

**AGREEMENT FOR  
INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER**

**City of Glendale Solicitation No. RFP 21-49**

This Agreement for Inductively Coupled Plasma Mass Spectrometer ("Agreement") is effective and entered into between CITY OF GLENDALE, an Arizona municipal corporation ("City"), and Shimadzu Scientific Instruments, Inc., a Maryland corporation, authorized to do business in Arizona, (the "Contractor"), as of the \_\_\_\_ day of \_\_\_\_\_, 2021.

**RECITALS**

- A. City intends to undertake a project for the benefit of the public and with public funds that is more fully set forth in **Exhibit A**, pursuant to Solicitation No. RFP 21-49 (the "Project");
- B. City desires to retain the services of Contractor to perform those specific duties and produce the specific work as set forth in the Project attached hereto;
- C. City and Contractor desire to memorialize their agreement with this document.

**AGREEMENT**

In consideration of the Recitals, which are confirmed as true and correct and incorporated by this reference, the mutual promises and covenants contained in this Agreement, and other good and valuable consideration, City and Contractor agree as follows:

**1. Key Personnel; Sub-contractors.**

- 1.1 Services. Contractor will provide all services necessary to assure the Project is completed timely and efficiently consistent with Project requirements, including, but not limited to, working in close interaction and interfacing with City and its designated employees, and working closely with others, including other contractors or consultants, retained by City.
- 1.2 Project Team.
  - a. Project Manager.
    - (1) Contractor will designate an employee as Project Manager with sufficient training, knowledge, and experience to, in the City's option, complete the Project and handle all aspects of the Project such that the work produced by Contractor is consistent with applicable standards as detailed in this Agreement;
    - (2) The City must approve the designated Project Manager; and
    - (3) To assure the Project schedule is met, Project Manager may be required to devote no less than a specific amount of time as set out in Exhibit A.
  - b. Project Team.
    - (1) The Project Manager and all other employees assigned to the project by Contractor will comprise the "Project Team."
    - (2) Project Manager will have responsibility for and will supervise all other employees assigned to the Project by Contractor.
  - c. Discharge, Reassign, Replacement.
    - (1) Contractor acknowledges the Project Team is comprised of the same persons and roles for each as may have been identified in the response to the Project's solicitation.

- (2) Contractor will not discharge, reassign or replace or diminish the responsibilities of any of the employees assigned to the Project who have been approved by City without City's prior written consent unless that person leaves the employment of Contractor, in which event the substitute must first be approved in writing by City.
- (3) Contractor will change any of the members of the Project Team at the City's request if an employee's performance does not equal or exceed the level of competence that the City may reasonably expect of a person performing those duties or if the acts or omissions of that person are detrimental to the development of the Project.

d. Sub-contractors.

- (1) Contractor may engage specific technical contractor (each a "Sub-contractor") to furnish certain service functions.
- (2) Contractor will remain fully responsible for Sub-contractor's services.
- (3) Sub-contractors must be approved by the City, unless the Sub-contractor was previously mentioned in the response to the solicitation.
- (4) Contractor shall certify by letter that contracts with Sub-contractors have been executed incorporating requirements and standards as set forth in this Agreement.

2. **Schedule.** The services will be undertaken in a manner that ensures the Project is completed timely and efficiently in accordance with the Project.

3. **Contractor's Work.**

3.1 Standard. Contractor must perform services in accordance with the standards of due diligence, care, and quality prevailing among contractors having substantial experience with the successful furnishing of services for projects that are equivalent in size, scope, quality, and other criteria under the Project and identified in this Agreement.

3.2 Licensing. Contractor warrants that:

- a. Contractor and Sub-contractors will hold all appropriate and required licenses, registrations and other approvals necessary for the lawful furnishing of services ("Approvals"); and
- b. Neither Contractor nor any Sub-contractor has been debarred or otherwise legally excluded from contracting with any federal, state, or local governmental entity ("Debarment").
  - (1) City is under no obligation to ascertain or confirm the existence or issuance of any Approvals or Debarments or to examine Contractor's contracting ability.
  - (2) Contractor must notify City immediately if any Approvals or Debarment changes during the Agreement's duration and the failure of the Contractor to notify City as required will constitute a material default under the Agreement.

3.3 Compliance. Services will be furnished in compliance with applicable federal, state, county and local statutes, rules, regulations, ordinances, building codes, life safety codes, and other standards and criteria designated by City.

Contractor must not discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, national origin, age, marital status, sexual orientation, gender identity or expression, genetic characteristics, familial status, U.S. military veteran status or any disability. Contractor will require any Sub-contractor to be bound to the same requirements as stated within this section. Contractor, and on behalf of any subcontractors, warrants compliance with this section.

3.4 Coordination; Interaction.

- a. For projects that the City believes requires the coordination of various professional services, Contractor will work in close consultation with City to proactively interact with any other professionals retained by City on the Project ("Coordinating Project Professionals").
- b. Subject to any limitations expressly stated in the Project Budget, Contractor will meet to review the Project, Schedule, Project Budget, and in-progress work with Coordinating Project Professionals and City as often and for durations as City reasonably considers necessary in order to ensure the timely work delivery and Project completion.
- c. For projects not involving Coordinating Project Professionals, Contractor will proactively interact with any other contractors when directed by City to obtain or disseminate timely information for the proper execution of the Project.

3.5 Work Product.

- a. Ownership. Upon receipt of payment for services furnished, Contractor grants to City, and will cause its Sub-contractors to grant to the City, the exclusive ownership of and all copyrights, if any, to evaluations, reports, drawings, specifications, project manuals, surveys, estimates, reviews, minutes, all "architectural work" as defined in the United States Copyright Act, 17 U.S.C § 101, *et seq.*, and other intellectual work product as may be applicable ("Work Product").
  - (1) This grant is effective whether the Work Product is on paper (e.g., a "hard copy"), in electronic format, or in some other form.
  - (2) Contractor warrants, and agrees to indemnify, hold harmless and defend City for, from and against any claim that any Work Product infringes on third-party proprietary interests.
- b. Delivery. Contractor will deliver to City copies of the preliminary and completed Work Product promptly as they are prepared.
- c. City Use.
  - (1) City may reuse the Work Product at its sole discretion.
  - (2) In the event the Work Product is used for another project without further consultations with Contractor, the City agrees to indemnify and hold Contractor harmless from any claim arising out of the Work Product.
  - (3) In such case, City shall also remove any seal and title block from the Work Product.

4. **Compensation for the Project.**

4.1 Compensation. Contractor's compensation for the Project, including those furnished by its Sub-contractors will not exceed \$160,000, as specifically detailed in **Exhibit B** (the "Compensation").

4.2 Change in Scope of Project. The Compensation may be equitably adjusted if the originally contemplated scope of services as outlined in the Project is significantly modified.

- a. Adjustments to the Compensation require a written amendment to this Agreement and may require City Council approval.
- b. Additional services which are outside the scope of the Project contained in this Agreement may not be performed by the Contractor without prior written authorization from the City.
- c. Notwithstanding the incorporation of the Exhibits to this Agreement by reference, should any conflict arise between the provisions of this Agreement and the provisions found in

the Exhibits and accompanying attachments, the provisions of this Agreement shall take priority and govern the conduct of the parties.

## 5. **Billings and Payment.**

### 5.1 Applications.

- a. Contractor will submit monthly invoices (each, a "Payment Application") to City's Project Manager and City will remit payments based upon the Payment Application as stated below.
- b. The period covered by each Payment Application will be one calendar month ending on the last day of the month or as specified in the solicitation.

### 5.2 Payment.

- a. After a full and complete Payment Application is received, City will process and remit payment within 30 days.
- b. Payment may be subject to or conditioned upon City's receipt of:
  - (1) Completed work generated by Contractor and its Sub-contractors; and
  - (2) Unconditional waivers and releases on final payment from Sub-contractors as City may reasonably request to assure the Project will be free of claims arising from required performances under this Agreement.

### 5.3 Review and Withholding. City's Project Manager will timely review and certify Payment Applications.

- a. If the Payment Application is rejected, the Project Manager will issue a written listing of the items not approved for payment.
- b. City may withhold an amount sufficient to pay expenses that City reasonably expects to incur in correcting the deficiency or deficiencies rejected for payment.

## 6. **Termination.**

### 6.1 For Convenience. City may terminate this Agreement for convenience, without cause, by delivering a written termination notice stating the Effective Termination date, which may not be less than 30 days following the date of delivery.

- a. Contractor will be equitably compensated for Goods or Services furnished prior to receipt of the termination notice and for reasonable costs incurred.
- b. Contractor will also be similarly compensated for any approved effort expended and approved costs incurred that are directly associated with project closeout and delivery of the required items to the City.

### 6.2 For Cause. City may terminate this Agreement for cause if Contractor fails to cure any breach of this Agreement within seven days after receipt of written notice specifying the breach.

- a. Contractor will not be entitled to further payment until after City has determined its damages. If City's damages resulting from the breach, as determined by City, are less than the equitable amount due but not paid Contractor for Service and Repair furnished, City will pay the amount due to Contractor, less City's damages, in accordance with the provision of § 5.
- b. If City's direct damages exceed amounts otherwise due to Contractor, Contractor must pay the difference to City immediately upon demand; however, Contractor will not be subject to consequential damages of more than \$1,000,000 or the amount of this Agreement, whichever is greater.

7. **Conflict.** Contractor acknowledges this Agreement is subject to A.R.S. § 38-511, which allows for cancellation of this Agreement in the event any person who is significantly involved in initiating, negotiating, securing, drafting, or creating the Agreement on City's behalf is also an employee, agent, or consultant of any other party to this Agreement.

8. **Insurance.**

8.1 Requirements. Contractor must obtain and maintain the following insurance ("Required Insurance"):

- a. Contractor and Sub-contractors. Contractor, and each Sub-contractor performing work or providing materials related to this Agreement must procure and maintain the insurance coverages described below (collectively referred to herein as the "Contractor's Policies"), until each Party's obligations under this Agreement are completed.
- b. General Liability.
  - (1) Contractor must at all times relevant hereto carry a commercial general liability policy with a combined single limit of at least \$1,000,000 per occurrence and \$1,000,000 annual aggregate for each property damage and contractual property damage.
  - (2) Sub-contractors must at all times relevant hereto carry a general commercial liability policy with a combined single limit of at least \$1,000,000 per occurrence.
  - (3) This commercial general liability insurance must include independent contractors' liability, contractual liability, broad form property coverage, XCU hazards if requested by the City, and a separation of insurance provision.
  - (4) These limits may be met through a combination of primary and excess liability coverage.
- c. Auto. A business auto policy providing a liability limit of at least \$1,000,000 per accident for Contractor and \$1,000,000 per accident for Sub-contractors and covering owned, non-owned and hired automobiles.
- d. Workers' Compensation and Employer's Liability. A workers' compensation and employer's liability policy providing at least the minimum benefits required by Arizona law.
- e. Notice of Changes. Contractor's Policies must provide for not less than 30 days' advance written notice to City Representative of:
  - (1) Cancellation or termination of Contractor or Sub-contractor's Policies;
  - (2) Reduction of the coverage limits of any of Contractor or and Sub-contractor's Policies; and
  - (3) Any other material modification of Contractor or Sub-contractor's Policies related to this Agreement.
- f. Certificates of Insurance.
  - (1) Within 10 business days after the execution of the Agreement, Contractor must deliver to City Representative certificates of insurance for each of Contractor and Sub-contractor's Policies, which will confirm the existence or issuance of Contractor and Sub-contractor's Policies in accordance with the provisions of this section, and copies of the endorsements of Contractor and Sub-contractor's Policies in accordance with the provisions of this section.
  - (2) City is and will be under no obligation either to ascertain or confirm the existence or issuance of Contractor and Sub-contractor's Policies, or to examine Contractor and Sub-contractor's Policies, or to inform Contractor or Sub-contractor in the event that any coverage does not comply with the requirements of this section.

- (3) Contractor's failure to secure and maintain Contractor Policies and to assure Sub-contractor policies as required will constitute a material default under the Agreement.
- g. Other Contractors or Vendors.
  - (1) Other contractors or vendors that may be contracted with in connection with the Project must procure and maintain insurance coverage as is appropriate to their particular contract.
  - (2) This insurance coverage must comply with the requirements set forth above for Contractor's Policies (e.g., the requirements pertaining to endorsements to name the parties as additional insured parties and certificates of insurance).
- h. Policies. Except with respect to workers' compensation and employer's liability coverages, City must be named and properly endorsed as additional insureds on all liability policies required by this section.
  - (1) The coverage extended to additional insureds must be primary and must not contribute with any insurance or self insurance policies or programs maintained by the additional insureds.
  - (2) All insurance policies obtained pursuant to this section must be with companies legally authorized to do business in the State of Arizona and reasonably acceptable to all parties.

#### 8.2 Sub-contractors.

- a. Contractor must also cause its Sub-contractors to obtain and maintain the Required Insurance.
- b. City may consider waiving these insurance requirements for a specific Sub-contractor if City is satisfied the amounts required are not commercially available to the Sub-contractor and the insurance the Sub-contractor does have is appropriate for the Sub-contractor's work under this Agreement.
- c. Contractor and Sub-contractors must provide to the City proof of the Required Insurance whenever requested.

#### 8.3 Indemnification.

- a. To the fullest extent permitted by law, Contractor must defend, indemnify, and hold harmless City and its elected officials, officers, employees and agents (each, an "Indemnified Party," collectively, the "Indemnified Parties"), for, from, and against any and all claims, demands, actions, damages, judgments, settlements, personal injury (including sickness, disease, death, and bodily harm), property damage (including loss of use), infringement, governmental action and all other losses and expenses, including reasonable attorneys' fees and litigation expenses (each, a "Demand or Expense"; collectively, "Demands or Expenses") asserted by a third-party (i.e. a person or entity other than City or Contractor) and that arises out of or results from the breach of this Agreement by the Contractor or the Contractor's negligent actions, errors or omissions (including any Sub-contractor or other person or firm employed by Contractor), whether sustained before or after completion of the Project.
- b. This indemnity and hold harmless provision applies even if a Demand or Expense is in part due to the Indemnified Party's negligence or breach of a responsibility under this Agreement, but in that event, Contractor shall be liable only to the extent the Demand or Expense results from the negligence or breach of a responsibility of Contractor or of any person or entity for whom Contractor is responsible.

- c. Contractor is not required to indemnify any Indemnified Parties for, from, or against any Demand or Expense resulting from the Indemnified Party's sole negligence or other fault solely attributable to the Indemnified Party.

- 9. **E-verify, Records and Audits.** To the extent applicable under A.R.S. § 41-4401, the Contractor warrant their compliance and that of its subcontractors with all federal immigration laws and regulations that relate to their employees and compliance with the E-verify requirements under A.R.S. § 23-214(A). The Contractor or subcontractor's breach of this warranty shall be deemed a material breach of the Agreement and may result in the termination of the Agreement by the City under the terms of this Agreement. The City retains the legal right to randomly inspect the papers and records of the other party to ensure that the other party is complying with the above-mentioned warranty. The Contractor and subcontractor warrant to keep their respective papers and records open for random inspection during normal business hours by the other party. The parties shall cooperate with the City's random inspections, including granting the inspecting party entry rights onto their respective properties to perform the random inspections and waiving their respective rights to keep such papers and records confidential.
- 10. **No Boycott of Israel.** To the extent A.R.S § 35-393 through § 35-393.03 are applicable, the parties hereby certify that they are not currently engaged in, and agree for the duration of the Agreement to not engage in, a boycott of goods or services from Israel, as that term is defined in A.R.S § 35-393.
- 11. ~~**Attestation of PCI Compliance.** When applicable, the Contractor will provide the City annually with a Payment Card Industry Data Security Standard (PCI DSS) attestation of compliance certificate signed by an officer of Contractor with oversight responsibility.~~

12. **Notices.**

- 12.1 A notice, request or other communication that is required or permitted under this Agreement (each a "Notice") will be effective only if:
  - a. The Notice is in writing; and
  - b. Delivered in person or by overnight courier service (delivery charges prepaid), certified or registered mail (return receipt requested); and
  - c. Notice will be deemed to have been delivered to the person to whom it is addressed as of the date of receipt, if:
    - (1) Received on a business day, or before 5:00 p.m., at the address for Notices identified for the Party in this Agreement by U.S. Mail, hand delivery, or overnight courier service on or before 5:00 p.m.; or
    - (2) As of the next business day after receipt, if received after 5:00 p.m.
  - d. The burden of proof of the place and time of delivery is upon the Party giving the Notice; and
  - e. Digitalized signatures and copies of signatures will have the same effect as original signatures.

12.2 Representatives.

- a. Contractor. Contractor's representative (the "Contractor's Representative") authorized to act on Contractor's behalf with respect to the Project, and his or her address for Notice delivery is:  
  
Shimadzu Scientific Instruments, Inc.  
c/o Wade McGregor  
7102 Riverwood Drive  
Columbia, MD 21046
- b. City. City's representative ("City's Representative") authorized to act on City's behalf, and his or her address for Notice delivery is:

City of Glendale  
c/o Anthony Weathersby  
5850 W Glendale Ave  
Glendale, Arizona 85301  
623-930-2864

With required copy to:

City Manager  
City of Glendale  
5850 West Glendale Avenue  
Glendale, Arizona 85301

City Attorney  
City of Glendale  
5850 West Glendale Avenue  
Glendale, Arizona 85301

c. Concurrent Notices.

- (1) All notices to City's representative must be given concurrently to City Manager and City Attorney.
- (2) A notice will not be deemed to have been received by City's representative until the time that it has also been received by City Manager and City Attorney.
- (3) City may appoint one or more designees for the purpose of receiving notice by delivery of a written notice to Contractor identifying the designee(s) and their respective addresses for notices.

d. Changes. Contractor or City may change its representative or information on Notice, by giving Notice of the change in accordance with this section at least ten days prior to the change.

13. **Financing Assignment.** City may assign this Agreement to any City-affiliated entity, including a non-profit corporation or other entity whose primary purpose is to own or manage the Project.

14. **Entire Agreement; Survival; Counterparts; Signatures.**

14.1 Integration. This Agreement contains, except as stated below, the entire agreement between City and Contractor and supersedes all prior conversations and negotiations between the parties regarding the Project or this Agreement.

- a. Neither Party has made any representations, warranties or agreements as to any matters concerning the Agreement's subject matter.
- b. Representations, statements, conditions, or warranties not contained in this Agreement will not be binding on the parties.
- c. The solicitation, any addendums and the response submitted by the Contractor are incorporated into this Agreement as if attached hereto. Any Contractor response modifies the original solicitation as stated. Inconsistencies between the solicitation, any addendums and the response or any excerpts attached as Exhibit A and this Agreement will be resolved by the terms and conditions stated in this Agreement.

14.2 Interpretation.

- a. The parties fairly negotiated the Agreement's provisions to the extent they believed necessary and with the legal representation they deemed appropriate.
- b. The parties are of equal bargaining position and this Agreement must be construed equally between the parties without consideration of which of the parties may have drafted this Agreement.
- c. The Agreement will be interpreted in accordance with the laws of the State of Arizona.

- 14.3 Survival. Except as specifically provided otherwise in this Agreement, each warranty, representation, indemnification and hold harmless provision, insurance requirement, and every other right, remedy and responsibility of a Party, will survive completion of the Project, or the earlier termination of this Agreement.
- 14.4 Amendment. No amendment to this Agreement will be binding unless in writing and executed by the parties. Any amendment may be subject to City Council approval. Electronic signature blocks do not constitute execution.
- 14.5 Remedies. All rights and remedies provided in this Agreement are cumulative and the exercise of any one or more right or remedy will not affect any other rights or remedies under this Agreement or applicable law.
- 14.6 Severability. If any provision of this Agreement is voided or found unenforceable, that determination will not affect the validity of the other provisions, and the voided or unenforceable provision will be deemed reformed to conform to applicable law.
- 14.7 Counterparts. This Agreement may be executed in counterparts, and all counterparts will together comprise one instrument.

**15. Term.**

- 15.1 Renewals. The term of this Agreement commences upon the effective date and continues for a one (1)-year initial period. The City may, at its option and with the approval of the Contractor, extend the term of this Agreement an additional four (4) years, renewable on an annual basis. Contractor will be notified in writing by the City of its intent to extend the Agreement period at least thirty (30) calendar days prior to the expiration of the original or any renewal Agreement period. Price adjustments will only be reviewed during the Agreement renewal period and any such price adjustment will be a determining factor for any renewal. There are no automatic renewals of this Agreement.
- 15.2 Extension for Procurement Process. Upon the expiration of the Term of this Agreement, including the initial term and any renewals, at the City's sole discretion, this Agreement may be extended on a month-to-month basis for a maximum of six (6) months to allow for the City to complete its procurement process to select a vendor to provide the services/materials similar to those provided under this Agreement. The City will notify the Contractor in writing of its intent to extend the Agreement at least thirty (30) calendar days prior to the expiration of the Term. Any extension provided under this subsection will continue under the same terms and conditions as in effect immediately prior to the expiration of the then-current term.

- 16. Dispute Resolution.** Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by arbitration administered according to the American Arbitration Association's Commercial Arbitration Rules, and judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

- 17. Cooperative Use of Contract.** This agreement may be extended for use by other governmental agencies and political subdivisions of the State. Any such usage by other entities must be in accord with the ordinances, charter, rules and regulations of the respective entity and the approval of the Contractor and City. For a list of SAVE members, click on the following link:  
<http://www.mesaaz.gov/business/purchasing/save>

- 18. Exhibits.** The following exhibits, with reference to the term in which they are first referenced, are incorporated by this reference.

Exhibit A	Project
Exhibit B	Compensation

The parties enter into this Agreement as of the Effective Date shown above.

City of Glendale,  
an Arizona municipal corporation

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By: Kevin R. Phelps  
Its: City Manager

ATTEST:

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Julie K. Bower  
City Clerk (SEAL)

APPROVED AS TO FORM:

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Michael D. Bailey  
City Attorney

Shimadzu Scientific Instruments, Inc.,  
a Maryland corporation

*Wade McGregor*  
\_\_\_\_\_  
By: Wade McGregor, PhD  
Its: Local Sales Representative

**EXHIBIT A**  
**INDUCTIVELY COUPLED PLASMA MASS SPETROMETER**  
**PROJECT**

The Contractor will provide a Inductively Coupled Plasma Mass Spectrometer along installation and training as described in the Scope of Work for RFP 21-49.



