

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

**Bid Receiving  
PWGSC  
33 City Centre Drive  
Suite 480  
Mississauga  
Ontario  
L5B 2N5  
Bid Fax: (905) 615-2095**

**SOLICITATION AMENDMENT  
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**  
Public Works and Government Services Canada  
Ontario Region  
33 City Centre Drive  
Suite 480  
Mississauga  
Ontario  
L5B 2N5

<b>Title - Sujet</b> Spectrometer System	
<b>Solicitation No. - N° de l'invitation</b> KM061-121080/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> KM061-121080	<b>Date</b> 2012-08-24
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$TOR-212-5968	
<b>File No. - N° de dossier</b> TOR-2-35089 (212)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2012-09-07</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Daylight Saving Time EDT
<b>F.O.B. - F.A.B.</b>	
<b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Shaw, Marian	<b>Buyer Id - Id de l'acheteur</b> tor212
<b>Telephone No. - N° de téléphone</b> (905) 615-2065 ( )	<b>FAX No. - N° de FAX</b> (905) 615-2060
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

Amendment No.002 is raised to provide answers to bidders' questions.

### Questions and Answers

**Q1 Chemical species and concentrations.** In the RFP, you mention that the unit must be capable of detecting and quantifying several chemical species. Can you provide a list of species and corresponding limits of detection?

A1. See list below:

<b>Compound</b>	<b>Limit of Detection (pptv)</b>
Sulphur Dioxide	20
Ethane	3
Propane	3
Butane	3
Hexane	3
Heptane	3
Octane	3
Nonane	3
Propene	3
Isoprene	3
Propyne	5
Cyclopentane	3
Cyclohexane	3
Benzene	3
Toluene	3
Ethyl Benzene	3
Alpha-pinene	3
Beta-pinene	3
Methanol	50
Ethanol	20
Acetone	100
MEK	5
Furan	10
HFC-134	1
Methyl Iodide	0.005
Chloroform	0.1
Dibromomethane	0.01
Bromoform	0.01

---

**Q2. Interferograms.** In the RFP, you mention that the sensor must be configured to acquire two sided interferograms. What advantages does the two sided interferograms provide?

A2. This allows for a more accurate phase correction to be performed on each spectrum.

**Q3. Interferometer.** In the RFP, you mention that the Interferometer must be "High-throughput Modified Michelson permanently aligned". How do you define "Modified"?

A3. Modified is defined here to mean an optical design that leads to a compact physical form.

**Q4. Wavelength Calibration.** In the RFP, you mention that the system must have a HeNe laser. What spectral accuracy do you require and can you accept other types of wavelength references?

A4. Minimum accuracy is  $0.03 \text{ cm}^{-1}$ . No other types of wavelength references are acceptable.

**Q5. Operation temperature:** In the RFP, you mention that the Operation temperature -20C to +40C  $\pm 1\text{C}$ . How can the tolerance ( $\pm 1\text{C}$ ) be compatible with outdoor operation?

A5. The  $\pm 1\text{C}$  does not refer to outside temperature variability but rather the acceptable variability on the operational temperature range of the instrument itself.

**Q6. Field Of Regard:** The targets of interest seems to be localized (tailing ponds, mines) if measurement sites are far from target (up to 10 km). What drives the need for an instrument capable of measuring at least 360 x 30 degrees ?

A6. A flexible, unattended instrument platform drives the need for 360 x 30 degrees observation range. This flexibility will allow the instrument to be placed in a location where it can measure in two different directions, that could be completely opposite one another, without the need for a user to physically turn the instrument.

All other terms and conditions remain unchanged.