



RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Public Works and Government Services Canada
ATB Place North Tower
10025 Jasper Ave./10025 ave. Jaspe
5th floor/5e étage
Edmonton
Alberta
T5J 1S6
Bid Fax: (780) 497-3510

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
ATB Place North Tower
10025 Jasper Ave./10025 ave Jasper
5th floor/5e étage
Edmonton
Alberta
T5J 1S6

Title - Sujet ICP Mass Spectrometer	
Solicitation No. - N° de l'invitation 23137-160566/A	Date 2015-12-16
Client Reference No. - N° de référence du client 23137-160566	
GETS Reference No. - N° de référence de SEAG PW-\$EDM-607-10653	
File No. - N° de dossier EDM-5-38207 (607)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-01-28	Time Zone Fuseau horaire Mountain Standard Time MST
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Jenkinson, Lorraine	Buyer Id - Id de l'acheteur edm607
Telephone No. - N° de téléphone (780) 497-3593 ()	FAX No. - N° de FAX (780) 497-3510
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF NATURAL RESOURCES 5320 - 122ND ST EDMONTON Alberta T6H3S5 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

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

TITLE: Inductively Coupled Plasma Mass Spectrometer (ICP MS) system**TABLE OF CONTENTS**

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PART 1 - GENERAL INFORMATION

1. Requirement

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

2. Trade Agreements

The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA), and the Agreement on Internal Trade (AIT).

3. 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.

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>) 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.

2.1.1 SACC Manual Clauses

B1000T (2014-06-26) Condition of Material - Bid

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.

Bids transmitted by facsimile to PWGSC will 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 Alberta.

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 (one (1) hard copy)

Section II: Financial Bid (one (1) hard copy)

Section III: Certifications (one (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 must explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

- a) Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.
- b) 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

- a. Mandatory technical evaluation specifications are included in Annex "A".
- b. Bids that do not meet all the mandatory technical specifications in Annex "A" will be deemed non-responsive and given no further consideration.

4.1.2 Financial Evaluation**4.1.2.1 Calculation of Evaluated Price**

- a) The evaluated price will be calculated using the Bidder's firm unit prices as provided in Annex B, multiplied by the total quantity for each line item. The evaluated price will be the total aggregate price of the extended prices for all line items.

4.1.2.2 SACC Manual Clause A0222T (2014-06-26), Evaluation of Price - Canadian / Foreign Bidders**4.2 Basis of Selection - Mandatory Technical Criteria**

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.

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 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 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](http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-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 – 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.

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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) 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](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)" 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 Requirements

6.1.1 There is no security requirement applicable to this Contract.

6.2 Requirement

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

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

6.3.2 Supplemental General Conditions

- (a) 4001 (2015-04-01) Hardware Purchase, Lease and Maintenance
 - (b) 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

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

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Lorraine Jenkinson
Procurement Specialist
Public Works and Government Services Canada
Procurement and Compensation Branch, Western Region
ATB Place, North Tower, 5th Floor
10025 Jasper Avenue NW
Edmonton, AB T5J 1S6

Telephone: 780-497-3593

Facsimile:

780- 497- 3510

E-mail address: Lorraine.Jenkinson@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 named in the Contract.)

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 (to be completed by bidder)

Name: _____

Title: _____

Organization: _____

Address: _____

Telephone: ____ - ____ - ____

Facsimile: ____ - ____ - ____

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 firm unit price(s), as specified in Annex B for a cost of \$ _____ (*amount to be inserted 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 Single Payment

Canada will pay the Contractor upon completion and delivery of the Work in accordance with the payment provisions of the Contract if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work delivered has been accepted by Canada.

6.7 Invoicing Instructions

6.7.1 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.

6.7.2 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

6.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional 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 _____. (*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:
 - i. 4001 (2015-04-01) Hardware Purchase, Lease and Maintenance
 - ii. 4003 (2010-08-16) Licensed Software
- (c) the general conditions 2010A (2015-09-03) - Goods (Medium Complexity);
- (d) Annex "A", Requirement;
- (e) Annex "B", Basis of Payment;
- (f) the Contractor's bid dated _____ (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award: ", as clarified on _____" or ", as amended on _____" and insert date(s) of clarification(s) or amendment(s)*)

6.11 SACC Manual Clauses

SACC Reference	Section	Date
A2000C	Foreign Nationals (Canadian Contractor)	2006-06-16 (<i>as applicable</i>)
A2001C	Foreign Nationals (Foreign Contractor)	2006-06-16 (<i>as applicable</i>)
A9039C	Salvage	2008-05-12
A9068C	Government Site Regulations	2010-01-11
B1501C	Electrical Equipment	2006-06-16
B7500C	Excess Goods	2006-06-16
G1005C	Insurance	2008-05-12

ANNEX "A" - REQUIREMENT

BACKGROUND

The Northern Forestry Centre Analytical Services Laboratory (NoFC ASL) has a requirement for the supply, delivery and installation of one (1) new Inductively Coupled Plasma Mass Spectrometer (ICP MS) system including components and accessories.

