

**SUMMARY OF THE
ENVIRONMENTAL LABORATORY ADVISORY BOARD MEETING**

Teleconference: 866-299-3188/9195415544#

September 19, 2012; 1:00 – 3:00 p.m. EDT

The U.S. Environmental Protection Agency's (EPA) Environmental Laboratory Advisory Board (ELAB or Board) teleconference was held on September 19, 2012, from 1:00 to 3:00 p.m. EDT. The agenda for this meeting is provided as Attachment A, a list of the participants is provided as Attachment B, and action items from the teleconference are included as Attachment C. The official certification of the minutes by the Chair or Vice-Chair is included as Attachment D.

AGENDA ITEMS:

1. OPENING REMARKS

Ms. Aurora Shields, Chair of ELAB, and Ms. Lara Phelps, Designated Federal Officer (DFO) of ELAB, welcomed participants to the teleconference and called an official roll of the Board members and guests. Ms. Phelps explained that new members joining the Board in October 2012 also were in attendance.

2. APPROVAL OF AUGUST MINUTES

Ms. Shields asked whether the Board members had comments regarding the August 2012 minutes; Mr. Dave Speis said that he was impressed with the detail and accuracy of the minutes. Mr. Speis moved to accept the minutes, and Dr. Reza Karimi seconded the motion. The Board approved the August minutes with no discussion and no changes.

3. FOLLOWUP TO THE OFFICE OF WATER (OW)/DR. MICHAEL SHAPIRO MEETING IN WASHINGTON D.C.

Ms. Shields explained that a small group of ELAB members (Ms. Shields, Mr. John Phillips, Dr. Richard Burrows, Mr. Jack Farrell, Dr. Michael Wichman and Dr. Jim Pletl) had met with OW staff members (Dr. Shapiro, Mr. Robert Wood and Ms. Jan Matuszko) following the August 2012 face-to-face meeting in Washington, D.C. Mr. Jerry Parr, Ms. Aaren Alger and Ms. Sharon Mertens were present to represent The NELAC Institute (TNI). Ms. Shields was satisfied with the productive discussion at the meeting, which resulted in several action items. The OW staff members were not completely familiar with the Board's work, and as a result of the meeting they now have a better understanding of ELAB's role in advising EPA. She also was pleased that OW staff members are interested in continuing to communicate with ELAB regarding future projects.

Mr. Phillips explained that the notes from the meeting had been compiled from the ELAB members present as no official notetaker had been present. The meeting's discussion focused on issues with detection and quantitation. The main outcome was that OW would like to move forward with finding an alternative to the current method detection limit (MDL); the office's preference is to modify 40 CFR 136 Appendix B and ensure that there is acceptance of the procedure by a broad group of stakeholders, including environmental groups. Two of the action

items identified at the meeting related to these points. The TNI Chemistry Expert Committee, of which Dr. Burrows is chair, currently is examining the issue and will continue revising the MDL and related procedures. ELAB possibly could work in parallel with this committee to ensure that proposed procedures are reviewed by a broad stakeholder group. ELAB could form a Task Group to represent these stakeholder groups to provide review or advice regarding any proposed procedures that will be considered by OW. There is an interest to involve laboratories from states, industries, public municipalities and environmental groups; a number of these types of groups already are represented on ELAB.

Dr. Dallas Wait (Gradient) asked about the specific concerns and/or shortcomings with the current MDL approach. Mr. Phillips responded that there were several shortcomings. As it would be difficult to discuss them all in the time allotted, he offered to send Dr. Wait several documents detailing the issue, including a report by the Federal Advisory Committee on Detection and Quantitation (FACDQ) that evaluated a number of detection and quantitation procedures, including the MDL. Dr. Burrows' presentation from the 2012 Environmental Measurement Symposium on these shortcomings also is valuable. Dr. Wait said that he was familiar with the FACDQ report and noted a 2003 document on the issue that included recommendations; this report was produced in response to a lawsuit against EPA brought on by the Alliance of Automobile Manufacturers. He asked whether EPA had implemented the recommendations. Mr. Phillips explained that the FACDQ had proposed a procedure, and some pilot studies were completed. EPA's response was that there were not enough data to make a decision regarding the procedure, and OW does not have the resources to pursue the collection of additional data. There are a number of recommendations by the FACDQ that will be implemented after the MDL is modified. It will be important to validate any proposed procedure, and resources will be needed to complete this process.

