SRRTTF-ACE Request for Qualifications and Quote (RFQQ)

Laboratory Services

This Request for Quote and Qualifications will support an agreement with the SRRTTF-ACE for the Contract laboratory to provide analytical services. This RFQQ will establish the preferred laboratory and pricing for services to be provided to the SRRTTF-ACE.

		Date Issued:	---
Responses due by 5:00 PM Spokane WA time:		*(date)* ***Late submissions will not be considered.***	
Please respond via email to:			

Expected Work Commitment

Title: [insert title]

Scope of Qualifications:

A. Provide analytical services to the SRRTTF-ACE. Details and specifications are provided in the attached Scope of Work (SOW). The apparent successful vendor must:

1. Be currently accredited by the Department of Ecology's Laboratory Accreditation Unit for all analyses described in the attached SOW.
2. Have a minimum of 5 years experience in the method.
3. Participate in an International Round Robin Intercalibration Study (and provide the most recent results) for the relevant analyses described in the attached SOW.
4. Submit proof that they can provide the analysis as requested, including but not limited to a Method Detection Limit (MDL) supporting the requested reporting limits. Provide documentation of a standard analyzed at the reporting limit requested for this SOW.
5. Submit blank data proving that they can meet the required blank contamination limits described in the SOW.
6. Provide documentation of the quantitation limits (based on the lowest calibration standard) that the instrument can achieve.
7. Provide quality control limits for laboratory control samples, duplicates, matrix spikes, etc., for all analyses in this SOW.
8. Provide contact name, company name, address, and phone number for 3 client references who have had the requested analyses performed on the matrices specified in the SOW, and who have reviewed the raw data for these analyses.
9. Provide the analytical reports~~analysis~~ as requested in the attached SOW.

B. SRRTTF-ACE will pay vendor when all of the following have been satisfied:

1. Sample analyses performed and documentation provided according to this SOW.
2. Deliverables sent to SRRTTF-ACE within **60 calendar days** of vendor receiving samples. For the March 2014 sample event described in the SOW, deliverables sent to SRRTTF-ACE within **30 calendar days** of vendor receiving samples.
3. Sufficient documentation for assessing the bias, usability and quality of the data.
4. Receipt of properly completed invoices.

Deliverables:

C. Deliverables will include:

1. CDs (**fully bookmarked** and **searchable** PDF) of all raw data and reports;
2. Results in SRRTTF-ACE specified EDD format described in the SOW;

Comment [EA1]: Should companion accreditation from EPA or IDEQ be required as well?

Comment [EA2]: What does this participation get us? Those who participate in the International Round Robin Intercalibration study use real samples from around the world to show they perform well. We look for data within 2 standard deviations. This is how we can be confident the lab's data is good and prevents us from having to send our samples to multiple labs and compare the results.

Other Factors for this Work Request:

D. Laboratories who want to perform this work must:

1. Provide a 3-page maximum length description of their qualifications specific to the SOW and their intended approach to performing the analysis, electronically. This should also include information on capabilities for performing this method in various matrices: water, sediment/soil, animal tissue, and other materials. **Include details of preparation method to be used on these samples.**

2. Submit an example work product in the form of one fully bookmarked and searchable PDF file. This product must include all raw data that would be needed to perform an independent review of the results: calibration reports, chromatograms, spectra, bench sheets, etc.

3. Include in the quote, electronically:
   - RFQQ customer reference number or title.
   - The names of two Laboratory representatives who will be responsible for the execution of these services and communications with the SRRTTF-ACE project manager.
   - The name and address of the bidder's firm.
   - Minority or Women's Business Enterprise status including Certification Number, if applicable.
   - The 20 most recent method blanks for the matrix/matrices of interest in this RFQQ.
   - The 20 most recent Ongoing Precision and Recovery Standards - OPRs (LCS) for the matrix/matrices of interest in this RFQQ.

SRRTTF-ACE does not assume responsibility for any problems with e-mail or the method of delivery chosen.

Bid Selection Process:

E. SRRTTF-ACE will review each bid to determine if the bid:

1. Was received by the date and time requested.
2. Is complete.
3. Shows a good understanding of project goals and needs.
4. Relevant experience with similar environmental samples.
5. Meets all technical specifications.
6. Meets the specified schedule for sample analysis and reporting.
7. Provides complete and clear cost information.

SRRTTF-ACE may request written clarifications pertaining to technical or cost elements of the bid.

The selection process will be based on cost, relevant experience, and ability to provide the specified deliverables according to schedule.

Any costs or liabilities associated with the preparation of your response to this RFQQ are not the responsibility of SRRTTF-ACE, or any of its representatives.

