



**THE CITY OF WINNIPEG**

# **REQUEST FOR PROPOSAL**

**RFP NO. 798-2020**

**PROVISION OF LABORATORY TESTING SERVICES**

## TABLE OF CONTENTS

### PART A - PROPOSAL SUBMISSION

- Form A: Bid/Proposal
- Form B: Prices

### PART B - BIDDING PROCEDURES

B1. Contract Title	1
B2. Submission Deadline	1
B3. Enquiries	1
B4. Confidentiality	1
B5. Addenda	2
B6. Substitutes	2
B7. Proposal Submission	3
B8. Proposal	4
B9. Prices	4
B10. Experience of Proponent and Subcontractors (Section C)	5
B11. Details of Services the Proponent and Subcontractors Provides (Section D)	5
B12. Capacity and Ability to provide the Service (Section E)	6
B13. Disclosure	6
B14. Conflict of Interest and Good Faith	7
B15. Qualification	8
B16. Opening of Proposals and Release of Information	8
B17. Irrevocable Offer	9
B18. Withdrawal of Offers	9
B19. Interviews	9
B20. Negotiations	9
B21. Evaluation of Proposals	9
B22. Award of Contract	10

### PART C - GENERAL CONDITIONS

C0. General Conditions	1
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### PART D - SUPPLEMENTAL CONDITIONS

#### General

D1. General Conditions	1
D2. Scope of Services	1
D3. Cooperative Purchase	1
D4. Definitions	2
D5. Contract Administrator	3
D6. Contractor's Supervisor	3
D7. Notices	3

#### Submissions

D8. Authority to Carry on Business	4
D9. Safe Work Plan	4
D10. Insurance	4
D11. Subcontractor List	4

#### Schedule of Work

D12. Commencement	5
D13. COVID-19 Schedule Delays	5
D14. Deficiencies	5
D15. Orders	6
D16. Records	6

#### Measurement and Payment

D17. Invoices	6
D18. Payment	6

D19. Payment Schedule	7
D20. Purchasing Card	7
<b>Warranty</b>	
D21. Warranty	7
Form J: Subcontractor List	8

## **PART E - SPECIFICATIONS**

### **General**

E1. Applicable Specifications and Drawings	1
E2. Services	1
E3. Section a (Water)	3
E4. Section B (Wastewater)	9
E5. Section C (Schedule A, Wastewater)	13
E6. Section D (Giardia & Cryptosporidium, Water/Wastewater)	20
E7. Section E (Regulatory Testing in Water)	21
E9. Section G (water and Soils, from Landfills)	32
E10. Turn around time	46

## **PART B - BIDDING PROCEDURES**

### **B1. CONTRACT TITLE**

B1.1 PROVISION OF LABORATORY TESTING SERVICES

### **B2. SUBMISSION DEADLINE**

B2.1 The Submission Deadline is 12:00 noon Winnipeg time, April 28, 2021.

B2.2 The Contract Administrator or the Manager of Materials may extend the Submission Deadline by issuing an addendum at any time prior to the time and date specified in B2.1.

### **B3. ENQUIRIES**

B3.1 All enquiries shall be directed to the Contract Administrator identified in D5.1.

B3.2 If the Proponent finds errors, discrepancies or omissions in the Request for Proposal, or is unsure of the meaning or intent of any provision therein, the Proponent shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.

B3.3 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator to all Proponents by issuing an addendum.

B3.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Request for Proposal will be provided by the Contract Administrator only to the Proponent who made the enquiry.

B3.5 All correspondence or contact by Proponents with the City in respect of this RFP must be directly and only with the Contract Administrator. Failure to restrict correspondence and contact to the Contract Administrator may result in the rejection of the Proponents Proposal Submission.

B3.6 The Proponent shall not be entitled to rely on any response or interpretation received pursuant to B3 unless that response or interpretation is provided by the Contract Administrator in writing.

B3.7 Any enquiries concerning submitting through MERX should be addressed to:  
MERX Customer Support  
Phone: 1-800-964-6379  
Email: merx@merx.com

### **B4. CONFIDENTIALITY**

B4.1 Information provided to a Proponent by the City or acquired by a Proponent by way of further enquiries or through investigation is confidential. Such information shall not be used or disclosed in any way without the prior written authorization of the Contract Administrator. The use and disclosure of the confidential information shall not apply to information which:

- (a) was known to the Proponent before receipt hereof; or
- (b) becomes publicly known other than through the Proponent; or
- (c) is disclosed pursuant to the requirements of a governmental authority or judicial order.

B4.2 The Proponent shall not make any statement of fact or opinion regarding any aspect of the Request for Proposal to the media or any member of the public without the prior written authorization of the Contract Administrator.

## **B5. ADDENDA**

- B5.1 The Contract Administrator may, at any time prior to the Submission Deadline, issue addenda correcting errors, discrepancies or omissions in the Request for Proposal, or clarifying the meaning or intent of any provision therein.
- B5.2 The Contract Administrator will issue each addendum at least two (2) Business Days prior to the Submission Deadline, or provide at least two (2) Business Days by extending the Submission Deadline.
- B5.3 Addenda will be available on the MERX website at [www.merx.com](http://www.merx.com).
- B5.4 The Proponent is responsible for ensuring that he/she has received all addenda and is advised to check the MERX website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.5 The Proponent shall acknowledge receipt of each addendum in Paragraph 10 of Form A: Bid/Proposal. Failure to acknowledge receipt of an addendum may render a Proposal non-responsive.
- B5.6 Notwithstanding B3, enquiries related to an Addendum may be directed to the Contract Administrator indicated in D5.

## **B6. SUBSTITUTES**

- B6.1 The Work is based on the Plant, Materials and methods specified in the Request for Proposal.
- B6.2 Substitutions shall not be allowed unless application has been made to and prior approval has been granted by the Contract Administrator in writing.
- B6.3 Requests for approval of a substitute will not be considered unless received in writing by the Contract Administrator at least five (5) Business Days prior to the Submission Deadline.
- B6.4 The Proponent shall ensure that any and all requests for approval of a substitute:
- (a) provide sufficient information and details to enable the Contract Administrator to determine the acceptability of the Plant, Material or method as either an approved equal or alternative;
  - (b) identify any and all changes required in the applicable Work, and all changes to any other Work, which would become necessary to accommodate the substitute;
  - (c) identify any anticipated cost or time savings that may be associated with the substitute;
  - (d) certify that, in the case of a request for approval as an approved equal, the substitute will fully perform the functions called for by the general design, be of equal or superior substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Total Performance;
  - (e) certify that, in the case of a request for approval as an approved alternative, the substitute will adequately perform the functions called for by the general design, be similar in substance to that specified, is suited to the same use and capable of performing the same function as that specified and can be incorporated into the Work, strictly in accordance with the proposed work schedule and the dates specified in the Supplemental Conditions for Total Performance.
- B6.5 The Contract Administrator, after assessing the request for approval of a substitute, may in his/her sole discretion grant approval for the use of a substitute as an "approved equal" or as an "approved alternative", or may refuse to grant approval of the substitute.

- B6.6 The Contract Administrator will provide a response in writing, at least two (2) Business Days prior to the Submission Deadline, to the Proponent who requested approval of the substitute.
- B6.6.1 The Contract Administrator will issue an Addendum, disclosing the approved materials, equipment, methods and products to all potential Proponents. The Proponent requesting and obtaining the approval of a substitute shall be responsible for disseminating information regarding the approval to any person or persons he/she wishes to inform.
- B6.7 If the Contract Administrator approves a substitute as an “approved equal”, any Proponent may use the approved equal in place of the specified item.
- B6.8 If the Contract Administrator approves a substitute as an “approved alternative”, any Proponent bidding that approved alternative may base his/her Total Bid Price upon the specified item but may also indicate an alternative price based upon the approved alternative. Such alternatives will be evaluated in accordance with B21.
- B6.9 No later claim by the Contractor for an addition to the Total Bid Price because of any other changes in the Work necessitated by the use of an approved equal or an approved alternative will be considered.

## **B7. PROPOSAL SUBMISSION**

- B7.1 The Proposal shall consist of the following components:
- (a) Form A: Bid/Proposal;
  - (b) Form B: Prices.
- B7.2 The Proposal should also consist of the following components:
- (a) Experience of Proponent and Subcontractors (Section C) in accordance with B10;
  - (b) Details of Service the Proponent and Subcontractors provides (Section D), in accordance with B11; and
  - (c) Details of the Capacity and Ability to provide Services (Section E) in accordance with B11.1.
- B7.3 Further to B7.1 all components of the Proposal shall be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Proposal.
- B7.4 Further to B7.2, all components of the Proposal should be fully completed or provided in the order indicated, and submitted by the Proponent no later than the Submission Deadline, with all required entries made clearly and completely.
- B7.5 Proposal format, including number of pages, size of pages and, font, etc., will not be regulated, except that the Proposal should contain a table of contents, page numbering and should be in the Sections identified above. Proponents are encouraged to use their creativity to submit a Proposal which provides the requested information for evaluation and other information which illustrates the strength of their proposed solution
- B7.6 The Proposal shall be submitted electronically through MERX at [www.merx.com](http://www.merx.com).
- B7.6.1 Proposals will **only** be accepted electronically through MERX.
- B7.7 Proponents are advised that inclusion of terms and conditions inconsistent with the Request for Proposal, will be evaluated in accordance with B21.1(a).
- B7.8 Any cost or expense incurred by the Proponent that is associated with the preparation of the Proposal shall be borne solely by the Proponent.

## **B8. PROPOSAL**

- B8.1 The Proponent shall complete Form A: Bid/Proposal, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid/Proposal shall be completed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;
  - (b) if the Proponent is a partnership, the full name of the partnership shall be inserted;
  - (c) if the Proponent is a corporation, the full name of the corporation shall be inserted;
  - (d) if the Proponent is carrying on business under a name other than his/her own, the business name and the name of every partner or corporation who is the owner of such business name shall be inserted.
- B8.2.1 If a Proposal is submitted jointly by two or more persons, each and all such persons shall identify themselves in accordance with B8.2.
- B8.3 In Paragraph 3 of Form A: Bid/Proposal, the Proponent shall identify a contact person who is authorized to represent the Proponent for purposes of the Proposal.
- B8.4 Paragraph 13 of Form A: Bid/Proposal shall be signed in accordance with the following requirements:
- (a) if the Proponent is a sole proprietor carrying on business in his/her own name, it shall be signed by the Proponent;
  - (b) if the Proponent is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Proponent is a corporation, it shall be signed by its duly authorized officer or officers;
  - (d) if the Proponent is carrying on business under a name other than his/her own, it shall be signed by the registered owner of the business name, or by the registered owner's authorized officials if the owner is a partnership or a corporation.
- B8.4.1 The name and official capacity of all individuals signing Form A: Bid/Proposal should be entered below such signatures.
- B8.5 If a Proposal is submitted jointly by two or more persons, the word "Proponent" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Proponents in the Proposal and the Contract, when awarded, shall be both joint and several.

## **B9. PRICES**

- B9.1 The Proponent shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.1.1 Notwithstanding C12.2.3, prices on Form B: Prices shall not include the Goods and Services Tax (GST) or Manitoba Retail Sales Tax (MRST, also known as PST), which shall be extra where applicable.
- B9.2 Form B Prices shall contain all fees associated with the testing or the sample including but not limited to sample disposal and sample preparation fee.
- B9.3 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Proposals.
- B9.4 The quantities for which payment will be made to the Contractor are to be determined by the Work actually performed and completed by the Contractor, to be measured as specified in the applicable Specifications.

B9.5 Where applicable, payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

**B10. EXPERIENCE OF PROPONENT AND SUBCONTRACTORS (SECTION C)**

B10.1 Proposals should include:

- (a) Details demonstrating the history and experience of the Proponent and Subcontractors in providing the services requested relevant to the scope of work in D2 on up to three projects of similar complexity, scope volume and value in the following areas;
  - (i) Biological Analysis and/or
  - (ii) Chemical Analysis.

B10.2 For each project listed in B10.1(a), the Proponent should submit:

- (a) description of the project;
- (b) testing provided;
- (c) number of tests and average turn-around times;
- (d) details about what was done when an instrument and/or operational issue occurred;
- (e) reference information (two current names with telephone numbers per project) as well as:
  - (i) Name of Client's Organization;
  - (ii) Email Address; and
  - (iii) These references may be contacted without prior notice to the proponent.

B10.2.1 Where applicable, information should be separated into Proponent and Subcontractor project listings.

B10.3 Further to B10.2(e) The City reserves the right to make inquiries within the Organization regarding the Proponents work performance and expertise.

B10.4 The Proposal should include general firm profile information, including years in business, average volume of work, number of employees and other pertinent information for the Proponent and all Subcontractors.

**B11. DETAILS OF SERVICES THE PROPONENT AND SUBCONTRACTORS PROVIDES (SECTION D)**

B11.1 Submit details on the following services provided relevant to the scope of work in D2:

- (a) Location of where the work will be completed (address);
- (b) Alternate location if an issue arises at the primary location;
- (c) Description of your sample kit (bottle ordering) procedure;
- (d) Description of your sample reception procedure;
- (e) Description of the method used for testing each parameter;
- (f) Description of your Quality Control / Quality Assurance Programs;
- (g) Description of your reporting procedure; and
- (h) Type of services available for priority, rush and emergencies analysis upon request.

B11.2 Submit the experience and qualifications of the Key Personnel assigned to the services provided in the Contract. Include the following:

- (a) Names and roles of key personnel in providing the service required; and
- (b) One page resumes for team members identified as key personnel.
  - (i) Including education, training, job title, years of experience and related work experience; location of work and responsibilities.



- B11.3 The Proposal should include information on the following key feature of the Proponent's operation:
- (a) Availability of customer customization for reporting, and testing;
  - (b) Description of IT supporting system that the Proponent offers for data migration, collection, customer reporting, downloading and web viewing; and
  - (c) Description of your ability to accept legal samples.

### **Contingency**

- B11.4 The proposal should include a detailed plan on how service levels will be maintained under this Contract if an instrument and/or operational issue occurs.
- (a) If the plan includes subcontracting, the Proposal should include a list of any Subcontractors that the Proponent may use over the course of the Contract and including the following information for them:
    - (i) Company Name, location, years of business and expertise;
    - (ii) Which services they will be providing on behalf of the Proponent; and
    - (iii) Accreditation Information.

## **B12. CAPACITY AND ABILITY TO PROVIDE THE SERVICE (SECTION E)**

- B12.1 The Proposal should include information which confirms the Proponent has the capacity and ability to provide the services relevant to the scope of work in D2 which includes;
- (a) Size of the facility and the layout; and
  - (b) Number of instruments and equipment used for each type of analysis performed.
- B12.2 The proposal should include at least one (1) typical workflow for each type of testing under the scope of work the Proponent would provide in D2. This includes;
- (a) Information on the work flow from sample reception to result reporting
    - (i) Including details about capacity per run and Turn-around Times in accordance with E10.
- B12.3 The Proposal should complete the Accreditation Table for each parameter listed in D2 with the following information related to the scope of work the Proponent would provide under D2. See **Appendix 1**
- (a) Accredited under D2 Yes/No, and
  - (b) If No, Industry Accreditation Available Yes/No

### **Site Inspection**

- B12.4 A site inspection may be performed to confirm the information of the most advantageous offers received, in which a tour of the facility is performed live, or by high quality audio and video recording, or by internet (i.e. seminar, webinar, webex, etc.) of the laboratory in operation and performing analysis identical or similar in nature as proof of the information provide in B11.1

## **B13. DISCLOSURE**

- B13.1 Various Persons provided information or services with respect to this Work. In the City's opinion, this relationship or association does not create a conflict of interest because of this full disclosure. Where applicable, additional material available as a result of contact with these Persons is listed below.
- B13.2 The Persons are:
- (a) N/A

## **B14. CONFLICT OF INTEREST AND GOOD FAITH**

- B14.1** Further to C3.2, Proponents, by responding to this RFP, declare that no Conflict of Interest currently exists, or is reasonably expected to exist in the future.
- B14.2** Conflict of Interest means any situation or circumstance where a Proponent or Key Personnel proposed for the Work has:
- (a) other commitments;
  - (b) relationships;
  - (c) financial interests; or
  - (d) involvement in ongoing litigation;
- that could or would be seen to:
- (i) exercise an improper influence over the objective, unbiased and impartial exercise of the independent judgment of the City with respect to the evaluation of Proposals or award of the Contract; or
  - (ii) compromise, impair or be incompatible with the effective performance of a Proponent's obligations under the Contract.
- (e) has contractual or other obligations to the City that could or would be seen to have been compromised or impaired as a result of its participation in the RFP process or the Project; or
- (f) has knowledge of confidential information (other than confidential information disclosed by the City in the normal course of the RFP process) of strategic and/or material relevance to the RFP process or to the Project that is not available to other proponents and that could or would be seen to give that Proponent an unfair competitive advantage.
- B14.3** In connection with its Proposal, each entity identified in B14.2 shall:
- (a) avoid any perceived, potential or actual Conflict of Interest in relation to the procurement process and the Project;
  - (b) upon discovering any perceived, potential or actual Conflict of Interest at any time during the RFP process, promptly disclose a detailed description of the Conflict of Interest to the City in a written statement to the Contract Administrator; and
  - (c) provide the City with the proposed means to avoid or mitigate, to the greatest extent practicable, any perceived, potential or actual Conflict of Interest and shall submit any additional information to the City that the City considers necessary to properly assess the perceived, potential or actual Conflict of Interest.
- B14.4** Without limiting B14.3, the City may, in its sole discretion, waive any and all perceived, potential or actual Conflicts of Interest. The City's waiver may be based upon such terms and conditions as the City, in its sole discretion, requires to satisfy itself that the Conflict of Interest has been appropriately avoided or mitigated, including requiring the Proponent to put into place such policies, procedures, measures and other safeguards as may be required by and be acceptable to the City, in its sole discretion, to avoid or mitigate the impact of such Conflict of Interest.
- B14.5** Without limiting B14.3, and in addition to all contractual or other rights or rights at law or in equity or legislation that may be available to the City, the City may, in its sole discretion:
- (a) disqualify a Proponent that fails to disclose a perceived, potential or actual Conflict of Interest of the Proponent or any of its Key Personnel;
  - (b) require the removal or replacement of any Key Personnel proposed for the Work that has a perceived, actual or potential Conflict of Interest that the City, in its sole discretion, determines cannot be avoided or mitigated;
  - (c) disqualify a Proponent or Key Personnel proposed for the Work that fails to comply with any requirements prescribed by the City pursuant to B14.4 to avoid or mitigate a Conflict of Interest; and

- (d) disqualify a Proponent if the Proponent, or one of its Key Personnel proposed for the Project, has a perceived, potential or actual Conflict of Interest that, in the City's sole discretion, cannot be avoided or mitigated, or otherwise resolved.

