

**DEMONSTRATION PROJECTS: IMPLEMENTATION OF
PRESUMPTIVE REMEDIES FOR VOCs IN SOILS SITES**

**Site 1: TuTu Wellfield
 St. Thomas, US Virgin Islands**

Site Background

The TuTu Wellfield site, located in a mountainous semi-rural area in St. Thomas, US Virgin Islands, is a primarily a plume of contaminated groundwater covering approximately 108 acres in area. The plume contains chlorinated solvents and petroleum hydrocarbons, while contaminated soils containing the same compounds can be found at various locations throughout the island. This contamination was first detected when a strong petroleum odor was reported from a public supply well. An investigation by the Virgin Islands Department of Planning and Natural Resources (VIDPNR) indicated that volatile organic compounds (VOCs) were contaminating several public, institutional, commercial, and private wells.

As water from these wells was being transported to other parts of the island, many of these wells were shut down in 1987. Tu Tu wellfield is part of the Upper Turpentine Run Basin and a stream leading to Turpentine Run is a few hundred feet from the site. Turpentine Run is approximately 3 miles from Mangrove Lagoon, which is hydraulically connected to the Caribbean Sea. The Atlantic Ocean is approximately one mile from the site. Public and private wells within 4 miles of the site formerly supplied drinking water to an estimated 1600 people.

EPA, as part of the removal action in 1987, provided for an alternative water supply to the affected residences. In 1992, EPA negotiated an AOC with the PRPs to conduct the RI/FS and identify cleanup alternatives at the same time.

Site Status

The PRP group started Phase II of the Remedial Investigation at the site, in March 1994. The presumptive remedies concept for VOCs in soils sites was introduced to the PRP group in March, 1994. The group seems to think that the VOCs in soils directive would apply to this site, but would also like to know more about the presumptive remedies for groundwater sites.

Evaluation Plan

Evaluation of the demonstration project will be conducted as a Regional paired analysis. Four major milestones will be tracked and compared to a Region-specific baseline to analyze the benefits of implementing presumptive remedies. The milestones are as follows:

- o RI Completion;

- o FS Completion;
- o ROD Completion; and
- o RD Completion.

The Region-specific baseline will serve as a "control." Key factors that affect the progress of the RI/FS will be identified (e.g., size of site, contaminants, PRPs), and reflected in the control to ensure that what is being measured is the effect of applying presumptive remedies.