



# Florida Society of Environmental Analysts Spring Meeting and Technical Session July 15-17, 2020

## Wednesday July 15, 2020 Concurrent Workshop Sessions

8:00am Registration	Foyer
10:00am – 6:30pm Exhibitor area open	Siesta Key, Longboat Key, Foyer
12:00 – 1:00pm Lunch (provided)	
5:00-6:30pm Reception in Exhibit area	Siesta Key, Longboat Key, Foyer

### Wednesday Morning Sessions 8:30am – noon

### Break in Exhibit Area 10:00-10:30am

#### **Session 1 - Monitoring Wells: There's a lot more to it than just sampling! ~0.35 CEUs – Vance Reiman, JEA (Bellair Ballroom)**

Groundwater sampling can prove to be one of the most complex forms of sampling in an environmental sampler's career. The goal of this workshop aims to address the entirety of what goes into collecting a representative groundwater sample. Complex issues including that of the various types of groundwater events (NPDES, RCRA, etc.), pre-sampling activities, adhering to the DEP Groundwater Sampling SOP, Field QC and why it's necessary, the importance of prudent documentation, and how the end data is used. This will be an interactive workshop engaging the audience- where we can collaborate together to assist one another. Bring your questions, we'll supply the notepaper, and be ready to leave with a better grasp of Monitoring Wells!

#### **Session 2 – Calibrations and MDLs ~0.35 CEUs – Mei Beth Shepherd and Michael Shepherd, Shepherd Technical Services (Redington Ballroom) NOTE: this session will compliment the afternoon session with Michelle Wade and Valerie Slaven**

Have you tried to figure out what calibration type you should be using? Do you know how many points your calibration curve needs to have? What about dropping points? Can you drop points or better yet replace them? Do you know what the 2016 standard includes regarding Calibration? Have you figured out the new MDL procedure? Do you have your MDLs calculated? Do you know what you have to look at each year to verify your MDLs? Are your LOQs appropriate? Come join us for a half day session where we explore all of these questions and more regarding Calibrations and MDLs. Bring your questions and an example of your MDL calculations/spreadsheets and we'll review them for you!

### 12:00 – 1:00pm LUNCH PROVIDED

### Wednesday Afternoon Sessions 1:00 – 5:00pm

### Break in Exhibit Area 2:30-3:15pm

#### **Session 3 – Taming the Paper Tiger ~0.40 CEUs– Silky Labie, ELCAT (Bellair Ballroom)**

The theme of the TNI 2020 Winter meeting was documentation. What it is, the difference between documents and records and how to handle and control them. This course highlights many types of records and documents that even "seasoned" laboratories might not consider. This course is intended to clarify the difference between records and documents, and review how each must be handled. A questionnaire will be distributed to all registered participants with a list of scenarios. Each participant (or laboratory, as appropriate) must be prepared to respond to how they handled the scenarios. All will be part of the group discussion. Definitions of a Document and Records; Identification of document and record types; Requirements for organizing/controlling documents; Requirements for creating, maintaining and retaining of records. How do you: ID and archive method compendiums? What if a revision does not publish all the "EPA-approved methods"? Review and change methods SOP? What corporate documents are part of your document system?

#### **Session 4 – 2016 TNI Standard: Practical Math ~0.40 CEUs –Valerie Slaven, PDC Laboratory (Redington Ballroom) NOTE: this session will compliment the morning session with Shepherd Technical Services.**

As laboratories in Florida work diligently to implement the 2016 TNI Standard assessors are finding that the labs are often struggling with the new MDL and Calibrations requirements in the V1M4. This Practical Math workshop will work through these requirements in a hands-on course loaded with examples. Make sure to bring your calculators and any data that you are struggling with. Course Summary: A half day session that provides hands on applications and examples for MDL, including MDLb, and Relative Error Calculations to meet the new requirements in the 2016 TNI Standard.

