

2018 PaAAEL Conference Agenda

Monday, October 22

7:30 to 8:45	Registration	Patton Room
7:45 to 9:00	Breakfast Buffet	Grant/Sherman Room
8:45 AM	Welcome Address by President Kisner	

At this point you can select to follow the presentations in Session I or Session II.

Session I - Quality Assurance (Conrad Weiser Room)

9:00 to 10:15	QC and Data Monitoring - Does Your Data Talk To You? Presenter: Marlene Moore, Advanced Systems The presentation will provide attendees with a review of the Quality Control (QC) requirements found in environmental methods. The laboratory must monitor the QC data to know if the process is in control and when to take corrective action to fix the process. Data monitoring includes the use of control charts and other statistical techniques to monitor the laboratory processes and know when to take action before data problems are observed by the clients. Defense of the laboratory data is possible with the right QC. The QC data talks to you and helps you know when the process is going out of control. We will review the calculations for statistical monitoring.	
10:15 to 10:30	Networking Break	Grant Sherman Room
10:30 to 12:00	QC and Data Monitoring. Does Your Data Talk To You? Presenter: Marlene Moore, Advanced Systems (Continued)	
12:00 to 1:15	Lunch Buffet and Keynote Speaker Steven Hann of Hamburg, Rubin, Mullin, Maxwell & Lupin "You or Your Data Has been Subpoenaed – What do you need to know?"	Grant Sherman Room

1:15 to 2:30 **QC and Data Monitoring. Does Your Data Talk To You?**

Presenter: Marlene Moore, Advanced Systems

(Continued)

2:30 to 3:00 **How to Establish Demonstration of Capability (DOCs)**

Presenter: Oommen Kappil, EMSL

You have analysts on board who have required educational background and years of experience. You have the latest equipment that is capable to meet the required reporting limits for the target analytes. But that is not enough to demonstrate analytical capability. This training will help you determine how to establish demonstration of capability. The presentation will cover TNI 2009 Standard requirements, PADEP Chapter 252 requirements, Standard Methods' requirements and will demonstrate practical steps to establish initial and on-going demonstration of capability.

3:00 to 3:15 **Networking Break**

Grant Sherman Room

3:15 to 4:15 **Root Cause Analysis**

Presenter: Ray Martrano, Seewald Laboratories, Inc.

Find It. Fix It. Check It.

4:15 to 6:00 **Meet and Greet with the Vendors**

Grant/Sherman Room

Tour the Trade Show and visit with the vendors at their booths. Vendor Door Prize Drawings will be done. Drink tickets will be distributed at registration. Hors d'Oeuvres will be served.

Session II - Field Sampling/Technical (Governor Mifflin Room)

- 9:00 to 10:15** **Methods and Practices for NPDES Sampling for Wastewater / Storm Water Sampling**
- Presenter: Steven McManus, Senior Product Support Specialist, Teledyne Isco**
- This presentation will cover the common technologies and methodologies for sampling programs. Included in the presentation will be sections on how the various technologies function, purposes for sampling, programming options and features offered to meet sampling needs, recommended practices to follow and avoid, and general maintenance to optimize sampling results.
- 10:15 to 10:30** **Networking Break** **Grant/Sherman Room**
- 10:30 to 12:00** **PT Standards and Your Lab: Quality, Corrective Action and the 2016 TNI Revision**
- Presenter: Elise Messier, Technical Sales Consultant, Phenova**
- This presentation will outline how PTs fit into your Quality System and will touch on the impact the 2016 TNI Standard Revision will have on your laboratory. I will discuss why a 'Not Acceptable' result can actually benefit your organization and how a defined Corrective Action procedure will help get you back on track.
- 12:00 to 1:15** **Lunch Buffet and Business Meeting** **Grant/Sherman Room**
- Steven Hann of Hamburg, Rubin, Mullin, Maxwell & Lupin**
- "You or Your Data Has been Subpoenaed – What do you need to know?"
- 1:15 to 2:00** **76% Increase in Throughput for Determination of Semi-volatiles Using Narrow-bore GC Columns and Rapid Data Acquisition with a Highly Sensitive Quadrupole GCMS System.**
- Presenter: Brahm Prakash, Applications Scientist - Innovation Center, Shimadzu Scientific Instruments, Inc.**
- Laboratories analyzing semi-volatile organics by methods such as Method 625 and Method 8270 typically use a 30 m x 0.25 mm x 0.25 µm df capillary columns.

