Horizontal Directional Drilling (HDD) Projects

and

The Rover Pipeline Inadvertent Return in Stark County, Ohio
HDD Diagram
History of Inadvertent Returns In Ohio

• 2012-2013 large build out of Oil and Gas related transmission lines facilities in Ohio.

• 10-inch and smaller pipelines

• Lots of “small” IRs

• Shortage of drilling knowledge concerning HDD work and eastern Ohio geology.
Olenangy River Watershed
4/17/2006
Photo by: Harry Kallipolitis
Otentangy River Watershed
Delaware County
March 22, 2006
Photo by: Harry Kalipolitis
Ohio EPA Experiences with HDD after modified BMPs in place

• Drilling companies refocused Contingency Plans and preventative practices.
• Significant drop in severity & number of inadvertent returns.
Ohio EPA Recommended BMPs

• Administrative BMPs:
  – Anticipate IRs.
  – Establish a Hotline for local landowners and citizens to report anomalies they observe during operations.
    • Right of Way Issues
  – Identify sensitive areas that require more vigilant monitoring while drilling.
Stark County Inadvertent Return

April 13, 2017
Rover Pipeline

- 713 mile, dual 42-inch Pipeline;
- $4.2 billion Interstate Natural Gas Project;
- Transport 3.25 billion cubic feet per day (Bcf/day) of domestically-produced natural gas; and,
- Required a 60-inch HDD borehole
Ohio EPA Recommended BMPs

• Technical Field BMPs:
  – Provide adequate isolation between the borehole and the feature.
  – Pre stage remediation equipment trucks during drilling activities.
  – Have redundancy built in for critical systems. Evaluate each bore for changes in critical system needs.
  – Utilize drone technology to serve as tool in operations for assessment team.
Ohio EPA Recommended BMPs

- Storm Water Runoff Issues
Ohio EPA Recommended BMPs

- Storm Water specific BMPs:
  - Timely reclamation and stabilization.
  - Proper dewatering.
  - Slope breaks.
  - Stream protection controls.
  - Effective perimeter controls.
  - Utilize sediment ponds/traps when design parameters of perimeter controls are exceeded.