### 5:00-6:30pm Reception in Exhibit Area with Hors d'oeuvres and Door Prizes, Student Poster Session

## Thursday July 16, 2020 Technical Sessions in the Sand Key Ballroom 0.75 CEUs

8:00am Registration Opens	Foyer
8:00 – 8:30am Continental Breakfast	Siesta Key, Longboat Key, Foyer
8:00am – 3:15pm Exhibitor area open	Siesta Key, Longboat Key, Foyer
12:00 – 1:00pm Lunch (provided)	Watercolour Grillhouse
7:30-10:00pm Scholarship Fundraiser & Social	Longboat Key, Foyer

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### 8:30 – 8:45am Opening Remarks – Robin Cook, FSEA President

### 8:45 – 9:30am Does Laboratory Accreditation Make a Difference? – Steve Arms, TNI Advocacy Committee Chair

Since its inception, individuals active in the National Environmental Laboratory Accreditation Program (NELAP) have struggled to try and find information to convince others that the program improves data quality. Over the years, various surveys and studies have been conducted to try and prove this. However, the problem has been, and always will be, that we never know the true concentration of a contaminant in a sample. All measurements are only estimates of the true concentration, and quality control data does not directly correlate with the measurement of the actual contaminant. In 2019, TNI's Advocacy Committee initiated a new effort as a result of comments received at a special session, *The Value of Accreditation*, in 2019 in Jacksonville, FL. In this session, in which the premise was to pilot a study to document data quality improvement, the focus shifted to an approach documenting improved laboratory performance and trust in the data provided by accredited laboratories. TNI scheduled two sessions at the meeting in California in February 2020 to pursue two topics. The first topic was to have laboratories provide specific examples of how they improved as a result of accreditation. The second topic focused on looking at problems discovered by laboratory assessors that led to data quality, trust, or laboratory performance issues. This presentation will summarize the outcomes from these two sessions and provide real-world examples of why laboratory accreditation to the TNI standard makes a real difference.

### 9:30-10:15am When Every Peak Counts: A Practical Guide to Reducing Contamination and Eliminating Error in the Analytical Laboratory – Patricia Atkins, SPEX CertiPrep

Operator, environmental and method errors often include sources of contamination. In an increasingly more exacting analytical landscape in pursuit of parts per billion analytes, it is very important not only to understand the sources of error and contamination but how to reduce them. During the dawn of analytical instruments, the laboratories tested for a select number of compounds or elements at parts per thousand levels. Modern instrumentation now has increased the number of compounds and elements to be quantitated and lowered the analytical threshold to sub-ppb levels where one ppb is equivalent to one second in 32 years! In this type of testing environment even small ppb levels of contamination can cause large errors in quantitation. We will look at all of the most common sources of contamination and error in an analytical process from the water used in the laboratory to the inherent mistakes and error caused by laboratory equipment and operators.

### 10:15–11:00am BREAK in Exhibit Area – Siesta Key, Longboat Key and Foyer

### 11:00-11:45am SIRs: Behind the Scenes – Paul Junio, TNI Consensus Standards Development Committee Chair

Standard Interpretation Requests are questions submitted to TNI that are hoped to clarify the Standard. Hopefully, they are written as 'yes' or 'no' questions. Since that rarely happens, this discussion is a behind the scenes look at the process for how SIRs are handled within TNI. The presenter hopes to offer some tips for how to make this work for you, and reminders of how to guarantee that they won't work!

### 11:45am-noon FSEA Business Meeting

### 12:00-1:15pm LUNCH provided in the Watercolour Grillhouse.

### 1:15-2:00pm When BOD Goes Wrong – David Smith, Environmental Express

No BOD analyst ever wants to hear the words "QC failure" in reference to their testing. While no set of products can guarantee perfect results, you can learn what to do when problems arise. This session will help you learn ways to improve your testing quality and how to narrow the source of problems. We will cover a range of topics from picking your source water to choosing dilution volumes and interpreting sub-optimal results.

