NPL Site Narrative for Grants Chlorinated Solvents Plume

GRANTS CHLORINATED SOLVENTS PLUME
Grants, New Mexico

Conditions at Proposal (March 8, 2004): The Grants Chlorinated Solvents Plume site is a ground water plume contaminated with chlorinated solvents in the vicinity of First and Jefferson Street in the city of Grants, Cibola County, New Mexico. The site is located in a primarily mixed commercial/residential area. The area of the ground water plume is defined by ground water samples collected from monitoring wells and direct push sampling points in the upper shallow alluvial aquifer. The known lateral extent of the ground water plume is approximately 1,500 feet long by 600 feet wide; the vertical extent of the ground water plume has not yet been defined.

The New Mexico Environment Department (NMED) Underground Storage Tank Bureau discovered the ground water plume in August of 1993, during an environmental investigation associated with underground gasoline storage tanks. Ground water sampling detected the occurrence of perchloroethene (PCE), trichloroethene (TCE), and dichloroethene (DCE) above Federal drinking water standards in three monitoring wells. Subsequent ground water sampling in the spring of 1994 identified these same chlorinated solvents in three additional monitoring wells installed at the site.

Ground water and soils at the site are contaminated with volatile chemicals that include PCE, TCE, DCE, and vinyl chloride (VC). High concentrations of these volatile compounds were detected in shallow ground water at the site, just four to six feet below the ground surface. Shallow ground water collected from monitoring wells in a residential area have detected PCE as high as 26,000 µg/L. Concentrations of TCE and DCE in shallow ground water have been detected at 6,500 µg/L and 2,400 µg/L, respectively. Several inorganic CERCLA hazardous substances were also observed at significant levels in monitoring wells above background concentrations in ground water at the site. These include arsenic, beryllium, cadmium, chromium, lead, nickel, and zinc.

Ground water sampling has indicated that a total of 15 monitoring wells have been impacted by chlorinated solvents. These wells are completed in a shallow alluvial aquifer. Most of the monitoring wells were completed to less than 15 feet below ground surface. The deepest monitoring wells impacted by chlorinated solvents at the site was completed at a depth of 47 feet.

A source for the release of chlorinated solvents to ground water could not be positively identified. Investigations by NMED have identified several potential source areas, including primarily a current dry cleaning facility, a former dry cleaning facility, and a former telephone company maintenance facility.

The majority of the population within four miles of the site relies on municipal water systems. Five municipal wells are located within a four-mile radius of the site. Two of the municipal wells are owned by the City of Grants, one is owned by the Village of Milan, and two are owned by the Town of San Rafael. All of these wells produce water from the San Andres Limestone and Glorieta Sandstone Aquifer, which is considered a karst aquifer. These wells have not been impacted by chlorinated solvents from the site.

Seven soil sampling locations positively identified soils contaminated with chlorinated solvents at less than two feet below ground surface. The area of observed contaminated soil covers approximately 11,000 square feet. At least seven residents live within 200 feet of the area of observed contamination.

Status (July 2004): EPA is considering various alternatives for this site. To date, two rounds of indoor air sampling have been conducted. Data from indoor air indicates migration of volatile organic substances from the subsurface. EPA is evaluating the data and conducting a risk assessment to identify any potential health impacts from site contaminants.

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.