



Feasibility Study of Potential Impacts of Select Alternative Produced Water

Produced Water Evaporation Workshop

January 17, 2018, 8 a.m. – 12 p.m.

Meeting Summary

Oklahoma History Center
800 Nazih Zuhdi Dr, Oklahoma City, OK 73105
(OERB Classroom)

ATTENDEES:

Industry Representatives (from Sign In or Introductions):

Patrick Beck, Southwestern Energy	Chris Morss, IDE Technologies
Nick Cohen, Invenergy	Ken Nichols, Devon Energy
Brent Halldorson, Fountain Quail Energy Services	Jesse Sandlin, Devon Energy
Kevin Heasley, Sandridge Energy	Omer Zehavi., IDE Technologies
Dennis Hudgens, Poseidon Saltwater Systems	Kushal Seth, Gradient Energy Services
Robert Huizenga, Cimarex	Alan Schartz, Poseidon Saltwater Systems
Mike Mathis, Continental	Kristin Shanon, Poseidon Saltwater Systems
Thomas McCormick, Marathon Oil Corp.	Mike Skoda, Neptune FS Global
Rick McCurdy, Chesapeake Energy	JP Welch, Veolia
Trey Moore, Logic Energy Solutions	

OWRB Staff, Agencies, Study Partners, and Consultants:

Lindsey Atkinson, CH2M/Jacobs	Mike Moore, OCC
Anna Childers, CH2M/Jacobs	Dan Mueller, EDF
Julie Cunningham, OWRB	Nichole Saunders, EDF
Michael Dunkel, CH2M/Jacobs	Scott Thompson, ODEQ
Lloyd Kirk, ODEQ	Kevin Wagner, OK Water Resources Center (OSU)
Nathan Kuhnert, Bureau of Reclamation	Dan Yates, GWPC
Mark Layne, GWPC	
Owen Mills, OWRB	

The second workshop session consisted of seven technical presentations on produced water evaporation technologies. Presentations were provided by Fountain Quail Energy Services, Gradient Energy Services, Logic Energy Solutions, Neptune FS Global, Poseidon Saltwater Systems, Purestream and Veolia. The presentations are posted on OWRB's website: www.owrb.ok.gov/pwwg.

Fountain Quail Energy Services: NOMAD™ and Modular Base Plant (BMP)™ Systems

Gradient Energy Services: Carrier Gas Concentrator (CGCTM)™

Logic Energy Solutions: Submerged Combustion Thermal Process

Poseidon Saltwater Systems: Enhanced Evaporation

Purestream: Flash Evaporation Technology

Veolia: The Modular Bulldozer Design (MBD)™ System