



U.S. Army Corps of Engineers
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Lot 18 Investigation History

Spring Valley Formerly Used Defense Site

1999: In April 1999, during a sampling event, a D.C. Department of Health representative discovered surface debris on American University property in the vicinity of the 4801 Glenbrook Road site. This area, called the Small Disposal Area, was thought to be a burial site potentially associated with American University Experiment Station chemical-warfare-materiel-related research and testing activities. An investigation of the Small Disposal Area was conducted.

2000: In the fall-winter of 2000, a sampling investigation identified a number of lots with arsenic soil contamination. Eventual grid sampling in Lot 18 identified seven grids with elevated levels (>20mg/kg) of arsenic. Later sampling brought the total of contaminated grids to 10.

2001: In January 2001, debris — including old used oil filters, glass and lab ware and other miscellaneous items — was removed from the Small Disposal Area. Soil contaminated with elevated levels of arsenic, lead and mercury was encountered and there was one possible detection of lewisite that could not be confirmed by follow-up sampling. Historical evidence suggests that, during the operation of the experiment station, the Small Disposal Area was very close to the perimeter fence. An archaeological review of the items recovered during the excavation concluded that at least two dumping episodes were likely to have occurred and that the manufacturing date ranges of laboratory artifacts are consistent with use during the experiment station's activities. The data did not confirm whether the materials were dumped before or after the closure of the experiment station, however. The area was backfilled and closed after the 2001 removal.

2002-2003: In April and May 2002, two geophysical surveys identified anomalies in several of the grids at Lot 18. The Corps and its Spring Valley regulatory partners — the Environmental Protection Agency and the D.C. Department of Health — decided which anomalies should be investigated based on the survey results.

In November 2002, the Corps, after coordinating with its partners, returned to excavate the Lot 18 debris field as a low probability dig. The dig continued until April 2003. Work had been stopped at the site for budgetary reasons when a bottle that had been recovered from Lot 18 was identified as containing 6 milliliters of 0.3 percent lewisite. The lewisite discovery confirmed the need to change the low-probability dig to a high-probability dig, i.e. there is a high probability of recovering chemical warfare agent or breakdown products.

2004: The Corps, coordinating with the partners, re-evaluated its site safety and work plans and returned to the site in 2004 with extensive safety measures in place. The dig continued within a tent under negative pressure and with redundant filtration systems and air monitoring. The workers wore Level B protective gear and were monitored by closed circuit television from within an operations center. Digging was stopped for the fiscal year August 18, 2004. 474 55-gallon drums of soil had been excavated and about 890 items recovered. Seven items underwent further analysis, and none of these items had detections of chemical agent or agent breakdown products. All of the other items were "scrap."

Fiscal Year 2005 work began November 15, 2004, with a larger sifting table and more workers to increase production. Workers recovered 18 suspect items amid the usual debris, including 15 sealed glass bottles and three ordnance-related items. Breakdown products of mustard, a chemical warfare agent, were identified during analysis of the liquid in one of the recovered bottles. Both chemicals, dithiane and thioxane, were found in low quantities and concentrations.

Late in 2004, Congress published language that urged the Army to speed up the work at Lot 18. The Corps analyzed every aspect of the Lot 18 investigation, seeking ways to protect both safety and health and complete the cleanup more quickly. A work plan was developed that combines a number of new elements that will increase productivity with already established procedures that protect the workers and the public. The larger structure and equipment cost more than had been budgeted. The Army decided to allocate additional funds to the project for the completion of Lot 18 and the six anomalous areas adjacent to it.

2005: Digging was stopped January 21 to make plans and prepare for the larger tent and equipment. The new equipment includes a larger excavator, a mechanical shaker table instead of a manual sifting table and a roll-off container system to remove dirt from the dig site. Digging began under the new tent June 20 and is scheduled to be completed in January 2006. When Lot 18 is completed, work will begin on six additional anomalous areas in the same vicinity. These are scheduled to be completed by the end of March.

For more information about Spring Valley Lot 18, contact Craig Georg, project manager, (410) 962-6782; e-mail Craig.M.Georg@usace.army.mil or Mary Beth Thompson, public affairs specialist, 410-962-4088; email Mary.B.Thompson@usace.army.mil.