US Army Corps of Engineers ®
Baltimore District

The Corps'pondent

A newsletter by the U.S. Army Corps of Engineers for Spring Valley Project area residents

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The Corps' mission in Spring Valley is to identify, investigate and remove or remediate threats to human health, safety or the environment resulting from past Department of Defense activities in the area.

Pit 3 nearing completion, investigation on Glenbrook Road continues

by Carrie Johnston
Community Outreach Representative

The munitions recovery investigation on the 4800 block of Glenbrook Road known as Pit 3, which began on Oct. 29, 2007, is scheduled to be complete the week of March 3, 2008. Following completion at Pit 3, the U.S. Army Corps of Engineers will investigate three adjacent areas — one to the north extending further into the front yard, one to the east, along the side of the house towards the back yard, and the other to the south, along Glenbrook Road.

The decision to investigate the new areas is based on the appearance of a small sink hole at one, and the potential for additional scattered munitions at the others. The USACE is finalizing the planning, which will involve building three separate extensions onto the existing containment structure. Due to these developments, the USACE expects that this may extend the duration of the Shelter-in-Place (SIP) program through June. During the current Pit 3 recovery effort, USACE did not encounter large quantities of stacked buried munitions as were found previously on the adjacent property during the 2002 investigation. This recent Pit 3 investigation resulted in the recovery of several World War I munitions-related items that appeared to have been scattered and reburied, and other American University Experiment Station-related items including a metal drum. The drum, which was referenced in the 2002 Pit 3 investigation reports, was filled with concrete and did not contain any World War I-related items. The concrete may have entered the drum during the construction of the property's current home.

Elevated levels of arsenic were identified in some of the soil found under the existing containment structure and all of this soil was removed. None of the arsenic levels in the soil were greater than 300 parts per million, which is significantly lower than the 1,040 ppm found nearby in the soil from a previous munitions recovery pit, which was removed eight years ago.

As the USACE continues its investigation along the 4800 block of Glenbrook Road, there will be two reconstruction periods that will last between two-to-six weeks. During this time, the Shelter-in-Place alert system will not be active. The investigation of the three additional areas will not increase the size of the current Shelter-in-Place Zone, but will extend the duration of the SIP program.

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Projected schedule for additional investigation areas

	March	April	May	June
Constructing North & East extensions	2-3 weeks			
Investigation of North & East extension areas		2-4 weeks		
Constructing the South extension			4-6 weeks	
Investigating the South extension area*				1-2 weeks

* Earliest possible completion date is in the month of May.
A conservative estimated completion date would be sometime in June.

Corps conducts fence line study

by Maya Courtney
Community Outreach Representative

The U.S. Army Corps of Engineers recently conducted a study to determine the location of the 1918 American University Experiment Station fence line in the area of Operable Unit 3 (figure 1).

The USACE believes, with the exception of the one burial pit discovered and removed in the northernmost part of the project area in 1993, deliberate burials of munitions at the time of the American University Experiment Station were likely done within the boundaries of the AUES fence line.

The location of the AUES fence line was determined by scaling and overlaying a 1918 map obtained from the national archives with a modern day map. Structures such as McKinley Hall and bunkers which still exist today in the Spalding Cpt. Rankin area were aligned to determine the location of the AUES fence line.

Figure 2 is a close-up of the map overlay on Operable Unit 3. The black jagged line in the left of the photo demarcates the AUES fence line.

The structures pictured in the Sgt. Maurer photo were also located with the map overlay.

Based on the locations of Shack #10 and Shack #4, the probable location of the pit in the Sgt. Maurer photo (figure 3) is in Operable Unit 3, near Pit 3.

The AUES fence line study provides the USACE with a better characterization of Operable Unit 3 and a higher confidence level that efforts should be focused within the AUES fence line as the USACE progresses towards completion of the World War I munitions cleanup in Spring Valley.