# CITY OF GLENDALE PROCUREMENT DIVISION REQUEST FOR PROPOSAL

**SOLICITATION NUMBER:** RFP 21-49  
**ONLINE BID NUMBER:** 42100054  
**TITLE:** INDUCTIVELY COUPLED PLASMA MASS SPECTROMETER  
**PUBLISHED DATE:** FEBRUARY 25, 2021


**OFFER DUE:** **MARCH 25, 2020, 2:00 PM Local Time**  
Offer Submission Through Vendor Self-Service (VSS) Online Bid System.  
<https://glendaleaz.munisselfservice.com/Vendors/default.aspx>  
**NOTE:** *This is a sealed proposal process requiring proposals to be submitted before the date/time shown above. If errors occur when submitting through VSS, email or call using contact information below.*

**CONTACT:** Anthony Weathersby, Contract Analyst  
Procurement Division  
623-930-2864  
[AWeathersby@glendaleaz.com](mailto:AWeathersby@glendaleaz.com)

Proposals shall be opened using the City's electronic bidding system on the specified due time and date identified herein. All information contained in the proposals shall be confidential to avoid disclosure of contents prejudicial to competing Offerors.

**OFFERORS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE SOLICITATION**

**Vendor Self-Service - New and Existing Vendor Registration Guide**  
<https://www.glendaleaz.com/common/pages/DisplayFile.aspx?itemId=16718352Vendor>

	<b>City of Glendale</b> <b>Solicitation Number: RFP 21-49 / 42100054</b> <b>INDUCTIVELY COUPLED PLASMA MASS</b> <b>SPECTROMETER</b>	<b>CITY OF GLENDALE</b> <b>Procurement Division</b> <b>5850 West Glendale Avenue,</b> <b>Suite 317</b> <b>Glendale, Arizona 85301</b>
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**Exhibit Package**

- Exhibit 1: Special Notices
- Exhibit 2: RFP Terms and Conditions
- Exhibit 3: Insurance Requirements

**Additional RFP Attachment**

RFP Template Agreement

**Fillable Forms**

**Response Workbook** – To be completed by Offeror and submitted as their response.

- Cover Sheet
- Offer Sheet
- Required Responses

**Fee Proposal Workbook** – To be completed by Offeror and submitted as their response.



**City of Glendale**  
**Solicitation Number: RFP 21-49 / 42100054**  
**INDUCTIVELY COUPLED PLASMA MASS**  
**SPECTROMETER**

**CITY OF GLENDALE**  
**Procurement Division**  
**5850 West Glendale Avenue,**  
**Suite 317**  
**Glendale, Arizona 85301**

## **1. INTRODUCTION**

The City of Glendale (City) is soliciting Requests for Proposal from a qualified firm (Contractor) to provide the City's Water Quality Laboratory with an Inductively Coupled Plasma Mass Spectrometer (ICP-MS), Autosampler and Necessary Control Software. This equipment will be integrated with the current Laboratory Information Management System and current in-house instrument systems.

## **2. OBJECTIVES**

The primary purpose of this proposal is to acquire a new system that will be for the analysis of metals regulated under EPA Method 200.8. The system may be used for wastewater samples per EPA Method 200.8 after a suitable digestion. Any instrument package proposed must meet the performance requirements dictated in this method.

## **3. SCOPE OF WORK**


The system addressed by this Request for Proposal will consist of an Inductively Coupled Plasma Mass Spectrometer (ICP-MS), Autosampler and Necessary Control Software.

**Performance:** The new system will preferably be compatible with the current in-house Laboratory Information Management System performing this analysis. As our facility moves towards reducing our environmental impact, reduction of power consumption has become more critical. We would like to see lower lab power consumption, system expandability, and a reduction in the demand on the air conditioning system in the lab. For the new instrumentation, see the specific requirements in subsequent sections of this bid.

**Currency:** As of the date of issuance of this proposal all items or components shall be of current manufacture and all components shall be currently offered and supported by the original equipment manufacturer.

**Support:** The vendor shall guarantee support including technical consultation, maintenance, replacement parts, and maintenance for all system components for a minimum of ten (10) years following the expiration of the original manufacturer's warranty. The instrument will be fully operational within three (3) months from the receipt of the equipment. The vendor must also supply a minimum of 4 days of in-house training on the new instrument specified in point 17. "Operational" is defined as the instrument is running, able to meet specified parameters and the instrument operator trained and operating the instrument. Failure to comply with this requirement will result in contract invalidation and rejection of the equipment.

**Support Response Time:** The vendor shall provide same day phone support and on-site technical support within 48 hours of receipt of notice for service. Contractor is encouraged to demonstrate the steps to initiate service in their response.

	<b>City of Glendale</b> <b>Solicitation Number: RFP 21-49 / 42100054</b> <b>INDUCTIVELY COUPLED PLASMA MASS</b> <b>SPECTROMETER</b>	<b>CITY OF GLENDALE</b> <b>Procurement Division</b> <b>5850 West Glendale Avenue,</b> <b>Suite 317</b> <b>Glendale, Arizona 85301</b>
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Separate Prices Required: Responses to this Request for Proposal must include separately priced options for each component:

- ICP-MS unit
- Autosampler
- Refrigerated Chiller
- Vacuum system (if not included in the ICP-MS price)
- Computer with CD burner, Software and associated accessories
- Interface (if needed)
- Training

Separate Responses Required: Vendors must respond to each of these specifications on a point by point basis.

#### **4. INSTRUMENT REQUIREMENTS**

- A. Must meet the following requirements:
  - 1.0 A maintenance free RF coil with a 27 MHz or 34 MHz solid state generator. The RF generator must have no moving parts other than cooling fans.
  - 2.0 A peristaltic pump with a minimum of 3 channels. Must be computer controlled and integrated within the ICP-MS system.
  - 3.0 The torch and injector must be quartz that can be easily removed and reinstalled with minimum downtime.
  - 4.0 A spray chamber enclosed in a Peltier cooler in order to reduce temperature fluctuations in the sample introduction portion of the ICP-MS and to enable higher transport efficiency with sample loading into the plasma or equivalent.
  - 5.0 All glass nebulizers must be upgradeable to a non-glass nebulizer, such as a DuraMist nebulizer.
  - 6.0 A maintenance free Ion Extraction Interface must enhance ion transmission and be located outside the vacuum for easy access.  
  
Changing of cones must be performed while maintaining vacuum in the vacuum chamber.
  - 7.0 The vacuum system must have enough capacity to reach operating vacuum from atmosphere in less than 20 minutes.  
  
In the event of a vacuum failure, the entire vacuum system must be automatically backfilled with inert gas to preserve the cleanliness of the system, use of a solenoid operated gate valve, etc.



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The vacuum system must include a vacuum isolation valve which closes as plasma is extinguished or with system faults.

The system must consist of a four-stage vacuum system consisting of a turbo molecular pump maintaining a chamber pressure at  $1e-6$  (or lower) during operation and a mechanical roughing pump(s) which backs the turbo pump and evacuates the interface region.

- 8.0 The ion focusing system must allow for the complete separation of ions from photons and neutrons. The ion focusing system should be able to optimize the transmission of the mass of interest and reject other ions in order to keep the system cleaner. The ion focusing system must be low maintenance to minimize downtime and service calls.

9.0 Interference Removal Cell Requirements

In Standard Mode, the cell must be able to operate with no gas and no energy barrier for optimal signal-to-noise performance with no significant interferences.


Preferred but not required: In case of future updates or in-house process control needs, the cell has the capability of being upgraded to operate in Collision Mode or Reaction mode. The cell operating in the collision or reaction mode must be able to reduce and eliminate spectroscopic interferences.

- 10.0 Quadrupole Mass Spectrometer. The mass spectrometer can move to any mass to charge needed to measure the elements of interest under the control of the instrument software.

Mass range must be at least 6-238 AMU. This would allow the lab to detect Lithium (6.94 AMU) required under the UCMR 5 regulation, with the potential to expand our analytes to include Uranium 238.

Critical parts of quadrupole power supply must be temperature controlled in order to maintain stability of the quadrupole mass calibration and resolution.

- 11.0 Ion Detector Requirements – The ion detector must be a simultaneous dual stage discrete electron multiplier providing concentration calibration over 10 orders of magnitude dynamic range in a single scan using both analog and pulse ion counting modes and offer protection against overload in both pulse and analog modes.  
The dual mode detector assembly must come standard with the instrument.

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12.0 The software must be capable of running in Windows 10 on a 64-bit operating system.

All analytical system operations from optimization to method development to calibration to analysis to reports must be able to be performed using a single software program.

The software must have functions for automated system startup, shutdown, optimization and instrument tuning for optimum performance. Must include a software package for control of the ICP-MS, mass spectrometer, autosampler, printer and CD burner. The system must completely control the ICP-MS including all detector settings, valve operations, etc.

The software system must support the following calibration curve fit modes for quantitative analysis: linear least squares, weighted linear least squares, and linear forced through zero least squares.

Software must include pre-set methods, method development wizards, alerts for routine maintenance, quantitative analysis including external calibration and isotope ratios.

Per EPA method requirements, the quadrupole must be able to be tuned on a minimum of 5 elements (Be, Co, In, Mg, Pb) providing a mass calibration report with all elements.

Per EPA method requirements, the time and date must be printed on each sheet of data generated by the system printer.

All analytical raw data must be retained and stored on the hard drive as well as being encrypted to prevent tampering, per EPA requirements, to support a complete data audit trail.

Online help to reference the instrument user manual.


Strongly prefer a hard copy of the software and hardware user manual instead of placing it exclusively as a pdf file to be printed.

Videos to assist with system use.

Capable of data reprocessing on stored data.

Results must be able to be transferred to a laboratory information management system (LIMS). The lab currently uses Promium element.

Computer control of cell gas or gases.

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Must include correction equations for the interferences in the software.

13.0 Autosampler:

Autosampler must consist of a computer-controlled, multi-purpose sampling station, which automates standard and sample introduction for instrument calibration and sample analysis (or equivalent). The requirements for the autosampler are as follows:

Must have automatic rinsing capability to permit continuous rinsing of the sampling capillary between samples, reducing the risk of carryover.

Must have 3 or 4 racks with a sample capacity holding 20 – 50ml sample vessels per rack.

Autosampler must be controlled by the instrument's software.

The sample probe assembly, including sample transport, must be corrosion resistant.

The autosampler must have a drive system that moves sampler arm to its programmed x-y-z coordinates with random access programming for flexibility in the placement of samples.

The autosampler must have a cover.

14.0 Refrigerated Chiller – Must meet the following requirements:  
Must have an operating pressure of 413 +/- 14 kPa (60 +/- 2 psi).


Must have a coolant flow of at least 3.8 L/min.

15.0 Prefer a new HP LaserJet printer compatible with the instrument's software or the use of the existing printer - HP LaserJet P4014n - or an equivalent option.

16.0 The computer should be a Dell OptiPlex running Windows 10 or be an equivalent option. The computer should come with a mouse and a keyboard specific to the computer. The computer should have a memory of 8 GB or greater. The computer must have USB ports to accept zip drives for data retrieval into the laboratory information management system database. The computer must come with a CD burner.

17.0 At least 4 days of Onsite Training and Method Implementation with One or More Application Chemists.

18.0 Free virtual training, substituting for attending in class training, preferably for 3-5 days, in addition to the onsite training specified in point 17 above.

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19.0 Standard 1-year Warranty (Unlimited Onsite Repair Visits including Parts, Labor and Travel).


20.0 Open to a trade-in option of the Elan DRcE ICP-MS, except for the printer.

## **5. WARRANTY, TRAINING AND SET-UP**

A warranty period of at least one year must be provided on all hardware, labor, travel and software. The warranty must include free telephone support for the system.

The manufacturer’s technical representative must complete unpacking, set-up, component installation, and satisfactory standardization of the instrument on-site.

Following completion of the initial setup and installation, the vendor's technical representative must provide 32 hours of on-site, hands-on training and method development using the purchased system. This satisfies point 17. Training must be performed in Glendale’s laboratory and must be completed prior to final acceptance.

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## 6. HOW WE CHOOSE

### 6.1 **SCORING RESPONSES:**

The evaluation criteria are weighted in accordance with the Submission Requirements. Your response will be rated as follows:

- o 25% Experience, proven performance, and qualifications
- o 20% Technical Support
- o 25% Quality Metrics
- o 30% Cost

**6.2 TYPE OF AWARD:** The City reserves the right to make multiple awards or to award by group of line items, or to make an aggregate award, whichever is deemed most advantageous to the City. If the City determines that an aggregate award to one bidder is not in the City's best interest, "all or none" Bids shall be rejected.

**6.3 LENGTH OF CONTRACT:** The City will award for an initial one (1) year with four (4) additional one-year renewal options.

**6.4 EVALUATION PANEL:** Submittals will be evaluated by a panel based on the stated criteria and are responsible for selecting the proposal that is most advantageous to the City.

**6.5 PANEL CONTACT:** Offerors shall have no exclusive meetings, conversations or communications with an individual evaluation panel member on any aspect of the RFP, after submittal.


**6.6 INTERVIEWS:** City may ask some or all Offerors to participate in an interview at any point during the evaluation process but is not required to do so. Information gathered in an interview will be used by the panel to make a selection. Offeror is responsible for any costs incurred to participate in an interview.

**6.7 ADDITIONAL INVESTIGATIONS:** City may conduct additional investigations needed to determine the competence or financial stability of any Offeror.

**6.8 BEST AND FINAL OFFERS:** City may request best and final offers and will determine the scope and subject of any best and final request.

**6.9 PROPOSAL EVALUATION:** City reserves the right to secure additional information from the Offeror in various forms and to award based on submitted information.

**6.10 NOTICE OF INTENT TO AWARD AND PROTEST PERIOD:** Information about the recommended award for this solicitation will be posted on the online at [https://www.glendaleaz.com/your\\_government/city\\_finances/procurement/notice](https://www.glendaleaz.com/your_government/city_finances/procurement/notice)

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of intent to award and will be available immediately after the City has completed its evaluation process. Questions regarding the notice of intent to award must be directed to the listed Contract Analyst immediately. Any protest must be submitted to the Procurement Administrator no-later than seven (7) calendar days from the date of posting on the Internet. For information and instructions on how to file a protest, visit:  
[https://www.glendaleaz.com/your\\_government/city\\_finances/procurement/procurement\\_policies](https://www.glendaleaz.com/your_government/city_finances/procurement/procurement_policies)


**6.11 WITHDRAWAL OF PROPOSAL:** Offeror may withdraw a submitted proposal at any time prior to the specified solicitation due date and time through the City’s online bidding system. Withdrawals must be made by the Offeror or designated representative listed on the proposal. Telephonic or oral withdrawals cannot be accepted.

**6.12 OFFER ERRORS OMISSIONS AND CORRECTIONS:** City will not be responsible for any offeror errors or omissions. Any corrections shall be submitted through the City’s online bidding system prior to due date and time of the RFP. No corrections will be permitted after the offers have been opened.

**6.13 COMPETITIVE NEGOTIATIONS:** City may negotiate with multiple Offerors at the same time. Negotiations may result in changing the conditions, terms, or price of the proposed contract for the benefit of the City unless prohibited herein. All Offerors shall be treated fairly and equally while conducting negotiations and the City is prohibited from disclosing any information submitted by competing Offerors. Entering into negotiations does not constitute a contract award or confer any rights to Offerors. The City may formally terminate negotiations and enter into concurrent or exclusive negotiations with the next most qualified Offeror/s if it is in the City’s best interest to do so.

**6.14 NO CONTACT, NO INFLUENCE DURING THE RFP PROCESS:** City is conducting a competitive RFP process for the contract, free from improper influence or lobbying. There shall be no contact concerning this RFP from Offerors submitting a Proposal with any member of the City Council, RFP Evaluation Committee Members, or anyone connected with the process for or on behalf of the City. Contact includes direct or indirect contact by the Offeror, its employees, attorneys, lobbyists, surrogates, etc. in an attempt to influence the RFP process.

From the time the RFP is issued until the expiration of the protest period or the resolution of any protest, whichever is later (the “Silent”), Offerors, directly or indirectly through others, are restricted from attempting to influence in any manner the decision making process through, including but not limited to, the use of paid media; contacting or lobbying the City Council or City Manager or any other City employee (other than Material Management employees); the use of any media for

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the purpose of influencing the outcome; or in any other way that could be construed to influence any part of the decision-making process about this RFP. This provision shall not prohibit an Offeror from petitioning an elected official or engaging in any other protected first amendment activity after the protest period has run or any protest has been resolved, whichever is later.

Violation of this provision will cause the proposal or offer of the Offeror to be found in violation and to be rejected.

**6.15 PROPRIETARY INFORMATION** Offeror shall clearly mark any proprietary information contained in its bid with the words “Proprietary Information.” Offeror shall not mark any Solicitation Form as proprietary. Pricing data shall not be considered proprietary. Marking all, or nearly all, of a bid as proprietary may result in rejection of the bid.

Offeror’s acknowledge that the City is required by law to make certain records available for public inspection. In the event that the City receives a request for disclosure of Proprietary Information by any person, court, agency or administrative body, or otherwise has a reasonable belief that it is obligated to disclose the Proprietary Information to any such person or authority, the City will provide Offeror with prompt written notice so that Offeror may seek a protective order or other appropriate remedy. The Offeror, by submission of materials marked Proprietary Information, acknowledges and agrees that the City will have no obligation to advocate for non-disclosure in any forum or any liability to the Offeror in the event that the City must legally disclose the Proprietary Information.



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**7. SUBMISSION CHECKLIST**

This section provides an overview of the submission instructions including a checklist to aid in the submission of complete proposals. Offeror's shall complete the fillable "RESPONSE WORKBOOK" attachment and submit as their proposal.

Vendors are strongly advised to read this section in its entirety and complete the checklist to avoid disqualification. **Please note that the City will NOT be able to consider proposals that are submitted late or that do not follow these guidelines.**

**The Offeror shall bear all costs associated with submitting the proposal, including proposal preparation, site visitation or any travel connected with submission of the proposal. The City shall have no liability whatsoever for such costs.**

<b>Checklist for Submitting Proposal</b>		<b>Complete (✓)</b>
<b>Submission Requirements</b>		
COVER SHEET (Response Workbook) Offeror Name Offeror Address		
COMPLETED OFFER SHEET (Response Workbook)		
1. EXPERIENCE, PROVEN PERFORMANCE, QUALIFICATIONS (4 questions)		
2. TECHNICAL SUPPORT (6 questions)		
3. QUALITY METRICS (9 questions)		
4. COST (Must be submitted in a separate electronic file) (1 question)		
ADDENDUM RESPONSES (if applicable)		
<b>Return of Offer</b>		
<ul style="list-style-type: none"> <li>Electronic copies of all "SUBMISSION REQUIREMENTS" listed above. Pricing Workbook must be submitted separately from the rest of the proposal.</li> </ul>		

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## 8. SUBMISSION REQUIREMENTS

The proposal is every element of your response to this RFP. For this proposal, you must provide a completed OFFER SHEET in addition to answering the questions identified in the REQUIRED RESPONSES. (see Response Workbook)


**Responses must be numbered to correspond to the question numbers to aid in the evaluation process; failure to do so may result in disqualification.**

Should your offer contain any PROPRIETARY INFORMATION you must clearly mark that information with the words "Proprietary Information." Only information contained in your response questions may be marked as such, information on the OFFER SHEET or PRICING SHEET (if applicable) are not considered proprietary.

Offeror's acknowledge that the City is required by law to make certain records available for public inspection. By submitting any materials marked as Proprietary Information, Offeror acknowledges and agrees that the City will have no obligation to advocate for non-disclosure in any forum or any liability to the Offeror if the City must legally disclose the Proprietary Information.

### Helpful Hints:

- Answer each question completely, your answers will be the only basis on which your proposal is scored.
- Do not unnecessarily elaborate, keep your response complete and effective.
- Do not provide general answers or reference to sales literature.
- Only when applicable attach and reference supporting documents.

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Offeror's to complete this Response Workbook and submit as their response to this RFP.

**COVER SHEET**

OFFEROR NAME: Shimadzu Scientific Instruments

OFFEROR ADDRESS: 7102 Riverwood Drive Columbia, MD 21046





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**REQUIRED RESPONSES:**

Offeror's answers to the following questions will comprise the Offeror's response to this RFP. It should be noted that all attachments or exhibits prepared by the City and referenced herein are incorporated by reference into the Offeror's response and shall be included in a final contract with the successful Offeror. Information prepared by the Offeror and submitted with their proposal *may* be incorporated into a final contract (for example program offerings, curriculum, key personnel, or performance metrics).

**1. EXPERIENCE, PROVEN PERFORMANCE, & QUALIFICATIONS**

- 1.1. Introduce your company, highlight your ability and willingness to meet or exceed the specifications and requirements of this RFP, and explain why your firm is most qualified.

Shimadzu Corp is a multinational corporation with three major divisions: Medical Diagnostics, Aerospace/Industrial, and Analytical Instruments or Shimadzu Scientific Instruments (SSI). Founded in 1875, Shimadzu is the most experienced analytical company in the world, generally, with large environmental market share, specifically. In fact, one of Genzo Shimadzu's earliest successes was solving an environmental problem.

In 1868, a drainage channel became clogged in the water supply reservoir for the town of what is currently known as Kameoka, in Kyoto prefecture. Water would no longer flow from the reservoir, and there seemed to be no good way to repair the channel. Frustrated citizens solicited advice from Genzo Shimadzu Jr. When Genzo heard about the problem, he envisaged a new type of water discharge system and gave instructions for it to be constructed. He used the principle of a siphon to swiftly lower the water level, thereby restoring the Kameoka reservoir to its former state. This episode typified Genzo, who was constantly telling his employees that, "Science is a practical endeavor. There is no point in theoretical knowledge if it isn't applied to help people." To this day, "Contributing to Society through Science and Technology" remains an important philosophy at Shimadzu Corporation.

Global Acclaim for SSI

Chemical & Engineering News annually ranks all instrument companies, and in 2018, Shimadzu bumped up another notch to #2. Many of our competitors have grown by acquiring smaller companies that have demonstrated successful innovations, but SSI's growth has come by developing all of our own technology from within. One of our lead R&D scientists, Koichi Tanaka, developed LCMS technology (MALDI), for which he was awarded the Nobel Prize, in Chemistry, in 2002. We view each customer as a partner and seek to build long-term relationships that benefit both parties.



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#### SSI History in the US

Shimadzu initiated presence in the US, in 1963, with an office in New York City, NY, moving to Columbia, MD, in 1975, where the national office still resides. In addition to Japan, Shimadzu products are manufactured in China, the Philippines, the UK, and in Portland, Oregon, USA. SSI is the only analytical company that can guarantee all mass spectrometers sold in the US are manufactured in the US. Our corporate lab is staffed with numerous scientist, many of whom are dedicated to working specifically on environmental methods and applications and some are former employees of the Environmental Protection Agency (EPA). Such in-house expertise provides insight to SSI, as a company, regarding how we might best meet the needs of our customers in the water testing industry. Our scientists regularly run samples for our customers looking to start a new project and need preliminary data or for those who would just like to see the quality of data collected on a Shimadzu instrument compared with a competitor. SSI is happy to analyze samples for Glendale Water Quality Lab on our ICPMS or any other instrument, at any time, to demonstrate data quality.

