

PROJECT SNAPSHOT

High Temperature Treatment at Rt. 44 Drum Site

TCH

Location: Tauton, MA

Client: Geosyntec Consultants, Inc/MADEP

Contamination: SVOCs

Volume: 2,433 cy

Goal: Reduce mass of SVOCs within the TTZ

Number of Heaters: 70

Duration: 7 months of operation

Mass Removed: 14,700 lbs.

WHAT MAKES THIS PROJECT UNIQUE?

High temperature Thermal Conduction Heating (TCH) was selected to treat this former drum disposal area with contamination resulting from drum releases and other buried wastes. The TTZ had been previously excavated but soils in this area were believed to be acting as a continuing source to groundwater. The chemical of concerns (COCs) in soils at the site were chlorobenzenes and naphthalenes.

Important Project Details

- **Approach:** The target treatment zone (TTZ) comprised an irregularly shaped area measuring approximately 4,530 sf. 70 TCH heaters were installed to a depth of 24 ft bgs to meet a minimum temperature of 150°C and 12 ft spacing between wells. A thermal oxidizer was used for off-gas treatment.
- **Challenges:** The treatment duration was extended from 140 to 200 days because of the ongoing significant mass removal rates and to achieve the target treatment temperature within the vadose zone (150°C).
- **Results:** During the 200 days of treatment, 14,700 lbs of COCs were removed via the vapor recovery system. An additional 950 lbs of COCs were removed over the next 60 days of operation. Peak mass removal rates for the TCH system occurred between 30 and 60 days of heating and ranged from 300-500 lbs per day.



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