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

File No.: 5818.00

April 11, 2025

Dan Mauws
General Manager
Municipal Waste Management Ltd.
Box 459
Souris MB R0K 2C0
dan@mwmenviro.ca

Dear Dan Mauws:

Re: Environment Act Licence No. 3181 – Notice of Alteration Approval

Thank you for your notice of alteration request dated July 30, 2024, and additional information submitted on April 7, 2025, seeking approval to construct a new one-metre thick compacted clay-lined leachate evaporation pond with a capacity of 6,125 cubic metres at the Municipal Waste Management Landfill located at SW 35-8-21 WPM, as identified in Schedule A of this approval.

As the construction of the leachate pond will improve the environmental performance of the facility, I approve the alteration following Section 14(2) of The Environment Act with the following conditions:

- The licensee must construct the leachate pond as per the design plans submitted to the Director on July 30, 2024;
- The licensee must follow clauses 35, 36, 37, 39, and 40 for the construction of the leachate pond;
- The licensee must follow clauses 41 to 44 for the liner testing;
- The licensee must give written notice to the designated environment officer at least 5 days and not more than 10 days before construction begins on the leachate pond at the facility; and
- The licensee must submit record drawings following clause 100 of the licence.

This notice of alteration approval is conditional upon you receiving a revised Environment Act Licence in the near future.

Municipal Waste Management Ltd. must follow all licence requirements and federal, provincial, and municipal regulations and by-laws.

All other clauses of The Environment Act Licence No. 3181 remain in effect.

…2

Anyone affected by this decision may appeal, in writing, to the Minister of Environment and Climate Change at minecc@manitoba.ca by May 12, 2025. This approval is available on the public registry at: https://www.gov.mb.ca/sd/eal/registries/index.html.

If you have any questions regarding this approval, please contact Mehak Bajwa, Senior Environmental Engineer, Environmental Approvals Branch at Mehak.Bajwa@gov.mb.ca or 431-334-3367.

For questions relating to the ongoing administration of the licence, please contact Kayla Hagenson, Acting Regional Supervisor, Environmental Compliance and Enforcement Branch at EnvCEWestern@gov.mb.ca or 204-648-4794.

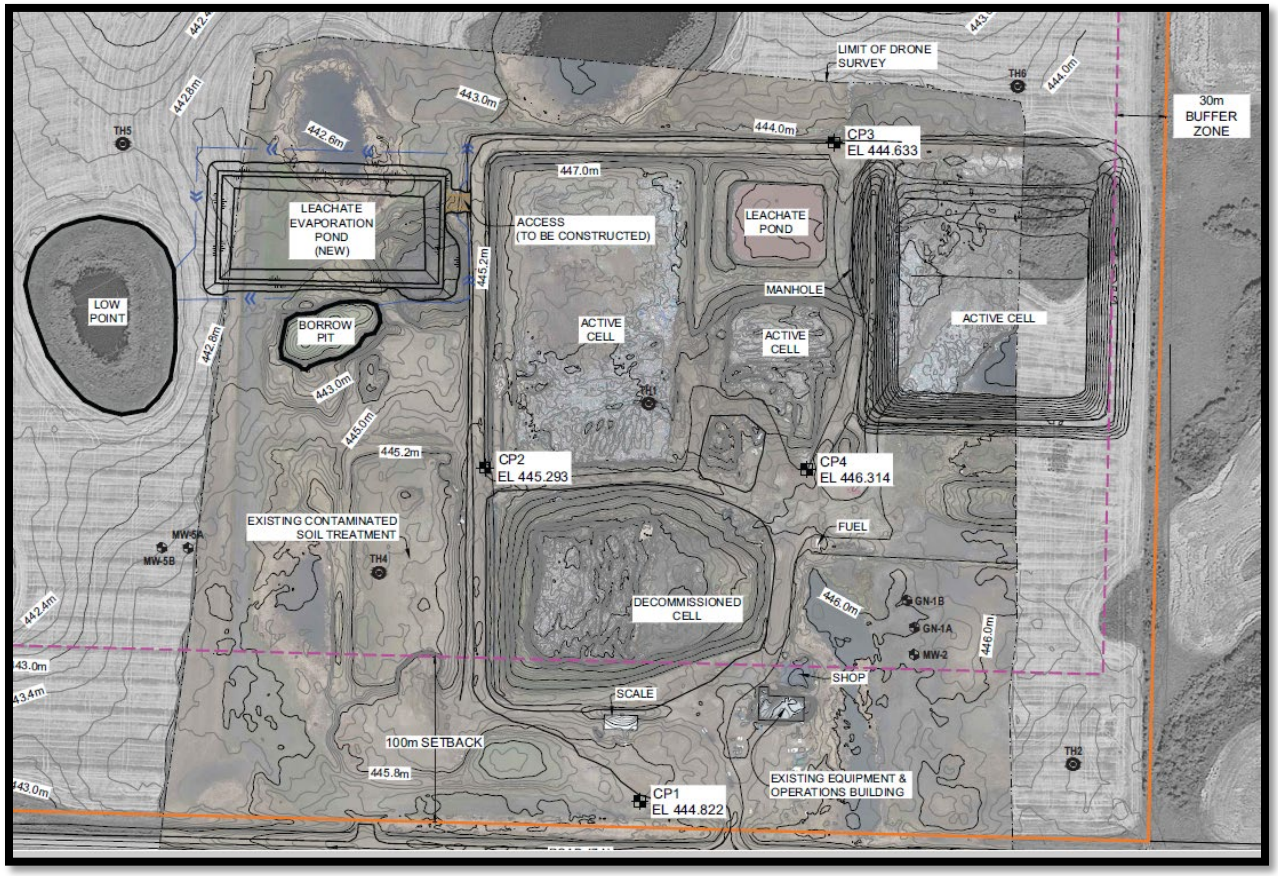
Sincerely,

Original Signed By
Agnes Wittmann
Director
The Environment Act

Attachment

c. Doug Dolby – Enviro-solutions
Mehak Bajwa - Environmental Approvals
Kayla Hagenson - Environmental Compliance and Enforcement

