

Conservation and Water Stewardship

Environmental Stewardship Division Environmental Approvals Branch 123 Main Street, Suite 160, Winnipeg, Manitoba R3C 1A5 T 204 945-8321 F 204 945-5229 www.gov.mb.ca/conservation/eal

Luc Robichaud Jiffy Products (N.B.) Ltd. PO Box 2004 125 Industrial Park Shippagan, N.B. E8S 3H1

Dear Mr. Robichaud:

January 31, 2014

Re: Notice of Alteration for Environment Act Licence No. 2941

This will acknowledge receipt of your letter, dated January 2, 2014, regarding a request to alter Environment Act licence No. 2941, issued to Jiffy Canada Inc., for the construction, operation and decommissioning of the peat mine operation at Deer Lake Bog.

Specifically, the proposed alteration request was to change the name of the licencee to Jiffy Products (N.B.) Ltd. to reflect the current corporate name.

As there are no resulting potential environmental effects, I hereby approve this alteration pursuant to Section 14(2) of *The Environment Act*. It should be noted that in addition to the name change, the licence was updated to reflect current provincial department and branch names. Also, a requirement to cover loads of peat was added because it is now standard practice with all peat mine licences issued by the Environmental Approvals Branch.

In addition to the enclosed Licence requirements, please be informed that all other applicable federal, provincial and municipal regulations and by-laws must be complied with. A Notice of Alteration must be filed with the Director for approval prior to any alteration to the Development as licensed.

Should you have any questions about the review process, please contact Darrell Ouimet by phone at 204-803-1389 or email: darrell.ouimet@gov.mb.ca

Pursuant to Section 27 of *The Environment Act*, this licensing decision may be appealed by any person who is affected by the issuance of this Licence to the Minister of Conservation within 30 days of the date of the Licence.

Yours truly,

"Original signed by"

Tracey Braun, M.Sc. Director Environmental Approvals Branch

NOTE: Confirmation of Receipt of this Licence No. 2941 R (by the Licencee only) is required by the Director of Environmental Approvals. Please acknowledge receipt by signing in the space provided below and faxing a copy (letter only) to the Department by February 14, 2014.

	<u> </u>
On behalf of Jiffy Products (N.B.) Ltd.	Date

THE ENVIRONMENT ACT LOI SUR L'ENVIRONNEMENT



LICENCE

Licence No. / Licence n°	2941 R	
Issue Date / Date de délivrance	January 31 2014	

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) / Conformément au Paragraphe 11(1)

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

JIFFY PRODUCTS (NB) LTD.; "the Licencee"

for the construction, operation and reclamation of the Development, being a peat mine of 596 ha in size located at Poplar Creek Bog within quarry leases QL-2091, QL-2092, QL-2227, QL-2228 and QL-2229 in portions of Sections 23, 24 and 25, Township 4, Range 16E, and in portions of Sections 19 and 30, Township 4, Range 17E, in accordance with the Notice of Alteration dated January 2, 2014, the Proposal dated April 23, 2010, and received by Manitoba Conservation and Water Stewardship under *The Environment Act* on May 6, 2010, and additional information dated August 11, 2010, and subject to the following specifications, limits, terms and conditions:

DEFINITIONS

In this Licence.

"accredited laboratory" means an analytical facility accredited by the Standard Council of Canada (SCC), or accredited by another accrediting agency recognized by Manitoba Conservation and Water Stewardship to be equivalent to the SCC, or 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;

"active mining area" means any field within the project area of the Development, which has undergone preliminary induced drainage for access, and on which surface disturbance in preparation for peat mining has commenced, until such time as when the mined field has been isolated for water level control in preparation for the reclamation and restoration of the field;

"approved" means approved in writing;

Jiffy Products (NB) Ltd. - Poplar Creek Bog Licence No. 2941R Page 2 of 11

"buffer zone" means a strip of undisturbed land comprised of in-situ vegetation;