#### Regional Acclaim for SSI

Steady and controlled growth has motivated 10 regional offices across the US, providing bases of operations to meet the needs of our customers. These offices are open for training employees and customers on our instrumentation and demonstrating instrument performance, to all who are interested. The Southern California (SCA) regional office, based in Carlsbad, CA, just north of San Diego, serves Southern CA, Southern NV, AZ & NM. Anyone from City of Glendale is welcome to tour our SCA laboratory at any time to see all of our instrumentation and have some training. Of course the training to be provided with this proposed ICPMS package, would be at the Glendale Water Quality Laboratory, but there are various additional training opportunities we could pursue, to meet the needs and availability of the Glendale team, to ensure they they feel well-trained and comfortable with Shimadzu personnel and instrumentation.

SSI employees in the SCA Region are 2<sup>nd</sup> to none. Every year that we're not in a pandemic, Shimadzu has a national meeting for all employees. At the 2019 National Shimadzu meeting, the SCA Region, was ranked #1 of the 10 regions, nationwide, highlighting the professionalism of the local team. Shimadzu has been doing business in the Phoenix Metropolitan area for over 15 years and all people representing Shimadzu are directly employed by Shimadzu and are trained at our corporate office, in Columbia, MD.

Shimadzu products and corporate customer support policies are designed to enable our customers to truly own any instrumentation they purchase from us. Some of our customers have budget to purchase service contracts that put the majority of instrument maintenance burden on the Shimadzu service engineers. However, many of our customers do not have budget for full service coverage on their instrumentation and need to perform the maintenance themselves.



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Shimadzu instruments have technical specifications that are often second to none, and at the same time, they are extremely easy to operate and maintain. Phone and email support for the full life of every Shimadzu instrument has always been completely free of charge, a claim no other vendor has made. All Shimadzu personnel are directly employed by Shimadzu and are thoroughly trained at the corporate office, in Columbia, MD. We also pride ourselves as master teachers. For example, the local sales engineer taught chemistry at the university level for 8 years (most recently, 5 years at ASU), before transitioning to the corporate world. These are just some of the reasons why Shimadzu Scientific Instruments is the most qualified partner to ensure successful compliance with required analyses at City of Glendale Water Quality Laboratory.

- 1.2. Company Background: Include a brief history of your organization including the past performance on project of similar scope and size, level of knowledge, reliability, flexibility and ability to meet project deadlines.

Despite the fact that Shimadzu Scientific Instruments ranks #2, for worldwide sales, according to Chemical & Engineering News (<https://cen.acs.org/business/instrumentation/Top-Instrument-Firms-2018/97/i9>), only behind Thermo Fisher Scientific, we have had limited opportunity to prove ourselves to the water analysis community in Arizona. We are the only vendor that can provide all required analytical instrumentation for a water quality lab: LC, LCMS, IC, GC, GCMS, ICP, ICPMS, UV-VIS AND TOC. There are many labs across the nation that have partnered with Shimadzu and have been very pleased with the outcome. Three of these are listed in the References Form of this proposal.

Orange County Sanitation District (OC SAN) has partnered with Shimadzu for several pieces of their analytical arsenal, most recently GCMS with purge and trap autosampler for volatiles analyses. As Glendale analysts are surely aware, this is a very challenging analysis because the purge and trap can often leak water to the GCMS and confound results. Purge and trap (P&T) is a niche autosampler and there isn't a GCMS vendor that also manufactures its own P&T, furthering potential complications at the interface of hardware components and the personnel who represent and support them. There was a different instrument brand at OC SAN for their volatiles analyses, but they could not resolve the issue of water leaking from the P&T to GCMS, so OC SAN gave Shimadzu a try. The local team of engineers persisted through various hurdles to ensure the analytical results were on point and the OC SAN personnel were thoroughly trained on the instrument operation. They have been satisfied and successful ever since. They are happy to speak with Glendale personnel about this experience.

- 1.3. Offeror shall briefly describe the overall experience of each key personnel providing customer support and training.



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Shimadzu is staffed with experts in the water testing industry, who continue involvement with the EPA and other regulatory bodies and environmental testing labs across the US. Below are some key people who will contribute to the City of Glendale (COG) success, with the proposed Shimadzu ICPMS-2030. A brief summary of their professional achievements is included, along with lists of their certificates earned through rigorous training courses at the Shimadzu office, in Columbia, MD.

Wade McGregor, PhD, Field Sales Engineer

Professional Summary

5 years selling Shimadzu instrumentation, serves as first SSI point of contact for City of Glendale

2 years selling Agilent instrumentation

8 years teaching chemistry at the university level, most recently Arizona State University

Shimadzu Training Certificates

- ATMSPC-103 – ICPMS-2030 Fundamentals & Applications, Oct 2017
- FTIR-113 – FTIR Microscopy, Jan 2019
- GC-105 – GC Service, Aug 2017
- GCMS-151 – GCMS TQ Fundamentals & Applications, Apr 2018
- HPLC-101 – HPLC Fundamentals, Apr 2017
- HPLC-201 – HPLC Preventative Maintenance, Aug 2017
- INFOR-104 – LabSolutions (software) Database & Client Server, Jan 2020
- LCMS-101 – LCMS TQ Fundamentals & Applications, Sep 2017
- RF-101 – Relative Fluorescence Fundamentals & Applications, Jan 2019

Mark Lazari, PhD, Regional Technical Support Manager

Professional Summary

5 years with Shimadzu, 1 year as Technical Support Manager

Education

PhD in Bioengineering & Biomedical Engineering, University of California, Los Angeles

MS in Bioengineering & Biomedical Engineering, University of California, Los Angeles

BS in Chemistry, from California State University, Stanislaus

Shimadzu Training Certificates

- INFOR-250- LabSolutions CS Training, Mar 2017
- HPLC-120: Preparatory LC, Sep 2017
- AA – Service, Sep 2017
- Fundamentals and PM for Modular Integrated HPLC, Jul 2016
- GC Service – Basic, Sep 2016
- GCMS QP-Series User Basics, Dec 2016
- Guidelines for Sales Support in Clinical Laboratories, Mar 2016
- Guidelines for Sales Support in Clinical Laboratories, Oct 2016
- ICP - EPA 200.7 Applied System – Tech, Nov 2016



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**SPECTROMETER**  
**RESPONSE WORKBOOK**

**CITY OF GLENDALE**  
**Procurement Division**  
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**Avenue, Suite 317**  
**Glendale, Arizona 85301**

- IQOQ, PT Doc SOP, Apr 2016
- TOC - Standards Method 5310B Applied System – Tech, Nov 2016
- GCMS Environmental – Tech, Nov 2015
- ICP Technical, Nov 2015
- NexeraUC Overview, Installation, Operation, eIQOQ, Dec 2015
- TOC-L and TOC-V Service, Jul 2015

Frank Gonzalez, Regional Service Manager  
Professional Summary

10 years with Shimadzu, 6 as Regional Service Manager  
Shimadzu Training Certificates

- SSI Corporate Code of Ethics Training, Mar 2017
- TOC L Workshop, Sep 2015
- AOC-5000 Hardware, Apr 2011
- AOC-5000 Software, Apr 2011
- GC Software, Mar 2011
- GC-2010 Plus, 2014 Hardware, Mar 2011
- GCMS-QP2010 Hardware, Nov 2012
- LC-20 Hardware, Apr 2011
- LC-30 Hardware Update, Jul 2012
- LC-30 Nexera Service, Apr 2013
- LCMS-2020 Hardware, Oct 2012
- TOC Tech-Service, May 2013


1.4. What licenses or certifications does your organization hold pertaining to this equipment? Please provide a copy of the current license or certification.

Shimadzu holds ISO 13485 certification for its instrumentation in the clinical setting.

## **2. TECHNICAL SUPPORT**

2.1. What type of warranties are offered for your products? Do you offer extended warranty packages? Are the extended warranty packages included in the price?

All Shimadzu instruments come with one year warranty, free of charge. Extended warranty can be purchased on a year-to-year basis or with a certain number years of coverage at time of instrument purchase. We offer Three Year and Five Year Value Plans, 3YVP & 5YVP, respectively, which include that many years of warranty and premium preventative maintenance coverage at a much lower price than purchasing equivalent coverage year-to-year. To obtain this value, 3YVP or 5YVP must be purchased at point of instrument purchase, or shortly thereafter. Page 4 of the quotation included with this bid submission, describes different service plans that may be purchased for the quoted instrument package. Prices listed are list prices and discount rates are negotiable upon inquiry.

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2.2. What is your current reject rate or warranty claims rate?

Shimadzu has not had an ICP-MS instrument in the southwest that has needed exchange due to malfunction. The minor issues our customers have experience have been due to poor sample prep and these have been easily remedied with additional training by our technical support team.

2.3. Do you have a technical support line? At what hours can technical support be contacted?

Shimadzu has a corporate technical support line that would likely have the best phone response time, connecting with one of our product specialists. The corporate office is open during regular business hours, east coast time. Shimadzu also has a Southern California (SCA) office, in Carlsbad, CA, that dispatches technical support calls to the regional team, covering Arizona. Lastly, Wade McGregor, PhD, serves as your local Point of Contact and can always be reached by cell phone and email, 24/7. In cases of emergency, he will coordinate a response with support team in Arizona.


2.4. What is your process for dealing with customer complaints?

Shimadzu has a corporate technical support line that would likely have the best phone response time, connecting with one of our product specialists. The corporate office is open during regular business hours, east coast time. Shimadzu also has a regional technical support line which would be dispatched to the regional team. Lastly, Wade McGregor, PhD, serves as your local Point of Contact and can always be reached by cell phone and email, 24/7. In cases of emergency, he will coordinate a response with the support team in Arizona.

2.5. For service and repair, do you offer annual maintenance? Is the offer service/repair annual maintenance service included in the price?

All Shimadzu instruments come with one year warranty, free of charge. Extended warranty can be purchased on a year-to-year basis or with a certain number years of coverage at time of instrument purchase. We offer Three Year and Five Year Value Plans, 3YVP & 5YVP, respectively, which include that many years of warranty and premium preventative maintenance coverage at a much lower price than purchasing equivalent coverage year-to-year. To obtain this value, 3YVP or 5YVP must be purchased at point of instrument purchase, or shortly thereafter. Page 4 of the quotation included with this bid submission, describes different service plans that may be purchased for the quoted instrument package. Prices listed are list prices and discount rates are negotiable upon inquiry.

2.6. Can you provide the required amount of training?

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Shimadzu is committed to the success of all our customers and we will ensure that all related personnel at City of Glendale Water Quality Lab are properly trained to operate the ICPMS-2030 to perform EPA method 200.8, as outlined in our EPA Method 200.8 guarantee document. Additional training may also be provided for other projects related to the ICPMS-2030 or other instrumentation.

### 3. QUALITY METRICS

#### 3.1. What software is your equipment compatible with?

The proposed Shimadzu ICPMS-2030 EPA Method 200.8 package includes a CETAC ASX-560 autosampler. While this is a 3<sup>rd</sup> party accessory, Shimadzu has partnered with CETAC, as long as we've been making ICP-MS and our software platform, Lab Solutions ICPMS, directly controls the CETAC ASX-560 without any software interface. The hardware is recognized by the software and controlled by it, seamlessly.

There is no need for Lab Solutions ICPMS to communicate with any other software to execute EPA Method 200.8. Raw data can be directly exported as TXT, ASCII or csv files for analysis in other programs, such as Microsoft Excel, as needed.

#### 3.2. Will there be compatibility issues with equipment or software that the Laboratory currently uses as referenced in RFP. (i.e. MagicNet, Masshunter, Promium)?

Shimadzu Lab Solutions ICPMS has no compatibility issues with any of the software platforms mentioned in this RFP as there is no need for interface with any of the mentioned platforms. MagICNet is the Metrohm software platform for its Ion Chromatography (IC) instruments. There is no reason why Shimadzu ICPMS-2030 would ever need to interface with a Metrohm IC instrument. Likewise, MassHunter is the mass spectrometry (MS) software platform for Agilent and there is no reason why Shimadzu ICPMS-2030 would ever need to interface with an Agilent MS. Promium is a Laboratory Information Management System (LIMS) and is therefore distinct from the other two examples of software platforms. Shimadzu Lab Solutions ICPMS has no problem interfacing with Promium LIMS.

#### 3.3. Is the product that you are proposing upgradeable? If so, how often do you come out with upgrades to improve performance or testing accuracy?

Shimadzu ICPMS-2030 is equipped with a collision cell, which will greatly enhance data quality, once the EPA authorizes use of this feature to perform Method 200.8. The proposed instrument package is easily able to meet target method specifications and the collision cell provides "future-proofing" for the needs of City of Glendale. This will provide superior analytical performance for many years to come.



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- 3.4. Has the equipment that you are proposing ever given false readings? If so, why and what has been done to resolve?

Shimadzu ICPMS-2030 performs comfortably to the accuracy and precision specifications of EPA Method 200.8. The only reason the instrument would manifest data as "untrue," with respect to actual sample composition, would be in the case of poor sample prep or instrument maintenance technique or procedures. Upon installation of the instrument, Shimadzu service engineers and technical support specialists will train Glendale personnel on these proper techniques and procedures to ensure all EPA Method 200.8 data are of stellar quality. Additionally, many video tutorials are also available to review sample prep and instrument maintenance procedures.

- 3.5. On average, how often does your equipment come up with errors in the quality readings? How far outside of the product's claimed accuracy range are these errors?

Shimadzu ICPMS-2030 performs comfortably to the accuracy and precision specifications of EPA Method 200.8. The only reason the instrument would manifest data as "untrue," with respect to actual sample composition, would be in the case of poor sample prep or instrument maintenance technique or procedures. Upon installation of the instrument, Shimadzu service engineers and technical support specialists will train Glendale personnel on these proper techniques and procedures to ensure all EPA Method 200.8 data are of stellar quality. Additionally, many video tutorials are also available to review sample prep and instrument maintenance procedures.

- 3.6. What measures have you undertaken to improve the quality of your products during the past three years?

Shimadzu regularly solicits feedback toward improvement of our products and our customer service.

Shimadzu has an annual innovation summit, at global headquarters, in Kyoto Japan, hosting key opinion leaders, across various industries from all over the world (<https://www.shimadzu.com/an/news-events/relation/gis/index.html>). Input from these industry leaders has been very valuable toward improving the quality of our instrumentation.

Another way Shimadzu acquires customer feedback toward product improvement is through Shimadzu Partnership for Academic Research & Quality of life (SPARQ) relationships with various universities across the US. Our flagship SPARQ is at the University of Texas at Arlington (UTA), where six Research Centers of Excellence allow faculty to train students on state of the art instrumentation and



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make industry changing discoveries. Shimadzu ICPMS-2030 can be found in the Environmental, Forensics and Material Science Center, at UTA (<https://www.uta.edu/sirt/cefms/equipment/ICPMS/ICPMS.php>).

In this academic setting, the instrumentation is in constant use for a variety of applications and Shimadzu personnel are on campus, regularly, contributing to faculty and student success and relaying their feedback toward improvement of our products. There are many SPARQ partnerships around the US, all with different scope and objectives, and all have provided valuable feedback.

### 3.7. Explain how your equipment does Ion Extraction?

To discuss "ion extraction," in context of inductively coupled plasma mass spectrometers, it is helpful to understand why analyte ionization is necessary for the analysis, and how the process happens, in plasma. All mass spectrometers (MSs) are able to resolve analytes, based on their mass, only when those analytes are endowed with positive charge. Many other MSs use "soft ionization" (low energy investment) techniques to extract an electron from each analyte to provide the requisite positive charge for analysis. However, ICPMS uses "hard ionization," in the form of intense heat in the argon plasma. Most elements in the periodic table have at least one ionization potential that is lower than that of argon, so they efficiently form ions in the argon plasma.

After analytes are ionized in the argon plasma, but before they are ready for analysis by mass spectrometry, they must be "extracted" from the plasma and from other components of the matrix that would interfere with an accurate analysis. Ions are drawn from the plasma, into an interface region between the cones, by vacuum. Behind the cones is a set of electrostatic lenses, collectively referred to as the "ion optics," which directs the ion beam off its axis, such that photons and neutral elements are filtered out of the selective trajectory. The resultant, purified beam of analyte ions is directed into the quadrupole, so analytes can be separated by mass and effectively quantified as they hit the detector.

### 3.8. Explain how the offered equipment performs interference removal cell?

All ICPMS vendors (including Shimadzu, ICPMS-2030) have developed collision cell technology, which functions as follows. When ions accelerate into the collision cell, they collide with helium atoms that are maintained, there, specifically for that purpose. Because polyatomic (interfering, "molecular") ions are larger than monatomic analyte ions, they collide more frequently with the Helium gas, which decreases their energy, thereby altering their trajectory. The altered trajectory of molecular ions prevents them from reaching the quadrupole and the detector, precluding their ultimate interference on the analysis.



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Collision cell technology is very effective at removing molecular ion interferences and it will be helpful when the EPA allows its use for Method 200.8. However, this technology does not remedy other types of interferences associated with ICPMS analyses, like isobaric and divalent interferences. Isobars are isotopes of two different elements that have the same mass. Other vendors have developed very sophisticated technologies to remedy isobaric interference, like reaction cell and tandem mass spectrometry, but these are very expensive at initial purchase, they have higher operating cost and they are more complicated to operate and are more prone to malfunction.

Shimadzu developed a more simple and elegant approach to preventing isobaric interference, through a software feature called the Method Development Assistant. When selecting analytes for method development in Lab Solutions ICPMS software, a list of all isotopes for each analyte is displayed. The software automatically identifies the isotope for each element with least potential for interference (due to overlapping peaks of isobars) in the analyte panel. This automates the process for preventing isobaric interference at the software level, instead of relying on expensive and complicated hardware features to do the same job.


Shimadzu developed another feature in Lab Solutions ICPMS software to remedy divalent analyte interferences. Because ICPMS, like all mass spectrometer instruments, actually measures a mass/charge ratio ( $m/z$ ) at the detector, and not absolute mass of each analyte, interference by elements with greater than +1 charge, is common. One example of this is the analysis of Se-78(1+) being confounded by the presence of Gd-156(2+), both having  $m/z = 78$ . Lab Solutions ICPMS automatically alerts the analyst of the possibility for this type of interference and the process to remedy is as follows. The analyst includes a Gd-156 standard in method development, for calculation of a correction coefficient (a), which is just a ratio of the signal for Se-78 (A) to the signal for Gd-156 (B),  $a = A/B$ . This correction coefficient is automatically applied to all data for Se-78 to mathematically remove any potential contribution of Gd-156(2+) to the measurement for Se-78(1+).

**3.9. Provide a specification sheet.**

Specification sheet and brochure for Shimadzu ICPMS-2030 are included with this bid submission.

**VENDOR EXCEPTIONS:**

Per Exhibit 2.2, Offeror shall note any exceptions to the solicitation documents in this section using the example below:

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**Document Name:** Exhibit 3 – Insurance Requirements  
**Section:** 1.a.i. Commercial General Liability – General Aggregate \$5,000,000  
**Exception:** Vendor’s General Aggregate is only \$3,000,000

Document Name: Shimadzu Response  
Specification: 7.0(d) - The system must consist of a four-stage vacuum system consisting of a turbo molecular pump maintaining a chamber pressure at 1e-6(or lower) during operation and a mechanical roughing pump(s) which backs the turbo pump and evacuates the interface region.  
Exception:  
Shimadzu ICPMS-2030 employs a three-stage vacuum system, including a turbo molecular pump that maintains chamber pressure below 10<sup>-6</sup> Torr and a rough pump to back the turbo pump and evacuate the interface region. Hence, this instrument meets the needed performance specification (which we guarantee), without a four-stage vacuum design, which is just a vendor specification intended to lock out competition.

Document Name: Shimadzu Response  
Specification: 11.0(a) - The ion detector must be a simultaneous dual stage discrete electron multiplier providing concentration calibration over 10 orders of magnitude dynamic range in a single scan using both analog and pulse ion counting modes and offer protection against overload in both pulse and analog modes.  
Exception: Shimadzu ICPMS-2030 covers 9 orders of magnitude dynamic range and this is more than enough to meet the requirements for EPA Method 200.8, which we guarantee. The low end of the dynamic range is the most important. Operating at the high end of any ICPMS’s dynamic range (i.e., 9-10 orders of magnitude higher than analyte LODs), is not good practice, as doing so puts undo wear on the instrument. In short, the 10 orders of magnitude dynamic range is a vendor specification that is irrelevant to the goals of this RFP and is only meant to lock out competition.

Document Name: Shimadzu Response  
Specification: 14.0(a) - Refrigerated Chiller - Must have an operating pressure of 413 +/- 14 kPa (60 +/- 2 psi).  
Exception: The refrigerated chiller, included with this bid, operates at 150-300 kPa and there has never been any issue maintaining a properly cooled instrument with this pressure rating. There is no reason that elevated pressure of the system would result in more efficient cooling. Hence, this is another vendor specification only included to lock out competition.

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**ADDENDUM RESPONSES AND ACKNOWLEDGEMENT:**  
Attach addendum response(s) and acknowledgement(s) here.



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Something that was not addressed in the bid specifications, that is an important feature in of Shimadzu ICPMS-2030 is its low operating cost. Having a low initial instrument purchase price is beneficial, but could be drastically outweighed by high operating cost. With this in mind, Shimadzu incorporated three key features in its ICPMS-2030 that keep operating cost much lower than competing instruments. For additional details, please see p.9 of included brochure.

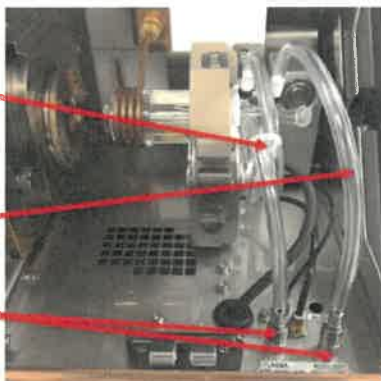
- 1) Mini-torch. Shimadzu's proprietary RF generator allows for more efficient generation plasma, using less argon. On average, the argon consumption of Shimadzu ICPMS-2030 (10 L/min) is 1/3 less than competing instruments.
- 2) Argon purity requirement. Another benefit to the proprietary Shimadzu RF generator is the fact that it is able to generate argon plasma with the same ionization potential, using lower grade argon. Shimadzu ICPMS-2030 only requires 99.95% purity argon, instead of the commonly required 99.999% purity argon. The ability of ICPMS-2030 to perform as good, or better, than competing instruments, using less argon and lower purity argon, results in much lower operating cost.
- 3) Eco mode. When the instrument is idle, during warmup or between sample runs, it can be set to go to eco mode, which further reduces argon flow to only 5 L/min.