Schedule A of this Approval



Leachate Pond Layout

Manitoba
Sustainable Development

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

CLIENT FILE NO.: 5818.00

May 27, 2016

Tim Oliver
Municipal Waste Management Ltd.
Box 84
Goodlands MB R0M 0R0

Dear Mr. Oliver:

Enclosed is **Environment Act Licence No. 3181** dated May 27, 2016 issued to **Municipal Waste Management Ltd.** for the expansion and operation of the Development being a Class 1 Waste Disposal Ground to be known as Municipal Waste Management Ltd. SW35-8-21W Landfill located on SW ¼ 35-8-21 WPM in the Municipality of Souris-Glenwood, Manitoba in accordance with the Proposal filed under *The Environment Act* on January 5, 2016.

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.

For further information on the administration and application of the Licence, please feel free to contact Peter Crocker, Environment Officer at 204-726-6565.

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 Sustainable Development within 30 days of the date of the Licence.

Yours truly,

"original signed by"

_____

Tracey Braun, M.Sc.
Director
Environment Act

c: Don Labossiere, T. Prawdzik/P. Crocker, Environmental Compliance and Enforcement
S. Burland-Ross, Environmental Approvals; Jeff Dyck, JR Cousin Consultants Ltd.
Public Registries

NOTE: Confirmation of Receipt of this Licence No. 3181 *(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 June 9, 2016.

On behalf of Municipal Waste Management Ltd. **Date**

****A COPY OF THE LICENCE MUST BE KEPT ON SITE AT THE DEVELOPMENT AT ALL TIMES****

THE ENVIRONMENT ACT
LOI SUR L'ENVIRONNEMENT

LICENCE

Manitoba

Licence No. / Licence n° **3181**

Issue Date / Date de délivrance **May 27, 2016**

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:

MUNICIPAL WASTE MANAGEMENT LTD.;
"the licencee"

for the expansion and operation of the Development being a Class 1 Waste Disposal Ground to be known as Municipal Waste Management Ltd. SW35-8-21W Landfill located on SW ¼ 35-8-21 WPM in the Municipality of Souris-Glenwood, Manitoba in accordance with the Proposal filed under *The Environment Act* on January 5, 2016, 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 Conservation and Water Stewardship 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;

"active area" means an area of a landfill that is currently being used for the deposit of solid waste;

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

"alternative cover" means materials approved by the Director for use in temporarily covering waste in an active area;

"approved" means approved by the Director or assigned Environment Officer in writing;

"background water quality" means the quality of water in any geologic zone monitored with regards to the chemical and microbiological parameters specified in a Licence issued pursuant to *The Environment Act* by the Director;

"BTEX" means the following components of gasoline and other specific petroleum products:

B = Benzene;
T = Toluene;
E = Ethylbenzene; and
X = Xylene;

"cell" means an area of a landfill in which solid waste has been, or is to be, deposited;

"closure plan" means a plan indicating the actions to be taken for the closure of the Development, or a portion of the Development;

"compliance boundary" means the planar surface that circumscribes the Development, extends vertically downward from the land surface, and constitutes the place at which the parameters of the background water quality as specified in a Licence issued pursuant to *The Environment Act* are not to be exceeded;

"component" means a landfill cell, pad or structure that forms a part of a process or system within an activity area of the Development;

"concentration value" means a restriction established by a Licence issued pursuant to *The Environment Act* by the Director on quantities, discharge rates and concentrations of pollutants;

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

"cover material" means inorganic soil, free of refuse, trash and vegetation, or other materials as approved by the Director, that is used to cover compacted solid waste;

“cut-off” means a vertical-side trench filled with compacted clay or a sand and bentonite mixture or a wall constructed from compacted clay;

"daily" means any 24-hour period;

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

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

"engineer(s)" means an engineer or engineers registered with the Association of Professional Engineers and Geoscientists of the Province of Manitoba;

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

"final cover" means earth compacted to a thickness of at least 0.5 metre applied to the surface of the compacted waste cell that has achieved the final elevation for cell closure, and is graded to minimize ponding of water on the surface;

"groundwater" means water below the ground surface and within 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;

"HDPE" means high density polyethylene;

"hydraulic conductivity" means the quantity of water that will flow through a unit cross-sectional area of a porous material per unit of time under a hydraulic gradient of 1.0;

"industrial waste" means waste product generated by industry other than hazardous waste and liquid industrial waste;

“In-situ” means on the site;

"landfill" means waste disposal ground;

"leachate" means liquid that has percolated though solid waste, and that contains dissolved and/or suspended materials from the solid waste;

"liner" means a continuous layer of reworked soil, or manufactured materials, placed beneath and on the sides of a waste disposal ground cell, soil remediation facility pad or a storage area intended to restrict the downward or lateral escape of solid waste, leachate, and or gases, or to restrict the upward movement of groundwater into an area;

"liquid industrial waste" means waste generated by industrial processes that has a slump of more than 150 mm using the slump test method (slump test, C.S.A. Standards Test Method A 23.2-5C), and does not include hazardous waste or industrial waste;

"liquid waste" means sewage, sewage effluent and sludge from septic tanks, holding tanks and municipal sewage treatment systems and that has a slump of more than 150 mm using the slump test method (slump test, C.S.A. Standard Test Method A23.2-5C);

"mil" means one-thousandth of an inch;

"monitoring well" means a well drilled to measure groundwater levels and collect groundwater samples for the purpose of physical, chemical or biological analysis to determine the concentration of groundwater constituents;

