



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

**Bid Receiving
PWGSC
33 City Centre Drive
Suite 480C
Mississauga
Ontario
L5B 2N5**

**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

Title - Sujet Mass Spectrometer	
Solicitation No. - N° de l'invitation KW405-160345/A	Date 2016-01-19
Client Reference No. - N° de référence du client KW405-160345	
GETS Reference No. - N° de référence de SEAG PW-\$TOR-201-7045	
File No. - N° de dossier TOR-5-38097 (201)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-02-29	
Time Zone Fuseau horaire Eastern Standard Time EST	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Ramnarine, Vashti	Buyer Id - Id de l'acheteur tor201
Telephone No. - N° de téléphone (905) 615-2419 ()	FAX No. - N° de FAX (905) 615-2060
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF THE ENVIRONMENT 867 Lakeshore Road Burlington Ontario L7R4A6 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

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
33 City Centre Drive
Suite 480
Mississauga
Ontario
L5B 2N5

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

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Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

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PART 1 - GENERAL INFORMATION

1.1. Requirement

The requirement is detailed under Article 2. Requirement of the resulting contract clauses.

1.2. Debriefings

Bidders may request a debriefing on the results from the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of 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), and the Agreement on Internal Trade (AIT).

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 \(2015-07-03\)](#) 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: 90 Days

2.2. Submission of Bids

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

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

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 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

PART 3 - BID PREPARATION INSTRUCTIONS

3.1. Bid Preparation Instructions

Canada requests that bidders provide their 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)

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 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](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). 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 Annex B, Basis of Payment. The total amount of Applicable Taxes must be shown separately, if applicable.

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

Section III: Certifications

Bidders must submit the certifications 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

See Annex C – Section 1.

4.1.1.2 Point Rated Criteria

See Annex C – Section 2.

4.1.2 Financial Evaluation

4.1.2.1 Mandatory Financial Criteria

4.1.2.1.1 Pricing must be submitted in Canadian currency in Annex B, Basis of Payment.

4.1.2.1.2 Maximum Funding

The maximum funding available for the Contract resulting from the bid solicitation is \$500,000 (Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

4.1.2.2 Evaluated Price will be in accordance with Annex B, Basis of Payment

4.1.2.3 The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included.

4.2 Basis of Selection – Highest Rated Within Budget

1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation;

- b. meet all mandatory technical evaluation criteria; and
 - c. obtain the required minimum 360 points out of 610 points for the Section 2B point rated technical evaluation criteria in Part 4, Evaluation Procedure and Basis of Selection, article 4.1.1.2, which are subject to the point rating on a scale of 610 points.
2. Bids not meeting (a) or (b) or (c) will be declared non responsive. The responsive bid with the highest number of points will be recommended for award of a contract, provided that the total evaluated price does not exceed the budget available for this requirement.
3. Note: While bidders must achieve a minimum of 360 points for Part 4 - Section 2B point rated technical evaluation criteria that is out of a rating scale of 610 points, for the purpose of this basis of selection, the Total Points received by each bidder will be calculated based on an overall rating performed on a scale of 860 points which takes into consideration points available from Section 2A point rated technical evaluation criteria.

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. 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 constitutes 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 Declaration of Convicted Offences

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, a completed [Declaration Form](#), 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 – List of Names

Bidders who are incorporated, including those bidding as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Bidder.

Bidders bidding as sole proprietorship, as well as those bidding as a joint venture, must provide the name of the owner(s).

Bidders bidding as societies, firms or partnerships do not need to provide lists of names.

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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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" list (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

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.

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 Requirement

There is no security requirement applicable to this 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>) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

2010 A (2015-09-03), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

Section 9 of supplemental general conditions 2010A is amended by replacing the period of twelve (12) months by twenty-four (24) months.

All other provisions of the warranty section remain in effect.

6.3.2 Supplemental General Conditions

4001 (2013-01-28) Hardware Purchase, Lease or Maintenance, apply to and form part of the Contract.

Section 14 of supplemental general conditions 4001 is amended by replacing the period of twelve (12) months by twenty-four (24) months.

All other provisions of the warranty section remain in effect.

4003 (2010-08-16) Licensed Software, apply to and form part of the Contract.

