Environmental Measurement Symposium

"Reliable Data for Sound Decision Making"

Program of Events

Garden Grove, California
August 5 – 9, 2024

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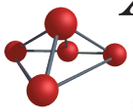

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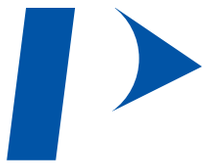

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Exhibition

Grand Ballroom

**Meet with instrument manufacturers, laboratory suppliers,
LIMS providers, and other laboratory service providers.
See the latest innovations in measurement technology, proficiency testing,
sample preparation, and laboratory automation.**

Exhibit Hours
Monday 5:30 pm to 7:00 pm
Tuesday 7:30 am to 5:00 pm
Wednesday 7:30 am to 3:30 pm

Welcome

Welcome to the Environmental Measurement Symposium

The 2024 Environmental Measurement Symposium is the combined meeting of The NELAC Institute's (TNI) Forum on Environmental Accreditation and the National Environmental Monitoring Conference (NEMC). The Symposium is managed by TNI with the cooperation of the California Society of Environmental Analysts. Your attendance and participation are key elements to the Symposium's success. Look forward to a week of shared expert knowledge; energetic discussions of current issues and concerns affecting environmental monitoring and laboratories; exploration of products and services to support your endeavors; and invaluable networking with peers.

If this is your first time attending the Symposium, we hope you find it stimulating and beneficial. Our registration staff are available to assist you with any questions or to locate individuals you want to meet. Please let us know how we can help make your participation in the Symposium a success.

Have a great week!

Meals and Breaks

Continental breakfast is served daily from 7:00 – 8:00.

Mid–morning and mid–afternoon breaks are provided daily.

Monday's lunch is on your own.

Lunch is provided Tuesday, Thursday and Friday.

Wednesday's lunch is on your own, or you may attend a vendor sponsored lunch (pre–registration required). Refer to the detailed agenda on Wednesday for more information.

If you have special dietary needs, inform the registration staff.

Symposium Portal

For up–to–the–minute information about the Symposium, visit: https://portal.envirosymposium.group

- See the Daily Technical Program
- Watch recordings of presentations as they become available
- View the On-line Poster Exhibition

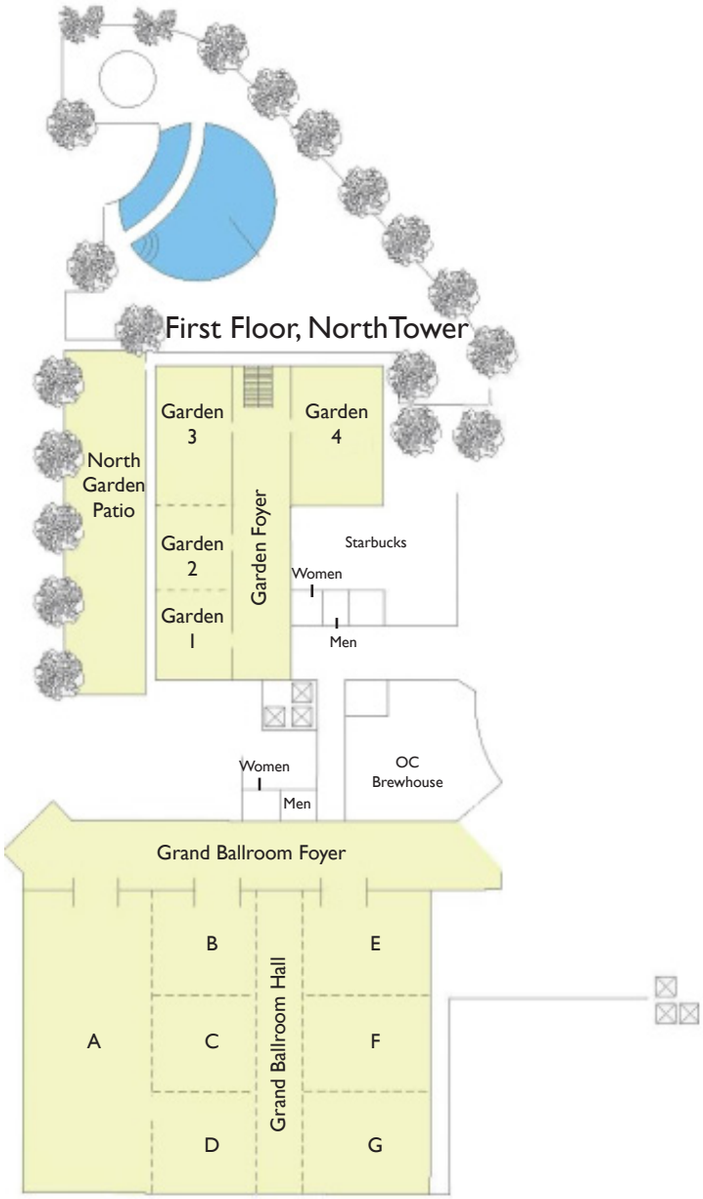
Presentations On-Line

You may preview each day's presentations by visiting

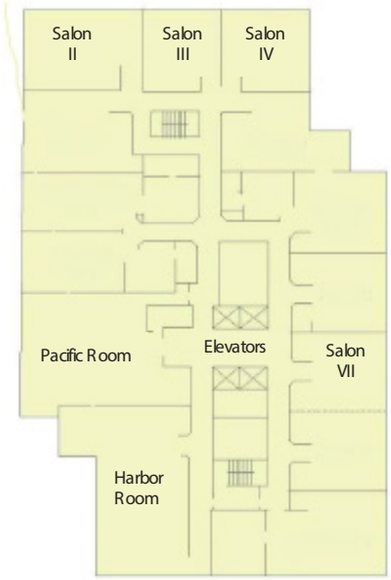
https://envirosymposium.group/2024/presentations

Recordings of sessions and meetings will be available on the Symposium Portal until October 31, 2024. Thereafter, presentations can be found on the Conference Proceedings for the respective conference.

Welcome



Second Floor, North Tower



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Monday Technical Sessions

7:00 – 8:00 Continental Breakfast
Grand Foyer

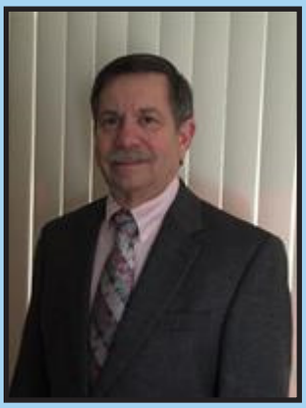
8:15 – 8:45 The Charlie Carter Award
Grand EFG

8:15 Welcome and Introduction:
Lara Phelps, Deputy Director (Acting) USEPA ORM

8:30 Presentation
Judy Morgan, Pace Analytical Services

David M. Friedman

2024 Recipient of the Charlie Carter Award



David began his federal career at the Food and Drug Administration identifying chemicals entering the food chain as a result of their industrial usage, and then moved to the EPA to help develop the hazardous waste regulatory program. In that position, he directed the development of hazardous waste characteristic standards and testing methods, EPA's testing manual "Test Methods for the Identification of Hazardous Waste" (SW-846); created the annual National Environmental Monitoring Conference (NEMC) and served as its chair for 20 years. After moving to the Office of Research and Development, he served as Senior Advisor on Monitoring to the EPA Science Advisor. As a means of improving Agency monitoring policies and procedures, he helped establish the Agency's Forum on Environmental Measurements (FEM) and the Environmental Laboratory Advisory Board (ELAB) which ended in 2019 due to elimination of Federal funding. Consequently, David helped establish the Environmental Monitoring Coalition (EMC) which serves the industry in a similar capacity to ELAB, addressing issues of concern and fostering communication and collaboration. Since retiring David has been serving as Technical Advisor to the ACIL Environmental Sciences Section. Dr. Friedman's extensive and impactful contributions have left an indelible mark on the field of environmental monitoring. His visionary leadership, technical expertise, continued dedication. and commitment to excellence make him an exceptional awardee of the Charlie Carter Award. Dr. Friedman's profound and lasting contributions to environmental monitoring, serve as not only a tribute to his professional excellence but also a celebration of his enduring legacy in the field of environmental monitoring.