During the meeting with Dr. Shapiro, the members also discussed data quality objectives (DQOs), and it became apparent that OW does not understand ELAB's position about applying the DQO process. OW is interested in continuing dialogue with ELAB about implementing the process within the office, and the Measurement and Technology Workgroup will be the point of contact for this communication. Another key point from the discussion was that OW would like to establish a closer relationship with ELAB; this will happen primarily through Ms. Matuszko and the ELAB Chair. Ms. Shields said that she will rely on Ms. Phelps' advice regarding how to proceed with this partnership. She also would like other Board members involved in the conversation. Ms. Lynn Bradley (TNI) said that EPA Quality Staff is a resource within the Agency that can work with OW regarding the DQO process via existing training courses and information. Mr. Phillips said that he had spoken to the Quality Staff about these resources. He would like EPA Quality Staff to be involved with the Task Group, if one is established. A participant said that EPA QA/G-4 documents address how to develop DQO, including supplemental information. Theoretically, it is a mandatory program within EPA. Mr. Phillips thought that ELAB could help OW apply the DQO process. Ms. Shields said implementation would be a challenging endeavor. Ms. Bradley agreed, noting that the OW quality system is dissimilar to all other Agency programs and offices in that OW employs only one overarching document for its entire program.

Ms. Shields asked about the first step in moving forward with this action item. Mr. Phillips responded that ELAB must decide whether it will play a role in facilitating stakeholder input for any proposed new or revised detection and quantitation procedure. If so, then it must determine

how to best include the right stakeholders. In response to a question from Ms. Shields, Ms. Phelps explained that there are a number of methods to ensure that stakeholders are involved, such as including stakeholders in ELAB teleconferences with OW. Ms. Phelps agreed that there are many positive ways for ELAB to interact with OW, and Ms. Bradley can help to provide resources. ELAB may solicit participation from anyone of the Board's choosing in moving forward with its activities. Mr. Phillips asked whether ELAB was authorized to place a *Federal Register* notice to obtain input. The preferred approach, however, may be for the Board to identify the experts whom it would like to invite. Ms. Phelps said that ELAB could publish a *Federal Register* notice, in which case the resulting group would need to conform to the Federal Advisory Committee Act (FACA) guidelines for this Board. Such a subcommittee would be run within the rules of FACA, and it would not be *ad hoc* or informal in any manner.

Dr. Wichman thought that one takeaway message from the meeting with OW was that ELAB needed to help OW establish priorities regarding activities in which it should engage. He thought that using a FACA or other committee was one of the vehicles discussed. Mr. Phillips agreed that this had been identified as an action item. Mr. Speis asked for clarification about activities an ELAB group would undertake as TNI is performing similar activities. It may be possible to economize by using existing resources and activities. Ms. Shields said that TNI is performing a great deal of good work in this area, but the organization does not represent the entire stakeholder spectrum, and it will be advantageous to include as many groups as possible from the beginning of the effort so that they are informed and can provide input. Mr. Speis emphasized the need to ensure that efforts are not duplicated and that ELAB involvement allows for input from broad stakeholder groups; the technical groundwork must not be duplicated. Ms. Shields agreed, noting that ELAB's group does not need to be involved in the minute details of the process, but if ELAB is involved, EPA will weigh the ultimate recommendation more heavily. Dr. Burrows thought that the ELAB group should provide a review of TNI's efforts. The Board may want to wait to establish the group until after the TNI committee releases products that the group can review. He preferred not to use a general *Federal Register* notice to request participation because this could result in the need for a significant educational effort that would delay assessment of the issue. There is a large group of individuals who already understand the issue and could be invited. Mr. Phillips thought that potential participants should be identified immediately; he also was skeptical of a publishing a general *Federal Register* notice so that ELAB could ensure that the appropriate individuals (i.e., those who have a grounding in subject matter and are appropriately representative of each stakeholder group) are included.