Depending on method conditions, simply running the required quality control (QC) samples can consume a significant portion of 12 –hour shift, leaving less time for analysis of revenue generating samples. A cycle time for a single injection on a standard single quadrupole Gas Chromatograph Mass Spectrometer (GCMS) may be as long as 30 minutes. You may only have time for 18 actual samples before having to verify the tune.

This presentation describes development of a GCMS method using narrow-bore 20 m x 0.18 mm ID x 0.18 μ m df column or 20 m x 0.15 mm x 0.15 μ m df columns, rapid oven heating and cooling, and rapid data acquisition to decrease the runtime while maintaining the strict QC requirements of EPA methods. A sensitive fast-scanning quadrupole mass spectrometer is necessary for identification and quantitation of target compounds at sub-nanogram levels.

Presentation includes instrument operating conditions, and method performance statistics including linearity, accuracy, precision, and detection limits for all compounds.

2:00 to 2:30

U.S. EPA Environmental Analyses with Universal Cell ICP-MS: For which methods can I use KED? For which methods can I use DRC?

Presenter: Dr. Lee Davidowski, Perkin Elmer

This talk explains the Universal Cell technology used for efficient polyatomic interference removal in ICP-MS analyses, and answers some frequently asked questions.

The Universal cell offers three modes of operation: Standard, Collision, and Reaction. But which mode is best used for which situations? Are all modes allowed by EPA regulated Methods? Do I need to have strange and exotic gases in my lab? How do I set up, optimize and use these cell modes?

Recent developments in the technique allow for the use of one mixed gas which can be used for both KED and DRC modes of operation. This talk will describe how to put this new technology to use in your lab for the analyses of drinking water, wastewater effluents, sediments and soils.

- 2:30 to 3:00** **Automate Your Water and Wastewater Analysis Using Discrete Analyzers**
- Presenter: David Glutz, Thermo Fisher Scientific**
- An introduction and overview of the main hardware and software functionality of fully automated instrumentation will be presented. Throughout the presentation, specific advantages will be cited that improve general laboratory efficiencies, generate a lower impact on our environment, and provide room for the future expansion of the laboratories testing capabilities in one, easy to use, piece of analytical equipment.
- 3:00 to 3:15** **Networking Break** **Grant/Sherman Room**
- 3:15 to 3:45** **Ion chromatography solution and tips and tricks for environmental analysis**
- Presenter: A Representative from Metrohm**
- This presentation will discuss the basics of ion chromatography, focus specifically on EPA 300 in regards to sample run-times, sample workflows and column chemistries, and highlight additional regulatory methods that call for an ion chromatograph.
- 3:45 to 4:15** **Inorganic Clean Lab Techniques**
- Presenter: Patricia Atkins, SPEX CertiPrep**
- This presentation will discuss Tips and Tricks for reducing error and contamination in Inorganic Laboratories. Popular topic and talk with lots of interesting useful information regarding laboratory contamination.
- 4:15 to 6:00** **Meet and Greet with the Vendors** **Grant/Sherman Room**
- Tour the Trade Show and visit with the vendors at their booths. Vendor Door Prize Drawings will be done. Drink tickets will be distributed at registration. Hors d'Oeuvres will be served.

2018 PaAAEL Conference Agenda

Tuesday, October 23

7:30 to 8:45	Registration	Patton Room
7:45 to 9:00	Breakfast Buffet	Grant/Sherman Room

At this point you can select to follow the presentations in Session I or Session

Session I - Regulatory (Conrad Weiser Room)

9:00 to 10:30 **TNI MDL and Calibration New Calculation**

Presenter: Marlene Moore, Advanced Systems

This presentation provides the method for calculating the “new” MDL and calibration curves as defined in the 2016 TNI Environmental Laboratory (EL) standard. The “new MDL” procedure is found in 40CFR Part 136 and the EPA document “Definition and Procedure for the Determination of the Method Detection Limit, Revision 2” December 2016. The calculations using this new method will be reviewed using laboratory data. The calculations for calibration will be presented as published in the TNI calibration guidance document.

10:30 to 10:45 **Networking Break** **Grant/Sherman Room**

10:45 to 11:45 **Corrective Actions: How to Respond to Audit Deficiencies and Prepare Correction Actions that Fix the Problem Across the Board**

Presenter: Aaren Alger, Chief, Laboratory Accreditation Program, PADEP

The Lab Accreditation Program conducts regular on-site and off-site assessments of laboratories for drinking water, waste water, and solid & chemical materials. Non-compliance with required standards result in corrective actions or in some cases enforcement actions. Audit deficiencies and corrective action will be discussed.

