

# THE CITY OF WINNIPEG

# **BID OPPORTUNITY**

**BID OPPORTUNITY NO. 205-2013** 

**PROVISION OF LABORATORY SERVICES FOR LANDFILLS** 

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# **PART B - BIDDING PROCEDURES**

#### B1. CONTRACT TITLE

B1.1 PROVISION OF LABORATORY SERVICES FOR LANDFILLS

#### B2. SUBMISSION DEADLINE

- B2.1 The Submission Deadline is 4:00 p.m. Winnipeg time, April 10, 2013 .
- B2.2 Bids determined by the Manager of Materials to have been received later than the Submission Deadline will not be accepted and will be returned upon request.
- B2.3 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. SITE INVESTIGATION

- B3.1 Further to C3.1, the Bidder may make an appointment to view the Site by contacting the Contract Administrator.
- B3.2 The Bidder is advised that samples to be analysed may originate from any of the thirty-three (33) closed landfills and Brady Road Resource Management Facility.
- B3.3 The Bidder shall not be entitled to rely on any information or interpretation received at the Site investigation unless that information or interpretation is the Bidder's direct observation, or is provided by the Contract Administrator in writing.

#### B4. ENQUIRIES

- B4.1 All enquiries shall be directed to the Contract Administrator identified in D4.1.
- B4.2 If the Bidder finds errors, discrepancies or omissions in the Bid Opportunity, or is unsure of the meaning or intent of any provision therein, the Bidder shall promptly notify the Contract Administrator of the error, discrepancy or omission at least five (5) Business Days prior to the Submission Deadline.
- B4.3 If the Bidder is unsure of the meaning or intent of any provision therein, the Bidder should request clarification as to the meaning or intent prior to the Submission Deadline.
- B4.4 Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator to all Bidders by issuing an addendum.
- B4.5 Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction to or a clarification of the Bid Opportunity will be provided by the Contract Administrator only to the Bidder who made the enquiry.
- B4.6 The Bidder shall not be entitled to rely on any response or interpretation received pursuant to B4 unless that response or interpretation is provided by the Contract Administrator in writing.

#### 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 Bid Opportunity, 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.
- B5.2.1 Addenda will be available on the Bid Opportunities page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <u>http://www.winnipeg.ca/matmgt/bidopp.asp</u>
- B5.2.2 The Bidder is responsible for ensuring that he/she has received all addenda and is advised to check the Materials Management Division website for addenda regularly and shortly before the Submission Deadline, as may be amended by addendum.
- B5.3 The Bidder shall acknowledge receipt of each addendum in Paragraph 8 of Form A: Bid. Failure to acknowledge receipt of an addendum may render a Bid non-responsive.

#### B6. SUBSTITUTES

- B6.1 The Work is based on the Plant, Materials and methods specified in the Bid Opportunity.
- 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 Bidder 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 Contract;
  - (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 Contract.
- 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, only to the Bidder who requested approval of the substitute.
- B6.6.1 The Bidder requesting and obtaining the approval of a substitute shall be entirely 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 Bidder 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 Bidder 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 B14.

- 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.
- B6.10 Notwithstanding B6.2 to B6.9, and in accordance with B7.5, deviations inconsistent with the Bid Opportunity document shall be evaluated in accordance with B14.1(a).

#### B7. BID SUBMISSION

- B7.1 The Bid shall consist of the following components:
  - (a) Form A: Bid;
  - (b) Form B: Prices.
- B7.2 Further to B7.1, the Bidder should include the written correspondence from the Contract Administrator approving a substitute in accordance with B6.
- B7.3 All components of the Bid shall be fully completed or provided, and submitted by the Bidder no later than the Submission Deadline, with all required entries made clearly and completely, to constitute a responsive Bid.
- B7.4 Bidders are advised not to include any information/literature except as requested in accordance with B7.1.
- B7.5 Bidders are advised that inclusion of terms and conditions inconsistent with the Bid Opportunity document, including the General Conditions, will be evaluated in accordance with B14.1(a).
- B7.6 The Bid may be submitted by mail, courier or personal delivery, or by facsimile transmission.
- B7.7 If the Bid is submitted by mail, courier or personal delivery, it shall be enclosed and sealed in an envelope clearly marked with the Bid Opportunity number and the Bidder's name and address, and shall be submitted to:

The City of Winnipeg Corporate Finance Department Materials Management Division 185 King Street, Main Floor Winnipeg MB R3B 1J1

- B7.7.1 Samples or other components of the Bid which cannot reasonably be enclosed in the envelope may be packaged separately, but shall be clearly marked with the Bid Opportunity number, the Bidder's name and address, and an indication that the contents are part of the Bidder's Bid Submission.
- B7.8 If the Bid is submitted by facsimile transmission, it shall be submitted to 204 949-1178
- B7.8.1 The Bidder is advised that the City cannot take responsibility for the availability of the facsimile machine at any time.
- B7.9 Bids submitted by internet electronic mail (e-mail) will not be accepted.