The Charlie Carter Award

Dr. Charles (Charlie) William Carter dedicated over 30 years to the environmental laboratory business and community. Considered a highly respected environmental testing genius by everyone fortunate enough to know him, he was brilliant and had relentless energy, work ethic, and passion for advancing the environmental testing industry by providing critical scientific expertise and support. Charlie was deeply involved in many environmental organizations and a frequent speaker at conferences, forums, and meetings. He was a leader in the industry and one you could count on always pushing the envelope to help the environmental measurement, monitoring, and laboratory community excel in meeting the highest levels of integrity and quality.

This award has been established to recognize a technically competent individual and leader in the environmental measurement, monitoring, or laboratory industry, embodying Charlie's strengths in scientific expertise, communication, and mentoring. One recipient is selected annually and recognized at the Environmental Measurement Symposium. The recipient receives a free registration for the full Symposium and is presented with the award at the opening session.

Nominations will open for the 2025 Symposium on Monday, August 5, 2024 and close on January 31, 2025.

Award Recipients

2016	Richard Burrows
2017	Andy Eaton
2018	Marlene Moore
2019	Judy Morgan
2022	Ray Frederici
2024	David Friedman

Charles William Carter

Monday Technical Sessions

9:00 – 12:00 NEMC Air Monitoring Methods and Technology
Garden 1&2

Session Chairs: Jason Herrington, Restek Corporation, Jason Hoisington, Restek Corporation and Hannah Calder, Markes International

9:00 Assessing Diurnal and Spatial Variations of PM2.5 in Urban Environments: A Case Study with Low-Cost Sensors in an Environmental Justice Community
Inkyu Han, Temple University College of Public Health

9:30 Automated Monitoring of Organic Ozone Depleting Substances and Greenhouse Gases
Ericka Hachmeister, Markes International

10:00 BREAK

10:30 Field and Mobile Measurements of Air Toxics Using Thermal Desorption, Broadband Cavity Ring-Down Spectroscopy
Aurelie Marcotte, Entanglement Technologies, Inc.

11:00 Making "Sentient" Air Monitors: Automating QA/QC on Open Path Fence Line Monitoring Systems
Jonathan Flint, Argos Scientific, Inc.

11:30 Mobile VOC Monitoring on Vehicle and Aircraft Platforms
Maya Abou-Ghanem, TOFWERK

9:00 – 12:00 NEMC Ensuring Reliable Data
Garden 3

Session Chairs: Jerry Parr, The NELAC Institute and Kyle Power, TriHydro Corporation

9:00 Good Practices When Handling Fish Tissue to Avoid Data Reliability Issues: Results from Sample Wrapping and Holding Time Studies
Harry McCarty, General Dynamics Information Technology

9:30 Towards Routine Non-Targeted Analysis – Metrics of Data Quality and Acceptance
David Schiessel, Babcock Laboratories, Inc.

10:00 BREAK

10:30 Improving the Reliability of Laboratory Testing
Paul Junio, The NELAC Institute

11:00 Changes to V1M5: The New TNI Microbiology Standard
Cody Danielson, Oklahoma DEQ

11:30 Improving the Reliability of Field Operations
Katie Strothman, Sanders Laboratories

Monday Technical Sessions

9:00 – 12:00 TNI Assessment Forum
Beyond the Checklist: Focus on Preventing Deficiencies

Grand EFG

Session Moderators: Judy Morgan, Pace Analytical Services and Mitzi Miller, Miller Quality Consulting, LLC

This session will focus on looking beyond the checklist for internal audits and review the deeper questions that should be asked to ensure that each item has been evaluated beyond a simple "yes" or "no", where necessary.

9:00 Introduction
9:15 Beyond "Yes" or "No" - Peeling Back the Paint
Mitzi Miller, Miller Quality Consulting, LLC

Focusing on the proper use of checklists to prevent deficiencies rather than relying on completeness of the yes/no boxes as an indicator of a successful audit. How to use the checklist to ensure that you are seeing more than just the obvious on the surface and when to go at least one step further.

10:00 BREAK

10:30 Effectively Assessing Digital Records
Jeanne Mensingh, Labtopia, Inc.

Focusing on understanding digital/electronic records and how to audit the data capture/reporting process and related records to ensure that the data represents the security, detail and traceability necessary to maintain data integrity and completely reconstruct the analysis. In addition, files that require manual entry, related worksheets, and other types of records will be addressed.

11:15 Interactive Review of Checklist Items with Audience Participation

9:00 – 12:00 TNI Proficiency Testing Program Executive Committee

Garden 4

Committee Chair: Susan Jackson, South Carolina DES

The purpose of the Proficiency Testing (PT) Program Executive Committee is to establish and maintain a national PT program to support a national environmental accreditation program including establishing Fields of Proficiency Testing (FoPT).

- Committee Overview and Introductions
- Recent Accomplishments
- Subcommittee Updates
- SOP
- WET FoPT- status of data evaluation
- Chemistry FoPT- Drinking Water Fields of Proficiency Testing updates, Radiochemistry

10:00 BREAK

- Proficiency Testing Provider Accreditor Annual Reports
- A2LA - Nick Slawson
- ANAB - Patrick Selig
- 2024 Goals and Long-Term Planning
- Open Discussion and other items

12:00 – 1:00 Lunch on Your Own

Monday Technical Sessions

1:00 – 5:00 NEMC Analyzing Microplastics in the Environment

Garden 3

Session Chairs: Tarum Anumol, Agilent Technologies and Shelly Walther, Los Angeles County Sanitation Districts

1:00 A Comprehensive Approach for Successful Microplastics Analysis
William Lipps, Shimadzu Scientific Instruments

1:30 Developments in QCL-Based Spectroscopy for Rapid Identification of Microplastics
Louis Tisinger, Agilent Technologies

2:00 PY-GCMS Analysis of Microplastics Using Nitrogen as an Alternative GCMS Carrier Gas
Alan Owens, Shimadzu Scientific Instruments

2:30 Challenges and Opportunities to Forensic Approaches in Microplastics
Kelsey Rousteau, NewFields

3:00 BREAK

3:30 High Molecular Weight Polycyclic Aromatic Hydrocarbons (PAHs) in Microplastic Samples Collected Following the Sinking of the Container Ship X-Press Pearl
Douglas Stevens, Waters Corporation

4:00 Determination of Micro Plastics in the Environment Using Total Flow Nebulization and Triple Quadrupole ICP-MS
Craig Jones, Agilent Technologies, Inc.

4:30 Optimizing Membrane Filter Selection for Analytical Methods Used to Characterize Microplastics in the Environment
Lindsay Lozeau, MilliporeSigma

1:00 – 5:00 NEMC Automation and Innovation for Sample Preparation

Garden 1&2

Session Chairs: Zoe Grosser, Retired and Polly Newbold, ddms, inc.

1:00 Sample Preparation, Why do I Care?
Polly Newbold, DDMS, Inc.

