

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**
11 Laurier St./ 11 rue, Laurier
Place du Portage, Phase III
Core 0A1 / Noyau 0A1
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

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 FT -IR Spectrometer		
Solicitation No. - N° de l'invitation 47064-147183/A	Date 2013-10-31	
Client Reference No. - N° de référence du client 1000317183		
GETS Reference No. - N° de référence de SEAG PW-\$\$PV-924-63801		
File No. - N° de dossier pv924.47064-147183	CCC No./N° CCC - FMS No./N° VME	
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2013-12-11		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: Caron, Anne		Buyer Id - Id de l'acheteur pv924
Telephone No. - N° de téléphone (819) 956-3874 ()	FAX No. - N° de FAX (819) 956-3814	
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: CANADA BORDER SERVICES AGENCY 79 BENTLEY AVE OTTAWA Ontario K2E6T7 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

Scientific, Medical and Photographic Division / Division de
l'équipement scientifique, des produits photographiques et
pharmaceutiques
11 Laurier St./ 11 rue, Laurier
6B1, Place du Portage
Gatineau, Québec K1A 0S5

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

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION

1. Security Requirement
2. Requirement
3. Debriefings

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures
2. Basis of Selection

PART 5 - CERTIFICATIONS

1. Mandatory Certifications Required Precedent to Contract Award

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement
2. Requirement
3. Standard Clauses and Conditions
4. Term of Contract
5. Authorities
6. Payment
7. Invoicing Instructions
8. Certifications
9. Applicable Laws
10. Priority of Documents
11. SACC Manual Clauses
12. Shipping Instructions

List of Annexes:

- | | |
|---------|--------------------------|
| Annex A | Mandatory Specifications |
| Annex B | Basis of Payment |

PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with this bid solicitation.

2. Requirement

The requirement is detailed under Article 2.1 of the resulting contract clauses.

2.1 Optional Requirements

The optional requirement is detailed under Article 2.2 of the resulting contract clauses of each specific Phase.

2.2 Delivery Requirement

Delivery must be completed by March 31, 2014.

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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

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 (2013-06-01) 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: sixty (60) days

Insert: ninety (90) days

1.1 SACC Manual Clauses

B1000T (2007-11-30), Condition of Material

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.

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

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

1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (3 hard copies and 3 soft copies on CD.)
Section II: Financial Bid (1 hard copy and 1 soft copy on CD.)
Section III: Certifications (1 hard copy)
Section VI: Additional Information (3 hard copies and 3 soft copies on CD)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft 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>). 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

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

1.1 Prices - Items

Bidders must submit firm prices for all items listed at Annex "B" including optional Requirements. Failure to do so will render a bidder non-compliant and no further consideration will be given to bid.

1.2 Exchange Rate Fluctuation

C3011T (2010-01-11), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

Section IV: Additional Information *(Bidder to complete)*

The following applies to the Requirement and bidders must provide the following information :

1.1 Product(s) Offered

The Bidder must indicate the make and model number of the products offered (identify specific components which make up the system):

Name of Manufacturer: _____

Model/Part Number: _____

1.2 Delivery

Deliveries must be completed by March 31, 2014. The best delivery that could be offered by the Bidder is _____.

1.3 Contractor's Representative

The telephone number of the person responsible for:

General Enquiries Name: _____

Solicitation No. - N° de l'invitation

47064-147183/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

pv924

Client Ref. No. - N° de réf. du client

1000317183

File No. - N° du dossier

pv92447064-147183

CCC No./N° CCC - FMS No/ N° VME

Telephone No.: _____

Facsimile No.: _____

eMail address: _____

Delivery & Follow-Up Name: _____

Telephone No.: _____

Facsimile No.: _____

eMail address: _____

1.4 Installation

On-site installation must be provided and must be carried out by a qualified service technician.

State your best installation schedule. Installation will be carried out within _____ calendar days of delivery and be completed within _____ calendar days.

1.5 Training

On-site user training must be provided for up to three (3) operators. All costs associated with the on-site training must be included in the price. Training is to include system operation, hardware maintenance procedures and software usage

Training will be completed within _____ of contract award. Provide complete details of training e.g. duration, scope, etc.,

1.6 Service

Purchase of the system must include: local on-site service; technical phone support; support via the Internet; and support via a fax-back document system.

Response for service must be within 24 hours or less.