#### B8. BID

- B8.1 The Bidder shall complete Form A: Bid, making all required entries.
- B8.2 Paragraph 2 of Form A: Bid shall be completed in accordance with the following requirements:
  - (a) if the Bidder is a sole proprietor carrying on business in his/her own name, his/her name shall be inserted;

- (b) if the Bidder is a partnership, the full name of the partnership shall be inserted;
- (c) if the Bidder is a corporation, the full name of the corporation shall be inserted;
- (d) if the Bidder 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 Bid 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, the Bidder shall identify a contact person who is authorized to represent the Bidder for purposes of the Bid.
- B8.4 Paragraph 10 of Form A: Bid shall be signed in accordance with the following requirements:
  - (a) if the Bidder is a sole proprietor carrying on business in his/her own name, it shall be signed by the Bidder;
  - (b) if the Bidder is a partnership, it shall be signed by the partner or partners who have authority to sign for the partnership;
  - (c) if the Bidder is a corporation, it shall be signed by its duly authorized officer or officers and the corporate seal, if the corporation has one, should be affixed;
  - (d) if the Bidder 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 should be printed below such signatures.
- B8.5 If a Bid is submitted jointly by two or more persons, the word "Bidder" shall mean each and all such persons, and the undertakings, covenants and obligations of such joint Bidders in the Bid and the Contract, when awarded, shall be both joint and several.

#### B9. PRICES

- B9.1 The Bidder shall state a price in Canadian funds for each item of the Work identified on Form B: Prices.
- B9.1.1 Notwithstanding C11.1.1, 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 The quantities listed on Form B: Prices are to be considered approximate only. The City will use said quantities for the purpose of comparing Bids.
- B9.3 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.
- B9.4 Payments to Non-Resident Contractors are subject to Non-Resident Withholding Tax pursuant to the Income Tax Act (Canada).

#### B10. QUALIFICATION

- B10.1 The Bidder 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 Bidder does not carry on business in Manitoba, in the jurisdiction where the Bidder 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.
- B10.2 The Bidder 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 <u>http://www.winnipeg.ca/matmgt/debar.stm</u>
- B10.3 The Bidder 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).

#### B11. OPENING OF BIDS AND RELEASE OF INFORMATION

- B11.1 Bids will not be opened publicly.
- B11.2 Following the Submission Deadline, the names of the Bidders and their bid prices (unevaluated, and pending review and verification of conformance with requirements) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="http://www.winnipeg.ca/matmgt/">http://www.winnipeg.ca/matmgt/</a>
- B11.3 After award of Contract, the name(s) of the successful Bidder(s) and the Contract amount(s) will be available on the Closed Bid Opportunities (or Public/Posted Opening & Award Results) page at The City of Winnipeg, Corporate Finance, Materials Management Division website at <a href="http://www.winnipeg.ca/matmgt/">http://www.winnipeg.ca/matmgt/</a>
- B11.4 The Bidder is advised that any information contained in any Bid may be released if required by City policy or procedures, by The Freedom of Information and Protection of Privacy Act (Manitoba), by other authorities having jurisdiction, or by law.

#### B12. IRREVOCABLE BID

- B12.1 The Bid(s) submitted by the Bidder shall be irrevocable for the time period specified in Paragraph 9 of Form A: Bid.
- B12.2 The acceptance by the City of any Bid shall not release the Bids of the next two lowest evaluated responsive Bidders and these Bidders shall be bound by their Bids on such Work for the time period specified in Paragraph 9 of Form A: Bid.

#### B13. WITHDRAWAL OF BIDS

- B13.1 A Bidder may withdraw his/her Bid without penalty by giving written notice to the Manager of Materials at any time prior to the Submission Deadline.
- B13.1.1 Notwithstanding C22.5, the time and date of receipt of any notice withdrawing a Bid shall be the time and date of receipt as determined by the Manager of Materials.
- B13.1.2 The City will assume that any one of the contact persons named in Paragraph 3 of Form A: Bid or the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid, and only such person, has authority to give notice of withdrawal.

- B13.1.3 If a Bidder gives notice of withdrawal prior to the Submission Deadline, the Manager of Materials will:
  - (a) retain the Bid until after the Submission Deadline has elapsed;
  - (b) open the Bid to identify the contact person named in Paragraph 3 of Form A: Bid and the Bidder's authorized representatives named in Paragraph 10 of Form A: Bid; and
  - (c) if the notice has been given by any one of the persons specified in B13.1.3(b), declare the Bid withdrawn.
- B13.2 A Bidder who withdraws his/her Bid after the Submission Deadline but before his/her Bid has been released or has lapsed as provided for in B12.2 shall be liable for such damages as are imposed upon the Bidder by law and subject to such sanctions as the Chief Administrative Officer considers appropriate in the circumstances. The City, in such event, shall be entitled to all rights and remedies available to it at law.

#### B14. EVALUATION OF BIDS

- B14.1 Award of the Contract shall be based on the following bid evaluation criteria:
  - (a) compliance by the Bidder with the requirements of the Bid Opportunity, or acceptable deviation therefrom (pass/fail);
  - (b) qualifications of the Bidder and the Subcontractors, if any, pursuant to B10 (pass/fail);
  - (c) Total Bid Price

100%

- (d) economic analysis of any approved alternative pursuant to B6.
- B14.2 Further to B14.1(a), the Award Authority may reject a Bid as being non-responsive if the Bid is incomplete, obscure or conditional, or contains additions, deletions, alterations or other irregularities. The Award Authority may reject all or any part of any Bid, or waive technical requirements or minor informalities or irregularities if the interests of the City so require.
- B14.3 Further to B14.1(b), the Award Authority shall reject any Bid submitted by a Bidder who does not demonstrate, in his/her Bid or in other information required to be submitted, that he/she is responsible and qualified.
- B14.4 Further to B14.1(c), the Total Bid Price shall be the sum of the quantities multiplied by the unit prices for each item shown on Form B: Prices.
- B14.4.1 If there is any discrepancy between the Total Bid Price written in figures, the Total Bid Price written in words and the sum of the quantities multiplied by the unit prices for each item, the sum of the quantities multiplied by the unit prices for each item shall take precedence.
- B14.4.2 Further to B14.1(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.
- B14.5 This Contract will be awarded as a whole.