"dangerous goods" means dangerous goods as defined in the *Manitoba Dangerous Goods Handling* and *Transportation Act*, and regulations issued thereunder;

"Director" means an employee of the department appointed as such by the Minister;

"drainage water" means surface or sub-surface water induced, by reason of constructed drains, to drain towards a final discharge point of the Development, but does not include surface runoff diverted around an active mining area nor preliminary induced drainage;

"effluent" means drainage water released into the environment;

"final discharge point" means an effluent quality control point designated as such through the provisions of this Licence, unless otherwise re-designated in writing by the Director;

"fugitive emissions" means suspended particulate matter windblown into the atmosphere and off-site from any source on-site of the Development;

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

"peat or peat moss" means the moderate to heavily decomposed organic matter of dead vegetation found primarily in the fens and bogs of wetland environments, that has accumulated in varying depths by depositional means over a long period of time;

"peat mining" means the excavation, harvesting or removal of peat or peat moss for commercial purposes;

"preliminary induced drainage" means induced surface and subsurface drainage, off an area intended to be mined, to the extent as may be required to facilitate access to, and the construction of, sedimentation ponds incorporating final discharge points;

"project area" means all that area within the outer perimeter boundaries of the Quarry Leases shown in Appendix 'A' attached to this Licence;

"quarry lease" means quarry lease as defined in *The Mines and Mineral Act*;

"reclamation" means the activity which focuses on the after-use of mined peatland sites;

"restoration" means the re-establishment of a mined peatland site as a peatland with a functioning natural ecosystem with characteristics as close as possible to pre-mining conditions;

"septage" means the sludge produced in individual on-site sewage disposal systems such as septic tanks:

Jiffy Products (NB) Ltd. - Poplar Creek Bog Licence No. 2941R Page 3 of 11

"sewage" means sewage as defined in *Manitoba Regulation 93/2003*, or any future amendment thereto, respecting *Onsite Wastewater Management Systems*;

"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; and

"wastewater" means any liquid containing a pollutant (as defined in *The Environment Act*) which is designated for release into the environment.

GENERAL TERMS AND CONDITIONS

This Section of the Licence contains requirements intended to provide guidance to the Licencee in implementing practices to ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for present and future Manitobans.

- 1. The Licence shall adhere to the commitments made in the Proposal dated April 23, 2010 and additional information dated August 11, 2010 filed under *The Environment Act*.
- 2. In addition to any of the limits, terms and conditions specified in this Licence, the Licencee 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; or
 - c) 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 Licencee shall, unless otherwise specified in this Licence:
 - a) carry out all preservations and analyses of liquid samples in accordance with the methods prescribed in the Standard Methods for the Examination of Water and Wastewater or in accordance with equivalent preservation and analytical methodologies approved by the Director; and
 - b) ensure that all analytical determinations are undertaken by an accredited laboratory.
- 4. The Licencee shall report all the information requested through the provisions of this Licence in a manner and form acceptable to the Director.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Respecting the Pre-Development Phase

- 5. The Licencee shall:
 - a) before commencing any surface disturbance or preliminary induced drainage of an intended mining area within the project area, and subject to sub-clause 11(a) of this Licence, conduct a survey of areas affected by the development with respect to rare or endangered species and species of special concern, as well as migratory birds, their nests and their eggs. A report on the survey shall be completed and provided for the approval of the Director; and
 - b) before commencing and undertaking any surface disturbance or preliminary induced drainage of an intended mining area within the project area:
 - i) transplant any visible rare, endangered or threatened species of vegetation which may be encountered on the site, to another equally suitable site in consultation with the Regional Operations Wildlife Manager; and
 - ii) upon the completion of any transplantation activity, advise the Director, in writing, of the type and number of any plant species so transplanted and the location to which they were transplanted.
- 6. The Licencee shall provide a detailed calculation of greenhouse gas emission of the Development in relation to the existing baseline conditions within three months of the date of this licence.
- 7. The Licencee shall notify the assigned Environment Officer not less than two weeks prior to beginning construction of the Development. The notification shall include the intended starting date of construction.