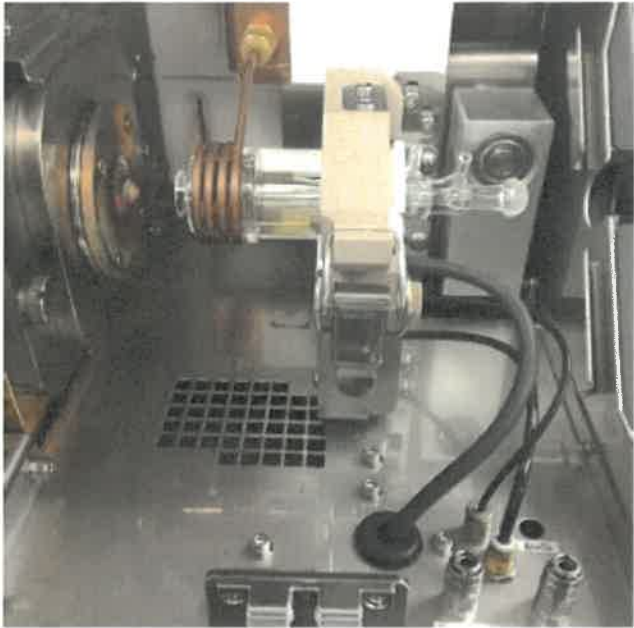
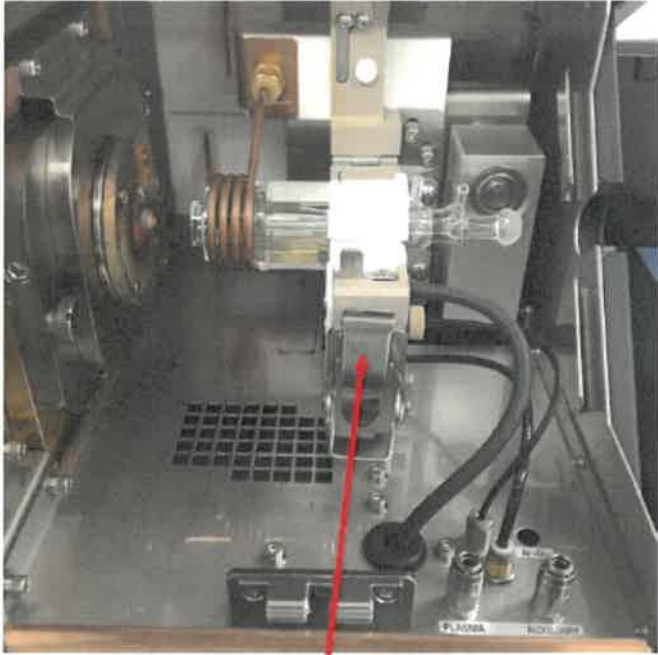
**CONFLICT OF INTEREST STATEMENT:**

If Offeror indicated they have a conflict of interest on the Offer Sheet, Offeror must provide details here. Please refer to the CONFLICT OF INTEREST section on page 1 of the EXHIBITS PACKAGE for required information to be included here.

N/A

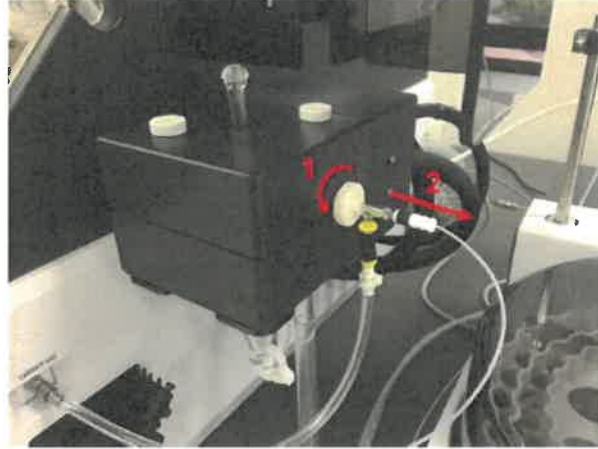
All product specifications are outlined in table, below, with Exceptions highlighted.

<b>4A. INSTRUMENT REQUIREMENTS</b>		
<b>Specification:</b>	<b>Meets:</b>	<b>Explanation:</b>
<p><b>1.0</b> A maintenance free RF coil with a 27 MHz or 34 MHz solid state generator. The RF generator must have no moving parts other than cooling fans.</p>	Meets	Shimadzu ICPMS-2030 includes 27 MHz solid state RF generator that doesn't have any moving parts.
<p><b>2.0</b> A peristaltic pump with a minimum of 3 channels. Must be computer controlled and integrated within the ICP-MS system.</p>	Exceeds	The proposed instrument includes a 4-channel peristaltic pump that is seamlessly controlled through the instrument software.
<p><b>3.0</b> The torch and injector must be quartz that can be easily removed and reinstalled with minimum downtime.</p>	Exceeds	<p>Shimadzu ICPMS-2030 includes cassette style quartz torch with injector (one part with both functions) that is removed without tools in two easy steps as diagramed below.</p>  <p><b>Step 1: Remove Argon tubing</b></p>

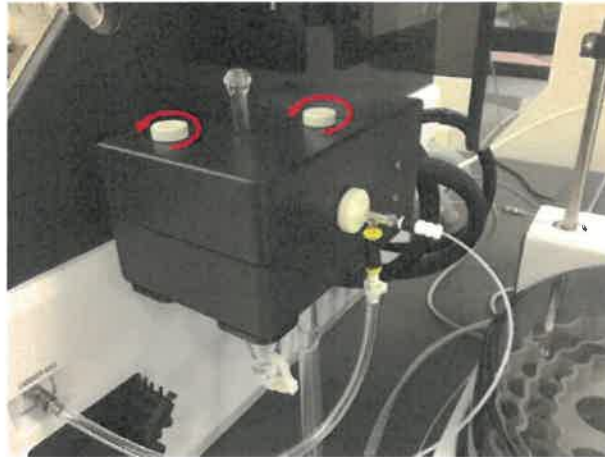
		 <p><b>Step 2: Unclip and open torch clamp</b></p>  <p><b>Unclip and open torch clamp</b></p>
<p><b>4.0</b> A spray chamber enclosed in a Peltier cooler in order to</p>	<p>Meets</p>	<p>The proposed instrument includes a cyclonic spray chamber with Peltier cooling that is likewise easily removed for routine maintenance, without tools, as diagramed below.</p>

reduce temperature fluctuations in the sample introduction portion of the ICP-MS and to enable higher transport efficiency with sample loading into the plasma or equivalent.

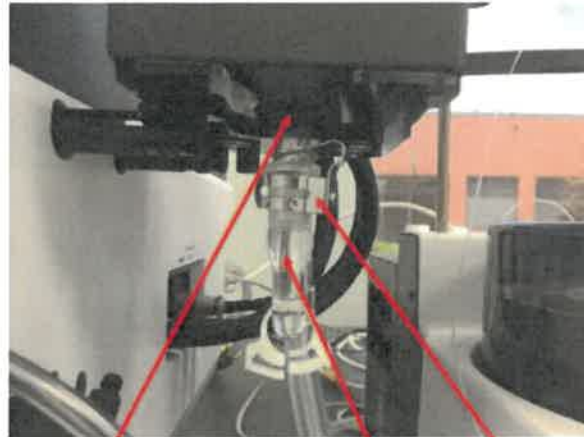
**Step 1:** Remove nebulizer by:  
1) Removing thumb screw and  
2) Removing compression fittings on tubing.



**Step 2:** Remove 2 thumb screws on top of cooling box.



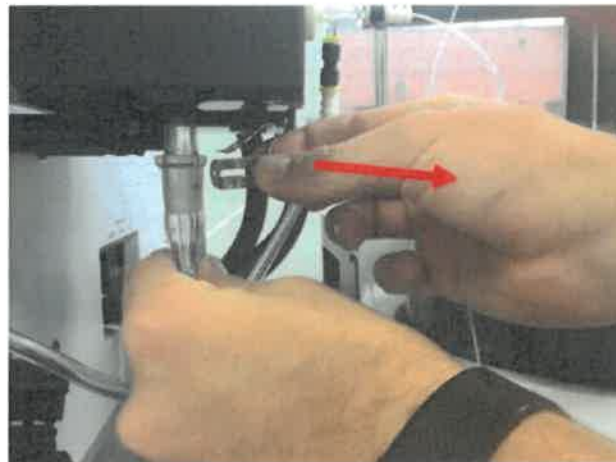
**Step 3:** Remove clip to remove drain.



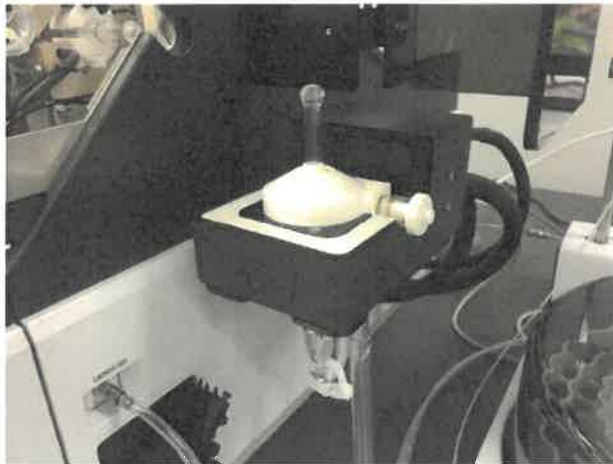
Spray Chamber  
Stem

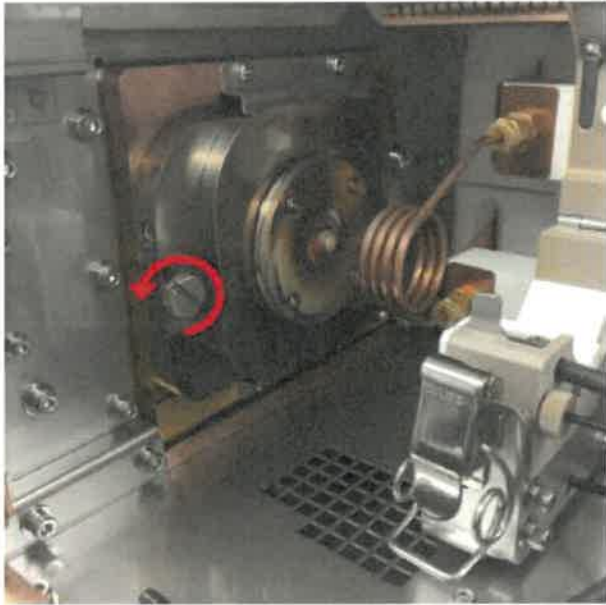
Drain

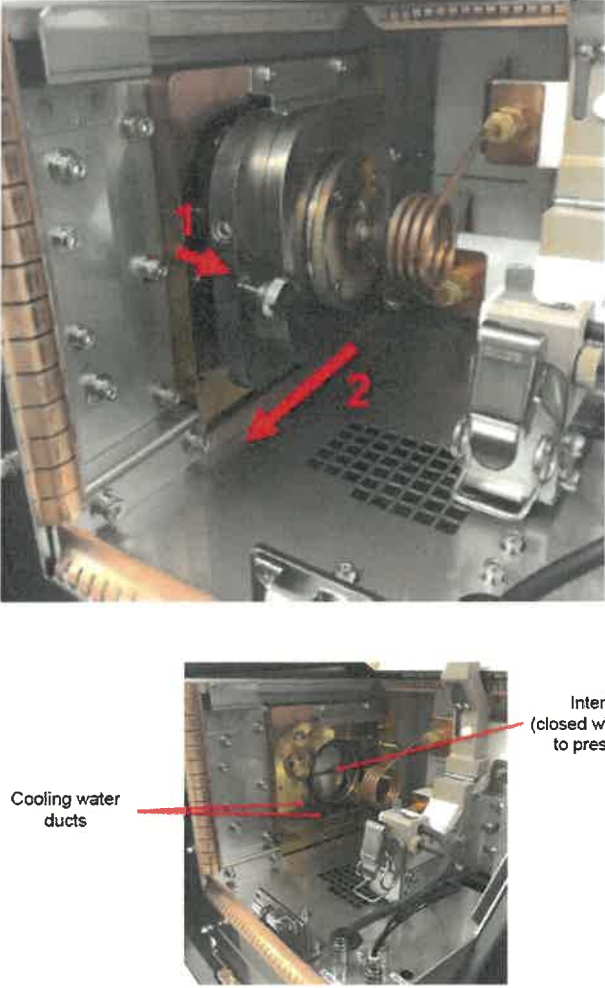
Clip

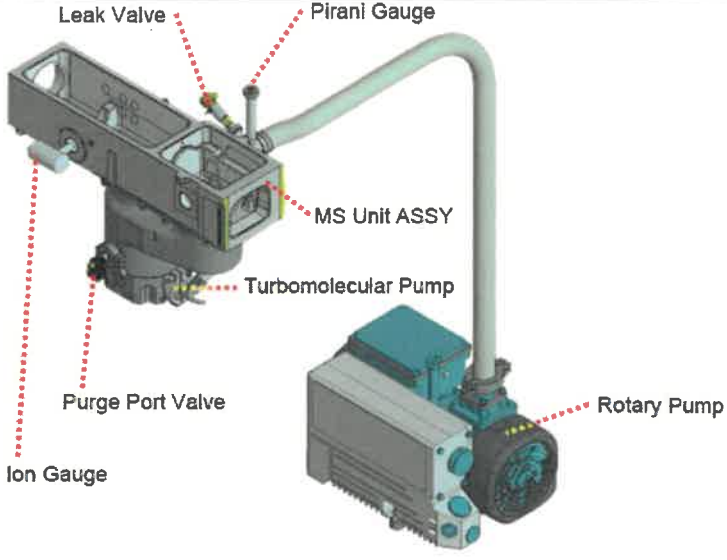
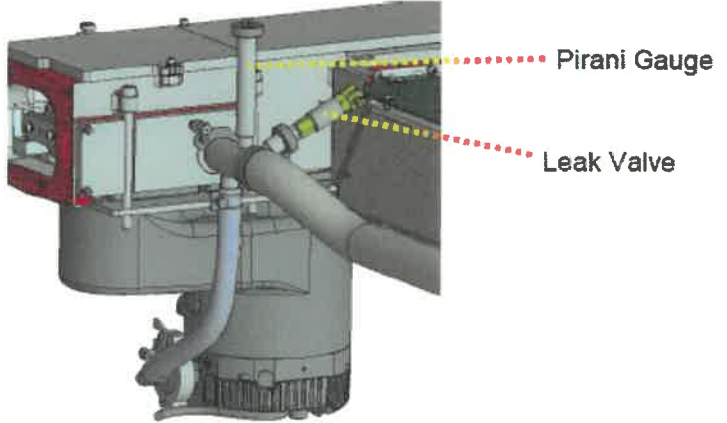


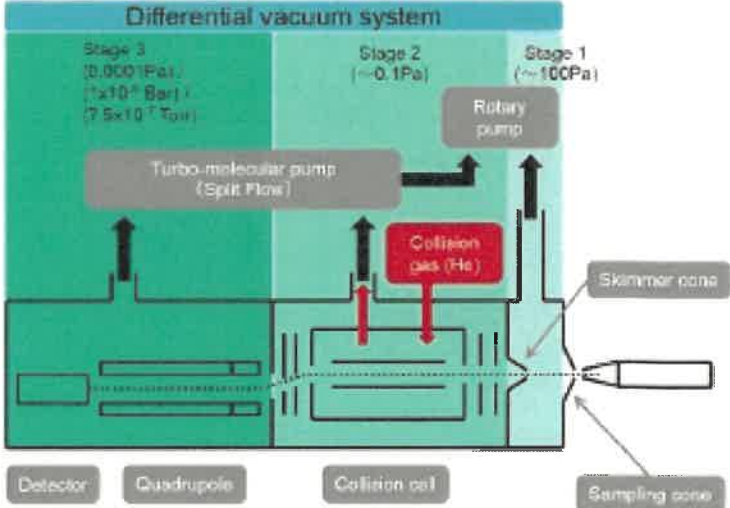
**Step 4:** Remove spray chamber from cooling box.



<p><b>5.0</b> All glass nebulizers must be upgradeable to a non-glass nebulizer, such as a DuraMist nebulizer.</p>	<p>Meets</p>	<p>Shimadzu ICPMS-2030 comes standard with borosilicate glass nebulizer with optional nebulizer upgrades, equivalent to DuraMist, by Perkin Elmer.</p>
<p><b>6.0</b> a) A maintenance free Ion Extraction Interface must enhance ion transmission and be located outside the vacuum for easy access.</p>	<p>Meets</p>	<p>The interface of Shimadzu ICPMS-2030 is easily removed, in two easy steps, without tools, as diagramed below.</p> <p><b>Step 1:</b> Unscrew thumb screws.</p>  <p><b>Step 2:</b> Slide interface block outward.</p>

		 <p>Interface shutter (closed when plasma is off to preserve vacuum)</p> <p>Cooling water ducts</p>
<p><b>6.0</b> <b>b)</b> Changing of cones must be performed while maintaining vacuum in the vacuum chamber.</p>	<p>Meets</p>	<p>The interface block can be removed, without tools, as diagrammed above, without breaking vacuum, to easily clean or replace cones.</p>
<p><b>7.0</b> <b>a)</b> The vacuum system must have enough capacity to reach operating vacuum from atmosphere in less than 20 minutes.</p>	<p>Meets</p>	<p>The instrument vacuum allows pump down to appropriate pressure level in 20 minutes</p>

		 <p>Leak Valve Pirani Gauge MS Unit ASSY Turbomolecular Pump Purge Port Valve Ion Gauge Rotary Pump</p>
<p><b>7.0</b> <b>b)</b> In the event of a vacuum failure, the entire vacuum system must be automatically backfilled with inert gas to preserve the cleanliness of the system, use of a solenoid operated gate valve, etc.</p>	<p>Meets</p>	<p>Shimadzu ICPMS-2030 vacuum system will backfill with inert nitrogen gas, in the event of vacuum failure, to preserve the cleanliness of the system.</p>
<p><b>7.0</b> <b>c)</b> The vacuum system must include a vacuum isolation valve which closes as plasma is extinguished or with system faults.</p>	<p>Meets</p>	 <p>Pirani Gauge Leak Valve</p> <p>From rear side</p>

<p><b>7.0</b> d) The system must consist of a four-stage vacuum system consisting of a turbo molecular pump maintaining a chamber pressure at <math>1e^{-6}</math>(or lower) during operation and a mechanical roughing pump(s) which backs the turbo pump and evacuates the interface region.</p>	<p>Exception</p>	<p>Shimadzu ICPMS-2030 employs a three-stage vacuum system, including a turbo molecular pump that maintains chamber pressure below <math>10^{-6}</math> Torr and a rough pump to back the turbo pump and evacuate the interface region. Hence, this instrument meets the needed performance specification, without a four-stage design, which is just a vendor specification intended to lock out competition.</p> 
<p><b>8.0</b> The ion focusing system must allow for the complete separation of ions from photons and neutrons. The ion focusing system should be able to optimize the transmission of the mass of interest and reject other ions in order to keep the system cleaner. The ion focusing system must be low maintenance to minimize downtime and service calls.</p>	<p>Meets</p>	<p>The Shimadzu instrument has state-of-the-art optics to focus the ion beam to prevent sputtering and the focusing lenses do not need any routine cleaning or maintenance.</p>
<p><b>9.0 Interference Removal Cell Requirements</b></p>		
<p><b>9.0</b></p>	<p>Meets</p>	<p>Shimadzu ICPMS-2030 can easily meet all EPA Method 200.8 requirements without cell gas and the instrument includes a</p>

<p>a) In Standard Mode, the cell must be able to operate with no gas and no energy barrier for optimal signal-to-noise performance with no significant interferences.</p>		<p>collision cell for when the EPA authorizes collision cell use in performing this method. Additionally, Shimadzu Lab Solutions ICPMS software has several mechanisms to remedy various forms of interference and these are described in some detail in the RFP 21-49 Response Workbook document (Question 3.8), included with this bid submission.</p>
<p><b>9.0</b>  <b>b)</b> Preferred but not required: In case of future updates or in-house process control needs, the cell has the capability of being upgraded to operate in Collision Mode or Reaction mode. The cell operating in the collision or reaction mode must be able to reduce and eliminate spectroscopic interferences.</p>	<p>Exceeds</p>	<p>Shimadzu ICPMS-2030 can easily meet all EPA Method 200.8 requirements without cell gas and the instrument includes a collision cell for when the EPA authorizes collision cell use in performing this method. No added cost will be required to use the collision cell as it is built into the instrument, only a regulator for helium to be used as collision gas.</p> <p>Additionally, Shimadzu Lab Solutions ICPMS software has several mechanisms to remedy various forms of interference and these are described in some detail in the RFP 21-49 Response Workbook document (Question 3.8), included with this bid submission. These software features are much easier on budget and are included by default in the software, so they are available for use at any time.</p>
<p><b>10.0</b> Quadrupole Mass Spectrometer Requirements</p>		
<p><b>10.0</b>  <b>a)</b> The mass spectrometer can move to any mass to charge needed to measure the elements of interest under the control of the instrument software.</p>	<p>Meets</p>	<p>Lab Solutions ICPMS software can program a method to scan the full 6-238 AMU range or focus on selected analytes, by simply clicking on analyte elements of interest for the method.</p>
<p><b>10.0</b>  <b>b)</b> Mass range must be at least 6-238 AMU. This would</p>	<p>Meets</p>	<p>Shimadzu ICPMS-2030 can scan the full 6-238 mass-to-charge (m/z) range.</p>

<p>allow the lab to detect Lithium (6.94 AMU) required under the UCMR 5 regulation, with the potential to expand our analytes to include Uranium 238.</p>		
<p><b>10.0</b>  <b>c)</b> Critical parts of quadrupole power supply must be temperature controlled in order to maintain stability of the quadrupole mass calibration and resolution.</p>	<p>Meets</p>	<p>Critical parts of quadrupole power supply are temperature controlled in order to maintain stability of the quadrupole mass calibration and resolution.</p>
<p><b>11.0 Ion Detector Requirements</b></p>		
<p><b>11.0</b>  <b>a)</b> The ion detector must be a simultaneous dual stage discrete electron multiplier providing concentration calibration over 10 orders of magnitude dynamic range in a single scan using both analog and pulse ion counting modes and offer protection against overload in both pulse and analog modes.</p>	<p>Exception</p>	<p>The proposed instrument is equipped with a dual-stage ion detector, automatically switching between analog and pulse-counting modes, as needed. The detector also includes a protection mechanism which skips measurement and subsequent flow of ions to the detector in case of saturated signals, thereby increasing lifetime of the detector. Such samples can be flagged and rerun, upon dilution to appropriate range. Shimadzu ICPMS-2030 covers 9 orders of magnitude dynamic range and this is more than enough to meet the requirements for EPA Method 200.8, which we guarantee. The low end of the dynamic range is the most important. Operating at the high end of any ICPMS's dynamic range (i.e., 9-10 orders of magnitude higher than analyte LODs), is not good practice, as doing so puts undue wear on the instrument. In short, the 10 orders of magnitude dynamic range is a vendor specification that is irrelevant to the goals of this RFP and is only meant to lock out competition.</p>
<p><b>11.0</b>  <b>b)</b> The dual mode detector assembly</p>	<p>Meets</p>	<p>The dual mode detector assembly comes standard with the instrument.</p>

must come standard with the instrument.		
<b>12.0</b> <b>a)</b> The software must be capable of running in Windows 10 on a 64-bit operating system.	Exceeds	The proposed package includes Dell PC with 64-bit Windows 10 operating system.
<b>12.0</b> <b>b)</b> All analytical system operations from optimization to method development to calibration to analysis to reports must be able to be performed using a single software program.	Exceeds	Lab Solutions ICPMS is the software platform that drives the Shimadzu ICPMS-2030. Shimadzu is a lead provider of all analytical instrumentation for water analysis and all operate with the Lab Solutions platform. This is unique to Shimadzu, all instrumentation operating on one, standard, unified software platform. This makes for a very easy learning curve to operate any Shimadzu instrument after one has been learned.
<b>12.0</b> <b>c)</b> The software must have functions for automated system startup, shutdown, optimization and instrument tuning for optimum performance.	Meets	Lab Solutions ICPMS software has functions for automated system startup, shutdown, optimization and instrument tuning for optimum performance.
<b>12.0</b> <b>d)</b> Must include a software package for control of the ICP-MS, mass spectrometer, autosampler, printer and CD burner. The system must completely control the ICP-MS including all detector settings, valve operations, etc.	Meets	All components of this proposal are provided by Shimadzu and all are controlled, seamlessly, through Lab Solutions ICPMS software.