#### B15. AWARD OF CONTRACT

- B15.1 The City will give notice of the award of the Contract or will give notice that no award will be made.
- B15.2 The City will have no obligation to award a Contract to a Bidder, even though one or all of the Bidders are determined to be responsible and qualified, and the Bids are determined to be responsive.
- B15.2.1 Without limiting the generality of B15.2, 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 Bid 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.
- B15.3 Where an award of Contract is made by the City, the award shall be made to the responsible and qualified Bidder submitting the lowest evaluated responsive Bid in accordance with B14.
- B15.3.1 Following the award of contract, a Bidder will be provided with information related to the evaluation of his/her Bid upon written request to the Contract Administrator.
- B15.4 Notwithstanding C4.1, the City will issue a purchase order to the successful Bidder in lieu of the execution of a Contract.
- B15.5 The Contract Documents, as defined in C1.1(n)(ii), in their entirety shall be deemed to be incorporated in and to form a part of the purchase order notwithstanding that they are not necessarily attached to or accompany said purchase order.

# **PART C - GENERAL CONDITIONS**

#### C0. GENERAL CONDITIONS

- C0.1 The *General Conditions for Supply of Services* (Revision 2007 04 12) 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 <a href="http://www.winnipeg.ca/matmgt/gen\_cond.stm">http://www.winnipeg.ca/matmgt/gen\_cond.stm</a>
- C0.2 A reference in the Bid Opportunity 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 WORK

- D2.1 The Work to be done under the Contract shall consist ^ for the period from May 1, 2013 until April 30,2014, 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 Contractor within sixty (60) Calendar Days prior to the expiry date of the Contract. The City shall incur no liability to the Contractor 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.
- D2.2 The major components of the Work are as follows:
  - (a) The Contractor shall be responsible for samples from the time they take possession from the agreed upon location;
  - (b) The Contractor shall be responsible for prepared sample bottles until the Contract Administrator or designate assume possession of these items at the agreed upon location;
  - (c) Detailed reports;
  - (d) Detailed 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 Notwithstanding C7.4, the City shall have no obligation under the Contract to purchase any quantity of any item in excess of its actual operational requirements.

#### D3. DEFINITIONS

- D3.1 When used in this Bid Opportunity:
  - (a) "**User**" means a person, department or other administrative unit of the City authorized by the Contract Administrator to order Work under this Contract;
  - (b) "CALA" means Canadian Association for Laboratory Accreditation; ;
  - (c) "cfu/mL " means colony forming units per milliliter; ;
  - (d) "cfu/100mL " means colony forming units per 100 milliliters; ;
  - (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/100mL" means most probable number units per 100 milliliters;

- (I) "**pg/L**" means picograms per liter;
- (m) "pg/mL" means pictograms per milliliter;
- (n) "µg/L" means micrograms per liter;
- (o) "BRRMF" means Brady Road Resource Management Facility.

#### D4. CONTRACT ADMINISTRATOR

- D4.1 The Contract Administrator is: Chris Kozak Acting Supervisor of Environmental Monitoring Telephone No. 204 986-2384
- D4.2 Bids Submissions must be submitted to the address in B7.7.
- D4.3 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.

#### D5. CONTRACTOR'S SUPERVISOR

- D5.1 Further to C6.19, 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.
- D5.2 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.
- D5.2.1 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.

#### D6. OWNERSHIP OF INFORMATION, CONFIDENTIALITY AND NON DISCLOSURE

- D6.1 The Contract, all deliverables produced or developed, and information provided to or acquired by the Contractor are the property of the City and shall not be appropriated for the Contractors own use, or for the use of any third party.
- D6.2 The Contractor shall not make any public announcements or press releases regarding the Contract, without the prior written authorization of the Contract Administrator.
- D6.3 The following shall be confidential and shall not be disclosed by the Contractor to the media or any member of the public without the prior written authorization of the Contract Administrator;
  - (a) information provided to the Contractor by the City or acquired by the Contractor during the course of the Work;
  - (b) the Contract, all deliverables produced or developed; and
  - (c) any statement of fact or opinion regarding any aspect of the Contract.
- D6.4 A Contractor who violates any provision of D6 may be determined to be in breach of Contract. Notices.

#### D7. NOTICES

D7.1 Notwithstanding C22.3, all notices of appeal to the Chief Administrative Officer shall be sent to the attention of the Chief Financial Officer at the following facsimile number:

The City of Winnipeg Chief Financial Officer

Facsimile No.: 204 949-1174

#### 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. INSURANCE

- D9.1 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, contractual 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 occurrence and one million dollars (\$1,000,000) aggregate to remain in place at all times during the performance of the Work and throughout the warranty period.
- D9.2 Deductibles shall be borne by the Contractor.
- D9.3 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 seven (7) Calendar Days from notification of the award of Contract.
- D9.4 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.
- D9.5 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.

#### CONTROL OF WORK

#### D10. COMMENCEMENT

D10.1 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.

- D10.2 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; and
    - (iii) evidence of the insurance specified in D9.
  - (b) the Contractor has attended a meeting with the Contract Administrator, or the Contract Administrator has waived the requirement for a meeting.

#### D11. ORDERS

D11.1 The Contractor shall provide a local Winnipeg telephone number or a toll-free telephone number at which orders for service may be placed.

#### D12. RECORDS

- D12.1 The Contractor shall keep detailed records of the services supplied under the Contract.
- D12.2 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.
- D12.3 The Contractor shall provide the Contract Administrator with a copy of the records for each year within thirty (30) Calendar Days of the end of the Contract expiry.