11:45 to 12:15 **DRR Update including Sample Siting Plan Requirements**

Presenter: Jason Minnich, Environmental group Manager, Bureau of Safe Drinking Water, PADEP

On April 28, 2018, the Disinfection Requirements Rule (DRR) was published as a final regulation in the *Pennsylvania Bulletin*. Some provisions took effect immediately, others take effect over the course of the next 12 months. Each system is required to submit a DRR Sampling Plan by October 29, 2018. Many of the new compliance requirements take effect May 2019. In this session we'll talk about some of the general provisions and briefly go over the sampling plan and talk a little bit about the future compliance requirements.

12:15 to 1:15 **Lunch Buffet and Business Meeting** **Grant/Sherman Room**

1:15 to 2:45 **Regulatory Panel: Representatives invited from: Clean Water, Drinking water, Bureau of Labs, Bureau of Oil & Gas**

Invited Panelists: Jason Minnich, PADEP, Maria Schumack, PADEP, Aaren Alger PADEP, Stephen Brokenshire, PADEP

This Regulatory Panel will begin with presentations by each of the representatives from the various PADEP Bureaus. The presentations will be followed by a question and answer session. Forms will be available at Registration for attendees to provide questions in advance to the panel. Forms should be completed and returned to Registration by Noon.

2:45 to 3:00 **Networking Break** **Grant/Sherman Room**

3:00 to 4:30 **TNI Update**

Presenter: Marlene Moore, Advanced Systems

The presentation provides a progress report of the TNI standard. The TNI standard for laboratories is revised and is adopted by the State Accreditation Bodies (NELAP) for implementation by NELAP laboratories. The 2016 TNI Environmental Laboratory (EL) standard and the 2014 TNI Field Sampling and Measurement Organization (FSMO) standard are under revision to update all programs to the ISO/IEC 17025:2017. Revisions to standards are underway for Accreditation Bodies (Volume 2) and for the Proficiency Testing provider standards (2016). This update provides the laboratory with where to find the changes to from the 2009 to 2016 standard and reviews the discussion from the TNI meeting in New Orleans that was held in August 2018 on the next changes needed to the programs.

Session II - Management (Governor Mifflin Room)

9:00 to 10:30 **Situational Leadership**

Presenter: John Greenwade, North Hampton Community College

Hard and fast rules being applied into the realities of today's workplace is often an invitation for frustration and performance that does not meet expectations. How do you lead effectively in a world filled with ambiguity? The purpose of this workshop is to investigate that challenging question and enhance your awareness of a way of thinking that can help you be more effective with the variety of situations a manager must face on a regular basis.

Including:

- The Responsibilities of a Manager
- Directive and Supportive Behavior
- The Situational Leadership Model
- Case Study Activity

10:30 to 10:45 **Networking Break** **Grant/Sherman Room**

10:45 to 12:15 **Effective Interactions**

Presenter: John Greenwade, North Hampton Community College

This program was designed to enable participants to understand the power of each and every communication and why effective interactions matter. Participants will explore the basics of communication and the way individuals communicate. The workshop addresses the importance of active listening in any interaction. Active listening techniques will be practiced. The art of assertiveness will be discussed and techniques applied.

Including:

- Group Brainstorm
- Issues Participants have with Communications
- Define Communications
- Define Listening
- Assertiveness

12:15 to 1:15 **Lunch Buffet and Business Meeting** **Grant/Sherman Room**

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2:45 to 3:00

Networking Break

Grant/Sherman Room

3:00 to 4:30

Conflict Resolution Strategies

Presenter: John Greenwade, North Hampton Community College

This program was designed to enable participants to understand the power and influence that can be achieved through using conflict resolution strategies in a conflict situation. Participants will identify their communication styles and see how conflict could develop amongst the different styles discussed. In this workshop, the common misconceptions and possible benefits of conflict will be addressed. The five conflict resolution styles will be discussed. The conflict resolution model will be used to enable participants to better evaluate the situation for an improved outcome.

Including:

- What is Conflict?
- How Conflict Escalates
- How to Break the Conflict Chain
- Importance of Assertive Behavior
- Don't "Bait to Inflate"