1:30 Inline Filtration and Treatment for Ion Chromatographic (IC) Methods
Kyle Nash, Orange County Water District

2:00 Advancements in EPH Fractionation: Overcoming Challenges and Enhancing Efficiency
Christopher Mitchell, Biotage

2:30 The Automated Extraction of 40 PFAS Compounds from Tissue Samples
Alicia Stell, CEM Corporation

3:00 BREAK

3:30 Fully Automated Determination of PFAS in Liquid and Solid Matrices Via Online SPE Coupled to LC-MS/MS: Application to EPA Method 1633 Compound List
Lilit Ispiryan, Trajan Scientific and Medical

4:00 Analysis of Semi Volatiles Method by GC/MS/MS with Liquid-liquid Extractions Using ePrep Full Automation for EPA 3511
Alexis Willey, Agilent Technologies

4:30 Semi-Automated Solid Phase Extraction and Analysis of Wastewater with EPA Method 625
Tom Hall, Fluid Management Systems

Monday Technical Sessions

1:00 – 5:00 NEMC Per- and Polyfluoroalkyl Substances (PFAS) in the Environment (Session 1)

Grand EFG

Session Chairs: Mike Chang, Restek Corporation and Jonathan Thorn, Eurofins Lancaster Laboratories Environmental

1:00 PFAS in Wild Fish Tissue: Development of a Simple and Robust Extraction Procedure Using Pass-Through Matrix Removal
Matthew Giardina, Agilent Technologies

1:30 An Assessment of Per- and Polyfluoroalkyl Substances (PFAS) in Great Lakes Fish
John Healey, USEPA Office of Science and Technology

2:00 PFAS are Everywhere and Now We Have a Validated Multi-matrix Method 1633 to Find Them
Adrian Hanley, USEPA Office of Science and Technology

2:30 Validation of Analysis of Per- and Polyfluoroalkyl Substances in Wastewater Samples Using EPA Method 1633 with Semi-Automated Solid Phase Extraction
Tom Hall, Fluid Management Systems

3:00 BREAK

3:30 EPA 1633 - What Happens When Automated Solvent Extraction and Robust LC-MS/MS are Coupled for Soil Analysis
Ruth Marfil-Vega, Shimadzu Scientific Instruments

4:00 Automated Workflow for High-throughput PFAS Sample Preparation for Solid Matrices Following EPA Method 1633
Evan Walters, Biotage

4;30 Harnessing the Power of Mass Spectrometry and Automation to Reduce Sample Size, Sample Preparation Time and Increase Laboratory Efficiency
Kari Organtini, Waters Corporation

1:00 – 5:00 TNI Chemistry Expert Committee

Garden 4

Committee Chair: Michelle Wade, Wade Consulting

The Chemistry Expert Committee is responsible for Module 4 of the TNI laboratory accreditation standard. This includes requirements for the calculation of limits of detection (LOD), limits of quantitation (LOQ), calibration curves, and other related values.

1:30 Welcome and Introductions

1:45 Summary of 2024 Committee Activities to Date

3:00 BREAK

3:30 Open Discussion on Proposed Volume 1 Module 4 Changes

5:30 – 7:00 Opening Reception and Exhibition

Grand EFG

Reception and Exhibition

Monday
5:30 pm to 7:00 pm
Grand Ballroom

Join us to network with peers and see the latest innovations for environmental laboratories.

Tuesday Technical Sessions

7:00 – 8:00 Continental Breakfast
Grand ABCD

Keynote Address
Grand EFG

Session sponsored by DSP Systems

8:00 Welcome
Jerry Parr, The NELAC Institute

8:10 Keynote Speaker Introduction
Guillaume ten Dam, DSP Systems

The Role of Artificial Intelligence in Environmental Testing

Agustin Pierri
Weck Laboratories

Dr. Agustin Pierri obtained his B.S. in Chemistry from the University of Southern California and his Ph.D. in Chemistry from the University of California Santa Barbara where he worked on synthesizing photoactive pharmaceuticals and nanocarriers. He has authored many scientific publications and has given numerous presentations at technical meetings on topics ranging from inorganic photochemistry to environmental analytical chemistry. At Weck Labs, he has worked as an analyst in all sections of the laboratory, and has worked on developing methods for emerging contaminants by LC-MS/MS, GC-MS/MS, and ICP-MS. Since becoming the Laboratory Technical Director, he continues to be active in developing methods for emerging contaminants, as well as modernizing legacy analytical methods to lower detection limits and improve data quality. In 2020, he was appointed to the Environmental Laboratory Technical Advisory Committee, an advisory body to California ELAP.

9:00 – 12:00 NEMC Emerging Environmental Applications for High Resolution Mass Spectrometry
Garden 1&2

Session Chair: Paul Winkler, Retired

9:00 Overcoming Simple and Complex Matrix Interferences in Environmental Samples by QQQ-ICP-MS
Yan Cheung, Agilent Technologies, Inc.

9:30 Breaking Barriers that Limit Non-Targeted Analysis Through Stakeholder Engagement and Outreach
Ruth Marfil-Vega, Shimadzu Scientific Instruments

10:00 BREAK

10:30 Using High-Res MS to Explore the Chemical Space of PFAS Captured by Solid-Phase Extraction
David Schiessel, Babcock Laboratories, Inc.

11:00 Targeted and Non-targeted Analysis LC-Orbitrap MS Workflow for Analysis of More Than 40,000 PFAS Compounds
Cynthia Grim, Thermo Fisher Scientific

11:30 From Trend to Discovery: Temporal Analysis of Contaminants in Watersheds Using High Resolution Mass Spectrometry
Kendra Adams, SCIEX

Tuesday Technical Sessions

9:00 – 12:00 NEMC Laboratory Informatics

Garden 3

Session Chair: Robert Benz, Clinisys

9:00 Strategic Insights Using Cloud LIMS
Bill Pingpank, Ethosoft, Inc.

9:30 ALPACA SDMS and Micro ELN©, An Automated Data Management System for Environmental Analysis
Devon Morgan, Clark County Water Reclamation District

10:00 BREAK

10:30 Assessing Your Needs and Justifying a LIMS
Richard Danielson, Confience

11:00 Leveraging Technology to Improve Laboratory Quality
Matthew Sica, Perry Johnson Laboratory Accreditation

11:30 LIMS Challenges for a Multi-Site Organization
Kevin Carter, Clinisys

9:00 – 12:00 TNI Laboratory Accreditation Body Committee

Pacific

Committee Chair: Aaren Alger, Alger Consulting and Training

The Laboratory Accreditation Body Committee develops the standard for operation of laboratory accreditation bodies.

9:00 Introductions

9:15 Progress on Reviewing Comments

10:00 BREAK

10:30 Discussion of Comments Still Needing Resolution

11:30 Feedback from Participants

9:00 – 12:00 TNI Quality Management Systems Expert Committee

Garden 4

Committee Chair: Debbie Bond, Alabama Power

The Quality Management Systems Committee develops a standard for the quality management systems in environmental laboratories. The elements of a quality management system include organizational structure, responsibilities, procedures, processes, and resources (e.g., facilities, staff, equipment) for implementing quality management in testing operations. This meeting will focus on:

9:00 Introductions

9:15 Highlights of changes to Volume 1 Module 2

10:00 BREAK

10:30 Updates to Technical Specialist Responsibilities and Qualifications

Tuesday Technical Sessions

12:00 – 1:00 Lunch Provided
Grand EFG

1:00 – 3:00 NEMC Environmental Forensics
Garden 3

Session Chairs: Kitty Kong, Chevron and Kesavalu Bagawandoss, SGS

1:00 Utility of Tier 1 Analysis in Hydrocarbon Forensic
Kesavalu Bagawandoss, SGS North America, Inc.

1:30 Use of PIANO Data to Identify Source and Potential Age of Subsurface LNAPL at a Pipeline Terminal
Heather Lord, Environmental Standards Inc.

2:00 The Measurement of C19-C36 Aliphatic Hydrocarbons at a Sediment Superfund Site Using the MADEP Extractable Petroleum Hydrocarbon Method: Considerations for Data Quality and Usability
Eric Litman, NewFields Environmental Forensics

2:30 Forensics Analysis of PFAS Using Advanced Analytical Techniques
Sarah Choyke, Eurofins Environment Testing

3:00 BREAK Sponsored by Clinisys

1:00 – 3:00 NEMC Innovative Solutions for Water Testing
Garden 4

Session Chairs: Richard Jack, Phenomenex, Troy Strock, USEPA Office of Land and Emergency Management

1:00 Amperometric CN - Principles, Practice & Operational Benefits
Ilkka Lahdesmaki, FIAlab Instruments, Inc.

1:30 Comprehensive In-situ Planktonic and Aggregate-bound E.coli Monitoring for Reliable Risk Assessment
Dan Angelescu, Fluidion US Inc.