B14.6 The final determination of whether a perceived, potential or actual Conflict of Interest exists shall be made by the City, in its sole discretion.

## **B15. QUALIFICATION**

B15.1 The Proponent shall:

- (a) undertake to be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Proponent does not carry on business in Manitoba, in the jurisdiction where the Proponent does carry on business; and
- (b) be financially capable of carrying out the terms of the Contract; and
- (c) have all the necessary experience, capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract.

B15.2 The Proponent and any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) be responsible and not be suspended, debarred or in default of any obligations to the City. A list of suspended or debarred individuals and companies is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <https://www.winnipeg.ca/matmgt/Templates/files/debar.pdf>

B15.3 The Proponent and/or any proposed Subcontractor (for the portion of the Work proposed to be subcontracted to them) shall:

- (a) have successfully carried out work similar in nature, scope and value to the Work; and
- (b) be fully capable of performing the Work required to be in strict accordance with the terms and provisions of the Contract; and
- (c) have a written workplace safety and health program, if required, pursuant to The Workplace Safety and Health Act (Manitoba).

B15.4 The Proponent shall submit, within three (3) Business Days of a request by the Contract Administrator, proof satisfactory to the Contract Administrator of the qualifications of the Proponent and of any proposed Subcontractor.

B15.5 The Proponent shall provide, on the request of the Contract Administrator, full access to any of the Proponent's equipment and facilities to confirm, to the Contract Administrator's satisfaction, that the Proponent's equipment and facilities are adequate to perform the Work.

## **B16. OPENING OF PROPOSALS AND RELEASE OF INFORMATION**

B16.1 Proposals will not be opened publicly.

B16.2 After award of Contract, the Contract amount and the name of the successful Proponent and their address will be available on the MERX website at [www.merx.com](http://www.merx.com).

B16.3 The Proponent is advised any information contained in any Proposal Submission may be released if required by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law or by City policy or procedures (which may include access by members of City Council).

B16.3.1 To the extent permitted, the City shall treat as confidential information, those aspects of a Proposal Submission identified by the Proponent as such in accordance with and by

reference to Part 2, Section 17 or Section 18 or Section 26 of The Freedom of Information and Protection of Privacy Act (Manitoba), as amended.

B16.4 Following the award of Contract, a Proponent will be provided with information related to the evaluation of his/her submission upon written request to the Contract Administrator.

**B17. IRREVOCABLE OFFER**

B17.1 The Proposal(s) submitted by the Proponent shall be irrevocable for the time period specified in Paragraph 11 of Form A: Bid/Proposal.

B17.2 The acceptance by the City of any Proposal shall not release the Proposals of the other responsive Proponents and these Proponents shall be bound by their offers on such until a Contract for the Work has been duly formed and the contract securities have been furnished as herein provided, but any Bid shall be deemed to have lapsed unless accepted within the time period specified in Paragraph 11 of Form A: Bid/Proposal.

**B18. WITHDRAWAL OF OFFERS**

B18.1 A Proponent may withdraw his/her Proposal without penalty prior to the Submission Deadline.

**B19. INTERVIEWS**

B19.1 The Contract Administrator may, in his/her sole discretion, interview Proponents during the evaluation process.

**B20. NEGOTIATIONS**

B20.1 The City reserves the right to negotiate details of the Contract with any Proponent. Proponents are advised to present their best offer, not a starting point for negotiations in their Proposal Submission.

B20.2 The City may negotiate with the Proponents submitting, in the City's opinion, the most advantageous Proposals. The City may enter into negotiations with one or more Proponents without being obligated to offer the same opportunity to any other Proponents. Negotiations may be concurrent and will involve each Proponent individually. The City shall incur no liability to any Proponent as a result of such negotiations.

B20.3 If, in the course of negotiations pursuant to B20.2, the Proponent amends or modifies a Proposal after the Submission Deadline, the City may consider the amended Proposal as an alternative to the Proposal already submitted without releasing the Proponent from the Proposal as originally submitted.

**B21. EVALUATION OF PROPOSALS**

B21.1 Award of the Contract shall be based on the following evaluation criteria:

- (a) compliance by the Proponent with the requirements of the Request for Proposal or acceptable deviation therefrom: (pass/fail)
- (b) qualifications of the Proponent and the Subcontractors, if any, pursuant to B15: (pass/fail)
- (c) Evaluated Bid Price (Section B) 40%
- (d) Experience of Proponent and Subcontractor; (Section C) 10%
- (e) Details of Services the Proponent Provides; (Section D) 25%
- (f) Capacity and Ability to Provide the Service; (Section E) 25%
- (g) Economic analysis of any approved alternative pursuant to B6

- B21.2 Further to B21.1(a), the Award Authority may reject a Proposal as being non-responsive if the Proposal Submission is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Proposal, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B21.3 Further to B21.1(b), the Award Authority shall reject any Proposal submitted by a Proponent who does not demonstrate, in its Proposal or in other information required to be submitted, that it is qualified.
- B21.4 If, in the sole opinion of the City, a Proposal does not achieve a pass rating for B21.1(a) and B21.1(b), the Proposal will be determined to be non-responsive and will not be further evaluated.
- B21.5 Further to B21.1(c), the Evaluated Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B21.5.1 Further to B21.1(a), in the event that a unit price is not provided on Form B: Prices, the City will determine the unit price by dividing the Amount (extended price) by the approximate quantity, for the purposes of evaluation and payment.
- B21.6 Further to B21.1(d), Experience of Proponent and Subcontractors will be evaluated considering the experience of the organization on projects of similar size and complexity as well as other information requested and submitted in response to B10.
- B21.7 Further to B21.1(e), Details of Service the Proponent Provides will be evaluated considering each detail of the service, based on the information requested and submitted in response to B11.
- B21.8 Further to B21.1(f), Capacity and Ability to Provide the Service will be evaluated to determine if the testing is possible and the capacity is available to complete the work based on the information requested and submitted in response to B11.1.
- B21.9 Notwithstanding B21.1(d) to B21.1(f), where Proponents fail to provide a response to B7.2(a) to B7.2(c), the score of zero may be assigned to the incomplete part of the response.
- B21.10 Proposals will be evaluated considering the information in the Proposal Submission and any interviews held in accordance with B19.
- B21.11 Where references are requested, the reference checks to confirm information provided may not be restricted to only those submitted by the Proponent, and may include organizations representing Persons, known to have done business with the Proponent.
- B21.12 This Contract will be awarded as a whole or by sections.

## **B22. AWARD OF CONTRACT**

- B22.1 The City will give notice of the award of the Contract, or will give notice that no award will be made.
- B22.2 The City will have no obligation to award a Contract to a Proponent, even though one or all of the Proponents are determined to be qualified, and the Proposals are determined to be responsive.
- B22.2.1 Without limiting the generality of B22.2, the City will have no obligation to award a Contract where:
- (a) the prices exceed the available City funds for the Work;
  - (b) the prices are materially in excess of the prices received for similar work in the past;
  - (c) the prices are materially in excess of the City's cost to perform the Work, or a significant portion thereof, with its own forces;

- (d) only one Proposal is received; or
- (e) in the judgment of the Award Authority, the interests of the City would best be served by not awarding a Contract.

- B22.3 Where an award of Contract is made by the City, the award shall be made to the qualified Proponent submitting the most advantageous offer.
- B22.4 Further to Paragraph 7 of Form A: Bid/Proposal and C4, the City may issue an award letter to the successful Proponent in lieu of execution of Contract Documents.
- B22.4.1 The Contract documents as defined in C1.1(o)(ii) in their entirety shall be deemed to be incorporated in and to form a part of the award letter notwithstanding that they are not necessarily attached to or accompany said award letter.
- B22.5 Following the award of contract, a Proponent will be provided with information related to the evaluation of his/her Proposal upon written request to the Contract Administrator.
- B22.6 If, after the award of Contract, the Project is cancelled, the City reserves the right to terminate the Contract. The Proponent will be paid for all Services rendered up to time of termination.

## PART C - GENERAL CONDITIONS

### C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Supply of Services* (Revision 2020-01-31) are applicable to the Work of the Contract.
- C0.1.1 The *General Conditions for Supply of Services* are available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at [http://www.winnipeg.ca/matmgt/gen\\_cond.stm](http://www.winnipeg.ca/matmgt/gen_cond.stm)
- C0.2 A reference in the Request for Proposal to a section, clause or subclause with the prefix “**C**” designates a section, clause or subclause in the *General Conditions for Supply of Services*.

## **PART D - SUPPLEMENTAL CONDITIONS**

### **GENERAL**

#### **D1. GENERAL CONDITIONS**

D1.1 In addition to the *General Conditions for Supply of Services*, these Supplemental Conditions are applicable to the Work of the Contract.

#### **D2. SCOPE OF SERVICES**

D2.1 The Work to be done under the Contract shall consist of provision of laboratory testing services from date of award until April 30, 2022 with the option of four (4) mutually agreed upon one (1) year extensions.

D2.1.1 The City may negotiate the extension option with the Proponent within sixty (60) Calendar Days prior to the expiry date of the Contract. The City shall incur no liability to the Proponent as a result of such negotiations.

D2.1.2 Changes resulting from such negotiations shall become effective on May 1 of the respective year. Changes to the Contract shall not be implemented by the Contractor without written approval by the Contract Administrator.

D2.1.3 Bidders are advised that, in future, the City may be participating in collaborative procurement initiatives with other levels of government. Accordingly, extensions to this Contract may not be exercised.

D2.2 The major components of the Work are as follows:

- (a) Contractor will be responsible for samples from the time they take possession from the agreed upon location;
- (b) Contractor will be responsible for prepared sample bottles until a City of Winnipeg employee takes possession from the agreed upon location;
- (c) Detailed reports; and
- (d) Detailed and summarized invoices.

D2.3 The Work shall be done on an "as required" basis during the term of the Contract.

D2.3.1 The type and quantity of Work to be performed under this Contract shall be as authorized from time to time by the Contract Administrator and/or Users.

D2.3.2 Subject to C7, the City shall have no obligation under the Contract to purchase any quantity of any item in excess of its actual operational requirements.

D2.4 A site inspection can take place anytime throughout the term of the Contract to confirm that the capacity and ability to provide the service is still in place.

D2.5 The City may add the scope of work from Bid Opportunity # 79-2018 Provision of Laboratory Services for Landfills as listed under Section G, E9 to this contract at the completion of the City's existing contract, including extensions, if exercised.

D2.6 Notwithstanding D2.1, in the event that operational changes result in substantial changes to the requirements for Work, the City reserves the right to alter the type or quantity of work performed under this Contract, or to terminate the Contract, upon thirty (30) Calendar Days written notice by the Contract Administrator. In such an event, no claim may be made for damages on the ground of loss of anticipated profit on Work.

#### **D3. COOPERATIVE PURCHASE**

D3.1 The Contractor is advised that this is a cooperative purchase.



- D3.2 The Contract Administrator may, from time to time during the term of the Contract, approve other public sector organizations and utilities, including but not limited to municipalities, universities, schools and hospitals, to be participants in the cooperative purchase.
- D3.3 The Contract Administrator will notify the Contractor of a potential participant and provide a list of the delivery locations and estimated quantities.
- D3.4 If any location of the potential participant is more than ten (10) kilometres beyond the boundaries of the City of Winnipeg, the Contractor shall, within fifteen (15) Calendar Days of the written notice, notify the Contract Administrator of the amount of any additional delivery charge for the location.
- D3.5 If any additional delivery charges are identified by the Contractor, the potential participant may accept or decline to participate in the cooperative purchase.
- D3.6 The Contractor shall enter into a contract with each participant under the same terms and conditions as this Contract except:
- (a) supply under the contract shall not commence until the expiry or lawful termination of any other contract(s) binding the participant for the same goods;
  - (b) a participant may specify a duration of contract shorter than the duration of this Contract;
  - (c) a participant may specify that only some items under this Contract and/or less than its total requirement for an item are to be supplied under its contract; and
  - (d) any additional delivery charge identified and accepted in accordance with clause D3.4 and D3.5 will apply.
- D3.7 Each participant will be responsible for the administration of its contract and the fulfilment of its obligations under its contract. The City shall not incur any liability arising from any such contract.
- D3.8 No participant shall have the right or authority to effect a change in the Contract, or of any other participant in this Contract.

#### **D4. DEFINITIONS**

- D4.1 When used in this Request for Proposal:
- (a) **"/100L"** means per one hundred (100) litres;
  - (b) **"CALA"** means Canadian Association for Laboratory Accreditation;
  - (c) **"cfu/mL"** means colony forming units per millilitre;
  - (d) **"cfu/100mL"** means colony forming units per 100 millilitre;
  - (e) **"E. coli"** means Escherichia coliform;
  - (f) **"ISO/IEC"** means International Standards Organization;
  - (g) **"MDL"** means method detection limit;
  - (h) **"mg/kg"** means milligrams per kilogram;
  - (i) **"mg/L"** means milligrams per liter;
  - (j) **"MPN"** means most probable number;
  - (k) **"MPNU/mL"** means most probable number units per 100 millilitre;
  - (l) **"ng/L"** means nanograms per litre;
  - (m) **"Open water season"** means the period beginning in spring when all the ice on the surface waters are melted until the time when ice has started to form on the surface waters where the City conducts its sampling. Typically approximately 7 months duration;
  - (n) **"pg/L"** means picograms per litre;
  - (o) **"pg/mL"** means picograms per millilitre;

- (p) " **Proponent**" means any Person or Persons submitting a Proposal for Services;
- (q) " **Positive**" means a coliform result of greater than one (1);
- (r) " **SCC**" means Standard Council of Canada;
- (s) " **Turn-around Time**" means the time (expressed in Calendar Days') required to report test results from the time a sample is received by Contractor;
- (t) " **µg/L**" means micrograms per litre;
- (u) " **User**" means a person, department or other administrative unit of the City authorized by the Contract Administrator or order Work under this Contract.

## **D5. CONTRACT ADMINISTRATOR**

D5.1 The Contract Administrator is:

Courtney Diduck  
Analytical Services Branch Head  
Telephone No. 204- 986-4752  
Email Address.: [cdiduck@winnipeg.ca](mailto:cdiduck@winnipeg.ca)

D5.2 At the pre-commencement meeting, the Contract Administrator will identify additional personnel representing the Contract Administrator and their respective roles and responsibilities for the Work.

## **D6. CONTRACTOR'S SUPERVISOR**

D6.1 Further to C6.22, the Contractor shall employ and keep on the Work, at all times during the performance of the Work, a competent supervisor and assistants, if necessary, acceptable to the Contract Administrator. The supervisor shall represent the Contractor on the Site. The supervisor shall not be replaced without the prior consent of the Contract Administrator unless the supervisor proves to be unsatisfactory to the Contractor and ceases to be in his/her employ.

D6.2 Before commencement of Work, the Contractor shall identify his/her designated supervisor and any additional personnel representing the Contractor and their respective roles and responsibilities for the Work.

D6.2.1 Further to C5.5 Contract Administrator may give instructions or orders to the Contractor's supervisor and such instructions or orders shall be deemed to have been given to the Contractor.

## **D7. NOTICES**

D7.1 Except as provided for in C22.4, all notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the Contractor shall be sent to the address or facsimile number identified by the Contractor in Paragraph 2 of Form A: Bid/Proposal.

D7.2 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications to the City, except as expressly otherwise required in, D7.4 or elsewhere in the Contract, shall be sent to the attention of the Contract Administrator identified in D4.

D7.3 All notices, requests, nominations, proposals, consents, approvals, statements, authorizations, documents or other communications required to be submitted or returned to the City Solicitor shall be sent to the following facsimile number:

The City of Winnipeg  
Legal Services Department  
Attn: Director of Legal Services  
Facsimile No.: 204 947-9155

## **SUBMISSIONS**

### **D8. AUTHORITY TO CARRY ON BUSINESS**

D8.1 The Contractor shall be in good standing under The Corporations Act (Manitoba), or properly registered under The Business Names Registration Act (Manitoba), or otherwise properly registered, licensed or permitted by law to carry on business in Manitoba, or if the Contractor does not carry on business in Manitoba, in the jurisdiction where the Contractor does carry on business, throughout the term of the Contract, and shall provide the Contract Administrator with evidence thereof upon request.

### **D9. SAFE WORK PLAN**

D9.1 The Contractor shall provide the Contract Administrator with a Safe Work Plan at least five (5) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract.

D9.2 The Safe Work Plan should be prepared and submitted in the format shown in the City's template which is available on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <http://www.winnipeg.ca/matmgmt/safety/default.stm>

### **D10. INSURANCE**

D10.1 The Contractor shall provide and maintain the following insurance coverage:

- (a) commercial general liability insurance, in the amount of at least two million dollars (\$2,000,000.00) inclusive, with The City of Winnipeg added as an additional insured; such liability policy to also contain a cross-liability clause, non-owned automobile liability and products and completed operations cover, to remain in place at all times during the performance of the Work;
- (b) if applicable, Automobile Liability Insurance covering all motor vehicles, owned and operated and used or to be used by the Contractor directly or indirectly in the performance of the Service. The Limit of Liability shall not be less than \$2,000,000 inclusive for loss or damage including personal injuries and death resulting from any one accident or occurrence;
- (c) Professional liability or Errors and Omissions liability insurance in the amount of at least one million dollars (\$1,000,000) per claim to remain in place at all times during the performance of the Work and throughout the warranty period.