"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;

"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;

"operator" means the company or person who is responsible for the day-to-day maintenance and operation of the Development;

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

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

"post closure plan" means a plan indicating the actions to be taken for the care, maintenance, and monitoring of the Development after closure, that will prevent, mitigate, or minimize the threat to public health and the environment;

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

"qualified professional" means an individual properly trained and authorized to practice in a specific area or field which may include assessment, design, or providing consultation for an aspect of the Development; to include but not be limited to Professional Engineers, Geoscientists or Landscape Architects;

"site" means the area both permanent and temporary which is required for the construction and operation of the Development;

"solid waste" means any waste in solid form, including dead animals;

"special waste" means bagged asbestos containing materials, dead animals including specified risk materials (SRM), slaughterhouse waste and food products deemed to be unacceptable by the Canadian Food Inspection Agency (CFIA), biosolids, and any other waste identified by the Director;

"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 Water Works Association and the Water Environment Federation;

"top soil" means soil that is free of roots, vegetation, weeds and stones larger than 50 mm, is capable of supporting good vegetative growth, and is suitable for use in top dressing, landscaping and seeding; and

"waste disposal ground" means a parcel of land that is used for the disposal of solid or industrial waste, also referred to as a landfill.

GENERAL TERMS AND CONDITIONS

This Section of the Licence contains terms and conditions 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.

General Terms

1. The Licencee shall operate the Development in compliance with the provisions of *Manitoba Regulation 150/91* respecting Waste Disposal Grounds or *Manitoba Regulation 37/2016* respecting Waste Management Facilities, or any future amendment thereof.

Reporting Format

2. The Licencee shall submit all information required to be provided to the Director or Environment Officer under this Licence, in written and electronic format, in such form (including number of copies) and of such content as may be required by the Director or Environment Officer, and each submission shall be clearly labeled with the Licence Number and File Number associated with this Licence.

3. The Licencee shall carry out any remedial measures, modifications, or alterations, as deemed necessary by the Director, in respect to matters authorized under this Licence.

Future Sampling

4. 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 pollutants 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.

Sampling Methods

5. The Licencee 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 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 sixty (60) days of the samples being taken, or within another timeframe as specified by the Director.

6. The Licencee shall, unless otherwise specified in this Licence carry out all sampling of groundwater, surface water, leachate, soil, and air in accordance with methodologies specified in the Operating Plan submitted pursuant to Clause 20 of this Licence.

Equipment Operation

7. 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 the 24-hour environmental accident reporting line at 204-944-4888 (toll-free 1-855-944-4888). The report shall indicate the nature of the event, the time and estimated duration of the event and the reason for the event.

8. The Licencee shall, following the reporting of an event pursuant to Clause 7,
   a) identify the repairs required to the mechanical equipment;
   b) undertake all repairs to minimize unauthorized discharges of a pollutant;
   c) complete the repairs in accordance with any written instructions of the Director; and
   d) submit a report to the Director about the causes of breakdown and measures taken, within four (4) weeks of the repairs being completed.

9. The Licencee shall implement a high standard of equipment maintenance and good housekeeping and operational practices with respect to the Development, at all times.

Fire Reporting

10. The Licencee shall in the event of a fire which continues in excess of thirty (30) minutes, or requires implementation of the Emergency Response Plan in Clause 92, or requires fire suppression assistance from personnel outside of the Development

(e.g., fire department) report the fire by calling (204) 944-4888 (toll free 1-855-944-4888), identifying the type of materials involved and the location of the fire.

Approvals and Permits

11. The Licencee shall locate fuel storage and equipment servicing areas established for the construction and operation of the Development in compliance with the requirements of *Manitoba Regulation 188/2001* respecting *Storage and Handling of Petroleum Products and Allied Products* or any future amendments thereof.

12. The Licencee shall obtain approval in writing from the Director for any proposed alteration to the Development before proceeding with the alteration.

SPECIFICATIONS, LIMITS, TERMS AND CONDITIONS

Odours and Air Emissions

13. The Licencee shall not burn waste or combustible materials, or allow the burning of waste or combustible materials at the Development unless approved by the Director.

14. The Licencee 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.

15. The Licencee, upon written request of and in a timeframe stipulated by the Director, shall comply with any air emission or ambient air quality criteria specified by the Director for any pollutant of concern to the Director which has been identified pursuant to Clauses 4 or 72 of this Licence.

16. The Licencee shall take action to minimize the entrainment of particulate matter into the air at the Development resulting from the operation of vehicles or the transportation, storage or handling of wastes, construction, renovation and demolition wastes or other materials.

Noise

17. 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.

Responsible Party

18. The Licencee shall assign an engineer(s) or a qualified person(s) to be responsible for the construction of the Development and any required remediation action in accordance with the plans, specifications and design report(s) submitted in support of the proposal or this Licence.

19. The Licencee shall designate an employee, within sixty (60) days of the date of issuance of this Licence, as the Licencee's Environmental Coordinator, whose job description will include assisting the Licencee in complying with the limits, terms and conditions in this Licence and assisting Senior Management of the Licencee to manage environmental issues at the Development. The name of the Environmental Coordinator shall be submitted in writing to the Director within fourteen (14) days of appointment and any subsequent appointment.

Operating Plan

20. The Licencee shall update and submit to the Director, for approval, within six (6) months of the date of issuance of this Licence, the Operating Plan which is to include information regarding all aspects of the Development, to include but not be limited to:
    a) operational parameters and objectives, including method of tracking placement of special wastes and those wastes requiring unusual management considerations;
    b) waste type acceptance parameters and limitations;
    c) incident tracking and reporting parameters;
    d) dust and litter control procedures;
    e) vector control procedures;
    f) methodologies and processes for all sampling (groundwater, surface water, leachate, soil and air);
    g) leachate management, monitoring and sampling schedule;
    h) surface and groundwater management, monitoring and sampling schedule;
    i) identification of operational records to be maintained; and
    j) an overview of staffing qualifications and positions.