2:00 Method 1621: Determination of Adsorbable Organic Fluorine in Aqueous Matrices by Combustion Ion Chromatography
Sarah Bekah Burket, USEPA Office of Science and Technology

2:30 The Collaborative Efforts to Develop an EPA Method for 6PPD-Q in Aqueous Matrices
Harry McCarty, General Dynamics Information Technology

3:00 BREAK Sponsored by Clinisys

1:00 – 3:00 NEMC Metals Analysis
Garden 1&2

Session Chair: Joshua Sussman, US Geological Survey and Cecilia O'Connor US Geological Survey

1:00 Novel Developments in Inductively Coupled Plasma Mass Spectrometry: How can the Analysis of Complex Samples Be Made Simple?
Andy Fornadel, Thermo Fisher Scientific

1:30 Chromium VI Analysis Revisited to Respond to Evolving Environmental Regulations
Yujing Jiang, Shimadzu Corporation

2:00 Revising Standard Method's Section 3125 Metals by ICPMS
Matthew Sullivan, Minneapolis Water Works Department

2:30 Improving Sample Throughput for Metals Analysis with Intelligent Automated Standard & Sample Introduction
Yan Cheung, Agilent Technologies

3:00 BREAK Sponsored by Clinisys

Tuesday Technical Sessions

1:00 – 3:00 Environmental Monitoring Coalition (EMC)

Pacific

Coalition Chair: Jerry Parr

The EMC develops consensus recommendations and provides advice to federal and state agencies and stakeholder groups that will reflect the opinions and positions of its constituents on issues that include but are not limited to:

- Validating and implementing methods for environmental sample collection and analysis;
- Encouraging the method performance approach in environmental monitoring and regulatory programs;
- Employing a quality systems approach that ensures that environmental monitoring data are reliable;
- Facilitating the operation and expansion of a national environmental accreditation program; and
- Providing input on specific method implementation and monitoring issues.

1:00 Update on 2023/2024 Activities

1:30 Open Forum
The Open Forum will allow attendees to bring issues to the Coalition that need to be addressed.

3:00 BREAK Sponsored by Clinisys

Afternoon Break Sponsor

clinisys

Thank You!

New Technology Showcase

Tuesday, August 6, 3:30 – 5:00
Harbor

The Innovative New Technology Showcase will feature a five-minute oral presentation describing each new technology followed by a networking session.

Agilent Technologies
Beyond All Limits: Triple Quadrupole GC/MS Innovations for High Performance with Maximum Uptime
The global demand within laboratories for heightened sensitivity to meet rigorous regulatory standards, coupled with an increased emphasis on enhanced uptime to drive productivity, is steadily increasing. This talk showcases how innovations in triple quadrupole GC/MS (GC/TQ) can contribute to maximizing performance and overall instrument uptime. We will explore the critical role played by the sensitivity and selectivity of GC/MS/MS when handling challenging applications, such as pesticide residue analysis in food and the analysis of environmental SVOCs. See how Agilent GC/TQ instrumentation seamlessly integrates low limits of detection and operational efficiency as it addresses the evolving requirements of analytical laboratories, pushing capabilities beyond all limits.

Argos Scientific
Making "Sentient" Air Monitors: Automating QA/QC on Open Path Fence Line Monitoring Systems
One of the key innovations is the system's ability to visually communicate air quality levels through color-changing lights, without requiring manual data retrieval by community members. The system features self-calibrating and self-aligning sensors that autonomously maintain their accuracy and operational integrity, significantly reducing the necessity for human intervention. Enhanced with automatic diagnostic and notification capabilities, these sensors can preemptively signal maintenance needs, thereby ensuring uninterrupted and reliable monitoring. By automating critical aspects of environmental monitoring, this technology shifts the responsibility of air quality tracking from individuals to the system itself.

Biotage
Biotage® Extrahera™ HV-5000
Introducing the Biotage® Extrahera™ HV-5000, an ultra-high throughput automated preparation workstation dedicated to column-based SPE and SLE with 3-, 6-, 10- and 15-mL formats. This cutting-edge technology offers improved extraction performance and streamlines the workflow for laboratories aiming to boost their processing capacity. In PFAS analysis, the Biotage® Extrahera™ HV-5000 has seen early adoption in environmental labs across North America and has swiftly become the preferred choice in sample preparation, establishing itself as the gold standard for automation.

Entanglement Technologies, Inc.
AROMA Trace Chemical Analyzer
Entanglement Technologies' AROMA analysis platform is a thermal desorption, broadband cavity ring-down (TD-CRDS) spectroscopy system capable of part-per-trillion (ppt) speciated volatile organic compound (VOC) measurements in near real-time. Coupling gas chromatographic separations with broadband (> 100 nm wavelength ranges) CRDS enables the sensitive and selective detection of volatile compounds that can be challenging to detect by other analytical methods. AROMA has been developed, validated, and deployed in the field to measure a range of VOCs in liquid and vapor matrices including ambient air, stack emissions, drinking water, sanitary sewer headspace, wastewater and oilfield produced fluid.

LNI Swissgas US
Sonic Nozzle Technology in Gas Calibration Systems
LNI Swissgas is a premier manufacturer of gas calibration systems. Measuring ozone, sulfur dioxide, NOx, and hydrocarbons accurately is sometimes challenging, and gas analyzers require frequent calibration to ensure data reliability of the measurement. LNI Swissgas is offering a new gas mixer product line based on Sonic Nozzle technology that provides a more accurate and stable calibration standard. Sonic Nozzle technology is based on applying constant pressure through a precise convergent and divergent orifice that develops a constant, stable, and precise flow of gas. Our Sonimix product line is designed to calibrate all analyzers with one single device and is available in both a rackable and portable version.

New Technology Showcase

Milestone, Inc.

Direct Mercury Analysis for Environmental Samples

Green technology for the determination of mercury in soil and water samples in accordance with EPA method 7473. There is no sample preparation using acids, oxidants or reducing agents eliminating the generation of waste while producing, high quality data, high throughput, no interferences, and wide operating range from ppt to ppm. Technology is combustion, amalgamation and dual beam atomic absorption spectrometer detection. Initial calibrations last months, daily continuing calibrations and batch QC fully automated.

MilliporeSigma

MilliSentials Lab Labeling System with Barcoding Features

The MilliSentials™ Lab Labeling System is an intuitive labeling system combining laboratory-grade adaptable labels, a compact Wi-Fi thermal transfer printer, and a recently updated custom developed software to streamline laboratory labeling workflows incorporating barcoding. The MilliSentials™ Lab Adaptable Labels are designed with two horizontal perforations that split one, full-sized label into three, smaller labels to allow users to customize their label size to the scientific vessel of interest. The thermal transfer "ink" and adhesive have been tested for compatibility with commonly used laboratory chemicals and can withstand temperatures from -196°C to 37°C.

PromoChrom Technologies

Breakthrough in SPE Efficiency- Presto Accelerated SPE System

Presto is transforming lab workflows by tackling common bottlenecks such as long extraction times for large samples, challenging samples prone to clogging, and variations in field sample volumes. This advanced system features newly integrated continuous pumps for rapid sample loading, capable of processing 1L samples in just 10 to 20 minutes. Each channel on the extractor offers individual flow control and pressure monitoring to ensure optimal flow through the SPE Mini-disks. Additionally, the system's empty line detection alerts users to premature sample depletion and stops loading on completed channels.

Shimadzu Scientific Instuments

GCMS QP2050 - Excellence Redefined

The GCMS-QP2050 is Shimadzu's latest addition to the existing single quadrupole mass spectrometer portfolio. The new QP2050 redefines the user experience by optimizing analytical workflows: sensitivity/robustness, ease of maintenance and footprint. The mass spec was completely redesigned with the new DuraEase ion source, improving sensitivity by 2.5 times and significantly reducing maintenance time. The new design also reduces contamination from sample-derived matrices and column-based byproducts, which increases the lifetime of the source. Shimadzu's new long-life filament extends the life cycle to 5x the number of hours when compared to standard filaments. The GCMS-QP2050 also provides a more economical footprint, reducing size by over 25%.