D10.2 Deductibles shall be borne by the Contractor.

D10.3 The Contractor shall provide the Contract Administrator with a certificate(s) of insurance, in a form satisfactory to the City Solicitor, at least two (2) Business Days prior to the commencement of any Work on the Site but in no event later than the date specified in C4.1 for the return of the executed Contract Documents, if applicable.

D10.4 The Contractor shall not cancel, materially alter, or cause the policy to lapse without providing at least thirty (30) Calendar Days prior written notice to the Contract Administrator.

D10.5 The City shall have the right to alter the limits and/or coverages as reasonably required from time to time during the continuance of this agreement.

### **D11. SUBCONTRACTOR LIST**

D11.1 The Contractor shall provide the Contract Administrator with a complete list of the Subcontractors whom the Contractor proposes to engage (Form J: Subcontractor List) at least two (2) Business Days prior to the commencement of any Work on the Site.

## **SCHEDULE OF WORK**

### **D12. COMMENCEMENT**

- D12.1 The Contractor shall not commence any Work until he/she is in receipt of a notice of award from the City authorizing the commencement of the Work.
- D12.2 The Contractor shall not commence any Work on the Site until:
- (a) the Contract Administrator has confirmed receipt and approval of:
    - (i) evidence of authority to carry on business specified in D8;
    - (ii) evidence of the workers compensation coverage specified in C6.14;
    - (iii) evidence of the insurance specified in D10; and
    - (iv) the Subcontractor list specified in D11.
  - (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

### **D13. COVID-19 SCHEDULE DELAYS**

- D13.1 The City acknowledges that the schedule for this Contract may be impacted by the COVID-19 pandemic. Commencement and progress of the Work shall be performed by the Contractor with due consideration to the health and safety of workers and the public, directives from health authorities and various levels of government and in close consultation with the Contract Administrator.
- D13.2 If the Contractor is delayed in the performance of the Work by reason of the COVID-19 pandemic, the Work schedule may be adjusted by a period of time equal to the time lost due to such delay and costs related to such delay will be determined as identified herein.
- D13.3 A minimum of seven (7) Calendar Days prior to the commencement of Work, the Contractor shall declare whether COVID-19 will affect the start date. The Contractor shall provide sufficient evidence that the delay is directly related to COVID-19, including but not limited to evidence related to availability of staff, availability of Material or work by others.
- D13.4 For any delay related to COVID-19 and identified after Work has commenced, the Contractor shall within seven (7) Calendar Days of becoming aware of the anticipated delay declare the additional delay and shall provide sufficient evidence as indicated in D13.3. Failure to provide this notice will result in no additional time delays being considered by the City.
- D13.5 The Work schedule, including the durations identified in D12 where applicable, will be adjusted to reflect delays accepted by the Contract Administrator.
- D13.6 Any time or cost implications as a result of COVID-19 and in accordance with the above, as confirmed by the Contract Administrator, shall be documented in accordance with C7.

### **D14. DEFICIENCIES**

- D14.1 Further to C11.7, the Contract Administrator may order the Contractor to alter or improve his/her methods, to increase or improve his/her Plant, to furnish additional or more suitable Material, or to employ additional or more qualified labour if, at any time, the Contract Administrator determines that:
- (a) the Work is not being, or will likely not be, performed satisfactorily; or
  - (b) progress is not being, or will likely not be, maintained in accordance with the work schedule.

## **D15. ORDERS**

D15.1 The Contractor shall provide a local Winnipeg telephone number or a toll-free telephone number at which orders for service may be placed.

## **D16. RECORDS**

D16.1 The Contractor shall keep detailed records of the services supplied under the Contract.

D16.2 The Contractor shall record, as a minimum, for each item listed on Form B: Prices:

- (a) user name(s) and addresses;
- (b) order date(s);
- (c) service date(s); and
- (d) description and quantity of services provided.

D16.3 The Contractor shall provide the Contract Administrator with a copy of the usage records for each year within thirty (30) Calendar Days of the end of year one (1) and within thirty (30) Calendar days at the end of any Contract extension period should the Contract be extended.

## **MEASUREMENT AND PAYMENT**

### **D17. INVOICES**

D17.1 Further to C12, the Contractor shall submit monthly invoice(s) to each Contract Supervisor for each portion of work performed and completed during the previous calendar month to:

The City of Winnipeg  
Corporate Finance - Accounts Payable  
4th Floor, Administration Building, 510 Main Street  
Winnipeg MB R3B 1B9  
Facsimile No.: 204- 949-0864  
Send Invoices to [CityWpgAP-INVOICES@winnipeg.ca](mailto:CityWpgAP-INVOICES@winnipeg.ca)  
Send Invoice Inquiries to [CityWpgAP-INQUIRIES@winnipeg.ca](mailto:CityWpgAP-INQUIRIES@winnipeg.ca)

D17.2 Invoices must clearly indicate, as a minimum:

- (a) the City's purchase order number;
- (b) reference to the contract number;
- (c) date of delivery;
- (d) delivery address;
- (e) account owner/contract supervisor;
- (f) summary of the type and quantity of work performed;
- (g) the amount payable with GST, MRST, and any applicable environmental handling charges/fees identified and shown as separate amounts; and
- (h) the Contractor's GST registration number.

D17.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.

### **D18. PAYMENT**

D18.1 Further to C12, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

### **Payment Deductions;**

- D18.2 If the test results and reports as per E2.7 to E2.9 for Routine and/or Rush Samples are not provided to the Contract Administrator or Contract Supervisor within the applicable Turn-around Time(s) specified in E10, the test results and report is considered late and the Contractor shall reduce the fees payable with respect to the testing service submitted according to the following rates:
- (a) 1 Calendar Day late, fee reduction is 20%
  - (b) 2 Calendar Days late, fee reduction is 50%
  - (c) 3 or more Calendar Days late, fee reduction is 100%

D18.3 Further to D18.2, if the Contractor has made contact as per E2.11 payment deductions may not be applied.

**D19. PAYMENT SCHEDULE**

D19.1 Further to C12, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.

**D20. PURCHASING CARD**

D20.1 The Contractor shall allow Users to charge items to their purchasing cards at no extra cost.

D20.2 The Contractor's credit card website/gateway shall have appropriate current Payment Card Industry Data Security standards (PCI DSS) certification, (<https://www.pcisecuritystandards.org/index.shtml> ). The credit card gateway shall meet the credit card data security requirements outlined by the Payment Card Industry Security Standards Council (PCI SSC) for service providers and/or software vendors.

**WARRANTY**

**D21. WARRANTY**

D21.1 Notwithstanding C13, Warranty does not apply to this Contract.



## **PART E - SPECIFICATIONS**

### **GENERAL**

#### **E1. APPLICABLE SPECIFICATIONS AND DRAWINGS**

- E1.1 These Specifications shall apply to the Work.
- E1.2 Bidders are reminded that requests for approval of substitutes as an approved equal or an approved alternative shall be made in accordance with B6. In every instance where a brand name or design specification is used, the City will also consider approved equals and/or approved alternatives in accordance with B6.

#### **E2. SERVICES**

- E2.1 The Contractor shall supply Laboratory Testing in accordance with the requirements hereinafter specified.
- E2.2 All tests shall be done according to Environmental Protection Agency (EPA) method or 21<sup>st</sup> Standard Methods for the Examination of Water and Wastewater, or method agreed upon between the Contract Administrator and Contractor.
- E2.3 Each test that is not conducted, through human, instrument, or other error shall be reported as "No Result" or "Not Analyzed" with a corresponding explanation stated. In these cases, the City will not be charged for the sample preparation unless the prepared sample is analyzed for another parameters nor shall they be charged for the testing that is not performed.
- E2.4 The Contractor must contact the Contract Administrator or Contract Supervisors as quickly as possible if Samples are damaged, fail to meet submission protocols/standards associated with the analysis, or when information is questionable on the Submission Form or the Sample containers.
- E2.5 The Contractor shall promptly notify the Contract Administrator if the Sample(s) are lost, incorrectly analyzed, or incorrectly reported or not tested within the method hold time and request resampling or approval to continue testing.
- E2.6 The Contractor must record the date, time and temperature of all sample that are dropped off, picked up or delivered to the Laboratory and make this information available to the Contract Administrator.
- E2.7 Test results and reports shall;
- (i) be available on the web site, with an electronic copy e-mailed to the specified address and contact person(s);
  - (ii) include Quality Control test reports;
  - (iii) be made available in hard copy format;
  - (iv) be made delivered as an electronic file suitable to be used as Electronic Data Deliverables (EDD) in a format such as XML, CSV, XLS and include Laboratory and sample specific unique identifiers; and
  - (v) be in accordance with the requirements outlined under section 7.8 Reporting of results of the ISO/IEC 17025:2017 Third Edition international standard or otherwise agreed upon between the Contract Administrator and Contractor.
- E2.8 Preliminary or unofficial test results shall be available in accordance with E2.7 with the mutual understanding that the final official results may differ.
- E2.9 Notification shall be made to the Contract Administrator that preliminary results for rush analysis are available to the Contract Administrator.



- E2.10 Further to E.2.9, Notifications shall be made by phone or email.
- E2.11 Notification to the Contract Administrator or Contract Supervisors, shall occur before the required Turn-around Time, if analysis and reporting is not within the required Turn-around Time accompanied with an estimate of the date when the analysis and reporting will be given.
- E2.12 The Contractor shall supply all the bottles required within five business (5) days of ordering for regular testing in a "ready to use" condition and have them available for pick-up by the City from the same location at the drop-off location or have the samples delivered to a location agreed upon between the Contract Administrator and Contractor. Emergency sampling bottles shall be available within the time frame agreed upon between the Contract Administrator and Contractor.
- E2.13 The Contractor will supply the City with sample kits which include shipping containers (e.g. coolers), sample bottles, ice packs, directions and precautions and Material Safety Data Sheets, when reagents, preservatives, or special handling is required as part of the sampling protocol at no additional cost.
- E2.14 The Contractor shall accept delivery of samples between the hours of 8:00a.m and 5:00pm daily during the Monday to Friday workweek.
- E2.15 The Contractor shall accept delivery of samples on Saturdays, Sundays, and statutory holidays. The Contractor shall accept delivery for consecutive hours on Saturdays, Sundays, and statutory holidays as agreed upon by the Contract Administrator. Statutory holidays must be agreed upon at a later date, but within forty-eight (48) hours of the holiday.
- E2.16 All Bacteriological test methods, (Total Coliform, Fecal Coliform, E. Coli) shall commence the same day that samples are received, conditional that the City has met the agreed upon submission deadline and 24 hrs, when the City has missed the deadline.
- E2.17 The Contractor shall have a contact person(s) and phone number that the City can contact at anytime for emergency purposes.
- E2.18 Emergency testing shall commence immediately upon sample delivery and are considered highest priority for analysis, if the City has met the agreed upon conditions with regards to availability, acceptability and notification with the Contractor and it has been agreed upon.
- E2.19 The Contractor shall be currently accredited and maintain status of accreditation for the duration of the contract as per ISO:17025;2017 Third Edition, General Requirements for the Competence of Testing and Calibration Laboratories by one of the following bodies;
- (i) CALA (Canadian Association for Laboratory Accreditation); or
  - (ii) Standards Council of Canada.
- E2.20 The Contractor shall notify the Contract Administrator immediately in writing of a suspended, withdrawal, or a revoked accredited test being performed under this Contract. Upon review the Contract Administer reserves the right to have the Contractor subcontract the analysis for which accreditation has been suspended, withdrawal, or revoked at no cost to the City. The subcontractor must meet the conditions of this Tender and be approved by the Contract Administer.
- E2.21 If any parameter to be tested under this contract cannot be completed by the Contractor due to an instrument/equipment and/or operational issue and Subcontracting is required to maintain the level of service. The Contract Administer must be advised of the Subcontracting and they must meet the conditions of this Tender and be approved.
- E2.22 The Contractor shall notify the contract administrator of changes, additions or deletions of any test names, test list(s), method detection limit(s), unit of measure or unique identifiers for any test result(s) reported pursuant to E2.7(iv).

- E2.23 A Corrective Action Report is required if any issues arise that impacted the results reported under this contract or if requested by the Contract Administrator, for issues regarding data-related investigations or service requirement.
- E2.24 Further to E2.23, all Corrective Active Reports shall be submitted to the Contract Administrator.
- E2.25 An accredited method is required for testing all parameters listed below.
  - (a) A non-accredited test method for testing any parameters listed below requires the Contract Administrator approval.
- E2.26 Section E7 Regulatory Testing has the following additional mandatory requirements which must meet in order to accept and report results under this selection;
  - (a) Samples submitted under this section are;
    - (i) Required to be submitted on the Water System Submission Form known as the Chain of Custody in the format required by the Office of Drinking Water and approved by the Laboratory and Special Contracts Coordinator of the Office of Drinking Water.
    - (ii) Manitoba Conservation and the Office of Drinking water reserve the right to make changes to the format of the Chain of Custody Form at any time over the course of this Contract at which the Contractor will be required to update and receive approval.
  - (b) Results are required to be reported to the Office of Drinking water by email.
  - (c) Reporting of results need to be done in accordance to Manitoba Conservation and Water Stewardship Environmental Management System EMS Lab Data File Format Schedule 14, Appendix 2. Section A (Water) and the Terms and Conditions for Data Transfer for Manitoba Conservation and Water Stewardship need to be done in accordance to Schedule 14. See **Appendix 2** for these documents.
- E2.27 The Contractor shall create custom test codes, for use on the chain of custodies for sample summited consistently with the same required tests.

**SPECIFIC TESTING**

**E3. SECTION A (WATER)**

- E3.1 Item 1, Taste and Odour Compound in water shall:
  - (a) consist of approximately twenty four (24) samples annually;
  - (b) consist of three to four (3-4) water samples submitted with each sampling period, occurring more frequently during “open water season”;
  - (c) have tests performed to include the following parameters:

Item 1	Taste & Odour Compound, Water	
Parameters	Units	MDL
2-isopropyl-3-methoxypyrazine	ng/mL	0.2
2-isobutyl-3-methoxypyrazine	ng/mL	0.2
2-methylisoborneol	ng/mL	10
2,4,6-trichloroanisole	ng/mL	0.5
2,3,6-trichloroanisole	ng/mL	0.5
Geosmin	ng/mL	1
3,4,5-trichloroveratrole	ng/mL	0.2

- E3.2 Item 2, Volatile Organic Compounds in water shall:
  - (a) consist of approximately ten (10) samples annually;
  - (b) consist of two to three (2-3) water samples submitted quarterly;

- (c) have tests performed to include the following parameters:

Item 2	Volatile Organic Compounds, Water	
Parameters	Units	MDL
Methylene Chloride	µg/L	2
MTBE	µg/L	0.2

- E3.3 Item 3, N-Nitrosodimethylamine (NDMA) in water, shall:

- (a) consist of approximately twenty (10) samples annually;  
 (b) consist of two to three (2-3) water samples submitted quarterly;  
 (c) have tests performed to include the following parameters:

Item 3	N-Nitrosodimethylamine (NDMA), Water	
Parameters	Units	MDL
NDMA	ng/L	0.5

- E3.4 Item 4, Microcystin in water shall:

- (a) consist of approximately twenty four (24) routine and irregular samples annually;  
 (b) occur more frequently during the summer months (April to October);  
 (c) have tests performed to include the following parameter:

Item 4	Microcystin, Water	
Parameters	Units	MDL
Total Microcystin,	µg/L	1.5
Microcystin LR	µg/L	0.2

- E3.5 Item 5, Total Mercury in water shall:

- (a) consist of approximately sixty four (64) samples annually;  
 (b) consist of sixteen (16) water samples submitted quarterly;  
 (c) have a minimum of sixteen (16) sample bottles, pre-cleaned and available within four (4) hours notice;  
 (d) have tests performed to include the following parameter:

Item 5	Total Mercury, Water	
Parameters	Units	MDL
Total Mercury	µg/L	0.005

- E3.6 Item 6, Pesticides and Herbicides (COW Test #12) in water, shall:

- (a) consist of approximately twenty (20) tests annually;  
 (b) have tests performed to include the following parameters:

Item 6	Pesticides and Herbicides (COW Test #12), Water	
Parameters	Units	MDL
<b>Pesticide List 1 (LC/MS-MS)</b>		
Eptam	µg/L	< 0.2
Propachlor	µg/L	< 0.2
Propanil	µg/L	< 0.2
Propoxur	µg/L	< 0.2
<b>Pesticide List 2 (LC/MS-MS)</b>		

