NPL Site Narrative for Fruit Avenue Plume

FRUIT AVENUE PLUME
Albuquerque, New Mexico

Conditions at Proposal (July 1999): The Fruit Avenue Plume site consists of a plume of trichloroethylene-contaminated ground water in the aquifer underlying downtown Albuquerque, Bernalillo County, New Mexico. Despite extensive efforts by the New Mexico Environment Department (NMED) over the past 9 years, the source of the ground water contamination has yet to be identified.

In April 1989, contamination was detected in a Coca-Cola Bottling Plant well during routine compliance sampling by the City of Albuquerque Environmental Health Department (CAEHD). Trichloroethylene (TCE) was detected at a level of 14.5 micrograms per liter (µg/l), 9.5 µg/l above the maximum contaminant level (MCL) of trichloroethylene in drinking water of 5 µg/l. Subsequent sampling of the well in July 1989 indicated the presence of TCE at 13.1 µg/l. Based on these results and a recommendation from CAEHD, the Coca-Cola Bottling Company discontinued use of the well in July 1989.

In response to the discovery of TCE contamination, NMED initiated a Preliminary Assessment in December 1989 of the area surrounding the Coca-Cola Bottling Plant well. NMED identified five potential sources of the ground water contamination in the downtown Albuquerque area. Subsequent investigations were conducted from 1990 to 1998 to identify the source of the contamination and assess ground water conditions. These investigations included collection and analysis of subsurface soil samples, installation of ground water monitoring wells, and collection and analysis of ground water samples. TCE and a related substance, tetrachloroethylene (PCE), were detected in numerous ground water samples within the area of the plume. Though potential sources of contamination were identified during these investigations, the information collected to date has not been adequate to directly attribute the contamination to one or more of these sources.

In the absence of a specific source of contamination, the Fruit Avenue Plume site has been identified as a plume of contaminated ground water that includes 14 monitoring wells and a closed, private water supply well at which significant levels of contamination have been detected. These 15 wells are located approximately 2 miles east of the Rio Grande River in downtown Albuquerque. The area is approximately bounded by Fruit Avenue to the north, Elm Street to the east, Tijeras/Martin Luther King Avenue to the south, and 4th Street to the west. The 15 wells are located in the Santa Fe Group aquifer, which includes hydraulically connected alluvial fan deposits and valley alluvium in the Albuquerque area. The maximum concentration of TCE detected within the plume to date is 76 µg/l, more than 15 times the 5 µg/l MCL. The maximum concentration of PCE detected within the plume is 15 µg/l, 10 µg/l above the MCL for PCE of 5 µg/l.

The City of Albuquerque relies on water withdrawn from the Sante Fe Group aquifer for its sole source of drinking water. New Mexico and the Albuquerque Basin have long histories of imbalance between water needs and availability. The climate is such that naturally occurring surface water supplies are not dependable. As such, ground water is the primary source of water for urban, rural, commercial, and industrial uses in the Albuquerque Basin. Albuquerque operates 88 ground water supply wells providing drinking water to more than 400,000 individuals. Thirty-six of these wells are completed in the Sante Fe Group aquifer within 4 miles of the site. An active private well is also completed in the aquifer within this

distance. Combined, public and private wells within 4 miles of the site supply the needs of close to 200,000 individuals. Contamination has not been detected in these wells to date.

Status (October 1999): EPA is considering various alternatives for the 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.