



**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des  
soumissions → TPSGC**  
**10th Floor, 4900 Yonge Street /**  
**10e étage, 4900 rue Yonge**  
**Toronto**  
**Ontario**  
**M2N 6A6**

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Public Works and Government Services Canada  
Ontario Region  
10th Floor, 4900 Yonge Street  
Toronto  
Ontario  
M2N 6A6

<b>Title - Sujet</b> Hgh-resolution tandem mass spectrom	
<b>Solicitation No. - N° de l'invitation</b> KW405-200245/A	<b>Date</b> 2019-08-29
<b>Client Reference No. - N° de référence du client</b> KW405-200245	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$TOR-008-7812	
<b>File No. - N° de dossier</b> TOR-9-42043 (008)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2019-10-09</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Daylight Saving Time EDT
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Leslie, Sandra	<b>Buyer Id - Id de l'acheteur</b> tor008
<b>Telephone No. - N° de téléphone</b> (416) 575-8256 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  Specified Herein Précisé dans les présentes	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b> See Herein	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>          <b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>          <b>Signature</b>          <b>Date</b>	

## TABLE OF CONTENTS

<b>PART 1 - GENERAL INFORMATION .....</b>	<b>2</b>
1.1 REQUIREMENT .....	2
1.2 DEBRIEFINGS .....	2
1.3 TRADE AGREEMENTS .....	2
1.4 EPOST CONNECT SERVICE .....	2
<b>PART 2 - BIDDER INSTRUCTIONS .....</b>	<b>3</b>
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS .....	3
2.2 SUBMISSION OF BIDS.....	3
2.3 ENQUIRIES - BID SOLICITATION.....	3
2.4 APPLICABLE LAWS.....	4
<b>PART 3 - BID PREPARATION INSTRUCTIONS .....</b>	<b>5</b>
3.1 BID PREPARATION INSTRUCTIONS .....	5
<b>PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION .....</b>	<b>7</b>
4.1 EVALUATION PROCEDURES.....	7
4.2 BASIS OF SELECTION.....	7
<b>PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION .....</b>	<b>8</b>
5.1 CERTIFICATIONS REQUIRED WITH THE BID .....	8
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION .....	8
<b>PART 6 - RESULTING CONTRACT CLAUSES .....</b>	<b>10</b>
6.1 SECURITY REQUIREMENTS .....	10
6.2 REQUIREMENT .....	10
6.3 STANDARD CLAUSES AND CONDITIONS .....	10
6.4 TERM OF CONTRACT .....	11
6.5 AUTHORITIES .....	12
6.6 PAYMENT .....	13
6.7 INVOICING INSTRUCTIONS .....	13
6.8 CERTIFICATIONS AND ADDITIONAL INFORMATION.....	13
6.9 APPLICABLE LAWS.....	14
6.10 PRIORITY OF DOCUMENTS .....	14
6.11 SACC MANUAL CLAUSES .....	14
<b>ANNEX "A" REQUIREMENT .....</b>	<b>15</b>
<b>ANNEX "B" BASIS OF PAYMENT .....</b>	<b>19</b>
<b>ANNEX "C" TECHNICAL EVALUATION.....</b>	<b>23</b>
<b>ANNEX "D" TO PART 3 OF THE BID SOLICITATION .....</b>	<b>28</b>
ELECTRONIC PAYMENT INSTRUMENTS .....	28
<b>ANNEX "E" TO PART 5 OF THE BID SOLICITATION .....</b>	<b>29</b>
FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION.....	29
<b>ANNEX "F" ADDITIONAL CERTIFICATIONS .....</b>	<b>30</b>

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Requirement**

The requirement is detailed under Article 6.2 of the resulting contract clauses.

### **1.2 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

### **1.3 Trade Agreements**

The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), the North American Free Trade Agreement (NAFTA), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), and the Canadian Free Trade Agreement (CFTA).

### **1.4 epost Connect service**

This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) (2019-03-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 120 days

#### 2.1.1 SACC Manual Clauses SACC Manual clause

B1000T (2014-06-26) Condition of Material

### 2.2 Submission of Bids

Bids must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date and time indicated on page 1 of the bid solicitation:

Courier/Post: Ontario Region – Tendering Office  
10th Floor, 4900 Yonge Street  
Toronto, Ontario  
M2N 6A6

epost: [TPSGC.orreceptiondessoumissions-orbidreceiving.PWGSC@tpsgc-pwgsc.gc.ca](mailto:TPSGC.orreceptiondessoumissions-orbidreceiving.PWGSC@tpsgc-pwgsc.gc.ca)

**Note:** Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Facsimile number: 416-952-1256

### 2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit

Solicitation No. - N° de l'invitation  
KW405-200245/A  
Client Ref. No. - N° de réf. du client  
KW405-200245

Amd. No. - N° de la modif.  
File No. - N° du dossier  
TOR-9-42043

Buyer ID - Id de l'acheteur  
TOR008  
CCC No./N° CCC - FMS No./N° VME

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the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

## **2.4 Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

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## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

- If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

Section I: Technical Bid  
Section II: Financial Bid  
Section III: Certifications  
Section IV: Additional Information

- If the Bidder chooses to submit its bid in hard copies, Canada requests that the Bidder submits its bid in separately bound sections as follows:

Section I: Technical Bid (2 hard copies)  
Section II: Financial Bid (1 hard copy)  
Section III: Certifications (1 hard copy)

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

- If the Bidder is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of hard copy of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573) (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

### **Section I: Technical Bid**

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

### **Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment.

#### **3.1.1 Electronic Payment of Invoices – Bid**

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex “D” Electronic Payment Instruments, to identify which ones are accepted.

