

BID NO. AB 32-18

AMERICAN BOTTOMS

REGIONAL WASTEWATER TREATMENT FACILITY

BIDS DUE: Tuesday, June 20, 2017

BID DOCUMENTS

For

Inductively Coupled Plasma Emission Spectrophotometer (ICP)

Village of Sauget, Illinois

AMERICAN BOTTOMS
REGIONAL WASTEWATER TREATMENT FACILITY

BID NO. AB 32-18

Inductively Coupled Plasma Emission Spectrophotometer (ICP)

INVITATION TO BID

Sealed bids for the **ICP** at the American Bottoms Regional Wastewater Treatment Facility will be received at the office of the Village Clerk until **Tuesday, June 20, 2017 at 2:00 p.m.** local time. Bids received after said time will be returned unopened. The bids will be publicly opened at that same date and time.

Copies of the Bid Documents may be obtained from American Bottoms Regional Wastewater Treatment Facility, One American Bottoms Road, Sauget, Illinois 62201, at no cost.

The bids are to provide an ICP instrument that must possess full automation and technical capabilities to analyze samples for EPA methods 200.7 and 6010. The bidder must comply with all requirements specified in the Instructions to Bidders and all other requirements of the specifications.

No bid may be withdrawn within ninety days after the scheduled closing time for receipt of bids. The Village of Sauget, Illinois reserves the right to reject any and all bids and to waive any irregularities therein.

For additional information, contact Charlie Loftus, Laboratory Supervisor, American Bottoms Regional Wastewater Treatment Facility, One American Bottoms Road, Sauget, IL 62201, or telephone 618-337-9703.

Village of Sauget
St. Clair County, Illinois

AMERICAN BOTTOMS

REGIONAL WASTEWATER TREATMENT FACILITY

BID NO. AB 32-18

Inductively Coupled Plasma Emission Spectrophotometer (ICP)

INSTRUCTIONS TO BIDDERS

1. **Bid Acceptability**

The Village of Sauget DBA American Bottoms Regional Wastewater Treatment Facility (American Bottoms) will accept bids from single manufacturers/suppliers and joint ventures. American Bottoms reserves the right to accept all or any part of the bid.

2. **Interpretation of Documents**

The bidder is under a duty to learn, or know, the contents of all parts of this bid/contract document before they submit a signed bid/contract. If any bidder is in doubt as to the true meaning of any part of the documents or requirements contained in any and all parts of the bid documents, a written request for interpretation may be submitted no later than 5 calendar days prior to the bid opening to the American Bottoms Regional Wastewater Treatment Facility, One American Bottoms Road, Sauget, Illinois 62201. American Bottoms will not be responsible for any oral instructions.

3. **Bid Acceptance Period**

All offers must be firm and irrevocable for a minimum period of 90 days after the date of bid opening.

4. **Submission of Bids**

A. Delivery of Bids

Bids must be priced, signed once and delivered (with all necessary attachments) to the Village Clerk, Village of Sauget, 2897 Falling Springs Road, Sauget, Illinois 62206 by the date and time stated in the Invitation to Bid.

B. Tardy Submittals

Bids arriving after the date and time specified will not be accepted.

5. **Disqualification of Bidders**

Any of the following reasons may result in the disqualification of a bidder and the rejection of his/her bid(s).

- A. Multiple bids.
- B. Failure to submit all required data as requested in the specifications.
- C. Alterations to Bid Form
- D. Other legally justifiable reasons.

6. Format of Bid

The bidder must respond to this request for bids on the bid form provided.

7. Award or Rejection of Bids

- A. Award

The contract will be awarded to the lowest, most responsive, responsible bidder who best satisfies the terms and conditions as required by the contract document, provided the bid is in the best interest of the American Bottoms Regional Wastewater Treatment Facility. Any acceptance herein of a bid shall be made by written notification from the American Bottoms Regional Wastewater Treatment Facility on behalf of the Village of Sauget.

- B. Right of Rejection

American Bottoms Regional Wastewater Treatment Facility on behalf of the Village of Sauget reserves the right to reject any or all bids, or to reject any part of any bid or to advertise for new bids on the same or similar projects.