<b>12.0</b> <b>e)</b> The software system must support the following calibration curve fit modes for quantitative analysis: linear least squares, weighted linear least squares, and linear forced through zero least squares.	Meets	Lab Solutions ICPMS software supports the following calibration curve fit modes for quantitative analysis: linear least squares, weighted linear least squares, and linear forced through zero least squares.
<b>12.0</b> <b>f)</b> Software must include pre-set methods, method development wizards, alerts for routine maintenance, quantitative analysis including external calibration and isotope ratios.	Meets	Shimadzu Lab Solutions ICPMS Software includes pre-set methods, method development wizards, alerts for routine maintenance, quantitative analysis including external calibration and isotope ratios.
<b>12.0</b> <b>g)</b> Per EPA method requirements, the quadrupole must be able to be tuned on a minimum of 5 elements (Be, Co, In, Mg, Pb) providing a mass calibration report with all elements.	Meets	Per EPA method requirements, the Shimadzu ICPMS-2030 quadrupole can be tuned on more than 5 elements (including Be, Co, In, Mg, Pb) providing a mass calibration report with all elements.
<b>12.0</b> <b>h)</b> Per EPA method requirements, the time and date must be printed on each sheet of data generated by the system printer.	Meets	Per EPA method requirements, the time and date can be printed on each sheet of data generated by the system printer.

<b>12.0</b> <b>i)</b> All analytical raw data must be retained and stored on the hard drive as well as being encrypted to prevent tampering, per EPA requirements, to support a complete data audit trail.	Meets	All analytical raw data can be retained and stored on the hard drive as well as being encrypted to prevent tampering, per EPA requirements, to support a complete data audit trail.
<b>12.0</b> <b>j)</b> On-line help to reference the instrument user manual.	Meets	There is on-line help available, including reference to user manual and video tutorials for hardware and software use and maintenance.
<b>12.0</b> <b>k)</b> Strongly prefer a hard copy of the software and hardware user manual instead of placing it exclusively as a pdf file to be printed.	Meets	A hard copy of the software and hardware user manual will be provided.
<b>12.0</b> <b>l)</b> Videos to assist with system use.	Meets	Video tutorials for hardware and software use and maintenance are available and will be downloaded on the instrument PC, if Glendale personnel so desire.
<b>12.0</b> <b>m)</b> Capable of data reprocessing on stored data.	Meets	Stored data can be reprocessed on Lab Solutions ICPMS.
<b>12.0</b> <b>n)</b> Results must be able to be transferred to a laboratory information management system (LIMS). The	Meets	LIMS connection kit works with any vendor platform.

lab currently uses Promium element.		
<b>12.0</b> o) Computer control of cell gas or gases.	Exceeds	Shimadzu ICPMS-2030 can accommodate cell gas usage, easily controlled through Lab Solutions ICPMS software. The only additional purchase that will be needed, when the EPA approves use of collision cell, is a helium gas regulator.
<b>12.0</b> p) Must include correction equations for the interferences in the software.	Meets	Shimadzu Lab Solutions ICPMS software platform includes unique algorithms to remedy the influence of various forms of interference on the analysis and this is described in detail in the Response Workbook, question 3.8, included with this bid submission. Other vendors rely on reaction cell technology to remove some of these interferences, but the Shimadzu approach of remedying interference through the software is much less expensive and just as effective.
<b>13.0 Autosampler</b>		
<b>13.0 Autosampler:</b> Autosampler must consist of a computer-controlled, multi-purpose sampling station, which automates standard and sample introduction for instrument calibration and sample analysis (or equivalent). The requirements for the autosampler are as follows:	Meets	The CETAC ASX-560 autosampler, included in this bid, consists of a computer-controlled, multi-purpose sampling station, which automates standard and sample introduction for instrument calibration and sample analysis.
<b>13.0</b> a) Must have automatic rinsing capability to permit continuous rinsing of the sampling capillary between samples, reducing the risk of carryover.	Meets	The CETAC ASX-560 autosampler, included in this bid, includes a dual rinse station to permit continuous rinsing of the sampling capillary between samples, reducing the risk of carryover.

<b>13.0</b> <b>b)</b> Must have 3 or 4 racks with a sample capacity holding 20 – 50ml sample vessels per rack.	Meets	The autosampler includes four vial racks, each capable of holding ten 50 mL sample vessels.
<b>13.0</b> <b>c)</b> Autosampler must be controlled by the instrument's software.	Meets	The autosampler is controlled seamlessly through Shimadzu Lab Solutions ICPMS software platform.
<b>13.0</b> <b>d)</b> The sample probe assembly, including sample transport, must be corrosion resistant.	Meets	The sample probe assembly, including sample transport, is corrosion resistant.
<b>13.0</b> <b>e)</b> The autosampler must have a drive system that moves sampler arm to its programmed x-y-z coordinates with random access programming for flexibility in the placement of samples.	Meets	The autosampler has a drive system that moves sampler arm to its programmed x-y-z coordinates with random access programming for flexibility in the placement of samples.
<b>13.0</b> <b>f)</b> The autosampler must have a cover.	Meets	The autosampler includes a cover.
<b>14.0 Refrigerated Chiller – Must meet the following requirements:</b>		
<b>14.0</b> <b>a)</b> Must have an operating pressure of 413 +/- 14 kPa (60+/- 2 psi).	Exception	The refrigerated chiller, included with this bid, operates at 150-300 kPa and there has never been any issue maintaining a properly cooled instrument with this pressure rating. There is no reason that elevated pressure of the system would result in more efficient cooling. Hence, this is another vendor specification only included to lock out competition.
<b>14.0</b>	Meets	The refrigerated chiller has flow rate of 8 L/min.


<b>b)</b> Must have a coolant flow of at least 3.8 L/min.		
<b>15.0</b> Prefer a new HP LaserJet printer compatible with the instrument's software or the use of the existing printer - HP LaserJet P4014n - or an equivalent option.	Meets	Shimadzu does not provide either of these models, directly, so none is provided with this bid. Any brand printer can be interfaced with the PC and Lab Solutions ICPMS software platform, so the existing printer in the Glendale laboratory will work well.
<b>16.0</b> The computer should be a Dell OptiPlex running Windows 10 or be an equivalent option. The computer should come with a mouse and a keyboard specific to the computer. The computer should have a memory of 8 GB or greater. The computer must have USB ports to accept zip drives for data retrieval into the laboratory information management system database. The computer must come with a CD burner.	Meets	The computer supplied with this bid meets all listed specifications.
<b>17.0</b> At least 4 days of Onsite Training and Method Implementation with One or More Application Chemists.	Meets	At least 4 days of Onsite Training and Method Implementation will be provided with One or More Application Chemists.

<b>18.0</b> Free virtual training, substituting for attending in class training, preferably for 3-5 days, in addition to the onsite training specified in point 17 above.	Exceeds	Free virtual training will be provided as needed by Glendale laboratory personnel, in addition to the onsite training specified in point 17 above. Shimadzu is committed to the successful operation of its ICPMS-2030 by all relevant Glendale personnel.
<b>19.0</b> Standard 1-year Warranty (Unlimited Onsite Repair Visits including Parts, Labor and Travel).	Meets	This bid includes a Standard 1-year Warranty (Unlimited Onsite Repair Visits including Parts, Labor and Travel).
<b>20.0</b> Open to a trade-in option of the Elan DRcE ICP-MS, except for the printer.	Exceeds	Shimadzu provided an exceptional discount on this bid without need for trade-in of the Glendale Perkin Elmer instrument.

**5. WARRANTY, TRAINING AND SET-UP**

<b>Specification:</b>	<b>Meets:</b>	<b>Explanation:</b>
<b>a)</b> A warranty period of at least one year must be provided on all hardware, labor, travel and software. The warranty must include free telephone support for the system.	Exceeds	A warranty period of one year is provided on all hardware, labor, travel and software. According to the Shimadzu business model, all Shimadzu hardware and software includes free telephone and email support for their full lifetime.
<b>b)</b> The manufacturer's technical representative must complete unpacking, set-up, component installation, and satisfactory standardization of	Meets	The manufacturer's technical representative will complete unpacking, set-up, component installation, and satisfactory standardization of the instrument on-site.

the instrument on-site.		
<p>c) Following completion of the initial setup and installation, the vendor's technical representative must provide 32 hours of on-site, hands-on training and method development using the purchased system. This satisfies point 17. Training must be performed in Glendale's laboratory and must be completed prior to final acceptance.</p>	Meets	<p>Following completion of the initial setup and installation, the vendor's technical representative will provide 32 hours of on-site, hands-on training and method development using the purchased system, according to point 17. Training will be performed in Glendale's laboratory and will be completed prior to final acceptance.</p>

	<b>City of Glendale</b> <b>Solicitation Number: RFP 21-49 / 42100054</b> <b>INDUCTIVELY COUPLED PLASMA MASS</b> <b>SPECTROMETER</b> <b>PRICING WORKBOOK</b>	<b>CITY OF GLENDALE</b> <b>Procurement Division</b> <b>5850 West Glendale</b> <b>Avenue, Suite 317</b> <b>Glendale, Arizona 85301</b>
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### 3. PRICING/COST WORKBOOK

Contractor must complete the Pricing Schedule below. Any items not clearly listed on Contractor’s submitted price proposal will be considered included in Contractor’s price at no additional cost to the City. All pricing should contemplate compliance with the performance requirements as specified in the Scope of Work.

**Instructions:**

- a. The cost proposal must be submitted separately from the rest of the written proposal.
- b. Cost proposals shall be quoted as an all-inclusive fixed fee for services.
- c. All inclusive – covers all direct and indirect necessary expenses including but not limited to: travel, telephone, copying, and other out-of-pocket expenses.
- d. Not to Exceed – The actual fees shall not exceed the amount specified in fee proposal.

**PRICE SCHEDULE**

**Inductively Coupled Plasma Mass Spectrometer**

ICP-MS Unit	\$ <u>111,376.8</u>
Autosampler	\$ <u>8,395.20</u>
Refrigerated Chiller	\$ <u>4,691.52</u>
Vacuum System	\$ <u>0.00</u>
Computer with DVD-RW and Software	\$ <u>1,798.56</u>
Interface (if needed)	\$ <u>0.00</u>
Installation/Training and Miscellaneous Costs	\$ <u>0.00</u>
Extended Warranty	\$ <u>0.00</u>
Subtotal	\$ <u>126,262.08</u>
Sales Tax	\$ <u>11,616.11</u>
Grand Total	\$ <u>137,878.19</u>

Manufacturer/Model ICPMS-2030

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City of Glendale  
Solicitation Number: RFP 21-49 / 42100054  
INDUCTIVELY COUPLED PLASMA MASS  
SPECTROMETER  
PRICING WORKBOOK

CITY OF GLENDALE  
Procurement Division  
5850 West Glendale  
Avenue, Suite 317  
Glendale, Arizona 85301

**DISCOUNT/PAYMENT TERMS:** The City standard is 2% 20 days

Comply: YES \_\_\_\_\_ NO

If your answer is NO, please state terms offered: No additional discount for early payment. Standard terms are NET 30.%

**PAYMENT** Contractor shall provide monthly statements of itemized services. Payment will be reviewed and approved by the Contract Administrator or designee. The itemized statement shall not exceed the proposal fee in this Section.

**TAX AMOUNT** Do not include any use tax or federal tax in your proposal.

**OFFEROR NAME:** Shimadzu Scientific Instruments



**City of Glendale**  
**Solicitation Number: RFP 21-49 / 42100054**  
**INDUCTIVELY COUPLED PLASMA MASS**  
**SPECTROMETER**  
**RESPONSE WORKBOOK**

**CITY OF GLENDALE**  
**Procurement Division**  
**5850 West Glendale**  
**Avenue, Suite 317**  
**Glendale, Arizona 85301**

**REFERENCES FORM:** List a minimum of three (3) customers, excluding the City of Glendale (if applicable), for whom your company has provided services of a similar scope as this Request for Proposal, during the past three (3) years. Include the length of any contracts listed. Offerors may make multiple copies of this document as needed. These references may be used to assess the qualifications of Offerors under consideration for final award. This information may or may not be a determining factor in the award.

**Reference 1:**

Niagra Falls Water Board	5815 Buffalo Avenue Niagra Falls, NY 14304
Patrick Fama	(714) 283-9770
pfama@nfwb.org	23 Jan 2012
Provide a brief summary of Services provided: EPA Method 200.8	

**Reference 2:**

Analytical Laboratory Group	361 W 5th Avenue Eugene, OR 97401
Dennis Morgan	(541)-485-8404
dennism@renewableresourcegroupinc.com	14 Apr 2009
Provide a brief summary of Services provided: EPA Method 200.8	

**Reference 3:**

Orange County Sanitation District	10844 Ellis Avenue Fountain Valley, CA 92708
Canh Nguyen	(714) 593-7506
CQNGUYEN@OCSD.COM	5 Jun 2020
Provide a brief summary of Services provided: EPA Method 624 and others	

## Specification Sheet

# ICPMS-2030

## Inductively Coupled Plasma Mass Spectrometer

The ICPMS-2030 is quantitative and qualitative mass analyzer having an inductively coupled plasma ion source. This instrument is a very convenient for element analysis of solution sample and superior to ICP emission spectrometers, in detecting sensitivity.



### Hardware Specifications

Plasma Ion Source Unit	Spray chamber	Cyclone chamber (Thermoelectric cooling type: -10 °C to 10 °C)
	Peristaltic pump	4-channel, 12 roller pump
	Plasma torch	Quartz-made mini torch
	Nebulizer	High Efficiency Concentric (coaxial) nebulizer Made of borosilicate glass
	Torch position adjustment	X,Y,Z-axes automatic adjustment Horizontal and vertical position range: ±2 mm (0.1 mm step) Sampling depth: 2 to 12 mm
	Plasma View	Easy-View window for visual monitoring of plasma to check torch, RF coil
	Gas control	Gas flowrate is auto controlled from CPU Flowrate setting range Plasma gas (Ar) 7 to 20 L/min Auxiliary gas (Ar) 0.3 to 1.5 L/min Carrier gas (Ar) 0.3 to 1.5 L/min
RF Power Supply Unit	Economy running mode (Mini-Torch)	Plasma gas (Ar) 5 L/min Auxiliary gas (Ar) 0.6 L/min
	Transmitter	Free running
	Frequency	27 MHz
	RF Power	0.5 kW (Eco mode) and 0.8 kW to 1.4 kW (1.2 kW when using mini torch)
	Output stability	Within ±0.3 %
	Radio-frequency circuit element	All solid state
	Ignition method	Full automatic ignition
	Load matching function	Automatic matching
	Energy saving function	Economic running mode
	Interface	Sampling cone Cu sampling cone 1.1 mm diameter orifice (Option: Ni, Pt) Skimmer cone Cu skimmer cone 0.35 mm diameter orifice (Option: Ni, Pt) Removable interface to device No tool required Interface system designed with easy access for maintenance
Ion Lens	Advanced Off-axis lens after Cell Delivers high ion transfer efficiency	
Collision cell	Type	Octopole collision cell
	Gas controller	Gas flowrate is auto controlled from CPU (Used gas: Helium gas) - Flowrate setting range: 0 to 10 mL/min

Mass Spectrometer Unit	Mass analyzer	Quadruple type mass spectrometer Molybdenum-made hyperbolic rod (Main rod) Molybdenum-made cylindrical rod (Pre-rod)
	Power supply frequency	2.5 MHz
	Mass range	5 to 260 amu
	Resolution	0.5 u to 1.0 u
	Mass Accuracy	±0.1 u
Detector	Mass Stability	0.03 u / 24 Hr ( <sup>115</sup> In)
	Abundance sensitivity (at <sup>133</sup> Cs)	Low mass side ≤ 5×10 <sup>-7</sup> High mass side ≤ 1×10 <sup>-7</sup>
	Detector	Dual-mode electron multiplier
	Dynamic range	9 order (1 cps to 10 <sup>9</sup> cps)
	Minimum dwell time	1 msec
Exhaust system	3-stage operation exhaust First stage Rotary pump 2nd stage, 3rd stage Air-cooling type turbo molecular pump	
Relocation Detection Unit	Be installed as the standard *	

\* This product is subject to Japanese export regulations. Under the guidance of the Government of Japan, this product is equipped with a unit that detects movement and stops the function of the instrument to prevent export, resale, or relocation of the instrument, which could be used in weapons for mass destruction or military applications. If the instrument stops, please contact your Shimadzu representative.

### Performance Specifications

Sensitivity Mcps/ppm	<sup>9</sup> Be	> 6
	<sup>115</sup> In	>125
	<sup>209</sup> Bj	>100
Detection Limit (ppt)*	<sup>9</sup> Be	<0.5
	<sup>115</sup> In	<0.1
	<sup>209</sup> Bj	<0.1
Background (CPS)	m/Z 220	<1
Oxide ratio (%)	CeO/Ce	<2
Doubly Charge(%)	Ce <sup>++</sup> /Ce	<3
Stability %RSD	Short Term	< 3% (20 min)
	Long Term	< 4% (4 Hr)
He Cell Mode	Co (Mcps/ppm)	> 6

\* Typical values, depending on cleanliness of chemicals and installation environment of instruments.

## Software Specifications

Measurement sample	1 data file	Maximum 300 samples	
	Pasting of sample information	It is possible to paste the sample information to the sample table from the clip board	
	Method of analysis	Analysis using the built-in data base	
Qualitative analysis	Selecting Mass number	Select the optimum mass in auto every measurement sample	
	Correction	The data base calibration function is available	
Quantitative analysis	Measured mass	It is possible to set the multiple measured mass every elements. Total mass profile measurement	
	Correction method	Internal standard correction, inter-element correction, interference correction, drift correction, dilute correction	
	Calibration curve	First to secondary equation Quantitative lower limit display	
	Printing		Setting for the printing items Automatic printing when measuring (Analysis results) Batch printing (Analysis conditions/ calibration curves/ analysis results, etc.)
		Copy of the display window	Use a clip board function of the Windows, and copying is possible to other applications such as the analyzed values, profiles and calibration curves
	Export of the data		It is possible to output the analyzed results to the files in a CSV format or a tab delimited text format. Automatic export when measuring Batch export
		Re-calculation function	Changes of the calibration curve conditions such as the calibration curve order Re-calculation by changing the corrective conditions. Add and re-calculate the analysis element/mass using the total mass profile.
	Assistant function	Development assistant	Based on the qualitative analysis data (for all mass numbers) from a representative sample, the Development Assistant automatically selects the optimal mass numbers and internal standard elements for the target measurement elements and automatically specifies the concentration range for calibration curve samples.
		Diagnosis assistant	The Diagnosis Assistant automatically diagnoses spectral interference, based on data measured from all mass numbers. Even when using an already established method for routine analysis, the software analyzes data for any spectral interference to determine if a problem occurred.
	Instrument control	QA/QC functions	Assessment of a calibration curve and re-calibration Fluctuation evaluation of the internal standard elements Assessment of a drift during measuring and re-calibration / re-measurement Addition/collection tests Dilution test Re-measurement test
Instrument control		Monitor display for instrument status Control vacuum pump Plasma on/off Automatic plasma off after analysis Auto sampler (option) control Economy running mode	

## Required PC System

Operating system	Microsoft Windows 10 Pro (64-bit version) English version or Chinese version
CPU	Core i5-8500 (3.0 GHz) or better
RAM	4 GB RAM or better
Network	1000BASE-T/100BASE-TX/10BASE-T compatible LAN interface
HDD	2 GB free space or better Sufficient free space is separately required for data storage
Optical Drive	Drive capable of reading DVD-ROM/ CD-ROM
Monitor	1,600 X 1,050 pixels or better
Peripheral device	Monitor, Keyboard, Mouse, Printer

## Installation Requirements

Installation Site Environment	Temperature	18 °C to 28 °C (max. 2 °C/h temperature change)
	Humidity	20 to 70% RH (No condensation)
	Other	Avoid using the system in locations with significant vibration or dust
Power Supply	Main Unit	Single-phase 200 to 240 V ± 10 %, 50/60 Hz, 6 kVA
	Data Processing	Single-phase 100 to 240V ± 10 %, 50/60 Hz, 200 VA
	Relocation Detection Unit	4 AA batteries (for backup)
Grounding	Cooling Water Circulator (Option)	Single-phase 200 to 230 V, 50/60 Hz, 2 kVA
		Use the single earth of the ground resistance 30 Ω max
Gas Supply	Argon gas	99.95 % or more purity, Pressure 450±10 kPa
	Helium gas	99.999 % or more purity, Pressure 150±20 kPa
Cooling Water	Pressure	150 to 300 kPa
	Temperature	5 to 30 °C
Exhaust Duct		Adjusting to the displacement of 1.4 to 2 m <sup>3</sup> /min is possible at the outlet of the main body exhaust cylinder
Dimensions		W 870 x D 645 x H 587 mm (excluding protrusion)
Weight	Main body	140 kg
	Rotary Pump	50 kg

Note: Refer to the "Pre-Installation Requirements" for more details.