21. The Licencee shall implement the Operating Plan submitted pursuant to Clause 20 of this Licence, and subject to any terms and conditions set by the Director in the approval.

Signage and Site Security

22. The Licencee shall post adequate signage at the entrance to the Development indicating, but not limited to the following:
    a) the types of wastes accepted at the site;
    b) the hours and days of operation; and

c) 24-hour telephone numbers to be called in the event of an emergency occurring at the site.

23. The Licencee shall staff and secure the Development so that
    a) an attendant is on duty at the scale at all times during hours of acceptance of materials to the Development from the public or contractors not employed by the Owner;
    b) gates are provided for all access locations to the site;
    c) the gates are kept locked when the attendants are not on duty or the Development is closed; and
    d) other attendants to direct traffic and operate heavy equipment are on duty as necessary.

Materials Handling

24. The Licencee shall deposit all waste, other than material intended for recycling or processing, in an active area within the Development.

25. The Licencee shall position fencing, including adequate portable litter fences, around the active area or other locations where unloading or handling of materials occur, to prevent litter or other material from collecting on or escaping from the boundaries of the Development. The Licencee is responsible for litter clean up along access roads, facility fencing and adjacent properties.

26. The Licencee shall not accept the following wastes at the Development:
    a) hazardous waste;
    b) biomedical waste;
    c) liquid industrial waste;
    d) liquid waste;
    e) radioactive waste or materials;
    f) outdated drugs or cytotoxic waste;
    g) PCB's or PCB contaminated materials;
    h) explosives; or
    i) unbagged asbestos.

27. Notwithstanding Clause 26 of this Licence, household hazardous waste collected or received by the Licencee, shall be allowed in a designated areas at the Development in accordance with *The Dangerous Goods Handling and Transportation Act* and any Licence issued pursuant to the Act or regulations.

28. The Licencee may receive wastes prohibited in Clause 26 of this Licence if appropriate provisions have been provided in a proposal which has been submitted and approved by the Director.

29. The Licencee may receive a limited quantity of dead animals at the Development provided that they are buried immediately with a minimum of one metre of cover.

Dead animal material received at the Development which may be affected by SRM must be handled in accordance with CFIA requirements.

Special Wastes

30. The Licencee shall not excavate in areas where special wastes have been previously buried without approval from an Environment Officer.

31. The Licencee shall keep record, by Global Positioning System (GPS), of the locations of buried special wastes.

Site Preparation

32. The Licencee shall, prior to any new construction of any component of the Development, remove all top soil to a minimum depth of 150 mm and store this top soil at a suitable location for future use.

Mitigating Erosion and Runoff

33. The Licencee shall with respect to on-site earthen construction works; construct and maintain silt fences in the drainage routes transporting surface runoff off the property of the Development until vegetation has been re-established on the disturbed areas.

34. The Licencee shall construct and maintain the final side slopes of the above ground deposit of waste, including final cover, in the waste cell to not exceed one unit vertical to five units horizontal (1V:5H) and the final top slope to not less than one unit vertical to twenty units horizontal (1V:20H), unless otherwise specified in the Closure Plan by the qualified professional, or approved by the Director.

Construction

35. The Licencee shall, prior to initiating any construction at the Development, submit two paper copies and one electronic copy of final engineering design plans, sealed by an engineer(s), to the Director. The plans will show the engineering details of each new component and the location of each new component with respect to other components.

36. The Licencee shall construct the Development in accordance with the design plans submitted to the Director pursuant to Clause 35 of this Licence.

37. The Licencee shall provide to an Environment Officer such access as the Director deems necessary, throughout the duration of construction and operation of the Development to facilitate inspection.

LINERS AND CLAY COMPONENTS

Cut-off Components of the Development

38. The Licencee shall, where a cut-off perimeter around a component(s) of the Development is keyed into a suitable base of clay underneath the component(s), have the cut-off constructed in accordance with the following specifications:
    a) the cut-off shall be made of clay which has been mechanically compacted:
    b) the cut-off wall shall be at least one metre in width;
    c) the cut-off wall shall have a hydraulic conductivity of $1x10^{-7}$ cm/second or less at all locations;
    d) the cut-off shall be keyed into the underlying clay or clay liner a minimum of 0.3 metres;
    e) the cut-off shall be constructed to an elevation of one (1) metre above the maximum leachate level in any waste cell or leachate pond; and
    f) the cut-off shall be tested in accordance with Clauses 41-43.

Clay Components of the Development

39. The Licencee shall, where a component of the Development is to be constructed with a clay liner; construct the liner underlying the component as described in Clauses 40 to 43 of this Licence. For any component of the Development that is to be constructed with scarified in situ clay, the component shall be subject to Clauses 40 b), and 41 to 43 of this Licence.

40. The Licencee shall construct and maintain all clay lined component(s) of the Development in accordance with the following specifications:
    a) the clay liner is recompacted to a minimum thickness of one (1) metre for the side slopes and for the base of waste cells or leachate ponds;
    b) the hydraulic conductivity of the clay is $1x10^{-7}$ cm/second or less;
    c) the liner extends a vertical distance of one (1) metre above normal operating level for any leachate storage component other than a landfill cell; and
    d) the clay liner is installed under the entire base and side wall or berm of any waste containment cell(s) below grade.

Testing of Clay for Components

41. The Licencee shall arrange with the designated Environment Officer a mutually acceptable time and date for any required soil sampling between the 15th day of May and the 15th day of October of any year, unless otherwise approved by the Environment Officer.

