

Table 1-1. Descriptions of Points of Interest (POIs)

POI Number / Title	Description
POI 1 / Circular Trenches	Identified as the Sedgwick Trench. The Army performed extensive field testing of Chemical Warfare Agents (CWA) such as mustard, phosgene, chloropicrin, and cyanogen chloride at this site. The Sedgwick trench comprised circular trenches approximately 200 feet (ft) in diameter. Livens and 75 millimeter (mm) shells with agent were statically fired in the center of the circular trenches.
POI 2 / Possible Pit	Possible location of a pit used for disposal of scrap metal, duds, and other material associated with and adjacent to the Sedgwick Trench. Conclusion was drawn by analogy with the circular trenches (POI 13) and associated known disposal pit (POI 14).
POI 3 / Small Crater Scars	Consists of small crater scars. Located approximately 200 ft north of the center of the circular trenches (POI 1) and on the southern edge of what is now known to be a range fan used for ballistic test firing activities at the AUES.
POI 4 / Possible Pit	Possible location of a pit used for disposal of scrap metal, duds, and other material associated with and adjacent to the Sedgwick Trench. Conclusion was drawn by analogy with the circular trenches (POI 13) and associated known disposal pit (POI 14).
POI 5 / Possible Pit	Possible pit located near a possible target or test site (POI 6) and within what is now known to be a range fan used for ballistic test firing activities at the AUES.
POI 6 / Possible target or Test Site	Location of a possible target or test site. Located near a tree covered hill within what is now known to be a range fan used for ballistic test firing activities at the AUES.
POI 7 / Possible Test Area	Possible test area that was originally fenced. POI 7 encompasses approximately 41,000 sq. ft. A ground scar and small white areas similar to the mustard test fields were visible within the fenced-in area. Reports indicate these areas were as small as 3 ft square and were used to test for agent persistence. Given the proximity of POI 7 to the Sedgwick Trench, it may have also been used as a holding area for animals used in the field tests at AUES.
POI 8 / Possible target or Test Site	Location of a possible target or test site. Located near a tree covered hill within what is now known to be a range fan used for ballistic test firing activities at the AUES.
POI 9 / Possible Firing or Observation Stalls	Location of a possible remote firing location or observation stalls. No additional historical information is available for this area
POI 10 / Possible Target or Test Site (Smoke Section Dugout)	Location of a Smoke Section Dugout used for the observation of static testing. Located within a possible static test site and approximately 250 ft west of a possible remote firing line (POI 9).
POI 11 / Scattered Ground Scars	Identified in a 1918 photograph by ground scars visible on the crest and reverse slope to the west of a hill. A possible firing line or observation stalls (POI 9) are located approximately 350 ft east of this area. The scattered ground scars are also located within what is now known to be a range fan used for ballistic test firing activities at the AUES.