Trichlopyr	µg/L	< 0.2
Chlorthalonil	µg/L	< 0.2
<b>Miscellaneous Pesticides</b>		
Alachlor	µg/L	< 0.2
Aldicarb	µg/L	< 0.9
Atrazine	µg/L	< 0.2
Azinphosmethyl	µg/L	< 0.2
Bendiocarb	µg/L	< 0.5
Carbaryl	µg/L	< 0.5
Carbofuran	µg/L	< 0.2
Chlorpyrifos	µg/L	< 0.2
Cyanazine	µg/L	< 0.2
Diazinon	µg/L	< 0.2
Diclofop-methyl	µg/L	< 0.2
Dimethoate	µg/L	< 0.2
Diquat	µg/L	< 1
Diuron	µg/L	< 0.2
Glyphosate	µg/L	< 0.2
Malathion	µg/L	< 0.2
Methyl Parathion	µg/L	< 0.2
Metolachlor	µg/L	< 0.2
Metribuzin	µg/L	< 0.2
Paraquat	µg/L	< 1
Parathion	µg/L	< 0.2
Phorate	µg/L	< 0.2
Picloram	µg/L	< 0.2
Simazine	µg/L	< 0.2
Terbufos	µg/L	< 0.2
Triallate	µg/L	< 0.2
Trifluralin	µg/L	< 0.05
<b>Organochlorine Pesticides</b>		
Aldrin	µg/L	< 0.02
alpha-BHC	µg/L	< 0.02
beta-BHC	µg/L	< 0.02
delta-BHC	µg/L	< 0.02
alpha-Chlordane	µg/L	< 0.02
gamma-Chlordane	µg/L	< 0.02
op-DDD	µg/L	< 0.02
pp-DDD	µg/L	< 0.02
o,p-DDE	µg/L	< 0.02
pp-DDE	µg/L	< 0.02
op-DDT	µg/L	< 0.02
p,p-DDT	µg/L	< 0.02
Dieldrin	µg/L	< 0.02
alpha-Endosulfan	µg/L	< 0.02
beta-Endosulfan	µg/L	< 0.02
Endrin	µg/L	< 0.02
Heptachlor	µg/L	< 0.02
Heptachlor Epoxide	µg/L	< 0.02
Lindane (gamma-BHC )	µg/L	< 0.02
Methoxychlor	µg/L	< 0.02

Mirex	µg/L	< 0.02
<b>Polychlorinated Biphenyls (PCBs)</b>		
Arochlor 1016	µg/L	< 0.1
Arochlor 1221	µg/L	< 0.1
Arochlor 1232	µg/L	< 0.1
Arochlor 1242	µg/L	< 0.1
Arochlor 1248	µg/L	< 0.1
Arochlor 1254	µg/L	< 0.1
Arochlor 1260	µg/L	< 0.1
<b>Phenoxy Acid Herbicides</b>		
2,4,5-T	µg/L	< 0.05
2,4,5-TP	µg/L	< 0.05
2,4-D	µg/L	< 0.05
2,4-DB	µg/L	< 0.05
2,4-DP	µg/L	< 0.05
Bromoxynil	µg/L	< 0.02
Dicamba	µg/L	< 0.02
Dichloroprop	µg/L	< 0.05
Dinoseb	µg/L	< 0.05
MCPA	µg/L	< 0.05
MCPB	µg/L	< 0.05
MCPP (Mecroprop)	µg/L	< 0.05

E3.7 Item 7, Chromium, Hexavalent in water shall:

- (a) consist of approximately sixty four (64) samples annually;
- (b) consist of sixteen (16) water samples submitted quarterly;
- (c) have tests performed to include the following parameter:

Item 7	Chromium Hexavalent	
Parameters	Units	MDL
Chromium Hexavalent	mg/L	0.0005

E3.8 Item 8, Perchlorate in water shall:

- (a) consist of approximately sixteen (16) samples annually;
- (b) consist of four (4) water samples submitted quarterly;
- (c) have tests performed to include the following parameter:

Item 8	Perchlorate in Water	
Parameters	Units	MDL
Perchlorate	µg/L	0.2

E3.9 Item 9, Total Metals, in water shall:

- (a) consist of approximately ninety six (96) samples annually;
- (b) consist of eight (8) water samples submitted monthly;
- (c) have tests performed to include the following parameter:

Item 9	Total Metals in Water	
Parameters	Units	MDL

Total Silica (SiO <sub>2</sub> )	mg/L	0.3
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- E3.10 Item 10, Total Kjeldahl Nitrogen in water shall:
- (a) consist of approximately thirty six (36) sample annually;
  - (b) consist of three (3) water samples submitted monthly;
  - (c) have tests performed to include the following parameter:

Item 10	Total Kjeldahl Nitrogen	
Parameters	Units	MDL
Total Kjeldahl Nitrogen (as N)	mg/L	0.2

- E3.11 Item 11, Total Phosphorus in water shall:
- (a) consist of approximately thirty six (36) sample annually;
  - (b) consist of three (3) water samples submitted monthly;
  - (c) have tests performed to include the following parameter:

Item 11	Total Phosphorus, Water	
Parameters	Units	MDL
Total Phosphorus (as P)	µg/L	1.0

- E3.12 Item 12, Total Reactive Phosphorus in water shall:
- (a) consist of approximately thirty six (36) sample annually;
  - (b) consist of three (3) water samples submitted monthly;
  - (c) have tests performed to include the following parameter:

Item 12	Total Reactive Phosphorus, Water	
Parameters	Units	MDL
Total Reactive Phosphorus (Dissolved)	µg/L	1.0

- E3.13 Item 13, Blue-Green Algae in water shall:
- (a) consist of approximately ten (10) sample(s) annually;
  - (b) have the test performed to include the following parameter:

Item 13	Blue-Green Algae, Water	
Parameters	Units	MDL
Total cyanobacterial cell count in water	cell/mL	1
Genus of any cyanobacterial cells present	cell/mL	1

- E3.14 Item 14, Microtoxicity in water shall:
- (a) consist of approximately ten (10) sample(s) annually;
  - (b) have the test performed to include the following parameter:

Item 14	Microtoxicity, Water	
Parameters	Units	MDL
Microtoxicity, 15 minutes	%	<10.0
Non-Toxic <10%		Toxic/Non-Toxic
Microtoxicity, 5 minutes	%	<10.0

Non-Toxic <10%		Toxic/Non-Toxic
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E3.15 Item 15, Zebra Mussel identification in water shall:

- (a) Consist of approximately five (5) samples annually;
- (b) have the test performed to include the following parameter:

Item 15	Zebra Mussel, Water	
Parameters	Units	MDL
Zebra Mussel Veligars	Counts/sample	0
Juvenile or Adult Zebra Mussels	Counts/sample	0

E3.16 Item 16, Alcohols and Glycols in water shall:

- (a) Consist of approximately two (2) samples annually;
- (b) Have the test performed to include the following parameter:

Item 16	Alcohols and Glycols, Water	
Parameters	Units	MDL
Ethanol	mg/L	5.0
Isobutanol	mg/L	5.0
Isopropanol	mg/L	5.0
Methanol	mg/L	5.0
n-Butanol	mg/L	5.0
Pentanol	mg/L	5.0
Sec-butanol	mg/L	5.0
Diethylene Glycol	mg/L	5.0
Ethylene Glycol	mg/L	5.0
Propylene Glycol	mg/L	5.0
Triethylene Glycol	mg/L	5.0
Tetraethylene Glycol	mg/L	5.0

E3.17 Item 17, Algae Toxin Testing in water shall:

- (a) Consist of approximately four (4) sample annually;
- (b) Have the test performed to include the following parameters;

Item 17	Algae Toxins, Water	
Parameters	Units	MDL
Nodularin by ELISA	ng/mL	0.3
Cylindrospermopsin by ELISA	ng/mL	0.3
Saxitoxins by ELISA	ng/mL	0.3
Anatoxin-a by LCMS/MS	ng/mL	0.3

E3.18 Item 18, Surcharge fee for rush analysis shall:

- (a) consist of the unit cost for rush analysis of any sample tested under section E3.

**E4. SECTION B (WASTEWATER)**

E4.1 Item 19, Fecal Coliform, wastewater shall:

- (a) consist of up to thirteen hundred and sixty (1360) wastewater samples annually;
- (b) consist of three (3) wastewater effluent samples submitted daily;
- (c) the range or “pre-defined endpoint” shall be around twenty four hundred and nineteen (2419), and reported as “greater than” >2,419;
- (d) or when requested 1 in 10 dilution the range or “pre-defined endpoint” shall be around twenty four thousand one hundred and ninety (24,190), and reported as “greater than” >24,190;
- (e) have tests to include one (1) of the following parameters based on submission:

Item 19	Fecal Coliform In Wastewater	
Parameters	Units	MDL
Fecal Coliform by Quanti-Tray 97 to (pre-defined) endpoint	MPN/100 mL	<1
1:10 Fecal Coliform by Quanti-Tray 97 to (pre-defined) endpoint	MPN/100 mL	<10

E4.2 Item 20, Fecal Coliform, to endpoint, (true endpoint), wastewater shall:

- (a) consist of approximately seventy (70) wastewater samples submitted irregularly, when wastewater flows exceed the wastewater treatment plant’s design capacity;
- (b) be reported as a numerical value;
- (c) have tests to include the following parameters:

Item 20	Fecal Coliform In Wastewater	
Parameters	Units	MDL
Fecal Coliform by Quanti-Tray 97 to true endpoint (no maximum value)	MPN/100 mL	<1

E4.3 Item 21, Escherichia Coliform (E. Coli), wastewater shall:

- (a) consist of up to thirteen hundred and sixty (1360) wastewater samples annually;
- (b) consist of three (3) wastewater effluent samples submitted daily;
- (c) the range or “pre-defined endpoint” shall be around twenty four hundred and nineteen (2419), and reported as “greater than” >2,419;
- (d) or when requested 1 in 10 dilution the range or “pre-defined endpoint” shall be around twenty four thousand one hundred and ninety (24,190), and reported as “greater than” >24,190;
- (e) have tests to include one (1) of the following parameters based on submission:

Item 21	Escherichia Coliform In Wastewater	
Parameters	Units	MDL
Escherichia Coliform by Quanti-Tray 97 to (pre-defined) endpoint	MPN/100 mL	<1
1:10 Escherichia Coliform by Quanti-Tray 97 to (pre-defined) endpoint	MPN/100 mL	<10

E4.4 Item 22, Escherichia Coliform (E. Coli), to endpoint, (true endpoint), wastewater shall:

- (a) consist of approximately seventy (70) wastewater samples submitted irregularly throughout the year, when wastewater flows exceed the wastewater treatment plant’s design capacity;
- (b) be reported as a numerical value.



- (c) have tests to include the following parameter:

Item 22	Eschericia Coliform In Wastewater	
Parameters	Units	MDL
E. Coli by Quanti-Tray 97 to true endpoint (no maximum value)	MPN/100 mL	<1

- E4.5 Item 23, Total Coliform and Escherichia Coliform (E. Coli), wastewater shall:

- (a) consist of approximately two hundred and twenty (220) wastewater samples submitted throughout the year”;
- (b) consist of eight to eleven (8 to11) surface water samples submitted weekly during “open water season”;;
- (c) the range or “pre-defined endpoint” shall be around twenty four hundred and nineteen (2419), and reported as “greater than” >2,419;
- (d) have tests to include the following parameters:

Item 23	Total & Eschericia Coliform In Wastewater	
Parameters	Units	MDL
E. Coli by Quanti-Tray 97 to (pre-defined) endpoint	MPN/100 mL	<1
Total Coliform by Quanti-Tray to (pre-defined) endpoint	MPN/100 mL	<1

- E4.6 Item 24, Total Coliform and Escherichia Coliform (E. Coli), (true endpoint) wastewater shall:

- (a) consist of approximately one (1) test annually;
- (b) be reported as a numerical value;
- (c) have tests to include the following parameters:

Item 24	Total & Eschericia Coliform In Wastewater	
Parameters	Units	MDL
E. Coli by Quanti-Tray 97 to true endpoint (no maximum value)	MPN/100 mL	<1
Total Coliform by Quanti-Tray to true endpoint (no maximum value)	MPN/100 mL	<1

- E4.7 Item 25, Total Mercury in wastewater shall:

- (a) consist of approximately one (1) sample annually
- (b) have a minimum of four (4) sample bottles, pre-cleaned and available within eight (8) hours notice;
- (c) have tests performed to include the following parameter:

Item 25	Total Mercury, Wastewater	
Parameters	Units	MDL
Total Mercury	µg/L	0.0050

- E4.8 Item 26, Total Mercury in Dewatered Sludge shall;

- (a) Consist of approximately twenty six (26) dewatered sludge samples submitted biweekly
- (b) Have tests performed to include the following parameters;

Item 26	Total Mercury, Dewatered Sludge	
Parameters	Units	MDL

Total Mercury	mg/kg dry	0.2
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E4.9 Item 27, Total Organic Carbon in Dewatered Sludge;

- (a) Consist of approximately three hundred (300) dewatered sludge samples submitted annually
- (b) Sample will be provided in the dried state.
- (c) Have tests performed to include the following parameters;

Item 27	Total Organic Carbon, Dewatered Sludge	
Parameters	Units	MDL
Total Organic Carbon	% dry basis	0.050

E4.10 Item 28, Moisture in Dewatered Sludge;

- (a) Consist of approximately twenty six (26) dewatered sludge samples submitted biweekly
- (b) Have tests performed to include the following parameters;

Item 28	Moisture, Dewatered Sludge	
Parameters	Units	MDL
Total Moisture	%	0.1

E4.11 Item 29, Total Nitrogen in wastewater;

- (a) consist of approximately one (1) sample annually;
- (b) Have tests performed to include the following parameters;

Item 29	Total Nitrogen, Wastewater	
Parameters	Units	MDL
Total Nitrogen	mg/L	0.2

E4.12 Item 30, Total Organic Carbon in wastewater;

- (a) consist of approximately one (1) sample annually;
- (b) Have tests performed to include the following parameter;

Item 30	Total Organic Carbon, Wastewater	
Parameters	Units	MDL
Total Organic Carbon	mg/L	0.6

E4.13 Item 31, Dissolved Organic Carbon in wastewater;

- (a) consist of approximately one (1) sample annually;
- (b) Have tests performed to include the following parameter;

Item 31	Dissolved Organic Carbon, Wastewater	
Parameters	Units	MDL
Dissolved Organic Carbon	mg/L	0.6

E4.14 Item 32, Ammonia by Colour in wastewater;

- (a) consist of approximately one (1) sample annually;
- (b) Have tests performed to include the following parameter;

<b>Item 32 Ammonia, Wastewater</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Ammonia	mg/L N	0.01

E4.15 Item 33, Total Metals in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include at least the following parameters:

<b>Item 33 Total Metals</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Aluminum	mg/L	0.005
Antimony	mg/L	0.003
Arsenic	mg/L	0.0002
Cadmium	mg/L	0.0001
Chromium	mg/L	0.0007
Cobalt	mg/L	0.001
Copper	mg/L	0.0003
Iron	Mg/L	0.01
Lead	mg/L	0.0004
Manganese	mg/L	0.01
Molybdenum	mg/L	0.0002
Nickel	mg/L	0.002
Phosphorous	mg/L	0.1
Selenium	mg/L	0.001
Silver	mg/L	0.001
Tin	mg/L	0.001
Titanium	mg/L	0.001
Zinc	mg/L	0.001

E4.16 Item 34, Total Nitrogen by Combustion in wastewater sludge;

- (a) consist of approximately two hundred (200) sample annually;
- (b) Sample will be provided in the dried state.
- (c) Have tests performed to include the following parameter;

<b>Item 34 Total Nitrogen, Wastewater Sludge</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Nitrogen	mg/kg	200

E4.17 Item 35, Available Nutrients in dry Dewatered Sludge;

- (a) consist of approximately twenty six (26) dewatered sludge samples submitted biweekly;
- (b) Have tests performed to include the following parameter;

<b>Item 35 Available Nutrients, Dewatered Sludge</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Nitrogen	mg/kg	6000
Total Kjeldahl Nitrogen	mg/kg	200

Nitrate+ Nitrite -N	mg/kg	5.0
Nitrate -N	mg/kg	5.0
Nitrite -N	mg/kg	2.0
Available Phosphate -P	mg/kg	40
Available Potassium	mg/kg	40
Available Sulfate - S	mg/kg	20

- E4.18 Item 36, Available Ammonia in wet Dewatered Sludge;
- (a) consist of approximately twenty six (26) dewatered sludge samples submitted biweekly;
  - (b) Have tests performed to include the following parameter;

<b>Item 36</b>	<b>Available Ammonia, Dewatered Sludge</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Available Ammonia -N	mg/kg	320

- E4.19 Item 37, Loss on Ignition at 375 °C wet Dewatered Sludge;
- (a) consist of approximately twenty six (26) dewatered sludge samples submitted biweekly;
  - (b) Have tests performed to include the following parameter;

<b>Item 37</b>	<b>Loss of Ignition, Dewatered Sludge</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Loss on Ignition at 375 °C	%	1.0

- E4.20 Item 38, Surcharge fee for rush analysis shall:
- (a) consist of the unit cost for rush analysis of any sample tested under section E4.