8. Development Costs

Costs resulting from the development and/or presentation of a bid are to be borne by the bidder.

9. Sales Tax

All sales of materials to the Village of Sauget are exempt from Illinois Retailer's Occupational (Sales) Tax and other related Illinois taxes, e.g., use tax.

10. Independent Bidders

The bidder shall be at all times independent from and shall not be an employee or agent of the Village of Sauget, the American Bottoms Regional Wastewater Treatment Facility or the Sauget Sanitary Development & Research Association.

11. Agreement Documents

The agreement documents consist of the following parts:

- A. Request for Bids
- B. Instructions to Bidders
- C. Bid Specifications
- D. Technical Specifications
- E. Bid Form
- F. Subcontractor Listing
- G. Notice of Award
- H. Notice to Proceed
- I. Change Orders (if issued)

The Bid Specifications, Technical Specifications, Appendix A drawings, and all Special Provisions, Supplementary Conditions and Addendums are essential parts of the contract and a requirement occurring in one as though occurring in all. They are intended to be complimentary and to describe and provide for a complete work. In the event of an obvious discrepancy between any parts of the contract, the contractor shall immediately notify the Plant Engineer of the discrepancy and the Plant Engineer shall provide the contractor with a resolution. This does not mean that all discrepancies must be found prior to bidding the project. However, all obvious ambiguities shall be raised to the attention of the Plant Engineer prior to proceeding with any work. As a general rule, a discrepancy between the drawings and figures written thereon, unless obviously incorrect, figures written are to govern over scaled dimensions. In the case of a discrepancy between Bid Specifications and Technical Specifications, the Technical Specifications are to govern. In the case of a discrepancy between Appendix A drawings and the Technical Specifications, the Technical Specifications are to govern. Special Provisions, Supplementary Conditions and Addendums shall govern over Technical Specifications.

12. Job Conferences

- A. Post-Award Contractors Conference
 - 1. After the award of the contract and prior to beginning work, there shall be a correspondence to thoroughly discuss these specifications and the work to be done under them.
 - 2. Safety Program Meeting: Prior to beginning any work on the project, the contractor, all subcontractors, all persons working on the project shall have a meeting concerning all safety issues involved with the project.

13. Execution of Work

- A. The Contractor shall be responsible for requesting prompt clarification when instructions are lacking, or conflicts occur in the specification. In the event the Contractor fails to resolve these conflicts that may exist, he shall be responsible for handling the discrepancies in a manner as prescribed by the Lab Manager.

- B. The Contractor shall be responsible for coordination of any work performed by his/her subcontractors.

END OF SECTION

AMERICAN BOTTOMS

REGIONAL WASTEWATER TREATMENT FACILITY

BID NO. AB 32-18

Inductively Coupled Plasma Emission Spectrophotometer (ICP)

BID SPECIFICATIONS

1. Hold Harmless Clause

Contractor shall indemnify and hold the Village of Sauget, its officials, trustees, employees and agents, the Sauget Sanitary Development and Research Association, and its officers, directors, employees and agents and each of them harmless against any and all claims, demands and choices in action arising out of this agreement, and from any and all complaints or suits made or brought for injury to persons or property caused by contractor, its agents, employees or independent contractors in the performance of work and services under this agreement, excepting those caused by the negligence of any entity or person to be indemnified hereunder.

2. Independent Contractors

The successful bidder shall be at all times an independent contractor and shall not be an employee or agent of the Village of Sauget or the American Bottoms Regional Wastewater Treatment Facility, Village of Sauget, or the Sauget Sanitary Development and Research Association.

The contractor shall furnish, supply and deliver to American Bottoms as part of the submittals a list of subcontractors, the part of the work to be completed by each subcontractor and list the percentage of the total work, to be completed by each subcontractor.

3. Insurance

Certificates of Insurance identified hereinafter shall be submitted to American Bottoms as a condition to issuance of a Notice to Proceed and prior to commencement of work on the site.

These Certificates must contain a provision that coverages afforded under the policies will not be canceled unless at least 30 days prior written notice has been given to the owner.

