

Battelle's Fourteenth International Conference on Remediation of Chlorinated and Recalcitrant Compounds

May 31st – June 4th, 2026 in Fort Worth, Texas

Featured Short Courses

Sunday, May 31, 2026

Short Course - Optimizing Integrated Remediation Technologies for Complex Commingled Plumes

8:00 AM – 12:00 PM
Room 202

This short course will provide a comprehensive framework for addressing complex, commingled contaminant plumes using integrated in situ remediation technologies. Participants will learn how to design, implement, and adapt remediation strategies through a combination of scientific principles, practical field experience, and robust monitoring. Real-world case studies and interactive discussions will equip attendees to optimize project outcomes and stakeholder requirements.

Instructors: Ravi Srirangam (Ramboll), Eric Moskal (Cascade), and Fayaz Lakhwala (Evonik)

Tuesday, June 2, 2026

Short Course - Combining ISS and ISCO: Best Practices and Lessons Learned

2:00 PM – 6:00 PM
Room 203

This course will inform participants of critical aspects of the combined remedy of ISCO-ISS. These include fundamental chemistries, key synergies, how to go about a design and bench test, application methods, and lessons learned from those that have previously implemented the technology.

Instructors: Brant Smith (Evonik), Josephine Molin (Evonik), Tony Moran (ENTACT), Christopher Robb (Geosyntec), Isabel Peter Rando (Arcadis)

Featured Presentations

Monday, June 1, 2026

Session – D1. Abiotic and In Situ Biogeochemical Processes Applications and Lessons Learned

12:35 PM – 1:00PM
Room 201

Is pH Adjustment the Primary Driver for Successful Iron Reactive Mineral-Based Groundwater Remediation of VOCs and Metals?

Tom Paterson, Roux

1:00 PM – 1:25 PM
Room 201

Biogeochemical Technology Application for the Full-Scale Treatment of an Aquifer Impacted with Chlorocarbons near a Salt Pond Ecosystem in Sardinia, Italy
Alberto Leombruni, Mike Mueller

Alberto Leombruni, Evonik

Session – G2. Precipitation and Stabilization of Metals

3:55 PM AM – Remediation of Groundwater Contaminated with Divalent Heavy Metals
4:20 PM *Alan Seech, Fayaz Lakhwala, Daniel Leigh, Brad Droy*
Room 203 **Alan Seech, Evonik**

Tuesday, June 2, 2026

Session – D3. In Situ Technologies: Lessons Learned

9:40 AM – The Influence of Carbon, Sulfur, and Phosphorus Transformations on In Situ Reductive
10:05 AM Remediation
Alan Seech, Fayaz Lakhwala, Daniel Leigh
Room 201 **Alan Seech, Evonik**

Session – D4. In Situ Chemical Oxidation: Optimized Design Approaches and Lessons Learned

10:30 AM – Optimizing ISCO and S-ISCO® Injections for Treatment of NAPL Pharmaceutical
Waste Mixture
10:55 AM *Felipe Solano, Leah K. MacKinnon, Neal Durant, Torben Jørgensen, Bastian
Room 201 Gerdmundsson, Jette Sørensen, Klaus Bundgaard Mortensen, Jørgen Christensen*
Felipe Solano, Geosyntec Consultants

11:45 AM – A Balanced Approach for Treating VOCs and 1,4-Dioxane by Integrating ISCO with
Groundwater Recirculation at a Complex Industrial Landfill Site
12:10 AM *Christopher Glidden, Jasmine Mullins, Nicole Robinson, Brad Kubiak, Sandra
Room 201 Dworatzek, Larissa Smith, Kela Ashworth*
Christopher Glidden, Ramboll

Session – H3. 1,4-Dioxane Remediation Technologies and Challenges

11:20 AM – Treating 1,4-Dioxane Commingled with Chlorinated Ethanes with Extended-Release
11:45 AM Potassium Persulfate
Josephine Molin, Brant Smith
Room 204 **Josephine Molin, Evonik**

Wednesday, June 3, 2026

Session - D6. Injectable Activated Carbon Amendments: Lessons Learned and Best Practices

8:50 AM – Increasing Contaminant Destruction during Application of Activated Carbon Reagents
9:15 AM for Reductive Groundwater Remediation
Fayaz Lakhwala, Alan Seech, Daniel Leigh
Room 201 **Fayaz Lakhwala, Evonik**

Session - H6. Large, Dilute and Commingled Plume Case Studies

10:05 AM – Collaborative Pilot Testing to Support Remedial Design of Large CVOC Plumes
10:30 PM *Neil Thurber, Craig MacPhee, Rory Henderson, Paul Dombrowski*
Room 204 **Neil D. Thurber, AECOM**

Thursday, June 4, 2026

Session - D11. Combined Remedies and Treatment Train Technologies

10:05 AM – 10:30 PM
Room 201
Lessons Learned from a Combined ISS and Injection Remedy to Address Chlorinated VOC DNAPL and Groundwater Impacts
Issac Pelz, Arun Chemburkar, Justin Kerl, Ricky Bradford
Isaac Pelz, ERM

10:55 AM – 11:20 PM
Room 201
Sequenced Application of ISCO, S-ISCO® and ERD for Treatment of NAPL Pharmaceutical Waste Mixture
Felipe Solano, Leah K. MacKinnon, Neal Durant, Torben Jørgensen, Bastian Gerdmundsson, Jette Sørensen, Klaus Bundgaard Mortensen, Jørgen Christensen
Leah K. MacKinnon, Geosyntec Consultants