42. The Licencee shall take and test undisturbed soil samples, in accordance with Appendix ‘C’ attached to this Licence, from:
    a) the clay of new waste disposal cell(s);
    b) the clay of the soil remediation pad;

c) cut-off walls;
d) leachate ponds and
e) any clay component of the Development requiring testing by the Director**.**

43. The number and location of samples and test methods will be specified by the designated Environment Officer up to a maximum of twenty (20) samples per cell, pond, pad or clay component of the Development.

44. The Licencee shall, prior to operation of any area tested in accordance with Clause 42, receive the approval of the Environment Officer for the results of the tests carried out pursuant to Clause 42 of this Licence.

Alternative Liners for Components of the Development

45. The Licencee, upon written request and approval by the Director, may utilize an alternative geomembrane, synthetic or composite liner system that is at minimum: equivalent to the hydraulic conductivity of one (1) metre of $1x10^{-7}$ cm/second compacted clay or a 60 mil HDPE liner; is compatible with landfill leachate; and subject to terms and conditions set by the Director at the time of approval.

46. The Licencee shall provide a written report regarding the installation, QA/QC, engineering oversight and any other identified requirements of the approval of Clause 45, within 90 days of completion of work of the component.

47. The Licencee shall not cover an alternative liner or use an alternative lined component of the Development until receiving written approval of the report submitted pursuant to Clause 46 of this Licence from the Environment Officer.

WEIGH SCALES

48. The Licencee shall maintain federal certification of the weigh scales utilized at the entrance of the Development.

MATERIAL RECOVERY AND STORAGE

Operation – Material Storage Areas

49. The Licencee shall operate any and all material storage areas in a manner to prevent windblown waste, litter, odour generation, fire and other hazards, as well as preventing spills from contaminated runoff.

50. The Licencee shall remove ozone depleting substances from appliances using a certified contractor in accordance with ***Manitoba Regulation 103/94***, or any future

amendment thereof, respecting ***Ozone Depleting Substances and Other Halocarbons.***

LANDFILL CELLS

Construction – Landfill Cells

51. The Licencee shall submit to the Director, at least sixty (60) days prior to construction of a new waste disposal cell, the engineering design plans, sealed by an engineer(s) which address construction specifications of any new active area and include, but are not limited to the following:
    a) engineering design with respect to construction of the waste disposal cell base and sides or cut-off walls;
    b) engineering design with respect to the construction of the leachate collection system in each new cell, and connections, if applicable, to the overall leachate management system;
    c) location of access road(s) to the waste disposal cell;
    d) details of the location of the waste disposal cell with respect to property lines; and
    e) details of a drainage system to prevent water from entering the waste disposal cell and to channel the surface run-off into the surface water system for the Development.

52. The Licencee shall construct new waste disposal cells in accordance with the design plans submitted pursuant to Clause 51 of this Licence.

Operation – Landfill Cells

53. The Licencee shall minimize the working face of each cell to reduce the generation of litter and leachate from the Development.

54. The Licencee shall compact waste deposited in the active area and cover the waste at minimum twice a month with cover material or alternative cover or at a frequency approved by the Director.

55. The Licencee, upon a written request to an Environment Officer, may, during extreme weather conditions, utilize temporary covering of wastes deposited in an active area. Such temporary covering material shall be replaced with permanent cover material when the extreme weather conditions cease, unless otherwise specified by an Environment Officer.

SOIL REMEDIATION FACILITY

Temporary Storage of Materials – Soil Remediation Facility

56. In the event of a spill to the environment, the Licencee may receive petroleum contaminated soils at the Development and stockpile temporarily with the approval of and subject to any terms and conditions set by an Environment Officer.

Construction – Soil Remediation Facility

57. The Licencee shall, prior to constructing the soil remediation pad and associated infrastructure, submit two paper copies and one electronic copy of final engineering design plans, sealed by an engineer(s) registered with the Association of Professional Engineers and Geoscientists of Manitoba, to the Director.

58. The Licencee shall construct the soil remediation facility and pad in accordance with the design plans pursuant to Clause 57 of this Licence.

59. Notwithstanding Clause 57 the Licencee shall construct and maintain a continuous clay liner under all interior surfaces of the soil remediation pad in accordance with the following specifications:
    a) the clay base or liner is recompacted to a minimum thickness of 0.5 metre for the side slopes and for the base;
    b) the hydraulic conductivity of the clay base or liner is $1x10^{-7}$ cm/second or less;
    c) the treatment cell must be surrounded by a berm to prevent surface water runoff and run on, but allow for vehicle access; and
    d) the berm must have a minimum height of 0.5 metres.

60. The Licencee shall:
    a) prepare "record drawings" for the soil remediation pad and shall label the drawings "record drawings"; and
    b) provide to the Director, 30 days after completion of construction, two paper copies and one electronic copy of "record drawings" of the soil remediation pad.

Operation – Soil Remediation Facility

61. No petroleum contaminated soils classified as hazardous waste shall be received at the Development.

62. Notwithstanding Clause 61 of this Licence, petroleum contaminated soils received by the Licencee for remediation, shall be allowed in the designated soil treatment area of the Development.

63. The Licencee shall only receive petroleum contaminated soils for remediation at the Development that comply with the requirements of Manitoba Conservation and

Water Stewardship Guideline "Treatment and Disposal of Petroleum Contaminated Soil (January 2015)" or any future amendment thereof.

64. Notwithstanding Clause 61 of this Licence, the Licencee shall only accept for treatment at the Soil Remediation Facility, unless otherwise approved by an Environment Officer, soils in accordance with the following acceptance criteria:
    a) soil contaminated with Benzene, Toluene, Ethylbenzene or Xylenes up to 30,000 mg/kg for each constituent;
    b) soil contaminated with Canada Wide Standard for Petroleum Hydrocarons Fraction 1, 2, 3, or 4 up to 30,000 mg/kg for each Fraction; and
    c) soil contaminated with metals at any concentration subject to capability to treat to achieve leachate extraction criteria.

