ILLINOIS GROUNDWATER ASSOCIATION

ADVANCING GROUNDWATER KNOWLEDGE SINCE 1983

SAVE THE DATE:

OCTOBER 27, 2017

Fall meeting at

Fermilab
50 Years of Discovery

Kirk Rd
Batavia, IL 60510

IGA Members and Friends:

In addition to our typical format of presentations at the meeting, Fermilab will be offering guided tours for Fermilab's DZero and MINOS experiment Areas. The tours will occur during the afternoon. There is a limit of only 10 people per group. Therefore, you must choose only one.

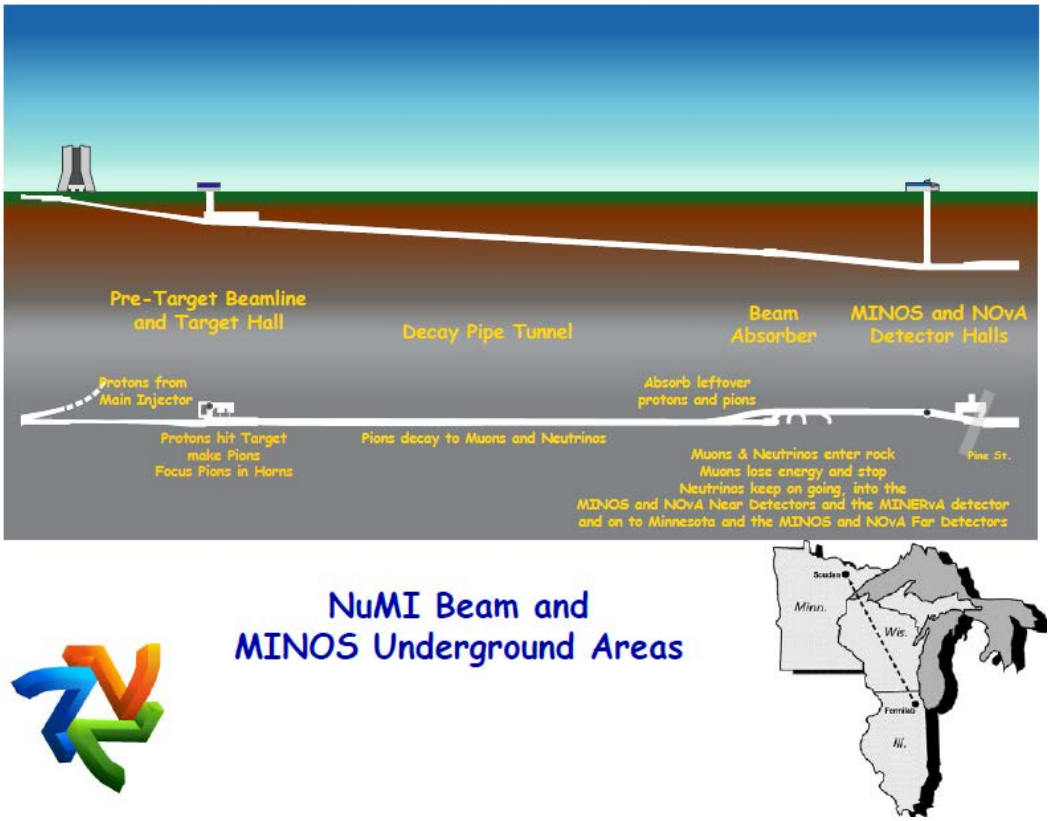
1. D0 (maximum of ~30 feet below ground surface, stairwell access):
   The tour will include stops at the DZero assembly hall, the control room (where the screens replay images captured during DZero detector operation) and the decommissioned Tevatron tunnel. They culminate in the decommissioned detector and its collision hall. In the assembly hall area there is a special explanatory display. Scientist Dmitri Denisov says: "It is a great opportunity for Fermilab employees and for the public to see the wonder of the engineering and the technology that goes into a complex particle accelerator detector... When people tour here, they feel that it is like a rocket launch. It really makes you say, 'Wow! People can really do such complex, amazing, wonderful things.'" Like most of the Fermilab accelerator complex enclosures, the D0 detector and collision hall are at an average depth of about 30 feet below ground surface, constructed within the clay-dominated diamicton facies of the Yorkville Formation. An intermittent perched groundwater zone is monitored at this depth across the Fermilab site.

More information can be found at: http://ed.fnal.gov/programs/tours/dzero.shtml

2. MINOS (~400 feet below ground surface; elevator access, but with a long, damp, inclined walk and stairs to exit in case of emergency):

After being checked in at the Main Control Room, the tour will access the MINOS underground experiment areas through the MINOS elevator shaft. The MINOS underground areas are at the bottom of the NuMI tunnel system and house numerous experiments such as the MINERvA detector and the NOvA near detector, used to study neutrino changes between Fermilab and the far detector in Minnesota. The MINOS elevator shaft is constructed through the unconsolidated units of the Yorkville and Batestown Formations and the dolostone and shale units of the Silurian Dolostone and Maquoketa Shale groups. The NuMI bedrock tunnel system acts as a large french drain and the MINOS underground hall includes a sump lift station to pump the collected groundwater back to the surface and into the accelerator industrial cooling water system. sump lift station to pump the collected groundwater back to the surface and into the accelerator industrial cooling water system.

More information can be found at: http://www-numi.fnal.gov/MinosAreas/Tour/



NuMI Beam and MINOS Underground Areas

Please fill out **this form** to let IGA know if you plan to attend the Fall Meeting and which tour you would like to attend. The tours do not cost extra! **This is not the registration!** This is for planning purposes only.

For those that are not interested in either guided tour, we will also be offering a viewing of Part 3 of the Midwest Geosciences Webinar on **"Designing and Optimizing Groundwater Monitoring Systems in Sedimentary Sequences, PART 3"**

Additional details will be provided as we get closer to the meeting date. If you have any questions, please feel free to email me at agahala117@gmail.com

Cheers!
Amy Gahala
Vice-Chair
Illinois Groundwater Association