If Annex “D” Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

#### **3.1.2 Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation

#### **3.1.3 SACC Manual Clauses**

### **Section III: Certifications**

Bidders must submit the certifications and additional information required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **4.1 Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### **4.1.1 Technical Evaluation**

##### **4.1.1.1 Mandatory Technical Criteria**

Mandatory technical evaluation criteria are included in Annex C.

#### **4.1.2 Financial Evaluation**

The bidder must submit pricing in accordance with Annex B - Basis of Payment, in Canadian funds. Pricing must be provided for all firm and optional goods and services.

The Total Evaluated Price is the sum of the Tables 1 to 4 at Annex B, Basis of Payment.

*SACC Manual* Clause [A0220T](#) (2014-06-26), Evaluation of Price-Bid

### **4.2 Basis of Selection**

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.



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## PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

### 5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

#### 5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### 5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

#### 5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### 5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

Solicitation No. - N° de l'invitation  
KW405-200245/A  
Client Ref. No. - N° de réf. du client  
KW405-200245

Amd. No. - N° de la modif.  
File No. - N° du dossier  
TOR-9-42043

Buyer ID - Id de l'acheteur  
TOR008  
CCC No./N° CCC - FMS No./N° VME

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Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex titled Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

## PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### 6.1 Security Requirements

6.1.1 There is no security requirement applicable to the Contract.

### 6.2 Requirement

The Contractor must provide the items detailed under the "Requirement" at Annex "A".

### 6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### 6.3.1 General Conditions

[2010A](#) (2018-06-21), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

2010A (2018-06-21) Intellectual property infringement and royalties

- 1) The Contractor represents and warrants that, to the best of its knowledge, neither it nor Canada will infringe any third party's intellectual property rights in performing or using the Work, and that Canada will have no obligation to pay royalties of any kind to anyone in connection with the Work.
- 2) If anyone makes a claim against Canada or the Contractor concerning intellectual property infringement or royalties related to the Work, that Party agrees to notify the other Party in writing immediately. If anyone brings a claim against Canada, according to [Department of Justice Act](#), R.S. 1985, c. J-2, the Attorney General of Canada must have the regulation and conduct of all litigation for or against Canada, but the Attorney General may request that the Contractor defend Canada against the claim. In either case, the Contractor agrees to participate fully in the defence and any settlement negotiations and to pay all costs, damages and legal costs incurred or payable as a result of the claim, including the amount of any settlement. Both Parties agree not to settle any claim unless the other Party first approves the settlement in writing.
- 3) The Contractor has no obligation regarding claims that were only made because:
  - (a) Canada modified the Work or part of the Work without the Contractor's consent or used the Work or part of the Work without following a requirement of the Contract; or
  - (b) Canada used the Work or part of the Work with a product that the Contractor did not supply under the Contract (unless that use is described in the Contract or the manufacturer's specifications); or
  - (c) the Contractor used equipment, drawings, specifications or other information supplied to the Contractor by Canada (or by someone authorized by Canada); or
  - (d) the Contractor used a specific item of equipment or software that it obtained because of specific instructions from the Contracting Authority; however, this exception only applies if the Contractor has included the following language in its own contract with the supplier of that equipment or software: "[Supplier name] acknowledges that the purchased items will be used by the Government of Canada. If a third party claims that equipment or software supplied under this contract infringes any intellectual property right, [supplier name], if requested to do so by either [Contractor name] or Canada, will defend both [Contractor name] and Canada against that claim at its own expense and will pay all costs, damages and legal fees payable as a result of that infringement." Obtaining this protection from the supplier is the Contractor's responsibility and, if the Contractor does not do so, it will be responsible to Canada for the claim.
- 4) If anyone claims that, as a result of the Work, the Contractor or Canada is infringing its intellectual property rights, the Contractor must immediately do one of the following:

- (a) take whatever steps are necessary to allow Canada to continue to use the allegedly infringing part of the Work; or
- (b) modify or replace the Work to avoid intellectual property infringement, while ensuring that the Work continues to meet all the requirements of the Contract; or
- (c) take back the Work and refund any part of the Contract Price that Canada has already paid.

If the Contractor determines that none of these alternatives can reasonably be achieved, or if the Contractor fails to take any of these steps within a reasonable amount of time, Canada may choose either to require the Contractor to do (c), or to take whatever steps are necessary to acquire the rights to use the allegedly infringing part(s) of the Work itself, in which case the Contractor must reimburse Canada for all the costs it incurs to do so.

### **6.3.2 Supplemental General Conditions**

4001 (2015-04-01) Hardware Purchase, Lease and Maintenance;  
4003 (2010-08-16) Licensed Software,

apply to and form part of the Contract.

## **6.4 Term of Contract**

### **6.4.1 Period of the Contract**

The period of the Contract is from date of Contract award to one year inclusive.

### **6.4.2 Delivery Date**

All the deliverables must be received on or before December 31, 2019.

### **6.4.3 Delivery Points**

Delivery of the requirement will be made to delivery point(s) specified at Annex "B" of the Contract.