Respecting Access Road Construction

- 8. The Licencee shall not create any new borrow pit(s) for the construction of the access/haulage roads without prior consultation with, and the written concurrence of, the Integrated Resource Management Team of Manitoba Conservation and Water Stewardship.
- 9. The Licencee shall not construct other roads connected to the Development. Short access routes for construction and maintenance purposes shall be approved in writing by the Integrated Resource Management Team of Manitoba Conservation and Water Stewardship prior to construction.
- 10. The Licencee shall, during construction, adhere to the general recommendations on design, construction and maintenance of stream crossings as specified in the guidelines titled *Manitoba Stream Crossing Guidelines for the Protection of Fish and Fish Habitat, 1996*.

Respecting Land Use and Operational Activities

- 11. The Licencee shall restrict construction and operational activities related to the Development to:
 - a) those lands to which the Licencee possesses:

- i) a quarry lease issued pursuant to *The Mines and Minerals Act* or any future amendment thereof;
- ii) surface rights, or complete ownership, or a signed agreement with another person or legal entity respecting the use of any land to which that person or legal entity possesses the surface rights or complete ownership, wherein the agreement clearly identifies the party which accepts full responsibility for any environmental liabilities incurred by the activities of the Licencee;
- iii) applicable work permits and timber cutting permits, as may be required by Manitoba Conservation and Water Stewardship; and
- b) those lands within and adjacent to the project area which are at least 100 metres away from identified:
 - i) riparian wildlife habitat along ecological reserves; and
 - ii) riparian beaver flood habitat.
- 12. The Licencee shall restrict all mining of peat or peat moss within the project area of the Development to only those deposits located within:
 - a) the boundaries of each Quarry Lease listed in Schedule 'C' attached to this Licence;
 - b) the boundaries as described in any future newly acquired Quarry Lease(s) of which the Director has been notified in writing, and has approved as an alteration to the licenced Development.
- 13. The Licencee shall, where practical, avoid draining and clearing any portion of the overall project area too soon in advance of its needs.
- 14. The Licencee shall design and construct the bog drainage system to ensure that the original water or groundwater level can be restored in the bog in the post-mining period.
- 15. The Licencee shall leave a buffer zone:
 - a) along the interior of the entire perimeter of the project area (excepting the right-of-way allowance of the bog road) having a width of at least 100 metres and possessing a minimum of 50 centimetres in depth of peat; and
 - b) along such corridors within the project area, and to such a width as may be specified in writing by the Director in consideration of any recommendation(s) received from the Regional Operations Division Integrated Resource Management Team of Manitoba Conservation and Water Stewardship respecting a desirability for any windbreak or habitat corridors.
- 16. The Licencee shall maintain at least 0.5 metre of in-situ peat throughout the bottom of any active mining area unless evidence provided by the Licencee, and satisfactory to the Director and the Integrated Resource Management Team of Manitoba Conservation and Water Stewardship, suggests that a residual depth of less than 0.5 metre will not adversely affect the effluent quality leaving the Development, nor compromise the optimum regrowth rate of vegetation or otherwise adversely affect the reclamation objective of restoring the mined bog area(s) of this Development to a functioning wetland that may eventually succeed back to a sphagnum bog.

Jiffy Products (NB) Ltd. - Poplar Creek Bog Licence No. 2941R Page 6 of 11

- 17. The Licencee shall, prior to commencing the surface disturbance of an undisturbed peat mining area that has been authorized to be prepared for mining, meet with and present to the Integrated Resource Management Team of Manitoba Conservation and Water Stewardship the mining plan for the newly authorized area, outlining and detailing:
 - a) the proposed drainage ditches;
 - b) the proposed periphery and corridor buffer zones, where or if applicable;
 - c) the depth of peat versus the proposed depth of mining; and
 - d) the projected rates of water release, the projected effluent quality and the projected water quality impact on Lake of the Woods and Harrison Creek, based on the compiled and reported sampling data collected pursuant to this Licence up to the time of the meeting;

where upon any outstanding concerns brought to the attention of the Director by the Integrated Resource Management Team of Manitoba Conservation and Water Stewardship may be addressed through a revised conditional authorization of disturbance for the affected area.