Table 1-1. Descriptions of Points of Interest (POIs)	
POI Number / Title	Description
POI 12 / Possible Graded Area	No additional historical information is available for this area.
POI 13 / Circular Trenches	Identified as circular trenches that measure approximately 200 ft in diameter. The trenches were used for field testing of CWA, such as mustard, phosgene, chloropicrin, and cyanogen chloride. Initial use of the trenches is believed to have been July-September 1918.
POI 14 / Pit	Located adjacent to POI 13, it is the location of the buried ordnance discovered at 52nd Court during Phase I of OSR. Identified as a disposal pit for scrap metal, duds, live rounds, and lab glassware. The initial use of the pit is believed to have been July-September 1918.
POI 15 / Ground Scar	Identified as a ground scar in a 1918 aerial photomosaic. It is speculated that POI 15 was part of the Chemical Persistency Test Area (POI 16).
POI 16 / Chemical Persistency Test Area	Located on the former Weaver Farm. This large area, approximately 600,000 sq. ft., was cleared of vegetation and sprayed with mustard agent to test for agent persistence.
POI 17 / Possible Pit	Possible pit located near small crater scars (POI 18) and within what is now known to be a range fan used for ballistic test firing activities at the AUES.
POI 18 / Small Crater Scars	In a 1918 aerial photomosaic, several small craters that make up POI 18 are visible. The small crater scars are located on the southern edge of what is now known to be a range fan used for ballistic test firing activities at the AUES.
POI 19 / Old Mustard Field	Labeled on a 1918 topographic map as an "old mustard field". However, no other historical information describing this area is available. If new areas were used for testing (POI 16 for instance), this area could have been abandoned and marked on the topographic map for information purposes.
POI 20 / Ground Scar	Two powder magazines were believed to be located at this site where ground scars were identified in 1918 aerial photomosaic. Extensive disturbance at the same site is visible in a 1927 aerial photograph. These photographs do not clearly show whether the magazines are surface or subsurface features.
POI 21 / Two-chambered shell pit	This concrete walled shell pit consists of an explosive chamber flanked by one observation chamber. The shell pit was used to test the physical properties of explosives, smokes, and CWM. A concrete roof presently covers the shell pit.
POI 22 / Shell pit	Has been incorporated into the foundation of a house.
POI 23 / Three-chambered shell pit	This concrete walled shell pit consists of a central explosive chamber flanked by observation chambers on both sides. The shell pit was used to test the physical properties of explosives and CWM. A concrete roof presently covers the shell pit.
POI 24 / Probable Pit	Probable pit that was initially incorrectly located during the OSR FUDS RI. Now believed to be the pit shown in the SGT Maurer photo (see Exhibit 1-2) and possibly located on 4825 Glenbrook Road.
POI 25 / Possible Trenches	No additional historical information is available on this site.
POI 26 / Small Crater Scars	Consists of small crater scars.
POI 27 / Probable Trench or Ditch	Ground scar analyzed by the USEPA EPIC as a probable ditch or trench. Located on Camp Leach. AUES and Camp Leach were separate entities and were closed on different timelines, Camp Leach prior to AUES; AUES disposals in the trenches are unlikely.
POI 28 / Probable Trench or Ditch	Ground scar analyzed by the USEPA EPIC as a probable ditch or trench. Located on Camp Leach. AUES and Camp Leach were separate entities and were closed on different

Table 1-1. Descriptions of Points of Interest (POIs)	
POI Number / Title	Description
	timelines, Camp Leach prior to AUES; AUES disposals in the trenches are unlikely.
POI 29 /Ground Scar	No additional historical information is available on this site.
POI 30 - 36 / Training Trenches	All seven POIs identified as trenches of various kinds. The trenches were used to train troops in trench warfare techniques but were not known to be used for any chemical testing.
POI 37 / Mill Creek	Based upon historical records search, activities related to AUES are unlikely to have been performed at this POI.
POI 38 / Bradley Field/Major Tolman's Field	Test area where shells containing adamsite were fired. Based on a sketch of the test area in an October 1918 AUES test report, the OSR FUDS located the area approximately 400 ft southwest of the Sedgwick Trenches (POI 1). Later analysis of the features on the sketch concluded that the actual location of the test area could not be established.
POI 39 / Static Test Fire Area	Includes POIs 10 and 11 within its boundaries. A triangular shaped area with the base extending approximately 900 ft along the eastern boundary of Dalecarlia Parkway and the apex extending approximately 70 ft to the east. Believed to have been used as a static test fire area for munitions containing chemical agents.
<i>POIs 40-52 were various laboratories and structures located at AUES</i>	
POI 40 / Ohio Hall	No report of AUES-related issues. Currently occupied AU building, McKinley Hall.
POI 41 / History Building	No report of AUES-related issues. Currently occupied AU building, Hurst Hall.
POI 42 / Physiological Laboratory	No report of AUES-related issues. Located on the same footprint as an existing AU building, School of International Service Annex.
POI 43 / Gun Pit	Livens Gun Pit (still present) where Livens rounds were fired from this location. Historic photographs show the gun pit and mortars and the Livens tubes firing smoke rounds. This POI refers to the same Livens Gun Pit included in AOI 4.
POI 44 / Chemical Research Laboratory	No report of AUES-related issues. Currently occupied AU building, Mary Graydon Center.
POI 45 / Explosives Laboratory	No report of AUES-related issues. Located in same footprint as an existing AU building, Media Production Center.
POI 46 / Canister Laboratory	No report of AUES-related issues. Located in same footprint as an existing AU building, Anderson Hall.
POI 47 / Research Laboratory	No report of AUES-related issues. Bacteriological Laboratory located within OU-4 AU Lot 28.
POI 48 / Dispersoid Laboratory	No report of AUES-related issues. Located in same footprint as an existing AU building, Letts Hall.
POI 49 / Pharmacological Laboratory	No report of AUES-related issues. Located in the same footprint as an existing AU building, Anderson Hall.
POI 50 / Gun Pit	No report of AUES related issues. Located in the same footprint as an existing AU building, Media Production Center.
POI 51 / Fire and Flame Laboratory	No report of AUES-related issues. Located within POI 53 on the southern edge of OU-4 AU Lot 1.
POI 52 / Electrolytic Laboratory	No report of AUES-related issues. Located within POI 53 on the southern edge of OU-4 AU Lot 7.
POI 53 /Baker Valley	Suspected to have been located near the western perimeter of the original grounds of AUES based on comments written on the back of 1918-1919 photographs. The photographs of Baker Valley were taken within the fenced area and oriented toward the west. Baker Valley is located on the southern slope of the hill where the shell pits (POI 21/22/23) were built.