Also, provide the following with your bid:

- a) Location of available service facilities (after sales service and repair). List the service facilities closest to the following destination Halifax, Toronto, Montreal, Vancouver and Edmonton.

- b) Locations of available replacement parts from consumables to major components.

- c) Response time in regards to service calls, and escalation schedule, i.e. (how many days with no resolution to a problem until a more experienced person is called in, and from which location).

- d) List the frequency of routine maintenance visits provided by a qualified service technician during the warranty period, if applicable and included in the price.

1.7 Utility Requirements

Bidders must specify any utility requirements (i.e., compressed gas, special ventilation, water, etc.) other than an AC power supply of 15 amp, 110 V $\pm 15\%$ at 60 Hz. Failure to specify utilities other than AC power supply of 15 amp, 110V $\pm 15\%$ at 60 Hz in the tender documents, will result in the vendor absorbing the cost of providing the required utilities.

1.8 Individual components and the amount of bench space

The size of the individual components and the amount of bench space required for installation must be provided.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

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.

1.1 Technical Evaluation

All proposals submitted must be completed in full and provide all of the information requested in the Request for Proposal (RFP) package to enable a full and complete evaluation. The onus is on the bidder to provide all the information necessary to ensure a complete and accurate assessment.

1.1.1 Mandatory Technical Criteria

See Annex "A"

The Bidder must provide, with their technical bid, technical literature/brochures, operating manuals, written documentation, etc. to demonstrate compliance with each area of the criteria listed in Annex "A". Failure to provide the technical literature or failure to demonstrate compliance with any area of the criteria will in the Bid being deemed non-compliant.

1.2 Financial Evaluation

1. The price of the bid will be evaluated as follows:
 - a) bidders must submit firm prices, Canadian customs duties and excise taxes included, and Applicable Taxes excluded.
 - b) bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date, or on another date specified in the bid solicitation, will be applied as a conversion factor to the bids submitted in foreign currency.
2. Prices will be evaluated on a FOB Destination.
3. For the purpose of the bid solicitation, bidders with an address in Canada are considered Canadian-based bidders and bidders with an address outside of Canada are considered foreign-based bidders.
4. Prices will be evaluated based on total aggregated bid price (includes all pricing detailed in Annex "B").

2. Basis of Selection

2.1 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

Bidders must provide the required certifications and documentation 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 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 with this request will also render the bid non-responsive or will constitute a default under the Contract.

1. Mandatory Certifications Required Precedent to Contract Award

1.1 Code of Conduct and Certifications - Related documentation

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

1.2 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 (http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from [Human Resources and Skills Development Canada \(HRSDC\)](#) - [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

1. Security Requirement

There is no security requirement applicable to this Contract.

2. Requirement

2.1 Requirement

The Science and Engineering Directorate (SED) of the Canada Border Services Agency (CBSA) has a requirement for two (2) Fourier-Transform Infrared Spectrometers (FT-IR Spectrometers) for the analysis of customs samples and suspected contraband samples to be delivered to Ottawa, ON. Installation and training included.

The Contractor must provide instruments in accordance with the Mandatory Specifications detailed in Annex "A".

2.2 Optional Requirement

The Contractor grants to Canada the irrevocable option to purchase a sample compartment FT-Raman Module under the same terms and conditions and at the prices detailed in Annex "B" of 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 March 31, 2015 by sending a written notice to the Contractor.

2.3 Installation

On-site installation must be provided and must be carried out by a qualified service technician.

2.4 Training

The contractor must on-site user training for up to three (3) operators. Training is to include system operation, hardware maintenance procedures and software usage

2.5 Manuals

The contractor must supply hardcopies of the operator manual in both English and French with each unit.

2.6 Service

Purchase of the system must include: local on-site service; technical phone support; support via the Internet; and support via a fax-back document system.

Response for service must be within 24 hours or less.

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.

3.1 General Conditions

2010A (2013-04-25), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

4. Term of Contract

4.1 Delivery Date

All the deliverables must be received on or before (*will be inserted at contract*).

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Anne Caron

Public Works and Government Services Canada
Acquisitions Branch
Commercial Consumer Products Directorate
11 Laurier Street, 6A2, Phase III
Place du Portage, Hull, Quebec, K1A 0S5

Telephone: (819) 956-3874

Facsimile: (819) 956-3814

E-mail address: anne.caron@tpsgc-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.

5.2 Technical Authority

The Technical Authority for the Contract is: *(will be inserted at contract)*

The Technical Authority named above 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 Technical Authority, however the Technical 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.