## Thursday July 16, 2020 Technical Sessions in the Sand Key Ballroom 0.75 CEUs (continued)

8:00am Registration Opens	Foyer
8:00 – 8:30am Continental Breakfast	Siesta Key, Longboat Key, Foyer
8:00am –3:15pm Exhibitor area open	Siesta Key, Longboat Key, Foyer
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- 2:00-2:45pm** **Good Practices for pH Measurements and Acid-base Titrations – Matt Eby, Mettler-Toledo**  
In this seminar, you will learn the proper selection, calibration, use, and troubleshooting of pH sensors used for pH measurements as well as Acidity and Alkalinity titrations. Learn the impacts of CO<sub>2</sub>, temperature and other influences, as well as how to spot and avoid them through good practices, improved policies and pH meter, sensor and titrator innovations.
- 2:45-3:15pm** **BREAK in Exhibit Area – Siesta Key, Longboat Key and Foyer.**
- 3:15-4:00pm** **Colorimetric Inorganic Ions on Discrete and Segmented Flow Analyzers – Sarah McFaul, SEAL Analytical**  
There are several options for running anions on discrete and segmented flow analyzers that are EPA approved. This discussion will include the principle of these methods, how the analysis takes place, method stability, applicable sample types, reagent preparation and storage, reaction interferences, as well as other considerations associated with these methods.
- 4:00-4:20pm** **Regional Meet and Greet – break out into small groups by Region to meet your Regional Director and other region members, offer suggestions for topics you would like to see in your region.**
- 4:20-5:05pm** **Updates from FDOH – Dr. Carl Kircher, Florida Department of Health**
- 5:05-5:20pm** **Door Prize Drawings**
- 7:30-10:00pm** **Join us for a special evening in the Longboat Key room! Our Scholarship Fundraiser will be Team Trivia with a Twist Contest and Social. See our website for more information how to sign up for the Team Trivia Contest.**

## Friday July 17, 2020 Regulatory Sessions in the Sand Key Ballroom ~0.45 CEUs

8:00am Registration Opens	Foyer
8:00am – 8:30am Continental Breakfast	Longboat Key, Foyer
10:15-10:45am Break	Foyer

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**8:30-9:30am Effective Internal Audits – Michelle Wade, A2LA Workplace Training (repeat from Fall 2019 meeting)**  
Internal Audits are not just a requirement of the standard – but can be a very useful tool for an environmental laboratory to determine where problems and opportunities for improvement are in their laboratory. Course Summary: A 45 minute course designed for laboratories (particularly small laboratories and municipalities) as a primer on internal audits, with tips and tricks on how to efficiently perform their internal audits for compliance with the TNI Standard, and what to do with the outcomes.

**9:30-10:15am WIN Data – Justin Nelson, WIN Coordinator - FDEP**  
Does your lab enter surface water data into WIN? Does your lab need to enter surface water data into WIN? This informational session will provide an overview of the WIN database and what labs need to do to enter their data.

**10:15-10:45am BREAK in foyer**

**10:45-11:30am Updates from FDEP (stay tuned to our website for more information) – FDEP**

### **11:30am-1:00pm Regulatory Forum**

This session will allow attendees to submit questions in advance for our panel to answer. Typical questions include those related to laboratory accreditation, standards, regulatory interpretations and data issues.

**Please e-mail your questions to [secretary@fsea.net](mailto:secretary@fsea.net) by noon on July 16, 2020 so our panel has time to review the questions and prepare their answers.** If time allows, questions may be asked from the floor.

#### **Panel members:**

**Kristen Sapp – FDEP**

**Robin Cook – TNI Microbiology Expert Committee Chair**

**Paul Junio - TNI Consensus Standards Development Committee Chair**

**Valerie Slaven -TNI Chemistry Expert Committee Chair**

**Dr. Carl Kircher – FDOH**

**Steve Arms – TNI Advocacy Committee Chair**

**SAVE THE DATE FOR THE 2020 FALL MEETING AT THE PLAZA RESORT AND SPA  
ON THE WORLD FAMOUS DAYTONA BEACH – OCTOBER 21 – 23, 2020**