

Wednesday, February 21, 2018

Black Lab Pub, Churchill Room • 4100 Montrose Blvd.
Social Hour 5:30–6:30 p.m.
Dinner 6:30–7:30 p.m.

Cost: \$30 Preregistered members; \$35 non-members/walk-ups

To guarantee a seat, pre-register on the HGS website & pre-pay by credit card.

Pre-registration without payment will not be accepted.

Walk-ups may pay at the door if extra seats are available.

If you are an Active or Associate Member who is unemployed and would like to attend this meeting, please call the HGS office for a discounted registration cost. We are also seeking members to volunteer at the registration desk for this and other events.

HGS Environmental & Engineering Dinner Meeting

David Bardsley, P.G.

Vice President, Directed Technologies Drilling

James Beach, P.G.

Senior Vice President, LBG-Guyton Associates

ETHICS MOMENT

We will dedicate 15 minutes at the beginning of each meeting to ethics to apply towards 0.25 hours of ethics credit.

Horizontal Directional Drilling for Water Supply Applications

Horizontal directional drilling (HDD) methods have been utilized for environmental and engineering applications starting in the late 1980's. Since then HDD wells have been installed for a wide variety of environmental and geotechnical applications. One industry that has not significantly applied HDD drilling and well installation methodology is the water supply industry. Over the last twenty years only a handful of high capacity water wells have been installed using HDD, compared with hundreds of environmental and geotechnical wells. Most of these water supply installations have been in relatively shallow aquifers with direct connections to surface water bodies. It has long been recognized that horizontal wells allow significantly more screen to be placed into the production zone of a thin aquifer than vertical wells. Decades of experience are now being applied to develop water supply wells for industrial use. Our talk will describe the aquifer characterization using geophysics, site selection in a relatively thin aquifer, and groundwater modeling completed prior to construction. We will also provide details of the well completion process, including drilling and locating assemblies, well materials, reaming processes, well installation and development operations. ■

Biographical Sketches

DAVID BARDSLEY has over thirty-three years of environmental drilling experience working in a variety of settings across the United States. He started his career as a drill rig helper and advanced through various technical and managerial positions in small and large drilling companies. He was an early leader in the use of horizontal



drilling to solve environmental and water supply challenges and has authored/co-authored over 20 papers on horizontal environmental drilling methodology. David has been directly involved in the design and installation oversight of over 100,000' of horizontal environmental and water supply wells.

Mr. Bardsley has a Bachelor of Science degree in Geology & Geophysics along with a Communications Minor (1984) from the University of Missouri-Rolla. He is a licensed well driller in Texas, Arizona and Louisiana and holds RG/PG certifications in Texas, Missouri, Louisiana and Tennessee. He is a strong proponent of education and has served as a short course instructor at Battelle environmental conferences and University of Wisconsin Madison along with presenting environmental drilling training to students at University of Arizona and University of Louisiana Lafayette.

JAMES BEACH is a Senior Vice President with LBG-Guyton Associates in Austin, TX. He is a Professional Geoscientist with over 25 years of experience in quantitative groundwater and surface-water hydrology, water resource planning, water supply development, environmental assessments, numerical flow and solute transport modeling, quantitative contamination evaluations, and litigation support. Mr. Beach has consulted for municipalities, water supply corporations, industrial concerns, private landowners, and government entities and has been involved several large groundwater permitting and transfer projects.

