



AIChE®



International Society
for Water Solutions

AIChE/A&WMA Joint Workshop on

Shale Oil and Gas E&P – Water Challenges and Opportunities

November 1st and 2nd, 2012 • Pittsburgh, PA

P R O G R A M G U I D E



PROGRAM OVERVIEW

Technical sessions take place in Lawrence Welk Room

Time	Session	Speaker(s)
Wednesday, October 31, 2012		
5:00pm	Registration Opens in Mezzanine Corridor	
6:00pm - 7:30pm	Welcome Reception at Bob and Dolores Hope	
Thursday, November 1, 2012		
8:00am - 8:30am	Registration and Continental Breakfast in Bob and Dolores Hope	
8:30am - 8:45am	Welcoming Remarks and Workshop Overview	Dan Mueller, <i>Zephyr Environmental</i>
8:45am - 9:45am	Keynote Address: Hydraulic Fracturing Demands Technology and Innovation	Jeffrey Daniels, <i>Ohio State University</i> ; Cal Cooper, <i>Apache Corporation</i>
9:45am - 10:15am	Coffee Break	
10:15am - 11:45am	Session I: Water Sourcing and Logistics Session Chair: Dan Mueller, <i>Zephyr Environmental</i>	
	A Regulatory Perspective of Water Sourcing	Mary Ellen Ternes, <i>McAfee & Taft</i>
	Regulating Water Sources for Shale Gas Development in the Susquehanna River Basin	Paula Ballaron, <i>Susquehanna River Basin Commission</i>
	Emphasizing Water Reuse and Repurposing When Identifying Water Sources for Well Drilling and Completions	Sam Bacon, <i>Encana Energy</i>
11:45am - 1:15pm	Lunch at Bob and Dolores Hope	
1:15pm - 3:15pm	Session II: Water Treatment Session Chair: Al Sacco, <i>Texas Tech University</i> ; Session Co-chair: Audra Morse, <i>Texas Tech University</i>	
	Purification and Recycling of Shale Produced Waters - Holistic vs. Selective Target Approaches	Tor Palmgren, <i>M-I SWACO, A Schlumberger Company</i>
	Contrasting Water Treatment Facilities from Produced and Saline Sources West Texas and British Columbia	Cal Cooper, <i>Apache Corporation</i>
	The Oasys™ Forward Osmosis Membrane Brine Concentrator: Commercialization of FO Technology for Brine Minimization	Nathan Hancock, <i>Oasys Water Inc.</i>
	Treating and Reusing Flowback and Produced Water	John Lucey, <i>Heckmann Corporation</i>
3:15pm - 3:45pm	Coffee Break	

Time	Session	Speaker(s)
3:45pm - 5:45pm	Session III: Wastewater Disposal Session Chair: Mark Wilson, <i>GE Power and Water</i> ; Session Co-chair: Lee Lundberg, <i>Veolia Water</i>	
	Sorbents to Extract Value from Flow Back Water and Produced Water: Reversible Capture of Organics and Rare Earth Elements	Dr. Paul Edmiston, <i>ABS Materials</i>
	Unconventional Gas Wastewater Treatment	Harish Acharya, <i>GE Water</i>
	Advanced Technologies for Produced Water Treatment and Reuse	David Burnett, <i>Texas A+M</i>
	Sustainable Solutions for Flowback/Produced Water Challenges in Oil and Gas Fields	Chip Cagle, <i>Veolia Water</i>
6:00pm - 7:30pm	Networking Reception at Bob and Dolores Hope	
Friday, November 2, 2012		
8:00am - 8:30am	Registration and Continental Breakfast in Bob and Dolores Hope	
8:30am - 9:00am	Day Two Opening Remarks: Water Management for Hydraulic Fracturing	Danny Reible, <i>University of Texas at Austin</i>
9:00am - 11:00am	Session IV: Water Reuse and Recycle Session Chair: Jessica Gray, <i>Eastern Research Group</i> ; Session Co-chairs: Tracy Young, <i>Dow</i> ; Martin Abraham, <i>Youngstown State University</i>	
	Water Management Trends in Shale Energy Development	David Yoxtheimer, <i>Penn State Marcellus Center for Outreach and Research</i>
	Water Treatment Technologies for Water Reuse in Hydraulic Fracturing	Aaron Johnson, <i>Dow Water & Process Solution</i>
	Examples of Successful Recycle/Reuse Produced Water/Flowback Water Projects	George Kast, <i>Produced Water Solutions</i>
	Strategic Decision-Making for Water Management Applied to Unconventional Gas	Tekla Taylor, <i>Golder Associates Inc.</i>
11:00am - 11:30am	Coffee Break	
11:30am - 12:30pm	Session V: Panel Discussion Moderator: Danny Reible, <i>University of Texas at Austin</i>	



Texas Tech University's
New Petroleum Engineering Building:

A New Era in Petroleum Engineering Production and Operations Education

Addressing the Energy-Water Nexus

Texas Tech has broken ground on a new facility to house the Bob L. Herd Department of Petroleum Engineering, welcoming a new era in petroleum engineering production and operations education.

The \$20 million privately-funded project will house 40,000 square feet of formal teaching environments with hands-on applications and modern research facilities.

Key courses in the new facility will address responsible and efficient use of water, the region and the world's most precious resource.

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**AIChE and A&WMA
thank you for attending
this year's workshop.**

**We look forward to seeing you
at our future meetings!**



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