The Contractor/Subcontractor shall provide American Bottoms with a Certificate of Insurance and Additional Insured Endorsement on ISO Form CG 2010 (11-85) or its equivalent naming American Bottoms any Subcontractors/Contractors, the Village of Sauget,

and the Sauget Sanitary Development and Research Association as Additional Insureds thereunder. Additional Insured coverage shall apply as primary insurance with respect to any other insurance afforded to the Contractor/Subcontractor or American Bottoms or the Village of Sauget or the Sauget Sanitary Development and Research Association. The Contractor's/Subcontractor's insurance shall not be less than the following:

- A. **Commercial General Liability:** The coverage available to the Contractor/Subcontractor or American Bottoms or the Village of Sauget or the Sauget Sanitary Development and Research Association, as Additional Insureds, shall not be less than \$1 million dollars each occurrence, \$2 million General Aggregate (subject to a per project general aggregate provision applicable to the project), \$2 million Products/Completed Operations Aggregate and \$1 million Personal and Advertising Injury limits. Such insurance shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract (including tort liability of another assumed in a business contract). There shall be no endorsement or modification of the commercial general liability form arising from pollution, explosion, collapse, underground property damage or work performed by contractors/subcontractors. All shall be reasonably acceptable to American Bottoms. Coverage shall be afforded to the Additional Insured whether or not a claim is in litigation.
- B. **Workers Compensation and Employers Liability Insurance:** As required by Law and affording 30 days written notice to American Bottoms prior to cancellation or non-renewal, providing coverage of not less than \$1,000,000 for bodily injury caused by accident and \$1,000,000 for bodily injury by disease.
- C. **Business Auto Liability Insurance:** Written in the amount of not less than \$1,000,000 each accident for all autos including hired and non-owned autos.
- D. **Umbrella Liability Insurance:** Written in the amount of not less than \$5,000,000 each occurrence.

Failure to execute and deliver the insurance certificates within ten (10) days after the receipt of the award of this agreement shall be cause for the annulment of the agreement.

4. **Minimum Qualifications**

All bidders **must include with the bid**, the following proofs of their ability to perform under this agreement:

- A. A minimum of three (3) references.
- B. A Statement of Management Qualifications for key management personnel who will have responsibility for this project.

Failure to meet any of these requirements and qualifications is sufficient cause for the rejection of the bid.

5. Plant Work Rules for Contractor's Personnel

A. Safety

Contractor's personnel must follow all safety rules, procedures and requirements as appropriate for: wearing personal protective equipment, protective clothing/gear for the work to be done, participate in safety drills, so that contractor's personnel become aware of the response expected of them in case of an emergency or other situation, and comply with all applicable federal, state and local safety regulations, including the Occupational Safety and Health Act. The contractor must also abide by the Contractor Section of the Sauget Sanitary Development and Research Association (SSDRA) Safety Manual which is provided to all workers on the project. Prior to the start of any work, the contractor and all associated personnel shall meet with the Plant Engineer to discuss the Contractor Section of the SSDRA Safety Manual and any potential hazards that may be present during construction. All appendices of the Contractor Section of the SSDRA Safety Manual must be completed, reviewed, and approved prior to the start of any work. All persons working on the project must have a sticker provided by American Bottoms placed on their hardhat to indicate that they have discussed the safety policies of SSDRA. American Bottoms reserves the right to terminate the contract if the contractor refuses to submit the proper paperwork or to abide by the rules as set forth in the manual.

B. Assigned Areas and Loitering

Contractor's personnel must be assigned responsibility for work in specific areas of the plant. These assignments to specific areas of the plant will lead to individual accountability for job performance in addition to the usual requirement for accountability by supervisory personnel. It is anticipated that improved, cost-effective performance will result. Loitering and aimless wandering about the plant site are absolutely prohibited.

C. Lunch and Break Area

Contractor's personnel must eat lunch and take their breaks in an area designated strictly for such purposes.

D. Personal Phone Calls

Except for emergencies, using American Bottoms phones for incoming and outgoing personal phone calls is absolutely prohibited.

E. Entry Into Unauthorized Areas

Contractor's personnel must not enter certain portions of the plant at certain times. Such areas will be posted as required.