Presenters

Aaren Alger

Aaren Alger is the Chief of the Laboratory Accreditation Program (“LAP”) of the Pennsylvania Department of Environmental Protection, and has been serving as the Chief of the LAP since June of 2007. As Chief, she oversees the accreditation of environmental laboratories; regulation development, approval, and implementation; and the development and coordination of training for assessors and laboratories. Before being named Chief, Aaren worked in the PA-DEP’s Laboratory Accreditation Program as an accreditation officer for six years where she evaluated and participated in the accreditation of laboratories performing chemical testing of inorganic non-metals, metals, and organics in drinking water, wastewater, and solids. Aaren also worked as a chemist in the Automated Analysis and Biochemistry Section of the Bureau of Laboratories in the PA-DEP and a private commercial environmental laboratory performing various analyses on drinking water, wastewater, and solids. Aaren has been an active member in NELAC/INELA/TNI since 2001 and is currently the Chair of the NELAP Accreditation Council and the Vice-Chair of The NELAC Institute. In addition, she is a trained NELAP Evaluator, a NELAP-approved assessor and a USEPA-approved drinking water certification officer for chemistry and radiochemistry. aaalger@state.pa.us

Patricia Atkins

Patricia Atkins is a Senior Applications Scientist who graduated from Rutgers University. In 1995, she joined She has been a chemist and lab supervisor for Ciba Specialty Chemicals and a research associate and lab manager for an air pollution research group at Rutgers University. In 2008, Patricia joined SPEX CertiPrep as an application scientist in our certified reference material’s division and spends her time researching industry trends, presenting at conferences and writing articles on various laboratory topics for magazines such as LC/GC, Spectroscopy, AOAC Journal and most recently as a columnist for Cannabis Science and Technology magazine.

Dr. Lee Davidowski

Lee received his Ph.D. in Analytical Chemistry from Northeastern University in 1981. He joined PerkinElmer that same year. He is currently a Senior Field Application Scientist for Atomic Spectroscopy. In that role, his assignment is to provide technical training and support to PE sales and service engineers, and PE customers in the related fields of Atomic Absorption Spectroscopy, ICP-Optical Emission Spectroscopy and ICP-Mass Spectroscopy throughout the Northeastern United States.

David Glutz

David Glutz is currently working at Thermo Fisher Scientific as a Product Specialist for Discrete Analyzers supporting a team of sales professionals across the United States and Canada. Trained in Applied Chemical Technology from the University of Cincinnati's OMI College of Applied Science, David has a unique, more than 20 year, background in the environmental field.

John Greenwade

John is a Training, Development and Safety Professional with 26 years of experience in Manufacturing Organizations from the First Tier Automotive Industry to the Heavy Cement Industry. Functioned at every level of training and development from plant level to international corporate level. Other duties included the managing of safety from plant to corporate level. Currently serves in the compacity of lead instructor for the Micro Credentials in Manufacturing at Northampton Community College. A retired veteran who served for 26 years and attained the rank of Colonel in the US Army and US Army National Guard. A graduate of the Masters of Education Training and Development at Penn State Harrisburg, and Masters of Strategic Studies from the US Army War College in Carlisle PA. email: jgreenwade@northampton.edu

Steven Hann

Steven is a Principal at the Pennsylvania law firm of Hamburg, Rubin, Mullin, Maxwell & Lupin, where he focuses his practice on environmental and municipal law and chairs the firm's Environmental Law Department. Steve handles all aspects of environmental litigation with government agencies and private parties. Steve also advises clients on regulatory and compliance issues, environmental permitting, environmental issues arising in business and real estate transactions, the land development process, and land use and zoning issues. Steve also provides clients with experienced counseling on environmental legislative and regulatory developments at the federal and state levels.

In addition to his environmental law practice, Steve has developed a practice in the area of municipal law with a specific emphasis on municipal authorities. Steve is the Eastern Solicitor for the Pennsylvania Municipal Authority Association, the statewide organization representing the interests of municipal authorities in the Commonwealth. In this position, Steve assists PMAA staff in various functions, such as addressing member questions and dealing with proposed legislature and regulatory initiatives. He also answers calls directly from member authorities on a variety of issues,

such as authority resolutions, tapping fees, developer agreement, reservation of capacity agreements, rate issues, water and sewer regulations and compliance with bidding and procurements, as well as Right-to-Know Law and Sunshine Act requirements. In his daily practice, he represents and advises municipalities and municipal authorities on a wide array of issues unique to these entities, including environmental issues such as stormwater management, and water and wastewater specific issues, such as sewage facilities planning and wasteload management, as well as municipal issues, such as compliance with Pennsylvania's Municipality Authorities Act, Sunshine Act, Right-to-Know Law and conformity with state law bidding and procurement requirements.