The ICP MS will be used primarily for the detection of low level elements in soils for the purpose of supporting research in forest soils and analytical requirements at the Northern Forestry Centre.

The NoFC ASL currently uses an ICP OES system to analyze soil extracts. Therefore it is essential that the ICP MS system be capable of directly analyzing these same extracts using the standard sample introduction system without requiring any manual or automated liquid/liquid sample dilution (up to 10 % TDS).

REQUIREMENTS:

The Contract must supply one (1): Inductively Coupled Plasma Mass Spectrometer (ICP MS) System.

MANDATORY TECHNICAL CRITERIA:

The Bidder's proposed equipment must meet the Mandatory Specifications detailed below. Bids must be supported by proper documentation to support each mandatory criteria. Bids not meeting all of the mandatory technical criteria will be given no further consideration.

The Bidder must submit supporting technical documents with their bid, such as: technical specifications, literature, brochures or other similar supporting documentation, which clearly demonstrates that the Bidder's proposed equipment meets each of the Mandatory specifications listed below. This information will be used to verify compliance with all Mandatory Specifications.

If any of the mandatory specifications are not identified in the Bidder's existing technical documents, the Bidder must address separately, in their bid, how it meets that particular equipment specification.

Mandatory Specifications				
Item No.	Description	Met	Not Met	Reference Page
	FACILITIES			
M1	The ICP MS system must be able to operate under the following conditions: 200-240Vac, 50/60Hz.			
M2	The system must meet the CAN/CSA C22.2 NO. 61010-1 Electrical Equipment for Measurement, Control and Laboratory Use.			
M3	The system must be a compact bench-top design.			
	SAMPLE INTRODUCTION			
M4	The system must have an integrated, 3-channel, computer controlled peristaltic pump for pumping of sample, internal standard and spray chamber drain. The quartz spray chamber must be thermoelectrically controlled and must be fitted with a concentric nebulizer.			

Mandatory Specifications				
Item No.	Description	Met	Not Met	Reference Page
M5	The instrument must be capable of analyzing samples containing up to 10% dissolved solids using the standard sample introduction system and without requiring any manual or automated liquid/liquid sample dilution.			
M6	The sample introduction system must be automatically tuned via the integrated software.			
M7	The system must have an integrated flow injection system that is fully controlled via the ICP MS software for fast analysis. This includes switching between tune solution and Internal Standard solution automatically with no user intervention required to swap out solutions between tuning and running samples as this frees up valuable operator time.			
	VACUUM AND COOLING SYSTEM			
M8	The vacuum system of the instrument must consist of single floor mounted rotary pump, which can be located remotely, and single 2-stage turbo-molecular pump.			
M9	The ICP-MS chiller supplied must be robust (able to operate continuously for long periods of time without maintenance), easy to maintain.			
M10	System must include a noise dampening cover for the foreline (rough) pump.			
	GAS FLOW CONTROLLERS			
M11	Independently computer controlled mass flow controllers must control plasma, auxiliary, make-up and carrier gas.			
M12	One collision/reaction cell gas line must be included as standard.			
M13	The system must be upgradable to three cell gas lines in total, of which one of the additional should be Hydrogen, to cover all possible applications.			
M14	The system must include Cell Gas Regulators, Clean Connection Tubing and Gas Filter Kits.			
	PLASMA AND ION OPTICS			
M15	Torch: The system must include a one piece quartz torch with a fixed injector diameter of 2.5 mm for fast, easy replacement and high matrix tolerance.			
M16	Torch xyz position: a) The torch position must be fully computer controlled and fully auto-tunable via the software in all three axes (horizontal and vertical position and sampling depth). The movement in each axis must be independent of other two.			