Section 15 of supplemental general conditions 4003 is amended by replacing the period of twelve (12) months by twenty-four (24) months.

All other provisions of the warranty section remain in effect.

4004 (2013-04-25) Maintenance and Support Services for Licensed Software.

Section 3 of supplemental general conditions 4004 is amended by replacing the period of twelve (12) months by twenty-four (24) months.

All other provisions of the warranty section remain in effect.

6.4. Term of Contract

6.4.1 Delivery Date

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All the deliverables must be delivered on or before 31 March 2016.

6.5. Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:
Vashti Ramnarine
Supply Officer
Public Works and Government Services Canada
Acquisitions Branch
33 City Centre Dr., Ste. 480
Mississauga, ON, L5B 2N5
Telephone: (905) 615-2419
Facsimile: (905) 615-2060
E-mail address: vashti.ramnarine@pwgsc.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:

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

Name: _____
Title: _____
Organization: _____
Address: _____
Telephone: _____
Facsimile: _____
E-mail address: _____

6.6. Payment

6.6.1 Basis of Payment - Firm Lot Price(s)

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In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm lot prices, as specified in Annex B, Basis of Payment for a total cost of \$ _____. 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 Single Payment

SACC Manual [clause H1000C](#) (2008-05-12) Single Payments

6.7. Invoicing Instructions

- A. 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.
- B. Invoices must be distributed as follows:
 - (i) The original and one (1) copy must be forwarded to the addresses as shown on page 1 of the contract for certification and payment.
 - (ii) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

6.8. Certifications

6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

6.9. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

6.10. Priority of Documents

If there is a discrepancy between the wordings 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 general conditions 2010A](#) (2015-09-03), General Conditions - Goods (Medium Complexity);
- (c) the supplemental general conditions 4001 (2013-01-28) Hardware Purchase, Lease or Maintenance;
- (d) the supplemental general conditions 4003 (2010-08-16) Licensed Software;

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- (e) the supplemental general conditions 4004 (2013-04-25) Maintenance and Support Services for Licensed Software;
- (f) Annex A - Requirement;
- (g) Annex B - Basis of Payment;
- (h) the Contractor's bid dated _____.

6.11. Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

6.12. SACC Manual Clause

A9068C (2010-01-11) Government Site Regulation
D0018C (2007-11-30) Delivery and Unloading

Annex A Requirement

Title: Liquid Chromatograph – Tandem Mass Spectrometer (LC-MS/MS) System

For the supply, delivery, installation and training of one (1) Liquid Chromatograph – Tandem Mass Spectrometer (LC-MS/MS) System for Aquatic Contaminants Research Division, Water Science Technology Directorate, Environment Canada – Burlington Ontario

Background

Environment and Climate Change Canada requires the purchase of a liquid chromatograph tandem mass spectrometer (LC-MS/MS) for the quantitative and qualitative analyses of a wide variety of trace level environmental organic compounds. The instrument will be used as a forensic analysis tool for research conducted in support of the Canadian Environmental Protection Act (CEPA) and other related acts and regulations as well as new method development and environmental research projects.

A sensitive instrument is required since many of these analytes are present in environmental samples at concentrations in the sub parts per billion range and lower. High resolution is required to identify unknowns such as degradation products during fate studies and to distinguish between desired analytes and interferences in complex samples (fish tissue, wastewater, biosolids, sediment, etc). Due to space limitations, a benchtop system is required to fit into existing laboratory space with access to power and equipped with sufficient ventilation. The supplied instrument must include all peripherals, computer parts, equipment, software and manuals required for control and optimization of the instrument as well as collection and analysis of complex chromatography and mass spectrometry data.

General requirements

The supplied LC-MS/MS System must include all peripherals, parts, equipment, hardware and software necessary for analysis. The contractor must supply the specific hardware configuration for a complete SYSTEM that is GUARANTEED suitable for the purposes specified.

The LC-MS/MS System must consist of, but not be limited to, the following major components, complete with all software, hardware, peripherals and interfacing necessary to make a fully integrated system, including one computer system: tandem mass spectrometer (MS/MS), liquid chromatograph system (includes pump, column compartment and autosampler), operating and data system: software and hardware, system implementation and training, service and support, system performance specifications.

The System must be delivered, fully assembled, installed and tested by the Contractor to ensure proper operation by March 31, 2016.