### **6.4.4 Optional Goods and/or Services**

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at Annex B of the Contract under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

## 6.5 Authorities

### 6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Sandra Leslie  
Title: Supply Specialist  
Organization: Public Works and Government Services Canada  
Acquisitions Branch  
Address: 10th Floor, 4900 Yonge Street  
Toronto, ON M2N 6A6  
Telephone: 416-575-8256  
E-mail address: [sandra.leslie2@pwgsc-tpsgc.gc.ca](mailto:sandra.leslie2@pwgsc-tpsgc.gc.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### 6.5.2 Project Authority

The Project Authority for the Contract is: (to be inserted at contract award)

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### 6.5.3 Contractor's Representative

The telephone number (with extension if applicable) of the person responsible for:

General enquiries

Name: \_\_\_\_\_  
Telephone No. \_\_\_\_\_  
Facsimile No. \_\_\_\_\_  
E-mail address: \_\_\_\_\_

Delivery Follow-up

Name: \_\_\_\_\_  
Telephone No. \_\_\_\_\_  
Facsimile No. \_\_\_\_\_  
E-mail address: \_\_\_\_\_

## **6.6 Payment**

### **6.6.1 Basis of Payment**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price Annex B for a cost of \$ \_\_\_\_\_ (insert the amount at contract award). Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### **6.6.2 SACC Manual Clauses**

C2000C (2007-11-30) Taxes - Foreign-Based Contractor  
H1001C (2008-05-12) Multiple Payments

### **6.6.3 Electronic Payment of Invoices – Contract**

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

## **6.7 Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
  - a) The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
  - b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

## **6.8 Certifications and Additional Information**

### **6.8.1 Compliance**

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

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## 6.8.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

## 6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_ (*insert the name of the province or territory as specified by the Bidder in its bid, if applicable*).

## 6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions  
4001 (2015-04-01) Hardware Purchase, Lease and Maintenance;  
4003 (2010-08-16) Licensed Software,
- (c) the general conditions 2010A (2018-06-21) General conditions: Goods (medium complexity));
- (d) Annex A, Requirement;
- (e) Annex B, Basis of Payment;
- (f) the Contractor's bid dated \_\_\_\_\_ (*insert date of bid*)

## 6.11 SACC Manual Clauses

**A9068C** (2010-01-11) Government Site Regulations  
**B7500C** (2006-06-16) Excess Goods  
**D0018C** (2007-11-30) Delivery and Unloading  
**G1005C** (2016-01-28) Insurance

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## ANNEX "A" REQUIREMENT

### TITLE : High-resolution tandem mass spectrometry systems (HR-MS/MS)

#### 1. DEFINITION OF REQUIREMENTS

Environment and Climate Change Canada has a requirement for the supply, delivery, installation and training for high-resolution tandem mass spectrometry systems (HR-MS/MS) for environmental qualitative and quantitative research on organic aquatic contaminants, their effects on aquatic organisms and their fate in the environment.

The systems, comprising an ultra-high performance liquid chromatography module coupled to a high-resolution tandem mass spectrometer (UHPLC-HR-MS/MS) is required in Montreal, QC.

The system, comprising a high-resolution tandem mass spectrometer (HR-MS/MS), is required in Burlington, ON.

#### **MONTREAL LABORATORY**

The organic chemistry laboratory of the Aquatic Contaminants Research Division (ACRD) in Montreal carries out research projects under the St. Lawrence Action Plan (SLAP) program, on the characterization of pharmaceutical substances and cyanotoxins in their environmental state, that is to say found in trace concentrations, in their original form and in their degraded or transformed form, thus known and unknown compounds. Characterization of this type of substance requires high-resolution detection to separate the signals as a function of their mass-to-charge ratio ( $m/z$ ) of the compounds of interest from their interferences. In addition, these compounds may or may not be soluble in water, adsorbed or not on suspended particles or precipitated in sediments in the trace state. The only technology capable of responding to this type of project is the UHPLC-HR-MS/MS system, which its application is already well known.

The objective for the Montreal system is to acquire a benchtop UHPLC-HR-MS/MS system operating at a resolving power up to 140,000 (full width at half maximum - FWHM) at 200  $m/z$  to replace a HPLC-MS/MS-QTOF (resolving power 5,000 (FWHM)) to meet the new identification and detection objectives of the SLAP projects concerning the identification of environmental degradation products.

#### **BURLINGTON LABORATORY**

A group of laboratories within the Aquatic Contaminants Research Division (ACRD) in Burlington conducts research that delivers under oil sands monitoring, the Chemicals Management Plan (CMP), and Genomics programs. This research is comprised of multiple applications, spanning a broad range of molecular masses and is comprised of small molecule discovery, nontarget profiling of complex mixtures, and other applications relating to the separation and identification of metabolomics and proteomics profiles for non-model organisms.

The objective for the Burlington system is to meet the demands of the multiple users and research objectives by fully controlling the existing inlet instrumentation hardware (Agilent ultrahigh pressure/supercritical fluid chromatography system – SFC/UHPLC). The mass spectrometer must meet the broad range of multi-user workflows and applications (small molecule discovery, nontarget profiling, metabolomics, proteomics).



## 2. MANDATORY TECHNICAL CRITERIA

### SYSTEMS FOR MONTREAL:

#### 2.1 Ultra-high performance liquid chromatography (UHPLC)

The UHPLC system must include a solvent compartment that can hold 5x1L bottles and a built-in solvent degasser for at least four solvent lines. A 4-solvent binary pump must be able to operate at flow rates between 0.001 and 8 mL/min inducing pressures up to 1500 bar for fast separation and optimal chromatographic peak resolution, with a mixer volume of up to 25 µL to reduce dead volume. An autosampler must include a tray that can hold a minimum of 200 vials of 2 mL or a 394-well plate, as well as a temperature control of samples between 4 and 40 ° C. Minimum injection volumes of 0.01 µL and a maximum of 100 µL are required to obtain a better signal depending on the nature of the sample. Carryover effect must be limited to maintain the integrity of the samples (less than 0.004% (Chlorhexidine); 0.0004% (Caffeine)). A compartment of at least 2 columns with a switching valve for their transfer must be included, with the use of columns between 1 to 30 cm and with an air-controlled temperature between 5 ° C and 120 ° C, including preheating of the solvent. The system must be biocompatible (pH between 2 and 12) to satisfy analyses in matrices of biological nature. The system must also be compatible with trifluoroacetic acid. Stainless steel fingertight fittings for UHPLC will be provided to facilitate handling and to limit solvent leaks caused by bad manual teflon fittings.