Mandatory Specifications				
Item No.	Description	Met	Not Met	Reference Page
	b) Torch position and reproducibility must be 0.1mm in all three axes. Computer readout of torch position is required for method and data audit purposes.			
M17	RF generator: For tolerance of changes in sample matrix, a) The system must include a high power-transfer efficiency and maintenance-free solid state digital drive 27 MHz RF generator with variable-frequency impedance matching. b) The RF generator must be able to tolerate change from volatile organic solvents to aqueous samples without affecting plasma stability, even if highly volatile organic solvents are introduced.			
M18	Interface: The instrument must be capable of delivering the sensitivity and background performance detailed in the specifications listed below (section M34) while having the capability to analyze complex, high matrix samples (up to 10% TDS) using the same sample introduction configuration.			
M19	a) Ion optics: The instrument must be equipped with an off-axis lens to eliminate the effect of photons and neutrals on signal background. b) The main ion-lens assembly must be located before the gate valve to reject neutrals and matrix components before they enter the main high vacuum chamber. c) The main ion-lens assembly must only allow ions to enter collision/reaction region. d) The main ion-lens assembly must be accessible without the need to open the main vacuum system.			
M20	Collision/Reaction Cell System: a) The cell must be thermally-stabilized and operated with fixed RF amplitude for the full mass range. b) It must use an Octopole to act as an efficient Ion Guide for optimal sensitivity performance across a wide mass range. c) The cell must reach steady state between gas modes and no gas mode in 5 seconds or less. d) The instrument must be able to analyze most elements in He cell mode. e) The ICP-MS must be able to perform semi-quantitative analysis in any mode especially helium since helium handles most spectral interferences. Only one semi-quant standard should be required and a quantitative method does not have to be used.			

Mandatory Specifications				
Item No.	Description	Met	Not Met	Reference Page
	<p>f) The cell must show effective interference removal by achieving detection limits of 20 ppt As and 40 ppt Se in Helium mode in a matrix of 1% HNO₃, 2% HCl and 100 ppm Ca, demonstrating the effective removal of both ArCl and CaCl.</p> <p>g) The instrument supplied must be able to be used for the multi-element analysis of unknown sample containing Cl, SO₄, and organic content, without the need for polyatomic interference correction equations.</p>			
	QUADRUPOLE MASS ANALYZER			
M21	Must be able to analyze from 4 to 260 amu			
M22	Mass Analyzer must have abundance sensitivity (at Cs): Low Mass side: 5×10^{-7} , High Mass side: 1×10^{-7}			
	DETECTION SYSTEM			
M23	Ions transmitted by the quadrupole mass analyzer must be deflected 90° into the detector.			
M24	The detector must offer a minimum dwell time of 0.1 msec in TRA modes.			
M25	The system must be capable of a linear dynamic range of 11 orders of magnitude without the use of increased resolution or signal attenuation via custom cell settings at the highest concentration point.			
M26	The instrument must be capable of the direct analysis of high matrix samples such as seawater, without prior dilution and demonstrating linearity up to 1% for mono-isotopic elements like sodium.			
	DATA SYSTEM			
M27	The instrument must come with the software and hardware for data acquisition, processing and reporting.			
M28	One-Click Plasma Setting must be provided for simpler, more reproducible plasma optimization.			
M29	The instrument must include the capability for remote monitoring of instrument status and run progress, and support remote control of instrument and run processes using the ICPMS vendor's software utility running on a smartphone or tablet.			
M30	The instrument control software must offer an automated method setup wizard to enable all users to consistently obtain high-quality data, even when faced with new, unknown or variable sample types. The method wizard should be capable of building a fully functional method by simply asking a few questions about the proposed application or by analyzing a typical sample.			

Mandatory Specifications				
Item No.	Description	Met	Not Met	Reference Page
	AUTOSAMPLER			
M31	System must be supplied with XYZ configured autosampler capable of supporting up to 300 sample tubes.			
	System must be provided with an environmental control cover with exhaust capability.			
	DOCUMENTATION			
M32	The system must be supplied with full documentation including an operator's manual, administration and maintenance manual, spare parts catalog and a comprehensive applications handbook specifically written for the system being offered.			
M33	System Performance Specifications The system performance specifications listed below are intended to supplement the Vendor's standard installation tests and are designed to ensure that the system supplied is able to meet the performance levels required. Vendors must provide publically published supporting documentation that includes <u>guaranteed specifications for the following specifications.</u>			
M34	<p>The system must meet or be equivalent to the specifications below:</p> <p>Sensitivity (Mcps/ppm) Li (7) 55 Y (89) 320 TI (205) 250</p> <p>Background (cps) NoGas (9) <1</p> <p>Oxide Ratio (%) CeO/Ce <1.5 CeO/Ce (UHMI) <0.5</p> <p>Doubly-Charged Ratio (%) Ce2+/Ce+ <3</p> <p>NoGas Mode Detection Limits (ppt) Be (9) 0.2 In (115) 0.05 Bi (209) 0.08</p> <p>He Mode Detection Limits (ppt) As (75) 20 Se (78) 40</p> <p>H₂ Mode Detection Limits (ppt) Se (78) 1 (option)</p>			