Ms. Shields asked how much control ELAB would have in deciding who is appointed to the Task Group if the Board publishes a *Federal Register* notice. Ms. Phelps said that it would depend on how the notice is announced. If ELAB states that it is seeking representation from certain groups and specifies the number of participants, then the Board would have full control. The Board must be transparent and specify the ultimate makeup of the group from the beginning. Mr. Phillips asked whether the scope could be defined initially. Ms. Phelps said that the scope and expectations are required to be defined and outlined initially, although they may be modified later in the process. The Board also may assemble its own group of experts as long as the process is completed in an objective manner. The Agency can send the invitation letters to potential members. Ms. Phelps explained that other FACA committees follow this procedure when they lack needed expertise among their membership to address certain issues. Dr. Burrows thought that the Measurement and Technology Workgroup could create a list of factors to consider in assembling such a group.

In response to a question from Mr. Phillips, Ms. Shields said that the full ELAB ultimately would ensure that all appropriate stakeholders and interest groups are included. Mr. Phillips asked about the action item that tasked ELAB with identifying priority topics. Were these topics for OW specifically or for the Agency as a whole? Ms. Shields replied that the discussion focused on OW, but it would be beneficial to identify Agency-wide priorities as well. Given that ELAB currently is developing a related set of recommendations, it would be useful to include some of these within the priority list. Dr. Wichman added that it also would be advantageous for ELAB to provide its recommendations to EPA rather than limiting them to OW. Ms. Shields said that the MDL issue is a priority.

4. GENERAL WORKGROUP ACTIVITY

Ad Hoc Website Workgroup

Ms. Phelps said that she would like the Workgroup to meet with the EPA Web developers in case the developers have questions for the Board to address. Work on the new website can begin following the start of the new fiscal year in October.

Monitoring Workgroup

Ms. Root explained that the Monitoring Workgroup minutes that had been distributed to the Board members prior to this teleconference summarized a discussion to determine topics for the meeting with Dr. Robin Oshiro (EPA) and Ms. Denise Hawkins (EPA). These topics included an understanding of which entities would be implementing the qPCR method (Method A) for beach monitoring and the additional quality assurance and quality control that will be embedded in the method. At the meeting, Dr. Oshiro explained that Method A will receive a full method designation number similar to other EPA methods when the Agency publishes it in October 2012. During the meeting, the Workgroup discussed its questions about performance criteria, and Dr. Oshiro indicated that these would be included in the method. The significant outstanding questions are in regard to method training for laboratories and auditors. The Monitoring Workgroup determined that it would:

- Work with the full Board to develop recommendations regarding training and send the recommendations to Dr. Oshiro.
- Work with ELAB to develop recommendations regarding laboratory performance demonstration and send the recommendations to Ms. Hawkins.
- Discuss with the full Board development of a letter encouraging OW support for Method A (qPCR) training. If approved, the letter will be addressed to Ms. Stoner, and Dr. Oshiro and Ms. Hawkins will receive copies.

The Workgroup would like to explore any training opportunities that might be available and identify recommendations that the Board members may have in regard to qPCR training for auditors and laboratories. Ms. Shields had received the impression that, other than Dr. Oshiro, OW staff members are unsure about ELAB's prior work and its role in relation to the Agency. Ms. Root agreed and thought that the meeting had provided a good opportunity for ELAB to

educate OW about the Board's ability to provide EPA with input from the environmental laboratory community. Ms. Shields and Ms. Root thought it would be best for the Monitoring Workgroup to move forward with the action items and present any resulting products to the Board for its approval.

Measurement and Technology Workgroup

Mr. Phillips explained that minutes from the Measurement and Technology's August face-to-face meeting had been distributed to the ELAB members. During this meeting, the Workgroup members spent a good deal of time discussing the application of the DQO process. An action item that resulted from the discussion was to work with the Intergovernmental Data Quality Task Force to develop an iterative DQO process that incorporates laboratory feedback when establishing project DQOs. The Workgroup will begin addressing this action item in the near future. Another action item is to involve the FEM in the effort to help OW apply the DQO process; the FEM also could help develop an iterative DQO process that would take laboratory feedback into account as DQOs are being established. Ms. Phelps thought that it would be a good idea to approach the FEM, which will meet on October 24, 2012. The Workgroup and/or Board should determine any specific questions and/or requests that it has for the FEM so that ELAB can obtain appropriate feedback and participation. Mr. Phillips said that the Measurement and Technology Workgroup would develop these questions prior to the October Board meeting so that ELAB could approve them and send them to the FEM prior to its October meeting.

Laboratory Management Workgroup

The Laboratory Management Workgroup's main focus is the national accreditation summary, which the Board discussed as a separate agenda item.