5.3 Contractor's Representative

The telephone number of the person responsible for: *(will be inserted at contract)*

6. Payment

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 prices as specified in Annex "B" for a cost of \$ *(will be inserted at contract)*. 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.

6.2 Multiple Payments

SACC *Manual* clause H1001C (2008-05-12) Multiple Payments

7. Invoicing Instructions

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.

Invoices must be distributed as follows:

- a. The original and one (1) copy must be forwarded to the following address for certification and payment.

-
- b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

8. Certifications

8.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation 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.

9. Applicable Laws

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

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 general conditions 2010A (2013-04-25);
- (c) Annex A, Mandatory Specifications;
- (d) Annex B, Basis of payment
- (e) the Contractor's bid dated (*insert date of bid*)

11. SACC Manual Clauses

SACC Manual clause B1501C (2006-06-16) Electrical Equipment

SACC Manual clause G1005C (2008-05-12) Insurance

SACC Manual clause B7500C (2006-06-16), Excess Goods

12. Shipping Instructions – FOB Destination

Goods must be consigned and delivered to the destination specified in the contract:

FOB Destination as detailed in Annex "B" including all delivery charges and customs duties and taxes.

ANNEX A

SPECIFICATIONS FOR THE FT-IR SPECTROMETER

The supplied equipment and services must meet or better all of the requirements defined below. The supplied equipment is to be new, not used or refurbished. Systems not meeting all the following Mandatory Requirements will be considered non-compliant.

Bidder **must provide** with their proposal technical literature/brochures, operating manuals, written documentation (such as a description of system components and capabilities) etc to demonstrate compliance with each area of the criteria stated below at time of bid closing. Proposal evaluation will be based upon the information supplied with the bid only. Failure to demonstrate compliance with any area of the criteria will render your proposal non-responsive and no further consideration will be given. References are to be specific to supporting documentation (ex. document title, page and paragraph number). *Please note that compliance must be demonstrated (by submission of supporting documentation such as technical literature/brochures, operating manuals, written statement describing how requirement is met etc) and that if an offeror only states "comply" without any further detail, this is not considered as a demonstration compliance.*

1. FT-IR SPECTROMETER SYSTEM OPTICS

Item #	MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
1.1	The spectrometer cover must be sealed and desiccated and must be equipped with CaF ₂ coated KBr sample compartment windows. The desiccant must be accessible without tools and without removal of any main covers of the instrument. There must also be a highly visible passive humidity indicator. The instrument must be equipped with the necessary internal plumbing and external connector for optional purge operation.	
1.2	The spectrometer must include a user replaceable helium-neon laser reference source. Replacement of the laser must be done without exposing the optics of the instrument to the environment. The laser must be of a modular design permitting simultaneous replacement of the laser emission head and power supply.	
1.3	The infrared source and helium-neon laser reference source must have a guaranteed lifetime of 5 years and must be user replaceable.	
1.4	The interferometer must be a dynamically aligned, non-air bearing Michelson design. The scan velocity must provide collection capabilities of up to 60 spectra independently archived, per second, at a spectral resolution of 16 cm ⁻¹ or 95 scans per second at 32 cm ⁻¹ resolution. The interferometer must be capable of spectral resolution better than 0.09 cm ⁻¹ with boxcar apodization. The spectrometer must have a	

	motorized, continuously variable aperture, for optimal peak shape collection of data.	
1.5	Standard warranty on the interferometer must be 5 years.	
1.6	The standard mid-infrared spectral range must be 7400-350 cm^{-1} . This must be achieved using the instrument configuration described in these specifications.	
1.7	The spectrometer must provide less than 0.07% deviation from 0.0%T (100%-0% scaling) for the optically thick peaks in 3 mil thick polystyrene when measured at 4 cm^{-1} resolution.	
1.8	The interferometer must be equipped with an Automatic Beamsplitter Exchanger (ABX) accessory, providing maximum flexibility for multi-range experiments.	
1.9	The ABX must provide locations for up to 3 beamsplitters supported by the interferometer. This device must allow full spectral range for available beamsplitters to be realized without manual handling of the fragile optical components and without interruption of the purge or sealed and desiccated condition of the spectrometer.	
1.10	The ABX must be under full software control, including set up during installation and for use during multi-range automated procedures.	
1.11	The ABX must permit beamsplitter exchange in less than 30 seconds.	
1.12	The interferometer must permit insertion of a wide range of beamsplitters without requiring replacement. Beamsplitters must be available for the instrument to cover the spectral range from 27,000 to 50 cm^{-1} . The spectrometer must include a germanium on KBr beamsplitter for operation in the mid-IR region and a CaF_2 beamsplitter for operation in the near infrared region.	
1.13	The instrument must be capable of at least 55,000:1 peak to peak signal to noise, measured at 4 cm^{-1} resolution by collecting 80 seconds background, 60 seconds sample, in the region 2200-2100 cm^{-1} , with purge. The wavelength precision must be within 0.01 cm^{-1} with no need for software intervention or calibration.	
1.14	The instrument must include buttons for single press operations for all sampling locations. These buttons must cause the spectrometer to set up the optics for a specific sampling location and select the correct experimental parameters file. The button will activate the Automatic Beamsplitter Exchanger for proper beamsplitter	