TE Instruments

EPA 1621 by Xprep C-IC with Tuscan Autosampler and Xprep-A6 Sample Prep

The Xprep C-IC combined with Tuscan autosampler and the new Xprep-A6 sample preparation system represents a solution for rapid AOF analysis as a screening tool for PFAS compounds in water. The approach is to measure total organic fluorine (TOF) by collecting AOF and utilizing C-IC techniques before conducting in-depth LC-MS/MS analysis. This enables faster and more efficient analysis of PFAS compounds, avoiding significant investments and running costs. This is achieved by incorporating a rinsing system with automated capabilities combined with the fraction sample collection mechanism that enables the rerunning or storage of samples.

ThermoFisher

Dionex™ Inuvion™ Ion Chromatography System, the Evolution of IC Continues

The Dionex Inuvion IC system increases lab efficiency with easily configurable workflows and a small footprint. The flexible platform can be tailored to meet current analytical requirements and helps extend IC capabilities to changing sample types and workflow requirements cost-effectively. It features new advanced pump technology that improves speed, quality, and reproducibility; operator-friendly engineering to enhance the operator experience; and user-installable accessories that extend its capabilities and ultimately help achieve the highest quality results.

Xylem Lab Analytics

THM – 1000

During water treatment, organic compounds react with free chlorine to form THMs, which are part of a group of compounds known as disinfection by-products (DBPs) and are considered a health risk when elevated levels are present. The classic way to determine THMs at ppb levels typically includes concentration by purge and trap (P&T) with separation and detection by gas chromatography/mass spectrometry (GC/MS). A new solution for effective monitoring of THMs now exists in a benchtop analyzer that has merged the P&T, GC, and detector into one simple analyzer using the SAW (surface acoustic wave) sensor. This unique monolithic detector is coated with a nanoporous carbon layer and provides almost instant and extremely sensitive responses.

Wednesday Plenary Session

7:00 – 8:00 Continental Breakfast
Grand ABCD

8:00 – 12:00 PLENARY SESSION: Reliable Data for Sound Decision Making
Grand EFG

8:00 Welcome
Earl Hansen, The NELAC Institute

8:15 Introduction to Session
Lara Phelps, Deputy Director (Acting) USEPA, ORM

8:30

Current Trends in Environmental Programs for Environmental Decision Making

Godfrey Uzochukwu
North Carolina A&T University

Dr. Godfrey A. Uzochukwu - Professor and licensed soil specialist, is the founding director of the University's Interdisciplinary Waste Management Institute (WMI) . He completed his B.S. degree in General Agriculture and M.S. degree in Agronomy – Soils and Landuse at Oklahoma State University and his PhD degree in Soil Genesis and Mineralogy at the University of Nebraska. He was a Post-Doctoral Soil Manganese Minerals Scholar at Texas A&M University before joining the faculty of North Carolina Agricultural and Technical State University. He took the lead in developing an Interdisciplinary PhD program in Energy and Environmental Studies (Renamed Applied Science and Technology). Under Dr. Uzochukwu's leadership, NC A&T has hosted six successful National Conferences. He served as the site coordinator and campus project director for the Inter-institutional NSF STC $18 million Center. He teaches and advises undergraduate and graduate students.

9:15

Leading in Sound Evidence-Driven Decision Making: Inspiring Stories from the Field!

Brighton Musevenzo
Evidence 4 Impact 360

Brighton Musevenzo is Senior Consultant and Humanitarian with a decade of international experience leading community-driven systems change. He collaborated with teams in diverse geographical, cultural settings, supporting long-term capacities of communities, promoting the integration of human rights and data principles into practices for social justice. Brighton served with the Office of the High Commissioner for Human Rights in Geneva and the American Red Cross International Services in Washington DC. Awarded Atlas Corps Leadership Exchange Fellow and UN Human Rights in Action Fellow. Dr. Musevenzo has a Masters in Human Rights, Peace and Development, a Bachelor of Science Honors in Sociology. Dr. Musevenzo is passionate about finding sustainable solutions that build shared global prosperity..

Wednesday Plenary Session

10:00 BREAK

10:30

Monitoring for Management: A Modular, Ecosystem Function-based Assessment Framework for Estuaries

Christine Whitcraft
California State University, Long Beach

Christine Whitcraft is currently a full professor in the Biological Sciences Department at CSU Long Beach and Director of the Environmental Science and Policy program. She earned her B.A. in Biology from Williams College in Massachusetts and her Ph.D. in Biological Oceanography from Scripps Institution of Oceanography in San Diego. Following her graduate work, she did a post-doc fellowship with San Francisco Bay National Estuarine Research Reserve and San Francisco State University. Her main research interest is in the functioning of coastal wetlands and estuarine communities from a multi-disciplinary perspective including plant, algae, and benthic invertebrate biodiversity, food web structure, physical environmental parameters, and economic perspectives. As part of a team of researchers, she has been involved in the development of a monitoring framework for estuarine marine protected areas in California.

11:15

Ensuring Reliable Data Across All EPA Programs

Judith Morgan
Pace Analytical Services

Ms. Morgan has over 25 years of experience in environmental analyses and is responsible for the design and implementation of corporate programs for Quality Assurance, Safety, Ethics and Confidentiality, Green Initiatives and Waste Disposal/Minimization. She is responsible for the laboratory QA documents, initiating and overseeing audits, instituting corrective measures (when necessary), implementing numerous international quality standards and preparing internal QA/QC reports. A graduate of Austin Peay State University with a B.S. in Chemistry, Ms. Morgan also holds a M.S. in Analytical Chemistry from Western Kentucky University and has completed research at Vanderbilt University in environmental analysis and was the winner of the 2019 Charlie Carter award. Ms. Morgan is a member of many professional organizations including the American Chemical Society, American Society for Quality and the Society for Environmental Toxicology and Chemistry. Ms. Morgan is a current member of the TNI Board of Directors and active on a number of TNI committees. She is the former Chairman of the EPA Environmental Laboratory Advisory Board and serves on the board for several other industry related organizations. Additional credentials include: Registered Environmental Manager and Certified Data Validator.

Wednesday Technical Sessions

12:00 – 1:30 Lunch on Your Own or Attend a Free Lunch Seminar with

Agilent Technologies

Part 1: Supercharging Productivity for Metals and SVOCs Analysis with the Latest Innovations for Your Lab
Part 2: Demystifying the Future of PFAS Testing in a New Regulatory World
Location: Garden 1&2

PerkinElmer®
For the Better

Advancements in Potable Water Analysis with Universal Collision-Reaction Gas Technology
Location: Pacific

RESTEK®
Pure Chromatography

GC, LC, and Sample Preparation Advancements for the Analysis of Pesticides and SVOCs
Location: Harbor

SHIMADZU
Excellence in Science

Redefine Environmental Analysis with Gas Chromatography and Mass Spectrometry
Location: Garden 4

ThermoFisher
SCIENTIFIC

Part 1: The new Inuvion IC Allows Environmental Labs Fast Turnaround Time on their Anion and Cation Analysis with Lower Operational Costs
Part 2: Automated Targeted and Non-targeted Analysis and PFAS Testing Workflow to Meet Current and Future Regulations
Part 3: Innovative Workflows for Environmental Contaminant Testing using ICP-OES and ICP-MS
Location: Garden 3

Wednesday Technical Sessions

1:30 – 5:00 NEMC Collaborative Efforts to Improve Environmental Monitoring

Garden 1 & 2

Session Chairs: Lem Walker, US Environmental Protection Agency and William Lipps, Shimadzu Scientific Instruments

1:30 A New Method for the Analysis of Pesticides in Water Samples
William Lipps, Shimadzu Scientific Instruments

2:00 Under Development: Standard Methods 4500 N Part F – Persulfate Digestion and Colorimetry using 2,6-Dimethylphenol
Christian Prokisch, MACHEREY-NAGEL

2:30 EPA's Environmental Response Laboratory Network - Preparing for CBRN Incidents
Christina Langlois-Miller, USEPA, CBRN CMAT

3:00 BREAK Sponsored by SEAL Analytical

3:30 Real-Time Detection of Volatile Organic Compounds in RO-Based Potable Reuse
Aurelie Marcotte, Entanglement Technologies

4:00 Strengthening Collaboration and Coordination for Effective Water Contamination Incident Support
Peter Roumeliotis, US Environmental Protection Agency

4:30 Delay Columns: Additional Impacts to Delaying PFAS Present in the Background
Ruth Marfil-Vega, Shimadzu Scientific Instruments

1:30 – 5:00 NEMC The Role of Artificial Intelligence in Environmental Analyses

Garden 3

Session Sponsored by DSP Systems

Session Chairs: Augustin Pierri, Weck Laboratories and Robert Wyeth, The NELAC Institute

1:30 Make Sense of AI and What it will Mean for Your Lab
Stacia Sump, Clinisys

2:00 Facilitating & Improving Environmental Data Analysis: A Machine Learning Approach
Ruoji Luo, Agilent Technologies, Inc.

