

**Licence No.: 2478**

**Licence Issued: September 15, 2000**

**IN ACCORDANCE WITH THE MANITOBA ENVIRONMENT ACT (C.C.S.M. c. E125)  
THIS LICENCE IS ISSUED PURSUANT TO SECTION 11(1) TO:**

**Soils Are Us; "the Licencee"**

for the construction and operation of the Development being a peat or peat moss mine located on the SW1/4 of Section 7, Township 8, Range 8 EPM, in accordance with the Proposal filed under The Environment Act on April 5, 2000, 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 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 Canadian Standard Can/CSA-Z753, extension of the international standard ISO 9000, Guide 25, or otherwise approved by the Director;

**"affected area"** means a geographical area, excluding the property of the Development.

**"approved"** means approved by the Director in writing;

**"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 or pumps, to drain towards the final discharge point of the Development;

**"effluent"** means drainage water or wastewater released into the environment;

**"final discharge point"** means an effluent quality control point as designated within 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;

**"noise nuisance"** means a continuous or repeated noise 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 the members of the public;

if the noise

- 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 noise 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.

**"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;

**"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;

**"sewage"** means sewage as defined in Manitoba Regulation 95/88R, or any future amendment thereto, respecting private sewage disposal systems and privies;

**"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. 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.
2. 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.
3. 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**

4. The Licencee shall, before commencing any induced drainage, or clearing the surface of the site of the Development:
  - a. transplant any visible *Arethusa bulbosa* orchids which have been documented to be present on the site, to another suitable site in consultation with the Eastern Regional Wildlife Manager; and
  - b. upon completion of the activity, advise the Director, in writing, of the number of orchids so transplanted and the location to which they were transplanted.

### **Respecting Land Use and Operational Activities**

5. The Licencee shall restrict construction and operational activities only to lands to which the Licencee possesses:
  - a. 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; and
  - b. applicable work permits and timber cutting permits as may be required by the Department of Conservation.
6. The Licencee shall restrict all mining of peat at the Development to only those deposits located within the boundaries as described in Quarry Lease 1473, and within the boundaries as described in any future additionally acquired Quarry Lease(s) of which the Director has been notified in writing and has approved as an alteration to the licenced Development.
7. The Licencee shall, where practical, avoid draining and preparing any portion of the Development too soon in advance of its needs.
8. 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.
9. The Licencee shall leave a buffer zone of original vegetation and peat along the periphery of the mined peat bog within the Quarry Lease area(s), or along such corridors and to such a width, as requested in writing by the Eastern Region Integrated Resource Management Team of the Department of Conservation.
10. The Licencee shall implement progressive restoration of mined out areas of the bog, and encourage the progressive restoration with appropriate water level controls and the transplanting of appropriate vegetation from undisturbed areas of the Development.
11. The Licencee shall ensure that at least a 0.5 metre layer of in-situ peat remains intact throughout the bottom of the mined peat bog upon completion of the mining activities.

### **Respecting Wildlife Habitat**

12. The Licencee shall ensure that, where any wildlife habitat losses have been identified by the Department of Conservation, the Eastern Regional wildlife staff of the Department of Conservation are consulted with respect to mitigation of the losses, and that the agreed upon mitigation measures are carried out to the satisfaction of the Director.

