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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

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86 Clarence Street, 2nd floor
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Title - Sujet Mass Spectrometer	
Solicitation No. - N° de l'invitation KW405-190279/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client KW405-190279	Date 2018-12-04
GETS Reference No. - N° de référence de SEAG PW-\$KIN-510-7642	
File No. - N° de dossier KIN-8-50082 (510)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2019-01-02	
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: Barltrop, David	Buyer Id - Id de l'acheteur kin510
Telephone No. - N° de téléphone (613) 536-4994 ()	FAX No. - N° de FAX (613) 545-8067
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

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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

Amendment 002 to Solicitation KW405-190279/A - Mass Spectrometer

The purpose of this amendment is to amend the Requirement and to provide Canada's response to bidder's questions

Refer: 4.1.1.2 Point Rated Technical Criteria, 1. Performance Samples Evaluation

Delete: 1. Sensitivity will be assessed for a standard of 0.1 µg/mL of MC-LR in 1:1 methanol-water.

Insert: 1. Sensitivity will be assessed for a standard of 0.1 µg/L of MC-LR in 1:1 methanol-water.

Refer: Annex A Requirement, 2. Mandatory Requirements, 2.2 Mass Spectrometry

Delete: g) Able to detect 0.1 µg/mL of MC-LR in sample size of 10 mL water with S/N of 10 using no more than a 3-point smooth. The Proponent is permitted to use alternative technology to achieve this detection limit e.g. online-solid phase extraction, 2D LC, etc. however, technology must be easily exchangeable/removable if needed to change method between runs. LC condition is described in Appendix A. Alternative condition can be used to achieve this detection with full disclosure of the method e.g. solvent composition, gradient, column type.

Insert: g) Able to detect 0.1 µg/L of MC-LR in sample size of 10 mL water with S/N of 10 using no more than a 3-point smooth. The Proponent is permitted to use alternative technology to achieve this detection limit e.g. online-solid phase extraction, 2D LC, etc. however, technology must be easily exchangeable/removable if needed to change method between runs. LC condition is described in Appendix A. Alternative condition can be used to achieve this detection with full disclosure of the method e.g. solvent composition, gradient, column type.

Refer: Annex A Requirement, 2. Mandatory Requirements, 2.2 Mass Spectrometry

Delete: i) Ionization chamber: electrospray ionization (ESI).

Insert: i) Ionization chamber: electrospray ionization (ESI)

i. Must provide an instrument that can be updated to the following ions sources:

1. Atmospheric pressure chemical ionization (APCI) – used for non-polar compounds
2. Atmospheric pressure photo ionization (APPI) – used for highly non-polar compounds
3. A gas chromatography inlet coupled with an atmospheric pressure and/or vacuum ion source.

Refer: Annex A Requirement, 5.0 Delivery, Installation, Demonstration and On-Site Acceptance Requirements

Delete: Able to detect 0.08 pg MC-LR (m/z 995.6 → 135.1), 0.08 pg MC-LA (m/z = 910.6 → 135.1) and 0.08 pg MC-RR (m/z 520.0 → 135.1) injected on column in positive electrospray, multiple reaction monitoring (MRM) mode with S/N greater than 10, no significant background, and no more than 3-point smooth.

Insert: Able to detect 0.1 pg MC-LR (m/z 995.6 □ 135.1), 0.1 pg MC-LA (m/z = 910.6 □ 135.1) and 0.1 pg MC-RR (m/z 520.0 □ 135.1) injected on column in positive electrospray, multiple reaction monitoring (MRM) mode with S/N greater than 10, no significant background, and no more than 3-point smooth.

Refer: **Appendix B, Standard Solutions**

Delete: A standard containing a mixture of microcystins is supplied for qualitative and quantitative evaluation. In the given mixture, a calibration curve of MC-LA, -LR, -WR and -RR is acquired to perform quantitation. The mixture will also include three unidentified oligopeptides for qualitative analysis. Expected concentration of unknown is between 0.1 µg/L – 50 µg/L.

Insert: Standards and mixtures of oligopeptides are supplied for qualitative and quantitative evaluation. Nine calibration standards are provided for quantitation analysis of MC-LA, -LR, -WR and -RR. The calibration standards are prepared in MeOH:H₂O 1:1 with 40mM formic acid at 0.08 ug/L, 0.16 ug/L, 0.31 ug/L, 0.63 ug/L, 1.25 ug/L, 2.5 ug/L, 5 ug/L, 10 ug/L and 20 ug/L.

An unknown mixture contains MC-LA, -LR, -WR and -RR and three unidentified oligopeptides at unknown concentrations. This mixture is prepared in MeOH:H₂O 1:1, expected concentration of all oligopeptides is between 0.1 µg/L – 50 µg/L. Bidder is required to only perform quantitation analysis on MC-LA, -LR, -WR and RR, and qualitative analysis of the three unidentified oligopeptides.

Q1. With regards to Mandatory Requirements 2.2 Mass Spectrometry - i) 2. A gas chromatography inlet coupled with an atmospheric pressure and/or vacuum ion source.

We request this item to still be listed as a mandatory available option, but moved to "Section 3. Enhanced Features – optional" – with the GC that it would be used with.

R1. No, due to the nature of the work, this feature is a mandatory requirement.

Q2. Do you require a Nitrogen Generator with a built in compressor or can the lab supply the appropriate compressed air feed (min 90 L/min; 120-145 psi) for the compressor free model?

R2. Yes, a built in compressor is required.

Refer: **Annex A Requirement, 3. Enhance Features**

Delete: 4. Nitrogen generator capable of supplying sufficient amount of nitrogen gas required for LC-HRMS operations.

Insert: 4. Nitrogen generator, with built in compressor, capable of supplying sufficient amount of nitrogen gas required for LC-HRMS operations.

Q3. Will you accept either of a quaternary pump with 1034 bar pressure rating or a binary pump (2 x 3 solvents) with 1500 bar pressure rating (6 solvent channels (2 × 3) for multiple method setups 9 different combinations)?

R3. Canada has reviewed and amended the Requirement, as shown below.

Refer: **Annex A Requirement, 2. Mandatory Requirements, 2.1 Liquid Chromatography**

Delete: a) & c) in their entirety;

Insert: a) A minimum of four solvent channels (either binary or quaternary pump), programmable gradient UHPLC system, equipped with a temperature-controlled autosampler, vacuum degasser, column thermostat, needle-wash features, and leak sensors.

c) The pump must be able to deliver the mobile phase at a high pressure of 1000 bars or higher to overcome the resistance of the stationary phase in the column. The pump must also be able to accommodate pressures down to 50 bars.