In the event it becomes necessary to revise any part of this RFQQ, addenda will be provided.

It is important that all potential costs are included in your bid.

Errors in Response:

F. Vendors are liable for all errors or omissions contained in their Responses. Vendors will not be allowed to alter Response documents after the deadline for Response submission. SRRTTF-ACE is not liable for any errors in Responses. SRRTTF-ACE reserves the right to contact Vendor for clarification of Response contents.

In those cases where it is unclear to what extent a requirement or price has been addressed, the evaluation team may contact a Vendor to clarify specific points in the submitted Response. However, under no circumstances will the responding Vendor be allowed to make changes to the proposed items after the deadline stated for receipt of Responses.

Vendor Questions:

G. Questions must be transmitted by electronic mail. Only written questions will receive official written responses.

Proprietary or Confidential Information:

H. Any information contained in the Response that is proprietary or confidential must be clearly designated. Marking of the entire Response or entire sections of the Response as proprietary or confidential will not be accepted nor honored. SRRTTF-ACE will not accept Responses where pricing is marked proprietary or confidential, and the Response will be rejected.

Agency (Project Manager): *(Entity name (Individual contact name)*

Phone: *(Phone #)* **Email:** *(email address of ind contact name)* **Fax:** *(Fax#)*

Submit completed bid packages to *(Ind contact name)* **or** *(Fax#)***.**

SCOPE OF WORK (SOW)

This SOW does not include the collection of any samples.

SRRTTF-ACE will send approximately 161 water samples for High Resolution Mass Spectrometer analyses: PCB congeners by EPA Method 1668C with the attached QC requirements. Samples will consist of 2 Liters. A lab duplicate, matrix spike, and matrix spike duplicate will be requested for each sample event and for each matrix. The samples will be sent approximately:

- March, 2014 (~16 samples)
- May, 2014 (~15 samples)
- August, 2014 (~115 samples)
- December-February, 2015 (~15 samples)

Laboratories must provide a copy of the extraction methods as performed.

Laboratories must analyze and provide data for an independent source standard (different vendor than the calibration standards).

Bidding Laboratories must provide a list of the Quality Control (QC) limits they adhere to for each method in this SOW. They must also provide data showing they can meet the QC limits in Table __.

The estimated cost of ground shipping these items (including providing coolers and blue ice) should be included in the price quote responding to this RFQQ.

The laboratory must document which preparation and extraction procedures are performed – and how - for the samples from this project. The laboratory must also document in a logbook, and in a case narrative, any deviations from their Standard Operating Procedures (SOP) performed for this project.

The final data package is to include raw data (aka EPA "Tier IV" or "Level 4" deliverables) and results in an electronic data deliverable (EDD) format that meets the requirements in Table 2. The EDD format is needed for loading results to Ecology's Information Management (EIM) database. Other items may be included as needed to help understand the data package.

This Agreement does not make either the Contractor or any of its employees or agents an employee or agent of SRRTTF-ACE.

Data turnaround time:

30 days from sample receipt for March 2014 samples.
60 days from sample receipt for all other sample events.

Items for analytical services:

1. Section **9.5.1** in all versions of EPA Method 1668 state: "Analyze the blank immediately after analysis of the ongoing precision and recovery standards (OPR) (Section 15.5) to demonstrate freedom from contamination." However, as mentioned in EPA Method 1668, Revision C, if congeners will be carried from the OPR into the Method blank, analyze one or more aliquots of solvent between the OPR and the Method blank.
2. Perform all result calculations using the initial calibration as per the method. In other words, do

Comment [AF3]: This will be a table pulled from the approved QAPP appendix. It will include the 16668A QA/QC limits that are tighter (since only some of them are) and an additional calibration point which is included below.

Comment [EA4]: Why would we want a duplicate for each analysis only doing PCB) or are we talking about running one river duplicate and one point source duplicate? Also I thought it was 1668A to be used because of the tighter QA/QC limits but with an additional calibration point?
A lab duplicate is separate from a field duplicate and is necessary to determine lab performance. We can also request a matrix spike which will help us determine matrix interference.

not use a single point calibration standard. Also, do not average in additional standards analyzed on a different day, or analyzed after the samples have been analyzed.

3. PCB congeners: Use the combined 209 congener standard solution for calibration verification.

   Including the labeled and native toxics/Level of Chlorination (LOC)/window-defining congeners in the calibration verification allows a check against the Initial Calibration (ICAL) for those congeners.

   Alternatively, a separate solution may be analyzed for each, but both solutions must be analyzed on the method schedule for calibration verification. SRRTTF-ACE must be able to evaluate the daily 209 standard against the initial analysis of this standard.