#### 2.2 High-resolution tandem mass spectrometry (HR-MS/MS)

The benchtop HR-MS/MS system must operate at resolving powers up to 140,000 (FWHM) at 200 *m/z* and include an option for the resolution enhancement to 280,000 (FWHM) at 200 *m/z* with a mass accuracy of <1 (3) ppm with internal (external) calibration. This resolution is essential for the deconvolution of isobaric signals (of the same nominal mass) interfering with compounds of interest and present in complex matrix samples. High-resolution and accurate-mass (HRAM) detection provides a higher level of confidence that is essential for the identification of unknown compounds including degradation and transformation products present in environmental samples. The system must enable ion fragmentation (MS/MS) and the following options must be included in order to increase the level of confidence in the characterization of pharmaceutical substances and cyanotoxins in their environmental state: higher-energy collisional dissociation (HCD); full scan with a mass scale between 50 and 6000 *m/z*; selected ion monitoring (SIM), parallel reaction monitoring (PRM), all-ion fragmentation (AIF), neutral loss, data-independent acquisition (DIA), data-dependent acquisition (DDA) and positive/negative ion switching on chromatographic time scale. A heated electrospray ionization probe (HESI-II) and a stacked and progressively spaced ring-shaped ion funnel (S-lens) located in front of the quadrupole to direct ions into the MS system must be included to ensure the trace-level sensitivity of analyzed substances. The source drying gas and the collision gas must be nitrogen and the MS must require a nitrogen flow of 32 L/min or less (nitrogen generator already in place).

#### 2.3 Computer, screen, printer and data treatment software

The UHPLC-HR-MS/MS must be provided with a complete operating system necessary for its use. The operating system must include a computer, two screens, a printer, Windows 10, Microsoft Office software package, as well as the operating and analysis software for the UHPLC-HR-MS/MS system. The operating and analysis software for the UHPLC-HR-MS/MS system must include:

An integrated raw data processing software to facilitate targeted and non-targeted qualitative analysis, quantitative analysis, a method development wizard, a molecule library integrating UHPLC-MS/MS parameters and identification of molecules with integrated libraries.

Software for the identification of unknowns and raw data processing must include customizable data processing experiments which will have to integrate the following components: databases and spectral libraries (ChemSpider, metabolic pathways (including KEGG and BioCyc)); integrated open data library with fragmentation and full scan data (*mzCloud*); in-house libraries with inclusion and exclusion in *m/z*; a scoring algorithm combining an HRMS similarity search combining open data library (*MS*<sup>2</sup>) with a structure similarity matching to classify the database results; the performance of statistics and differential analysis using t-tests, ANOVA, PCA, PSL-DA, volcano plots; an high-resolution accurate-mass (HRAM)

library that contain more than 2,500 unique inputs of different classes of molecules including, but not limited to, emerging environmental contaminants, prescription drugs, and industrial toxins, as well as methods with details on retention times (thus reducing the time required for method development).

## 2.4 Installation, training and warranty

The benchtop UHPLC-HR-MS/MS system must be installed on an air cushion table with soundproofing cabinet underneath for the MS pumps. The air cushion table must be provided with the system. Both the table and UHPLC-HR-MS/MS system must conform to the following dimensions according to the spatial limitation of the laboratory: maximum dimension of the table/counter: 95 " x 35 " or 230 cm x 89 cm (W x D); maximum height of the table and system placed on top: 84 inches or 213 cm.

### Electricity requirements

- Binary pumps : 100–240 V AC, 50/60 Hz, max. 520 W/550 VA.
- Auto sampler: 100–240 V AC, 50/60 Hz, max. 245 W/255 VA.
- MS/MS: 2x 230 Vac  $\pm$  10% single phase, 15 A, 50/60 Hz, with earth ground for the instrument 120 or 230 Vac single phase with earth ground for the data system.

The system installation, table, computer and all the necessary equipment for the operation of the UHPLC-HR-MS/MS must be included for the high resolution analysis. A minimum one-year warranty on all components necessary for the operation of the system is included.

A 3-day on-site training for 3 people in Montreal must be included.

## SYSTEM FOR BURLINGTON

### 2.5 High-resolution tandem mass spectrometer (HR-MS/MS)

The Burlington system must meet the demands of the multiple users and research objectives by fully controlling the existing inlet instrumentation hardware (Agilent ultrahigh pressure/supercritical fluid chromatography system). The mass spectrometer must meet the broad range of multi-user workflows and applications (small molecule discovery, nontarget profiling, metabolomics, proteomics). The mass spectrometer must possess sufficient dynamic range (>5000 within a single scan), multiple fragmentation techniques (Collision Induced Dissociation (CID) and Higher energy Collisional Dissociation (HCD) available at any stage of fragmentation), mass resolving power (maximum mass resolution up to 500,000 (FWHM) at 200 m/z), mass accuracy (< 3 ppm with external calibration, and < 1 ppm using internal calibration) and must support MS<sup>2</sup> and higher order data acquisition (MS<sup>n</sup> where n=1-10) with high resolution and high mass accuracy for the identification of unknown molecules across a broad mass range of m/z 50-2000 Da. Furthermore, the mass spectrometer must be comprised of two functioning independent mass spectrometers able to acquire data either independent of the other, sequentially with the other, or in parallel with the other, necessitating a system comprised of 3 mass analyzers.