**E5. SECTION C (SCHEDULE A, WASTEWATER)**

- E5.1 Item 39, Total Metals in wastewater shall:
- (a) consist of approximately one (1) sample annually;
  - (b) have tests performed to include the following parameters:

<b>Item 39</b>	<b>Total Metals, Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Arsenic	µg/L	0.20
Cadmium	µg/L	0.01
Chromium	µg/L	1.00
Copper	µg/L	0.20
Lead	µg/L	0.09
Mercury	µg/L	0.0050
Molybdenum	µg/L	0.20
Nickel	µg/L	2.00
Selenium	µg/L	1.00
Zinc	µg/L	5.00

- E5.2 Item 40, Miscellaneous Compounds in wastewater shall:
- (a) consist of approximately one (1) sample annually

(b) have tests performed to include the following parameters:

<b>Item 40</b>		
<b>Miscellaneous Compounds, Wastewater</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Chromium, Hexavalent	µg/L	1.0
Phenols (4AAP)	µg/L	1.0
Alkyl-Lead (Tetraethyl lead & Tetramethyl lead)	µg/L	5.0
Total Oil and Grease	mg/L	5.0
Toxaphene	µg/L	0.25
Tributyl Tin	µg/L	0.06

E5.3 Item 41, Volatile Organic Compounds in wastewater shall:

- (a) consist of approximately one (1) sample annually
- (b) have tests performed to include the following parameters:

<b>Item 41</b>		
<b>Volatile Organic Compounds, Wastewater</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
1,1,1,2-Tetrachloroethane	ug/L	0.50
1,1,1-Trichloroethane	ug/L	0.50
1,1,2,2-Tetrachloroethane	ug/L	0.50
1,1,2-Trichloroethane	ug/L	0.50
1,1-Dichloroethane	ug/L	0.50
1,1-Dichloroethylene	ug/L	0.50
1,2-Dibromoethane	ug/L	0.50
1,2-Dichlorobenzene	ug/L	0.50
1,2-Dichloroethane	ug/L	0.50
1,2-Dichloropropane	ug/L	0.50
1,3-Dichlorobenzene	ug/L	0.50
1,4-Dichlorobenzene	ug/L	0.50
2-Hexanone	ug/L	20
Acetone	ug/L	20
Benzene	ug/L	0.50
Bromodichloromethane	ug/L	0.50
Bromoform	ug/L	0.50
Bromomethane	ug/L	1.0
Carbon Disulfide	ug/L	0.50
Carbon tetrachloride	ug/L	0.50
Chlorobenzene	ug/L	0.50
Chloroethane	ug/L	1.0
Chloroform	ug/L	0.50
Chloromethane	ug/L	1.0
cis-1,2-Dichloroethylene	ug/L	0.50
cis-1,3-Dichloropropene	ug/L	0.50
Dibromochloromethane	ug/L	0.50
Dichlorodifluoromethane	ug/L	1.0
Dichloromethane	ug/L	0.50
Ethyl Benzene	ug/L	0.50
m+p-Xylenes	ug/L	1.0
Methyl Ethyl Ketone	ug/L	20
Methyl Isobutyl Ketone	ug/L	20

MTBE	ug/L	0.50
o-Xylene	ug/L	0.50
Styrene	ug/L	0.50
Tetrachloroethylene	ug/L	0.50
Toluene	ug/L	0.50
trans-1,2-Dichloroethylene	ug/L	0.50
trans-1,3-Dichloropropene	ug/L	0.50
Trichloroethylene	ug/L	0.50
Trichlorofluoromethane	ug/L	1.0
Trihalomethanes (total)	ug/L	2.0
Vinyl chloride	ug/L	0.50
Xylenes (Total)	ug/L	1.5

E5.4 Item 42, Target Compounds (by GC/MS), in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameters:

Item 42	Target Compounds (by GC/MS), Wastewater	
Parameters	Units	MDL
Octachlorostyrene	ug/L	0.50
4,4'-Methylenebis(2-chloroaniline)	ug/L	0.50
Total Dinitropyrene	mg/L	0.02

E5.5 Item 43, Phenoxyacid Herbicides (by GC/MS), in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameters:

Item 43	Total Phenoxyacid Herbicides (by GC/MS), Wastewater	
Parameters	Units	MDL
2,4,5-TP	ug/L	0.5
MCPA	ug/L	0.5
Mecoprop	ug/L	0.5
2,4,5-T	ug/L	0.5
2,4-D	ug/L	0.5
Bromoxynil	ug/L	0.5
Dicamba	ug/L	0.5
Dinoseb	ug/L	0.5
Picloram	ug/L	0.5

E5.6 Item 44, Organochlorine Pesticides in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameters:

Item 44	Organochlorine Pesticides, Wastewater	
Parameters	Units	MDL
Aldrin	ug/L	1
a-chlordane	ug/L	10
g-chlordane	ug/L	10
alpha-BHC	ug/L	1

beta-BHC	ug/L	1
delta-BHC	ug/L	1
o,p-DDD	ug/L	10
pp-DDD	ug/L	10
o,p-DDE	ug/L	10
pp-DDE	ug/L	10
op-DDT	ug/L	10
pp-DDT	ug/L	10
Dieldrin	ug/L	10
alpha-Endosulfan	ug/L	25
beta-Endosulfan	ug/L	10
Endosulfan Sulfate	ug/L	10
Endrin	ug/L	10
Endrin Aldehyde	ug/L	10
Heptachlor	ug/L	1
Heptachlor Epoxide	ug/L	10
Lindane	ug/L	1
Methoxychlor	ug/L	10
Mirex	ug/L	10
Oxychlorane	ug/L	10

E5.7 Item 45, Polychlorinated Biphenyls (PCB) in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameters:

Item 45	Polychlorinated Biphenyls (PCB), Wastewater	
Parameters	Units	MDL
Aroclor 1016	ug/L	0.05
Aroclor 1221	ug/L	0.05
Aroclor 1232	ug/L	0.05
Aroclor 1242	ug/L	0.05
Aroclor 1248	ug/L	0.05
Aroclor 1254	ug/L	0.05
Aroclor 1260	ug/L	0.05
Aroclor 1262	ug/L	0.05
Aroclor 1268	ug/L	0.05
Total PCBs	ug/L	0.10

E5.8 Item 46, PCDD (Dioxins) and PCDF (Furans) in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameters:

Item 46	PCDD (Dioxins) and PCDF (Furans), Wastewater	
Parameters	Units	MDL
2378 TeCDD	pg/L	0.6
12378 PeCDD	pg/L	0.6
123478 HxCDD	pg/L	0.4
123678 HxCDD	pg/L	0.65
123789 HxCDD	pg/L	0.75

1234678 HpCDD	pg/L	0.5
OCDD	pg/L	1.0
Total TCDD	pg/L	*
Total PeCDD	pg/L	*
Total HxCDD	pg/L	*
Total HpCDD	pg/L	*
Total PCDDs	pg/L	*
2378 TeCDF	pg/L	*
12378 PeCDF	pg/L	0.45
23478 PeCDF	pg/L	0.35
123478 HxCDF	pg/L	0.4
123678 HxCDF	pg/L	0.5
123789 HxCDF	pg/L	0.5
234678 HxCDF	pg/L	0.5
1234678 HpCDF	pg/L	0.55
1234789 HpCDF	pg/L	0.3
OCDF	pg/L	0.75
Total TCDF	pg/L	*
Total PeCDF	pg/L	*
Total HxCDF	pg/L	*
Total HpCDF	pg/L	*
Total PCDFs	pg/L	*
Total TEQ (ND=0) (WHO Calc)	pg/L	-
Total TEQ (ND=0.5DL) (WHO Calc)	pg/L	-
Total TEQ (ND=DL) (WHO Calc)	pg/L	-

\*lowest detection limit possible based on compounds analyzed

E5.9 Item 47, EPA 8270 Extractables in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameters:

Item 47	EPA 8270 Extractables, Wastewater	
Parameters	Units	MDL
1-Chloronaphthalene	ug/L	0.4
1-Methylnaphthalene	ug/L	0.4
1,2-Dichlorobenzene	ug/L	0.4
1,2,3-Trichlorobenzene	ug/L	0.4
1,2,4-Trichlorobenzene	ug/L	0.4
1,3-Dichlorobenzene	ug/L	0.4
1,4-Dichlorobenzene	ug/L	0.4
2-Chloronaphthalene	ug/L	0.4
2-Chlorophenol	ug/L	0.3
2-Methylnaphthalene	ug/L	0.4
2-Methylphenol	ug/L	0.5
2-Nitrophenol	ug/L	0.5
2,3,4-Trichlorophenol	ug/L	0.5
2,3,4,5-Tetrachlorophenol	ug/L	0.5
2,3,4,6-Tetrachlorophenol	ug/L	0.5
2,3,5-Trichlorophenol	ug/L	0.5
2,3,5,6-Tetrachlorophenol	ug/L	0.5



2,4-Dichlorophenol	ug/L	0.3
2,4-Dimethylphenol	ug/L	0.5
2,4-Dinitrophenol	ug/L	1
2,4-Dinitrotoluene	ug/L	0.4
2,4,5-Trichlorophenol	ug/L	0.5
2,4,6-Trichlorophenol	ug/L	0.5
2,6-Dichlorophenol	ug/L	0.5
2,6-Dinitrotoluene	ug/L	0.4
3,3'-Dichlorobenzidine	ug/L	0.4
3&4-Methylphenol	ug/L	0.5
4-Bromophenyl phenyl ether	ug/L	0.4
4-Chloro-3-methylphenol	ug/L	0.5
4-Chloroaniline	ug/L	0.4
4-Chlorophenyl phenyl ether	ug/L	0.4
4-Nitrophenol	ug/L	0.5
4,6-Dinitro-2-methylphenol	ug/L	2
5-Nitroacenaphthene	ug/L	0.4
Acenaphthene	ug/L	0.2
Acenaphthylene	ug/L	0.2
Anthracene	ug/L	0.2
Benzo(a)anthracene	ug/L	0.2
Benzo(a)pyrene	ug/L	0.01
Benzo(b)fluoranthene	ug/L	0.2
Benzo(ghi)perylene	ug/L	0.2
Benzo(k)fluoranthene	ug/L	0.2
Biphenyl	ug/L	0.4
Bis(2-chloroethoxy)methane	ug/L	0.4
Bis(2-chloroethyl)ether	ug/L	0.4
Bis(2-chloroisopropyl)ether	ug/L	0.4
Bis(2-ethylhexyl)phthalate	ug/L	2
Butylbenzyl phthalate	ug/L	0.4
Camphene	ug/L	0.4
Chrysene	ug/L	0.2
Cresols (total)	ug/L	1
Di-n-butylphthalate	ug/L	2
Di-n-octylphthalate	ug/L	0.4
Dibenzo(a,h)anthracene	ug/L	0.2
Diethylphthalate	ug/L	0.2
Dimethylphthalate	ug/L	0.2
Diphenyl ether	ug/L	0.4
Diphenylamine	ug/L	0.4
Fluoranthene	ug/L	0.2
Fluorene	ug/L	0.2
Hexachlorobenzene	ug/L	0.04
Hexachlorobutadiene	ug/L	0.2
Hexachlorocyclopentadiene	ug/L	0.4
Hexachloroethane	ug/L	0.4
Indeno(1,2,3-cd)pyrene	ug/L	0.2
Indole	ug/L	0.4
Isophorone	ug/L	0.4
N-Nitroso-di-n-propylamine	ug/L	0.4

Naphthalene	ug/L	0.2
Nitrobenzene	ug/L	0.4
Pentachlorophenol	ug/L	0.5
Perylene	ug/L	0.2
Phenanthrene	ug/L	0.2
Phenol	ug/L	0.5
Pyrene	ug/L	0.2
2-Fluorobiphenyl	%	
2,4,6-Tribromophenol	%	
Nitrobenzene d5	%	
p-Terphenyl d14	%	
Phenol d5	%	

E5.10 Item 48, Nonylphenols and Nonylphenol Ethoxylates in wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameters:

Item 48	Nonylphenols and Nonylphenol Ethoxylates, Wastewater	
Parameters	Units	MDL
Nonylphenols	µg/L	100
Nonylphenol Monoethoxylates	µg/L	500
Nonylphenol Diethoxylates	µg/L	1200
Nonylphenol Triethoxylates	µg/L	2000
t-Octylphenol	µg/L	2
t-Octylphenol Monoethoxylate	µg/L	10
t-Octylphenol Diethoxylate	µg/L	50
t-Octylphenol Triethoxylate	µg/L	200

- (c) Acceptable to not include the following parameter;

Item 48	Nonylphenols and Nonylphenol Ethoxylates, Wastewater	
Parameters	Units	MDL
Nonylphenol Triethoxylates	µg/L	2000
t-Octylphenol Triethoxylate	µg/L	200

E5.11 Item 49, Schedule A Testing Complete (complete set of test to include items 39 to 48) shall:

- (a) consist of approximately twenty four (24) samples annually
- (b) have tests performed to include all parameters listed under items 39 to 48.

E5.12 Item 50, Trout Bioassay (Pass/Fail) in wastewater shall:

- (a) consist of a total of three (3) twenty (20) litre wastewater effluent samples submitted quarterly for a total of twelve (12) twenty (20) litre samples submitted annually, along with item 49;
- (b) have tests performed according to “Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout (EPS 1/RM/13 Second Edition)” of the Environmental Protection Series from Environmental Canada for the following parameters:

Item 50	Trout Bioassay (Pass/Fail), Wastewater	
Parameters	Units	MDL

Trout Bioassay (Pass/Fail)	%	Pass/Fail
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E5.13 Item 51, Trout Bioassay (Pass/Fail) with pH Stabilization in wastewater shall:

- (a) consist of a total of three (3) twenty (20) litre wastewater effluent samples submitted monthly for a total of thirty six (36) twenty (20) litre samples submitted annually along with item 49 & 50 on selected months;
- (b) have tests performed according to “Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout (EPS 1/RM/13 Second Edition)” and “Procedure for pH Stabilization During the Testing of Acute Lethality of Wastewater Effluent to Rainow Trout” of the Environmental Protection Series from Environmental Canada for the following parameters:

Item 51	Trout Bioassay (Pass/Fail) with pH Stabilization, Wastewater	
Parameters	Units	MDL
Trout Bioassay (Pass/Fail) with pH Stabilization	%	Pass/Fail
Ammonia by Colour	mg/L	0.01

E5.14 Item 52, Nitrate in wastewater

- (a) Consist of approximately twelve (12) sample annually;
- (b) have tests performed to include the following parameter;

Item 52	Nitrates, Wastewater	
Parameters	Units	MDL
Nitrate	mg/L	0.001

E5.15 Item 53, Surcharge fee for rush analysis shall:

- (a) consist of the unit cost for rush analysis of any sample tested under items E5.

**E6. SECTION D (GIARDIA & CRYPTOSPORIDIUM, WATER/WASTEWATER)**

E6.1 Item 54, Giardia and Cryptosporidium in water shall:

- (a) consist of approximately forty (40) filter samples annually, collected from surface waters;
- (b) have tests performed to include the following parameter:

Item 54	Giardia & Cryptosporidium, Water	
Parameters	Units	MDL
Giardia cyst in water, Non-viable	cyst/100L	1.0
Giardia cyst in water, Viable	cyst/100L	1.0
Cryptosporidium oocyst in water, Non-viable	oocyst/100L	1.0
Cryptosporidium oocyst in water, Viable	oocyst/100L	1.0

E6.2 Item 55, Giardia & Cryptosporidium in wastewater shall:

- (a) consist of approximately four (4) wastewater samples annually;
- (b) have tests performed to include the following parameter:

Item 55	Giardia & Cryptosporidium, Wastewater	
Parameters	Units	MDL
Giardia cyst in wastewater, Non-viable	cyst/1L	1.0
Giardia cyst in wastewater, Viable	cyst/1L	1.0

Cryptosporidium oocyst in wastewater, Non-viable	oocyst/1L	1.0
Cryptosporidium oocyst in wastewater, Viable	oocyst/1L	1.0

E6.3 Item 56, Filta-Max Filter Modules shall:

- (a) consists of approximately forty (40) filters annually;
- (b) filters may packaged and sold in bulk quantities no greater than 10 filter units per pack and;
- (c) each filter must be individually wrapped/sealed.

E6.4 Item 57, Surcharge fee for rush analysis shall:

- (a) consist of the unit cost for rush analysis of any sample tested under items E6.

**E7. SECTION E (REGULATORY TESTING IN WATER)**

E7.1 Item 58, Manitoba Conservation Test 54 PWS (General Chemistry Test)

- (a) Consist of approximately eight (8) test annually
- (b) Meet Manitoba Conservations Requirement for testing and reporting as described in E2.26
- (c) Have test performed to include the following parameters

Item 58	Manitoba Conservation Test 54 PWS (General Chemistry)	
Parameters	Units	MDL
Alkalinity, Total (as CaCO3)	mg/L	1
Alkalinity, Bicarbonate (HCO3)	mg/L	0.5
Alkalinity, Carbonate (CO3)	mg/L	0.5
Alkalinity, Hydroxide (OH)	mg/L	0.5
Bromide (Br)	mg/L	0.01
Total Organic Carbon	mg/L	1
Dissolved Organic Carbon	mg/L	1
Chloride (Cl)	mg/L	0.2
Colour, True	CU	5
Conductivity	uS/cm	1
Total Hardness (as CaCO3)	mg/L	0.07
Saturation Index (4.4 °C) (Calculated)		<=-14
Saturation Index (60 °C) (Calculated)		<=-14
Fluoride (F)	mg/L	0.2
Aluminum (Al)-Total	mg/L	0.001
Antimony (Sb)-Total	mg/L	0.0002
Arsenic (As)-Total	mg/L	0.0002
Barium (Ba)-Total	mg/L	0.0002
Boron (B)-Total	mg/L	0.01
Cadmium (Cd)-Total	mg/L	0.00055
Calcium (Ca)-Total	mg/L	0.01
Cesium (Cs)-Total	mg/L	0.0001
Chromium (Cr)-Total	mg/L	0.0157
Copper (Cu)-Total	mg/L	0.0018
Iron (Fe)-Total	mg/L	0.01
Lead (Pb)-Total	mg/L	0.0003
Magnesium (Mg)-Total	mg/L	0.01

Manganese (Mn)-Total	mg/L	0.0002
Phosphorus (P)-Total	mg/L	0.03
Selenium (Se)-Total	mg/L	0.001
Sodium (Na)-Total	mg/L	0.01
Strontium (Sr)-Total	mg/L	0.0002
Uranium (U)-Total	mg/L	0.0001
Zinc (Zn)-Total	mg/L	0.002
Ammonia, Total (as N)	mg/L	0.01
Nitrite (as N)	mg/L	0.001
Nitrate (as N)	mg/L	0.01
pH	pH units	0.1
Sulfate (SO4)	mg/L	0.5
Total Dissolved Solids	mg/L	5
Turbidity	NTU	0.01
Transmittance, UV (254 nm)	% T	1

E7.2 Item 59, Bromate shall consist of:

- (a) consist of approximately four (4) tests annually;
- (b) have tests performed to include the following parameters:

<b>Item 59 BROMATE IN WATER</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Bromate	mg/L	0.005

E7.3 Item 60, Total Metals shall consist of:

- (a) Consist of approximately twenty four (24) test annually;
- (b) Meet Manitoba Conservations Requirement for testing and reporting as described in E2.26
- (c) Have tests performed to include the following parameters:

<b>Item 60 TOTAL METALS IN WATER</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Aluminum	mg/L	0.001
Antimony	mg/L	0.0002
Arsenic	mg/L	0.0002
Barium	mg/L	0.0002
Beryllium	mg/L	0.0002
Bismuth	mg/L	0.0002
Boron	mg/L	0.01
Cadmium	mg/L	0.00055
Calcium	mg/L	0.01
Cesium	mg/L	0.0001
Chromium	mg/L	0.0157
Cobalt	mg/L	0.0002
Copper	mg/L	0.0018

Iron	mg/L	0.01
Lead	mg/L	0.0003
Lithium	mg/L	0.0002
Magnesium	mg/L	0.01
Manganese	mg/L	0.0002
Molybdenum	mg/L	0.073
Nickel	mg/L	0.0104
Potassium	mg/L	0.02
Phosphorous	mg/L	0.03
Rubidium	mg/L	0.0002
Selenium	mg/L	0.001
Silicon	mg/L	0.1
Silver	mg/L	0.0001
Sodium	mg/L	0.01
Strontium	mg/L	0.0002
Tellurium	mg/L	0.0002
Thallium	mg/L	0.008
Thorium	mg/L	0.0001
Tin	mg/L	0.0002
Titanium	mg/L	0.0005
Tungsten	mg/L	0.0001
Uranium	mg/L	0.0001
Vanadium	mg/L	0.0002
Zinc	mg/L	0.002
Zirconium	mg/L	0.002

E7.4 Item 61, Surcharge fee for rush analysis shall:

- (a) consist of the unit cost for rush analysis of any sample(s) tested under items E7.

