



*the Energy to Lead*

# ***Hands-on Keyhole Training: Where We've Been and Where We're Going***

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November 13<sup>th</sup>, 2013

# Findings From April Keyhole Consortium

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- > Training brainstorm exercise revealed a wide-range of needs regarding the implementation of Keyhole Technologies.
- > One area of priority that was identified was hands-on field skills related to keyhole processes and field tasks.

# What would be my next best step to be most effective?

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- > Adult Learning Best Practices would guide me:
  - Adults need to know why they need to learn something
  - Adults need to learn experientially
  - Adults approach learning as problem-solving and be able to demonstrate performance
  - Adults learn best when the topic is of immediate value
  - How did I apply this to shape our Keyhole Pilot in July?

# Planning a Hands-on Training Pilot

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- > Hands-on training would allow for participants to ask deeper questions about why or how something is done
- > All participants got a chance to experience and practice
- > Instruction designed with processes in mind would teach problem-solving and trouble-shooting skills associated with each task
- > Participants will only find value and therefore transfer what they've learned

# GTI Keyhole Training Pilot

- > Full day hands-on training program
- > July 16<sup>th</sup>, 2013
- > In collaboration with AGL/Nicor and Tellus Underground Technology



# Learning Activities in the Pilot Included:

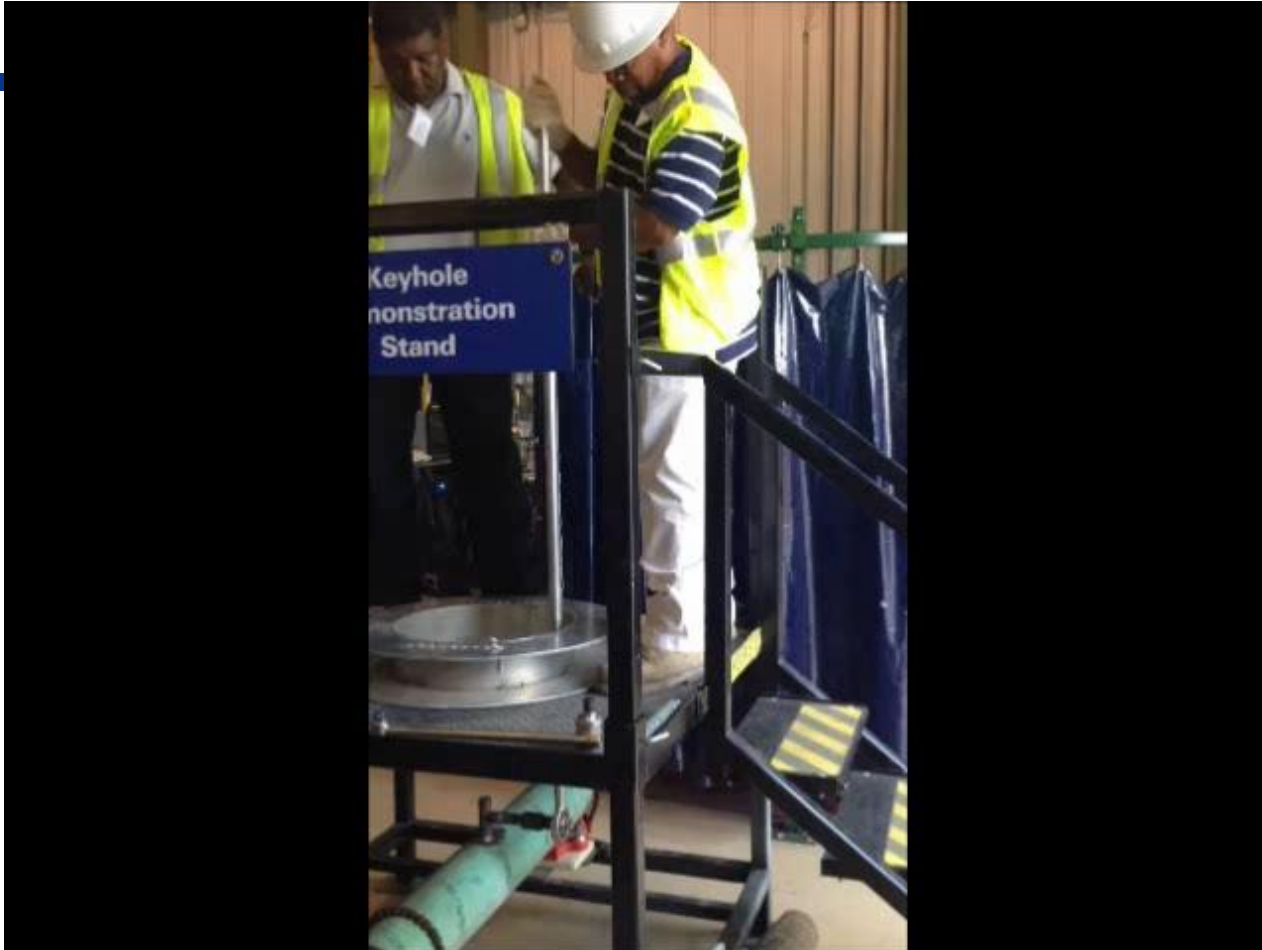
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- > The Pilot Program focused on 4 key processes related to Keyhole Technology:
  - **Service Retirement** – Cast-iron mains with a cast-iron or steel service (less than 2 psig)
  - **Service Retirement** – Steel mains with a “U” bolt saddle and a cast-iron service tee (10 to 100 psig)
  - **Service Retirement** – Steel mains with Mueller welded service tee with no completion plug (10 to 100 psig)
  - **Service Renewal** – Steel mains with a “U” bolt saddle replacing a cast-iron service tee with a steel-to-plastic service tee with a stab-type service connection (10 to 100 psig).

# Square cutting plastic service line with a keyhole cutting tool



# Assembling a threaded cap to a service tee using a keyhole ratchet





# Cutting threads on a retired welded service using a keyhole threading tool prior to capping the service



# Cut and chamfer the service line on a welded steel service prior to threading and capping the service



# What Did the Pilot Teach Us?

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- > Hands-on training is the most effective way to train field skills
- > Training is most relevant and useful to the client when it is customized to their processes and procedures
- > It is crucial that all participants ample opportunity to practice in as close to a “real life” environment as possible

# Change Management and Implementation Still a Major Issue

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- > Management commitment at all levels
- > Standards engineers integrating Keyhole Process, Procedures and Methodologies into the company O & M
- > Proper tooling and equipment for all employees who do the work
- > Company crews or contractors performing the work?
- > ***Many organizations still do not understand the return on investment if implemented properly***

# Next Steps

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- > Planning a webinar for January
  - General topic around implementation
  - Highlighting success stories
  - Primary audience: various management levels involved with implementing Keyhole
- > Seeking more utilities to collaborate with for hands-on training