Shimadzu Corporation

www.shimadzu.com/an/

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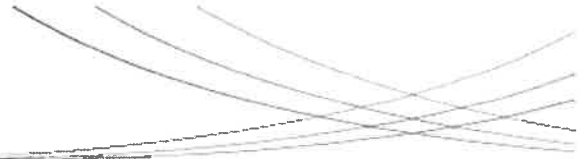
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**Sales Engineer:**

Wade McGregor  
Shimadzu Scientific Instruments  
1930 Palomar Point Way STE 107  
Carlsbad, CA 92008  
Regional Office: (866) 862-1677 Ext. 2415  
Direct Dial: (760) 710-2415  
E-mail: wcmcgregor@shimadzu.com

**Sales Proposal**

**Quotation:** SSI-184801-W3T8

**Expiration:** 5/31/2021

**Quote Description:**

ICPMS

**Proposed Ship Date:** 30 Days/ARO

**FOB:** COLUMBIA

**Ship Method:** BEST WAY

**Shipping Terms:** PREPAID & ADD

**Incoterms:**

**Additional Information:**

Does not include tax & freight.

**For proposal questions or modifications, please contact your sales representative.**

**For Order Placement:**

Reference Quotation Number on Purchase Order

If you are tax exempt, please send a copy of your exemption certificate with your purchase order. Certificate may also be faxed to 410-381-1222.

Thank you for your interest in Shimadzu Scientific Instruments.

Shimadzu Scientific Instruments  
7102 Riverwood Drive, Columbia, MD 21046  
Toll Free: 800-477-1227  
Local: 410-381-1227 Fax: 410-381-6781  
E-mail: [customer.service@shimadzu.com](mailto:customer.service@shimadzu.com)

**Authorization Signature\***



Willard Bankert

**Date: 3/24/2021**

\*Sales Proposal is not valid without Authorized Signature.

International:

Fax: 410-309-6130

E-mail: [icsc@shimadzu.com](mailto:icsc@shimadzu.com)

Sales Quotation - please reference the quotation when submitting purchase order.

**ICPMS - EPA 200.8 Method Package**

Product #	Qty	Description	Price Per Unit	Ext'd Price
1 211-95300-58	1	ICPMS-2030LF Mass Spectrometer	\$152,292.00	\$152,292.00
2 220-95336-04	1	CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL	\$9,191.00	\$9,191.00
3 220-95356-90	1	Internal Standard Automatic Addition Kit, ICP/ICPMS	\$339.00	\$339.00
4 220-95356-58	1	Base for 4-Rack WindTunnel Autosampler Enclosure	\$400.00	\$400.00
5 220-95356-50	1	WindTunnel Enclosure for 4-Rack Autosampler (ASX-560)	\$1,300.00	\$1,300.00
6 220-95356-57	1	Filter and Adapter for WindTunnel Autosampler Enclosure	\$170.00	\$170.00
7 220-95356-52	1	Fan for WindTunnel Autosampler Enclosure	\$260.00	\$260.00
8 220-95377-10	1	Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 4.4	\$1,199.00	\$1,199.00
9 220-95377-11	1	Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 5.4	\$1,199.00	\$1,199.00
10 211-92962-41	1	Cooling Water Circulator for ICPE-9800, ICPMS-2030	\$6,516.00	\$6,516.00
11 220-97318-40	1	Standard Workstation PC- Win 10 Pro 64bit	\$2,168.00	\$2,168.00
12 220-97320-10	1	Dell P2210, 22" Professional Widescreen Flat Panel	\$330.00	\$330.00
13 TIER 5 I&F	1	Tier 5 Installation and Customer Familiarization	\$11,200.00	\$0.00
14 1YW	1	1 YEAR WARRANTY	\$0.00	\$0.00

<b>Total List Price:</b>	<b>\$186,564.00</b>
<b>Total Line Item Discount:</b>	<b>\$11,200.00</b>
<b>Quote Discount % Amt:</b>	<b>\$49,101.92</b>
<b>Quote Sub-Total:</b>	<b>\$126,262.08</b>
<b>Total Amount:</b>	<b>\$126,262.08</b>

By placing an Order for any Products related to this Sales Proposal and Quotation, Customer agrees to the terms and conditions at <https://www.ssi.shimadzu.com/terms/General-Terms-Conditions-of-Sale.html>, which are incorporated herein and applicable hereto. SSI reserves the right to update its Terms and Conditions at any time, however the terms and conditions in effect at the date of delivery of Products related to this Sales Proposal and Quotation shall apply to that purchase.

Sales Quotation - please reference the quotation when submitting purchase order.  
**Optional Items**

**Optional Items:**

**ICPMS - EPA 200.8 Method Package**

	<b>Product #</b>	<b>Qty</b>	<b>Description</b>	<b>List Price</b>	<b>Ext'd Price</b>
1	220-95356-60	1	Niagara Rapid Rinse Kit for Shimadzu ICPMS-2030	\$3,300.00	\$3,300.00
2	220-97217-00	1	Bubble Jet Printer w/Cable	\$378.00	\$378.00
3	220-95356-99	1	One-Year Consumables Kit, ICPMS	\$3,650.00	\$3,650.00

## Service Agreement Plans Available

### As Quoted

Quantity	Plan Name	Plan Price	Disc't %	Ext'd Price	Products Covered
1	Preventative Maintenance	\$240.00	0.00%	\$240.00	CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL
1	Premium Preventative Maintenance	\$4,515.00	0.00%	\$4,515.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Extended Warranty	\$12,660.00	0.00%	\$12,660.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Extended Warranty Plus	\$14,600.00	0.00%	\$14,600.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Premium Total Coverage	\$20,581.00	0.00%	\$20,581.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Three Year(36 month) Value Plan Service Agreement	\$19,113.00	0.00%	\$19,113.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer

### Descriptions of Service Coverage

#### Preventative Maintenance

Preventative Maintenance (PM) visits will be scheduled by SSI at the mutual convenience of the buyer and SSI, or performed during any other service visit. PM visits, when provided under this Agreement, may include necessary cleaning, adjustments, verification, lubrication and parts replacement according to the PM checklist. Labor, travel expenses, and selected consumable parts will be included during the PM visit at no additional cost to the buyer.

#### Premium Preventative Maintenance

Premium Preventative Maintenance visits will be scheduled by SSI at the mutual convenience of the customer and SSI, or performed during any other service visit. This Premium PM will be performed by SSI according to established SSI procedures. Premium PM visits, when performed under this Agreement, will include necessary cleaning, adjustments, verification, lubrication and parts replacement. Labor, travel expenses and selected consumables parts\* (list of parts available upon customer request) will be included during the Premium PM visit at no additional cost to the customer. A travel zone fee is added to the agreement to cover travel costs. Purchase of the Premium PM option does not excuse Customer from performing normal daily, weekly or monthly maintenance that may be required.

#### Extended Warranty

Extended Warranty coverage includes all labor and parts (excluding consumables) necessary to restore the products to operating specifications.

This coverage level is not available for MS products and the associated turbo and roughing pumps. The MS products require a coverage level which includes a Premium PM.

#### **Extended Warranty Plus**

A combination of one scheduled Premium PM visit and Extended Warranty Coverage. Premium Preventative Maintenance visits will be scheduled by SSI at the mutual convenience of the customer and SSI, or performed during any other service visit. Premium PM visits, when performed under this Agreement, will include necessary cleaning, adjustments, verification, lubrication and parts replacement. Labor, travel expenses and selected consumables parts\* (list of parts available upon customer request) will be included during the Premium PM visit at no additional cost to the customer. The extended Warranty Includes all labor and parts (excluding consumables outside of PM) necessary to restore the products to operating specifications. A travel zone charge is added to the contract to cover travel costs. In the event of a covered product failure, SSI will use its best effort to provide on-demand service.

#### **Premium Total Coverage**

This level of agreement provides the customer with a level of coverage includes all labor and non-consumable parts, a Premium PM visit, and in addition provides for the replacement of consumable parts outside of a PM visit at no additional cost to the buyer. Use of this level of Service will be monitored by SSI and in the event that the buyer's use does not exceed two visits during the effective dates of the agreement, the buyer will be entitled to an agreed upon rebate at the end of the agreement term. This rebate must be applied to the purchase of future service agreements or other services offered by SSI.

#### **Three Year Value Plan**

Three Year Value Plan Service Agreement:

Following system installation, provides 3 consecutive years of FULL warranty coverage, Customer Care follow-up Year1, and Scheduled Premium Preventative Maintenance (PPM) on-site service during Year2 and Year3.

Sales Quotation - please reference the quotation when submitting purchase order.  
**Line Item Descriptions**

Product #	Description
ICPMS - EPA 200.8 Method Package	
<b>211-95300-58</b>	<b>ICPMS-2030LF Mass Spectrometer</b>  The ICPMS-2030LF unregulated model provides excellent sensitivity achieved by the optimized internal structure including a newly-developed collision cell. It also operates at a low running cost by minimizing the flow rate of argon gas necessary for analysis to the lowest level in the industry by the use of Shimadzu's proprietary mini torch and Eco mode. The Development Assistant function of the software automatically sets the optimum analysis conditions for quantitative analysis and the Diagnosis Assistant function automatically performs validation for data necessary after measurement. These functions reduce users' work for more efficient analysis procedures and improves the reliability of data. The software is also compliant to FDA 21 CFR Part 11 and compatible with LabSolutions DB/CS. The ICPMS-2030LF unregulated model is a shorter lead-time alternative to 211-92000-58 ICPMS-2030 regulated model. The LF model is identical to the regulated model, except it is not able analyze isotopic ratios of uranium. Total uranium quantification is still possible.
<b>220-95336-04</b>	<b>CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL</b>  The ASX-560 Autosampler accommodates 240 samples with 4 racks of 60 vials of 14 mL and 10 position of 50 mL volumes. System connects directly to the ICP and is controlled through LabSolution software. For doing low levels an optional enclosure can be added. If maximum throughput is needed, the autosampler can be configured with the ASXpress Plus Rapid Introduction System.
<b>220-95356-90</b>	<b>Internal Standard Automatic Addition Kit, ICP/ICPMS</b>  Internal standard automatic addition kit. Comprises parts for mixing the analysis sample with the internal standard and introducing the mixture to the nebulizer. In-line addition of internal standards provides an efficient way of dosing all of calibration standards and samples accurately and precisely without extra effort or the risk of error or contamination. For ICPMS and ICPE. Pump tubing sold separately.
<b>220-95356-58</b>	<b>Base for 4-Rack WindTunnel Autosampler Enclosure</b>  The WindTunnel is designed to fit over an autosampler sitting on a solid flat surface. The base creates seal with enclosure when bench surface is not flat. The base has a channel around the perimeter to catch any spills and a drain port to remove the spills.
<b>220-95356-50</b>	<b>WindTunnel Enclosure for 4-Rack Autosampler (ASX-560)</b>  Suitable for CETAC ASX-560, includes 4" flange for ventilation. Shatter-proof polycarbonate construction.
<b>220-95356-57</b>	<b>Filter and Adapter for WindTunnel Autosampler Enclosure</b>  Suitable for WindTunnel Autosampler Enclosure. Should be used with fan and external ventilation. Can be used with either fan alone or with ventilation alone.
<b>220-95356-52</b>	<b>Fan for WindTunnel Autosampler Enclosure</b>  Suitable for WindTunnel Autosampler Enclosure. Maintains positive pressure.
<b>220-95377-10</b>	<b>Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 4.4</b>  Standards Set for EPA 200.8 is a kit of 5 Calibration standards in 125mL vials, 2 Internal Standards Solutions in 125mL, 2 Quality Control solutions in 125mL, 1 Tuning Solutions in 125mL. All Solutions are certified reference material set in a nitric/tar
<b>220-95377-11</b>	<b>Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 5.4</b>  Standards Set for EPA 200.8 is a kit of 5 Calibration standards in 125mL vials, 2 Internal Standards Solutions in 125mL, 2 Quality Control solutions in 125mL, 1 Tuning Solutions in 125mL. All Solutions are certified reference material set in a nitric/tar
<b>211-92962-41</b>	<b>Cooling Water Circulator for ICPE-9800, ICPMS-2030</b>  Cooling water circulator used for cooling the ICPE-9000 is quiet, high efficiency chiller that is easy set controls and includes water level sensor.
<b>220-97318-40</b>	<b>Standard Workstation PC- Win 10 Pro 64bit</b>

Shimadzu Standard Workstation Mini tower PC with Intel® four Core Xenon processor (3.50GHz/2133MHz DDR4/8MB w/ HD Graphics).  
 Operating systems include Windows® 10 PRO 64bit (installed). System incorporates 8GB DDR4 UDIMM 2133, ECC memory (expandable to 64GB), 2x500GB Serial ATA hard drive, 16X DVD+/-RW Drive.  
 Included are USB keyboard, Optical Wheel mouse, 512 MB NVIDIA Quadro NVS 310, Dual Monitor Graphics Card, Intel Integrated Gigabit 10/100/1000 network connection, One PCIe x16 Gen 3; one PCIe x16 Gen 2 wired x4; one PCIe x1; One PCI 32bit/33MHz, one Serial Port (RS-232), 7 USB 2.0 ports, 4 USB 3.0 ports (2 front,6 back 3 Internal), Integrated High Definition Audio (no speakers).  
 Warranty: Three year limited warranty with three years standard next business day (NBD) onsite parts replacement and three years NBD onsite labor through Dell Corporation

**220-97320-10 Dell P2210, 22" Professional Widescreen Flat Panel**

22" LCD display, resolution to 1680 x 1050, contrast ratio (typical): 1000:1. Brightness (typical): 300 cd/m2, 0.282 mm pixel pitch.

Limited warranty: Three years Advanced Portable Exchange through Dell.

**TIER 5 I&F Tier 5 Installation and Customer Familiarization**

**1YW 1 YEAR WARRANTY**

1 YEAR WARRANTY

### Optional Item Descriptions

**Product # Description**

ICPMS - EPA 200.8 Method Package

**220-95356-60 Niagara Rapid Rinse Kit for Shimadzu ICPMS-2030**


The Niagara-CM begins the rinsing of the nebulizer and spray chamber the instant the sample measurement is completed and continues to rinse until the next sample is ready. Thus the rinse is carried out in the time that is usually wasted waiting for the sample and the rinse solutions to flow from the autosampler to the nebulizer. The NEW CM platform combines versatility with ease of installation and operation.

**220-97217-00 Bubble Jet Printer w/Cable**

Compact color inkjet printer, print speeds up to 29 ppm (black) and 19 ppm (color). Integrated duplex unit for double-sided printing; two paper trays. 9600 x 2400 dpi print resolution. Hi-Speed USB 2.0 interface

**220-95356-99 One-Year Consumables Kit, ICPMS**

Each kit includes two mini torches, one micromist nebulizer, one nickel sampling cone, one nickel skimmer cone, one Helix CT locking screw with seal, one package of graphite gasket (3/pk), five packages of sample peristaltic pump tubing (6/pk), five packages of internal standard peristaltic pump tubing (6/pk), one gold-plated RF coil and one RF coil installation tool. Tuning solution and pump oil are sold separately.

	<b>City of Glendale</b> <b>Solicitation Number: RFP 21-49 /42100054</b> <b>INDUCTIVELY COUPLED PLASMA MASS</b> <b>SPECTROMETER</b>  <b>EXHIBITS PACKAGE</b>	<b>CITY OF GLENDALE</b> <b>Procurement Division</b> <b>5850 West Glendale Ave,</b> <b>Suite 317</b> <b>Glendale, Arizona 85301</b>
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**EXHIBIT 1: SPECIAL NOTICES**

By signing on the Offer/Bid page, solicitation Amendment(s), or cover letter accompanying the submittal documents, Offerors are certifying that they understand the following notices and agree to comply with all required terms and conditions.

**1. RETURN OF OFFER The Offeror shall submit the Response Workbook electronically in Vendor Self Service (VSS)**

Offeror is required to register in VSS prior to submitting a proposal if they have not already registered. <https://glendaleazvendors.munisselfservice.com/Vendors/default.aspx>

Guide to Register as a new vendor:

[https://www.glendaleaz.com/your\\_government/city\\_finances/procurement/vendor\\_self\\_service\\_v\\_s\\_s](https://www.glendaleaz.com/your_government/city_finances/procurement/vendor_self_service_v_s_s)

(This is a PDF document “Vendor Registration Instructions” at the bottom of page.)

The Offeror shall complete all sections of the solicitation in the format given and in the spaces provided. Proposals that do not conform to the above format may be rejected.

- a. The Offeror shall bear all costs associated with submitting the proposal, including proposal preparation, site visitation or any travel connected with submission of the proposal. The City shall have no liability whatsoever for such costs.

**2. PRE-OFFER CONFERENCE & SITE VISITS**


A Pre-Offer meeting will not be held for this solicitation.

**Site visits will not be available at this time. Pictures of the lab area can be provided upon request.**

**3. NO CONTACT, NO INFLUENCE DURING THE RFP PROCESS**

The City is conducting a competitive RFP process for the contract, free from improper influence or lobbying. There shall be no contact concerning this RFP from Offerors submitting a Proposal with any member of the City Council, RFP Evaluation Committee Members, or anyone connected with the process for or on behalf of the City. Contact includes direct or indirect contact by the Offeror, its employees, attorneys, lobbyists, surrogates, etc. in an attempt to influence the RFP process.

From the time the RFP is issued until the expiration of the protest period or the resolution of any protest, whichever is later (the “Silent Period”), Offerors, directly or indirectly through others, are restricted from attempting to influence in any manner the decision making process through, including but not limited to, the use of paid media; contacting or lobbying the City Council or City Manager or any other City employee (other than Procurement employees); the use of any media for the purpose of influencing the outcome; or in any other way that could be construed to influence any part of the decision-making process about this RFP. This provision shall not prohibit an Offeror from petitioning an elected official or engaging in any other protected first amendment activity after the protest period has run or any protest has been resolved, whichever is later.

	<p><b>City of Glendale</b>  <b>Solicitation Number: RFP 21-49 /42100054</b>  <b>INDUCTIVELY COUPLED PLASMA MASS</b>  <b>SPECTROMETER</b></p> <p><b>EXHIBITS PACKAGE</b></p>	<p><b>CITY OF GLENDALE</b>  <b>Procurement Division</b>  <b>5850 West Glendale Ave,</b>  <b>Suite 317</b>  <b>Glendale, Arizona 85301</b></p>
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Violation of this provision will cause the proposal or offer of the Offeror to be found in violation and to be rejected.

- 4. CONFLICT OF INTEREST** Contractor shall disclose the following: 1) the name(s) and position(s) of each Contractor’s employee or subcontractor that participated in the preparation of the submittal or who will be involved, directly or indirectly, with performing the contract, if awarded; 2) the name(s) of any City of Glendale employee who is a relative of persons identified pursuant to No. 1; 3) the name(s) and position(s) of Contractor’s personnel that have a financial or proprietary interest in the contract; 4) the name(s) of any City of Glendale employee who is a relative of persons identified pursuant to No. 3.


Providing such disclosure will not necessarily disqualify a Contractor. Failure to disclose the requested information or any potential conflict of interest pursuant to A.R.S. § 38-511 et seq. may result in rejection of the proposal or bid or any contract being void or terminated.

For purposes of this provision, the following definitions apply:


“Employee” means all persons who are employed on a full-time, part-time or contract basis by the City of Glendale.

“Relative” means the spouse, child, child’s child, parent, grandparent, brother or sister of the whole or half blood and their spouses and the parent, brother, sister or child of a spouse.


- 5. INQUIRIES** Any question related to the Request for Proposal shall be directed to the Contract Analyst whose name appears above. An Offeror shall not contact or ask questions of the department for whom the requirement is being procured. The Contract Officer may require any and all questions be submitted in writing. Offerors are encouraged to submit written questions via electronic mail or facsimile, no later than **FIVE days** prior to the proposal due date. Any correspondence related to a solicitation should refer to the appropriate Request for Proposal number, page and paragraph number. An envelope containing questions should be identified as such; otherwise it may not be opened until after the official proposal due date and time. Oral interpretations or clarifications will be without legal effect. Only questions answered by a formal written amendment to the Request for Proposal will be binding.
- 6. SPECIAL TERMS AND CONDITIONS** Additional terms and conditions specific to the provision of the services referenced will be negotiated with the successful bidder for inclusion in the contract.
- 7. PUBLIC RECORD REQUIREMENTS** Offeror acknowledges that the City is a public agency and must comply with all Public Records laws and proposals submitted become the property of the City and are subject to public disclosure requirements in accordance with Arizona Public Records Law. Any portion of the proposal that the offeror deems confidential or proprietary must be clearly labeled as such. Labeling material does not automatically preclude the material from public disclosure, as the City is required to make an appropriate determination as to the confidentiality of the material in accordance with Arizona Public Records Law. It is the offeror’s sole responsibility and cost to take action, including legal actions, to protect such material. Price is not confidential and will not be withheld

	<b>City of Glendale</b> <b>Solicitation Number: RFP 21-49 /42100054</b> <b>INDUCTIVELY COUPLED PLASMA MASS</b> <b>SPECTROMETER</b>  <b>EXHIBITS PACKAGE</b>	<b>CITY OF GLENDALE</b> <b>Procurement Division</b> <b>5850 West Glendale Ave,</b> <b>Suite 317</b> <b>Glendale, Arizona 85301</b>
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- 8. PERMITS AND LICENSES** It is the offeror’s sole responsibility to determine and secure any and all licenses and permits the contractor needs to operate the facility, from any regulatory body having jurisdiction related to the services being provided. Such costs are the exclusive responsibility of the operator, operator must also ensure appropriate licensing of any sub-contractors, operator shall notify the City in writing within two (2) working days of any suspension, revocation or renewal.
- 9. NO COLLUSION OR ANTI-COMPETITIVE PRACTICES** The submission of the offer did not involve collusion, and without any agreement, understanding or planned common course of action with, any other vendor of materials, supplies, equipment or services described in the invitation to bid, designed to limit independent bidding or competition or other anti-competitive practices.
- 10. NON-DISCRIMINATION** Contractor agrees not to discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, national origin, age, marital status, sexual orientation, gender identity or expression, genetic characteristics, familial status, U.S. military veteran status or any disability. Contractor will require any Sub-contractor to be bound to the same requirements as stated within this section. Contractor, and on behalf of any subcontractors, warrants compliance with this section.
- 11. NO CONSIDERATIONS** The Contractor has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, meal or service to a public servant in connection with the submitted offer.
- 12. AUTHORIZED AGENT** The individual signing the submittal is an authorized agent and has the authority to bind the Offeror to the proposal and subsequent contract if awarded.
- 13. KEY PERSONNEL** If awarded, Offeror shall assign a specific individual as the key point of contact for the management of the contract, subject to specific notification requirements to be included in the final contract.
- 14. SITE INSPECTION** It is the responsibility of the Offeror to become familiar with any conditions which may affect the performance and cost of providing the service and this submission will serve as evidence that the Offeror did, in fact, make a site inspection and is aware of all conditions.
- 15. OFFICIAL TIME CLOCK** The official time clock used to verify the date and time an offer is received is located at the City of Glendale, Procurement office. An offer is considered to be in the actual possession of Procurement upon being stamped by the official time clock, before the official due date and time.
- 16. DEFINITIONS** For purposes of this Request for Proposal and Resultant contract, the following definitions apply:
- a. **“City”** means the municipal corporation of the City of Glendale, Arizona
  - b. **“Contract”** means the agreement for the procurement of goods, services and work.
  - c. **“Contractor”** means an Offeror responding to a Request for Proposal who has been awarded a Contract with the City.