5. NATIONAL ACCREDITATION SUMMARY

Mr. Speis said that based on the discussion that occurred at the face-to-face meeting, the Board must continue to work on the national accreditation summary document. Specifically, there are two actions that need to be considered. The first involves responding to the comments that ELAB has received from the general public regarding the summary document. Secondly, the Board must develop a more comprehensive explanation regarding its findings and relate the summary to its recommendations to EPA. He thought that it would be best to develop a standard, general response to the comments from the public that explains that the items included in the summary document are the perceptions of various individuals; ELAB is not in a position to defend these individual perceptions. Mr. Speis added that after October 15, 2012, the remaining ELAB members assigned to this issue will be himself, Ms. Shields and Ms. Michelle Wade. He was worried about the effort that would be needed for new members to be "brought up to speed" on this endeavor. Ms. Shields thought that it would be beneficial to include a fresh perspective, even though she agreed that it would be a challenge for the new members to be brought up to speed. Ms. Phelps thought that it would be positive to include new members, who may ask clarifying questions that will strengthen the product that the Board releases. The new members should be provided as much new information as possible prior to the October meeting so that they are ready to work at their first meeting.

Dr. Mahesh Pujari voiced concerns about the costs involved with EPA's new drinking water methods; there are alternative methods that can be implemented that ensure the same quality standards but are less expensive. He thought that ELAB might be able to address this issue. In response to a question from Mr. Phillips, Dr. Pujari explained that he was referring to methods that were added during the recent Method Update Rule (MUR). Ms. Shields thought that this issue could be added to the new docket, especially because it relates to other ideas that the Board has been discussing, such as the issue introduced at the face-to-face meeting regarding EPA offices and programs using a single method for a specific matrix. This topic could be discussed further during a future ELAB meeting, but the current agenda item is for ELAB to determine its response to the comments received from the general public regarding the national accreditation summary document. The comments must be acknowledged at the very least. The Laboratory Management Workgroup is the most appropriate group to prepare a response to the comments.

The other topic on which ELAB must focus is the expansion of the summary document. Ms. Shields thought that the introduction to the document had been clear and self-explanatory, but this obviously was not the case given the comments that the Board received during its recent face-to-face meeting. Therefore, the document must be made more clear, an appropriate task for the Laboratory Management Workgroup. The website may need to be updated as well.

Finally, Ms. Shields reiterated that ELAB must finalize its recommendations for EPA regarding the state of national accreditation. Mr. Speis said that the recommendations had been approved by the Board but had not been included in the summary document because they had not been sent to EPA prior to the face-to-face meeting. A product should be developed that includes both the summary and the recommendations to decrease confusion. Dr. Wichman agreed with Ms. Shield's earlier statement that the general public's comments need to be acknowledged. Mr. Speis agreed and said that a standard comment could be developed that explains the process ELAB undertook; it is beyond the Board's scope to address the specific concerns in the comments regarding the stakeholders' opinions. In response to a question from Mr. Speis, Ms. Phelps explained that the national accreditation summary document and recommendations should be addressed to the FEM with a copy to be provided to the Office of the Science Advisor. Specific options are to address the letter to Dr. Shapiro as Chair, Ms. Phelps as Director or the FEM in general.

Mr. Speis asked about the level of detail needed for the demographics in the summary. Ms. Root thought that demographics already had been included. Mr. Speis responded that general list of stakeholder categories had been included but without additional level of detail. Dr. Wichman said that this was the appropriate level of detail so that the privacy of the stakeholders who responded could be protected; Ms. Root agreed. Ms. Shields said the effort had not included a survey, so it is not feasible to include additional demographics. The Laboratory Management Workgroup will revise the national accreditation summary document, including general demographics as feasible.

6. NEW TOPICS/ISSUES FOR CONSIDERATION

Ms. Shields stated that the Board had been contacted regarding the helium gas shortage. Ms. Phelps said that EPA has decided to establish a group to examine this issue, and the Board may be receiving a formal request to investigate. Ms. Shields and Dr. Wichman thought that this

was an important issue that the Board should address. Ms. Phelps added that the shortage has been caused by national security issues and the protection of the supply for U.S. Department of Defense needs. The group discussed the costs of various grades of helium. Ms. Shields asked whether the Board members thought that a Task Group should be formed to address the issue. Mr. Speis thought that it would be beneficial to wait until the Board receives the formal request from EPA. Ms. Phelps said that prior to receiving the Agency request, ELAB could identify a list of appropriate individuals for the Board to consider inviting. Ms. Root thought that the issue could be addressed by an existing Workgroup rather than establishing a separate Task Group.