Such specifications are essential for the Burlington mass spectrometer for numerous reasons. The instrument will be used to chemically fingerprint low levels of hydrocarbons associated with oil sands produced water (OSPW) and the natural bitumen background present in surface and groundwater of the Alberta McMurray geological formation. This instrument will also be heavily utilized in the identification of unknown biologically active substances in the highly complex mixtures derived from these and other sources of environmental contamination (e.g. pulp and paper mill effluents, textile mill effluents). Moreover, the instrument will be used for the profiling and identification of metabolites and proteins within metabolomics and proteomics workflows in non-model organisms. Finally, the instrument will be used in the examination/identification of emerging contaminants in complex matrices such as wastewater and biosolids.

## 2.6 Computer, printer and data analysis software

The System 2 (Burlington) HR-MS/MS system must be provided with an operating system that includes a computer, colour laser printer, Windows 10 Professional 64-bit, Microsoft Office software package, and the operating and analysis software required to control both the HR/MS/MS system and the existing inlet systems.

The operating system software must be able to control the following modules of the existing Agilent 1260 Infinity II SFC/UHPLC hybrid inlet system:

G4301A:	1260 Infinity II SFC Control Module
G4782A	1260 Infinity II SFC Binary Pump
G7104C	1260 Infinity II Flexible Pump
G4767A	1260 Infinity II SFC Multisampler
G1170A	1290 Infinity Valve Drive
G7112B	1260 Infinity II Binary Pump
G7116A	1260 Infinity II Multi-Column Thermostat

The analysis software must include an integrated raw data processing software to perform targeted and non-targeted qualitative analysis, quantitative analysis and software for the identification of unknowns.

## 2.7 Installation, training and warranty

The HR-MS/MS system shall be installed to interface with existing inlet systems as described above.

Electricity requirements

- Instrument power requirements : 230 Vac  $\pm$  10% single phase, 15 Amp, 50/60 Hz, with earth ground
- Data system: 120 or 230 V single phase, 50/60 Hz, with earth ground

The system installation, table, computer, printer, software and all the necessary equipment for the installation and operation of the HR-MS/MS must be included. A minimum one-year warranty on all components necessary for the operation of the system is included.

A 3-day on-site training for 3 people in Burlington must be included.

## ANNEX "B" BASIS OF PAYMENT

*NOTE: Upon issuance of the Contract, wording that is italicized will be deleted from Annex B.  
The bidder must provide a separate firm price for each line listed in this Basis of Payment.*

1. The prices must be firm, in Canadian dollars, FOB destination, applicable customs and duties, DDP (delivery duty paid) to specified delivery location below.
2. Firm Unit Price must not include applicable taxes. Applicable taxes will be added as a separate line item to any invoices issued as a result of the contract.

### FIRM REQUIREMENT

#### Ultra-high performance chromatography (UHPLC) and high-resolution tandem mass spectrometry (HR-MS/MS)

**DELIVERY LOCATION** (with loading dock and an elevator)  
Environment and Climate Change Canada  
105 McGill, 7<sup>th</sup> floor  
Montreal, QC H2Y 2E7

TABLE 1				
ITEM #	DESCRIPTION	UNIT OF ISSUE	QUANTITY	FIRM UNIT PRICE
1	Ultra-high performance chromatography (UHPLC) in accordance with the requirements in Annex "A", Requirement Make: _____ Model: _____	EACH	1	\$ _____
2	High-resolution tandem mass spectrometry (HR-MS/MS) - in accordance with the requirements in Annex "A", Requirement. Make: _____ Model: _____	EACH	1	\$ _____
3	Delivery for the Ultra-high performance chromatography (UHPLC) and the High-resolution tandem mass spectrometry (HR-MS/MS) - in accordance with the requirements in Annex "A", Requirement	LOT	1	\$ _____
4	Installation for the Ultra-high performance chromatography (UHPLC) and the High-resolution tandem mass spectrometry (HR-MS/MS) in accordance with the requirements in Annex "A", Requirement.	LOT	1	\$ _____
5	On-site training for the Ultra-high performance chromatography (UHPLC) and the High-resolution tandem mass spectrometry (HR-MS/MS)- in accordance with the requirements in Annex "A", Requirement.	LOT	1	\$ _____
Total for Table 1: (total of items 1 – 5)				\$ _____

Solicitation No. - N° de l'invitation  
KW405-200245/A  
Client Ref. No. - N° de réf. du client  
KW405-200245

Amd. No. - N° de la modif.  
File No. - N° du dossier  
TOR-9-42043

Buyer ID - Id de l'acheteur  
TOR008  
CCC No./N° CCC - FMS No./N° VME

### High-resolution tandem mass spectrometer (HR-MS/MS)

**DELIVERY LOCATION** (with loading dock and an elevator)  
Environment and Climate Change Canada  
867 Lakeshore Road  
Burlington, ON  
L7S 1A1