Featured Poster Presentations

Group 1 Posters

Display: Sunday 5:00 PM – Tuesday 1:00 PM

Presentations: Monday 4:30 PM – 6:00 PM

Session – D1. Abiotic and In Situ Biogeochemical Processes Applications and Lessons Learned

Poster # 131 Holistic Remedy Achieves Closure, Saving Significant Time and Money
Karnam Ramanand, Joseph Seracuse, Meghan B. Krishnayya
Karnam Ramanand, Brown and Caldwell

Session – D3. In Situ Technologies: Lessons Learned

Poster # 143 Applying Enhanced In Situ Delivery Mechanisms in Low Permeability Unconsolidated Material
Michael Lamar, Gord Guest, Chapman Ross
Michael Lamar, CDM Smith

Poster # 144 Using Batch- and Pilot-Scale Testing to Improve Design Outcomes for the In Situ Chemical Oxidation and Enhanced Aerobic Biological Degradation of Benzene and Atrazine
Karla Leslie, Kristi Diller, Jeff Snell, Ted Schoenberg, Aaron Sutton, James Henderson, Glenn Ulrich
Karla Leslie, Parsons

Poster # 145 Combined ISCO and ISS Techniques for Intervention at a Site Impacted by Total Petroleum Hydrocarbons
Cristina Deperon Maluf, Adam Cataldo, Otavio Rodriguez
Cristina Deperon Maluf, Ambscience Engenharia Ltda

Poster # 148 Degrading Lindane and Pentachlorophenol in Groundwater: Lessons Learned from Bench-Scale Tests

Julia Wall, Michael Worden
Julia Wall, Civil and Environmental Consultants

Session – D4. In Situ Chemical Oxidation: Optimized Design Approaches and Lessons Learned

Poster # 152 Chloroform Unexpected Generation in an ISCO Remediation Using Sodium Persulfate and Ozone Nanobubbles for a Large CVOC Plume
Caio G. Pasquoto, Matheus Henrique Roldan, Gustavo Dorota Carreiro de Mello
Caio G. Pasquoto, EBP Brasil

Session – D7. Bioremediation: Advances in Amendment Formulations

Poster # 162 ERD Using a Multi-Aquifer Injection Well Transect to Replace a Pump-and-Treat System at a TCE-Impacted Site
Eduardo J. Abdo, Isaac Pelz
Eduardo J. Abdo, ERM

Group 2 Posters

Display: Wednesday 7:00 AM – Thursday 1:00 PM

Presentations: Wednesday 4:30 PM – 6:00 PM

Session – D8. Innovations in ZVI Amendment Formulations and Applications

Poster #63 Benefits of Applying Liquid Reagents with Ultra Fine Zero Valent Iron to Enhance Multiple Reductive Degradation Pathways
Fayaz Lakhwala, Alan Seech, Daniel Leigh
Fayaz Lakhwala, Evonik

Session – D10. Permeable Reactive Barriers: Best Practices and Lessons Learned

Poster # 76 Permeable Reactive Barrier for Treatment of 1,4-Dioxane and VOCs in Saprolite
Paul Dombrowski, Tommy Jordan, William Laaker, Scott Pittenger
Paul Dombrowski, ISOTEC

Poster # 78 Permeable Reactive Barrier Applications of a Combined ISCR and ERD Technology for the Treatment of an Aerobic Aquifer Impacted with Trichloroethylene in the Roman Region
Alberto Leombruni, Mike Mueller
Alberto Leombruni, Evonik

Session – D11. Combined Remedies and Treatment Train Technologies

Poster # 81 Urban Alchemy: Brownfield Transformation by In Situ Remedies
Matthew J. Ambrusch, Alessandra Looman, Gerald Nicholls, Amita Oka, Padmanabhan Krishnaswamy
Matthew J. Ambrusch, Langan

Session – D12. Horizontal Wells: Applications and Lessons Learned in Site Characterization and Remediation

Poster # 89 Remedial Design Optimization: Overcoming the Effect of Complex Site Geology on a Horizontal Well Injection System
Laura Campbell, Michael Worden
Laura Campbell, Civil & Environmental Consultants, Inc

Session – E6. Remediation Approaches in Fractured Rock and Karst Aquifers

Poster # 111 Overcoming Low pH Groundwater: Pilot Remedies for High Mass CVOC in Soil and Bedrock
Mary King, Bruce Smith, Laura Campbell, Andrew Kavanagh
Mary King, Civil & Environmental Consultants, Inc

Session – E9. In Situ Remediation of Petroleum Hydrocarbons

Poster # 139 Treating Commingled Cyanides and PAHs at MGP Sites
Brant Smith, Josephine Molin, Brianna Desjardins, Jonny Bergman
Brant Smith, Evonik

Session – H7. Adaptive Site Management: Lessons Learned for Site Characterization and Remedy Implementation

Poster # 254 Post-ISCO Geochemical Fingerprint as a Tool for Guiding Remedial Design Adaptations and Next Steps
Josephine Molin, Brant Smith, Fayaz Lakhwala
Josephine Molin, Evonik

Poster # 264 Treatment of Contaminants in an Active Developed Area Using ISCO-ISS
Brant Smith, Brianna Desjardins, John Valkenburg, Matt Canvas, Margaret Carillo-Sheridan
Brant Smith, Evonik