18. The Licencee shall securely cover truck transport loads during transport to and from the development.

Respecting Wildlife Habitat

19. The Licencee shall, where any potential wildlife habitat losses have been identified by Manitoba Conservation and Water Stewardship, consult with the Regional Operations wildlife staff of Manitoba Conservation and Water Stewardship with respect to the mitigation of the losses, and carry out any agreed upon mitigation measures to the satisfaction of the Director.

Respecting Drainage and Liquid Discharges

20. The Licencee shall not construct any water control works, including engineered drains, associated with the Development, nor release any drainage water from the Development, without the prior receipt of a Water Rights Licence to Construct Water Control Works from Manitoba Water Stewardship.

21. The Licencee shall:

- a) prevent, as much as practical, natural surface runoff water from outside the boundaries of any active mining area of the Development by diverting such surface runoff water around the perimeter of the active mining area(s) of the Development;
- b) subsequent to the commencement of preliminary induced drainage of an undisturbed area for reasons of access and the construction of sedimentation ponds, and prior to and throughout the activation of the respective undisturbed area through the commencement and the undertaking of surface disturbance or peat mining within the respective area, direct all drainage water associated with such an active mining area of the Development through one or more sedimentation ponds that are designed and constructed to achieve the effluent quality criteria specified in this Licence;
- c) release the effluent from each sedimentation pond through a final discharge associated with the sedimentation pond(s);

Jiffy Products (NB) Ltd. - Poplar Creek Bog Licence No. 2941R Page 7 of 11

- d) register with the Director a list of all active final discharge points and their locations, and maintain the registered list in a current status at all times; and
- e) release effluent from the Development through a final discharge point registered as active with the Director.

22. The Licencee shall:

- a) design and construct each final discharge point to facilitate the termination, if necessary, of the release of any effluent from the Development; and
- b) design and equip each final discharge point with a manual flow rate measuring device, satisfactory to the Director, and adequate to measure the full range of instantaneous rates of discharge as may be expected to be released into the environment.
- 23. The Licencee shall not release any effluent from the Development where the release of the effluent would:
 - a) cause a downstream flooding condition; or
 - b) contribute to a forecast downstream flooding condition; or
 - c) further aggravate an existing flooding condition prevailing at that time.
- 24. The Licencee shall not release any effluent from the Development if the quality of the effluent, as determined from the analysis of any grab sample taken of the effluent, is such that:
 - a) the pH of the effluent is causing, or contributing to, the pH of the receiving water at sampling sites WS1 and WS2, as shown in Appendix 'B' attached to this Licence, to fall below 6.5 pH units; or
 - b) the suspended solids concentration is greater than 30 milligrams per litre.
- 25. The Licencee shall not release any effluent from the Development of such quality and quantity such as to:
 - a) cause the water quality of either Harrison Creek or Poplar Creek, as determined at the receiving stream water quality sampling sites WS1 and WS2 as shown in Appendix 'B', to be adversely affected relative to the current *Manitoba Water Quality Standards*, *Objectives*, *and Guidelines*; or
 - b) cause naturally elevated levels (i.e. in excess of the current *Manitoba Water Quality Standards, Objectives, and Guidelines*) in these surface waterways to be further degraded.

26. The Licencee shall:

- a) during construction, dispose of all sewage and septage from on-site sanitary facilities in accordance with *Manitoba Regulation 83/2003* or any future amendment, respecting *Onsite Wastewater Management Systems*; and,
- b) dispose of any sewage and septage transported off-site from the Development into a facility which has an Environment Act Licence authorizing the acceptance of sewage and septage.