**E8. SECTION F (SCHEDULE B, INDUSTRIAL WASTE & SCHEDULE D, LAND DRAINAGE)**

E8.1 Item 62, Total Metals in industrial wastewater shall:

- (a) be tested as a whole;
- (b) consist of approximately one (1) sample annually;
- (c) have tests performed to include at least the following parameters:

Item 62	Total Metals, Industrial Wastewater	
Parameters	Units	MDL
Aluminum	mg/L	1.0
Antimony	mg/L	1.0
Arsenic	mg/L	0.5
Cadmium	mg/L	0.4
Chromium	mg/L	1.0
Cobalt	mg/L	1.0

Copper	mg/L	1.0
Lead	mg/L	0.5
Manganese	mg/L	1.0
Molybdenum	mg/L	1.0
Nickel	mg/L	1.0
Selenium	mg/L	0.5
Silver	mg/L	1.0
Tin	mg/L	1.0
Titanium	mg/L	1.0
Zinc	mg/L	1.0

E8.2 Item 63, Total Mercury in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 63</b>	<b>Total Mercury, Industrial Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Mercury	mg/L	0.005

E8.3 Item 64, Chromium, Hexavalent in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 64</b>	<b>Chromium Hexavalent, Industrial Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Chromium Hexavalent	mg/L	1.0

E8.4 Item 65, Total Cyanide in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 65</b>	<b>Total Cyanide, Industrial Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Cyanide	mg/L	1.0

E8.5 Item 66, Biochemical Oxygen Demand in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 66</b>	<b>Biochemical Oxygen Demand, Industrial Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Biochemical Oxygen Demand	mg/L	3.0

E8.6 Item 67, Total Suspended Solids in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 67	Total Suspended Solids, Industrial Wastewater	
Parameters	Units	MDL
Total Suspended Solids	mg/L	4.0

E8.7 Item 68, Fluoride in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 68	Fluoride, Industrial Wastewater	
Parameters	Units	MDL
Fluoride	mg/L	1.0

E8.8 Item 69, Total Nitrogen in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 69	Total Nitrogen, Industrial Wastewater	
Parameters	Units	MDL
Total Nitrogen	mg/L	1.0

E8.9 Item 70, Total Phosphorus in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 70	Total Phosphorus, Industrial Wastewater	
Parameters	Units	MDL
Total Phosphorus	mg/L	1.0

E8.10 Item 71, Total Sulphate in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 71	Total Sulphate, Industrial Wastewater	
Parameters	Units	MDL
Total Sulphate	mg/L	5.0

E8.11 Item 72, Total Sulphide in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 72	Total Sulphide, Industrial Wastewater	
Parameters	Units	MDL
Total Sulphide	mg/L	0.5

E8.12 Item 73, Organochlorine Pesticides in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:



Item 73	Organochlorine Pesticides, Industrial Wastewater	
Parameters	Units	MDL
Aldrin/Dieldrin	mg/L	0.0001
Chlordane (cis plus trans isomers)	mg/L	0.01
DDT	mg/L	0.00005
Hexachlorocyclo-hexane (Lindane)	mg/L	0.05
Mirex	mg/L	0.05
Hexachlorobenzene	mg/L	0.00005

E8.13 Item 74, Total Polychlorinated Biphenols (PCBs) in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 74	Total Polychlorinated Biphenols (PCBs), Industrial Wastewater	
Parameters	Units	MDL
Total Polychlorinated biphenols (PCBs)	mg/L	0.0005

E8.14 Item 75, Volatile Organic Compounds in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 75	Volatile Organic Compounds, Industrial Wastewater	
Parameters	Units	MDL
Benzene	mg/L	0.01
1,1,2,2 Tetrachloroethane	mg/L	0.7
1,2-dichlorobenzene	mg/L	0.01
1,4-dichlorobenzene	mg/L	0.01
Cis-1,2-dichloroethylene	mg/L	1.0
Ethyl benzene	mg/L	0.01
Methylene chloride	mg/L	1.0
Tetrachloro-ethylene	mg/L	0.5
Toluene	mg/L	0.01
Trichloroethylene	mg/L	0.1
Total Xylenes	mg/L	0.5

E8.15 Item 76, 3,3-Dichlorobenzidine in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 76	3,3-Dichlorobenzidine, Industrial Wastewater	
Parameters	Units	MDL
3,3-Dichlorobenzidine	mg/L	0.001

E8.16 Item 77, Pentachlorophenol (PCP) in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 77	Pentachlorophenol (PCP) in Industrial Wastewater	
Parameters	Units	MDL
Pentachlorophenol (PCP)	mg/L	0.005

E8.17 Item 78, Total Polycyclic Aromatic Hydrocarbons (PAHs) in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the total of the following parameters: acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene.
- (c) Report the parameters in E8.17(b) as the following;

Item 78	Total Polycyclic Aromatic Hydrocarbons (PAHs) in Industrial Wastewater	
Parameters	Units	MDL
Total Polycyclic Aromatic Hydrocarbons (PAHs)	mg/L	0.001

E8.18 Item 79, Nonylphenol and Nonylphenol Ethoxylates in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 79	Nonylphenol and Nonylphenol Ethoxylates in Industrial Wastewater	
Parameters	Units	MDL
Nonylphenol	mg/L	0.01
Nonylphenol Ethoxylates	mg/L	0.1

E8.19 Item 80, Total Phenolics (4AAP) in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 80	Total Phenolics (4AAP), Industrial Wastewater	
Parameters	Units	MDL
Total Phenolics (4AAP)	mg/L	0.5

E8.20 Item 81, Total Oil and Grease in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 81	Total Oil and Grease, Industrial Wastewater	
Parameters	Units	MDL
Animal or Vegetable	mg/L	5.0
Mineral or Synthetic	mg/L	5.0
Total Oil and Grease	mg/L	5.0

E8.21 Item 82, Hydrocarbons in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 82	Hydrocarbons, Industrial Wastewater	
Parameters	Units	MDL
Total Purgeable Hydrocarbons, C6-C10	mg/L	1.0
Total Extractable Hydrocarbons (TEH), C11-C30+	mg/L	1.0

Or

Item 82	Hydrocarbons, Industrial Wastewater	
Parameters	Units	MDL
BTEX	mg/L	1.0
F1-F4	mg/L	1.0

E8.22 Item 83, Schedule B Testing Complete shall:

- (a) consist of a complete set of tests to include items 62 to 82;
- (b) consist of approximately one hundred (100) sample annually.

E8.23 Item 84, Escherichia Coliform (E. Coli) in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) the range or "pre-defined endpoint" shall be around twenty four hundred and nineteen (2419), and reported as "greater than" >2,419;
- (c) have tests performed to include the following parameter;:

Item 84	ESCHERICIA COLIFORM IN WASTEWATER	
Parameters	Units	MDL
Escherichia Coliform by Quanti-Tray 97 to (pre-defined) endpoint	MPN/100 mL	<1

E8.24 Item 85, Ammonia in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 85	Ammonia by colour, Land Drainage Wastewater	
Parameters	Units	MDL
Ammonia, Total (as N)	mg/L	0.01
Ammonia, un-ionized	mg/L	0.01

E8.25 Item 86, Biochemical Oxygen Demand in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 86	Biochemical Oxygen Demand, Land Drainage Wastewater	
Parameters	Units	MDL
Biochemical Oxygen Demand	mg/L	3

E8.26 Item 87, Chromium, Hexavalent in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 87	Chromium, Hexavalent, Land Drainage Wastewater	
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Parameters	Units	MDL
Chromium, Hexavalent	mg/L	0.005

E8.27 Item 88, Cyanide, Weak Acid Dissociable in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 88	Cyanide, Weak Acid Dissociable, Land Drainage Wastewater	
Parameters	Units	MDL
Cyanide, Weak Acid Diss	mg/L	0.002

E8.28 Item 89, Extractables in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 89	Extractables, Land Drainage Wastewater	
Parameters	Units	MDL
1,2-Dichlorobenzene	mg/L	0.002
1,4-Dichlorobenzene	mg/L	0.003
3,3'-Dichlorobenzidine	mg/L	0.0004
Di-n-butylphthalate	mg/L	0.008
Bis(2-ethylhexyl)phthalate	mg/L	0.004
Hexachlorobenzene	mg/L	0.00002
Pentachlorophenol	mg/L	0.001

E8.29 Item 90, Total Mercury in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 90	Mercury Total, Land Drainage Wastewater	
Parameters	Units	MDL
Mercury (Hg)-Total	mg/L	0.0002

E8.30 Item 91, Nonylphenols and Ethoxylates in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 91	Nonylphenols and Ethoxylates, Land Drainage Wastewater	
Parameters	Units	MDL
Nonylphenol	mg/L	0.0005
Total Nonylphenol Ethoxylates	mg/L	0.005

E8.31 Item 92, Pesticides in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 92	Pesticides, OC, Low Level, Land Drainage Wastewater	
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Parameters	Units	MDL
Aldrin + Dieldrin	mg/L	0.00005
a-Chlordane (cis plus trans isomers)	mg/L	0.02
DDT	mg/L	0.00002
Hexachlorocyclohexane (Lindane)	mg/L	0.01
Mirex	mg/L	0.01

E8.32 Item 93, Phenols in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 93	Phenols (4AAP), Land Drainage Wastewater	
Parameters	Units	MDL
Phenols (4AAP)	mg/L	0.001

E8.33 Item 94, Phosphorus in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 94	Phosphorus, Total, Land Drainage Wastewater	
Parameters	Units	MDL
Phosphorus (P)-Total	mg/L	0.01

E8.34 Item 95; Total Polycyclic Aromatic Hydrocarbons (PAHs) in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the total of the following parameters: acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene.
- (c) Report the parameters listed in E8.36(b) as;

Item 95	Total Polycyclic Aromatic Hydrocarbons (PAHs) in Land Drainage Wastewater	
Parameters	Units	MDL
Total Polycyclic Aromatic Hydrocarbons (PAHs)	mg/L	0.001

E8.35 Item 96, Total Metals in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 96	Total Metals, Land Drainage Wastewater	
Parameters	Units	MDL
Arsenic (As)-Total	mg/L	0.01
Cadmium (Cd)-Total	mg/L	0.004
Chromium (Cr)-Total	mg/L	0.01
Copper (Cu)-Total	mg/L	0.02
Lead (Pb)-Total	mg/L	0.04
Manganese (Mn)-Total	mg/L	0.1
Nickel (Ni)-Total	mg/L	0.04

Selenium (Se)-Total	mg/L	0.01
Silver (Ag)-Total	mg/L	0.02
Zinc (Zn)-Total	mg/L	0.02

E8.36 Item 97, Total Polychlorinated Biphenyls in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 97</b>	<b>Total Polychlorinated Biphenyls (PCBs), Land Drainage Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Polychlorinated Biphenyls	mg/L	0.0002

E8.37 Item 98, Total Suspended Solids in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 98</b>	<b>Total Suspended Solids, Land Drainage Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Suspended Solids	mg/L	4

E8.38 Item 99, VOC in Land Drainage shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 99</b>	<b>VOC, Land Drainage Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Benzene	mg/L	0.001
cis-1,2-Dichloroethene	mg/L	0.002
trans-1,3-Dichloropropene	mg/L	0.002
Ethylbenzene	mg/L	0.001
Methylene Chloride	mg/L	0.002
1,1,2,2-Tetrachloroethane	mg/L	0.005
Tetrachloroethene	mg/L	0.002
Toluene	mg/L	0.001
Trichloroethene	mg/L	0.004
Xylenes (total)	mg/L	0.002

E8.39 Item 100, Total Oil and Grease in Land Drainage Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

<b>Item 100</b>	<b>Total Oil and Grease, Land Drainage Wastewater</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Animal or Vegetable	mg/L	5.0
Mineral or Synthetic	mg/L	5.0
Total Oil and Grease	mg/L	5.0

E8.40 Item 101, Hydrocarbons in Land Drainage Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 101	Hydrocarbons, Land Drainage Wastewater	
Parameters	Units	MDL
Total Purgeable Hydrocarbons, C6-C10	mg/L	1.0
Total Extractable Hydrocarbons (TEH), C11-C30+	mg/L	1.0

Or

Item 101	Hydrocarbons, Land Drainage Wastewater	
Parameters	Units	MDL
BTEX	mg/L	1.0
F1-F4	mg/L	1.0

E8.41 Item 102, Schedule D Testing Complete shall:

- (a) consist of a complete set of tests to include items 84 to 101;
- (b) consist of approximately ten (10) sample annually.

E8.42 Item 103, Carbon Oxygen Demand in Industrial Wastewater shall:

- (a) consist of approximately one (1) sample annually;
- (b) have tests performed to include the following parameter:

Item 103	Carbon Oxygen Demand (COD), Industrial Wastewater	
Parameters	Units	MDL
COD	mg/L	20.0

E8.43 Item 104, Surcharge fee for rush analysis shall:

- (a) consist of the unit cost for rush analysis of any sample tested under items E8.

**E9. SECTION G (WATER AND SOILS, FROM LANDFILLS)**

**LANDFILL WATER**

E9.1 Item 105, Total Cyanide in landfill water shall:

- (a) consist of approximately ninety six (96) samples annually;
- (b) consist of samples from surface water, ground water and leachate locations
- (c) part of Section 1, Section 2, Section 3
- (d) have tests performed to include the following parameters:

Item 105	Total Cyanide, Landfill Water	
Parameters	Units	MDL
Total Cyanide	mg/L	0.005

E9.2 Item 106, Microbiological parameters in landfill water shall:

- (a) consist of approximately two hundred and five (205) samples annually;
- (b) consist of samples from ground water, surface water, and leachate locations
- (c) part of section 1, section 2, section 3, section 4, section 5, and section 6
- (d) have tests performed to include the following parameters:

Item 106	Microbiological Parameters, Landfill Water	
Parameters	Units	MDL
E. Coli	MPN/100 mL	0
Fecal Coliform	MPN/100 mL	0
Total coliforms	MPN/100 mL	0

E9.3 Item 107, Anions in landfill water shall:

- (a) consist of approximately two hundred and five (205) samples annually;
- (b) consist of samples from Ground water, surface water, and leachate locations
- (c) part of section 1, section 2, section 3, section 4, section 5, and section 6
- (d) have tests performed to include the following parameters:

Item 107	Anions, Landfill Water	
Parameters	Units	MDL
Chloride	mg/L	2
Sulfate	mg/L	5

E9.4 Item 108, Anions and Nutrients in landfill water shall:

- (a) consist of approximately one hundred and twenty (120) samples annually;
- (b) consist of samples from Ground water, surface water, and leachate locations
- (c) part of section 1, section 2, and section 3
- (d) have tests performed to include the following parameters;

Item 108	Anions, Landfill Water	
Parameters	Units	MDL
Alkalinity, Total (as CaCO <sub>3</sub> )	mg/L	20
Ammonia, Total (as N)	mg/L	0.01
Bicarbonate (HCO <sub>3</sub> )	mg/L	24
Carbonate (CO <sub>3</sub> )	mg/L	12
Hydroxide (OH)	mg/L	6.8

E9.5 Item 109, Organic/Inorganic Carbon in landfill water shall:

- (a) consist of approximately one hundred and twenty (120) samples annually;
- (b) consist of samples from Ground water, surface water, and leachate locations
- (c) part of section 1, section 2, and section 3
- (d) have tests performed to include the following parameters:

Item 109	Organic/Inorganic Carbon, Landfill Water	
Parameters	Units	MDL
Dissolved Inorganic Carbon	mg/L	1
Dissolved Organic Carbon	mg/L	1
Total Dissolved Carbon	mg/L	1

E9.6 Item 110, Dissolved Metals in landfill water shall:

- (a) consist of approximately one hundred and twenty (120) samples annually;
- (b) consist of samples from Ground water, surface water, and leachate locations
- (c) part of section 1, section 2, and section 3



(d) have tests performed to include the following parameters:

<b>Item 110</b>	<b>Dissolved Metals, Landfill Water</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Aluminum Dissolved	mg/L	0.002
Antimony Dissolved	mg/L	0.002
Arsenic Dissolved	mg/L	0.002
Barium Dissolved	mg/L	0.002
Beryllium Dissolved	mg/L	0.002
Bismuth Dissolved	mg/L	0.002
Boron Dissolved	mg/L	0.002
Cadmium Dissolved	mg/L	0.00001
Calcium Dissolved	mg/L	0.05
Cesium Dissolved	mg/L	0.0001
Chromium Dissolved	mg/L	0.002
Cobalt Dissolved	mg/L	0.0002
Copper Dissolved	mg/L	0.0002
Iron Dissolved	mg/L	0.1
Lead Dissolved	mg/L	0.00009
Lithium Dissolved	mg/L	0.002
Magnesium Dissolved	mg/L	0.01
Manganese Dissolved	mg/L	0.0001
Molybdenum Dissolved	mg/L	0.0001
Nickel Dissolved	mg/L	0.001
Phosphorus Dissolved	mg/L	0.03
Potassium Dissolved	mg/L	0.02
Rubidium Dissolved	mg/L	0.0002
Selenium Dissolved	mg/L	0.001
Silicon Dissolved	mg/L	0.05
Silver Dissolved	mg/L	0.0001
Sodium Dissolved	mg/L	0.02
Strontium Dissolved	mg/L	0.0001
Tellurium Dissolved	mg/L	0.0002
Thorium Dissolved	mg/L	0.0001
Tin Dissolved	mg/L	0.0002
Titanium Dissolved	mg/L	0.0002
Tungsten Dissolved	mg/L	0.0002
Uranium Dissolved	mg/L	0.0001
Vanadium Dissolved	mg/L	0.0002
Zinc Dissolved	mg/L	0.002
Zirconium Dissolved	mg/L	0.0004

E9.7 Item 111, Dissolved Mercury in landfill water shall:

- (a) consist of approximately fifty eight (58) samples annually;
- (b) consist of samples from Ground water and leachate locations
- (c) part of section 1, and section 3
- (d) have tests performed to include the following parameters:

<b>Item 111</b>	<b>Dissolved Mercury, Landfill Water</b>	
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>

Dissolved Mercury	mg/L	0.00005
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E9.8 Item 112, Speciated Metals in landfill water shall:

- (a) consist of approximately two hundred and five (205) samples annually;
- (b) consist of samples from Ground water, surface water, and leachate locations
- (c) part of section 1, section 2, section 3, section 4, section5, section 6
- (d) have tests performed to include the following parameters:

Item 112	Speciated Metal, Landfill Water	
Parameters	Units	MDL
Hexavalent Chromium	mg/L	0.01

E9.9 Item 113, Specific OC Pesticide in landfill water shall:

- (a) consist of approximately thirty nine (39) samples annually;
- (b) consist of samples from a ground water locations
- (c) part of section 2
- (d) have tests performed to include the following parameters:

Item 113	Specific OC Pesticide, Landfill Water	
Parameters	Units	MDL
Diazinon	µg/L	2

E9.10 Item 114, Phenoxy Acid Herbicides in landfill water shall:

- (a) consist of approximately fifty one (51) samples annually;
- (b) consist of samples from Ground water and leachate locations
- (c) part of section 2, and section 3
- (d) have tests performed to include the following parameters:

Item 114	Phenoxy Acid Herbicides, Landfill Water	
Parameters	Units	MDL
Dicamba	µg/L	1
Picloram	µg/L	5
MCPB	µg/L	2
2, 4 D (BEE)	µg/L	2
MCPP	µg/L	2
MCPA	µg/L	2
2,4 D	µg/L	1
2, 4, 5 TP	µg/L	1
2, 4, 5 T	µg/L	1
2, 4 DB	µg/L	1

E9.11 Item 115, Total Mercury in landfill water shall:

- (a) consist of approximately seventy four (74) samples annually;
- (b) consist of samples from ground water, and leachate locations
- (c) part of section 2, and section 3
- (d) have tests performed to include the following parameters:

<b>Item 115 Total Mercury, Landfill Water</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Mercury	mg/L	0.00005

E9.12 Item 116, Phenol in landfill water shall:

- (a) consist of approximately one hundred and thirty six (136) samples annually;
- (b) consist of samples from ground water, surface water and leachate locations
- (c) part of section 2, section 3, section 4, section 5, and section 6
- (d) have tests performed to include the following parameters:

<b>Item 116 Phenol (4AAP), Landfill Water</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Phenol	mg/L	0.001

E9.13 Item 117, Petroleum Hydrocarbons in landfill water shall:

- (a) consist of approximately one hundred and twenty one (121) samples annually;
- (b) consist of samples from ground water, surface water and leachate locations
- (c) part of section 2, section 3, section 4, section 5, and section 6
- (d) have tests performed to include the following parameters:

<b>Item 117 Hydrocarbon Scan, Landfill Water</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
BTEX	µg/L	100
F1 (C6-C10)	µg/L	100
F2 (C10-C16)	µg/L	100
F3 (C16-C34)	µg/L	100
F4 (C34-C50)	µg/L	100
F4G (Grav. Heavy Hydrocarbons)	µg/L	800

E9.14 Item 118, Volatile Organic Compounds in landfill water shall:

- (a) consist of approximately one hundred and thirty six (136) samples annually;
- (b) consist of samples from ground water, surface water and leachate locations
- (c) part of section 2, section 3, section 4, section 5, and section 6
- (d) have tests performed to include the following parameters:

<b>Item 118 Volatile Organic Compounds, Landfill Water</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
1,1,1,2-Tetrachloroethane	µg/L	0.5
1,1,1-Trichloroethane	µg/L	0.5
1,1,2,2-Tetrachloroethane	µg/L	0.5
1,1,2-Trichloroethane	µg/L	0.5
1,1-Dichloroethane	µg/L	0.5
1,1-Dichloroethylene	µg/L	0.5
1,2-Dichlorobenzene	µg/L	0.5
1,2-Dichloroethane	µg/L	0.5
1,2-Dichloropropane	µg/L	0.5
1,3-Dichlorobenzene	µg/L	0.5
1,4-Dichlorobenzene	µg/L	0.5

2-Hexanone	µg/L	20
Acetone	µg/L	20
Benzene	µg/L	0.5
Bromodichloromethane	µg/L	0.5
Bromoform	µg/L	0.5
Bromomethane	µg/L	1
Carbon Disulfide	µg/L	0.5
Carbon tetrachloride	µg/L	0.5
Chlorobenzene	µg/L	0.5
Dibromochloromethane	µg/L	0.5
Chloroethane	µg/L	1
Chloroform	µg/L	0.5
Chloromethane	µg/L	1
cis-1,2-Dichloroethylene	µg/L	0.5
cis-1,3-Dichloropropene	µg/L	0.5
Dichlorodifluoromethane	µg/L	1
Ethyl Benzene	µg/L	0.5
1,2-Dibromoethane	µg/L	0.5
m+p-Xylenes	µg/L	1
Methyl Ethyl Ketone	µg/L	20
Methyl Isobutyl Ketone	µg/L	20
MTBE	µg/L	0.5
Dichloromethane	µg/L	0.5
o-Xylene	µg/L	0.5
Styrene	µg/L	0.5
Tetrachloroethylene	µg/L	0.5
Trihalomethanes (total)	µg/L	2
Toluene	µg/L	0.5
trans-1,2-Dichloroethylene	µg/L	0.5
trans-1,3-Dichloropropene	µg/L	0.5
Trichloroethylene	µg/L	0.5
Trichlorofluoromethane	µg/L	1
Vinyl chloride	µg/L	0.5
Xylenes (Total)	µg/L	1.5

E9.15 Item 119, Polycyclic Aromatic Hydrocarbons in landfill water shall:

- (a) consist of approximately fifty one (51) samples annually;
- (b) consist of samples from ground water, and leachate locations
- (c) part of section 2, and section 3
- (d) have tests performed to include the following parameters:

Item 119	Polycyclic Aromatic Hydrocarbons, Landfill Water	
Parameters	Units	MDL
1-Methyl Naphthalene	mg/L	0.00002
2-Methyl Naphthalene	mg/L	0.00002
Acenaphthene	mg/L	0.00002
Acenaphthylene	mg/L	0.00002
Acridine	mg/L	0.00002
Anthracene	mg/L	0.00001
B(a)P Total Potency Equivalent	mg/L	0.00003

Benzo(a)anthracene	mg/L	0.00001
Benzo(a)pyrene	mg/L	0.000005
Benzo(b&j)fluoranthene	mg/L	0.00001
Benzo(g,h,i)perylene	mg/L	0.00002
Benzo(k)fluoranthene	mg/L	0.00001
Chrysene	mg/L	0.00002
Dibenzo(a,h)anthracene	mg/L	0.000005
Fluoranthene	mg/L	0.00002
Fluorene	mg/L	0.00002
Indeno(1,2,3-cd)pyrene	mg/L	0.00001
Naphthalene	mg/L	0.00005
Phenanthrene	mg/L	0.00005
Pyrene	mg/L	0.00001
Quinoline	mg/L	0.00002

E9.16 Item 120, Total Metals in landfill water shall:

- (a) consist of approximately twelve (12) samples annually;
- (b) consist of samples from ground water, and leachate locations
- (c) part of section 3
- (d) have tests performed to include the following parameters:

Item 120	Total Metals, Landfill Water	
Parameters	Units	MDL
Aluminum	mg/L	0.005
Antimony	mg/L	0.0005
Arsenic	mg/L	0.001
Barium	mg/L	0.005
Beryllium	mg/L	0.0005
Bismuth	mg/L	0.001
Boron	mg/L	0.01
Cadmium	mg/L	0.0001
Calcium	mg/L	0.2
Chromium	mg/L	0.005
Cobalt	mg/L	0.0005
Copper	mg/L	0.001
Iron	mg/L	0.1
Lead	mg/L	0.0005
Lithium	mg/L	0.005
Magnesium	mg/L	0.05
Manganese	mg/L	0.002
Molybdenum	mg/L	0.001
Nickel	mg/L	0.001
Phosphorus	mg/L	0.1
Potassium	mg/L	0.2
Rubidium	mg/L	0.0002
Selenium	mg/L	0.2
Silicon	mg/L	0.05
Silver	mg/L	0.0001
Sodium	mg/L	0.1
Strontium	mg/L	0.001

Tellurium	mg/L	0.001
Thorium	mg/L	0.001
Tin	mg/L	0.001
Titanium	mg/L	0.005
Tungsten	mg/L	0.001
Uranium	mg/L	0.0001
Vanadium	mg/L	0.001
Zinc	mg/L	0.005
Zirconium	mg/L	0.001

E9.17 Item 121, Oil and Grease in landfill water shall:

- (a) consist of approximately twelve (12) samples annually;
- (b) consist of samples from a leachate locations
- (c) part of section 3
- (d) have tests performed to include the following parameters:

Item 121	Oil and Grease, Landfill Water	
Parameters	Units	MDL
Oil and Grease	mg/L	5

E9.18 Item 122, Specific Polycyclic Aromatic Hydrocarbons in landfill water shall:

- (a) consist of approximately twelve (12) samples annually;
- (b) consist of samples from a leachate locations
- (c) part of section 3
- (d) have tests performed to include the following parameters:

Item 122	Polycyclic Aromatic Hydrocarbons, Landfill Water	
Parameters	Units	MDL
3,3'- Dichlorobenzidine	mg/L	0.0008
4,4' – Methylenebis (2 – chloroaniline)	mg/L	0.0005
Dinitropyrene	mg/L	0.002
Perylene	mg/L	0.0008

E9.19 Item 123, OC/OP Pesticides and PCB in landfill water shall:

- (a) consist of approximately twelve (12) samples annually;
- (b) consist of samples from a leachate locations
- (c) part of section 3
- (d) have tests performed to include the following parameters:

Item 123	OC/OP Pesticides (Selected) & PCB, Landfill Water	
Parameters	Units	MDL
Hexachloroethane	µg/L	0.01
Hexachlorobutadiene	µg/L	0.009
Hexachlorocyclopentadiene	µg/L	0.02
Aldrin + Dieldrin	µg/L	0.005
Aldrin	µg/L	0.005
A – BHC	µg/L	0.005
B - BHC	µg/L	0.005

G – BHC	µg/L	0.005
A – Chlordane	µg/L	0.005
G – Chlordane	µg/L	0.005
Chlordane (total)	µg/L	0.005
O, p DDD	µg/L	0.005
P,p DDD	µg/L	0.005
O,p DDD + p,p DDD	µg/L	0.005
O,p DDE	µg/L	0.005
P,p DDE	µg/L	0.005
O,p + p,p DDE	µg/L	0.005
O,p DDT	µg/L	0.005
P,p DDT	µg/L	0.005
O,p DDT + p,p DDT	µg/L	0.005
DDT + Metabolites	µg/L	0.005
Dieldrin	µg/L	0.005
Endosulfan I	µg/L	0.005
Endosulfan II	µg/L	0.005
Total Endosulfan	µg/L	0.005
Endrin	µg/L	0.005
Endrin Aldehyde	µg/L	0.005
Endrin Ketone	µg/L	0.005
Heptachlor	µg/L	0.005
Heptachlor Epoxide	µg/L	0.005
Hexachlorobenzene	µg/L	0.005
Lindane	µg/L	0.003
Methoxychlor	µg/L	0.014
Mirex	µg/L	0.005
Octachlorostyrene	µg/L	0.005
Total PCB	µg/L	0.1
Aroclor 1016	µg/L	0.05
Aroclor 1221	µg/L	0.1
Aroclor 1232	µg/L	0.05
Aroclor 1242	µg/L	0.05
Aroclor 1248	µg/L	0.05
Aroclor 1254	µg/L	0.05
Aroclor 1260	µg/L	0.05
Toxaphene	µg/L	0.2
Diazinon	µg/L	2

E9.20 Item 124, Dioxins and Furans in landfill water shall:

- (a) consist of approximately one (1) samples annually;
- (b) consist of a sample from a leachate locations
- (c) part of section 3
- (d) have tests performed to include the following parameters:

<b>Item 124 Dioxins and Furans, Landfill Water</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
2,3,7,8-Tetra CDD	pg/L	11.4
1,2,3,7,8-Penta CDD	pg/L	11.4
1,2,3,4,7,8-Hexa CDD	pg/L	11.4

1,2,3,6,7,8-Hexa CDD	pg/L	11.4
1,2,3,7,8,9-Hexa CDD	pg/L	11.4
1,2,3,4,6,7,8-Hepta CDD	pg/L	11.4
Octa CDD	pg/L	11.4
Total Tetra CDD	pg/L	11.4
Total Penta CDD	pg/L	11.4
Total Hexa CDD	pg/L	11.4
Total Hepta CDD	pg/L	11.4
2,3,7,8-Tetra CDF	pg/L	11.4
1,2,3,7,8-Penta CDF	pg/L	11.4
2,3,4,7,8-Penta CDF	pg/L	11.4
1,2,3,4,7,8-Hexa CDF	pg/L	11.4
1,2,3,6,7,8-Hexa CDF	pg/L	11.4
2,3,4,6,7,8-Hexa CDF	pg/L	11.4
1,2,3,7,8,9-Hexa CDF	pg/L	11.4
1,2,3,4,6,7,8-Hepta CDF	pg/L	11.4
1,2,3,4,7,8,9-Hepta CDF	pg/L	11.4
Octa CDF	pg/L	11.4
Total Tetra CDF	pg/L	11.4
Total Penta CDF	pg/L	11.4
Total Hexa CDF	pg/L	11.4
Total Hepta CDF	pg/L	11.4

E9.21 Item 125, Low Level Total Mercury in landfill water shall:

- (a) consist of approximately thirty five (35) samples annually;
- (b) consist of a sample from a surface water and leachate locations
- (c) part of section 4 and section 6
- (d) have tests performed to include the following parameters:

Item 125 Total Mercury, Landfill Water		
Parameters	Units	MDL
Mercury	µg/L	0.002

E9.22 Item 126, Low Level Dissolved Mercury in landfill water shall:

- (a) consist of approximately fifty (50) samples annually;
- (b) consist of a sample from ground water locations
- (c) part of section 5
- (d) have tests performed to include the following parameters:

Item 126 Dissolved Mercury, Landfill Water		
Parameters	Units	MDL
Dissolved Mercury	µg/L	0.002

E9.23 Item 127, Dissolved Organic Carbon in landfill water shall:

- (a) consist of approximately ten (10) samples annually;
- (b) consist of a sample from leachate locations
- (c) part of section 6
- (d) have tests performed to include the following parameters:



<b>Item 127</b>		
<b>Organic Carbon, Landfill Water</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Dissolved Organic Carbon	mg/L	1

**FABRICATED SOIL**

E9.24 Item 128, Nutrients in landfill water shall:

- (a) consist of approximately twenty (20) samples annually;
- (b) landfill surface water from area with fabricated soil
- (c) part of section 7
- (d) have tests performed to include the following parameters:

<b>Item 128</b>		
<b>Nutrients, Landfill Water</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Dissolved Nitrate (NO <sub>3</sub> )	mg/L	0.044
Nitrate plus Nitrite (N)	mg/L	0.014
Dissolved Nitrite (NO <sub>2</sub> )	mg/L	0.033
Dissolved Ammonia (N)	mg/L	0.15
Orthophosphate (P)	mg/L	0.03
Total Kjeldahl Nitrogen	mg/L	1.3
Dissolved Nitrate (NO <sub>3</sub> )	mg/L	0.044

E9.25 Item 129, Calculated Carbon and Nitrogen parameters in landfill soil shall:

- (a) consist of approximately six (6) samples annually;
- (b) fabricated soil feedstock sample
- (c) part of section 8
- (d) have tests performed to include the following parameters:

<b>Item 129</b>		
<b>Calculated Parameters, Landfill Soil</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
C:N Ratio	-	-
Nitrogen (N)	%	0.01

E9.26 Item 130, Anions in landfill soil shall:

- (a) consist of approximately six (6) samples annually;
- (b) fabricated soil feedstock sample
- (c) part of section 8
- (d) have tests performed to include the following parameters:

<b>Item 130</b>		
<b>Anions, Landfill Soil</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Soluble Chloride	mg/L	10

E9.27 Item 131, Hexavalent Chromium in landfill soil shall:

- (a) consist of approximately six (6) samples annually;
- (b) fabricated soil feedstock sample
- (c) part of section 8

