



# NEWS RELEASE

**For Immediate Release**

Oct. 6, 2005

**Release No. SVJ-100605**

#### **Contact information**

U.S. Army Corps of Engineers, Baltimore District:

**Mary Beth Thompson, Phone: 410-962-2809**

U.S. Environmental Protection Agency, Region III:

**Bill Hudson, Phone: 215-814-5532**

D.C. Department of Health:

**Judith Johnson, Phone: 202-442-9335**

## **Spring Valley partners announce early results from first round of groundwater sampling**

**WASHINGTON** – According to analyses of preliminary chemical results, there were no chemical warfare agents or explosives detected in groundwater samples gathered in August at the Spring Valley Formerly Used Defense Site. However, low levels of perchlorate and arsenic were found. These preliminary results are being released jointly today by the Spring Valley partnership, which consists of the U.S. Army Corps of Engineers, the Environmental Protection Agency and the D.C. Department of Health.

The parameters analyzed for included chemical warfare materiel and their breakdown products, explosives and their breakdown products, volatile and semi-volatile organic compounds, perchlorate and various metals such as arsenic, lead and mercury.

Many of the groundwater samples were taken from monitoring wells in the vicinity of the Dalecarlia Reservoir, an important component of the Washington Aqueduct drinking water system for the District of Columbia and parts of northern Virginia. The Washington Aqueduct regularly tests samples from the reservoir and the finished drinking water, and the results consistently show that the drinking water is safe. None of the results found in the groundwater study contradict the results of the Washington Aqueduct's regular testing.

Perchlorate was found in several monitoring wells to the east and south of the reservoir and at the Lot 18 debris area on the southwestern edge of the American University campus that is currently being excavated. The highest perchlorate concentration, 24 parts per billion, was found to the south of the reservoir at the same location where perchlorate was previously detected at 58 ppb in 2003.

– MORE –

Historical research of the Army's World War I era American University Experiment Station activities indicates perchlorate was involved in at least two aspects of research at the experiment station. Perchlorate was studied in the production of screening smokes and in reaction with mustard agent. It is also a component of road flares, airbags, fireworks and other commercial products, and may be naturally occurring in some locations. Perchlorate dissolves easily and moves quickly in groundwater and surface water. Under certain circumstances, perchlorate can interfere with the functions of the thyroid gland.

EPA has established a reference dose for perchlorate that translates to a Drinking Water Equivalent Level of 24.5 ppb. A Drinking Water Equivalent Level, which assumes that all of the contaminant comes from drinking water, is the concentration of a contaminant in drinking water that will have no adverse effect with a margin of safety. A reference dose is a scientific estimate of a daily exposure level that is not expected to cause adverse health effects in humans.

Other perchlorate detections ranged from less than 1 ppb to 10.6 ppb. Perchlorate in a sample of untreated water in the reservoir was less than 1 ppb. The finished water produced by Washington Aqueduct is tested weekly for perchlorate, and the levels have never been a matter of concern.

The perchlorate results have been validated, which means the laboratory results have been reviewed and authenticated. The data validation process for the other results is ongoing. A report will be released to the public after all of the results have been validated and reviewed by the partners.

Arsenic was found at low levels in two wells and two surface water samples. Arsenic was found at less than 1 ppb in the reservoir sample. The federal drinking water standard for arsenic is 10 ppb. The highest arsenic concentration in the groundwater was 3.5 ppb. Arsenic was used at the experiment station. Arsenic is a naturally occurring substance that is a known carcinogen. It occurs in several forms, often in compounds with other chemical elements.

This first round of data initially characterizes the groundwater beneath Spring Valley, but the partners could not conclusively determine whether or not the low level detections are related to World War I era activities. Further field work is planned to address this question. Three background wells are planned for locations outside of the project area to help determine whether the detected compounds are experiment station related, the result of other human activities or naturally occurring.

One of the goals of the ongoing groundwater study is to determine whether the experiment station activities have affected the groundwater in the northwestern Washington, D.C., neighborhood. Other goals were to characterize the direction of the underground water flow and to determine whether there is a potential influence on the Dalecarlia Reservoir.

It is not known if groundwater flows into the reservoir. Elevation data from this round of sampling determined that the groundwater is moving from Spring Valley in the general direction of the reservoir, but it could not determine whether groundwater is flowing into, under or around the reservoir or whether water is flowing from the reservoir to the groundwater.

The partners are planning the next phase of the investigation now. The next steps may include 1) better defining the interface between groundwater and surface water (creeks and the reservoir), 2) better defining chemistry and groundwater flow in the vicinity of the perchlorate detections, and 3) evaluating the importance of chemical detections at specific wells on the southern portion of the federal property west of Dalecarlia Parkway and at Lot 18.

A community-wide meeting is planned for Oct. 18 at 7 p.m. in the Great Hall of the Metropolitan Memorial United Methodist Church, 3401 Nebraska Avenue, Northwest. A Spring Valley project overview including a summary of recent groundwater study activities, updates on the Lot 18 investigation and other cleanup efforts in the neighborhood will be presented.