#### MEASUREMENT AND PAYMENT

#### D13. INVOICES

D13.1 Further to C11, the Contractor shall submit an invoice for each portion of work performed delivered 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 Email: <u>CityWpgAP@winnipeg.ca</u>

- D13.2 Invoices must clearly indicate, as a minimum:
  - (a) the City's purchase order number;
  - (b) date of delivery;
  - (c) delivery address;
  - (d) type and quantity of work performed;
  - (e) the amount payable with GST and MRST shown as separate amounts; and
  - (f) the Contractor's GST registration number.
- D13.3 The City will bear no responsibility for delays in approval of invoices which are improperly submitted.
- D13.4 Bids Submissions must be submitted to the address in B7.7.

#### D14. PAYMENT

- D14.1 Further to C11, payment shall be in Canadian funds net thirty (30) Calendar Days after receipt and approval of the Contractor's invoice.
- D14.2 Further to C11, the City may at its option pay the Contractor by direct deposit to the Contractor's banking institution.

#### WARRANTY

#### D15. WARRANTY

D15.1 Warranty is as stated in C12.

# 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.

#### E2. SERVICES

- E2.1 The Contractor shall supply Laboratory Testing in accordance with the requirements hereinafter specified.
- E2.1 All tests shall be done according to Environmental Protection Agency (EPA) method or 21<sup>st</sup> Standards Methods, or method agreed upon between the Contract Administrator and Contractor.
- E2.2 The Contractor shall provide a sample drop-off location within Winnipeg for the Contract Administrator or his representative to deliver the samples.
- 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 stated corresponding explanation. In these cases, the City shall not be charged for the sample preparation unless the prepared sample is analyzed for other parameters nor shall they be charged for testing that is not performed.
- E2.4 Test results and reports shall be:
- E2.5 available on the web site, with an electronic copy e-mailed to the specified address and contact person(s);
- E2.6 available in hard copy format and an electronic readable format such as Microsoft Excel;
- E2.7 in accordance with the requirements outlined under section 5.10 of the ISO/IEC 17025:2005 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 E2.4 with the mutual understanding that the final official results may differ.
- E2.9 Notification to the Contract Administrator shall be by phone, e-mail or facsimile (fax) that preliminary results for rush analysis are available to the Contract Administrator.
- E2.10 The Contractor shall supply all the bottles required for the 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.
- E2.11 The Contractor shall supply the City with directions and precautions and Material Safety Data Sheets, when reagents, preservatives, or special handling is required as part of the sampling protocol.
- E2.12 The Contractor shall be currently accredited and maintain status of accreditation for the duration of the contract as per ISO:17025;2005, General Requirements for the Competence of Testing and Calibration Laboratories by one of the following bodies;
- E2.13 CALA (Canadian Association for Laboratory Accreditation); or

#### E2.14 Standards Council of Canada.

#### E3. SECTION A (PRIORITY POLLUTANT SAMPLES)

- E3.1 Priority Pollutant samples in leachate shall:
  - (a) consist of approximately fifteen (15) samples annually;
  - (b) have tests performed to include the following parameters:

Analysis: TOTAL CYANIDE		
Matrix: LIQUID		
Parameters	MDL	Units
Total Cyanide (CN)	0.005	mg/l
Analysis: PETROLEUM HYDRO. CCME F1 &	BTEX IN WAT	ER
Matrix: Water		
Parameters	MDL	Units
Benzene	0.2	ug/l
Toluene	0.2	ug/l
Ethylbenzene	0.2	ug/l
o - Xylene	0.2	ug/l
p + m - Xylene	0.4	ug/l
Total Xylenes	0.4	ug/l
F1 (C6-C10)	100	ug/l
F1 (C6-C10) - BTEX	100	ug/l
Analysis: PETROLEUM HYDROCARBONS F2	2-F4 IN WATER	र
Matrix: Water		
Parameters	MDL	Units
F2 (C10-C16 Hydrocarbons)	100	ug/l
F3 (C16-C34 Hydrocarbons)	100	ug/l
F4 (C34-C50 Hydrocarbons)	100	ug/l
Analysis: PETROLEUM HYDROCARBONS F4	IG IN	
Matrix: LIQUID		
Parameters	MDL	Units
F4G (Grav. Heavy Hydrocarbons)	800	ug/l
Analysis: MERCURY IN WATER BY CVAA		
Matrix: LIQUID		
Parameters	MDL	Units
Mercury (Ha)	0.0001	ma/l
		···ʊ
Analysis: ICP METALS ANALYSIS IN UNUSU	AL MATRICES	
Matrix: LIQUID		
Parameters	MDL	Units
Aluminum (A I )	0.1	mg/l
Chromium (Cr)	0.01	mg/l
Cobalt (Co)	0.02	mg/l
Copper (Cu)	0.02	mg/l
Iron (Fe)	0.02	mg/l