Ms. Shields stated that an action item from the August face-to-face meeting was that the Board develop a recommendation to EPA that different program offices use the same version of a method when possible. The Board agreed that it should attempt to address this issue and placed it in the queue to be addressed after the Workgroups finalize the current items on which they are working. Ms. Shields thought that it would be a complicated topic to address because ELAB would need to examine the process that each program uses to promulgate methods. Dr. Wichman said that when he had investigated the issue, EPA referred him to *Federal Register* notices. Ms. Phelps said that this would be a standard response because each program has outlined a process that works best for how it manages its issues. Programs have done their best to meet the performance approach and flexible approaches to environmental measurement to make their processes as streamlined as possible, but each program has different governing statutory authority requirements. Dr. Burrows agreed but stated that it should not prevent programs using their own processes to approve methods from other Agency programs. For example, the next MUR for wastewater could include Methods 8260 and 8270. Ms. Phelps responded that programs do not have a mechanism in place to determine what activities other programs are undertaking. The FEM is attempting to create tools that increase this awareness among programs. Dr. Burrows thought that if the Agency could promulgate methods from other organizations, the various programs should be able to promulgate methods developed within other EPA programs. Ms. Shields agreed that this would be beneficial to industry.

The Board members did not introduce any additional topics or issues for consideration.

7. UPDATES FROM THE DFO

Ms. Phelps said that she was working on the required annual ELAB report to be included in the public FACA database. The 2-year Board cycle also is coming to a close. All of the reappointment, appointment and thank you letters to the members have been approved and are being processed by the EPA Administrator. She acknowledged the members whose terms have come to an end and thanked them for their service: Ms. Judy Morgan, Mr. Eddie Clemons, Dr. Jeff Flowers, Dr. Reza Karimi, Dr. Skip Kingston and Dr. Jim Pletl. The new members include: Ms. Patricia Carvajal (San Antonio River Authority), Ms. Ruth Forman (Environmental Standards, Inc.), Ms. Susan Mazur (Florida Power and Light), Dr. Robert Miller (Colorado State University), Dr. James Seiber (University of California, Davis), Dr. Wait and Dr. Pujari. Ms. Phelps thanked the departing members for their hard work during their term(s). She noted that when the new and returning members receive their letters, they must complete the attached forms and return them to her before they are officially considered Board members.

Ms. Morgan thanked the Board members and Ms. Phelps for the experience that she had during her three-term tenure. As the former Chair of the Board and the Monitoring Workgroup, she said that the experience is hard to define and truly appreciate with words. Ms. Shields added her gratitude for the work that the members who are leaving the Board have completed for ELAB, stating that it has been a pleasure to work with them. She thanked the departing members and welcomed the new members. She hoped that the new members will find the experience rewarding. Dr. Karimi thanked the Board and EPA for the opportunity to serve; he volunteered to provide any future help that ELAB may need.

8. WRAP-UP/REVIEW ACTION ITEMS

Ms. Kristen LeBaron reviewed the action items identified the meeting, which are included in Attachment C.

10 CLOSING REMARKS/ADJOURNMENT

Ms. Morgan moved to adjourn the meeting, which Mr. Speis seconded. The meeting was adjourned at 2:49 p.m.

Attachment A

AGENDA ENVIRONMENTAL LABORATORY ADVISORY BOARD

Monthly Teleconference: 866-299-3188/9195415544#

September 19, 2012; 1:00 – 3:00 p.m. (EDT)

Opening Remarks	Phelps/Shields
Approval of August Minutes	Shields
Followup to Office of Water/Shapiro Meeting in Washington D.C.	Shields
General Workgroup Activity	
<i>Ad Hoc</i> Website Workgroup	Shields/Root
Monitoring Workgroup	Root
Measurement and Technology Workgroup	Phillips
Laboratory Management Workgroup	Flowers
National Accreditation Summary - Response to Email Comments	Speis
New Topics/Issues for Consideration - Email Regarding Helium Gas	Shields
Updates From the DFO	Phelps
Wrap-Up/Review Action Items	Shields
Closing Remarks/Adjourn	Phelps/Shields

