Association of Environmental & Engineering Geologists
Nashville Chapter

October 1-2, 2022 – AEG Nashville Chapter
Karst Seminar at Mammoth Cave, Kentucky

Scheduled Presentations By:

Cave Research Foundation
The Crawford Hydrology Laboratory
The U.S. Army Corps of Engineers
Ewers Water Consultants
Terracon
Barge Design Solutions
Western Kentucky University Geology Dept.
Student Presentations

Time: Saturday October 1, 2022 12:00 PM – 10 PM at Hamilton Valley Center,
Sunday October 2, 2022 Cave/Hiking Tour, 10:00 AM – 1200 PM. Site to be Determined

Place: Hamilton Valley Research Center, 321 Hamilton Valley Road, Cave City, KY 42127
Phone: (270) 773-8995 (See Directions Attached to Email)

RSVP: **REQUIRED - RSVP** to Section Chair Katherine Clifton at kclifton@ttlusa.com by 7:00 PM, Wednesday, September 28, 2022.

WE ARE ANTICIPATING A LARGE TURNOUT AND CAN ACCOMMODATE UP TO 80 PEOPLE, SO MAKE YOUR RSVP TODAY!

Cost: AEG Members: $25 **Includes Dinner Sat and Breakfast Sun!**
AEG Student Members: $10 **There will be Door Prizes!**

For AEG Members Only. If attending, please join AEG if you are not a member. **AEG Student Membership is now FREE! (local chapter dues of $10 are required)**. Please follow this link: http://www.aegweb.org and click on the orange membership tab if you are interested in becoming a member of AEG. Your

Abstract: This seminar will focus on the various aspects of karst, including caving, exploration techniques and case studies. The presentations will be given by some of the best professionals in the field. Students will be presenting their research and a career development seminar will be given by several members of the AEG Young Professionals Committee to assist them in professional employment skills. The Mammoth Cave area is a very complex karst terrain, with the St. Genevieve and St. Louis Formations of Mississippian age forming the principal karst aquifers. The dissolution conduits formed here are typical of most karst aquifers, forming a convergent flow system, not unlike surface streams.

Flow velocities in the conduits range from 30 to 1300 feet per second, with the highest order conduits commonly as much as 50 feet in width. On reaching the stratigraphically higher, more soluble units, the streams sink near the margin of the sinkhole plain. From there the groundwater flows in subsurface conduits through the upper St. Louis and St. Genevieve units, to emerge as springs along the entrenched Green River.

More than 400 dye traces within an area comprising parts of twenty-two 7.5-minute quadrangle maps have given us an unparalleled understanding of this karst area. Within it there are 22 groundwater/surface basins and major sub-basins. The groundwater dye tracing techniques used in this area will be discussed along with their practical use.

DRIVING DIRECTIONS – Please see attached pdf. File with directions from I-65 northern exit 53 and from I-65 southern exit 48