Prior to law school, Steve was an environmental consultant. Following his graduation from Penn State, Steve was employed as a meteorologist focusing on air quality and air pollution issues. Thereafter, Steve was hired as a member of the United States Environmental Protection Agency's (EPA) Field Investigation Team under the federal Superfund program, where he was engaged in various activities related to the investigation and remediation of hazardous waste sites. In the latter position, Steve was selected by EPA Headquarters to travel throughout the country as a speaker for an EPA hazardous waste site inspection training course. Contact Information: Phone: (215) 661-0400 email: SHann@HRMML.com

Oommen Kappil

Oommen has eleven years of experience as Director of Quality Assurance of commercial environmental laboratories and over 25 years of experience in Environmental industry in multiple roles including Chemist, Technical Director, Project Engineer and QA Director. Oommen is currently serving as Director of QA, Environmental Chemistry at EMSL Analytical, Inc., headquartered in Cinnaminson, NJ.

ASQ Certified Quality Auditor (CQA) since 2011

Member, TNI Lab Accreditation Body Committee

Education:

BS in Chemistry

BS in Chemical Engineering

MS in Quality Systems Management (Anticipated Oct. 2018)

Steven R. McManus

Steve is a member of the Environmental Product Support Department for Teledyne Isco. He holds a degree in Applied Sciences - Electronics Technology from SCC – Lincoln NE.

Steve has 35 years of professional experience in environmental water monitoring, with special emphasis on flow monitoring and flow data analysis.

Before his current position in Environmental Product Support, Steve held roles at Isco in Service, Leasing, and Technical Applications; in support of flow meter and sampler products in their applications and use.

In his current role, Steve works with a team of experts who are responsible for Water Sampling and Flow monitoring related needs and services, including, but not limited to, application evaluation, consultation, product recommendation, results analysis and support, instrument troubleshooting as well as product and application training.

Steve has conducted numerous training seminars both within the territorial United States as well as internationally. He has been a repeat guest speaker at a number of conferences globally. The subject matter covered in these presentations and training seminars has covered the breadth of Teledyne Isco products and applications.

Jason M Minnich

Mr. Minnich started with DEP in the Pottsville District Office in 2000, he's been a sanitarian, sanitarian supervisor and for the past seven and a half years he's been the section chief for the Bureau of Safe Drinking Water's PADWIS Section. There he is responsible for all the department's safe drinking water data systems, meeting federal reporting requirements, automation of most compliance requirements and supporting the submission of over 170,000 sample result each month from over 2,700 registered DWELR Users. jaminnich@pa.gov

Marlene O. Moore

Marlene Moore has managed and performed work for full service sampling and testing laboratories. She majored in chemistry at Moravian College in Bethlehem, PA and has attended and provided a variety of management, business and technical training courses.

Current work includes performing consulting, evaluations and providing training. Training includes quality management training for organizational and project management, relative to sampling, testing and data collection activities of chemical and biological applications. Laboratory and sampling

organizations from the private sector and government operations have benefited from the experiences and training presented during training discussions.

Contact Information: Advanced Systems, Inc. P.O. Box 8032 Newark, DE 19714 Phone: (302) 368-1211 Email: mmoore@advancedsys.com

Brahm Prakash

Mr. Prakash earned his M.S. in Environmental Science from the University of Oklahoma in 1984, and M.S. and M.Tech. in Chemistry from the Indian Institute of Technology New Delhi, is currently the Applications Scientist at Shimadzu Scientific Instruments, Inc. Columbia, Maryland supporting and conducting environmental analysis and method development with a strong emphasis in GC/MS, GC/MS/MS and LCMSMS. Brahm is the ASTM D19 committee member on water and an ISO delegate and expert on various methods. While working at Shimadzu Brahm has published and written several app notes on GCMS, GCMSMS and LCMSMS applications using Shimadzu instruments.

Prior to joining Shimadzu, since 1994, he had been associated and worked on numerous on-site contracts for the U.S. Environmental Protection Agency (EPA) which provided support to the Agency's Superfund, ground water, surface water & and Office of Ground Water and Drinking Water (OGWDW) programs. While at EPA Mr. Prakash had developed/authored and co-authored five (5) EPA methods for emerging contaminants including two semi-volatile methods EPA method 526 and EPA method 527. As a principal author he had published two new EPA methods for measurement of purgeable organic compounds in drinking water by gas chromatography/mass spectrometry including EPA Method 524.3 and EPA Method 524.4. Brahm also published and co-authored several technical journal related articles including Cyanogen Chloride ICR method 524.2 (Information Collection Rule). For EPA's Office of Research and Development (ORD) division he was the project leader for "Hydrofracking" work assignment.

In addition to work at consensus organizations, Brahm Prakash has also given over 20 podium and poster presentations at national, and international conferences. Brahm has authored and co-authored numerous technical guides and application notes for Shimadzu. email:

brprakash@shimadzu.com 410-910-0903(O); 513-543-9922(C)