All equipment must be NEW. Demo models, used, refurbished or prototype models will not be acceptable. The Contractor must provide on-site training for operation and routine maintenance. Training must be conducted at the Customer Site in Burlington, ON, on or before March 31, 2016.

The system must be in accordance with the Mandatory Technical Criteria listed below.

Mandatory Technical Requirement

1.	Tandem Mass Spectrometer
----	---------------------------------

1.01	The MS/MS system is an integrated part of the total system, designed for unattended operation and dedicated to perform LC-MS/MS. It must be under complete control of the operating and data computer system
1.02	The mass spectrometer must be of high resolution and high accuracy type with resolving power of at least 70,000 FWHM at 200 m/z
1.03	Mass accuracy: less than 1 ppm RMS with internal calibration and less than 3 ppm RMS with external calibration under typical automated experimental conditions across the full mass range. Mass accuracy must be obtained scan by scan without the need for averaging of scans.
1.04	Mass Range: must encompass 50 to 1200 m/z
1.05	The MS must support full scan monitoring of the products of multiple selected ions, i.e. the first MS analyzer must be able to select multiple ions for transmission into the high resolution analyzer.
1.06	Positive and negative mode polarities: The MS must support rapid polarity switching from positive to negative mode so that both modes may be used during the same run, that is, one full cycle in < 1 sec (one full scan positive mode and one full scan negative mode at resolution setting of 35,000).
1.07	Dynamic Range must be at least 5000:1 in spectrum
1.08	Must be able to perform MS scan, selected ion monitoring, full scan MS/MS and selected reaction monitoring all with high resolution accurate mass determination
1.09	Must be able to adjust collision energy to maximize product ion detection
1.10	Must perform data dependent analysis based on the accurate mass and ion intensity threshold set during the chromatographic run and a high resolution scan for untargeted compounds
1.11	Must be able to perform infusion of standards to allow for optimization of source parameters, ion optics and collision energy
1.12	System must have self-diagnostics for monitoring system parameters with ability to alert user
1.13	Must provide all vacuum pumps required for instrument operation
1.14	Supplied with electrospray ionization source and atmospheric pressure chemical ionization source, either dual source or two separate sources.
1.15	The mass spectrometer must be a bench top instrument.
1.16	Must come with a Syringe pump for manual infusion with a syringe of minimum 10 ml
1.17	Must come with a Nitrogen generator
2.0	Ultra High Pressure Liquid Chromatograph
2.01	Binary LC pump system that has a wide flow rate range from 0.10 ml/min to 8 ml/min and has a flow accuracy of +/-0.1% even while operating up to 800 bar pressure with small particle columns
2.02	Autosampler and accessories (sample loop and syringes) to accommodate injection volumes from 10 ul to 100 ul volumes with injection volume precision of at least +/-1% and thermostatted sample compartment. Autosampler must be able to hold 2 ml glass vials.
2.03	Thermostatted column compartment that can accommodate a 30 cm length column and can maintain temperatures from ambient to 60 degrees Celsius with increments no greater than 1 degree Celsius
2.04	Solvent degassing system must be supplied
2.05	The LC system must be operated using software and set up for auto injections
2.06	The system must be compatible with pH range of 2 to 11
3.0	Computer System
3.01	The software must be able to set up LC and MS methods.
3.02	The software must be have automated data processing capability but still allow for manual integrations
3.03	The software must allow installation on at least 10 other computers for multi-user offline data analysis
3.04	Must have one colour laser printer compatible with the personal computer
3.05	Must have two flat screen monitors
3.06	Must have Uninterruptable Power Supply (UPS) system and all transformers required to connect the LC-MS/MS system to the Department's power grid
4.0	Warranty
4.01	The entire LC-MS/MS system and its components must be covered by warranty with scheduled preventative maintenance, coverage of replacement parts, labour for repairs, and software updates/notifications for 2 years

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4.02	Minimum of 3 days on site training in Burlington Ontario for up to 3 people
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ANNEX B

BASIS OF PAYMENT

Firm all inclusive lot price for the supply, delivery, and training of one (1) LC-MS/MS System in accordance with Annex A. Prices are in **Canadian Funds**, FOB destination including all delivery charges, Canadian customs duties and excise taxes included as applicable. Goods and Services Tax/Harmonized Sales Tax Excluded.