	<p><b>City of Glendale</b>  <b>Solicitation Number: RFP 21-49 /42100054</b>  <b>INDUCTIVELY COUPLED PLASMA MASS</b>  <b>SPECTROMETER</b></p> <p><b>EXHIBITS PACKAGE</b></p>	<p><b>CITY OF GLENDALE</b>  <b>Procurement Division</b>  <b>5850 West Glendale Ave,</b>  <b>Suite 317</b>  <b>Glendale, Arizona 85301</b></p>
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- d. **“Offer”** means a written offer to furnish goods, services, work, materials and/or construction to the City, in conformity with the standards, specifications, delivery terms and conditions, and all other requirements established in a competitive solicitation.
- e. **“Offeror”** means the business, entity or person who submits an Offer in response to a competitive solicitation.
- f. **“Public Record”** means proposals and all other documents submitted in response to this solicitation shall become the property of the City and shall be a matter of public record available for review following the Contract award.
- g. **“Purchase Order”** means a document issued by the City Procurement Office directing the Contractor to deliver goods, services, work, materials and/or construction.
- h. **“Request for Proposal”** means a competitive solicitation issued by the City for the procurement of goods, services, work, materials and/or construction.

	<b>City of Glendale</b> <b>Solicitation Number: RFP 21-49 /42100054</b> <b>INDUCTIVELY COUPLED PLASMA MASS</b> <b>SPECTROMETER</b>  <b>EXHIBITS PACKAGE</b>	<b>CITY OF GLENDALE</b> <b>Procurement Division</b> <b>5850 West Glendale Ave,</b> <b>Suite 317</b> <b>Glendale, Arizona 85301</b>
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**EXHIBIT 2: SPECIAL TERMS AND CONDITIONS**

By signing on the Offer/Bid page, solicitation Amendment(s), or cover letter accompanying the submittal documents, Offerors are certifying that they understand the following notices and agree to comply with all required terms and conditions. The following terms are found on the City’s Website and are applicable to Request for Proposal:


[https://www.glendaleaz.com/your\\_government/city\\_finances/procurement/procurement\\_policies](https://www.glendaleaz.com/your_government/city_finances/procurement/procurement_policies)

Standard Terms and Conditions, Request for Proposal – Revised 04-24-2009

1. **TYPE OF AWARDS** The City reserves the right to make multiple awards or to award by individual line items, by group of line items, or to make an aggregate award, whichever is deemed most advantageous to the City. If the City determines that an aggregate award to one offeror is not in the City's best interest, "all or none" offers shall be rejected.
2. **ALTERNATE OFFERS** Offers submitted as alternates, or on the basis of exceptions to specific conditions of purchase and/or required specifications, must be submitted as an attachment referencing the specific paragraph number(s) and adequately defining the alternate or exception submitted. Detailed product brochures and/or technical literature, suitable for evaluation, must be submitted with the offer. If no exceptions are taken, City will expect and require complete compliance with the specifications and all Conditions of Purchase.
3. **EFFECTIVE PERIOD OF OFFER** Offers shall be valid for a minimum of 120 days following the deadline for submitting offers. If an award is not made during that period, all offers shall be automatically extended for another 120 days. Offers will be automatically renewed until such time as either an award is made, or proper Notice is given to the Procurement Officer of Offeror’s intent to withdraw its offer. Offers may only be withdrawn by submitting Notice at least 15 days before the expiration of the then current 120-day period.
4. **PAYMENT TERMS** If payment terms are not indicated, terms of NET 30 days shall be applied by the City. Payment terms to apply after receipt of invoice or final acceptance of the products/services, whichever is later. Payment terms offering less than 20 days for payment will not be considered.
5. **UNIT PRICE TO PREVAIL** In the event of a price disparity between the unit and extended price, the unit price shall prevail unless judged obviously in error by the City.
6. **OFFER ERRORS OMISSIONS AND CORRECTIONS** The City will not be responsible for any offeror errors or omissions. All prices and notations shall be written in ink or typed. Changes or corrections made on the offer form must be initialed in ink by the individual signing the offer. No corrections will be permitted after the offers have been opened.
7. **BRAND NAME REFERENCES AND TECHNICAL SPECIFICATIONS** Brand names or manufacturer’s references shall be construed as a quality or performance level and does not indicate the item cited is mandatory. Technical specifications define the acceptable standard.

	<b>City of Glendale</b> <b>Solicitation Number: RFP 21-49 /42100054</b> <b>INDUCTIVELY COUPLED PLASMA MASS</b> <b>SPECTROMETER</b>  <b>EXHIBITS PACKAGE</b>	<b>CITY OF GLENDALE</b> <b>Procurement Division</b> <b>5850 West Glendale Ave,</b> <b>Suite 317</b> <b>Glendale, Arizona 85301</b>
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- 8. RESTRICTIVE OFFER PROVISIONS** If specifications preclude an otherwise qualified offeror from submitting an offer, a written request for modification must be received by the Buyer at least seven (7) calendar days prior to the proposal due date. All offerors will be notified by a written addendum to the solicitation of any approved changes.
- 9. DEFAULT** In case of default by the contractor, the City may, by written notice, cancel this contract and repurchase from another source and may recover the excess costs by (1) deduction from an unpaid balance due; (2) collection against the bid and/or performance bond; or (3) a combination of the aforementioned remedies or other remedies as provided by law.
- 10. TERMINATION FOR CONVENIENCE** The City reserves the right to terminate any order or contract upon thirty days written notice. The City will be responsible only for those standard items which have been delivered and accepted. If the items are unique and not saleable or useable for any other application, the City will reimburse the Seller for actual labor, material, and burden costs, plus a profit not to exceed 8%. Title to all materials, work-in-process, and completed but undelivered goods will pass to the City after costs are claimed and allowed.
- 11. SUB-CONTRACTING** The contract or any portion thereof, shall not be sub-contracted without the prior written approval of the Materials Manager. No such approval will be construed as making the City a party of or to such sub-contract, or subjecting the City to liability of any kind to any sub-contractor. No sub-contract shall, under any circumstances, relieve the contractor of liability and obligation under this contract; and despite any such subletting the City shall deal through the contractor. Sub-contractors will be dealt with as workmen and representatives of the contractor.
- 12. SAFETY DATA SHEETS (SDS).** Contractor is to supply SDS) in accordance with Federal requirements for The Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Contractor entering the City workplace with hazardous materials will supply the City with a Safety Data Sheets (SDS) covering those particular products the contractor may expose City employees or the general public to while working at the site.
- 13. GENERAL INDEMNIFICATION:** Contractor shall indemnify, defend, save and hold harmless the City of Glendale and its officers, officials, agents, and employees (hereinafter referred to as "Indemnatee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, reasonable attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such Contractor to conform to any Federal, State or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnatee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnatee, be indemnified by Contractor from and against any and all claims. It is agreed that Contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. In

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consideration of the award of this contract, the Contractor agrees to waive all rights of subrogation against the City, its officers, officials, agents, and employees for losses arising from the work performed by the Contractor for the City.

**14. RESPONSIBILITY FOR COMPLIANCE WITH LEGAL REQUIREMENTS** The offeror's products, services, and facilities shall be in full compliance with all applicable Federal, State, and local health, environmental, and safety laws, regulations, standards, and ordinances, regardless of whether or not they are referred to by the City.

**15. RESPONSIBILITY FOR CORRECTION** It is agreed that the offeror shall be fully responsible for making any correction, replacement, or modification necessary for specification or legal compliance. In the event of a call back, Offeror agrees to give the City first priority. Offeror agrees that if the product or service offered does not comply with the written specification, the Materials Manager has the right to cancel the sale at any time with full refund within thirty (30) calendar days after notice of noncompliance and offeror further agrees to be fully responsible for any consequential damages suffered by the City.

**16. WARRANTY** Unless otherwise specified, all items shall be guaranteed for a minimum period of one year against defects in material and workmanship. During the period, if a defect should occur, that item shall be repaired or replaced by the Seller at no obligation to the City, except where it be shown that the defect was caused by misuse and not by faulty manufacture. The offeror expressly warrants all items to be new, free from defects in design, materials, and workmanship, and to be fit and sufficient for their intended purpose. Any sample submitted shall create an expressed warranty that the whole of the goods shall conform to the sample or model.


**17. REJECTION OF OFFERS** The City reserves the right to reject any or all offers, or any part thereof; to accept any offer or any part thereof; or to waive any informalities when it is deemed to be in the City's best interest.

**18. DELAY IN EXERCISING CONTRACT REMEDY** Failure or delay by the City to exercise any right, power, or privilege shall not be deemed a waiver thereof.

**19. TAX EXEMPTION** The City is exempt from paying Federal Excise Taxes and will furnish an exemption certificate upon request.


**20. ORDER OF PRECEDENCE** In the event of conflict, the following precedence shall prevail: (1) Special Terms and Conditions incorporated by attachment; (2) Special Terms and Conditions; (3) Drawings and Specifications; (4) referenced documents; and (5) the Standard Terms and Conditions.

**21. CHANGES** The City reserves the right to make changes in any of the following: (a) specifications; (b) methods of shipment; (c) place of delivery; (d) time of delivery; (e) quantities. If any change causes an increase or decrease in the cost of or the time required for performance, an equitable adjustment may be made in the price or delivery schedule, or both. Any claim for adjustment shall be deemed waived unless asserted in writing within thirty days from receipt of the change. Price increases or extensions of delivery time shall not be


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binding on the City unless in writing and approved by the Materials Manager prior to the institution of the change.

- 22. PRICE ADJUSTMENTS** Price adjustments shall be addressed a minimum of sixty (60) days prior to the contract renewal date, shall be in writing and include supportive justification for the proposed increase. Supportive justification means that the request shall include detailed information and calculations that make it clear how the claimed increase has an impact on the contract unit prices. The requested price increase must be based upon a cost increase that was clearly unpredictable at the time of the offer and can be shown to directly affect price of the item concerned. The rate increase shall only be considered at time of contract extension. The City will review the request and shall determine if the increase shall be granted or if an alternate option is in the best interest of the City. The price increase adjustment, if approved, will be effective and executed via a contract amendment.
- 23. LATE SUBMISSION OF CLAIM** The City will not honor any invoices or claims which are tendered one year after the last item of the account accrued.
- 24. PROTEST OF AWARD** Any person who has an objection to the awarding of a solicitation by the City, pursuant to competitive solicitation procedures, shall lodge that protest, in writing, with the Materials Manager. The protest should specifically identify the objection to the award, pursuant to the formal purchase procedure. The protest must be submitted no later than seven (7) calendar days after the notice of intent to award is posted on the City's Materials Management, Internet home page at [https://www.glendaleaz.com/your\\_government/city\\_finances/procurement/procurement\\_policies](https://www.glendaleaz.com/your_government/city_finances/procurement/procurement_policies). Untimely protests will not be considered.
- 25. REMEDIES** City shall have, in addition to the remedies provided herein, all remedies afforded by the Uniform Commercial Code as adopted by the State of Arizona. Contractor shall have, subject to the limitation imposed by the terms of this agreement, all remedies afforded by the Uniform Commercial Code as adopted by the State of Arizona.
- 26. ASSIGNMENT** Neither an order nor monies due thereunder shall be assigned in whole or in part without the City's prior written consent.
- 27. ADDENDA** Any change to the proposal will be in the form of a numbered addendum issued by the Procurement Division. The addendum will be furnished to all who received the proposal. The City will not be responsible for any oral or written instructions made by any employees, officers, contracted consultant or agent of the City in regard to the proposal. The City will not be responsible for offerors adjusting their offer based on oral or written instructions.
- 28. SPECIAL ACCOMMODATIONS** Please contact Procurement at 930-2862 at least 3 days prior to the meeting for special accommodation. Hearing impaired persons, please use the Arizona Relay Service (1-800-367-8939).
- 29. OFFER IDENTIFICATION** The City is not responsible for the pre-opening of, post-opening of, or the failure to open, an offer not properly addressed or identified.

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- 30. OFFER TABULATION** An electronic copy of the scoring may be requested by e-mailing the Procurement office at [procurement@glendaleaz.com](mailto:procurement@glendaleaz.com) and referencing the proposal title and number. The information will be available for distribution when the City has completed its evaluation process of the offers received.
- 31. LIABILITY** Except for the sole negligence of the City, its officers, managers, employees, or agents, Contractor shall be liable to the City for any physical damage to City property or for the death of, or personal injury to, City personnel arising out of Contractor's occupancy, maintenance, repair, replacement, installation and/or any other work performed pursuant to the contract. Contractor agrees to indemnify, defend and hold the City harmless from any claim or loss arising from such damage or injury.
- 32. OSHA GUIDELINES** The contractor shall be familiar with and operate within the guidelines set forth by the Occupational Safety and Health Act.
- 33. PATENTS** Seller agrees to defend City at seller's own expense, in all suit, actions, or proceedings in which City is made a defendant for actual or alleged infringement of any United States of America or foreign letters patent resulting from City's use of the goods purchased as a result of this RFP. Seller further agrees to pay and discharge any and all judgments or decrees, which may be rendered in any such suit, action or proceedings against City. Seller agrees to indemnify and hold harmless the City from any and all license, royalty and proprietary fees or costs, including legal costs, which may arise out of City's purchase and use of goods supplied by the seller. It is expressly agreed by seller, that these covenants are irrevocable and perpetual.
- 34. VENDOR PERFORMANCE** Prior offeror performance in regard to product, service, or representation of/from the offeror may be used in evaluation of this offer. Unsatisfactory performance to the City may be considered sufficient grounds for rejection of this offer. No offer will be awarded to any offeror who is in default on any contract with the City.
- 35. FUND APPROPRIATION CONTINGENCY** The contractor and the City recognize that the continuation of any contract after the close of any given fiscal year of the City; which ends on June 30, shall be subject to the approval of the budget of the City providing the contract item is an expenditure therein. The City does not guarantee that the budget item will be actually adopted, as it is the determination of the City Council at the time of the adoption of the budget.
- 36. NOTIFICATION OF AWARD** The successful offeror(s) will be notified that their offer has been accepted by the City Council as recommended for award.
- 37. NON-EXCLUSIVITY** The City, in its sole discretion, reserves the right to request the materials or services set forth herein from other sources when deemed necessary and appropriate. No exclusive rights are included in this Agreement.
- 38. COOPERATIVE USE OF CONTRACT** This agreement may be extended for use by other governmental agencies and political subdivisions of the State. Any such usage by other entities must be in accord with the ordinances, charter, rules and regulations of the respective entity

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and the approval of the Contractor and City. For a list of SAVE members, click on the following link: <http://www.mesaaz.gov/business/purchasing/save>


**39. PROHIBITIONS** - Contractor, and on behalf any subcontractor, certifies, to the extent applicable under A.R.S. §§ 35-391 *et seq* and 35-393 *et seq*, that neither has "scrutinized" business operations, as defined in the proceeding statutes, in the countries of Sudan or Iran.

**40. IMMIGRATION LAW COMPLIANCE** Contractor, and on behalf any subcontractor, warrants, to the extent applicable under A.R.S. § 41-4401, compliance with all federal immigration laws and regulations that relate to their employees as well as compliance with A.R.S. § 23-214(A) which requires registration and participation with the E-Verify Program. Any breach of warranty described above is considered a material breach of this Agreement and is subject to penalties up to and including termination of this Agreement. City of Glendale ("City") retains the legal right to inspect the papers of Contractor or subcontractor employee who performs work under this Agreement to ensure that Contractor or any subcontractor is compliant with the warranty described above. City may conduct random inspections, and upon request of the City, Contractor shall provide copies of papers and records demonstrating continued compliance with the warranty described above. Contractor agrees to keep papers and records available for inspection by the City during normal business hours and will cooperate with City in exercise of its statutory duties and not deny access to its business premises or applicable papers or records for the purposes of enforcement of this Section. Contractor agrees to incorporate into any subcontracts under this Agreement the same obligations imposed upon itself and expressly accrue those obligations directly to the benefit of the City. Contractor also agrees to require any subcontractor to incorporate into each of its own subcontracts under this Agreement the same obligations above and expressly accrue those obligations to the benefit of the City. Contractor's warranty and obligations under this Section I to the City is continuing throughout the term of this Agreement or until such time as the City determines, in its sole discretion, that Arizona law has been modified in that compliance with this section is no longer a requirement. The "E-Verify Program" above means the employment verification program administered by the United States Department of Homeland Security, the Social Security Administration, or any successor program.


**41. CONTRACT ADMINISTRATOR** The staff member identified as the Contract Administrator for a solicitation serves as the liaison between Materials Management, the city and the successful contractor. The Contract Administrator manages the contract, overseeing the daily operations, scheduling, performance and compliance of the agreement by all parties. The Contract Administrator is responsible for:

- a. Establishing and maintaining records and documentation
- b. Monitoring the contractor's performance
- c. Handling issues and disputes
- d. Exercising extension options
- e. Initiating contract modifications
- f. Initiating rebids or new solicitations

**42. FORCE MAJEURE**

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- a. Except for payment of sums due, neither party shall be liable to the other nor deemed in default under this contract if and to the extent that such party's performance of this Contract is prevented by reason of force majeure. The term "force majeure" means an occurrence that is beyond the control of the part affected and occurs without its fault or negligence. Without limiting the foregoing, force majeure includes acts of God; acts of the public enemy; war; riots; strikes; mobilization; labor disputes; civil disorders, fire; flood; lockouts; injunctions-interventions-acts; or failures or refusals to act by government authority; and other similar occurrences beyond the control of the party declaring force majeure which such party is unable to prevent by exercising reasonable diligence.
- b. Force majeure shall not include the following circumstances:
  - i. Late delivery of equipment or materials caused by congestion at a manufacturer's plant or elsewhere, or an oversold condition of the market.
  - ii. Late performance by a subcontractor unless the delay arises out of a force majeure occurrence in accordance with this force majeure term and condition; or
  - iii. Inability of either the Contractor or any subcontractor to acquire or maintain any required insurance, bonds, licenses or permits.

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**EXHIBIT 3: Insurance Requirements**

By signing on the Offer/Bid page, solicitation Amendment(s), or cover letter accompanying the submittal documents, Offerors are certifying that they understand the following notices and agree to comply with all required terms and conditions.

**1) INSURANCE REQUIREMENTS.** OFFEROR shall procure and maintain until all their obligations have been discharged, insurance against claims for injury to persons or damage to property that may arise from or in connection with this Solicitation. The *insurance requirements* herein are minimum requirements for this Solicitation and in no way limit the indemnity covenants contained herein. The City of Glendale in no way warrants that the minimum limits contained herein is sufficient to protect the OFFEROR from liabilities that might arise. OFFEROR is free to purchase such additional insurance as OFFEROR determines necessary.

**a) Minimum Scope and Limits Of Insurance:** OFFEROR shall provide coverage with limits of liability not less than those stated below.

**i) Commercial General Liability – Occurrence Form**

Policy shall include bodily injury, property damage, personal and advertising injury and broad form contractual liability coverage.

General Aggregate	\$2,000,000
Products – Completed Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000


**(1)** The policy shall be endorsed to include the following additional insured language: ***“The City of Glendale, and its departments, officers, officials, agents, employees and volunteers shall be named as additional insureds with respect to liability arising out of the solicitation.*** Such additional insured shall be covered to the full limits of liability purchased by the OFFEROR, even if those limits of liability are in excess of those required herein.

**(2)** Policy shall contain a waiver of subrogation endorsement in favor of the **“City of Glendale, and its departments, officers, officials, agents, employees and volunteers”**. This provision applies regardless of whether or not the City of Glendale has received a waiver of subrogation endorsement from the insurer.

**ii) Business Automobile Liability – (if driving is not a part of the scope of work, excluding driving from the place of business and to the City departments, this coverage can be eliminated.)**

Bodily Injury and Property Damage for any owned, hired, and/or non-owned vehicles used in the performance of this Agreement. Combined Single Limit (CSL) \$1,000,000.

**(1)** The policy shall be endorsed to include the following additional insured language: **“The City of Glendale, and its departments, officers, officials, agents, employees and volunteers shall be named as additional insureds with respect to**

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liability arising out of the activities performed by or on behalf of the OFFEROR, involving automobiles owned, Licensed, hired or borrowed by the OFFEROR." Such additional insured shall be covered to the full limits of liability purchased by the OFFEROR, even if those limits of liability are in excess of those required by this License.

- (2) Policy shall contain a waiver of subrogation endorsement in favor of the “City of Glendale, and its departments, officers, officials, agents, employees and volunteers” for losses arising from work performed by or on behalf of the OFFEROR. This provision applies regardless of whether or not the City of Glendale has received a waiver of subrogation endorsement from the insurer.

**iii) Worker's Compensation and Employers' Liability**

Workers' Compensation Statutory	
Employers' Liability	
Each Accident	\$1,000,000
Disease – Each Employee	\$1,000,000
Disease – Policy Limit	\$1,000,000

- (1) Policy shall contain a waiver of subrogation endorsement in favor of the “**City of Glendale, and its departments, officers, officials, agents, employees and volunteers**” for losses arising from OFFEROR activities. This provision applies regardless of whether or not the City of Glendale has received a waiver of subrogation endorsement from the insurer.


**iv) Fidelity Insurance (Crime Bond)**

- (1) The policy shall be issued with minimum limits of \$1,000,000.
- (2) The policy shall include coverage for all directors, officers, agents and employees of the Offeror.
- (3) The policy shall include coverage for third party fidelity.
- (4) The policy shall include coverage for theft.
- (5) The policy shall contain no requirement for arrest and conviction.
- (6) The policy shall cover loss outside the premises of the Named Insured.
- (7) The Department shall be endorsed (Blanket Endorsements are not acceptable) as a Loss Payee as our interest may appear.

