressive rehabilitation plan of clause 32 of this licence to address ongoing monitoring, mitigation and reclamation from mining activities and include objectives, methods and assessment criteria for reclamation and monitoring of the project area at the development.

Respecting the Wildlife Monitoring Plan

35. The licensee shall prepare and maintain the wildlife monitoring plan of clause 32 of this licence to address ongoing monitoring, assessment and mitigation from mining activities and include objectives, methods and assessment criteria acceptable to the Wildlife and Fisheries Branch of Manitoba Natural Resources and Northern Development.

Respecting the Annual Operating Plan (AOP)

36. The licensee shall, 60 days prior to commencing mining of an open pit mining area:
- a) submit to the director for approval, an Annual Operating Plan for the clearing, construction, mining, monitoring, and rehabilitation activities for the upcoming two year period; and
 - b) meet with the Integrated Resource Management Team of Manitoba Environment and Climate on an annual basis to review the Annual Operating Plan.

Respecting Construction

37. The licensee shall notify the designated environment officer not less than two weeks prior to beginning of construction activities at the development. The notification shall include the intended starting date of construction and the name of the contractor responsible for the construction.

38. 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.
39. The licensee shall dispose of non-reusable construction debris and solid waste from the development at a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba Regulation 37/2016 respecting Waste Management, or any future amendment thereof, or a licence issued pursuant to The Environment Act.
40. The licensee shall work with local Indigenous communities to identify potential use of forest products harvested during clearing of the right of way and identify stockpile locations for public access to firewood.
41. The licensee shall, during construction 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 watercourses, and have an emergency spill kit for in-water use available on site during construction.
42. The licensee shall not locate any petroleum storage tank within 100 metres of the shoreline of any waterway or water body.
43. The licensee shall, with respect to on-site earthen construction works, construct and maintain silt fences or other suitable erosion and sediment controls in the drainage routes transporting surface runoff off the property of the development until vegetation has been re-established on the disturbed areas.
44. 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 in accordance with the requirements of Manitoba Regulation 173/2015 respecting Aquatic Invasive Species, or any future amendment thereof.
45. 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.
46. The licensee shall undertake dust control measures during construction, acceptable to the environment officer. Water required for dust control during construction shall be obtained from a source other than wastewater treatment facilities.
47. 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 1 and June 15 of any year or during periods of high stream flow.
48. The licensee shall not, during construction, clear, compact, grade, or fill any wetlands or native upland habitat, which are not required for the right-of-way of the development.

49. The licensee shall:
- a) not use, nor release to any person, any contaminated soil, or potentially acid-generating 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 material.

Respecting the General Operation of the Development

50. The licensee shall implement a high standard of equipment maintenance and good housekeeping and operational practices with respect to the development, at all times.
51. The licensee shall reclaim and recycle as much spent water and process water as practicable to supply the water demands of the sand processing facility.
52. The licensee shall not direct pollutants into any surface drainage route leading off the property of the development or into the local groundwater.
53. The licensee shall:
- a) maintain the moisture content of the sand stockpiles to prevent sand migration on and off the development site;
 - b) conduct regular visual inspections of the sand stock piles to confirm adequate moisture content and lack of sand migration; and
 - c) implement mitigation measures at the development, acceptable to an environment officer, should the moisture content be insufficient to mitigate sand migration.
54. The licensee shall implement measures, acceptable to an environment officer, to reduce noise levels from operations, equipment and vehicles at the development, at all times.
55. The licensee shall develop a source water contingency plan for the development, should insufficient groundwater be available for the sand processing facility.
56. The licensee shall transport all silica sand in covered trucks to prevent loss of sand in a manner acceptable to an environment officer.

Respecting Chemical Storage and Spill Containment

57. 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 (2020), or any future amendment thereof, 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.
58. The licensee shall install and maintain spill recovery equipment at the development at all times.

Respecting Solid Wastes

59. The licensee shall not undertake any on-site burning of solid waste.
60. 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.
61. The licensee shall dispose of solid waste from the development at a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba's Waste Management Regulation, or any future amendment thereof, or a licence issued pursuant to The Environment Act.

Respecting Dangerous Goods or Hazardous Waste

62. The licensee shall not release dangerous goods or hazardous wastes into the wastewater collection system.
63. The licensee shall not receive at the development any hazardous waste from any generator off site of the development.
64. The licensee shall comply with all the applicable requirements of:
 - a) Manitoba's Storage and Handling of Petroleum Products and Allied Products Regulation or any future amendment thereof;
 - b) The Dangerous Goods Handling and Transportation Act, and regulations issued thereunder, respecting the handling, transport, storage, and disposal of any dangerous goods brought onto or generated at the development; and
 - c) the Office of the Fire Commissioner – Province of Manitoba.
65. 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.