F. Use, Sales or Distribution of Alcohol, Drugs or any Controller Substance

Contractor's personnel are strictly prohibited from using, selling or distributing to others any liquor, drugs or any controlled substance on, or near, the premises, which are the subject of this agreement. Any of the contractor's employees who violate this sub-section shall be reported to the proper law enforcement authorities, and that employee(s) shall be barred from all American Bottoms premises thereafter. Repeated violations shall be considered cause for termination of this agreement.

G. Trained Personnel

The contractor must supply competent personnel who have been properly trained and instructed to safely perform the work. These personnel must be supervised and scheduled such that their work does not interfere with or interrupt ongoing activities of American Bottoms personnel or other contractors who may also be present.

H. Early Arrival, Late Departure, Designated Assembly Areas

Consistent with other sub-sections of these work rules, contractor's personnel reporting for work on regularly scheduled assignment will be required to report to their supervisor at a designated assembly area. Contractor's personnel whose hours may fall outside regularly scheduled times must report to the American Bottoms Supervisor on duty upon arrival or before departure to ensure that the person's presence on site is noted and logged.

I. Professionalism

Contractor shall require its employees to maintain a clean, neat appearance and to carry out their duties in an efficient, courteous, prudent and business-like manner.

J. Unauthorized Building Entry

Neither contractor, nor its employees or agents, shall at any time whatsoever permit the entry of any person or persons to any of the buildings not part of the worksite.

6. General Supervision

American Bottoms shall have general approval power over all work to be done under this agreement and shall have sole and final determination over all questions or disputes of any nature arising out of, or related to, this agreement.

7. Assignment

Contractor shall not, without the prior written consent of American Bottoms, assign, transfer or otherwise convey this agreement, any claim thereunder, any interest therein, or any moneys due or to become due thereunder.

8. Contract Time

The instrument delivery, setup and installation and training shall be within 60 days of the award of the bid. All work must be completed within this contract time. The contractor must submit a detailed explanation for any work not able to be completed within the contract time period.

9. Termination

American Bottoms, by written notice from the Plant Manager may terminate the whole or any part of this agreement if contractor fails to perform any term or condition of this agreement. Upon making the determination, American Bottoms shall notify the contractor in writing of such determination and shall give the contractor ten (10) calendar days to perform or correct the failing. Contractor shall be deemed to have defaulted in its agreement if it fails to perform or correct the failing within the ten (10) day period. American Bottoms may thereupon procure work and services similar to the work and services so terminated. In such an event until the date of termination, contractor shall be liable and shall pay American Bottoms upon demand all costs expended by American Bottoms which are in excess of the costs which would have been paid to contractor if contractor's performance was to have continued under this agreement and all extensions thereto.

American Bottoms may terminate the whole, or any part of, this agreement without cost to American Bottoms or to the contractor in cases where acts of God, fire, flood, tornadoes, earthquakes or other natural causes, riots or civil disorders, strikes, or any other conditions beyond the control of American Bottoms which render the services of the contractor impossible or unreasonably difficult to perform. Either determination is reserved solely by American Bottoms.

American Bottoms reserves to itself the right to terminate this agreement upon ten (10) calendar days written notice to the contractor, at no additional cost to American Bottoms or the contractor, and no cause or reason for said termination need be given.

10. Equal Opportunity

The contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin or sex.

11. Basis of Payment

- A. The delivery, installation and training of the ICP instrument is a lump sum contract. The contractor will be paid upon submission of an invoice for all materials and labor upon completion of the work described, and any additional authorized and inspected work accepted by American Bottoms.
- B. The contractor shall submit with each progress, or final payment requests, the subcontractor(s) waivers and releases, in a form satisfactory to American Bottoms. The obligation of the contractor to make a payment to subcontractors under this agreement, whether a progress or final payment, or for extras or change orders or other causes, is not solely and expressly subject to the payment by American Bottoms. Final payment by American Bottoms shall be contingent upon receipt of final releases and waivers from each subcontractor or supplier for the work described and completed and materials supplied. Final payment, however, is not a waiver of the owner's claims regarding non-conforming work.
- C. The contractor shall submit at the completion of all work described and any changes to the work during construction, a full and final release of all liens and a final waiver of claims. The submission of liens and waivers and acceptance of the payments by the contractor shall release the Village of Sauget from all claims, disputes and choices resulting from the work and of any liabilities to the contractor in connection with the agreement.
- D. American Bottoms will withhold 10% from each approved progress payment. American Bottoms will hold the 10% at their discretion until the Contractor has completed the project to American Bottoms satisfaction, submitted all lien waivers and warranty paperwork. At such time, the 10% retainage amount will be released.