4. All congeners and labeled compounds in the Calibration Standards (CS)-1 standard must be within the method QC limits for their respective ion abundance ratios; otherwise, the mass spectrometer must be adjusted and this test repeated until the m/z ratios fall within the limits specified. (If the adjustment alters the resolution of the mass spectrometer, resolution must be verified prior to repeat of the test.)

5. Because of the low reporting limits requested, it is recommended the lab add in an extra standard to the initial calibration curve. This will account for increased sensitivity potentially causing analyte saturation at the high end of the curve, and allow a minimum of 5 points to be used in calculating analyte concentration.

Reporting of Results:

1. Report all results in µg/Kg, dry weight, for sediment, and in pg/L for water.
2. Include a copy of the "Request for Laboratory Services" with signed and dated Chain of Custody section; this form will be provided by the Contractor.
3. Include Case Narratives and corrective action reports.
4. Provide description of: analytical method used; any modifications to the method, Quality Assurance/Quality Control (QA/QC) performed and results; definitions of all data flags and qualifiers used; and any other information that helps client understand the data package.
5. Provide fully validatable deliverables package: Deliverables shall include copies of all raw data necessary to perform an independent evaluation of the results, including, but not limited to initial calibration and verification standards, sample and QC chromatograms and spectra, analytical sequence (run) logs, benchsheets, standard logs and Certificates of Analysis for standards, etc.
   A. Include a fully paginated and bookmarked Adobe Acrobat (PDF) file on compact disk (CD).
   B. Bookmark *each individual sample and each standard chromatogram* for ease of review.
   C. Rotate landscape pages as needed so that all information is viewable left to right in the electronic file.
   D. Clearly identify all field and QC samples with the sample number or QC name in the raw data and report.
   E. All initial calibration (ICAL) standards and Calibration Verification Standard (VER), and the single point 209 PCB standard, shall be clearly identified in the raw data and separately bookmarked in the electronic file. (For example: CS0, CS1, etc., for the ICAL.)

F. An Independent Calibration Verification (ICV) standard must be analyzed from a separate source in order to verify the initial calibration standards. The ICV must be analyzed each time a new standard curve is prepared. Provide the results of the most recent ICV with the data. This is equivalent to the Quality Control Check Sample in the method.

G. Provide before and after printouts of any and all manual integrations.

H. Provide analytical sequence logs that include the date, time, and filename for the initial and continuing calibrations, all field and QC samples, check standards, etc., associated with the project.

6. Reporting Limits (RL), Estimated Quantitation Limit (EQL - equivalent to "ML" in 1668), Method Detection Limit (MDL), Estimated Detection Limit (EDL).

A. Maximum RLs are defined in the table below.

Table 1. Analytical Methods and Reporting Limits

Analysis	Analyte	Water	Sediment
EPA 1668C	PCB congeners	10 - 13 pg/L (depending on congener)	NA

B. If any of these limits cannot be met for individual samples due to interference or other issues, contact the client to discuss action to take.

C. Provide the Estimated Quantitation Limit for each result (EQL: based on the lowest validated standard in calibration curve). Report the EQL in the electronic results file.

D. Provide the most recent Method Detection Limit (MDL) study results for each analyte and include the date s performed.

E. Report down to the Estimated Detection Limits (EDL) - aka Instrument Detection Limits (IDL) or Sample Detection Limits (SDL) - based on 2.5 times the signal-to-noise ratio. Provide this value for each analyte in the electronic results file.

F. Dilutions

a. Any results above the range of the calibration curve must be diluted to be within the range of the calibration curve.

b. All results reported from dilution analyses must be within the range of the calibration curve.

G. For non-detect values, record the EDL in the "Result Reported Value" column and a "UJ" the "Result Data Qualifier" column.

H. Qualify detected values that are below the EQL as estimates ("J").

I. Do not report below the EDL. Where the EDL is above the EQL due to interference, raise any values below the EDL to the value of the EDL and qualify "UJ".

J. Report total homologs when not detected as "U" without a value.

K. Calculate and report the Estimated Maximum Possible Concentration (EMPC) value for results that do not meet ion abundance ratio criteria. Qualify these results with "NJ". Provide an example calculation if the result value is adjusted.

7. The qualifiers used above are defined as:
   A. "J" – The analyte was positively identified. The associated numerical result is an estimate.
   B. "U" – The analyte was not detected above the reporting limit. (This qualifier will likely be used only for total homologs, if reporting all analytes down to the level of the EDL.)
   C. "UJ" – The analyte was not detected at or above the estimated reporting limit.
   D. "NJ" – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration. (See 6. J., above.)