### **Respecting Drainage and Liquid Discharges**

13. The Licencee shall not release any drainage water from the Development, without prior receipt of a Drainage Permit from the Water Resources Branch of the Department of Conservation.
14. The Licencee shall, before commencing any drainage at the Development, place a series of five piezometers at distances of approximately 20, 40, 60, 80 and 100 metres from the edge of the site to be drained, along a line parallel to the direction of the flow of groundwater into the site of the Development being drained.
15. The Licencee shall:
  - a. prevent, as much as practical, natural surface runoff water from outside the boundaries of the Development from migrating into the active area of the Development by diverting such runoff water around the site of the Development;
  - b. direct all drainage water associated with the Development through one or more sedimentation ponds that are designed and constructed to achieve the effluent quality criteria as specified in this Licence;
  - c. direct all drainage water from the sedimentation pond(s) to the final discharge point identified in Appendix 'B' attached to this Licence; and
  - d. release all effluent from the Development only through the final discharge point.
16. The Licencee shall ensure that the final discharge point, identified in Appendix 'B' attached to this Licence, is:
  - a. designed and constructed with a gate valve or similar device to prevent, if necessary, the release of any effluent from the Development; and
  - b. designed and equipped 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.
17. 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 possible or forecast downstream flooding condition; or
  - c. further aggravate a downstream flooding condition prevailing at that time;along the receiving downstream drainage route or the Seine River.
18. 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 is less than 5.0 pH units;
  - b. the pH of the effluent is causing, or contributing to, the pH of the receiving water at monitoring station WS 2, as shown in Appendix 'B' attached to this Licence, to fall below the lesser of 6.5 pH units or the prevailing pH of the receiving stream at monitoring station WS 1; or
  - c. the suspended solids concentration is greater than 30 milligrams per litre.
19. The Licencee shall:
  - a. comply with Manitoba Regulation 95/88R, or any future amendment thereto, in regards to any sewage generated at the Development; and
  - b. ensure that any sewage and septage transported off-site from the Development is disposed of only into a facility which has an Environment Act Licence or Environment Act Permit authorizing the acceptance of sewage and septage.

### **Respecting Air Emissions**

20. The Licencee shall not operate any internal combustion driven heavy equipment at the site of the Development,

or use any such equipment to haul materials off the site of the Development, between 10:00 pm on any day and 8:00 am of the following day.

21. The Licencee 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.
22. The Licencee shall at all times carry out an efficient program of fugitive emissions suppression to limit the discharge of fugitive emissions from any source within the site of the Development such that:
  - 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
  - c. the ambient air quality downwind of the Development is protected to the extent that the measured ground level concentration of suspended particulate matter is not greater than 120 micrograms per cubic metre of air averaged over a 24-hour period;

when measured or viewed in the atmosphere beyond the property boundary of the Development.

23. The Licencee shall ensure that, under dry weather conditions, an appropriate and effective dust suppressant, other than water, is used on the unpaved access road in the vicinity of any residence, between the site of the Development and the nearest paved Provincial highway, to minimize the release of fugitive dust off the road as may result from vehicle traffic associated with the operation of the Development.
24. The Licencee shall, within 24 hours of having received notification from an Environment Officer of a complaint from the neighbouring public concerning fugitive emissions from the site of the Development, or as a result of traffic from or to the Development along the unpaved access road, respond effectively and to the satisfaction of the Director by mitigating the fugitive emissions, and submit a report to the Director within seven days outlining why the problem developed, how it was mitigated and what would be done to prevent another similar situation from developing.

### **Respecting Solid Wastes**

25. The Licencee shall not deposit solid waste, as defined in Manitoba Regulation 150/91 respecting waste disposal grounds, into the environment except into a waste disposal ground operating under the authority of a permit issued pursuant to Manitoba Regulation 150/91, or any future amendment thereto, where the operator of that facility has agreed to accept the solid waste from the Development.

### **Respecting Recyclable Wastes**

26. The Licencee shall not deposit bulky metallic wastes, used tires, used oil or other fluid lubricants, hydraulic fluids, or any other class of recyclable waste substances as may be specified by the Director, into the environment except into:
  - a. a facility or infrastructure which accepts such materials for recycling, or
  - b. a waste disposal ground operating under the authority of an operating permit issued pursuant to Manitoba Regulation 150/91 or any future amendment thereto, where these recyclable substances are kept segregated from each other and are not buried (unless otherwise specified by the Director) so as to facilitate their future recycling.

### **Respecting Dangerous Goods or Hazardous Wastes**

27. The Licencee shall not store any gasoline and associated products, dangerous goods or hazardous wastes on-site at the Development.

