



# PROGRAM AT A GLANCE

## **Sunday, April 8**

- ▶ 8:00 a.m.–5:00 p.m. Short Courses
- ▶ 3:00–9:00 p.m. Registration Desk Open
- ▶ 6:00–9:30 p.m. Welcome Reception, Exhibits, Poster Group 1 Display

## **Monday, April 9**

- ▶ 7:00-8:00 a.m. Continental Breakfast
- ▶ 9:30-10:00 a.m. Morning Beverage Break
- ▶ 8:30–10:00 a.m. Plenary Session
- ▶ 10:30 a.m.-12:00 p.m. General Lunch
- ▶ 12:10-4:20 p.m. Platform Presentations
- ▶ 1:30-2:00 p.m. Afternoon Beverage Break
- ▶ 4:30-6:30 p.m. Group 1 Poster Presentations & Networking Reception

## **Tuesday, April 10**

- ▶ 7:00-8:00 a.m. Continental Breakfast
- ▶ 9:30-10:00 a.m. Morning Beverage Break
- ▶ 8:00 a.m.-1:50 p.m. Platform Presentations
- ▶ 11:45 a.m.-12:15 p.m. Afternoon Beverage Break
- ▶ **Lunch on own, general lunch not provided**
- ▶ 1:50 p.m. Technical Program Recesses
- ▶ 2:00-6:00 p.m. Short Courses

### Wednesday, April 11

- ▶ 7:00-8:00 a.m. Continental Breakfast
- ▶ 9:30-10:00 a.m. Morning Beverage Break
- ▶ 8:00 a.m.-4:20 p.m. Platform Presentations
- ▶ 11:30 a.m.-1:00 p.m. General Lunch
- ▶ 2:30-3:00 p.m. Afternoon Beverage Break
- ▶ 4:30-6:30 p.m. Group 2 Poster Presentations & Networking Reception

### Thursday, April 12

- ▶ 7:00-8:00 a.m. Continental Breakfast
- ▶ 9:30-10:00 a.m. Morning Beverage Break
- ▶ 8:00 a.m.-3:55 p.m. Platform presentations
- ▶ 11:30 a.m.-1:00 p.m. General Lunch
- ▶ 2:30-3:00 p.m. Afternoon Beverage Break
- ▶ 4:00-5:00 p.m. Closing Cocktail Reception

*\*Specific times are subject to change in the months leading up to the Conference.*

The 80 sessions are organized according to the major topics listed below. The seven panel discussions are scheduled throughout the technical program.

See the following pages for additional information:

- ▶ Pages 14-15: Overview of the platform sessions and panels to be conducted each day. Times for exhibits, breakfasts, lunches, and receptions.
- ▶ Pages 16-17: Poster Sessions in each of the two poster groups.
- ▶ Pages 20-80: Titles and authors for the presentations in each session. Titles beginning with an asterisk (\*) are to be presented as poster presentations.
- ▶ Pages 81-97: Short Course descriptions for the courses offered on Sunday and Tuesday.

## Program Topics

**Emerging Contaminants:** Sessions A1-A10

**Remediation Technologies:** Sessions B1-B9

**Remediation Technology Developments:**  
Sessions C1-C10

**Assessing Remediation Effectiveness:**  
Sessions D1-D6

**Green and Sustainable Remediation:**  
Sessions D7-D9

**Fractured Rock:** Sessions E1-E3

**Addressing Challenging Site Conditions:**  
Sessions E4-E10

**Petroleum and Heavy Hydrocarbon Site Strategies:** Sessions F1-F8

**Vapor Intrusion:** Sessions G1-G4

**Technology Transfer and Stakeholder Communications:** Sessions G5-G7

**Metals:** Sessions G8-G10

**Characterization, Fate, and Transport:**  
Sessions H1-H6

**International Environmental Remediation Markets:** Sessions I1-I3

**Advanced Diagnostic Tools:** Sessions I4-I9

## MONDAY, APRIL 9

7:00 a.m.–7:00 p.m. Registration, Exhibits,  
Poster Group 1 Display

7:00–8:00 a.m. Continental Breakfast

8:30–10:00 a.m. Plenary Session

10:30 a.m.–12:00 p.m. General Lunch

1:30–2:00 p.m. Afternoon Beverage Break

12:10–4:20 p.m. Platform Sessions &  
Learning Lab Demonstrations

**A1.** Insensitive Munitions  
**A2.** Energetics, Perchlorate

**B1.** Thermal Remediation Design & Best Practices

**C1.** Electroenhanced Technologies  
**C2.** Heat-Enhanced Remediation

**D1.** Estimating Cleanup Timeframes and Modeling  
to Support Site Closure  
**D2.** Big Data, Data Mining, and Portfolio Optimization

**E1.** Fractured Rock Site Characterization

**F1.** Natural Source Zone Depletion

**G1.** Vapor Intrusion Risk Assessment and Site Management  
**G2.** Vapor Intrusion Mitigation and Effectiveness

**H1.** Groundwater Modeling Advancements

**I1.** Advancing Environmental Science and  
Remediation in Vietnam

**PANEL.** International Perspectives on  
Management Approaches for PFASs

4:30–6:30 p.m. Poster Group 1 Presentations  
& Networking Reception  
See pages 16-17 for presentations in Poster Group 1.