8. Perform all QC samples as specified in the method.
   A. Report results of Laboratory Control Samples (On-going Precision and Recovery standards), labeled compounds, internal standard/surrogates as % recoveries in the EDD.

9. Method Blanks.
   A. Clearly identify samples associated with each laboratory method blank.
   B. The value of congeners found in the associated method blank must not exceed $1/10^{th}$ of the congener-specific required detection limit in Table 1. If these limits are exceeded, contact the client to discuss actions to take. Most likely, the blank should be re-extracted along with any associated samples.
   C. If sample results are less than 10 times the concentration in the associated method blank, flag sample results with "B" – even if the sample result has already been qualified "NJ"; but not when the blank result is qualified "NJ". Discuss in the Case Narrative whether these qualified results are included in the summing of total homolog results and Total PCBs; where applicable.
   D. Total **PCBs** in the method blank must not exceed $1/10^{th}$ the sum of the EDLs of all congeners. If this limit is exceeded, contact SRRTTF-ACE to discuss actions to take. Most likely, any blanks with individual results greater than half the EQL should be re-extracted along with any associated samples.
   E. Concentrations of congeners in a minimum of 10 blanks must be significantly below the ML {EQL}. "Significant" means that the ML for the congener is no less than 2 standard deviations above the mean (average) level in the minimum of 10 blanks. The blanks must be analyzed during the same period that samples are analyzed, ideally over an approximately 1-month period.

10. Treatment of result qualifiers for and summing of homologs.
    A. Describe in the case narrative how totals were derived for **PCB homolog groups and total PCBs** (e.g. what rules are used for rounding values, dealing with non-detects, blank detects, qualifier definitions, etc.).
    B. Report Total results for each homolog group in EDD. However, do not report an EQL (leave EQL column blank for summed values).
    C. Do not include Estimated Maximum Possible Concentration (EMPC) results in the calculations of the total homologs.

11. Sample identification.

A. Provide the client sample ID (field ID) associated with all sample results.

B. Provide the lab's internal sample ID associated with all results OR a table that cross-references field ID with the lab's internal sample ID.

D. Clearly identify QA/QC samples and results: blanks, matrix spikes, Standard Reference Materials (SRM), lab duplicates. If samples are reanalyzed, these results need be clearly identified as such.

E. Label all analyte peaks on chromatograms with either the congener name or the retention time and scale chromatograms such that peaks are visible above the baseline.

12. Analyte identification.

A. Provide the Chemistry Abstract Service Registry Number (CAS RN) for individual congeners/each analyte.

B. PCB congener numbering.

a. Name PCB congeners using the naming convention given by Guitart, et al. (Guitart R., Puig P., Gomez-Catalan J., Chemosphere 27 1451-1459, 1993).

See http://www.epa.gov/osw/hazard/tsd/pcbs/pubs/congeners.htm

b. Modify to a 7-character format that uses leading zeroes for congener numbers below 100 (e.g. PCB-008). (Conversely, the value "PCB-001" appears to have 7 characters yet actually has 11 since there are 4 spaces after the 001. This complicates export into databases and statistical packages.)

C. Co-eluting congeners for PCBs should be numbered in ascending order (e.g.: PCB-040/041/071), and records for co-eluting congeners must have no CAS number.

13. Electronic results must be in Excel-compatible format as in Table 2:

Required Fields for Electronic Data Deliverables		
Preferred Order	**Field Name**	**Example**
1	MEL (Client) Sample ID	1311021-03
2	Field ID (sample name on tag)	COLRIV034
3	Result Congener Name	2,3'-DiCB
4	Result Parameter Name	PCB-006
5	Result Parameter CAS Number	25569-80-6
6	Sample Extraction Date	11/14/2013**(format as numerical date)**
7	Sample Analysis Date	11/15/2013 **(format as numerical date)**
8	Lab Duplicate Flag	"Y" if lab duplicate, leave blank or "N" if not
9	Re-analysis Flag	"Y" if a re-analysis, leave blank or "N" if not
10	Result Reported Value	7.9 (format as number)
11	Result Data Qualifier	J
12	Result Value Units of Measure	pg/L
13	Result Value EQL *	10 (format as number)
14	Result Value EDL**	3.42 (format as number)
15	Result Method Code	EPA 1668C
16	Result Lab Name	Laboratory Name
17	Contract Lab Sample ID	PR137954
18	Others as needed by contract lab or MEL.	If used, clearly identify field and content
	* = Estimated Quantitation Limit (Based on the lowest validated standard in the calibration curve and adjusted for weight, volume, % solids, etc., as applicable).	
	** = Estimated Sample Detection Limit; calculated from signal for each sample)	