12. Changes to the Work

Any changes to the scope of work or site conditions discovered during performance of this contract shall be brought to the immediate attention of American Bottoms. The contractor shall provide a description of the change in the work or condition. If after review, a substantive change is present, the contractor shall provide an estimate of the costs to complete the work required by the change. No changes in work shall proceed until approval is granted by American Bottoms.

The contractor is advised and cautioned that any changes to the described work proposed by the contractor for which additional compensation will be requested shall not be performed without the approval of American Bottoms. Should such unapproved work be completed, the contractor shall bear all costs for the work, and should the work be deemed unacceptable by American Bottoms, the contractor shall remove the unauthorized work, including restoration, at his/her own expense.

END OF SECTION

AMERICAN BOTTOMS
REGIONAL WASTEWATER TREATMENT FACILITY

BID AB 32-18

Inductively Coupled Plasma Emission Spectrometer (ICP)

SPECIFICATIONS

The ICP must be capable of quantitating metals in wastewater, sludge, and other environmental matrices. The instrument must possess full automation and technical capabilities to analyze samples using EPA Method 200.7 and SW 846 Method 6010B. The instrument must functionally demonstrate the ability to analyze the desired analytes in the stated matrices. The instrument must be delivered, installed and proper operation verified within 30 days of award of bid. Onsite training shall be performed within two weeks of instrument delivery unless postponement is agreed upon by American Bottoms Regional Wastewater Treatment Facility. The instrumentation must have a warranty of one year covering non-consumable parts, service, and repairs.

1. Sample Introduction
 - a. The sample introduction system must include a low flow/high sensitivity nebulizer and spray chamber capable of analyzing samples containing dissolved solids up to 20,000 mg/l.
 - b. The spray chamber must be cyclonic and made of corrosion resistant inert material. The spray chamber should also be easily accessible for maintenance and care.
 - c. The instrument must demonstrate the ability to meet aqueous matrix method detection limits in Table 1.
 - d. All flows must be regulated by the system computer; this includes nitrogen purge gas, argon, and air.
 - e. The system must possess a peristaltic pump that can accommodate the following: introduction of sample, addition of internal standard and triton X, automatically dilute samples, and carry waste to an appropriate location.
2. RF Generator and Ignition Control
 - a. The plasma ignition system must be computer controlled and totally automated. The system software must be able to extinguish the plasma and shut off the gas flow at a user-determined time automatically after an analysis.

- b. A remote access application is preferred.
 - c. In an interest to conserve argon, the instrument must have technology that limits argon usage without effecting detection limits listed in table 1. Argon usage below 10 L/min is required.
3. Optical Systems
- a. The instrument optical systems must be sealed to the laboratory environment such that it is not susceptible to dust, moisture, or acid fumes.
 - b. The system must have a vertically oriented plasma torch with dual view optics.
4. Detector
- a. The instrument detector must be a solid state device capable of running simultaneous radial and axial wavelengths.
 - b. The detector must be hermetically sealed from the environment.
 - c. The detector must be automatically temperature regulated and thermally isolated from ambient conditions.
5. Software
- a. Instrument operating software must be Windows based and be compatible with Promium LIMS system.
 - b. All functions of the instrument including torch operation, gas flow, wavelength stabilization and calibration, and data collection must be controlled by the instrument software.
 - c. The software must have built-in diagnostic checks for instrument systems in order to verify proper operating conditions.
 - d. The system software must permit simultaneous background correction and multicomponent spectral fitting for interference correction.
 - e. The system software must perform real-time wavelength monitoring to ensure wavelength stability.
 - f. The system software must permit the instrument to be started and stopped by user defined settings. When stopped by these settings, the instrument must be capable of stopping the gas flow.