TABLE 2				
ITEM #	DESCRIPTION	UNIT OF ISSUE	QUANTITY (A)	FIRM UNIT PRICE (B)
1	High-resolution tandem mass spectrometer (HR-MS/MS), in accordance with the requirements in Annex "A", Requirement.  Make: _____  Model _____	EACH	1	\$ _____
2	Delivery - in accordance with the requirements in Annex "A", Requirement	LOT	1	\$ _____
3	Installation in accordance with the requirements in Annex "A", Requirement.	LOT	1	\$ _____
4	Additional license of software for the identification of unknown molecules and non-target profiling	LOT	1	\$ _____
5	On-site training - in accordance with the requirements in Annex "A", Requirement.	LOT	1	\$ _____
Total for Table 2: (total of items 1 – 5)				\$ _____

## OPTIONAL GOODS AND SERVICES

**NOTE:** Canada may purchase any or all of the optional goods at any time during the period of the contract. The optional goods and services may be exercised in various quantities during the contract period.

*Upon issuance of the Contract, wording that is italicized will be deleted from Annex B.*

The amount must be in Canadian currency and must not include any amount for the Goods and Services Tax (GST) or the Harmonized Sales Tax (HST) as may be applicable.

### Optional Goods and Services

DELIVERY LOCATION - **(with loading dock and an elevator)**

Environment and Climate Change Canada

105 McGill St., 7<sup>th</sup> floor

Montreal, Qc, H2Y 2E7

<b>TABLE 3</b>			
ITEM #	Description	Unit of issue	Firm price
1	An atmospheric-pressure chemical ionization source (APCI) to increase the scope of analyzes by increasing the sensitivity of substances more easily ionizable by this ionization mode.	LOT	
2	An atmospheric-pressure photochemical ionization source (APPI) to increase the scope of analyzes by increasing the sensitivity of substances more easily ionizable by this ionization mode.	LOT	
3	Enhanced resolving power to 280,000 (FWHM) at $m/z$ 200.		
4	Inclusion of the MZ Logic software.	LOT	
5	An additional warranty extended to 3 years for Ultra-high performance chromatography (UHPLC).	LOT	
6	An additional warranty extended to 3 years for High-resolution tandem mass spectrometry (HR-MS/MS)		
7	Second triple quadrupole mass spectrometer detector for the ultra-trace quantitative analysis of small molecules.	LOT	
<b>Total for Table 3 (total of items 1 – 7)</b>			

Solicitation No. - N° de l'invitation  
KW405-200245/A  
Client Ref. No. - N° de réf. du client  
KW405-200245

Amd. No. - N° de la modif.  
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Buyer ID - Id de l'acheteur  
TOR008  
CCC No./N° CCC - FMS No./N° VME

**DELIVERY LOCATION (with loading dock and an elevator)**

Environment and Climate Change Canada  
867 Lakeshore Road  
Burlington, ON  
L7S 1A1

TABLE 4			
Item No.	Description	Unit of issue	Firm price
1	An additional warranty extended to 3 years	LOT	
2	Additional license of software for the identification of unknown molecules and nontarget profiling	LOT	
<b>Total for Table 4</b> (total of items 1 – 2)			

**Evaluated Price** = Total for Table 1 + Total for Table 2 + Total for Table 3 + Total for Table 4

**This amount will be used to calculate Bidders total price for evaluation**

\$ \_\_\_\_\_

## ANNEX "C" TECHNICAL EVALUATION

### EVALUATION CRITERIA

#### MINIMUM MANDATORY PERFORMANCE SPECIFICATIONS

A complete list of the minimum mandatory performance specifications are detailed below. Bidders are to clearly demonstrate compliance with each mandatory specification.

1. Bidders **must** show compliance by addressing each performance specification.
2. It is requested that supporting technical documentation, including but not limited to, specification sheets, technical brochures, photographs or illustrations be provided with the bid at solicitation close and be cross-referenced for each performance specification to outline where in the supporting technical documentation it demonstrates compliance. It is the Bidders responsibility to ensure that the submitted supporting technical documentation provides detail to prove that the proposed product(s) meet the requirements of the Performance Specification. If published supporting technical document is not available, the Bidder should prepare a written narrative complete with a detailed explanation of how its bid demonstrates technical compliance.
3. If the supporting documentation referenced above has not been provided at bid closing, the Contracting Authority will notify the Bidder that they must provide supporting documentation within two (2) business days following notification. Failure to comply with the request of the Contracting Authority within that time period, will deem the bid nonresponsive and the bid will be given no further consideration.
4. Bidders must address any concerns with the performance specifications in written detail to the Contracting Authority before bid closing as outlined in the solicitation document.
5. Failure to meet each performance specification will result in the bid being deemed nonresponsive, and be given no further consideration.

#### SYSTEMS FOR MONTREAL

Item number	Mandatory criteria	Cross-reference to documentation provided, Annex , Page No., Item No. etc.
1	<b>An ultra-high performance chromatography (UHPLC) system including the following items</b>	
	a. A solvent compartment that can hold 5x1L bottles.	
	b. A built-in solvent degasser for at least four solvent lines.	
	c. A 4-solvent binary pump must be able to operate at flow rates between 0.001 and 8 mL/min inducing pressures up to 1500 bar for fast separation and optimal chromatographic peak resolution, with a mixer volume of up to 25 µL to reduce dead volume.	
	d. An autosampler must include a tray that can hold a minimum of 200 vials of 2 mL or a 394-well plate, as well as a temperature control of samples between 4 and 40 ° C. Minimum injection volumes of 0.01 µL and a maximum of 100 µL.	
	e. Carryover effect must be limited to maintain the integrity of the samples (less than 0.004% (Chlorhexidine);	