Lead (Pb)	0.05	mg/l
Lithium (Li)	0.05	mg/l
Magnesium (Mg)	0.05	mg/l
Manganese (Mn)	0.01	mg/l
Antimony (Sb )	0.2	mg/l
Molybdenum (Mo)	0.02	mg/l
Nickel (Ni)	0.05	mg/l
Phosphorus (P)	0.1	mg/l
Potassium (K)	1	mg/l
Selenium (Se)	0.2	mg/l
Silicon (Si)	0.2	mg/l
Silver (Ag)	0.01	mg/l
Sodium (Na)	0.5	mg/l
Strontium (Sr)	0.01	mg/l
Sulphur (S)	0.5	mg/l
Arsenic (As)	0.2	mg/l
Thallium (TI)	0.2	mg/l
Tin (Sn)	0.2	mg/l
Titanium (Ti)	0.01	mg/l
Tungsten (W)	0.2	mg/l
Vanadium (V)	0.01	mg/l
Zinc (Zn)	0.01	mg/l
Zirconium (Zr)	0.01	mg/l
Barium (Ba)	0.02	mg/l
Beryllium (Be)	0.005	mg/l
Bismuth (Bi)	0.2	mg/l
Boron (B)	0.02	mg/l
Cadmium (Cd)	0.005	mg/l
Calcium (Ca)	0.05	mg/l
		<u> </u>
Analysis: TOTAL METALS ANALYSIS BY ICPM	S	
Matrix: Water		
Parameters	MDL	Units
Aluminum (A I )	5	ug/l
Antimony (Sb)	0.5	ug/l
Arsenic (As)	1	ug/l
Barium (Ba)	5	ug/l
Beryllium (Be)	0.5	ug/l
Bismuth (Bi)	1	ug/l
Boron (B)	10	ug/l
Cadmium (Cd)	0.1	ug/l
Calcium (Ca)	200	ug/l
Chromium (Cr)	5	ug/l
Cobalt (Co)	0.5	ug/l
Copper (Cu)	1	ug/l
Iron (Fe)	100	ug/l
Lead (Pb)	0.5	ug/l
Lithium (Li)	5	ug/l
Magnesium (Mg)	50	ug/l
Manganese (Mn)	2	ug/l
Molybdenum (Mo)	1	ug/l

Nickel (Ni)	1	ug/l
Phosphorus (P)	100	ug/l
Potassium (K)	200	ug/l
Selenium (Se)	2	ug/l
Silicon (Si)	50	ug/l
Silver (Ag)	0.1	ug/l
Sodium (Na)	100	ug/l
Strontium (Sr)	1	ug/l
Tellurium (Te)	1	ug/l
Thallium (TI)	0.05	ug/l
Thorium (Th)	1	ug/l
Tin (Sn)	1	ug/l
Titanium (Ti)	5	ug/l
Tungsten (W)	1	ug/l
Uranium (U)	0.1	ug/l
Vanadium (V)	1	ug/l
Zinc (Zn)	5	ug/l
Zirconium (Zr)	1	ug/l
Analysis: OC PESTICIDES (SELECTED) & PCB		
Matrix: LIQUID		
Parameters	MDL	Units
Hexachloroethane	0.01	ug/l
Hexachlorobutadiene	0.009	ug/l
Hexachlorocyclopentadiene	0.02	ug/l
Aldrin + Dieldrin	0.005	ug/l
Aldrin	0.005	ug/l
a-BHC	0.005	ug/l
b-BHC	0.005	ug/l
d-BHC	0.005	ug/l
a - Chlordane	0.005	ug/l
a - Chlordane g - Chlordane		ug/l ug/l
	0.005	
g - Chlordane	0.005 0.005	ug/l
g - Chlordane Chlordane (Total) o , p - D D D	0.005 0.005 0.005	ug/l ug/l
g - Chlordane Chlordane (Total) o , p - D D D p , p - D D D	0.005 0.005 0.005 0.005	ug/l ug/l ug/l ug/l
g - Chlordane Chlordane (Total) o , p - D D D p , p - D D D o,p-DDD + p,p-DDD	0.005 0.005 0.005 0.005 0.005 0.005	ug/l ug/l ug/l ug/l ug/l
g - Chlordane Chlordane (Total) o, p - D D D p, p - D D D o,p-DDD + p,p-DDD o, p - D D E	0.005 0.005 0.005 0.005 0.005	ug/l ug/l ug/l ug/l ug/l ug/l
g - Chlordane Chlordane (Total) o , p - D D D p , p - D D D o,p-DDD + p,p-DDD o , p - D D E p , p - D D E	0.005 0.005 0.005 0.005 0.005 0.005 0.005 0.005	ug/l ug/l ug/l ug/l ug/l ug/l ug/l
g - Chlordane Chlordane (Total) o, p - D D D p, p - D D D o,p-DDD + p,p-DDD o, p - D D E p, p - D D E o,p-DDE + p,p-DDE	0.005 0.005 0.005 0.005 0.005 0.005 0.005 0.005 0.005	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
g - Chlordane Chlordane (Total) o, p - D D D p, p - D D D o,p-DDD + p,p-DDD o, p - D D E p, p - D D E o,p-DDE + p,p-DDE o, p - D D T L	0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
g - Chlordane Chlordane (Total) o, p - D D D p, p - D D D o,p-DDD + p,p-DDD o, p - D D E p, p - D D E o,p-DDE + p,p-DDE o, p - D D T L p, p - D D T	0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005           0.005	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
g - Chlordane Chlordane (Total) o, p - D D D p, p - D D D o,p-DDD + p,p-DDD o, p - D D E p, p - D D E o,p-DDE + p,p-DDE o, p - D D T L p, p - D D T o,p-DDT + p,p-DDT	0.005           0.005	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo, p - D D T Lp, p - D D To,p-DDT + p,p-DDTDDT+ Metabolites	0.005           0.005	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo, p - D D T Lp, p - D D Tp, p - D D To,p-DDT + p,p-DDTDDT+ MetabolitesDieldrin	0.005           0.005	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo, p - D D T Lp, p - D D To,p-DDT + p,p-DDTDDT+ MetabolitesDieldrinEndosulfan I	0.005           0.005	ug/l         ug/l </td
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo,p-DDE + p,p-DDEo,p - D D T Lp, p - D D To,p-DDT + p,p-DDTDDT+ MetabolitesDieldrinEndosulfan IEndosulfan II	0.005           0.005	ug/l         ug/l </td
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo, p - D D T Lp, p - D D To,p-DDT + p,p-DDTDDT+ MetabolitesDieldrinEndosulfan IEndosulfan sulfate	0.005           0.005	ug/l         ug/l </td
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo, p - D D T Lp, p - D D To,p-DDT + p,p-DDTDDT+ MetabolitesDieldrinEndosulfan IEndosulfan sulfateTotal Endosulfan	0.005           0.005	ug/l         ug/l </td
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo, p - D D T Lp, p - D D To,p-DDT + p,p-DDTDDT+ MetabolitesDieldrinEndosulfan IEndosulfan sulfateTotal EndosulfanEndrin	0.005           0.005	ug/l         ug/l </td
g - ChlordaneChlordane (Total)o, p - D D Dp, p - D D Do,p-DDD + p,p-DDDo, p - D D Ep, p - D D Eo,p-DDE + p,p-DDEo, p - D D T Lp, p - D D To,p-DDT + p,p-DDTDDT+ MetabolitesDieldrinEndosulfan IEndosulfan sulfateTotal Endosulfan	0.005           0.005	ug/l         ug/l </td