Table 1-1. Descriptions of Points of Interest (POIs)	
POI Number / Title	Description
POI AU / American University	According to historical photographs of AUES, many small, temporary buildings and several other buildings and features associated with research, development and testing of CWAs were located in the area currently occupied by the AU baseball field. During operations of AUES, several accidents were documented that may have resulted in the release of CWAs.
<i>Source: USACE, 1995b. Remedial Investigation Report for the Operation Safe Removal - Formerly Used Defense Site, Washington, D.C. Prepared by Parsons Engineering Science, Inc. June.</i>	

Table 1-2. Descriptions of Areas of Interest (AOIs)	
AOI Number / Title	Description
AOI 1 / "X" Feature	There is an "X" shaped feature visible on the 1918 aerial photomosaic of the AUES grounds. The origin and function of the feature was initially unknown. It was incorrectly identified as a potential air strip in 1986. It was later thought to represent sets of shallow parallel trenches used for testing. However, when ground scar locations were revised in 2009 using updated GIS software, the "X" Feature was identified as the early beginning of the intersection of 48th Street and Rodman Street.
AOI 2 / Rick Woods Burial Pit	During the 1980s, a Civil War relic hunter entered the WA grounds and encountered a cache of WWI shells, most of which he and a partner removed from the property.
AOI 3 / Gunpowder Magazine Area	Two gunpowder magazines, a detonator storage facility, and an explosive service building were located west of the AUES perimeter fence. Ground scars at these locations were visible into the 1920s.
AOI 4 / Livens Gun Pit	A Livens Gun Pit (still present) and two associated shell storage pits were located on the AUES. Livens rounds and 3" and 4" Stokes mortar rounds were stored and fired from this location. Historic photographs show the gun pit and mortars and the Livens tubes firing smoke rounds. This AOI refers to the same Livens Gun Pit described as POI 43.
AOI 5 / 4825/4835 Glenbrook Road	This current location corresponds to the area described in 1921 where the Army buried munitions. Since 1992 there have been several events where AUES glassware and chemicals have been encountered. In 2001 a munitions disposal pit was discovered at 4825 Glenbrook Road.
AOI 6 / Dalecarlia Impact Area	Downrange terminus for the Range Fan. Previous geophysical surveys in the Dalecarlia Woods have identified numerous anomalies in the woods. Several expended 75mm shells and Livens projectiles were recovered during intrusive investigations in 1994. According to historical documentation, 75mm shells were used for statically fired testing and were therefore likely associated with the nearby POI 39 and POI 13 and not related to the Range Fan ballistically fired testing.
AOI 7 / Rockwood Six Properties	Six properties in what is now the 4600 block of Rockwood Parkway are located in part of the former AUES grounds. These properties are located near the area that was described in 1921 where the Army was given permission to bury munitions. Several of these properties are adjacent to Lot 18 on AU property.
AOI 8 / Possible Graded Area	Location of a ground scar identified as Possible Graded Area in USEPA EPIC report. This AOI was identified as POI 12 during the original 1993 to 1995 OSR investigation. A former resident of a property located on this feature reported health problems to the USEPA after performing yard work one summer.
AOI 9 / Sedgwick Ground Scars	During WWI a double ringed set of test trenches were constructed at what is now the 5000 block of Sedgwick Street. Analysis of the August 1918 aerial photomosaic of the AUES range and reservation showed this trench and also identified several additional ground scars in the vicinity of the test trench. Six of these ground scars were identified as POI's and were investigated.
AOI 10 / Westmoreland Recreation Center	The recreation center is located in Montgomery County, Maryland. While staff at the center asked USEPA if there were any potential hazards related to AUES activities at the park, there is no historical evidence suggesting testing activities at this location.
AOI 11 / 52 nd Court Pit and Trenches	This was the site of the original munitions discovery in January of 1993. The munitions and other WWI era materials were removed as part of a Time Critical Removal Action. It was identified as an AOI because there was some concern that the area had not been completely investigated and that chemical contamination or munitions items remain.
AOI 12 / Livens Battery Impact Area	This area was not identified as a POI during the initial OSR FUDS investigation. However, a 1918 topographic map did label a hill top feature as a "TARGET". Review of AUES photographs at Fort Leonard Wood showed a photograph of the Livens battery