- g. The software must allow for reprocessing of data.
6. Autosampler/Diluter
- a. The instrument autosampler must have a capacity of at least 100 sample vials.
 - b. The autosampler must permit the use of sample vials of various volumes supplied by various vendors. Volumes necessary are 15 ml and 50 ml centrifuge tubes.
 - c. The system must permit sampling of any vial at any point in the analytical sequence. The system must allow the addition of a sample anytime during the analysis.
 - d. The manufacturer must offer the capability of automatically diluting samples which are over the range of the calibration curve, including the necessary software to perform this task. It is imperative that the autosampler and software be able to perform this task independent of analyst involvement.
7. Safety
- a. The instrument and all associated components must be approved for safe use by a nationally accepted testing laboratory.
8. Dimensions
- a. The instrument, excluding autosampler and computer, must have a dimensional footprint not exceeding 30 inches by 70 inches (W X L).
9. Training
- a. The instrument manufacturer must offer at least annually off site training on the use of the bid instrument that covers basic principles of ICP, operation and optimization, interference and background correction, software, and maintenance of the bid instrument.
 - b. Also, bid instrument manufacturer must provide set up and on-site orientation within 14 days of bid instrument delivery.
10. System PC and Data Station
- a. The system data station must be a current model PC capable of fully supporting all aspects of data acquisition, quantitation and reporting.
 - b. The operating system must be Windows 10 Professional.

- c. The minimum hardware configuration for the data station computer must be an i7-6700 processor, 8GB RAM, 1TB hard drive, DVD drive and a 23 inch flat screen monitor.
 - d. The computer must come installed with Microsoft Office Professional.
 - e. The system data station must include as an option, a laser printer.
 - f. The data system and PC must include all cables and interfaces necessary for operation with the ICP and system accessories.
11. Service
- a. The equipment must be covered by a one year warranty which includes all non-consumable parts, service, and repair for the first year.
 - b. Beginning the second year of service, the manufacturer of the instrument must include the service contract options with associated costs in the bid document.
 - c. The bidder must include a list of at least three references pertaining to the service record of the manufacturer in the bid document.
12. Trade In
- a. The bid form must include the trade-in value of the instrument that the laboratory has currently.

Perkin Elmer ICP-OES Optima 2100 DV with an AS93 plus autosampler.

Table 1

<u>Element</u>	<u>Maximum Detection Limit in Wastewater Using High Sensitivity Nebulizer</u>
Antimony	0.07 mg/L
Arsenic	0.05 mg/L
Barium	0.5 mg/L
Beryllium	0.005 mg/L
Cadmium	0.001 mg/L
Chromium	0.05 mg/L
Copper	0.005 mg/L
Iron	0.1 mg/L
Lead	0.05 mg/L
Manganese	0.01 mg/L
Nickel	0.005 mg/L
Phosphorus	0.1 mg/L
Selenium	0.01 mg/L
Silver	0.003 mg/L
Thallium	0.30 mg/L
Zinc	0.02 mg/L

Note: If detection limit is not achievable, please note in bid documents.

AMERICAN BOTTOMS REGIONAL WASTEWATER TREATMENT FACILITY

AB 32-18

Inductively Coupled Plasma Emission Spectrophotometer (ICP)

BID FORM

Village of Sauget
Attn: Village Clerk
2897 Falling Springs Road
Sauget, Illinois 62206

Dear Sir or Madam,

The undersigned, as bidder, has read the forgoing bid and accepts the terms and conditions stated therein. The undersigned is submitting this Bid Form and all the information requested as part of their bid response to Bid AB 32-18.

Pricing for AB 32-18:

Complete ICP	\$ _____
Optional Laser Printer	\$ _____
Optional Service Contract, Beginning Year Two	\$ _____
Trade-In Value of Current Instrument	\$ _____

Date

Company Name of Bidder

Signature of Authorized Officer

Name and Title

Street Address

City, State and Zip Code

Telephone Number