2:30 Employing Machine Learning and Artificial Intelligence Techniques to Determine Emission Sources at Industrial Facilities Using Open-Source Data from Open-Path and Point Monitoring Systems
Nate Chambers, Argos Scientific, Inc.

3:00 BREAK Sponsored by SEAL Analytical

3:30 AI Based Workflows in Environmental Laboratories
Matthew Cauthen, Clinisys

4:00 Enhancing Environmental Monitoring Through Advanced Quality Assurance of Ambient Pollutants: Leveraging AI and External Data Sources for System Validation
Robert Berge, Argos Scientific, Inc.

4:30 AI Data Analytics in Environmental Laboratories
Matthew Cauthen, Clinisys

Afternoon Break Sponsor

Wednesday Technical Sessions

1:30 – 5:00 TNI Mentor Session: Beyond the Checklist: Corrective Action

Grand EFG

Session Moderators: Calista Daigle, Pace Analytical Services and Valerie Slaven, Pace Analytical Services

A checklist is a good tool to use to assist with documenting and performing various tasks within the lab. In fact, many labs have developed checklists as part of their processes to ensure that they meet the requirements. While checklists can be good tools, they rarely include all the information and considerations required to develop effective corrective actions. This session will take an in-depth look at corrective actions, including discussions related to understanding how to effectively and correctly develop them. As part of this session, we will have two presentations, as well as interactive activities.

1:30 Understanding the Deficiency
Mitzi Miller, Miller Quality Consulting, LLC

To effectively and correctly determine the root cause and potential corrective action(s) for a deficiency, the lab management must have a clear and complete understanding of the deficiency. This segment of the session will include a presentation and game/activity related to the topic. The speaker will share insights and techniques for how to fully understand deficiencies given by external auditors.

3:00 BREAK Sponsored by SEAL Analytical

3:30 Root Cause Analysis: How Deep Is Deep Enough?
Stephanie Rippeon, A2LA

An essential part of developing a corrective action plan is to identify the root cause(s) of the deficiency. Once laboratory management has a clear and complete understanding of the deficiency, they must "sus out" its origin to develop an effective corrective action that, when implemented, will correct the issue. This segment of the session will include a presentation and a game/activity related to the topic. The speaker will describe approaches and methods for performing effective Root Cause Analysis.

1:30 – 5:00 TNI Microbiology Committee

Garden 4

Committee Chair: Cody Danielson, Oklahoma DEQ

The Microbiology Expert Committee is responsible for Module 5 of the TNI laboratory accreditation standard.

- Introductions
- Presentation of Revised Draft Standard Language
- Call for Microbiology Training Topics
- Open discussion

Thank You!

Thursday Technical Sessions

7:00 – 8:00 Continental Breakfast
Grand Foyer

8:00 Welcome: David Friedman, David Friedman Consulting
Grand ABCD

8:30 – 10:00 Current and Planned Activities Dealing with Methods and Monitoring from EPA's Safe Drinking Water, Solid & Hazardous Waste, and Clean Water Programs
Grand Ballroom

Session Moderator: David Friedman, David Friedman Consulting

8:30 US EPA Clean Water Act (CWA) Methods Activities
Adrian Hanley, USEPA Office of Science and Technology
9:00 Federal Drinking Water Program Update
Dan Hautman, USEPA Office of Groundwater and Drinking Water
9:30 SW-846 Methods 2024 Updates
Troy Strock, USEPA Office of Land and Emergency Management

10:00 BREAK

10:30 – 12:00 NEMC Crafting Consensus Methods for Environmental Sampling and Measurement
Garden 3

Session Chair: William Lipps, Shimadzu Scientific Instruments and Raul Dominguez, AQMD

10:30 A New Method for the Analysis of Polar Pesticides and Herbicides in Water Samples
William Lipps, Shimadzu Scientific Instruments
11:00 Development of a New Standardized Method for the Analysis of PFAS in Consumer Products
Logan Miller, Shimadzu Scientific Instruments
11:30 Comparison of Calibration Technique in Analysis of PFAS by Two ASTM Methods
William Lipps, Shimadzu Scientific Instruments

10:30 – 12:00 NEMC Drinking Water
Garden 1&2

Session Chairs: Ken Rosnack, Waters Corporation and Yongtao (Bruce) Li, Eurofins Eaton Analytical

10:30 Adventures in Targeted Toxin Analysis of Various Water Sources: The More You Look, The More You Find
Stuart Oehrle, Northern Kentucky University-Waters Lab
11:00 Lithium Occurrence: What We Have Learned from UCMR5
Bruce Li, Eurofins Eaton Analytical
11:30 PFAS Occurrence: What We Have Learned from UCMR5
Bruce Li, Eurofins Eaton Analytical

Thursday Technical Sessions

10:30 – 12:00 NEMC Per-and Polyfluoroalkyl Substances (PFAS) in the Environment (Session 2)

Grand ABCD

Session Chairs: Mike Chang, Restek Corporation and Jonathan Thorn, Eurofins Lancaster Laboratories Environmental

10:30 Determination of Total PFAS in Food-Contact Materials Using Combustion Ion Chromatography (CIC)
Chris Shevlin, Thermo Fisher Scientific

11:00 Analytical Fate of Ultra-Short Chain PFAS and Inorganic Fluorine in EOF and AOF
David Schiessel, Babcock Laboratories, Inc.

11:30 Tools for the Characterization of PFAS in Wastewater
Jonathan Thorn, Eurofins Lancaster laboratories Environmental Testing, LLC

10:30 – 12:00 TNI Field Sampling and Measurement

Garden 4

Session Moderators: Katie Strothman, Sanders Laboratories and Tracy Szerszen, Perry Johnson Laboratory Accreditation

The National Environmental Field Activities Program (NEFAP) Executive Committee and the Field Activities Committee hold a joint session on future efforts related to the accreditation of Field Sampling and Measurement Organizations (FSMOs).

- Introductions
- Brief Review of Changes to FSMO NEFAP Volume 1 and 2 Standards
- FAC Review of Ideas for Guidance Tools
- 2024 and 2025 Sampling Conclaves
- Future Sampling Workshops
- Feedback on Additional Needed Guidance

12:00 – 1:00 Lunch Provided

Grand EFG

1:00 – 5:00 NEMC Optimizing Laboratory Operations

Garden 1&2

Session Chairs: Judy Morgan, Pace Analytical Services and Andrea Teal, Eurofins Environment Testing

1:30 Providing the Tools to Produce a Detailed Data Package for Reporting Results for Dioxins (Alternate Testing Procedure for the Determination of Dioxins & Furans by Method 1613b Replacing GC-HRMS with GC-MS/MS)
Dale Walker, Agilent Technologies

2:00 Redefined Analysis Workflow Following Environment Method
Yoshiro Hiramatsu, Shimadzu Scientific Instrument

2:30 Simplification of Laboratory Workflows for the Analysis of Common Contaminants as Required per EPA Methods 8270E, 625, Appendix IX, 8081B, 8141B Using Gas Chromatography Mass Spectrometry
Andy Fornadel, Thermo Fisher Scientific

3:00 BREAK

3:30 Closed-Loop Systems for Quality Management in an Environmental Laboratory
Surjit Saini, Santa Clara Valley Water District

4:00 Reducing the Cost of Poor Quality and Improving Efficiency with Quality Management
Elizabeth Turner, Eurofins Environment Testing

4:30 Retooling to Calculate Initial and Annual MDLs Following Revision 2 of 40 CFR 136 App. B
Lisa Stafford, Eurofins Environment Testing

Thursday Technical Sessions

1:00 – 5:00 NEMC Participatory Science

Garden 3

Session Chair: Mike Pascucilla, East Shore District Health Department

1:00 Maintaining Accuracy with Community Science Across Time and Space: California MPA Watch Program
Wendy Berube, Orange County Coastkeeper

1:30 Microbial Source Tracking of Bacterial Contamination in Recreational and Aquaculture Waters – A Root Cause Public Health Tool Towards Improved Water Quality
Sarah Esenther, Institute at Brown for Environment and Society

2:00 Overview of an Innovative Community Air Monitoring Program in the San Francisco Bay Area
Kathy Kerridge, Benicia Community Air Monitoring Program

2:30 Parkrose School District and Argos Scientific Partner to Monitor Air Pollution Near Schools and Provide New Avenues of Educational Integration
Jaxon Tillet, Argos Scientific, Inc.