Respecting Operation – Mining

66. The licensee shall select and mine an area not exceeding five hectares at any one time and shall begin restoration and rehabilitation of the current open pit mining area prior to commencement of mining at the following five hectare mining area.
67. The licensee shall maintain a minimum 200 metre buffer zone between any mining area and residences at all times.
68. The licensee shall direct all mine water pumped to the surface from the open pit mine workings at the development into site water management ponds and/or the sand processing facility.
69. The licensee shall place removed overburden, excluding potentially acid-generating (PAG) material, from the active open pit mining area into berms surrounding that area in a manner acceptable to the director.

Respecting Potentially Acid-Generating (PAG) Material

70. The licensee shall treat all black shale brought to the surface at the development as PAG material.
71. The licensee shall construct a 1.0 metre thick compacted clay-lined cell, acceptable to the director, within each active open pit mining area at the development for the isolation and encapsulation of PAG material.
72. The licensee shall:
 - a) place all PAG material within the clay-lined cell per clause 71 of this licence;
 - b) immediately cover all PAG material with crushed limestone to provide neutralization of acid to the satisfaction of the director;
 - c) cap the clay-lined cell of PAG material in a manner acceptable to the director, prior to rehabilitation and restoration of the active mining area.
73. The licensee shall record and make available to the environment officer upon request:
 - a) the volume of PAG material placed within each clay-lined cell; and
 - b) the physical location of each clay-lined cell.

Respecting Roadways and Traffic

74. The licensee shall limit the number of sand hauling trucks leaving the development to a maximum of four (4) trucks per hour.
75. The licensee shall prepare a safety and training plan for trucking operations to and from the development, prior to commencement of operation of the development, and make the plan available to the environment officer upon request.
76. The licensee shall prepare and submit for approval by Manitoba Transportation and Infrastructure, prior to operation of the development, a Traffic Impact Study which addresses issues including but not limited to public safety, capacity, pavement strength, damage from loading and loading deficiencies, maintenance, including snow clearing, and the development of mitigation measure to offset impacts on the provincial highway network due to the development. Approval and acceptance of the Traffic Impact Study shall include the implementation of mitigation measures and any additional arrangements deemed necessary by Manitoba Transportation and Infrastructure and as agreed to by the proponent.
77. The licensee shall obtain all necessary permits under The Transportation Infrastructure Act prior to operation of the development.

Respecting Wastewater

78. The licensee shall operate the development in such a manner that:
 - a) all sewage is directed toward the onsite holding tanks; and
 - b) all wastewater from the onsite holding tanks is removed regularly by a licensed hauler to a wastewater treatment facility operated under the authority of a licence issued under The Environment Act.
79. The licensee shall not release any contact water and/or industrial wastewater from the development to the environment.
80. The licensee shall direct all surface water collected by the drain system surrounding the sand stockpiles to the process wastewater stream to be recycled within the development.

Respecting Air Pollution Control Devices

81. The licensee shall direct all air streams, which contain a pollutant(s) of concern to the director, to a pollution control device which has been designed for and demonstrated to be capable of reducing, altering, eliminating, or otherwise treating the pollutant(s).
82. The licensee shall prepare, prior to the operation of the development, and maintain the following manuals which shall be kept at the development and available for review upon request by an environment officer:
 - a) a standard operating procedural manual and a maintenance schedule for each air emission pollution control device based on the manufacturer's specifications and recommendations;
 - b) an updated standard operating procedural manual and a maintenance procedure for each air emission pollution control device within 120 days of the addition, elimination or change regarding any air emission control device; and
 - c) a copy of the manufacturer operational and maintenance manual.
83. The licensee shall not operate any process directing an emission to an air pollution control device at the development unless:
 - a) the operating and maintenance measures and status of the device are in full compliance with the procedures and timetables as per clause 82;
 - b) all emissions from the process are directed to the fully operational air pollution control device;
 - c) all discharges of treated emissions from the air pollution control devices are immediately directed to a stack; and
 - d) the emissions do not contain concentrations of pollutants which:
 - i) are in violation of any other applicable legal instrument including an act, regulation or by-law; or
 - ii) otherwise create a significant negative environmental or health impact in the affected area.