	selection. The button associated with the sample compartment must also activate the identification of any installed accessory and enable appropriate setup.	
1.15	The instrument must support up to three detectors, selectable by an optional rotating mirror, for use with the sample compartment; up to one user exchangeable room temperature, one user exchangeable liquid nitrogen cooled, and a permanently installed DLaTGS mid-infrared detector. In addition, the spectrometer must support a fourth detector for FT-Raman experiments internal to the main spectrometer.	
1.16	The accessory sample compartment must have automatic recognition and smart lock-in mechanical design.	
1.17	The spectrometer must support an optional sample compartment FT-Raman accessory with internal positioning stage and video capture capabilities. This accessory will have the performance characteristics outlined below. No external connections or sample compartment extension must be required for operation of the FT-Raman module. The spectrometer must be supplied in a configuration that is ready to accept the FT-Raman module and does not require any additional hardware or software or other upgrade for the operation of the FT-Raman module.	
1.18	The spectrometer must include a motorized Validation Wheel. The wheel must provide beam attenuation screens for high sensitivity detectors, NG-11 glass for detector linearity test and NIST-traceable 1.5 MIL (38 microns) polystyrene film. The validation wheel must be serialized and labeled with expiration date information.	
1.19	The system must be able to provide left and right external beams for supporting additional sampling modules or infrared microscopes.	
1.20	The size of the instrument when simultaneously configured for FT-Raman and mid-IR operation with the automated beamsplitter changer, validation and filter wheels must not exceed (W x D) 63 x 70 cm (25 x 27 inches).	
1.21	The system must include an accessory which incorporates a standard sample holder for a KBr press. The system must recognize the accessory and automatically configure a user definable experiment for data collection with the accessory and perform a diagnostic test to ensure that the accessory is functioning properly.	

1.22	<p>Each of the two FT-IR spectrometers must be supplied with one ThermoNicolet SmartDurasope Diamond ATR accessory (1 bounce, part no. 869-091700, two accessories in total). This accessory must fit into the FT-IR sample compartment. The system must recognize the accessory and automatically configure a user definable experiment for data collection with the accessory and perform a diagnostic test to ensure that the accessory is functioning properly. The system must include a pass-through cable (if required) so that the only connection between the system and the accessory is through a single connector inside the sample compartment.</p> <p>OR</p> <p>The vendor must include two equivalent accessories that comply with all of the requirements above.</p>	
-------------	--	--

2. SOFTWARE AND INSTRUMENT CONTROL

Item #	MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
2.1	The software must be fully compatible with Microsoft Windows XP (32-bit) and Windows 7 (32-bit and 64-bit).	
2.2	Software must support one-click operation using clearly visible icons to switch to any sample compartment from any other sample compartment and load proper experiment settings to collect data.	
2.3	The software must support stability testing to indicate to users when the instrument is ready for collection.	
2.4	The software must support loading and identification of Automatic Beamsplitter Exchanger beamsplitters.	
2.5	Software must support Advanced Diagnostics on the instrument to aid in troubleshooting.	
2.6	Software must support the hardware one touch setup for each sampling location. The first press will prepare the optics for data collection. Subsequent button presses will cause the software to collect data with options for post-collection analysis and report preparation.	
2.7	Software must support easy selection of experiment files that are filtered specifically for a particular sample compartment. Experiment files that are present on the computer for other sample compartments will not be displayed when not appropriate.	