Table 1-2. Descriptions of Areas of Interest (AOIs)	
AOI Number / Title	Description
	firing several projectiles and their impact down range. This AOI is located in the Livens/Stokes mortar range that was discovered in 2003.
AOI 13 / Quebec/Woodway 13	WWI era maps and aerial photographs suggest much AUES activity took place in this general vicinity. It was close to the fenced perimeter of the AUES and several AUES buildings including a Detonator Shed and a Bomb Filling Shed, and an unidentified building, as well as ground scars including small crater scars (POI 26) were located in this area.
AOI 14 / Sharpe Bunker on Seminary	A former Spring Valley resident recalled a "bunker" type structure present on the Wesley Seminary property in the 1950s. In 2002 the resident and Spring Valley team members conducted a site visit to this location. WWI records do not place any structures at this location and existing Wesley Seminary records showed nothing at this location.
AOI 15 / Dog Wallows	A Spring Valley resident reported a foul smelling odor to DDOE after her dog had rolled in dirt in this area. No historical documentation is related to this area to associate it with past AUES or Camp Leach activities.
AOI 16 / Westmoreland Circle Impact Area	A 1918 test report indicates that 100 chemical shells were ballistically fired from howitzer tubes at the AUES. A 1922 aerial photograph shows several ground scars visible in open fields near the Westmoreland Circle, but AUES and Camp Leach land use records indicate that the Army did not use this parcel of land during WWI.
AOI 17 / \$800,000 Burial Site	The original AOI report speculated that this burial site was located on WA property. The subsequent revision moved the location onto the AU campus, but did not identify a specific location. Two AU newsletter articles indicate that munitions were buried in a remote part of the campus prior to 1921. (see Section 1.4.2.1) This burial pit is likely one of the several burial pits identified and removed from 4801 Glenbrook Road and 4825 Glenbrook Road.
AOI 18 / Major Tolman's Field	Major Tolman conducted a number of field tests including test firing of toxic smokes and G-76, diphenylchloroarsine shells. A 1918 field test report at Major Tolman's field contains a sketch map that shows topographic lines, woods, and several other features. In 1993, USACE identified a location that appeared to be the closest fit to match features on the sketch. The DDOE proposed another location for this AOI. Neither of the possible locations were complete matches.
AOI 19 / Tenleytown Station	A search light station was located on Camp Leach grounds near Tenleytown during WWI. The station appears to have remained open after the closure of Camp Leach. The AOI report speculates that chemicals from AUES may have been moved to the Tenleytown facility for storage. There is no historical evidence that this AOI was used for storage or disposal activities.
AOI 20 / Slonecker-Johnson Trenches	The 1922 aerial photograph of the area shows several linear ground scars in a field east of (across Nebraska Avenue) the History Building on the American University campus. The AOI report identifies these features as trenches and speculates they may have been used to dispose of chemicals. The AOI report also cites perchlorate detection in monitoring wells downstream from this location. WWI real estate information indicates this parcel of land was not used by either AUES or Camp Leach.
AOI 21 / Weaver Farm	The Weaver Farm was a focal point of activity in the AUES range and proving ground. The 52 nd Court Trench and burial pit were located near the farm complex. Numerous POIs were located in the vicinity of the farm complex as well. The November 1918 AUES land use memo indicates that the Army leased 68.4 acres of land from Mr. Weaver. AUES field test records indicate numerous field tests were conducted on and around the grounds of the Weaver Farm. Overlaps with other AOIs including AOI 8, 9, 11, 12, and 24.