Respecting Air Emissions

27. The Licencee shall limit the discharge of fugitive emissions from any source within the site of the Development such that:

Jiffy Products (NB) Ltd. - Poplar Creek Bog Licence No. 2941R Page 8 of 11

- a) distinct plume forming fugitive emissions do not exceed an opacity of 5%;
- b) non plume forming fugitive emissions are not visible at any time; and when measured or viewed in the atmosphere beyond the property boundary of the Development.

Respecting Solid Wastes

28. The Licencee shall dispose of solid waste at a Waste Disposal Ground operating under the authority of a permit issued pursuant to *Manitoba Regulation 150/91* or any future amendment thereof, respecting *Waste Disposal Grounds*.

Respecting Dangerous Goods or Hazardous Wastes

- 29. The Licencee shall ensure fuel storage containers incorporate secondary containment satisfactory to an Environment Officer.
- 30. The Licencee shall collect and dispose of all used petroleum products and other hazardous wastes generated by the machinery used in the construction and operation of the Development in accordance with Manitoba Conservation and Water Stewardship and legislative requirements.
- 31. The Licencee shall establish any fuel storage areas required for the construction and operation of the Development:
 - a) a minimum distance of 100 metres from any waterbody; and
 - b) in compliance with the requirements of *Manitoba Regulation 188/2001*, or any future amendment thereof, respecting *Storage and Handling of Petroleum Products and Allied Products*.

Respecting Contingency Plans and Emergency Response Plans

- 32. The Licencee shall:
 - a) within two months of the date of issuance of this Licence, submit to the Director, for approval, a proposed Emergency Response Plan, consistent with the "Industrial Emergency Response Planning Guide (MIAC, September, 1996)" to address such matters as fire suppression and control, and cleaning up spills involving dangerous goods (hazardous chemicals, petroleum products, etc.); and
 - b) continually maintain the approved Emergency Response Plan in a current status for the duration of the Development.
- 33. The Licencee 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 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.
- 34. The Licencee shall, following the reporting of an event pursuant to Clause 33:

Jiffy Products (NB) Ltd. - Poplar Creek Bog Licence No. 2941R Page 9 of 11

- 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.

Respecting Monitoring, Record Keeping and Reporting

- 35. The Licencee shall, throughout the draining and mining of the project area of the Development, but only under conditions of effluent release:
 - a) once per week, collect samples of the effluent at each final discharge point, and have them analyzed at such frequencies as specified in Schedule 'A' attached to this Licence, for such substances and characteristics as specified in Schedule 'B' attached to this Licence;
 - b) once per week, measure and record the flow rate (in cubic metres per second) of effluent being released from each final discharge point of the Development, and use the weekly flow rate measurements to determine an estimate of the total monthly volumes (expressed in cubic metres) of effluent released from each final discharge point of the Development; and
 - c) collect representative samples of the waters in the streams at sites WS1 and WS2, identified in Appendix 'B' attached to this Licence, at such frequencies as specified in Schedule 'A' attached to this Licence, and have the samples analyzed for such substances and characteristics as specified in Schedule 'B' attached to this Licence;

unless otherwise specified in writing by the Director.

- 36. The Licencee shall establish at least nine observation stations on each mined out field and annually monitor and record the progress of regrowth of sphagnum moss and other introduced plants in a manner satisfactory to the Director.
- 37. The Licencee shall submit to the Director the analytical data, and flow rate measurements and monthly estimates determined and recorded in accordance with Clauses 35 of this Licence no later than 30 days following the end of the month in which the samples and measurements were taken.
- 38. The Licencee shall upon and after February 28, 2012 submit an annual summary of all the analytical values, measurements and estimates determined and recorded pursuant to Clauses 35 and 36 of this Licence, to the Director, in writing and in an electronic format acceptable to the Director, for the preceding year's data.

