

Workscope:

Investigation, Design/Construct/Build large-scale SVE remediation system and dual phase (high vacuum) remediation system

Goal:

Project Closure - Attainment of RCRA Standards for TCE

Site Concerns:

Halogenated VOCs (TCE and PCE) were found in the shallow and deep groundwater zones and in the soils at the facility. A groundwater withdrawal system had been operating for years. Deep bedrock (Brunswick Formation) had been impacted

Geology:

Fractured Bedrock (Brunswick Formation)

Solution:

Transition the project from EPA RCRA Corrective Action to PADEP Land Recycling Program (Act 2). Negotiated revisions to EPA RCRA final decision and respond to comments (FDRTC) to establish the Act 2 Clean-up plan as the approved remediation approach transferring primary oversight responsibility from EPA to PADEP. The Remedial Investigation Report (RIR) and Cleanup Plan were reviewed and approved by both PADEP and EPA.

Innovation:

- Successful transfer of project under the primary authority of EPA to PADEP
- EPA and PADEP agreed to a risk-based remediation approach due in large part to reductions to source area concentrations
- Connected all down-gradient and surrounding properties to public water supply
- Worked with local township to adopt a Municipal Ordinance preventing the installation or use of drinking water wells in the area
- Modeled away risk from groundwater discharge to surface water pathway
- Conducted vapor intrusion evaluation and modeled an acceptable Site-Specific Standard (SSS) for TCE in groundwater
- Went from a TCE groundwater clean-up standard of 5 ppb at all site monitoring wells to a SSS of 1,800 ppb
- Eliminated the need for an 80+ gpm groundwater pump and treat system
- Went from a multi-million dollar remediation expense with no end in site, to a half-million dollar clean-up with expected closure in two years



Client

**Precision Tube
Manufacturer,
Southeast
Pennsylvania**

Project Team

**Paul Miller, P.E.,
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Regulation

**EPA Region III
RCRA Corrective
Action and PADEP
via One Clean-up
Program**

Project Value

\$800,000