NPL Site Narrative for Bountiful/Woods Cross 5th South PCE Plume

BOUNTIFUL/WOODS CROSS 5TH SOUTH PCE PLUME
Bountiful, Woods Cross, Utah

Conditions at Proposal (December 1, 2000): The Bountiful/Woods Cross 5th South PCE Plume site is located from approximately 500 S to 400 N, and from 500 to 1100 West in Bountiful, West Bountiful, and Woods Cross, Davis County, Utah. The site is bounded by private residences and agricultural land on the west, commercial properties and residences to the south, industrial sites and residential properties to the north, and interstate highway, railroad tracks, and commercial properties progressively farther east.

The Bountiful/Woods Cross 5th South PCE Plume site consists of a contaminated ground water plume in the East Shore Aquifer. The areal extent of contaminated ground water is approximately 245 acres. The vertical extent is unknown, but may be over 100 feet deep, based on detected quantities of tetrachloroethylene (PCE) from depths as shallow as 24 feet, and as deep as 150 feet. There are four residential wells subject to PCE contamination at levels above health-based benchmarks. Approximately 5,900 wells have been constructed in the East Shore Aquifer with private and municipal wells servicing a population of over 45,000 within a four-mile radius of the site. No definitive source has been identified because sampling and analytical data collected to date are not adequate to document and quantify waste sources. The extent of the plume has been identified by data from permanent monitoring and residential wells.

Detections of PCE and trichloroethene (TCE) in the ground water at this site were first noted in 1986. An investigation in May 1987 was conducted at the Woods Cross Phillips 66 Refinery to attempt to identify potential sources of PCE. Elevated levels of PCE were detected both upgradient and downgradient of the refinery.

In 1996, the EPA conducted quarterly sampling of residential wells downgradient or cross-gradient from the contaminated wells discovered by Phillips. EPA also attempted to characterize the nature and extent of the contamination through subsurface soil gas and ground water sampling. EPA also sampled permanent residential wells. Four of the residential wells sampled were found to contain elevated levels of PCE. The households were notified and were supplied with bottled drinking water until permanent connections to the municipal water supply were made in February 1997.

In 1996, the Utah Department of Environmental Quality (UDEQ) conducted a preliminary assessment of the site and identified several potential sources, including dry cleaners, a waste oil refinery, automotive maintenance facilities, and an oil refinery. The main route of exposure identified in the PA is ground water.

In September and October 1998, UDEQ conducted a site investigation focused on identifying the potential sources of PCE upgradient of the site. UDEQ collected five ground water samples. A definitive source of the PCE was not identified.

Annual sampling conducted during August 2000 by Phillips Petroleum Company downgradient of the Phillips Refinery showed TCE and PCE at elevated levels in three monitoring wells.

The latest sampling conducted at this site occurred in September 2000 and was performed by EPA. Analytical results of samples taken from permanent monitoring wells and domestic wells confirmed the presence of PCE, TCE, vinyl chloride and other contaminants at elevated levels.

Status (September 2001): EPA is considering various alternatives for this site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at ATSDR - ToxFAQs (http://www.atsdr.cdc.gov/toxfaqs/index.asp) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.