2.8	Software must support background handling options including: A. Before every sample B. After every sample C. After a specified amount of time D. Use stored background	
2.9	Software must support Preview Data collection and must allow the user to perform a search on the spectrum when previewing and during data collection.	
2.10	Software must support the Raman module by providing single point, line and area mapping and array data collection, and must provide extensive tools for the analysis of this data, including cluster analysis.	
2.11	Software must support sample navigation for the Raman module, including an autofocus function designed to optimize Raman spectral intensity.	
2.12	Software for the Raman module must support templates for a variety of sample plates, including 9 cell, microscopy slides and 3-vial or 4-vial holders. Clicking on the template must enable movement to the location selected.	
2.13	Video images acquired with the Raman module or other modules mounting cameras must be available to attach to reports. It must be possible to save images with sample data.	
2.14	Software must support all internal diagnostics, laser power control and video camera settings for the Raman module.	
2.15	Software must support macros for collecting from all sample compartments, controlling instrument options and displaying auto reports.	
2.16	Software must support validation for all modules when those modules have appropriate, traceable standards available. This must include all appropriate documentation.	
2.17	The software must support fully automated ASTM 1421 validation with reports using the automated validation wheel with NIST traceable polystyrene film and NG-11 Schott glass.	

3. OTHER REQUIREMENTS

Item #	MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
3.1	The system must operate on a power supply of 110V or 220V $\pm 15\%$, 60 Hz.	
3.2	All auxiliary equipment, i.e., necessary cables, compressed gas connections, etc. required to produce a fully functional system is to be provided by the Vendor.	

4. SPECIFICATIONS FOR OPTIONAL SAMPLE COMPARTMENT FT-RAMAN MODULE

Item #	MANDATORY SPECIFICATION - DESCRIPTION	Reference to bid document (document name, page, and paragraph number)
4.1	The Raman module must include a 1064 nm laser giving 500 mW with a 50 micron spot size at the sample. The module must also contain a software-controlled XYZ horizontal motorized sample stage and a built-in color USB camera for view-and-collect operation.	
4.2	The Raman module must have an effective Raman spectral range of 3700-100 cm ⁻¹ .	
4.3	The Raman module must have a resolution of 1 cm ⁻¹ or better.	
4.4	The Raman module must have a Stokes only Raleigh filter.	
4.5	The enhanced Raman InGaAs detector must be mounted internal to the spectrometer for optimal performance and sensitivity.	
4.6	The sampling stage must have a range of motion of at least (x,y,z) 100 mm x 150 mm x 25 mm.	
4.7	The sampling stage must permit a variety of sampling tools and must include the necessary sampling accessories (sampling kit) for a half well-plate (48 wells), a microscope slide, a flat pan for general sampling, NMR tubes and small vials.	
4.8	The Raman module sampling stage must automatically move to a position for easy sample removal when the door of the module is opened.	
4.9	The Raman module must be certified as being a Class 1 laser product, and must enable an interruption of the laser beam when the door is opened.	
4.10	One person must be capable of inserting the FT-Raman module, which will align on pins and then clamp in place. The process of clamping the unit in place must complete the electrical connections for power, video and stage control.	
4.11	Data collection with the FT-Raman module must permit single points, array (for well plate high-throughput screening applications), line and area map collection. Software must support all of these sampling modes and provide tools to review and analyze the data.	
4.12	Selection of the sample compartment using the associated one-touch button when the FT-Raman module is present must result in correct beamsplitter choice, selection of the correct optical path through to the detector and will reflect changes in the software interface indicative of the FT-Raman module usage.	

ANNEX "B" – BASIS OF PAYMENT
Pricing Basis:

- a) bidders must submit firm prices, Canadian customs duties and excise taxes included, and Applicable Taxes excluded.
- b) bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date, or on another date specified in the bid solicitation, will be applied as a conversion factor to the bids submitted in foreign currency.
- c) Prices will be evaluated on a FOB Destination.

1. PRICING BASIS FOR FOURIER-TRANSFORM INFRARED SPECTROMETERS *(Bidder to complete)*

This requirement is for the purchase of two (2) FT-IR Spectrometers FOB Destination and including installation, onsite training.

Details	Unit Price \$
Delivery to 79 Bentley Avenue, Ottawa, Ontario	

2. PRICING BASIS FOR OPTIONAL REQUIREMENTS *(Bidder to complete)*
2.1 Optional Requirements

The option to purchase one (1) sample compartment FT-Raman Module

Details	Unit Price \$
Delivery to 79 Bentley Avenue, Ottawa, Ontario	

TOTAL AGGREGATE BID PRICE will be calculated by adding all of the above pricing.