Heptachlor	0.005	ug/l
Heptachlor epoxide	0.005	ug/l
Hexachlorobenzene	0.005	ug/l
Lindane	0.003	ug/l
Methoxychlor	0.014	ug/l
Mirex	0.005	ug/l
Octachlorostyrene	0.005	ug/l
Total PCB	0.1	ug/l
Aroclor 1016	0.05	ug/l
Aroclor 1221	0.1	ug/l
Aroclor 1232	0.05	ug/l
Analysis: OC PESTICIDES (SELECTED) & PCB		
Matrix: LIQUID		
Parameters	MDL	Units
Aroclor 1242	0.05	ug/l
Aroclor 1248	0.05	ug/l
Aroclor 1254	0.05	ug/l
Aroclor 1260	0.05	ug/l
Toxaphene	0.2	ug/l
Analysis: PHENOXY ACID HERBICIDES		
Matrix: LIQUID		
Parameters	MDL	Units
Dicamba1ug/L	1	ug/l
Picloram5ug/L	5	ug/l
M C P B 2 u g / L	2	ug/l
2,4-D (BEE) 2 u g / L	2	ug/l
MCPP2ug/L	2	ug/l
M C P A 2 u g / L	2	ug/l
2,4-DP (Dichlorprop) 1 u g / L	1	ug/l
2,4-D1ug/L	1	ug/l
2,4,5-TP (Silvex) 1 u g / L	1	ug/l
2,4,5-T1ug/L	1	ug/l
2 , 4 - D B 1 u g / L	1	ug/l
Analysis: PHENOL (4AAP)		
Matrix: LIQUID		
Parameters	MDL	Unito
	0.001	Units
Phenol - 4 A A P	0.001	mg/l
Analysis: VOLATILE ORGANIC COMPOUNDS WATER	IN	
Matrix: LIQUID		
Parameters	MDL	Units
Acetone (2-Propanone)	10	ug/l
Benzene	0.1	ug/l
Bromodichloromethane	0.1	ug/l
Bromoform	0.2	ug/l
Bromomethane		
Diomoniemane	0.5	ug/l

Chlorobenzene	0.1	ug/l
Chloroform	0.1	ug/l
Dibromochloromethane	0.2	ug/l
1, 2 - Dichlorobenzene	0.2	ug/l
1, 3 - Dichlorobenzene L	0.2	ug/l
1, 4 - Dichlorobenzene	0.2	ug/l
1, 1 - Dichloroethane	0.1	ug/l
1, 2 - Dichloroethane	0.1	ug/l
1,1 - Dichloroethylene	0.1	ug/l
c i s - 1 ,2 - Dichloroethylene	0.1	ug/l
t r a n s - 1 ,2 - Dichloroethylene	0.1	ug/l
1, 2 - Dichloropropane	0.1	ug/l
c i s - 1 , 3 - Dichloropropene	0.2	ug/l
t r a n s - 1 , 3 - Dichloropropene	0.2	ug/l
Ethylbenzene	0.1	ug/l
Ethylene Dibromide	0.2	ug/l
Methylene Chloride(Dichloromethane)	0.5	ug/l
Methyl Isobutyl Ketone	5	ug/l
Methyl Ethyl Ketone (2-Butanone)	5	ug/l
Methyl t-butyl ether (MTBE)	0.2	ug/l
Styrene	0.1	ug/l
1, 1, 1, 2 - Tetrachloroethane	0.1	ug/l
1, 1, 2, 2 - Tetrachloroethane	0.2	ug/l
Tetrachloroethylene	0.1	ug/l
Toluene	0.2	ug/l
1, 1, 1 - Trichloroethane	0.1	ug/l
1, 1, 2 - Trichloroethane	0.2	ug/l
Trichloroethylene	0.1	ug/l
Vinyl Chloride	0.2	ug/l
p + m - Xylene	0.1	ug/l
o - Xylene	0.1	ug/l
Xylene (Total)	0.1	ug/l

#### E4. **SECTION B (WATER QUALITY)**

E4.1 Water Quality samples in leachate, groundwater, and surface water shall:

- (a) consist of approximately one hundred forty (140) samples annually;
- E4.2 have tests performed to include the following parameters:

Analysis: Microbiological Parameters in Water		
Matrix: Water		
Parameters	MDL	Units
E. coli	0	MPN/100ml
Total Coliform	0	MPN/100ml
Analysis: Anions in Water by Ion Chromatography		
Matrix: Water		
Parameters	MDL	Units
Chloride	2	mg/l

# Sulfate

5 mg/l

# E5. SECTION C (BRRMF WATER QUALITY)

E5.1 BRRMF Water Quality samples in leachate, groundwater, and surface water shall:

(a) consist of approximately eighty-five (85) samples annually;

E5.2 have tests performed to include the following parameters:

Analysis: Anions and Nutrients		
Matrix: Water		
Parameters	MDL	Units
Alkalinity, Total (as CaCO3)	20	mg/l
Ammonia, Total (as N)	0.010	mg/l
Bicarbonate (HCO3)	24	mg/l
Carbonate (CO3)	12	mg/l
Hydroxide (OH)	6.8	mg/l
		mg/l
Analysis: Organic / Inorganic Carbon		
Matrix: Water		
Parameters	MDL	Units
Dissolved Inorganic Carbon	1	mg/L
Dissolved Organic Carbon	1	mg/L
Total Dissolved Carbon	1	mg/L
Analysis: Dissolved Metals		
Matrix: Water		
Parameters	MDL	Units
Aluminum (AI)-Dissolved	0.002	mg/L
Antimony (Sb)-Dissolved	0.0002	mg/L
Arsenic (As)-Dissolved	0.0002	mg/L
Barium (Ba)-Dissolved	0.0002	mg/L
Beryllium (Be)-Dissolved	0.0002	mg/L
Bismuth (Bi)-Dissolved	0.0002	mg/L
Boron (B)-Dissolved	0.01	mg/L
Cadmium (Cd)-Dissolved	0.00001	mg/L
Calcium (Ca)-Dissolved	0.05	mg/L
Cesium (Cs)-Dissolved	0.0001	mg/L
Chromium (Cr)-Dissolved	0.002	mg/L
Cobalt (Co)-Dissolved	0.0002	mg/L
Copper (Cu)-Dissolved	0.0002	mg/L
Iron (Fe)-Dissolved	0.1	mg/L
Lead (Pb)-Dissolved	0.00009	mg/L
Lithium (Li)-Dissolved	0.002	mg/L
Magnesium (Mg)-Dissolved	0.01	mg/L
Manganese (Mn)-Dissolved	0.0001	mg/L
Mercury (Hg)-Dissolved	0.00005	mg/L
Molybdenum (Mo)-Dissolved	0.0001	mg/L
Nickel (Ni)-Dissolved	0.001	mg/L
Phosphorus (P)-Dissolved	0.03	mg/L
Potassium (K)-Dissolved	0.02	mg/L

0.0002	mg/L
0.001	mg/L
0.05	mg/L
0.0001	mg/L
0.02	mg/L
0.0001	mg/L
0.0002	mg/L
0.0001	mg/L
0.0001	mg/L
0.0002	mg/L
0.0002	mg/L
0.0002	mg/L
0.0001	mg/L
0.0002	mg/L
0.002	mg/L
0.0004	mg/L
MDL	Units
0.01	mg/L
MDI	Units
	ug/L
	ug/L ug/L
	ug/L
0.0	*
20	UQ/I
20	ug/L
20	ug/L
20 0.5	ug/L ug/L
20 0.5 0.5	ug/L ug/L ug/L
20 0.5 0.5 0.5	ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1	ug/L ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1 0.5	ug/L ug/L ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1 0.5 0.5 0.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1 0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1 0.5 0.5 0.5 0.5 0.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1 0.5 0.5 0.5 0.5 0.5 1	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1 0.5 0.5 0.5 0.5 0.5 1 0.5	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
20 0.5 0.5 0.5 1 0.5 0.5 0.5 0.5 0.5 1	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
	0.001 0.05 0.0001 0.002 0.05 0.5 0.5 0.5 0.5 0.5 0.5 0.

Dichlorodifluoromethane Ethyl Benzene	4	//
EINVI BENZENE	1	ug/L
	0.5	ug/L
1,2-Dibromoethane	0.5	ug/L
m+p-Xylenes	1	ug/L
Methyl Ethyl Ketone	20	ug/L
Methyl Isobutyl Ketone	20	ug/L
МТВЕ	0.5	ug/L
Dichloromethane	0.5	ug/L
o-Xylene	0.5	ug/L
Styrene	0.5	ug/L
Tetrachloroethylene	0.5	ug/L
Trihalomethanes (total)	2	ug/L
Toluene	0.5	ug/L
trans-1,2-Dichloroethylene	0.5	ug/L
trans-1,3-Dichloropropene	0.5	ug/L
Trichloroethylene	0.5	ug/L
Trichlorofluoromethane	1	ug/L
Vinyl chloride	0.5	ug/L
Xylenes (Total)	1.5	ug/L
Analysis: Polycyclic Aromatic Hydrocarbons		
Matrix: Water		
Parameters	MDL	Units
1-Methyl Naphthalene	0.00002	mg/L
2-Methyl Naphthalene	0.00002	mg/L
Acenaphthene	0.00002	mg/L
Acenaphthylene	0.00002	mg/L
Acridine	0.00002	mg/L
Anthracene	0.00001	mg/L
B(a)P Total Potency Equivalent	0.00003	mg/L
Benzo(a)anthracene	0.00001	mg/L
Benzo(a)pyrene	0.000005	mg/L
Benzo(b&i)fluoranthene	0.00001	mg/L
Benzo(g,h,i)perylene	0.00002	mg/L
Benzo(k)fluoranthene	0.00002	mg/L
Chrysene	0.00002	mg/L
Dibenzo(a,h)anthracene	0.00002	mg/L
Fluoranthene	0.00002	mg/L
Fluorene	0.00002	mg/L
Indeno(1,2,3-cd)pyrene	0.00002	mg/L
Naphthalene	0.00001	
Phenanthrene	0.00005	mg/L mg/l
		mg/L
Pyrene	0.00001	mg/L
	0.00002	mg/L
Quinoline	0.00002	<u>J</u>
Quinoline         Analysis: Polychlorinated Biphenyls		
Quinoline         Analysis: Polychlorinated Biphenyls         Matrix: Water		
Quinoline         Analysis: Polychlorinated Biphenyls         Matrix: Water         Parameters	MDL	Units
Quinoline         Analysis: Polychlorinated Biphenyls         Matrix: Water         Parameters         Aroclor 1016	<b>MDL</b> 0.00005	Units mg/L
Quinoline         Analysis: Polychlorinated Biphenyls         Matrix: Water         Parameters	MDL	Units