Table 1-2. Descriptions of Areas of Interest (AOIs)

AOI Number / Title	Description
AOI 22 / Mercury Detection Areas	AOI 22 was defined based on previous SVFUDS sampling results indicating detections above background levels of mercury, a component of several explosives used at AUES. There were also several buildings at AUES that were used to store detonators and other explosives.
AOI 23 / Railroad Sidings	Historically a railroad right of way ran through the WA property. A 1940 map of the WA property shows a chemical siding spur adjacent to the rail line. AUES and Camp Leach documents discuss the use of rail lines. "1918 Completion Reports" for AUES and Camp Leach indicate rail lines were not authorized for either facility. Other WWI documents discuss the use of rail lines for shipping supplies in the future tense. WA archives indicated the siding was not present prior to 1920. Construction of this spur is probably tied to the construction of the water treatment building in the 1920s.
AOI 24 / Antimony Detection Areas	Soil sampling during the OSR FUDS Phase 2 detected antimony at several POIs. AOI 24 was defined based on the detections of antimony, a component in detonators and fuzes. The 1995 RI did not recommend remediation at these locations because the antimony levels were below health risk screening levels.
AOI 25 / Camp Leach Trenches	Several sets of training trenches were constructed in the Camp Leach Drill and Trench grounds. These trenches are present on 1918 Camp Leach maps, the 1918 aerial photomosaic, and several other photographs. WWI documents indicate the trenches were filled by December 1918. There were concerns expressed that the trenches may have been used as disposal sites during closure activities. AUES and Camp Leach were separate entities and were closed on different timelines, Camp Leach prior to AUES; AUES disposals in the trenches are unlikely.
AOI 26 / 4801 Glenbrook Road Pit	Portions of what is now 4801 Glenbrook Road were inside the AUES perimeter fence line. Two munitions disposal pits have been found on this property. A third disposal pit straddled the property line of 4801 and 4825 Glenbrook Road.
AOI 27 / Third Circular Trench	The 1918 AUES aerial photograph shows two circular test trenches present in the range and proving ground. The November 1918 AUES ground use memo indicates that 185.65 acres of WA grounds (identified as the Girls Reform School in the memo), were available for use by the AUES. The AOI report speculates that a third circular trench was constructed in a wooded area on the WA grounds to simulate testing in different terrain. The location is in Maryland. No WWI land use documents indicate any AUES use of this area. In 2002, the USEPA prepared a report entitled Aerial Photographic Analysis of Chesapeake and Ohio (C&O) Canal Field Test Site. This report did not identify any possible trenches or any other features at the proposed location of this AOI.
AOI 28 / Hamilton Hall Burial Pit	In 1986, AU expressed concerns about a possible "bomb pit" near Hamilton Hall. It was not clear what, if any, investigations were conducted at this potential feature. The DDOE identified a shallow depression they initially identified as a "probable bomb pit" near the southwest corner of Hamilton Hall.

Source: USACE, 2008a. Spring Valley FUDS Partnership Tier I Memorandum for Record: Completion of Area of Interest Task Force (AOITF) Mission. January.