84. The licensee shall maintain a log of the most recent 24 month period to record any downtime of an air pollution control device due to either the breakdown or maintenance of that air pollution control device. The log shall be kept at the development and shall be available upon request for inspection by an environment officer. The log shall record, at minimum, the following information:
- a) identification of the air pollution control device and the process(es) it serves;
 - b) time/date of log entry;
 - c) nature of event;
 - d) time and duration of event;
 - e) action taken;
 - f) the accumulated downtime of this air pollution control device for the events for each calendar year; and
 - g) approval of the environmental coordinator.
85. The licensee shall handle, store and dispose of all pollutants collected by the air pollution control equipment in a manner suitable to their characterization as type of waste or dangerous good.

Respecting Air Emissions

86. 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 five 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.
87. 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.
88. 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.

89. 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 specify to eliminate or mitigate a noise nuisance.

Respecting Air Emissions – Monitoring, Source Sampling, Analysis, Reporting

90. 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 Environment and Climate Guideline for Stack Sampling Facilities, unless otherwise approved by the director.
91. 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.
92. The licensee shall perform all stack sampling in accordance with the most recent version of Manitoba Environment and Climate Report No. 96-07, Interim Stack Sampling Performance Protocol, unless otherwise approved by the director.
93. The licensee shall arrange the scheduling of the sampling program submitted pursuant to clause 91 of this licence such that a representative of Manitoba Environment and Climate could be available to monitor and audit the implementation of the sampling program.
94. The licensee shall complete the sampling of emissions according to the approved plan submitted pursuant to clause 91 of this licence, within a timeframe to be determined by the director.
95. The licensee shall submit a report, for the approval of the director, of the completed sampling and analysis plan approved pursuant to clause 91 of this licence, within 60 days of the receipt of the analytical results of that sampling plan. The report shall contain 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) 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.

Respecting the Site Water Management Ponds

- 96. The licensee shall maintain a containment liner, acceptable to the director, within all site water management ponds, including all sediment, settling, and freshwater ponds, at all times.
- 97. The licensee shall direct all collected contact water, including seepage and runoff from stockpiles, to the site water management ponds.
- 98. The licensee shall not release any effluent from the site water management ponds into the environment.
- 99. 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 site water management ponds, where such seepage losses and their quality are determined by the director to be unacceptable.

MONITORING AND REPORTING

Respecting Air Quality Monitoring

- 100. 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.
- 101. The licensee shall:
 - a) implement the program approved pursuant to clause 100 of this licence within a timeframe 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 100 of this licence for the approval of the director containing at minimum:
 - i) the raw data collected;
 - ii) a discussion of the sampling and analytical portions of the program including any anomalies of sampling and analysis; and
 - iii) a discussion of the significance of the data gathered with specific attention to:
 - a) the need for risk assessment of the impact of emissions;
 - b) the need for the establishment of ambient air monitoring stations;
 - c) results and conclusions of the QA/QC program; and
 - d) other issues as may be determined by the director.

Respecting Monitoring Advisory Group

102. The licensee shall establish a monitoring advisory group with representation from local Indigenous communities, to be meaningfully involved in project monitoring on a long-term basis. The group, at a minimum, is required to establish a terms of reference, acceptable to the director, to guide the membership, provide advisory group meeting minutes and reports, reports of monitoring and assessment of mitigation and other material relevant to the development to be available to local Indigenous community members.

Respecting Annual Monitoring

103. The licensee shall during each year maintain the following records:
- a) the total volume (expressed as cubic metres) of mine water and groundwater pumped to the sand processing facility;
 - b) the monthly average and peak mining production rates (expressed as tonnes/day) at the development;
 - c) the total volume (expressed as cubic metres) of process water recycled within the development;
 - d) the summary of complaints as specified in clause 25 of this licence;
 - e) equipment maintenance and repairs; and
 - f) other reporting as requested by the director.
104. The licensee shall submit an annual report to the director by February 28 of the following year including all records required by clause 103 of this licence.

Respecting Mine Closure:

105. 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) provide the director with 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, particularly in regards to 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 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.

Respecting Record Drawings

106. The licensee shall:
- a) prepare "record drawings" for the sand processing facility and shall label the drawings "Record Drawings";
 - b) prepare an updated development site plan upon completion of construction; and
 - c) provide to the director, within one year following completion of construction of development, one electronic copy of the "record drawings" and site plan.

REVIEW AND REVOCATION

- A. Environment Act Licence 3285 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 or request the filing of a notice of alteration.

Original Sign By
Agnes Wittmann
Director
The Environment Act