65. The Licencee shall treat petroleum contaminated soils that will be used as cover on the landfill cells so that the treated soil complies with the requirements of Manitoba Conservation and Water Stewardship Guideline "Criteria for Acceptance of Contaminated Soil at Waste Disposal Grounds (January 2015)" or any future amendment thereof or as approved by the Director.

66. The Licencee shall submit to the Director, prior to accepting the first load of soils for treatment, an operations manual for the operation of the soil remediation facility. The operations manual shall address but not be limited to:
    a) soil receiving and placement;
    b) soil remediation procedures;
    c) handling and treatment procedures;
    d) inspection and maintenance;
    e) surface water management;
    f) leachate management; and
    g) monitoring and reporting.

67. The Licencee shall operate the soil remediation facility in accordance with the operations manual developed pursuant to Clause 66 of this Licence.

68. The Licencee shall retain sample results from all soils received at the soil remediation facility; if results are not available from the source of the soils, the Licencee shall have the soils tested upon receipt. The parameters for which the soils shall be analyzed will be determined by considering the source of the soils and by using the CCME Canadian Environmental Quality Guidelines for soil.

69. The Licencee shall prevent, by means of dyking, or other method(s) approved by the Director, the migration of surface water onto or off of the soil remediation facility.

70. Any surface waters retained at the Development shall be collected and analyzed for the following parameters, or others as approved by the Director, prior to discharge:
    a) BTEX;

b) Naphthalene;
c) Benzo(a)pyrene;
d) Petroleum hydrocarbons; and
e) Total metals.

71. The Licencee shall only discharge water from the Development after obtaining approval from the Environment Officer for the discharge.

72. The Licencee shall operate the petroleum contaminated soil treatment facility such that ground level air concentrations of any of the following pollutants, at the property line of the Development, are not in excess of the following limits as determined from any ambient air sample or samples collected and analyzed, upon the request of the Director, in accordance with procedures and methods satisfactory to the Director:

Air Pollutant	Averaging Period	Ground Level Concentration Limits
Benzene	24 hour average	150 micrograms per cubic metre of air
Toluene	24 hour average	2000 micrograms per cubic metre of air
Ethylbenzene	24 hour average	4000 micrograms per cubic metre of air
Xylenes	24 hour average	2300 micrograms per cubic metre of air

Monitoring – Soil Remediation Facility

73. The Licencee shall maintain, at the operator's office, records of all soils received at the soil remediation facility. These records shall contain, but not be limited to the following:
a) the date soils were received at the facility;
b) the original location of the soils;
c) the volume received, either estimated or actual;
d) preliminary analyses of the soils taken at the remediation site (for example head space results or field composite results);
e) final confirmatory results of laboratory analyses of the soils taken at the Development; and
f) the Location within the soil remediation facility of the soil for treatment.

74. The Licencee shall maintain, at the operator's office, records of all soils removed from the Development. These records shall contain, but not be limited to the following:
a) the date the soils were removed;
b) the volume of soils removed;
c) the final end use destination of the soils removed;

d) the results of analyses to determine the concentrations of the pollutants of concern, as identified by the analyses performed as required by Clause 73d) of this Licence; and
e) any additional information as requested by the Director.

75. The Licencee shall have available for inspection by an Environment Officer upon request the records referred to in Clauses 73 and 74 of this Licence and shall provide annually to the Director a report summarizing the activities at the soil remediation facility in the annual report pursuant to Clause 90 of this Licence.

LEACHATE

76. The Licencee shall collect and manage all liquids collected in drain sumps or the leachate collection system at the Development in a manner approved by the Director, or at an alternative off-site licenced facility approved by the Director.

77. The Licencee shall not recirculate leachate or contaminated water collected at the Development through the landfill cells unless approved by the Director.

78. The Licencee shall report any occurrence of leachate breakout which leaves the Development to an Environment Officer within 24 hours.

GROUNDWATER

79. The Licencee shall sample, store and analyze monitoring well samples using approved field and laboratory techniques for dissolved analysis. The analytical results shall be retained in a format acceptable to the Director.

80. The Licencee shall sample the groundwater monitoring wells once per year for those parameters identified in Appendix ‘A’ or selected parameter, and at a frequency, as approved by the Director.

81. The Licencee shall include in the Annual Report of Clause 90 the results of the groundwater sampling analyses, complete with previous results and trends.

82. As a result of the operation of the Development, the Licencee shall not cause the concentration values of the parameters listed in Appendix ‘A’, attached to this Licence, to exceed background levels in groundwater at the compliance boundary.

SURFACE WATER

83. The Licencee shall manage surface water, both impacted and non-impacted, at the Development to prevent uncontrolled release from the Development.

84. The Licencee shall operate and maintain all surface water courses to minimize odour and pest problems, sedimentation within the waterways, and to maximize nutrient reduction.

85. The Licencee shall sample the liquid in any surface water pond that collects water from the site for those parameters identified in Appendix 'B' or selected parameters approved by the Director, and receive approval of the assigned Environment Officer prior to release of site or use of the liquid.

MONITORING AND REPORTING

86. The Licencee shall keep for inspection, records of all monitoring at the Development, at the operator's office, or other location approved by the Environment Officer.

87. Where the Licencee fails to undertake the monitoring program required pursuant to Clauses 80 or 85 of this Licence, the Director may cause such monitoring to be undertaken and recover the cost of such monitoring from the Licencee.

RECORDS AND ANNUAL REPORT

Operation and Monitoring Records

88. The Licencee shall have available for inspection by an Environment Officer or the Director upon request, records of all operational activities, monitoring and analytical results, reports, certifications and documents identified in this Licence.