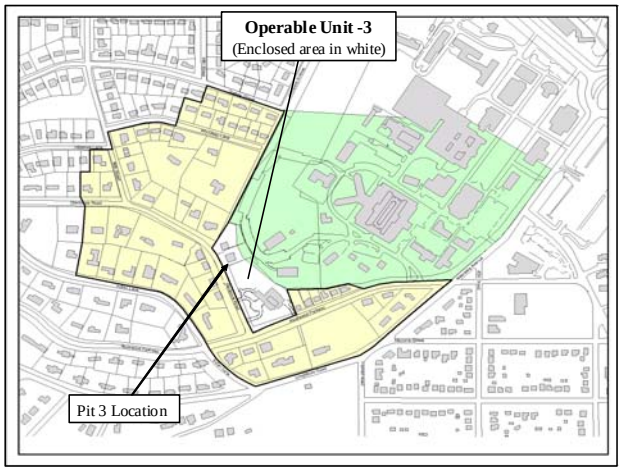

Figure 1 - Operable Unit 3

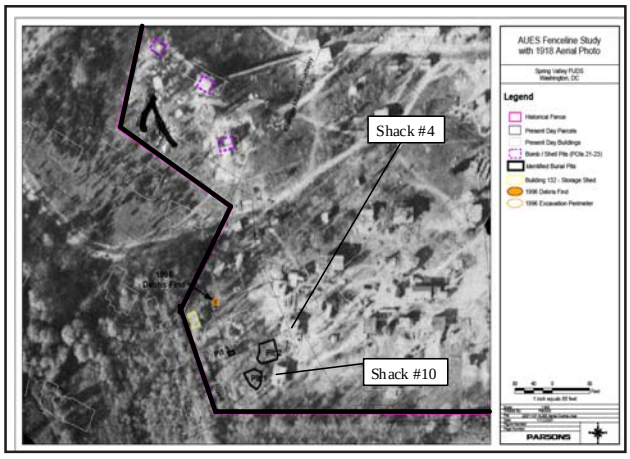

Figure 2 - AUES fence line in Operable Unit 3

Figure 3 - The above photo, submitted by Sgt. Maurer's family, depicts Sgt. Maurer in 1918, perhaps disposing of American University Experiment Station chemicals in the pit in the foreground.

Questions & Answers from the January community meeting

The U.S. Army Corps of Engineers cohosted a community meeting Jan. 8 with D.C. Councilmember Mary M. Cheh at the Horace Mann Elementary School to address the finding of a munition item at Pit 3. Work was paused at the Glenbrook Road site for about six weeks before resuming Jan. 24. Below are some of the questions members of the community asked and the answers.

What makes the round you found unique from the others found before?

This round is unique because it is the first time we have found an 'explosively configured' arsine round. It is only the second time in the history of the site that we have recovered a chemical round that was classified as explosively configured. The Materiel Assessment Review Board could not rule out the possibility that energetics were present in the burster well of the munition; therefore they concluded that it was 'explosively configured.'

Is Arsine the same as Lewisite?

Arsine is not the same as Lewisite; they are separate chemical compounds. Both are toxic compounds, although they act on the human system in different manners. An Arsine molecule is an atom of arsenic surrounded by three hydrogen atoms; Lewisite is a more complex molecule consisting of an arsenic atom, three chlorine atoms, two carbon atoms, and two hydrogen atoms. Arsine is a gas at room temperature while Lewisite is a liquid at room temperature.

What change are you implementing at the storage facility on the federal property because of the unique munition?

We have installed a filter at the interim holding facility. This is a precautionary measure so in the unlikely event that the round would detonate inside its Multiple Round Container, depressurize the container, and allow it to leak, the chemical would not travel outside the interim holding facility. This unique round, though classified as 'explosively configured,' only potentially contains the burster portion of the two-part detonation system; it lacks the fuze, therefore it is very unlikely that this event would occur.

Is there a stronger container other than the Multiple Round Container to hold the munitions?

The Multiple Round Container we are using to store munitions recovered from Pit 3 is certified by the North Atlantic Treaty Organization. It is also the only container formally approved by the Department of Transportation for the transport world-wide of chemical munitions with bursters present. The Multiple Round Container is specifically designed and tested to store chemical munitions and it is the best container used for storage and transport of chemical munitions.

Why not move the round to a national destruction facility?

There is no national destruction facility. Most destruction facilities are built to deal with a specific, identified subset of the Army's chemical warfare arsenal. It is really not possible to simply ship additional items to these facilities.

(continued from page 1)

As the schedule becomes more defined, the Spring Valley outreach team will keep residents informed about when the Shelter-in-Place Zone alert system will be in effect. Also, our on-site crew will continue to place notification signs on the perimeter roads during periods of active digging so that residents and visitors are aware that SIP may be required. These signs are placed in the community on days when digging inside the containment structure takes place; Monday through Friday, from 8 a.m. to 4 p.m. For more information, please call the outreach team at 410-962-0157.

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Spring Valley Formerly Used Defense Site

Project Lifecycle Schedule

This macro schedule is for planning purposes. It can and will change based on actual progress in the field, improved assessment of project needs, new discoveries and changes in funding (as of Feb. 2008).

Military Munitions Response Program (MMRP) & Hazardous & Toxic Waste Program (HTW)

	FY 08	FY 09	FY 10	FY 11
MMRP	Glenbrook Road – Test Pits, Pit 3 American University Public Safety Building 4800 block Glenbrook Road Anomalies Munitions Disposal Residential Geophysics/Intrusive	4800 block Glenbrook Anomalies AU Public Safety Building AU Main Campus Investigations Dalecarlia Woods Area Geophysical Investigation Residential /AOI (* Area of Interest) Geophysics/Intrusive Munitions Disposal	Dalecarlia Woods Impact Area Intrusive Investigation Residential Geophysics/Intrusive Munitions Disposal	** RI/FS Report, Proposed Plan and Decision Document ** Remedial Investigation/Feasibility Report
HTW	Arsenic Soil Removals Groundwater Investigation Property Reimbursements Phytoremediation AOI, Background Sampling Ecological Risk Assessment Lot 18 Risk Assessment ** RI/FS	Arsenic Soil Removals Property Reimbursements Groundwater Investigation Phytoremediation * AOI Sampling ** RI/FS	Property Reimbursements Groundwater Investigation Phytoremediation ** RI/FS Report * AOI Sampling	** RI/FS Report, Proposed Plan and Decision Document

Restoration Advisory Board (RAB) meetings are held the second Tuesday of every month (with the exception of August and December) at 7 p.m. at St. David's Episcopal Church, 5150 Macomb Street N.W.