



GROUNDWATER RESOURCES ASSOCIATION  
of California

The 24<sup>th</sup> Symposium in the Series on Groundwater Contaminants

# “Solvent Release Sites: Characterization, Cleanup, and Closure”

April 1, 2010 • Santa Clara Marriott Hotel, Santa Clara, CA

## SYMPOSIUM AGENDA

(as of 3/30/10)

7:30            **Registration/Continental Breakfast**

8:00            **Opening and Welcome Remarks**

GRA Board/Co-Chair: Tom Mohr, Santa Clara Valley Water District  
Co-Chair: Rula Deeb, Malcolm Pirnie, Inc.

### **Session 1: Diagnostic Tools for Site Characterization and Remediation of Solvent Sites**

Moderator: Pawan Sharma, Camp Dresser and McKee

8:10            *Advanced Diagnostics for Expedited Closure of Solvent Release Sites*  
Stephen Koenigsberg, ENVIRON International Corporation

8:35            *Optimizing In Situ Chemical Oxidation Performance Monitoring and Project Management Using Compound Specific Isotope Analysis*  
Robert Pirkle, Microseeps, Inc.

9:00            *Advanced Diagnostic Tools for Natural Attenuation and Bioremediation Applications*  
Allen Waldman, WSP Environmental & Energy

9:25            **Break – Exhibitors & Poster Presentations**

## **Session 1: Diagnostic Tools for Site Characterization and Remediation of Solvent Sites (Continued)**

Moderator: Fred Payne, ARCADIS

- 9:55            *Using CSIA and BioTRAPs® to Demonstrate Aerobic Vinyl Chloride Biodegradation Within an Aerated Granular Activated Carbon Vessel*  
Peter Bennett, AMEC Geomatrix, Inc.
- 10:20           *Multilevel Sampling in Traditional Monitoring Wells: A Mixing-Limited, Passive Sampling Approach*  
Sanford Britt, ProHydro, Inc.
- 10:45           *CSIA Forensics at Chlorinated Solvent Release Sites: Characterization and Remediation Optimization*  
Dr. Yi Wang, Zymax Forensics

## **Session 2: Use of Mass Flux/Mass Discharge to Achieve Closure at Solvent Sites**

Moderator: Jennifer Triplett Kingston, Haley & Aldrich, Inc.

- 11:10           *Measurement and Use of Mass Discharge and Mass Flux to Improve Decisions at Contaminated Sites (ITRC Integrated DNAPL Site Strategy Team)*  
Fred Payne, ARCADIS; and Alec Naugle, San Francisco Regional Water Quality Control Board
- 11:35           *Comparison of Field Methods for Estimating Contaminant Mass Discharge*  
Murray Einarson, AMEC Geomatrix, Inc.
- 12:00           Lunch-in-a-Box and a Panel Discussion**  
Moderators: Tom Johnson, ARCADIS and Michael Kavanaugh, Malcolm Pirnie, Inc.  
**Panelists:**  
Alec Naugle, San Francisco Regional Water Quality Control Board  
Brian Haughton, Barg Coffin Lewis & Trapp  
Lenny Siegel, Center for Public Environmental Oversight  
George Cook, Santa Clara Valley Water District

## **Session 3: Source Cleanup Using Innovative Technologies or Treatment Train Approaches**

Moderator: Dennis Maslonkowski, TRC; and Alec Naugle, California Regional Water Quality Control Board

- 1:15            *Effective Enhanced In-Situ Bioremediation at a Solvent Release Site in Northern California*  
John Farr, Farr Associates

- 1:40                    *Stimulation of Biodegradation of Carbon Tetrachloride Using Emulsified Vegetable Oil*  
Cindy Schreier, PRIMA Environmental, Inc.
- 2:05                    *Using a State-of-the-Practice Review to Assess the Feasibility of In-Situ Thermal Technologies at Sites*  
Jennifer Triplett Kingston, Haley & Aldrich, Inc.
- 2:30                    *In Situ Chemical Oxidation Concepts for Chlorinated Solvent Sites*  
Bruce Marvin, Geosyntec Consultants

**2:55                    Break – Exhibitors and Poster Presentations**

**Session 4: Alternative Site Closure Strategies**

Moderator: Terry Feng, CH2M HILL; and Nancy Bice, GeoSyntec

- 3:25                    *Lessons Learned from 1,4-Dioxane Case Studies*  
Thomas Mohr, Santa Clara Valley Water District
- 3:50                    *Alternative Endpoints and Alternative Remedial Strategies for Groundwater Cleanup*  
Elisabeth Hawley, Malcolm Pirnie, Inc.
- 4:15                    *Anatomy of a Solvent Site Closure*  
Stephen Osborne, Fugro West, Inc.
- 4:40                    *Use of Technical Impracticability (TI) Waivers at Superfund Sites*  
Herb Levine, U.S. Environmental Protection Agency, Region 9
- 5:05                    Closing Remarks  
Co-Chair, Elie Haddad, Haley & Aldrich, Inc.

**5:10 – 6:30                    RECEPTION – EXHIBITORS AND POSTER PRESENTERS**

**Poster Presentations**

(will be on display during breaks, lunch and reception)

*Assessing Solvent Sites Accurately and Optimizing Remedial Programs Using High-Resolution, Advanced Passive Soil Gas and Sub-Slab Soil Gas Sampling*

André Brown, W.L. Gore & Associates, Inc.

*Closure Strategies for Chlorinated Solvent Cases in the San Francisco Bay Region*

Kevin Brown, Regional Water Quality Control Board, San Francisco Bay Region

*Sequence Stratigraphy: Critical to the Success of Solvent Release Cleanup*

Richard Cramer, AECOM

*Bench-Scale Evaluation of In Situ Bioremediation of Chlorinated Solvents in Groundwater*

Samantha Curtis, AMEC Geomatrix, Inc.

*Bioaugmentation for Remediation of Chlorinated Solvent Contaminated Sites in California and in Source Zones*

Sandra Dworatzek, SiREM

*Field Comparison of Helium and Freon as a Tracer Gas in Soil Gas Sampling*

Michael Finch, Department of Toxic Substances Control

*Implementation of Department of Toxic Substances Dry Cleaner Site Discovery Process for City of Visalia, CA*

Richard Fink, Kleinfelder, Inc.

*Innovative In-Situ Injection Technology*

Patrick Hicks, Wavefront Technology Solutions, Inc.

*All Electron Donors are Not Created Equal*

Donovan Smith, JRW Bioremediation, L.L.C.

*3D Fence Diagrams - A Cost-Effective Method to Accurately Depict Subsurface Geology, Hydrogeology, and Contaminant Distribution*

Greg Stemler, AMEC Geomatrix, Inc.

*Documenting Enhanced Dechlorination Results Under a Performance-Based Contract*

Gustavo Valdivia, Bureau Veritas North America