Mandatory Specifications				
Item No.	Description	Met	Not Met	Reference Page
	<p>Short-term Stability (%RSD) 20 min <2 Long-term Stability (%RSD) 2 hours <3</p> <p>Isotope Ratio Precision (%SD) Ag (107)/Ag (109) <0.1</p> <p><i>He mode detection limits for As and Se must be performed in a matrix of 1% HNO₃, 2%HCl and 100ppm Ca, demonstrating the effective removal of both ArCl and CaCl. All other tests should be performed in a matrix of 1% HNO₃.</i></p>			
M35	<p>Installation On-site installation must be included and be performed by a qualified service technician.</p>			
M36	<p>Training On-site user training course for at least two (2) consecutive days must be included for up to two (2) operators. All costs associated with the on-site training must be included in the price.</p>			
M37	<p>WARRANTY The Contractor must include a minimum of one-year parts and labour warranty that provides both on-site as well as phone support.</p> <p>The warranty must include the instrument and parts, autosampler, computer system, software, interfaces and cables.</p>			
M38	<p>SERVICE Must include: technical support; technical phone support; support via the Internet; and support via a fax-back document system. Service cost must be included in the price.</p> <p>A qualified service technician must reply by phone within 24 hours of a call and / or an on-site repair / replacement of components within a 48 hour period five days a week.</p> <p>Trained application consultants must be available to discuss customized applications support.</p> <p>The application consultant must be capable of on-site visits at the contractor's expense for a period of one year. The one year period will commence on the day of instrument acceptance. Application consultants must be available for contact by phone for the lifetime of the instrument.</p>			
M39	<p>SOFTWARE UPGRADES The Bidder must provide all software updates and new releases to the purchaser for a period of minimum one (1) year following the acceptance, at no additional cost.</p>			

Mandatory Specifications				
Item No.	Description	Met	Not Met	Reference Page
	Note: The word "updates" means all enhancements, extensions or other modifications to the software. The word "releases" means enhancements or modifications to the software or new modules or supplementary modules that function in conjunction with the software, that represent the next generation of software, and which the Contractor has decided to make available to its customers usually for an additional charge.			
M40	<p>Contract must provide one year supply of consumables that includes or is equivalent to the following items:</p> <ul style="list-style-type: none"> • Nickel skimmer cone (1); • Nickel Sampling Cone (1); • Screw and spacer kit for lenses (1); • Ezy lock fitting for concentric nebulizer (1); • UniFit sample connector, 0.5mm id(1 pk 10/pk); • Nebulizer tubing (1); • Sample tubing (2 pk 12/pk); • ISTD Tubing (2 pk 12/pk); • Waste tubing (1 pk 12/pk); • Drain tubing assembly for ICP-MS (1); • Spray Chamber (1); • Tubing for spray chamber drain (1); • Quartz connector tube straight, ICP-MS (1); • Clamp,torch ball joint connector (2 pk 1/pk); • Torch (id 2.5 mm) (1); • Low Impurity Gas Tubing Kit (1); Work coil assembly (1); • Graphite gasket (1); • Connectors for Plasma + Auxiliary gas (1); • PFA sample tubing, 0.5mm id, 1.6mm od, (5 m); • On-line Internal Standard addition kit ICP-MS (1); • Foreline pump exhaust filter (1) 			

3. DELIVERY, ON-SITE INSTALLATION, AND ON-SITE TRAINING

- a. The ICP MS must to be on-site before March 15, 2016.
- b. The onsite installation and on-site training must be completed before March 31, 2016.
- c. The system must be delivered and installed at:

Northern Forestry Centre
5320 122 Street
Edmonton, Alberta, T6H 3S5
- d. The on-site training must be carried out at the delivery and installation address specified above.

ANNEX "B" - BASIS OF PAYMENT

Prices are firm, all inclusive in Canadian funds, FOB destination. Customs duties are included and Applicable Taxes are extra.

In accordance with the mandatory specifications detailed in the Request for Proposal, the proposal must include on-site user training course for at least two (2) consecutive days for up to two (2) operators.

All costs associated with the on-site training must be included in the price. Training is to take place at a Northern Forestry Centre located at 5320 122 Street – Edmonton, Alberta at a mutually agreed upon date, during regular working hours, i.e. Monday through Friday between 0830 to 1630 hours.

Travel, meals and accommodation for the trainer must be provided by the vendor with no additional charges.

Item No.	Description	Unit of Issue	Firm Unit Price
01	Inductively Coupled Plasma Mass Spectrometer (ICP MS) System in compliance with all specifications detailed in Annex A - Requirement Manufacturer: _____ Make and Model: _____	1	\$

Delivery Date

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

The delivery date offered is _____ (as specified by the Bidder) taking into account the above mandatory delivery date.