### **Respecting Contingency Plans and Emergency Response Plans**

28. 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 CAN/CSA standard Z731.95 - Emergency Planning for Industry, for fire suppression and control, and cleaning up spills involving dangerous goods (hazardous chemicals, gasoline, etc.); and
- b. continually maintain the approved Emergency Response Plan in a current status for the duration of the Development.

**Respecting Operational Monitoring, Record Keeping and Reporting**

29. The Licencee shall, throughout the draining and mining of the site of the Development, but only under conditions of effluent release:

- a. once per week, collect samples of the effluent at the 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 the Development, and use the weekly flow rate measurements to determine the total monthly volumes (expressed in cubic metres) of effluent released from the Development;
- c. collect samples of the upstream and downstream receiving waterway at such frequencies as specified in Schedule 'A' attached to this Licence, and have the samples analyzed for such substances and characteristics as specified Schedule 'B' attached to this Licence; and

unless otherwise specified in writing by the Director.

30. The Licencee shall, before, throughout and after the draining and mining of the site of the Development, measure the elevation of the water table in the installed piezometers, as well as at a representative reference location in the drainage ditches at the Development, in accordance with the frequency specified in Schedule 'A' attached to this Licence for such duration until otherwise specified by the Director.
31. The Licencee shall submit to the Director the analytical data, and flow rate measurements and monthly estimates, and water table elevation data determined and recorded in accordance with Clauses 29 and 30 of this Licence by no later than 30 days following the end of the month in which the samples and measurements were taken.
32. The Licencee shall submit an annual summary of all the analytical values, measurements and estimates determined and recorded pursuant to Clauses 29 and 30 of this Licence, to the Director, in writing and in an electronic format acceptable to the Director, no later than February 28 of each year for the preceding year's data.

**Respecting Decommissioning, Reclamation and Restoration**

33. The Licencee shall:

- a. 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 implementation of any progressive restoration of those peat bog areas of the Development where mining has reached its terminal depth;
  - ii. the decommissioning of any temporary fuel storage site used at or for the Development.
  - iii. the decommissioning of access roads, stream crossings and power lines constructed for the Development;
  - iv. the decommissioning, reclamation and restoration of the overall affected operational

- area of the Development;
- v. the restoration or replacement of wildlife or fish habitats disturbed, adversely affected or lost as a result of the Development;
  - vi. the containment, control or treatment of pollutants originating from the mine site of the Development; and
  - vii. 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. 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;

c. in the course of progressive rehabilitation, 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, to the satisfaction of the Director.

### **REVIEW OR REVOCATION**

- A. 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.
- B. If the Licencee has not commenced construction of the Development within three years of the date of this Licence, this Licence is revoked.
- 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"