- (d) have tests performed to include the following parameters:

Item 131	Hexavalent Chromium, Landfill Soil	
Parameters	Units	MDL
Hexavalent Chromium	mg/kg	0.08

- E9.28 Item 132, Nutrients in landfill soil shall:

- (a) consist of approximately twenty six (26) samples annually;  
 (b) fabricated soil feedstock and fabricated soil sample  
 (c) part of section 8, and section 9  
 (d) have tests performed to include the following parameters:

Item 132	Nutrients, Landfill Soil	
Parameters	Units	MDL
Available (KCL) Ammonia (N)	mg/kg	2
Available (NH4F) Nitrogen (N)	mg/kg	10
Available (NH4F) Phosphorus (P)	mg/kg	5
Available (NH4OAc) Potassium (K)	mg/kg	10
Available (CaCl2) Sulphur (S)	mg/kg	20
Total Kjeldahl Nitrogen	mg/kg	600

- E9.29 Item 133, Physical properties in landfill soil shall:

- (a) consist of approximately six (6) samples annually;  
 (b) fabricated soil feedstock sample  
 (c) part of section 8  
 (d) have tests performed to include the following parameters:

Item 133	Physical Properties, Landfill Soil	
Parameters	Units	MDL
% sand by hydrometer	%	-
% silt by hydrometer	%	-
Clay Content	%	-
Soluble (2:1) pH	pH	-
Loss on Ignition	%	1
Texture	-	-
Bulk Density	kg/m <sup>3</sup>	1

- E9.30 Item 134, Soluble parameters in landfill soil shall:

- (a) consist of approximately six (6) samples annually;  
 (b) fabricated soil feedstock sample  
 (c) part of section 8  
 (d) have tests performed to include the following parameters:

Item 134	Soluble Parameters, Landfill Soil	
Parameters	Units	MDL
Soluble Calcium (Ca)	mg/L	5
Soluble Magnesium (Mg)	mg/L	5
Soluble Potassium (K)	mg/L	20

Soluble Sodium (Na)	mg/L	5
Soluble Sulphur (S)	mg/L	30
Sodium Adsorption Ratio	-	0.1

E9.31 Item 135, Total metals in landfill soil shall:

- (a) consist of approximately six (6) samples annually;
- (b) fabricated soil feedstock sample
- (c) part of section 8
- (d) have tests performed to include the following parameters:

Item 135	Total Metals, Landfill Soil	
Parameters	Units	MDL
Total Aluminum (Al)	mg/kg	100
Total Antimony (Sb)	mg/kg	0.1
Total Arsenic (As)	mg/kg	0.5
Total Barium (Ba)	mg/kg	0.1
Total Beryllium (Be)	mg/kg	0.2
Total Bismuth (Bi)	mg/kg	0.1
Total Cadmium (Cd)	mg/kg	0.05
Total Calcium (Ca)	mg/kg	100
Total Chromium (Cr)	mg/kg	1
Total Cobalt (Co)	mg/kg	0.3
Total Copper (Cu)	mg/kg	0.5
Total Iron (Fe)	mg/kg	100
Total Lead (Pb)	mg/kg	0.1
Total Magnesium (Mg)	mg/kg	100
Total Manganese (Mn)	mg/kg	0.2
Total Mercury (Hg)	mg/kg	0.05
Total Molybdenum (Mo)	mg/kg	0.1
Total Nickel (Ni)	mg/kg	0.8
Total Phosphorus (P)	mg/kg	10
Total Potassium (K)	mg/kg	100
Total Selenium (Se)	mg/kg	0.5
Total Silver (Ag)	mg/kg	0.05
Total Sodium (Na)	mg/kg	100
Total Strontium (Sr)	mg/kg	0.1
Total Thallium (Tl)	mg/kg	0.05
Total Tin (Sn)	mg/kg	0.1
Total Titanium (Ti)	mg/kg	1
Total Vanadium (V)	mg/kg	2
Total Zinc (Zn)	mg/kg	1
Total Zirconium (Zr)	mg/kg	0.5

E9.32 Item 136, Organics in landfill soil shall:

- (a) consist of approximately twenty (20) samples annually;
- (b) fabricated soil sample
- (c) part of section 9
- (d) have tests performed to include the following parameters:

<b>Item 136      Organics, Landfill Soil</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Organic Matter	%	0.35

E9.33 Item 137, Total Organic in landfill soil shall:

- (a) consist of approximately twenty six (26) samples annually;
- (b) fabricated soil feedstock and fabricated soil sample
- (c) part of section 8, and section 9
- (d) have tests performed to include the following parameters:

<b>Item 137      Total Organic, Landfill Soil</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Organic Carbon (C)	%	0.2

E9.34 Item 138, Soluble parameters in landfill soil shall:

- (a) consist of approximately twenty six (26) samples annually;
- (b) fabricated soil feedstock and fabricated soil sample
- (c) part of section 8, and section 9
- (d) have tests performed to include the following parameters:

<b>Item 138      Soluble Parameters, Landfill Soil</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Soluble Conductivity	dS/m	0.02
Soluble pH	pH	-
Saturation %	%	-

E9.35 Item 139, Moisture Content in landfill soil shall:

- (a) consist of approximately twenty six (26) samples annually;
- (b) fabricated soil feedstock and fabricated soil sample
- (c) part of section 8, and section 9
- (d) have tests performed to include the following parameters:

<b>Item 139      Moisture Content, Landfill Soil</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Moisture	%	0.3

E9.36 Item 140, Selected Metals in landfill soil shall:

- (a) consist of approximately twenty (20) samples annually;
- (b) fabricated soil sample
- (c) part of section 9
- (d) have tests performed to include the following parameters:

<b>Item 140      Selected Metals, Landfill Soil</b>		
<b>Parameters</b>	<b>Units</b>	<b>MDL</b>
Total Antimony (Sb)	mg/kg	1
Total Arsenic (As)	mg/kg	2
Total Barium (Ba)	mg/kg	2

Total Beryllium (Be)	mg/kg	0.8
Total Cadmium (Cd)	mg/kg	0.1
Total Chromium (Cr)	mg/kg	2
Total Cobalt (Co)	mg/kg	1
Total Copper (Cu)	mg/kg	2
Total Lead (Pb)	mg/kg	1
Total Molybdenum (Mo)	mg/kg	0.8
Total Nickel (Ni)	mg/kg	2
Total Selenium (Se)	mg/kg	1
Total Silver (Ag)	mg/kg	0.1
Total Thallium (Tl)	mg/kg	0.2
Total Tin (Sn)	mg/kg	2
Total Uranium (U)	mg/kg	0.4
Total Vanadium (V)	mg/kg	2
Total Zinc (Zn)	mg/kg	20

**E10. TURN AROUND TIME**

E10.1 The Turn Around Time shall be:

- (a) Based on the data that the samples were received (at the testing laboratory) and the reporting date.
- (b) Fulfilled by submitting an official report or preliminary report accordance with the specification outlined under E2.2 to E2.11.

E10.2 The Contractor shall not exceed the “extraction time”, “hold time” or “analysis time” written in their own standard operating procedure regardless of the listed Turn-around Times.

Item	Description	Spec. Ref	Routine Turn-around Time (Calendar Days)	Rush Turn-around Time (Calendar Days)
<b>SECTION A (Water)</b>				
1.	Taste and Odour Compounds in water	E3.1	21	10
2.	Volatile Organic Compounds in water	E3.2	21	10
3.	NDMA in water	E3.3	21	10
4.	Total Microcystin in water	E3.4	21	10
5.	Total Mercury in water	E3.5	21	2
6.	COW Test #12 (Pesticides) in water	E3.6	21	14
7.	Chromium, Hexavalent in water	E3.7	21	3
8.	Perchlorate in water	E3.8	21	10
9.	Total Metals in water	E3.9	21	5
10.	Total Kjeldahl Nitrogen in water	E3.10	30	14
11.	Total Phosphorus in water	E3.11	30	14
12.	Total Reactive Phosphorus in water	E3.12	30	14
13.	Blue-Green Algae in water	E3.13	21	2
14.	Microtoxicity in water	E3.14	21	1
15.	Zebra Mussel Identification in water	E3.15	10	2
16.	Alcohol and Glycols in water	E3.16	21	2
17.	Algae Toxins in water	E3.17	21	5

Item	Description	Spec. Ref	Routine Turn-around Time (Calendar Days)	Rush Turn-around Time (Calendar Days)
<b>SECTION B (Wastewater)</b>				
19.	Fecal Coliform in wastewater	E4.1	3	NA
20.	Fecal Coliform in wastewater to true endpoint	E4.2	3	NA
21.	Escherichia Coliform in wastewater	E4.3	3	NA
22.	Escherichia Coliform in wastewater to true end point	E4.4	3	NA
23.	Total & Escherichia Coliforms in wastewater	E4.5	3	NA
24.	Total & Escherichia Coliforms in wastewater to true endpoint	E4.6	3	NA
25.	Total Mercury in wastewater	E4.7	21	2
26.	Total Mercury in Dewatered Sludge	E4.8	21	10
27.	Total Organic Carbon in Dewatered Sludge	E4.9	21	10
28.	Moisture in Dewatered Sludge	E4.10	21	10
29.	Total Nitrogen in wastewater	E4.11	7	3
30.	Total Organic Carbon in wastewater	E4.12	7	3
31.	Dissolved Organic Carbon in wastewater	E4.13	7	3
32.	Ammonia in wastewater	E4.14	7	3
33.	Total Metals in wastewater	E4.15	21	10
34.	Total Nitrogen in wastewater sludge	E4.16	21	10
35.	Available Nutrients in Dewatered Sludge	E4.17	21	10
36.	Available Ammonia in Dewatered Sludge	E4.18	21	10
37.	Loss on Ignition	E4.19	21	10
<b>SECTION C (Schedule A, Wastewater)</b>				
39.	Total Metals in wastewater	E5.1	30	14
40.	Miscellaneous Compounds in wastewater	E5.2	30	14
41.	Volatile Organic Compounds in wastewater	E5.3	30	14
42.	Target Compounds (by GC/MS) in wastewater	E5.4	30	14
43.	Phenoxyacid Herbicides (by GC/MS) in wastewater	E5.5	30	14
44.	Organochlorine Pesticides in wastewater	E5.6	30	14
45.	Polychlorinated Biphenyls (PCBs) in wastewater	E5.7	30	14
46.	PCDD (Dioxins) and PCDF (Furans) in wastewater	E5.8	30	14
47.	EPA 8270 Extractables in wastewater	E5.9	30	14
48.	Nonylphenols and Nonylphenol Ethoxylates in wastewater	E5.10	30	14
49.	Schedule A Testing (Complete set, items 39 to 48)	E5.11	30	14
50.	Trout Bioassay-Pass/Fail in wastewater	E5.12	14	5
51.	Trout Bioassay-Pass/Fail with pH Stabilization in wastewater	E5.13	14	5
52.	Nitrate in wastewater	E5.14	30	14
<b>SECTION D (Giardia &amp; Cryptosporidium)</b>				
54.	Testing of Giardia & Cryptosporidium in water	E6.1	14	10
55.	Testing of Giardia & Cryptosporidium in wastewater	E6.2	14	10
56.	Filta-Max Filter Modules (delivery)	E6.3	7	3

Item	Description	Spec. Ref	Routine Turn-around Time (Calendar Days)	Rush Turn-around Time (Calendar Days)
<b>SECTION E (REGULATORY TESTING, Water)</b>				
58.	Manitoba Conservation Test 54 PWS (General Chemistry)	E7.1	20	10
59.	Bromate	E7.2	20	10
60.	Total Metals	E7.3	20	10
<b>SECTION F (Schedule B, Industrial Waste &amp; Schedule D, Land Drainage)</b>				
62.	Total Metals in Industrial Wastewater	E8.1	30	14
63.	Total Mercury in Industrial Wastewater	E8.2	30	14
64.	Chromium (hexavalent) in Industrial Wastewater	E8.3	30	14
65.	Total Cyanide in Industrial Wastewater	E8.4	30	14
66.	Biochemical Oxygen Demand in Industrial Wastewater	E8.5	30	14
67.	Total Suspended Solids in Industrial Wastewater	E8.6	30	14
68.	Fluoride in Industrial Wastewater	E8.7	30	14
69.	Total Nitrogen in Industrial Wastewater	E8.8	30	14
70.	Total Phosphorus in Industrial Wastewater	E8.9	30	14
71.	Total Sulphate in Industrial Wastewater	E8.10	30	14
72.	Total Sulphide in Industrial Wastewater	E8.11	30	14
73.	Organochlorine Pesticides in Industrial Wastewater	E8.12	30	14
74.	Total Polychlorinated Biphenols (PCBs) in Industrial Wastewater	E8.13	30	14
75.	Volatile Organic Compounds in Industrial Wastewater	E8.14	30	14
76.	3,3-Dichlorobenzidine in Industrial Wastewater	E8.15	30	14
77.	Pentachlorophenol (PCP) in Industrial Wastewater	E8.16	30	14
78.	Total Polycyclic aromatic hydrocarbons (PAHs) in Industrial Wastewater	E8.17	30	14
79.	Nonylphenol and Nonylphenol Ethoxylates in Industrial Wastewater	E8.18	30	14
80.	Total Phenolics (4AAP) in Industrial Wastewater	E8.19	30	14
81.	Oil and Grease in Industrial Wastewater	E8.20	30	14
82.	Hydrocarbons in Industrial Wastewater	E8.21	30	14
83.	Schedule B Testing (Complete set, items 62 to 82)	E8.22	30	14
84.	Escherichia Coliform in Land Drainage Wastewater	E8.23	7	NA
85.	Ammonia in Land Drainage Wastewater	E8.24	30	14
86.	Biochemical Oxygen Demand in Land Drainage Wastewater	E8.25	30	14
87.	Chromium (hexavalent) in Land Drainage Wastewater	E8.26	30	14
88.	Total Cyanide in Land Drainage Wastewater	E8.27	30	14
89.	Extractables in Land Drainage Wastewater	E8.28	30	14
90.	Total Mercury in Land Drainage Wastewater	E8.29	30	14
91.	Nonylphenol and Nonylphenol Ethoxylates in Land Drainage Wastewater	E8.30	30	14

Item	Description	Spec. Ref	Routine Turn-around Time (Calendar Days)	Rush Turn-around Time (Calendar Days)
92.	Organochlorine Pesticides in Land Drainage Wastewater	E8.31	30	14
93.	Phenols (4AAP) in Land Drainage Wastewater	E8.32	30	14
94.	Total Phosphorus in Land Drainage Wastewater	E8.33	30	14
95.	Total Polycyclic aromatic hydrocarbons (PAHs) in Land Drainage Wastewater	E8.34	30	14
96.	Total Metals in Land Drainage Wastewater	E8.35	30	14
97.	Total Polychlorinated Biphenols (PCBs) in Land Drainage Wastewater	E8.36	30	14
98.	Total Suspended Solids in Land Drainage Wastewater	E8.37	30	14
99.	Volatile Organic Compounds in Land Drainage Wastewater	E8.38	30	14
100.	Oil and Grease in Land Drainage Wastewater	E8.39	30	14
101.	Hydrocarbons in in Land Drainage Wastewater	E8.40	30	14
102.	Schedule D Testing (Complete set, 84 to 101)	E8.41	30	14
103.	Carbon Oxygen Demand in Industrial waste	E8.42	30	14
<b>SECTION G (Water and Soils, from Landfills)</b>				
105.	Total Cyanide in landfill water	E9.1	21	10
106.	Microbiological parameters in landfill water	E9.2	3	NA
107.	Anions in landfill water	E9.3	21	10
108.	Anions and Nutrients in landfill water	E9.4	21	10
109.	Organic/Inorganic Carbon in landfill water	E9.5	21	10
110.	Dissolved Metals in landfill water	E9.6	21	10
111.	Dissolved Mercury in landfill water	E9.7	21	10
112.	Speciated Metals in landfill water	E9.8	21	10
113.	Specific OC Pesticide in landfill water	E9.9	21	10
114.	Phenoxy Acid Herbicides in landfill water	E9.10	21	10
115.	Total Mercury in landfill water	E9.11	21	10
116.	Phenol in landfill water	E9.12	21	10
117.	Petroleum Hydrocarbons in landfill water	E9.13	21	10
118.	Volatile Organic Compounds in landfill water	E9.14	21	10
119.	Polycyclic Aromatic Hydrocarbons in landfill water	E9.15	21	10
120.	Total Metals in landfill water	E9.16	21	10
121.	Oil and Grease in landfill water	E9.17	21	10
122.	Specific Polycyclic Aromatic Hydrocarbons in landfill water	E9.18	21	10
123.	OC/OP Pesticides and PCB in landfill water	E9.19	21	10
124.	Dioxins and Furans in landfill water	E9.20	21	10
125.	Low Level Total Mercury in landfill water	E9.21	21	10
126.	Low Level Dissolved Mercury in landfill water	E9.22	21	10
127.	Dissolved Organic Carbon in landfill water	E9.23	21	10
128.	Nutrients in landfill water	E9.24	21	10



Item	Description	Spec. Ref	Routine Turn-around Time (Calendar Days)	Rush Turn-around Time (Calendar Days)
129.	Calculated Carbon and Nitrogen parameters in landfill soil	E9.25	21	10
130.	Anions in landfill soil	E9.26	21	10
131.	Hexavalent Chromium in landfill soil	E9.27	21	10
132.	Nutrients in landfill soil	E9.28	21	10
133.	Physical properties in landfill soil	E9.29	21	10
134.	Soluble parameters in landfill soil	E9.30	21	10
135.	Total metals in landfill soil	E9.31	21	10
136.	Organics in landfill soil	E9.32	21	10
137.	Total Organic in landfill soil	E9.33	21	10
138.	Soluble parameters in landfill soil	E9.34	21	10
139.	Moisture Content in landfill soil	E9.35	21	10
140.	Selected Metals in landfill soil	E9.36	21	10