

SPECIFICATIONS

Analysis of Sediment and Water Samples (from Passive Sampler Collection)

- I.** The Pennsylvania Department of Environmental Protection (DEP), Bureau of Clean Water, requires a federally and/or state accredited Laboratory/Contractor to conduct analyses of sediment and water samples (from passive samplers), collected by DEP, using EPA Method 1694, EPA Method 1698, and EPA Method 1614. Sample collection is tentatively scheduled for the months of May and September of 2016.

Questions: For technical questions regarding the Specifications contact Amy Williams at 717-772-4045 or amywilli@pa.gov or Gary Walters at 717-783-7964 or gawalters@pa.gov. Any questions regarding bidding or contracting procedures should be directed to David Stillions, DEP, Division of Contracts, Procurement and Bonding at 717-772-1216 or dstillions@pa.gov

II. CONTRACTOR TESTING/ANALYSIS:

The Accredited Laboratory/Contractor shall conduct analyses for sediment and water parameters collected by DEP staff using EPA Method 1694, EPA Method 1698, and EPA Method 1614. Field blanks for the passive samplers will be included in the analyses. The Accredited Laboratory/Contractor shall be certified to conduct EPA Method 1694, EPA Method 1698, and EPA Method 1614. The Accredited Laboratory/Contractor may choose EPA Method 1694 or EPA Method 1698 to conduct analyses for the water hormone samples and sediment hormone samples. If federal and/or state accreditation for hormones by EPA Method 1694 is not held by the Contractor, DEP must review and approve Contractor's demonstration of capability and method detection limits for hormones by EPA Method 1694 prior to use.

Samples are collected by DEP staff using:

- A.** Passive Samplers - Semi-Permeable Membrane Devices (SPMD) and Polar Organic Chemical Integrative Samplers (POCIS),
1. Volume size, in amber ampules, shall be 1 mL, 2 mL or 5 mL,
 2. SPMD samples are preserved in hexane,
 3. POCIS samples are preserved in methanol or methylene chloride/methyl tert-butyl ether (MTBE).
 4. Additional information can be found at <http://www.est-lab.com/index.php>.
- B.** Sediment Samples will be collected in 500 mL amber glass jars.

Contractor shall conduct the following analyses:

- A.** Sediment Parameters – Hormones using EPA Method 1698 (ng/kg) or EPA Method 1694 (ng/kg or µg/kg – the smallest quantity possible by the method) and to include hormones: 17a-Ethinyl Estradiol, 17a-Estradiol, 17b-Estradiol, Estrone, Estrinol, and Equilenin.

- B. Water Parameters (Passive Samplers) – PBDE's using EPA Method 1614 (pg/SPMD) and to include PBDEs: PBDE-28, PBDE-47, PBDE-99, PBDE-100, and PBDE-153.
- C. Water Parameters (Passive Samplers) – Hormones using EPA Method 1698 (ng/POCIS) or EPA Method 1694 (ng/POCIS) and to include hormones: 17a-Ethinyl Estradiol, 17a-Estradiol, 17b-Estradiol, Estrone, Estriol, and Equilenin.
- D. Water Parameters (Passive Samplers) – Pharmaceuticals using EPA Method 1694 (ng/POCIS) and all npharmaceutical/personal care products analyses under EPA Method 1694.
- E. **Field Blanks for Passive Samplers shall be included in Water Parameters, ONLY.**

Performance reference compound PRC(s) analyses using PCBs or deuterated PAHs (for the SPMD PBDE analyses).

Contractor will be able to use EST's available PRC's:

- Anthracene-d10
- Acenaphthene-d10
- Chrysene-d12
- Fluoranthene-d10
- Fluorene-d10
- Pyrene-d10
- Phenanthrene-d10
- Dibenz[a,h]Anthracene-d14
- PCBs 14, 29 and 50

All analyses shall include all costs associated with conducting the methodology. No additional costs shall be made for analyses not approved by DEP.

Accredited Laboratory/Contractor shall provide the Sample Results to DEP via email in an excel spreadsheet table format. An example is shown in Attachment B – Sample Results.

III. CONTRACTOR QUALIFICATIONS:

After bid opening and prior to award, Accredited Laboratory/Contractor shall identify key project personnel and provide documentation of their training and experience. Accredited Laboratory/Contractor shall notify the DEP of any new personnel assigned to the project and provide their credentials to the DEP for DEP approval, prior to commencing work on the project. Accredited Laboratory/Contractor shall provide proof of certification to conduct EPA Method 1694, EPA Method 1698, and EPA Method 1614 and the have experience analyzing samples collected by passive samplers (POCIS and SPMD). Accredited Laboratory/Contractor shall provide two to three references for the EPA Methods requested from previous or current clients.

IV. REPORTS AND DELIVERABLES:

The Contractor shall provide the following documentation:

- A. Sample results, in a spreadsheet format, as concentration of chemical in the passive sampler extract (as opposed to water concentration) and sediment concentration (see Attachment B – Sample Results).
- B. Quality assurance results, in a spreadsheet format, including percent recoveries.

V. CONTRACT TERM:

The Contract shall commence May 1, 2016, or upon execution, and terminate on December 31, 2016. Further, the parties hereto may agree to renew this Contract up to four (4) additional consecutive annual terms with a final termination date of December 31, 2020, upon the same terms and conditions set forth in the original Contract. In the event of Contract renewal, Contractor shall provide a written notice to the DEP, at least sixty (60) days prior to Contract expiration date, of their intent to renew. Contractor may increase their unit price bid by an amount not to exceed three percent (3%) of the unit price currently in affect.

VI. PAYMENT TERMS:

Upon review and approval of final results (example provided in Attachment B – Sample Results) by the DEP, payment shall be made upon receipt of itemized invoice submitted. Reports and deliverables may not be submitted after invoice has been submitted.

VII. BID AWARD:

Contract shall be awarded to the lowest responsible/responsive bidder **meeting all requirements described herein.**

Estimated Quantities: Quantities herein are estimated only and may increase or decrease, depending upon the needs of the DEP.

If new analysis methodologies become available during the Contract term, the DEP and the Contractor shall negotiate, and mutually-agree upon, the unit price per sample for the new sample methodology analysis.