	0.0004% (Caffeine)).	
	f. A compartment of at least 2 columns with a switching valve for their transfer must be included, with the use of columns between 1 to 30 cm and with an air-controlled temperature between 5 ° C and 120 ° C, including preheating of the solvent.	
	g. The system must be biocompatible (pH between 2 and 12) and also be compatible with trifluoroacetic acid.	
	h. Stainless steel fingertight fittings for UHPLC will be provided.	
2	<b>A high-resolution tandem mass spectrometry (HR-MS/MS) including the following characteristics</b>	
	a. The HR-MS/MS must be settle on a bench (benchtop).	
	b. The HR-MS/MS system must be able to operate at resolving powers up to 140,000 (FWHM) at 200 <i>m/z</i> and include an option for the resolution enhancement to 280,000 (FWHM) at 200 <i>m/z</i> with a mass accuracy of <1 (3) ppm with internal (external) calibration.	
	c. The system must enable ion fragmentation (MSMS).	
	d. Collision mode required: higher-energy collisional dissociation (HCD)	
	e. Various scan modes are required: full scan with a mass scale between 50 and 6000 <i>m/z</i> ; selected ion monitoring (SIM), parallel reaction monitoring (PRM), all-ion fragmentation (AIF), neutral loss, data-independent acquisition (DIA), data-dependent acquisition (DDA) and positive/negative ion switching on chromatographic time scale.	
	f. A heated electrospray ionization probe (HESI-II).	
	g. A stacked and progressively spaced ring-shaped ion funnel (S-lens) located in front of the quadrupole to direct ions into the MS system.	
	h. The source drying gas and the collision gas must be nitrogen and the MS must require a nitrogen flow of 32 L/min or less (nitrogen generator already in place).	
3	<b>Computer, screen, printer and data treatment software</b>	
	a. A computer, two screens, a printer, Windows 10, Microsoft Office software package, and the required operating and analysis software.	
	b. The analysis software must include: <ul style="list-style-type: none"> <li>i. An integrated raw data processing software to facilitate targeted and non-targeted qualitative analysis, quantitative analysis, a method development wizard, a molecule library integrating UHPLC-MS/MS parameters and identification of molecules with integrated libraries.</li> </ul>	
	ii. Software for the identification of unknowns and raw data processing must include customizable data processing experiments which will have to integrate the following components: databases and spectral libraries (ChemSpider, metabolic pathways (including KEGG and BioCyc); integrated open data library with fragmentation	

	and full scan data (mzCloud); in-house libraries with inclusion and exclusion in (m/z); a scoring algorithm combining an HRMS similarity search combining open data library (MS2 and MSMS) with a structure similarity matching to classify the database results; the performance of statistics and differential analysis using t-tests, ANOVA, PCA, PSL-DA, volcano plots; an high-resolution accurate-mass (HRAM) library developed on Orbitrap-type systems.	
<b>4</b>	<b>Installation, and warranty</b>	
	a. The benchtop UHPLC-HR-MS/MS system must be installed on an air cushion table with soundproofing cabinet underneath for the MS pumps which must be provided with the system.	
	b. Both the table and UHPLC-HR-MS/MS system must conform to the following dimensions according to the spatial limitation of the laboratory: maximum dimension of the table/counter: 95 " x 35 " or 230 cm x 89 cm (W x D); maximum height of the table and system placed on top: 84 inches or 213 cm.	
	c. Binary pumps : 100–240 V AC, 50/60 Hz, max. 520 W/550 VA.	
	d. Auto sampler: 100–240 V AC, 50/60 Hz, max. 245 W/255 VA.	
	e. MS/MS: 2× 230 Vac ± 10% single phase, 15 A, 50/60 Hz, with earth ground for the instrument 120 or 230 Vac single phase with earth ground for the data system.	
	f. The system installation, table, computer and all the necessary equipment for the operation of the UHPLC-HR-MS/MS must be included.	
	g. A minimum one-year warranty on all components necessary for the operation of the system must be included.	

## SYSTEM FOR BURLINGTON

Item number	MANDATORY CRITERIA	Cross-reference to documentation provided, Annex , Page No., Item No. etc.
1.	<b>A high-resolution tandem mass spectrometry (HR-MS/MS) including the following characteristics</b>	
	a. The system must be fully compatible with the existing Agilent inlet chromatography systems mass spectrometry system in the laboratory, a hybrid ultrahigh pressure liquid chromatography/supercritical fluid chromatography (UHPLC/SFC) inlet system.	
	b. The mass spectrometer must have a maximum mass resolution up to 500,000 (FWHM) at 200 <i>m/z</i> .	
	c. The mass spectrometer must have a maximum of three mass analyzers.	
	d. The mass spectrometer must support MS <sup>2</sup> and higher order data acquisition (MS <sup>n</sup> where n=1-10) with high resolution and high mass accuracy for identification of unknown molecules.	
	e. The mass spectrometer must be comprised of two functioning independent mass spectrometers able to acquire data either independent of the other, sequentially with the other, or in parallel with the other.	
	f. The mass spectrometer must operate in the range of <i>m/z</i> 50-2000 da. (Dalton), and must maintain mass accuracy across the full range.	
	g. The mass spectrometer must support multiplex selected ion monitoring (SIM), and be able to detect < 100 fg of analyte in a SIM scan with a signal-to-noise ratio of 100:1 or better.	
	h. The mass spectrometer must have dual fragmentation capability that include Collision Induced Dissociation (CID) and Higher energy Collisional Dissociation (HCD) available at any stage of MSMS.	
	i. The mass spectrometer must have a dynamic range of greater than 5000 within a single scan.	
	j. The mass spectrometer must have rapid polarity switching functionality, where one full cycle can be conducted in a minimum of 1.1 sec (one full scan in positive mode and one full scan in negative mode at a resolution setting of 30,000).	
	k. The mass spectrometer must be equipped with a dual pressure linear ion trap where the high-pressure cell is used for improved isolation and fragmentation efficiency and the low-pressure cell is used for improved scan speed, resolving power and mass accuracy.	
	l. The mass spectrometer must be equipped with a quadrupole mass filter capable of precursor isolation window widths as low as 0.4 amu.	
	m. The mass spectrometer must have multiplexing functionality using an ion-routing multipole - Up to 10 precursors per scan using the quadrupole mass filter for targeted MS <sup>2</sup> and Selected Ion Monitoring (SIM).	
	n. The mass spectrometer must have a mass accuracy better < 3 ppm with external calibration, and < 1 ppm using internal calibration.	
2	<b>Computer, printer operating system and data analysis software</b>	
	A computer system with a colour laser printer, Windows 10 64-bit, Microsoft Office	