Item No	Description	QTY	Firm Lot Price	Extended Price
1	<p>For the supply, delivery, and training of (1) LC-MS/MS System in accordance with the specification detailed in Annex A.</p> <p>The proposed LC-MS/MS System must include all peripherals, parts, equipment, hardware and software necessary for analysis. The contractor must supply the specific hardware configuration for a complete SYSTEM that is GUARANTEED suitable for the purposes specified.</p> <p>This firm lot price include the first 12-month period of a 2-year warranty as required in Annex A.</p> <p>Bidders must specify the make and model being offered. Manufacturer and Model Number(s)_____</p>	1 lot	\$	\$
2	Delivery Charges for FOB delivery to	1 lot	\$	\$
3	The second 12-month period of a 2-year warranty as required in Annex A.	1 lot	\$	\$
4	For Financial Evaluation Purpose only: Evaluated Price = Sum of all extended prices		\$	\$

Annex C Evaluation Criteria

Section 1. Mandatory Technical Evaluation Criteria

To demonstrate compliance, Bidders must include and appropriately cross reference published technical information that confirms compliance with each mandatory criterion specified herein. Failure to comply with any of the mandatory technical requirements will disqualify the bid from further consideration.

To ensure compliance is clear, the bidder should utilize a numbering system that corresponds to the numbering system below. An example would be to indicate the specific reference number on a Tab stuck to the appropriate page of the technical documentation and then highlight or underline the appropriate article of the technical documentation that demonstrates compliance.

Bids which do not meet all of the Mandatory Criteria in Section 1 will be deemed non-compliant and will not be further considered. All literature, specification, documentation must be submitted with the bid at bid closing.

Section 1. Mandatory Criteria of LC-MS/MS system

Item	Description	Location of Supporting information in the bid (page #, paragraph #)
1.	Tandem Mass Spectrometer	
1.01	The MS/MS system is an integrated part of the total system, designed for unattended operation and dedicated to perform LC-MS/MS. It must be under complete control of the operating/data computer system	
1.02	The mass spectrometer must be of high resolution and high accuracy type with resolving power of at least 70,000 FWHM at 200 m/z	
1.03	Mass accuracy: less than 1 ppm RMS with internal calibration and less than 3 ppm RMS with external calibration under typical automated experimental conditions across the full mass range. Mass accuracy must be obtained scan by scan without the need for averaging of scans.	
1.04	Mass Range: must encompass 50 to 1200 m/z	
1.05	The MS must support full scan monitoring of the products of multiple selected ions, i.e. the first MS analyzer must be able to select multiple ions for transmission into the high resolution analyzer.	
1.06	Positive and negative mode polarities: The MS must support rapid polarity switching from positive to negative mode so that both modes may be used during the same run, that is, one full cycle in < 1 sec (one full scan positive mode and one full scan negative mode at resolution setting of 35,000).	
1.07	Dynamic Range must be at least 5000:1 in spectrum	
1.08	Must be able to perform MS scan, selected ion monitoring, full scan MS/MS and selected reaction monitoring all with high resolution accurate mass determination	
1.09	Must be able to adjust collision energy to maximize product ion detection	