**v) Professional Liability (Errors & Omissions) – no less than \$2,000,000 per occurrence or claim, \$4,000,000 aggregate. Should include coverage for Plan administration and fiduciary administrative duties. Full description of the E&O Coverage provided.**

Errors & Omissions are written as Claims Made Policies. If any of the policies provide coverage on a claims-made basis the following shall apply:

- (1) The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
- (2) Insurance must be maintained and evidence of insurance must be provided **for at least five (5) years after completion of the contract of work.**

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(3) If coverage is canceled or non-renewed, and not ***replaced with another claims-made policy form with a Retroactive Date*** prior to the contract effective date, the Consultant must purchase “extended reporting” coverage for a minimum of ***five (5)*** years after completion of contract work

**vi) Additional Insurance Requirements: The policies shall include, or be endorsed to include, the following provisions:**

- (1) Policies shall stipulate that the insurance afforded by the organization shall be primary insurance and that any insurance carried by the City of Glendale shall be excess and not contributory insurance.
- (2) Coverage provided by the organization shall not be limited to the liability assumed under the indemnification provisions of the license or contract.
- (3) If the Vendor maintains broader coverage and/or higher limits than the minimum shown, the City requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Vendor. Any available insurance proceeds in excess of the specified minimum of insurance and coverage shall be available to the City.
- (4) Vendor shall require and verify that all subcontractors (subconsultants) maintain insurance meeting all the requirements stated herein, and Vendor shall ensure that City is an additional insured on insurance required from subcontractors (subconsultants).
- (5) If the Vendor is awarded the solicitation, the Vendor shall furnish the City with original Certificates of Insurance including all required amendatory endorsements before the work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Vendor’s obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies including endorsements required by these specifications, at any time.

**EXHIBIT B**  
**INDUCTIVELY COUPLED PLASMA MASS SPETROMETER**  
**COMPENSATION**

**METHOD AND AMOUNT OF COMPENSATION**

The method and amount of compensation is determined based on RFP 21-49 Pricing Sheet and Service Agreement Quote.

**NOT-TO-EXCEED AMOUNT**

The total amount of compensation paid to Contractor for full completion of all work required by the Project during the entire term of the Project must not exceed \$160,000.

**DETAILED PROJECT COMPENSATION**

See attached Pricing Sheet and Service Agreement Quote.



City of Glendale  
Solicitation Number: RFP 21-49 / 42100054  
**INDUCTIVELY COUPLED PLASMA MASS  
SPECTROMETER  
PRICING WORKBOOK**

CITY OF GLENDALE  
Procurement Division  
5850 West Glendale  
Avenue, Suite 317  
Glendale, Arizona 85301

### 3. PRICING/COST WORKBOOK

Contractor must complete the Pricing Schedule below. Any items not clearly listed on Contractor's submitted price proposal will be considered included in Contractor's price at no additional cost to the City. All pricing should contemplate compliance with the performance requirements as specified in the Scope of Work.

#### Instructions:

- a. The cost proposal must be submitted separately from the rest of the written proposal.
- b. Cost proposals shall be quoted as an all-inclusive fixed fee for services.
- c. All inclusive – covers all direct and indirect necessary expenses including but not limited to: travel, telephone, copying, and other out-of-pocket expenses.
- d. Not to Exceed – The actual fees shall not exceed the amount specified in fee proposal.

#### PRICE SCHEDULE

##### Inductively Coupled Plasma Mass Spectrometer

ICP-MS Unit	\$ <u>111,376.8</u>
Autosampler	\$ <u>8,395.20</u>
Refrigerated Chiller	\$ <u>4,691.52</u>
Vacuum System	\$ <u>0.00</u>
Computer with DVD-RW and Software	\$ <u>1,798.56</u>
Interface (if needed)	\$ <u>0.00</u>
Installation/Training and Miscellaneous Costs	\$ <u>0.00</u>
Extended Warranty	\$ <u>0.00</u>
Subtotal	\$ <u>126,262.08</u>
Sales Tax	\$ <u>11,616.11</u>
Grand Total	\$ <u>137,878.19</u>

Manufacturer/Model ICPMS-2030

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City of Glendale  
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INDUCTIVELY COUPLED PLASMA MASS  
SPECTROMETER  
PRICING WORKBOOK

CITY OF GLENDALE  
Procurement Division  
5850 West Glendale  
Avenue, Suite 317  
Glendale, Arizona 85301

**DISCOUNT/PAYMENT TERMS:** The City standard is 2% 20 days

Comply: YES \_\_\_\_\_ NO

If your answer is NO, please state terms offered: No additional discount for early payment. Standard terms are NET 30.%

**PAYMENT** Contractor shall provide monthly statements of itemized services. Payment will be reviewed and approved by the Contract Administrator or designee. The itemized statement shall not exceed the proposal fee in this Section.

**TAX AMOUNT** Do not include any use tax or federal tax in your proposal.

**OFFEROR NAME:** Shimadzu Scientific Instruments



**Customer:**

Linda Andrews  
City Of Glendale - PPWTP  
28101 N 63rd Ave  
GLENDALE, AZ 85303  
Phone: (623) 930-3897  
Fax:  
E-mail: LAndrews@GLENDALEAZ.com

**Sales Engineer:**

Wade McGregor  
Shimadzu Scientific Instruments  
1930 Palomar Point Way STE 107  
Carlsbad, CA 92008  
Regional Office: (866) 862-1677 Ext. 2415  
Direct Dial: (760) 710-2415  
E-mail: wcmcgregor@shimadzu.com

**Sales Proposal**

**Quotation:** SSI-184801-W3T8

**Expiration:** 5/31/2021

**Quote Description:**

ICPMS

**Proposed Ship Date:** 30 Days/ARO

**FOB:** COLUMBIA

**Ship Method:** BEST WAY

**Shipping Terms:** PREPAID & ADD

**Incoterms:**

**Additional Information:**

Does not include tax & freight.

**For proposal questions or modifications, please contact your sales representative.**

**For Order Placement:**

Reference Quotation Number on Purchase Order

If you are tax exempt, please send a copy of your exemption certificate with your purchase order. Certificate may also be faxed to 410-381-1222.

Thank you for your interest in Shimadzu Scientific Instruments.

Shimadzu Scientific Instruments  
7102 Riverwood Drive, Columbia, MD 21046  
Toll Free: 800-477-1227  
Local: 410-381-1227 Fax: 410-381-6781  
E-mail: [customer.service@shimadzu.com](mailto:customer.service@shimadzu.com)

**Authorization Signature\***



Willard Bankert

**Date: 3/24/2021**

\*Sales Proposal is not valid without Authorized Signature.

International:

Fax: 410-309-6130

E-mail: [icsc@shimadzu.com](mailto:icsc@shimadzu.com)

Sales Quotation - please reference the quotation when submitting purchase order.

**ICPMS - EPA 200.8 Method Package**

Product #	Qty	Description	Price Per Unit	Ext'd Price
1 211-95300-58	1	ICPMS-2030LF Mass Spectrometer	\$152,292.00	\$152,292.00
2 220-95336-04	1	CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL	\$9,191.00	\$9,191.00
3 220-95356-90	1	Internal Standard Automatic Addition Kit, ICP/ICPMS	\$339.00	\$339.00
4 220-95356-58	1	Base for 4-Rack WindTunnel Autosampler Enclosure	\$400.00	\$400.00
5 220-95356-50	1	WindTunnel Enclosure for 4-Rack Autosampler (ASX-560)	\$1,300.00	\$1,300.00
6 220-95356-57	1	Filter and Adapter for WindTunnel Autosampler Enclosure	\$170.00	\$170.00
7 220-95356-52	1	Fan for WindTunnel Autosampler Enclosure	\$260.00	\$260.00
8 220-95377-10	1	Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 4.4	\$1,199.00	\$1,199.00
9 220-95377-11	1	Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 5.4	\$1,199.00	\$1,199.00
10 211-92962-41	1	Cooling Water Circulator for ICPE-9800, ICPMS-2030	\$6,516.00	\$6,516.00
11 220-97318-40	1	Standard Workstation PC- Win 10 Pro 64bit	\$2,168.00	\$2,168.00
12 220-97320-10	1	Dell P2210, 22" Professional Widescreen Flat Panel	\$330.00	\$330.00
13 TIER 5 I&F	1	Tier 5 Installation and Customer Familiarization	\$11,200.00	\$0.00
14 1YW	1	1 YEAR WARRANTY	\$0.00	\$0.00

<b>Total List Price:</b>	<b>\$186,564.00</b>
<b>Total Line Item Discount:</b>	<b>\$11,200.00</b>
<b>Quote Discount % Amt:</b>	<b>\$49,101.92</b>
<b>Quote Sub-Total:</b>	<b>\$126,262.08</b>
<b>Total Amount:</b>	<b>\$126,262.08</b>

By placing an Order for any Products related to this Sales Proposal and Quotation, Customer agrees to the terms and conditions at <https://www.ssi.shimadzu.com/terms/General-Terms-Conditions-of-Sale.html>, which are incorporated herein and applicable hereto. SSI reserves the right to update its Terms and Conditions at any time, however the terms and conditions in effect at the date of delivery of Products related to this Sales Proposal and Quotation shall apply to that purchase.

Sales Quotation - please reference the quotation when submitting purchase order.

**Optional Items**

**Optional Items:**

**ICPMS - EPA 200.8 Method Package**

	<b>Product #</b>	<b>Qty</b>	<b>Description</b>	<b>List Price</b>	<b>Ext'd Price</b>
1	220-95356-60	1	Niagara Rapid Rinse Kit for Shimadzu ICPMS-2030	\$3,300.00	\$3,300.00
2	220-97217-00	1	Bubble Jet Printer w/Cable	\$378.00	\$378.00
3	220-95356-99	1	One-Year Consumables Kit, ICPMS	\$3,650.00	\$3,650.00

## Service Agreement Plans Available

### As Quoted

Quantity	Plan Name	Plan Price	Disc't %	Ext'd Price	Products Covered
1	Preventative Maintenance	\$240.00	0.00%	\$240.00	CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL
1	Premium Preventative Maintenance	\$4,515.00	0.00%	\$4,515.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Extended Warranty	\$12,660.00	0.00%	\$12,660.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Extended Warranty Plus	\$14,600.00	0.00%	\$14,600.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Premium Total Coverage	\$20,581.00	0.00%	\$20,581.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer
1	Three Year(36 month) Value Plan Service Agreement	\$19,113.00	0.00%	\$19,113.00	Cooling Water Circulator for ICPE-9800, ICPMS-2030, CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL, ICPMS-2030LF Mass Spectrometer

### Descriptions of Service Coverage

#### Preventative Maintenance

Preventative Maintenance (PM) visits will be scheduled by SSI at the mutual convenience of the buyer and SSI, or performed during any other service visit. PM visits, when provided under this Agreement, may include necessary cleaning, adjustments, verification, lubrication and parts replacement according to the PM checklist. Labor, travel expenses, and selected consumable parts will be included during the PM visit at no additional cost to the buyer.

#### Premium Preventative Maintenance

Premium Preventative Maintenance visits will be scheduled by SSI at the mutual convenience of the customer and SSI, or performed during any other service visit. This Premium PM will be performed by SSI according to established SSI procedures. Premium PM visits, when performed under this Agreement, will include necessary cleaning, adjustments, verification, lubrication and parts replacement. Labor, travel expenses and selected consumables parts\* (list of parts available upon customer request) will be included during the Premium PM visit at no additional cost to the customer. A travel zone fee is added to the agreement to cover travel costs. Purchase of the Premium PM option does not excuse Customer from performing normal daily, weekly or monthly maintenance that may be required.

#### Extended Warranty

Extended Warranty coverage includes all labor and parts (excluding consumables) necessary to restore the products to operating specifications.

This coverage level is not available for MS products and the associated turbo and roughing pumps. The MS products require a coverage level which includes a Premium PM.

#### **Extended Warranty Plus**

A combination of one scheduled Premium PM visit and Extended Warranty Coverage. Premium Preventative Maintenance visits will be scheduled by SSI at the mutual convenience of the customer and SSI, or performed during any other service visit. Premium PM visits, when performed under this Agreement, will include necessary cleaning, adjustments, verification, lubrication and parts replacement. Labor, travel expenses and selected consumables parts\* (list of parts available upon customer request) will be included during the Premium PM visit at no additional cost to the customer. The extended Warranty Includes all labor and parts (excluding consumables outside of PM) necessary to restore the products to operating specifications. A travel zone charge is added to the contract to cover travel costs. In the event of a covered product failure, SSI will use its best effort to provide on-demand service.

#### **Premium Total Coverage**

This level of agreement provides the customer with a level of coverage includes all labor and non-consumable parts, a Premium PM visit, and in addition provides for the replacement of consumable parts outside of a PM visit at no additional cost to the buyer. Use of this level of Service will be monitored by SSI and in the event that the buyer's use does not exceed two visits during the effective dates of the agreement, the buyer will be entitled to an agreed upon rebate at the end of the agreement term. This rebate must be applied to the purchase of future service agreements or other services offered by SSI.

#### **Three Year Value Plan**

Three Year Value Plan Service Agreement:

Following system installation, provides 3 consecutive years of FULL warranty coverage, Customer Care follow-up Year1, and Scheduled Premium Preventative Maintenance (PPM) on-site service during Year2 and Year3.

Sales Quotation - please reference the quotation when submitting purchase order.  
**Line Item Descriptions**

Product #	Description
ICPMS - EPA 200.8 Method Package	
<b>211-95300-58</b>	<b>ICPMS-2030LF Mass Spectrometer</b>  The ICPMS-2030LF unregulated model provides excellent sensitivity achieved by the optimized internal structure including a newly-developed collision cell. It also operates at a low running cost by minimizing the flow rate of argon gas necessary for analysis to the lowest level in the industry by the use of Shimadzu's proprietary mini torch and Eco mode. The Development Assistant function of the software automatically sets the optimum analysis conditions for quantitative analysis and the Diagnosis Assistant function automatically performs validation for data necessary after measurement. These functions reduce users' work for more efficient analysis procedures and improves the reliability of data. The software is also compliant to FDA 21 CFR Part 11 and compatible with LabSolutions DB/CS. The ICPMS-2030LF unregulated model is a shorter lead-time alternative to 211-92000-58 ICPMS-2030 regulated model. The LF model is identical to the regulated model, except it is not able analyze isotopic ratios of uranium. Total uranium quantification is still possible.
<b>220-95336-04</b>	<b>CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL</b>  The ASX-560 Autosampler accommodates 240 samples with 4 racks of 60 vials of 14 mL and 10 position of 50 mL volumes. System connects directly to the ICP and is controlled through LabSolution software. For doing low levels an optional enclosure can be added. If maximum throughput is needed, the autosampler can be configured with the ASXpress Plus Rapid Introduction System.
<b>220-95356-90</b>	<b>Internal Standard Automatic Addition Kit, ICP/ICPMS</b>  Internal standard automatic addition kit. Comprises parts for mixing the analysis sample with the internal standard and introducing the mixture to the nebulizer. In-line addition of internal standards provides an efficient way of dosing all of calibration standards and samples accurately and precisely without extra effort or the risk of error or contamination. For ICPMS and ICPE. Pump tubing sold separately.
<b>220-95356-58</b>	<b>Base for 4-Rack WindTunnel Autosampler Enclosure</b>  The WindTunnel is designed to fit over an autosampler sitting on a solid flat surface. The base creates seal with enclosure when bench surface is not flat. The base has a channel around the perimeter to catch any spills and a drain port to remove the spills.
<b>220-95356-50</b>	<b>WindTunnel Enclosure for 4-Rack Autosampler (ASX-560)</b>  Suitable for CETAC ASX-560, includes 4" flange for ventilation. Shatter-proof polycarbonate construction.
<b>220-95356-57</b>	<b>Filter and Adapter for WindTunnel Autosampler Enclosure</b>  Suitable for WindTunnel Autosampler Enclosure. Should be used with fan and external ventilation. Can be used with either fan alone or with ventilation alone.
<b>220-95356-52</b>	<b>Fan for WindTunnel Autosampler Enclosure</b>  Suitable for WindTunnel Autosampler Enclosure. Maintains positive pressure.
<b>220-95377-10</b>	<b>Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 4.4</b>  Standards Set for EPA 200.8 is a kit of 5 Calibration standards in 125mL vials, 2 Internal Standards Solutions in 125mL, 2 Quality Control solutions in 125mL, 1 Tuning Solutions in 125mL. All Solutions are certified reference material set in a nitric/tar
<b>220-95377-11</b>	<b>Standards, AA, ICPMS Standards Set for EPA 200.8 Rev. 5.4</b>  Standards Set for EPA 200.8 is a kit of 5 Calibration standards in 125mL vials, 2 Internal Standards Solutions in 125mL, 2 Quality Control solutions in 125mL, 1 Tuning Solutions in 125mL. All Solutions are certified reference material set in a nitric/tar
<b>211-92962-41</b>	<b>Cooling Water Circulator for ICPE-9800, ICPMS-2030</b>  Cooling water circulator used for cooling the ICPE-9000 is quiet, high efficiency chiller that is easy set controls and includes water level sensor.
<b>220-97318-40</b>	<b>Standard Workstation PC- Win 10 Pro 64bit</b>

Shimadzu Standard Workstation Mini tower PC with Intel® four Core Xenon processor (3.50GHz/2133MHz DDR4/8MB w/ HD Graphics).  
 Operating systems include Windows® 10 PRO 64bit (installed). System incorporates 8GB DDR4 UDIMM 2133, ECC memory (expandable to 64GB), 2x500GB Serial ATA hard drive, 16X DVD+/-RW Drive.  
 Included are USB keyboard, Optical Wheel mouse, 512 MB NVIDIA Quadro NVS 310, Dual Monitor Graphics Card, Intel Integrated Gigabit 10/100/1000 network connection, One PCIe x16 Gen 3; one PCIe x16 Gen 2 wired x4; one PCIe x1; One PCI 32bit/33MHz, one Serial Port (RS-232), 7 USB 2.0 ports, 4 USB 3.0 ports (2 front,6 back 3 Internal), Integrated High Definition Audio (no speakers).  
 Warranty: Three year limited warranty with three years standard next business day (NBD) onsite parts replacement and three years NBD onsite labor through Dell Corporation

**220-97320-10 Dell P2210, 22" Professional Widescreen Flat Panel**

22" LCD display, resolution to 1680 x 1050, contrast ratio (typical): 1000:1. Brightness (typical): 300 cd/m2, 0.282 mm pixel pitch.

Limited warranty: Three years Advanced Portable Exchange through Dell.

**TIER 5 I&F Tier 5 Installation and Customer Familiarization**

**1YW 1 YEAR WARRANTY**

1 YEAR WARRANTY

### Optional Item Descriptions

**Product # Description**

ICPMS - EPA 200.8 Method Package

**220-95356-60 Niagara Rapid Rinse Kit for Shimadzu ICPMS-2030**

The Niagara-CM begins the rinsing of the nebulizer and spray chamber the instant the sample measurement is completed and continues to rinse until the next sample is ready. Thus the rinse is carried out in the time that is usually wasted waiting for the sample and the rinse solutions to flow from the autosampler to the nebulizer. The NEW CM platform combines versatility with ease of installation and operation.

**220-97217-00 Bubble Jet Printer w/Cable**

Compact color inkjet printer, print speeds up to 29 ppm (black) and 19 ppm (color). Integrated duplex unit for double-sided printing; two paper trays. 9600 x 2400 dpi print resolution. Hi-Speed USB 2.0 interface

**220-95356-99 One-Year Consumables Kit, ICPMS**

Each kit includes two mini torches, one micromist nebulizer, one nickel sampling cone, one nickel skimmer cone, one Helix CT locking screw with seal, one package of graphite gasket (3/pk), five packages of sample peristaltic pump tubing (6/pk), five packages of internal standard peristaltic pump tubing (6/pk), one gold-plated RF coil and one RF coil installation tool. Tuning solution and pump oil are sold separately.

SHIMADZU SCIENTIFIC INSTRUMENTS, INC.  
1930 PALOMAR POINT WAY  
STE. 107  
CARLSBAD, CA 92008  
Phone: 760-710-2400 Fax: 760-931-9854

SA NUMBER 0000100655  
Customer Number C001914  
Type Quote

**Location of Equipment**

CITY OF GLENDALE  
PYRAMID PEAK WATER TREATMENT P  
28101 N. 63RD AVE  
GLENDALE, AZ 85310

**Contact:** Linda Andrews

**Phone:**

**Billing Address**

City Of Glendale - PPWTP  
28101 N 63RD AVE  
PHOENIX, AZ 85083-7676

C001914

<u>Model</u>	<u>Serial Number</u>	<u>Coverage Plan</u>	<u>Coverage Price</u>
ICPMS-2030LF Mass Spectrometer		3 YEAR VALUE PLAN	\$17,622.00
CETAC ASX-560 Autosampler for ICP or ICPMS, 4 X 60 X 14 mL		3 YEAR VALUE PLAN	\$885.00
Cooling Water Circulator for ICPE-9800, ICPMS-2030		3 YEAR VALUE PLAN	\$606.00
		SUBTOTAL:	\$19,113.00
		DISCOUNT:	\$3,822.60
		TOTAL PRICE:	\$15,290.40

(NSAS)  
Shimadzu Contact-  
Mandy Maggiora  
NSAS@shimadzu.com

Option VII\_Three Year Value Plan (3YVP)  
Three Year Value Plan Coverage starts at completed install date.  
Coverage Includes-  
Three full years of warranty coverage  
6 month check up in Year 1  
PPM Service once per year in Year 2 and Year 3  
Parts, labor, and travel during the coverage period.

This agreement is for a 36 month effective period.  
\*\*ANNUAL INVOICING\*\*

Total cost to Glendale = \$15,290.40, which you could split to three annual installments of \$5,096.80.

\*\*QUOTED PER SSI-184801-W3T8\*\*

\*\*START DATE, SERIAL NUMBERS, ADDITIONAL DETAILS ARE TO ADDED FOLLOWING THE INSTALLATION COMPLETION\*\*

Upon approval please forward a signed copy of your agreement quotation with a copy of your purchase order directly to:  
NSAS@shimadzu.com.

Linda Andrews\_623-930-3897\_landrews@glendaleaz.com  
Installation\_SC#

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Phone: 760-710-2400 Fax: 760-931-9854

SA NUMBER 0000100655  
Customer Number C001914  
Type Quote

**PRICES WILL REMAIN IN EFFECT FOR 30 DAYS FROM THE QUOTATION DATE**

REGION	EFFECTIVE DATES	Purchase Order:
25SCA	7/9/2021 - 7/8/2024	

SHIMADZU SCIENTIFIC INSTRUMENTS, INC.	CUSTOMER
SUBMITTED BY: _____	APPROVED BY: _____
DATE SUBMITTED: _____	TITLE: _____
AUTHORIZED BY: _____	DATE APPROVED _____
DATE AUTHORIZED: _____	_____

NOTE: Please sign and return this quote with hard copy of the Purchase Order for processing.

The description of the terms & conditions are provided on the attached sheets. Through signature and/or purchase order, buyer agrees to comply with these terms & conditions