	<p>software package, with operating and analysis software.</p> <p>a. The operating system software must be able to control the following modules of the existing Agilent 1260 Infinity II SFC/UPLC hybrid inlet system:</p> <ul style="list-style-type: none"> <li>i. G4301A: 1260 Infinity II SFC Control Module</li> <li>ii. G4782A 1260 Infinity II SFC Binary Pump</li> <li>iii. G7104C 1260 Infinity II Flexible Pump</li> <li>iv. G4767A 1260 Infinity II SFC Multisampler</li> <li>v. G1170A 1290 Infinity Valve Drive</li> <li>vi. G7112B 1260 Infinity II Binary Pump</li> <li>vii. G7116A 1260 Infinity II Multi-Column Thermostat</li> </ul>	
	<p>b. The analysis software must include:</p> <ul style="list-style-type: none"> <li>i. An integrated raw data processing software to facilitate targeted and non-targeted qualitative analysis, quantitative analysis and software for the identification of unknowns.</li> </ul>	
3.	<p><b>Installation and warranty</b></p> <p>a. The mass spectrometer system must be installed to interface with existing inlet systems as describe above, and meet installation specifications for analytical requirements.</p>	
	<p>b. Instrument power requirements : 230 Vac ± 10% single phase, 15 Amp, 50/60 Hz, with earth ground</p>	
	<p>c. Data system: 120 or 230 V single phase, 50/60 Hz, with earth ground</p>	
	<p>d. A minimum one-year warranty on all components necessary for the operation of the system must be included.</p>	

Solicitation No. - N° de l'invitation  
KW405-200245/A  
Client Ref. No. - N° de réf. du client  
KW405-200245

Amd. No. - N° de la modif.  
File No. - N° du dossier  
TOR-9-42043

Buyer ID - Id de l'acheteur  
TOR008  
CCC No./N° CCC - FMS No./N° VME

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## **ANNEX “D” to PART 3 OF THE BID SOLICITATION**

### **ELECTRONIC PAYMENT INSTRUMENTS**

*As indicated in Part 3, clause 3.1.2, the Bidder must identify which electronic payment instruments they are willing to accept for payment of invoices.*

The Bidder accepts any of the following Electronic Payment Instrument(s):

- ( ) VISA Acquisition Card;
- ( ) MasterCard Acquisition Card;
- ( ) Direct Deposit (Domestic and International);
- ( ) Electronic Data Interchange (EDI);
- ( ) Wire Transfer (International Only);
- ( ) Large Value Transfer System (LVTS) (Over \$25M)

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## ANNEX "E" to PART 5 OF THE BID SOLICITATION

### FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\)-Labour's](#) website.

Date: \_\_\_\_\_ (YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- ☐ A1. The Bidder certifies having no work force in Canada.
- ☐ A2. The Bidder certifies being a public sector employer.
- ☐ A3. The Bidder certifies being a [federally regulated employer](#) being subject to the [Employment Equity Act](#).
- ☐ A4. The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

- ☐ A5.1. The Bidder certifies already having a valid and current [Agreement to Implement Employment Equity](#) (AIEE) in place with ESDC-Labour.

**OR**

- ☐ A5.2. The Bidder certifies having submitted the [Agreement to Implement Employment Equity](#) (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- ☐ B1. The Bidder is not a Joint Venture.

**OR**

- ☐ B2. The Bidder is a Joint Venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions).

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## ANNEX "F" ADDITIONAL CERTIFICATIONS

### 1. Board of Directors

In accordance with Integrity Provisions –bidder, bidders are required to provide a list of their Board of Directors before contract award. Offerors are requested to provide this information in their bid.

Director Name - \_\_\_\_\_

Director Name - \_\_\_\_\_

Director Name - \_\_\_\_\_

Director Name - \_\_\_\_\_

Director Name - \_\_\_\_\_

Director Name - \_\_\_\_\_

Director Name - \_\_\_\_\_

Director Name - \_\_\_\_\_

### 2. Procurement Business Number (PBN)

In accordance with Section 2, Procurement Business Number, of the Standard Instructions, Offerors are required to have a Procurement Business Number (PBN) before Contract award.

Procurement Business Number - \_\_\_\_\_

Suppliers may register for a PBN online at [Supplier Registration Information](#). For non-Internet registration, suppliers may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.