3:00 BREAK

3:30 A Public/Private Approach for Technical Evaluation of an Innovative Open-path Hydrogen Sulfide Air Monitoring System
Tim Kuiken, MC Tech Group

1:00 – 5:00 NEMC Per-and Polyfluoroalkyl Substances (PFAS) in the Environment (Session 3)

Grand ABCD

Session Chairs: Mike Chang, Restek Corporation and Jonathan Thorn, Eurofins- Lancaster laboratories Environmental

1:00 A Journey from Water Samples to Human Plasma and Serum Finding Ultrashort-chain and Alternative PFAS (C1 – C10) Simultaneously
Mike Chang, Restek Corporation

1:30 Emerging Methods for the Analysis of Volatile PFAS in Water: HS-SPME-GC/MS
Ruth Marfil-Vega, Shimadzu Scientific Instruments

2:00 Monitoring Produced Gases from PFAS Destruction Technologies Inline With OTM-50
Hannah Calder, Markes International

2:30 Chemical Ionization Mass Spectrometry for Real-time Monitoring of Semivolatile Emerging Atmospheric Contaminants: Application of the AIM Reactor in PFAS Detection
Veronika Pospisilova, Tofwerk

3:00 BREAK

3:30 Leveraging MS1 Data in Non-Targeted Workflows to Improve PFAS Discovery
David Schiessel, Babcock Laboratories, Inc.

4:00 Orbitrap GC and LC Workflows for Non-targeted Analysis Using Dispersive Liquid-liquid Microextraction (DiLLME) Sample Preparation
Ed George, Thermo Fisher Scientific

Thursday Technical Sessions

1:00 – 5:00 TNI General Session

Garden 4

Session Moderator: Alfredo Sotomayor, Milwaukee Metropolitan Sewerage District

1:00 Revisiting the Original Vision of NELAP
Jerry Parr, TNI

1:30 Open discussion

2:00 Updates from the Advocacy Committee
Sharon Mertens, MMSD

2:20 Updates from the National Environmental Laboratory Accreditation Program (NELAP) Accreditation Council
Kristin Brown, Utah DHHS

2:40 Updates from the Laboratory Accreditation System Executive Committee (LASEC)
Maria Friedman, California ELAP

3:00 BREAK

3:15 Launch of the Credentials Initiative for Quality Systems Manager
Kenneth Brown, City of Escondido, CA

3:35 Revamp of the Educational Delivery System
Calista Daigle, Pace Analytical Services

4:00 BREAK

4:15 TNI Committee Reports (Moderator, Alfredo Sotomayor, Chair, TNI Board of Directors)
Each TNI Committee Chair will report on their activities during the week.

Friday Technical Sessions

7:00 – 8:00 **Continental Breakfast**
Grand Foyer

8:00 – 8:15 **Welcome and Introduction: Jerry Parr, The NELAC Institute**
Grand ABCD

8:15 – 9:00 **Keynote Address**

We All Need You! The Importance of Laboratory Data to Protect Public Health and the Environment

Sean Maguire
State Water Resources Control Board

Sean Maguire is a registered civil engineer and has had a diverse career both in both public service and as an engineering consultant, which provides a valuable perspective of the administrative challenges facing a government agency and needs of a broad array of water interests. From 2015-2018, Mr. Maguire worked for the State Water Resources Control Board as a manager of the Storm Water Grant Program in the Division of Financial Assistance, and later as a manager in the Division of Water Rights where he oversaw administration of water right change petitions, licensing, and cannabis cultivation permitting. Prior to joining the Board, from 2003-2015, he worked for an engineering consulting firm serving a variety of municipalities and water agencies throughout the state, focused on water resources planning, drinking water, and wastewater infrastructure projects. Much of his work revolved around integrated water management and developing long term water supply solutions to meet the needs of both water users and the environment. Mr. Maguire has a Bachelor of Science in Civil Engineering from California State University, Sacramento.

Friday Technical Sessions

9:00 – 10:10 The Evolving Compliance Landscape in the California Laboratory Community

Session Moderator: Stacie Crandall, The NELAC Institute

9:00 An Update on California ELAP
Christine Sotelo, California ELAP

9:30 How the Florida Society on Environmental Analysts Improved the Professionalism of the Florida Laboratory Community
Robin Cook, City of Daytona Beach

9:50 How the California Society on Environmental Analysts Plans to Improve the Professionalism of the California Laboratory Community
Jennifer McClaren, California ELAP

10:10 BREAK

10:30 – 12:00 Harnessing the Power of the TNI Standard

Session Moderator: Bob Wyeth, The NELAC Institute

10:30 Using TNI Resources to Be Better
Kelvin Yuen, Los Angeles County Sanitation Districts

11:00 Pioneering the Use of NGABs in California
Katelyn McCarthy, California ELAP

11:30 TNI's Impact on the Evolution of ELAP's Enforcement Program
Michael Head, California ELAP

12:00 – 1:00 Lunch Provided

Grand Hall

1:00 – 3:00 Determining What is Really Important in Laboratory Assessments

Session Moderator: Paul Junio, The NELAC Institute

1:00 Panel Presentations (15 minutes each)
- Accreditation Body Perspective: Maria Friedman, California ELAP
- Laboratory Perspective: Prem Parmar, Orange County Water District
- Third Party Assessor Perspective: Tony Francis, SAW Environmental
- Laboratory Consultant Perspective: Aaren Alger, Alger Consulting and Training

2:00 Questions for the Panelists

2:15 Comments and Suggestions from Laboratories, Accreditation Bodies, and Consultants

Poster Presentations

Monday, 3:00 pm – Wednesday, 3:30 pm
Grand Foyer

Air Monitoring, Methods, and Technology

P1 Ethylene Oxide Measurement – Techniques for Sample Collection and Overcoming the Challenges of the Analysis
Hannah Calder, Markes International

P2 Evaluating Membrane Filters for Accurate PFAS Air Emission Analysis with OTM-45: Laboratory and Field Investigations
Lindsay Lozeau, MilliporeSigma

Analyzing Microplastics in the Environment

P3 Microplastics Monitoring in Japanese River Samples Using an Automatic Sample Preparation Device
Ruth Marfil-Vega, Shimadzu Scientific Instruments

Automation & Innovation for Sample Preparation

P4 Analysis of PFAS in Soils via Automated Soil Sample Preparation and LC-MS/MS as a Screening Procedure for EPA Method 1633
Bradley VanMiddlesworth, ePrep Analytical

P5 Automation of US EPA Method 1633 for the Determination of PFAS Samples using the FREESTYLE XANA-PFAS System
Sean McHugh, GERSTEL, Inc.