Attachment B**MEMBERSHIP LISTING AND GUESTS****ELAB TELECONFERENCE****September 19, 2012; 1:00 p.m. – 3:00 p.m. EDT**

Attendance (Y/N)	Name	Affiliation
Y	Ms. Aurora Shields (Chair)	City of Lawrence, Kansas Representing: Wastewater Laboratories
Y	Ms. Patsy Root (Vice-Chair)	IDEXX Laboratories, Inc. Representing: Laboratory Product Developers
Y	Ms. Lara P. Phelps, DFO	U.S. Environmental Protection Agency Representing: EPA
Y	Dr. Richard Burrows	TestAmerica Laboratories, Inc. Representing: Commercial Laboratory Industry
N	Mr. Eddie Clemons, II	Practical Quality Consulting Services Representing: Clients of QS Services
N	Mr. John (Jack) E. Farrell, III	Analytical Excellence, Inc. Representing: The NELAC Institute (TNI)
Y	Dr. Jeff Flowers	City of Maitland, Florida Representing: Elected Officials of Local Government
Y	Dr. Reza Karimi	Battelle Memorial Institute Representing: Nonprofit Research and Development Organizations
N	Dr. H. M. (Skip) Kingston	Duquesne University Representing: Government Consortiums, Native Americans and Academia
N	Ms. Sylvia (Silky) S. Labie	Environmental Laboratory Consulting & Technology, LLC Representing: Third Party Assessors
Y	Ms. Judith (Judy) R. Morgan	Environmental Science Corp. Representing: Commercial Environmental Laboratories
Y	Mr. John H. Phillips	Ford Motor Company Representing: Alliance of Automobile Manufacturers
Y	Dr. James (Jim) Pletl	Hampton Roads Sanitation District Representing: Municipal Environmental Laboratories
Y	Mr. David (Dave) N. Speis	QC Laboratories Representing: American Council of Independent Laboratories (ACIL)
Y	Ms. Michelle L. Wade	Kansas Department of Health and the Environment Representing: Laboratory Accreditation Bodies
Y	Dr. Michael D. Wichman	University of Iowa Hygienic Laboratory Representing: Association of Public Health Laboratories (APHL)

Attendance (Y/N)	Name	Affiliation
Y	Ms. Kristen LeBaron (Contractor)	The Scientific Consulting Group, Inc. (SCG)
Y	Mr. Martin Hyman (Student Contractor)	EPA
Y	Mr. David Alderman (Guest)	National Institute of Standards and Technology
Y	Ms. Lynn Bradley (Guest)	TNI
Y	Ms. Patricia Carvajal (Guest)	San Antonio River Authority
Y	Dr. Mike Delaney (Guest)	Massachusetts Water Resources Authority
Y	Ms. Paula Hogg (Guest)	Hampton Roads Sanitation District
Y	Dr. Mahesh Pujari (Guest)	City of Los Angeles
Y	Dr. Dallas Wait (Guest)	Gradient

Attachment C

ACTION ITEMS

1. Ms. LeBaron will finalize the August 2012 meeting minutes and send them to Ms. Phelps via email.
2. The Measurement and Technology Workgroup will investigate and provide recommendations regarding how to develop a stakeholder subcommittee to examine the detection and quantitation issue.
3. The Monitoring Workgroup will address the action items from that meeting and present the results to the full Board for discussion and approval.
4. The Measurement and Technology Workgroup will develop questions for the Forum on Environmental Measurements (FEM) regarding OW implementation of the data quality objectives process. The Board will review these questions and approve them at its October meeting so that they can be disseminated to the FEM prior to its next meeting on October 24, 2012.
5. The Laboratory Management Workgroup will:
 - Prepare a standard response to the public comments regarding the summary on national accreditation.
 - Revise the national accreditation summary to clarify the process that ELAB used to develop the summary (including general demographics of the respondents as feasible).
 - Prepare a letter to the FEM introducing the Board's recommendations to EPA regarding national accreditation.
6. Once the members of the 2012–2014 Board receive their forms, they will complete and return them to Ms. Phelps via email or regular mail.

Attachment D

I hereby certify that this is the final version of the minutes for the Environmental Laboratory Advisory Board Meeting held on September 19, 2012.



Signature Chair

Ms. Aurora Shields

Print Name Chair