89. The Licencee shall keep for inspection, operating and monitoring records at the Development site office including the following:
    a) as-built drawings showing the location and development of excavation, fill area, final grades and structural components;
    b) records of annual waste tonnage received at the site;
    c) records of any wastes (including special wastes) accepted at the landfill including the amounts accepted and the disposal locations within the landfill;
    d) all Certifications and permits for acceptance of regulated materials (SRM, weigh scale certification);
    e) an initial topographic survey and plans showing the areas where waste has been disposed in the current and previous years;
    f) monitoring results; and
    g) complaints received and actions taken.

Annual Report

90. The Licencee shall, unless otherwise approved by the Director, on or before the 15th day of April of each year and beginning in 2017, prepare an annual report with respect to all activities at the Development conducted pursuant to this Licence during the previous calendar year. The format of the report shall be approved by the Director and contain at minimum the following:
    a) a summary of any construction activities which occurred at the Development;
    b) the mass of each type of waste received (solid waste to tipping face, special wastes, etc.);
    c) the mass of each type of material that was removed from the Development (recyclables, treated soils, etc.);
    d) a summary of the monitoring report results from air, and groundwater as per Clauses 72 and 80 respectively;
    e) the volume of leachate which was removed from the Development for treatment (if applicable);
    f) a summary report of the soil remediation facility operations in accordance with Clause 75 of this Licence;
    g) summary report of noise or odour complaints received; and
    h) a summary report of any fires within the development requiring notification as per Clause 10.

91. The Licencee shall compare the results included with the report pursuant to Clause 90 of this Licence with annual reports submitted in previous years to show trends and variances. The reports shall identify, at minimum, any significant variations, the cause of the variations and any actions taken.

EMERGENCY RESPONSE PLAN

92. The Licencee shall prepare, within 90 days of the date of issuance of this Licence, and maintain an emergency response 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; outlining procedures to be used in the event of leak, spill, fire, flood or other hazardous condition at the Development, or if waste management functions are disrupted.

93. The Licencee shall have available for inspection by an Environment Officer, upon request, records of the details of all incidents requiring the implementation of the Emergency Response Plan at the Development site office.

SITE SAFETY PLAN

94. The Licencee shall maintain a Site Safety Plan in the Operating Procedures in accordance with Provincial requirements.

CLOSURE AND POST CLOSURE

95. The Licencee shall submit, within twelve (12) months of the date of issuance of this Licencee, for the approval of the Director, a preliminary closure and post closure plan for the Development. The plan shall address the closure of the soil remediation facility and the landfill and shall include, but not be limited to, information with respect to the following:
    a) final cover design and maintenance;
    b) maintenance of leachate detection, collection and treatment systems;
    c) groundwater monitoring;
    d) landfill gas monitoring and soil and groundwater analyses for petroleum products or by-products, including diesel fuel;
    e) removal of all ancillary equipment associated with the Development;
    f) restoration of the site to the satisfaction of the Director; and
    g) financial assurance required to implement the Plan.

96. The Licencee shall submit to the Director, not less than one (1) year prior to closure of the Development, an updated engineering design for the closure of the Development and the proposed post closure monitoring plan.

97. The Licencee shall, where an increase in the slope of the final cover due to settlement, or erosion of the final cover occurs during the post closure period, take remedial action to correct the situation and maintain the design.

98. The Licencee shall implement and maintain the approved Closure Plan for the Development pursuant to Clause 95 or 96 of this Licence and any terms and conditions set by the Director at the time of approval.

FINANCIAL ASSURANCE/INSURANCE

99. The Licencee shall provide to the Director confirmation of financial insurance coverage in the form of: Environmental Impairment Liability insurance providing coverage subject to a minimum limit of $1.0 million 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 shall 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 significant reduction in coverage or policy cancellation**.**

RECORD DRAWINGS

100. The Licencee shall:
   a) prepare "record drawings" for the Development and label the drawings "record drawings"; and
   b) provide to the Director, within six (6) months, or as otherwise approved by the Director, after completion of construction of each component of the Development, two paper copies and one electronic copy of the "record drawings" of the component of the Development.

REVIEW AND REVOCATION

A. This Licence replaces Operating Permit No. 36924 issued to Municipal Waste Management Limited, which 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, 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 No.: 5818.00

APPENDIX 'A'
TO ENVIRONMENT ACT LICENCE NO. 3181 Clauses 80 & 82

COMPREHENSIVE WATER QUALITY CHEMICAL AND MICROBIOLOGICAL PARAMETERS

Parameter	Notes
Alkalinity-bicarbonate	Dissolved
Alkalinity-carbonate	Dissolved
Alkalinity-hydroxide	Dissolved
Alkalinity-total	Dissolved
Hardness- as $CaC0_3$	Dissolved
pH-units	Dissolved
Specific Conductivity	Dissolved
Turbidity-NTU	
Residue-filterable	
Residue-non filterable	
Residue-total	
Chloride	Dissolved
Sulphate	Dissolved
Cyanide-total	Dissolved
Ammonia	Dissolved
Nitrate-Nitrite-Nitrogen	Dissolved
Total Kjeldhal Nitrogen	
Phosphorus	Dissolved
Arsenic	Dissolved
Barium	Dissolved
Beryllium	Dissolved
Cadmium	Dissolved
Calcium	Dissolved
Chromium	Dissolved
Copper	Dissolved
Iron	Dissolved
Lead	Dissolved

APPENDIX 'A' (cont'd.)
TO ENVIRONMENT ACT LICENCE NO. 3181, Clauses 80 & 82
COMPREHENSIVE WATER QUALITY CHEMICAL AND MICROBIOLOGICAL PARAMETERS