1.10	Must perform data dependent analysis based on the accurate mass and ion intensity threshold set during the chromatographic run or a high resolution scan for untargeted compounds	
1.11	Must be able to perform infusion of standards to allow for optimization of source parameters, ion optics and collision energy	
1.12	System must have self-diagnostics for monitoring system parameters with ability to alert user	
1.13	Must provide all vacuum pumps required for instrument operation	
1.14	Supplied with electrospray ionization source and atmospheric pressure chemical ionization source, either dual source or two separate sources.	
1.15	The mass spectrometer must be a bench top instrument.	
1.16	Must come with a Syringe pump for manual infusion with a syringe of minimum 10 ml	
1.17	Must come with a Nitrogen generator	
2.0	Ultra High Pressure Liquid Chromatograph	
2.01	Binary LC pump system that has a wide flow rate range from 0.10 ml/min to 8 ml/min and has a flow accuracy of +/-0.1% even while operating up to 800 bar pressure with small particle columns	
2.02	Autosampler and accessories (sample loop and syringes) to accommodate injection volumes from 10 ul to 100 ul volumes with injection volume precision of at least +/-1% and thermostatted sample compartment. Autosampler must be able to hold 2 ml glass vials.	
2.03	Thermostatted column compartment that can accommodate a 30 cm length column and can maintain temperatures from ambient to 60 degrees Celsius with increments no greater than 1 degree Celsius	
2.04	Solvent degassing system must be supplied	
2.05	The LC system must be operated using software and set up for autoinjections	
2.06	The system must be compatible with pH range of 2 to 11	
3.0	Computer System	
3.01	The software must be able to set up LC and MS methods.	
3.02	The software must be have automated data processing capability but still allow for manual integrations	
3.03	The software must allow installation on at least 10 other computers for multi-user offline data analysis	
3.04	Must have one colour laser printer compatible with the personal computer	
3.05	Must have two flat screen monitors	
3.06	Must have uninterruptable power supply (UPS) system and all transformers required to connect the LC-MS/MS system to the Department's power grid	
4.0	Warranty	
4.01	The entire LC-MS/MS system and its components must be covered by warranty with scheduled preventative maintenance, coverage of replacement parts, labour for repairs, and software updates/notifications for 2 years.	

Section 2: Point Rated Technical Criteria

Points will be awarded to bidders for exceeding the mandatory requirements in the fields of resolution, polarity switching and mass range. Bidders must provide the technical documentation that supports these parameters and clearly indicate where the information is available in the documentation.

Section 2 A: Point Rated System Criteria- Maximum Points Available is 250 points

1. High Resolution and High Accuracy Mass Spectrometer
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		Scoring Grid
1.1	Mass resolving power of at least 70,000 FWHM	50 points if 70,000 to 90,000 FWHM 100 points if 100,000 or more FWHM
1.2	Polarity switching: One full MS scan at range 50-1200 m/z at resolution setting 35,000 in both polarities	10 points for polarity switching greater than 1 second 50 points for polarity switching from 0.5 to less than 1 second 100 points for polarity switching of less than 0.5 seconds
1.3	Mass range: at least 50-1200 m/z mass range	10 points for 50-1200 m/z 50 points for >1200 m/z

Section 2 B: Point Rated Performance Criteria – Maximum Points available is 610 points.

Additional points will be awarded based on performance criteria of a practical exercise on three categories: 1) mass accuracy, 2) mass resolution and 3) tandem mass spectrometry as detailed in the criteria below. For this section, Canada will evaluate the bidder's data submitted in the bidder's bid by the bid closing date. Bidder's data must be generated using standards and samples supplied by Canada.

The minimum pass mark for Section 2B point rated performance criteria is 360 points.

Bidder must contact Amlila De Silva at amila.desilva@canada.ca by **January 27, 2016** to request for the standards and samples required to generate the data that will be evaluated during the Point-Rated Technical Evaluation detailed in the Request for Proposal. All other inquiries relating to this Request for Proposal must be directed to the Contracting Authority.

2.1	Mass accuracy for low, medium and high mass standards (Maximum points available: 120 points) One mass spectrum should contain all three targets.	
	Canada's samples to the bidder will provide a mixed chemical standard containing a low mass (50-100 m/z), medium mass (200-400 m/z), and high mass (500-700 m/z).	
	The bidder should provide the measured accurate mass for all three components by infusing the standard (not chromatography) acquiring a full scan from 50-1200 m/z in electrospray positive ionization using external calibration (not lock mass or internal calibration). The full scan spectrum should be provided with the three components clearly identified. Canada will calculate the mass error in ppm. Points will be awarded based on the mass error in ppm at all three levels.	
2.1.1	Low standard (50-100m/z); 0 points if mass is incorrect within +/-1 m/z	50 points for < or equal to 0.5 ppm 30 points for 0.6-1.0 ppm 20 points for 1.1-2.0 ppm
2.1.2	Medium standard (200-400 m/z); 0 points if mass is incorrect within +/-1 m/z	50 points for < 1ppm 30 points for 1.1-2 ppm 20 points for 2.1 - 3 ppm
2.1.3	High standard (500-700 m/z); 0 points if mass is incorrect within +/-1 m/z	Points based on lowest ppm: 20 points for < or equal to 2 ppm 10 points for 2.1-3.0 ppm 5 points for 3.1 – 5 ppm