Aroclor 1242	0.	00005	mg/L
Aroclor 1248	00005	mg/L	
Aroclor 1254	00005	mg/L	
Aroclor 1260	0.	00005	mg/L
Aroclor 1262	0.	00005	mg/L
Aroclor 1268	0.	00005	mg/L
Total Polychlorinated Biphenyls	0.0	000015	mg/L
Analysis: Organochlorine Pesticides		0	
Matrix: Water			
Parameters		MDL	Units
o,p-DDT		0.1	ug/L
p,p-DDD		0.1	ug/L
p,p-DDE		0.1	ug/L
p,p-DDT		0.1	ug/L
Aldrin		0.02	ug/L
Aldrin + Dieldrin		0.04	ug/L
alpha-Chlordane		0.1	ug/L
Chlordane (Total)		0.3	ug/L
DDT + metabolites		0.4	ug/L
Dieldrin		0.02	ug/L
Lindane		0.1	ug/L
gamma-Chlordane		0.1	ug/L
Heptachlor		0.1	ug/L
Heptachlor + Heptachlor Epoxide		0.2	ug/L
Heptachlor epoxide		0.1	ug/L
Methoxychlor		0.1	ug/L
Oxychlordane		0.1	ug/L
Analysis: Microbiological Parameters in Water			
Matrix: Water			
Parameters		MDL	Units
Fecal Coliform		1	cfu/100m

### E6. SECTION D (EXTRA WATER QUALITY)

E6.1 Extra Water Quality samples in leachate, groundwater, and surface water shall:

(a) consist of approximately forty (40) samples annually;

E6.2 have tests performed to include the following parameters:

Analysis: Dissolved Metals		
Matrix: Water		
Parameters	MDL	Units
Aluminum (Al)-Dissolved	0.002	mg/L
Antimony (Sb)-Dissolved	0.0002	mg/L
Arsenic (As)-Dissolved	0.0002	mg/L
Barium (Ba)-Dissolved	0.0002	mg/L
Beryllium (Be)-Dissolved	0.0002	mg/L
Bismuth (Bi)-Dissolved	0.0002	mg/L
Boron (B)-Dissolved	0.01	mg/L
Cadmium (Cd)-Dissolved	0.00001	mg/L

Calcium (Ca)-Dissolved	0.05	mg/L
Cesium (Cs)-Dissolved	0.0001	mg/L
Chromium (Cr)-Dissolved	0.002	mg/L
Cobalt (Co)-Dissolved	0.0002	mg/L
Copper (Cu)-Dissolved	0.0002	mg/L
Iron (Fe)-Dissolved	0.1	mg/L
Lead (Pb)-Dissolved	0.00009	mg/L
Lithium (Li)-Dissolved	0.002	mg/L
Magnesium (Mg)-Dissolved	0.01	mg/L
Manganese (Mn)-Dissolved	0.0001	mg/L
Mercury (Hg)-Dissolved	0.00005	mg/L
Molybdenum (Mo)-Dissolved	0.0001	mg/L
Nickel (Ni)-Dissolved	0.001	mg/L
Phosphorus (P)-Dissolved	0.03	mg/L
Potassium (K)-Dissolved	0.02	mg/L
Rubidium (Rb)-Dissolved	0.0002	mg/L
Selenium (Se)-Dissolved	0.001	mg/L
Silicon (Si)-Dissolved	0.05	mg/L
Silver (Ag)-Dissolved	0.0001	mg/L
Sodium (Na)-Dissolved	0.02	mg/L
Strontium (Sr)-Dissolved	0.0001	mg/L
Tellurium (Te)-Dissolved	0.0002	mg/L
Thallium (TI)-Dissolved	0.0001	mg/L
Thorium (Th)-Dissolved	0.0001	mg/L
Tin (Sn)-Dissolved	0.0002	mg/L
Titanium (Ti)-Dissolved	0.0002	mg/L
Tungsten (W)-Dissolved	0.0002	mg/L
Uranium (U)-Dissolved	0.0001	mg/L
Vanadium (V)-Dissolved	0.0002	mg/L
Zinc (Zn)-Dissolved	0.002	mg/L
Zirconium (Zr)-Dissolved	0.0004	mg/L
Analysis: Speciated Metals		
Matrix: Water		
Parameters	MDL	Units
Chromium, Hexavalent	0.01	mg/L
Analysis: Microbiological Parameters in Water		
Matrix: Water		
Parameters	MDL	Units
Fecal Coliform	1	cfu/100ml