Parameter	Notes
Magnesium	Dissolved
Manganese	Dissolved
Mercury	Total
Nickel	Dissolved
Potassium	Dissolved
Selenium	Dissolved
Silver	Dissolved
Sodium	Dissolved
Zinc	Dissolved
Naphthalene	
Benzo a pyrene	
Anthracene	
CCME Petroleum Hydrocarbon Fraction 1	
CCME Petroleum Hydrocarbon Fraction 2	
CCME Petroleum Hydrocarbon Fraction 3	
CCME Petroleum Hydrocarbon Fraction 4	
Leachable Lead	
Benzene	
Ethylbenzene	
Toluene	
Xylene	
Vinyl Chloride	
Diazinon	
2, 4-D	
Coliforms	Fecal & Total
*E.*Coli	

APPENDIX 'B'
TO ENVIRONMENT ACT LICENCE NO. 3181 Clause 85

SURFACE WATER QUALITY CHEMICAL AND MICROBIOLOGICAL PARAMETERS

Parameter	Notes
Alkalinity-bicarbonate	Dissolved
Alkalinity-carbonate	Dissolved
Alkalinity-hydroxide	Dissolved
Alkalinity-total	Dissolved
Hardness as $CaCo_3$	Dissolved
pH-units	Dissolved
Specific Conductivity	Dissolved
Turbidity-NTU	
Residue-filterable	
Residue-non filterable	
Residue-total	
Chloride	Dissolved
Sulphate	Dissolved
Cyanide-total	Dissolved
Ammonia	Dissolved
Nitrate-Nitrite-Nitrogen	Dissolved
Total Kjeldhal Nitrogen	
Phosphorus	Dissolved
Arsenic	Dissolved
Barium	Dissolved
Beryllium	Dissolved
Cadmium	Dissolved
Calcium	Dissolved
Chromium	Dissolved
Copper	Dissolved
Iron	Dissolved
Lead	Dissolved
Magnesium	Dissolved
Manganese	Dissolved
Mercury	Dissolved
Nickel	Dissolved
Potassium	Dissolved
Selenium	Extractable
Sodium	Dissolved
Zinc	Dissolved
Coliforms	Fecal & Total
COD & BOD	
*E.*Coli	

APPENDIX 'C'
TO ENVIRONMENT ACT LICENCE NO. 3181 Clause 42

SOIL SAMPLING

1. The Licencee shall provide a drilling rig, acceptable to the designated Environment Officer, to extract soil samples from the specified liner of the structure. This includes all liners constructed with clay. The drill rig shall have the capacity to drill to the maximum depth of the clay liner plus an additional 2 metres. The drill rig shall be equipped with both standard and hollow stem augers. The minimum hole diameter shall be 5 inches.
2. For liners placed or found at the surface of the structure, the Licencee shall provide a machine, acceptable to the designated Environment Officer, capable of pressing a sampling tube into the liner in a straight line motion along the centre axis line of the sample tube and without sideways movement.
3. Soil samples shall be collected and shipped in accordance with ASTM Standard D 1587 (Standard Practice for Thin-Walled Tube Sampling of Soils), D 4220 (Standard Practice for Preserving and Transporting Soil Samples) and D 3550 (Standard Practice for Ring-Lines Barrel Sampling of Soils). Thin-walled tubes shall meet the stated requirements including length, inside clearance ratio and corrosion protection. An adequate venting area shall be provided through the sampling head.
4. At the time of sample collection, the designated Environment Officer shall advise the Licencee as to the soil testing method that must be used on each sample. The oedometer method may be used for a sample were the Environment Officer determines that the soil sample is taken from an undisturbed clay soil which has not been remoulded and which is homogeneous and unweathered. The triaxial test shall be used for all samples taken from disturbed and remoulded soils or from non homogenous and weathered soils.
5. The Licencee shall provide a report on the collection of soil samples to the designated Environment Officer and to the laboratory technician which includes but is not limited to: a plot plan indicating sample location, depth or elevation of sample, length of advance of the sample tube length of soil sample contained in the tube after its advancement, the soil test method specified by the Environment Officer for each soil sample and all necessary instructions from the site engineer to the laboratory technician.
6. All drill and sample holes shall be sealed with bentonite pellets after the field drilling and sampling has been completed.

APPENDIX 'C' (cont'd.)
TO ENVIRONMENT ACT LICENCE NO. 3181, Clause 42

SOIL TESTING METHODS

1. Triaxial Test Method
   a) The soil samples shall be tested for hydraulic conductivity using ASTM D 5084 (Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter).
   b) Soil specimens shall have a minimum diameter of 70 mm (2.75 inches) and a minimum height of 70 mm (2.75 inches). The soil specimens shall be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The hydraulic gradient shall not exceed 30 during sample preparation and testing. Swelling of the soil specimen should be controlled to adjust for: the amount of compaction measured during sample collection and extraction from the tube and the depth or elevation of the sample. The effective stress used during saturation or consolidation of the sample shall not exceed 40 kPa (5.7 psi) or the specific stress level, that is expected in the field location were the sample was taken, which ever is greater.
   c) The complete laboratory report, as outlined in ASTM D 5084, shall be supplied for each soil sample collected in the field.

2. Oedometer Test Method
   a) The soil samples shall be tested for hydraulic conductivity using ASTM D 2435 (Standard Test Method for One-Dimensional Consolidation Properties of Soils).
   b) Soil specimens shall have a minimum diameter of 50 mm (2 inches) and a minimum height of 20 mm (0.8 inches). The soil specimens shall be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The soil specimen shall be taken from an undisturbed soil sample. The soil specimen shall be completely saturated.
   c) The complete laboratory report, as outlined in ASTM D 2435, shall be supplied for each soil sample collected in the field.