Respecting Decommissioning, Reclamation and Restoration

- 39. The Licencee shall:
 - a) comply with *Manitoba Regulation 67/99*, or any future amendment thereto, respecting *Mine Closure*, particularly in regards to addressing environmental issues including, but not necessarily limited to:
 - i) implementation of a restoration plan that includes the re-establishment of selfregulatory mechanisms and a return of the affected areas to functional peat accumulating ecosystems;

- ii) the implementation of any progressive restoration of those peat bog areas of the Development where mining has reached its terminal depth;
- iii) the decommissioning of any temporary fuel storage site used at or for the Development;
- iv) the decommissioning of access roads, stream crossings and power lines constructed for the Development;
- v) the decommissioning, reclamation and restoration of the overall affected operational area of the Development;
- vi) the restoration or replacement of wildlife or fish habitats disturbed, adversely affected or lost as a result of the Development;
- vii) the containment, control or treatment of pollutants originating from the mine site of the Development; and
- viii) the strategy, scope, frequency and duration of post-closure environmental monitoring activities at the mine site;

where applicable; and

- b) provide the Director with:
 - i) written notice three months in advance of any imminent permanent closure of this Development; or
 - ii) an immediate written notice of any sudden decision to temporarily close this Development whereby the Development would be placed in a mothballed state for reopening in the foreseeable future; and
 - iii) in the course of progressive reclamation and restoration, as well as upon the 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, respecting *Mine Closure*, to the satisfaction of the Director.
- 40. The Licencee shall consult a specialist in restoration ecology for Manitoba if the annual monitoring of the progression of the vegetation carpet, in any field undergoing restoration, suggests a progression rate which is unsatisfactory to the Director.

REVIEW OR REVOCATION

- A. Licence No. 2941 R is hereby rescinded.
- B. If, in the opinion of the Director, the Licencee 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 the Licencee has not commenced construction of the Development within three years of the date of this Licence, this Licence is revoked.

Jiffy Products (NB) Ltd. - Poplar Creek Bog Licence No. 2941R Page 11 of 11

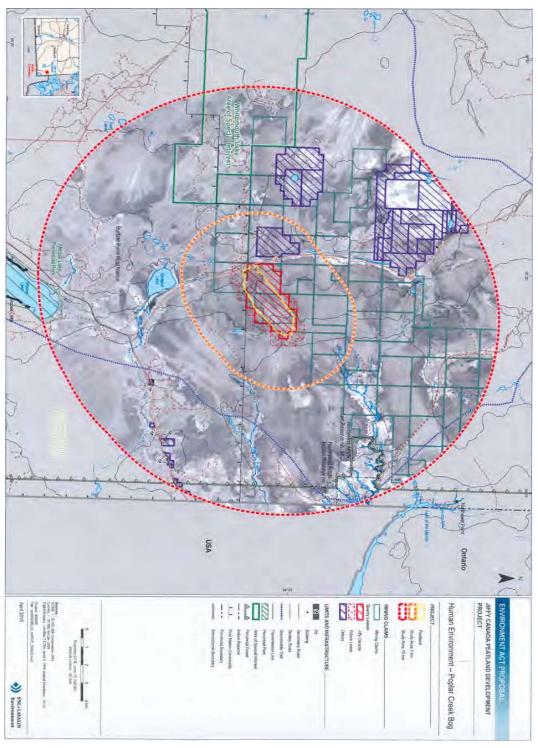
D. If, in the opinion of the Director, new evidence warrants a change in the specifications, limits, terms or conditions of this Licence, the Director may require the filing of a new proposal pursuant to Section 11 of *The Environment Act*.