**Larry Strachan, P. Eng.**

**Director**

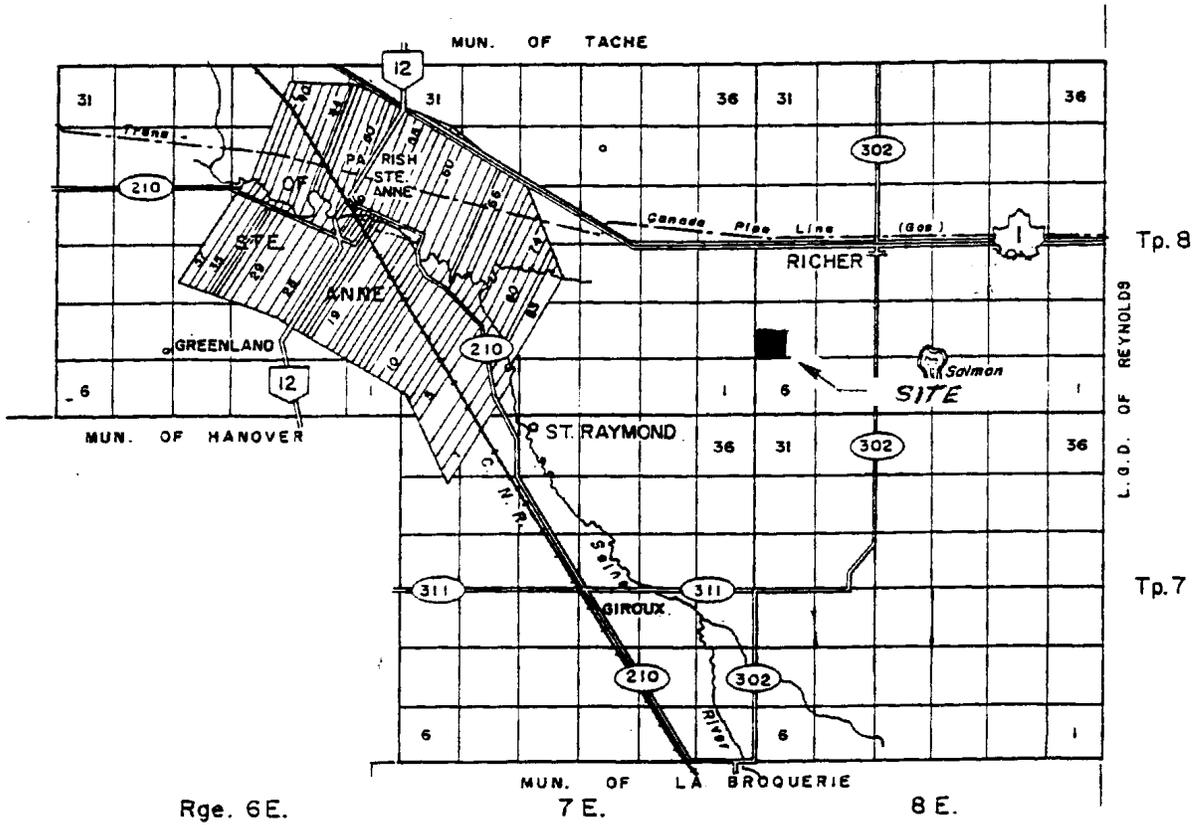
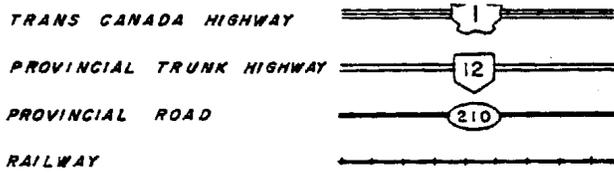
**Environment Act**

**Client File No.: 4496.0**

### **APPENDIX 'A'**

(Area Map)