P6 New Options for Solvent Extraction of Polychlorinated Biphenyls from Environmental Matrices
Alicia Stell, CEM Corporation

P7 Sample Concentration for Volatile Organic Compounds (VOCs) Using Preparative USEPA Methods 5030 and 5035 in Conjunction with Determinative Method 8260 Using Hydrogen Carrier Gas with the Agilent HydroInert Source and Nitrogen Purge Gas with a Teledyne Tekmar Atomx XYZ Purge and Trap
Thomas Hartlein, Teledyne Tekmar

P8 Simple, Quick & Low Cost 6-Position Parallel Channel, High Throughput Automated Sample Cleanup for POPs Analysis
Rudolf Addink, Fluid Management Systems

Collaborative Efforts to Improve Environmental Monitoring

P9 Seawater Nutrient Analysis
Jakob Woodside, Xylem

Drinking Water

P10 Addressing PFAS Contamination: Troubleshooting Common Contamination and Instrumentation Problems
Alexander Adams, Orange County Water District

P11 Employing a Novel SPE Mini-Disk and Extraction System to Maximize the Efficiency of SVOC Methods such as EPA Method 525.2 and 525.3
Jeffrey Nichol, PromoChrom Technologies

P12 Exploring Lower-Level Analysis with DWRL 123-TCP Method: Insights into 123-TCP, EDB and DBCP Evaluation
Tuan Nguyen, Orange County Water District

P13 NDMA – Optimizing Sample Recovery: The Impact of Pressure, Temperature, and Flow
Elder Turcios, Orange County Water District

Emerging Environmental Applications for High Resolution Mass Spectrometry

P14 Combination of Targeted and Non-Targeted Workflows for the Identification of Pollutants in River Water using a Passive Sampling Method
Gregory Nieckarz, Bruker Daltonics

P15 Considerations in Developing a GCMS Accurate Mass Screening Workflow for Environmental Pollutants
Tarun Anumol, Agilent Technologies

P16 Fast Analysis of 140 Pesticides, PAHs, and PCBs by GC/MS/MS
Alexis Willey, Agilent Technologies

Ensuring Reliable Data

P17 Novel Column Chemistry Raises the Bar on Sensitivity and Data Accuracy in the Analysis of Semivolatile Organic Compounds
Jennifer Sanderson, Agilent Technologies

Poster Presentations

Innovative Solutions for Water Testing

P18 Determination of 6PPD-Quinone in Aqueous Matrices Using Solid Phase Extraction with Various Polymeric Sorbents and Liquid Chromatography with Tandem Mass Spectrometry (LC/MS/MS)
Arielle Cocozza, United Chemical Technologies, Inc.

New Organic Monitoring Techniques

P19 Analysis of Anionic and Cationic Polar Pesticides Using a New Mixed Mode Column
Richard Jack, Phenomenex

P20 Analysis of Volatile Organic Compounds by Purge and Trap (P&T) and Gas Chromatography/Mass Spectrometry (GC/MS) Using Nitrogen as a Purge Gas
Jakob Woodside, OI Analytical, Xylem Lab Solutions

P21 Simultaneous Analysis of Underivatized Formic Acid and Volatile Fatty Acids (C2-C5) using the Brevis GC-2050
Ruth Marfil-Vega, Shimadzu Scientific Instruments

P22 Two Methods to Perform the New US EPA Method 1628 with GC/MSD: Traditional Helium Carrier Gas and Hydrogen Carrier Gas
Jennifer Sanderson, Agilent Technologies

Optimizing Laboratory Operations

P23 Creating an Automated Annual MDL Verification Process
Erin Marshall, Orange County Water District

P24 Helium to Hydrogen Conversion for GC/MS and GC/MS/MS Analysis of Semi-Volatile, Volatile, and PAH Compounds: A Practical Guide for Environmental Laboratories
Alex Willey, Agilent Technologies

Participatory Science

P25 Land Policy Regulations and Human and Wildlife Behavior in Endangered and Threatened Bird Habitat
Christina Giudice, Orange County Coastkeeper

P26 Monitoring MPA Violations and Human-Wildlife Interactions to Prevent Sand Barrier Breaching
Christina Giudice, Orange County Coastkeeper

Per- and Polyfluoroalkyl Substances (PFAS) in the Environment

P27 Determination of PFAS in Environmental Wastewater Samples by Combustion Ion Chromatography: Collaboration Results from the EPA Draft Method 1621
Neil Rumachik, Thermo Fisher

P28 Enhanced Sensitivity for PFAS Using a Hybrid Autosampler Approach with LC-MSMS
Emily Parry, Agilent Technologies

P29 EPA Method 1633 Analysis of 40 PFAS & Separation of TDCA Using SelectraCore® C18 HPLC Column by LC-MS/MS
Arielle Cocozza, United Chemical Technologies

P30 Improved Total Organic Fluorine Method for More Comprehensive Measurement of PFAS in Industrial Wastewater and River Water
Richard Jack, Phenomenex

P31 Improvement of the Method Detection Limit Listed in EPA 1633 for PFAS
Ruth Marfil-Vega, Shimadzu Scientific Instruments

P32 LC-MS/MS Robustness: a Real-world Case Study of PFAS Testing
Diana Tran, SCIEX

P33 Redefining the Efficiency of Automated PFAS Extraction following EPA Method 1633 for Large-Volume Samples
Jeffrey Nichol, PromoChrom Technologies

P34 Semi-automated Solid Phase Extraction Cleanup of Soil Samples with LC-MS/MS Analysis of Per- and polyfluoroalkyl Substances (PFAS) in Accordance with EPA Draft Method 1633
Cynthia Grim, Thermo Fisher Scientific

P35 Single vs Triple for PFAS Analysis? Yes, a Single Quadrupole Mass Spec Fits in the Toolbox
Ruth Marfil-Vega, Shimadzu Scientific Instruments

P36 The Use of a Non-Targeted Approach for Characterizing PFAS in Consumer Products
Jonathan Thorn, Eurofins Lancaster Laboratories Environmental

P37 Wastewater, Fish Tissue and Biosolids: An Analytical Evaluation of EPA Method 1633
Kendra Adams, SCIEX

Thank You

to all the volunteers who donate their time to make the Symposium a success!

Environmental Measurement Symposium

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Lara Phelps, USEPA ORD CEMM

Symposium Organizer

Jerry Parr, The NELAC Institute

NEMC Program Chair

Earl Hansen, The NELAC Institute

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Tarun Anumol, Agilent Technologies
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Hannah Calder, Markes International
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Troy Strock, US EPA
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Andrea Teal, Eurofins Environment Testing America
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TNI Acronyms

AB	Accreditation Body
AC	NELAP Accreditation Council
CSDP	Consensus Standards Development Program
CSD EC	Consensus Standards Development Executive Committee
DW	Drinking Water
ESTCP	Environmental Security Technology Certification Program
FAC	Field Activities Expert Committee
FoPT	Field of Proficiency Testing
FSEA	Florida Society of Environmental Analysts
FSMO	Field Sampling and Measurement Organization
IEC	International Electrochemical Commission
IS	Interim Standard
ISO	International Standards Organization
LAB	Laboratory Accreditation Body Expert Committee
LASEC	Laboratory Accreditation System Executive Committee
NEFAP	National Environmental Field Activities Program
NEFAP EC	National Environmental Field Activities Program Executive Committee
NELAP	National Environmental Laboratory Accreditation Program
NGAB	Non–Governmental Accreditation Body
PT	Proficiency Testing
PTP	Proficiency Testing Program
PTPEC	Proficiency Testing Program Executive Committee
QS	Quality System
SERDP	Strategic Environmental Research and Development Program
SETAC	Society for Environmental Toxicology and Analytical Chemistry
SIR	Standard Interpretation Request
SOP	Standard Operating Procedure
SSAS	Stationary Source Audit Sample
TNI	The NELAC Institute*
VDS	Voting Draft Standard
WDS	Working Draft Standard
WET	Whole Effluent Toxicity

*NELAC is not an acronym.

2025 Meetings

THE NELAC INSTITUTE

https://nelac-institute.org

Forum on Environmental Accreditation

February 3 – 6, 2025

Jacksonville, FL

NEMC

https://envirosymposium.group

Environmental Measurement Symposium

August 4 – 8, 2025

St. Louis, Missouri