"original signed by"

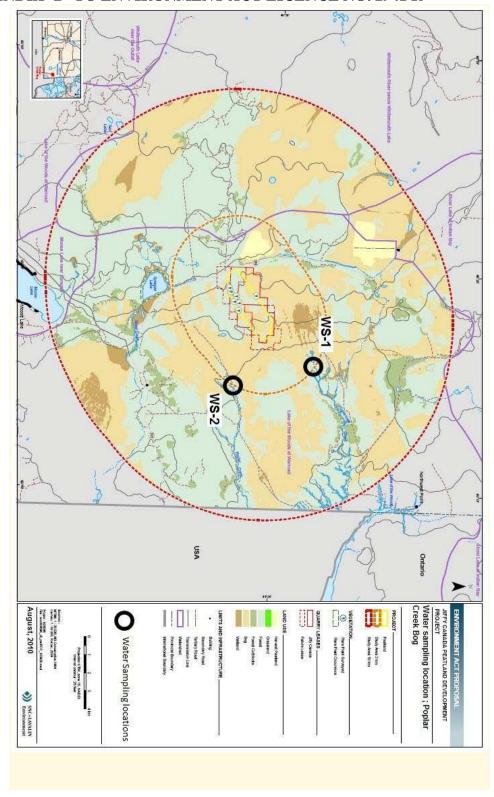
Tracey Braun, M.Sc.
Director
Environment Act

File: 5461.00

APPENDIX 'A' TO ENVIRONMENT ACT LICENCE NO. 2941 R



APPENDIX 'B' TO ENVIRONMENT ACT LICENCE NO. 2941 R



SCHEDULE 'A' TO ENVIRONMENT ACT LICENCE NO. 2941 R

Area	Source	Location	Sampling	Determinations
			Frequency *	or Analyses
Final Discharge Point	Effluent	Immediately downstream of sedimentation ponds	Weekly & 3x/year	See Schedule 'B'
Harrison Creek & Poplar Creek	Downstream Receiving Water	WS1 and WS2	2x/year	See Schedule 'B'

^{* &}quot;weekly" means one sample every seven days, but on an operating day.

Note: The Director reserves the right to make future alterations to this Schedule in the interests of effective environmental management.

[&]quot;2x/year" means one sample every spring freshet and late fall.

[&]quot;3x/year" means one sample every spring freshet, late summer and late fall.

SCHEDULE 'B' TO ENVIRONMENT ACT LICENCE NO. 2941 R

	Effluent	Effluent	Receiving
<u> </u>			Water
Parameters / Characteristics / Data	(weekly)	(3x / Year)	(2x / Year)
Sampling Date	X	X	X
Flow rate	X		
рН	X	X	X
Total Alkalinity		X	X
Acidity		X	X
Conductivity		X	X
Total Dissolved Solids		X	X
Total Suspended Solids	X	X	X
5-day Biochemical Oxygen Demand		X	X
Calcium		X	X
Magnesium		X	X
Hardness		X	X
Total Phosphorus (as P)		X	X
Total Kjeldahl Nitrogen		X	X
Total ammonia (as N)		X	X
Nitrate + Nitrite (as N)		X	X
Manganese		X	X
Sulphates (as S)		X	X
Total Aluminum		X	X
Total Iron		X	X
Total Zinc		X	X
Total Chromium		X	X
Total Nickel		X	X
Total Cadmium		X	X
Total Lead		X	X
Complete Heavy Metals		X	X

[&]quot;3x / year" means once during the spring freshet, once during mid-summer, and once in late fall.

Note: The Director reserves the right to make future alterations to this Schedule in the interests of effective environmental management.

[&]quot;2x / year" means once during the spring freshet, and once in late fall.

SCHEDULE 'C' TO ENVIRONMENT ACT LICENCE NO. 2941 R

BOG	QUARRY LEASES	TOTAL QL AREA (Ha)	PROPERTY OWNERSHIP
Poplar Creek Bog	QL-2091	217.8	Crown Land
	QL-2092	216.6	Crown Land
	QL-2227	113.3	Crown Land
	QL-2228	32.4	Crown Land
	QL-2229	16.2	Crown Land