<p>2.2</p>	<p>Mass resolution for low, medium, high mass molecules in a complex matrix (Maximum points available: 300 points) Bidder should provide calculations, full spectrum that was acquired through infusion</p> <p>Canada's samples to the bidder will provide a sample matrix containing three spiked standards representing low (119 m/z), medium (219 m/z), and high mass chemicals (4448 m/z) in a spiked sample matrix. These are not the same components as part 1. The bidders is to infuse the sample in full scan (50-1200 m/z) with external calibration and calculate resolution for the three components in the full scan. Resolution is defined as m/z at the apex or centroid of the peak, divided by the full width of peak at half maximum (FWHM). The mass spectrum must be presented showing the measurements of FWHM and m/z. The client will award points for best resolution in the mass range categories. The three components are shown here: Low: benzotriazole, 95-14-7 Medium: tributylphosphine oxide CASRN 814-29-9 High: 2-(2H-Benzotriazol-2-yl)-4,6-bis(1-methyl-1-phenylethyl)phenol, CASRN 70321-86-7</p>	
<p>2.2.1</p>	<p>Low mass 119 m/z</p>	<p>Points based on highest resolution: 100 points for > 80,000 30 points for 70,000 – 79,999 20 points for 60,000-69,999</p>
<p>2.2.2</p>	<p>Medium mass 219 m/z</p>	<p>Points based on highest resolution: 100 points for >60,000 30 points 55,000 – 59,999 20 points for 50,000 – 54,999</p>
<p>2.2.3</p>	<p>High mass 448m/z</p>	<p>Points based on highest resolution: 100 points for >46,000 30 points for 42,000-45,999 20 points for 38,000-41,999</p>
<p>2.3</p>	<p>Tandem mass spectrometry on 448 m/z (Maximum points available: 190 points) Bidder should submit 1) the high resolution product ion scan indicating products 370 and 119 m/z, 2) the isotopic resolution on the precursor scan</p> <p>Canada's samples to the bidder will provide a spiked sample matrix (in section 2.2).</p> <p>Using the spiked sample matrix, the bidder is requested to perform MS² experiments that focus on CASRN 70321-86-7. Points will be awarded for isotopic resolution of the parent mass, the mass accuracy and resolution of the fragments. The bidder is asked to provide: i) the accurate mass spectrum for the precursor ion (approximately 448 m/z) and the isotopic resolution of the +1 and +2 m/z. ii) the full scan (50-1200 m/z) mass spectrum for the product of the high m/z precursor (CAS 70321-86-7) obtained in ESI positive, with external calibration and the accurate masses must be clearly indicated for the products including 370 and 119 m/z. iii) the resolution for the 370 and 119 products from the full scan mass spectrum with the measurements of m/z and FWHM</p>	
<p>2.3.1</p>	<p>Isotopic resolution of the 448 m/z indicating the +1 and +2 isotopic peaks</p>	<p>50 points: both isotopes have mass accuracy of 1 to 2 ppm</p>

Solicitation No. - N° de l'invitation
KW405-160345/A
Client Ref. No. - N° de réf. du client
KW405-160345

Amd. No. - N° de la modif.
File No. - N° du dossier
TOR-5-38097

Buyer ID - Id de l'acheteur
TOR201
CCC No./N° CCC - FMS No./N° VME

		20 points if mass accuracy is between 2.1 to 2.5 ppm for both isotopes
2.3.2	Mass accuracy of fragment 370 m/z;	20 points for < or equal to 1ppm 10 points for 1.1 - 2 ppm 5 points for 2.1 - 3 ppm
2.3.3	Mass accuracy of fragment 119 m/z;	20 points for < or equal to 0.5 ppm 10 points for 0.6 - 1.0 ppm 5 points for 1.1 - 2.0 ppm
2.3.4	Mass Resolution of fragment 119 m/z;	Points based on highest resolution: 50 points for > 80,000 30 points for 70,000 – 79,999 20 points for 60,000 - 69,999
2.3.5	Mass Resolution of fragment 370 m/z;	50 points for > 50,000 30 points for 45,000 – 49,999 20 points for 42,000 - 44,999