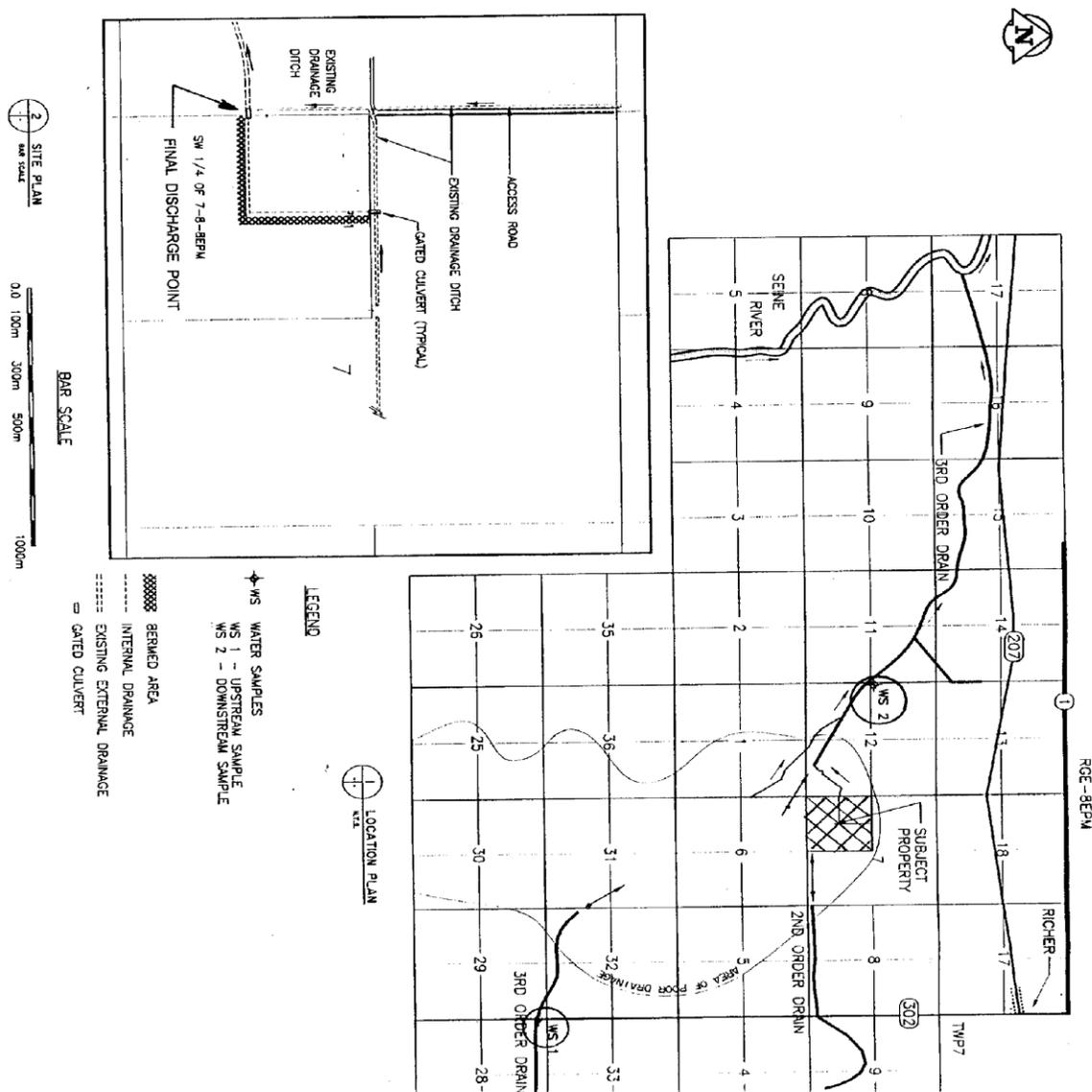
To view map more clearly please print this page.



### APPENDIX 'B'

(Location Plan & Sampling Stations)

To view map more clearly please print this page.



**SCHEDULE 'A'**  
(Sampling Requirements)

Area	Source	Location (see Appendix 'B')	Sampling Frequency *	Determinations or Analyses
Peat Bog	Effluent	Final Discharge Point	weekly & 3x/year	See Schedule 'B'
Municipal Drain	Upstream Water	Monitoring Stn. WS 1	3x/year	See Schedule 'B'
Municipal Drain	Downstream Water	Monitoring Stn. WS 2	3x/year	See Schedule 'B'
Piezometric Wells	Piezometric Wells		3x/year	See Schedule 'B'

\* "weekly" means one sample every seven days, but on an operating day.  
 "3x/year" means one sample every spring freshet, mid-summer and late fall.

**Note:** The Director reserves the right to make future alterations to this Schedule in the interests of efficient management of the environment.

**SCHEDULE 'B'**  
**(Required Determinations and Analyses)**

Parameters / Characteristics / Data	Sample Category					
	Effluent (weekly)	Effluent (3x/Year)	Effluent (1x/Year)	Receiving Water (3x/Year)	Receiving Water (1x/Year)	Wells (3x/Year)
Sampling Date	X	X	X	X	X	X
Piezometric Water Table Elevation						X
Flow rate	X					
pH	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	

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

"1x/year" means once during mid-summer (i.e. at the same time that the 3x / year mid-summer sample is taken).

**Note:** The Director reserves the right to make future alterations to this Schedule in the interests of

efficient management of the environment.