## TUESDAY, APRIL 10

7:00 a.m.–1:55 p.m. Registration, Exhibits,  
Poster Group 1 Display

7:00–8:00 a.m. Continental Breakfast

9:30–10:00 a.m. Morning Beverage Break

11:45 a.m.–12:15 p.m. Afternoon Beverage Break

8:00 a.m.–1:50 p.m. Platform Sessions &  
Learning Lab Demonstrations

**A3.** Remediation of 1,4-Dioxane  
**A4.** Other Emerging Contaminants

**B2.** Monitored Natural Attenuation  
**B3.** Biological Remedies

**C3.** Innovative and Optimized Delivery Methods  
**C4.** Horizontal Wells

**D3.** Optimizing Remedial Systems  
**D4.** Advances in Monitoring Injection Effectiveness  
(e.g., Radius of Influence)

**E2.** Managing/Remediating Chlorinated Solvent  
Impacts at Fractured Bedrock Sites  
**E3.** Karst Aquifer Case Studies

**F2.** In Situ Remediation of Petroleum Hydrocarbons

**G3.** Vapor Intrusion Preferential Pathways  
**G4.** Advances in Vapor Intrusion Investigations

**H2.** Conceptual Site Models

**I2.** International Case Studies  
**I3.** Botany “Mega” Site Cleanup Program

**PANEL.** Natural Source Zone Depletion (NSZD):  
Treatment Train Engine or Caboose?  
**PANEL.** How Can We Improve Groundwater Transport  
Modeling?  
**PANEL.** Enough Is Enough—When Do You Have Enough  
Data?

2:00–6:00 p.m. Short Courses

## WEDNESDAY, APRIL 11

7:00 a.m.–7:00 p.m. Registration, Exhibits,  
Poster Group 2 Display

7:00–8:00 a.m. Continental Breakfast

9:30-10:00 a.m. Morning Beverage Break

11:30 a.m.-1:00 p.m. General Lunch

2:30-3:00 p.m. Afternoon Beverage Break

8:00 a.m.-4:20 p.m. Platform Sessions &  
Learning Lab Demonstrations

**A5.** Advances in the Analysis of Per-and Polyfluorinated  
Alkyl Substances (PFAS)

**A6.** PFAS Site Characterization

**A7.** PFAS: Risk Assessment and Toxicity

**B4.** Abiotic and In Situ Biogeochemical Processes

**B5.** Zero Valent Iron Applications

**B6.** In Situ Chemical Reduction

**C5.** Advances in Amendments

**C6.** Injectable Activated Carbon Amendments

**C7.** Surfactant-Enhanced Remediation

**D5.** Assessing Performance and Cost of Remedies

**D6.** Applications of Mass Flux and Mass Discharge for  
Remedial Design/Optimization

**E4.** Adaptive Site Management and Risk Management Strategies

**E5.** Large, Dilute and Commingled Plume Case Studies

**E6.** Low-Permeability Zone Case Studies

**F3.** LNAPL Recovery/Remediation Technology Transitions

**F4.** Remediation of Heavy Hydrocarbons

**F5.** MGPs

**G5.** Advances in Technology Transfer

**G6.** Stakeholder Success Stories and Risk Communication

**H3.** High-Resolution Site Characterization (HRSC)

**H4.** Remediation Geology: Geology-Focused Approach to  
Remediation Site Management

**I4.** Compound-Specific Isotope Analysis

**I5.** Environmental Forensics

**I6.** Unmanned Systems for Remote Monitoring

**PANEL.** PFAS Precursors: Is It Too Early or Too Late to Worry  
About Them?

**PANEL.** Building a Remedy with the End in Mind: Advances in  
Adaptive Management for Efficient Cleanup of Complex Sites

**PANEL.** Accelerating the Use of Innovative Technologies: What is the  
Role of Pilot Testing, Demonstration, Verification, and Certification?

4:30–6:30 p.m. Poster Group 2 Presentations  
& Networking Reception

See page 17 for presentations in Poster Group 2.

## THURSDAY, APRIL 12

7:00 a.m.–1:00 p.m. Registration, Exhibits,  
Poster Group 2 Display

7:00–8:00 a.m. Continental Breakfast

9:30-10:00 a.m. Morning Beverage Break

11:30 a.m.-1:00 p.m. General Lunch

2:30-3:00 p.m. Afternoon Beverage Break

8:00 a.m.-3:55 p.m. Platform Sessions

8:00 a.m.-1:00 p.m. Learning Lab Demonstrations

**A8.** PFAS Fate and Transport

**A9.** PFAS: Remediation

**A10.** Pump and Treat for PFAS Remediation

**B7.** Lessons Learned with In Situ Technologies

**B8.** Lessons Learned in DNAPL Source Zone Remediation

**B9.** In Situ Chemical Oxidation

**C8.** Phytoremediation/Mycoremediation and Plant Uptake

**C9.** Combined Remedies and Treatment Trains

**C10.** Emerging Remediation Technologies

**D7.** Reusing and Revitalizing Contaminated Sites

**D8.** GSR Best Practices and Case Studies

**D9.** GSR Metrics and Resiliency Evaluations

**E7.** Cold Region Case Studies

**E8.** Surface Water/Groundwater Interactions

**E9.** Landfill Redevelopment and Management

**E10.** Radiological Issues

**F6.** TPH Risk Assessment and Metabolites

**F7.** Environmental Considerations for Hydraulic  
Fracturing/Shale Gas Production

**F8.** Managing/Remediating Petroleum Impacts at  
Fractured Bedrock Sites

**G7.** Decision Analysis Tools for Environmental  
Restoration Applications

**G8.** Precipitation and Stabilization of Metals

**G9.** Managing Chromium-Contaminated Sites

**H5.** Improvements in Site Data Collection, Data Management,  
and Data Visualization

**H6.** Risk Assessment and Bioavailability Considerations

**I7.** Innovative Sampling and Investigation Tools

**I8.** Real-Time Analysis to Inform Decision-Making

**I9.** Use of Advanced Molecular Tools for Site Assessment or  
Remedy Performance

4:00-5:00 p.m. Closing Cocktail Reception