RFAAP Site Status - URS Group
December 2009

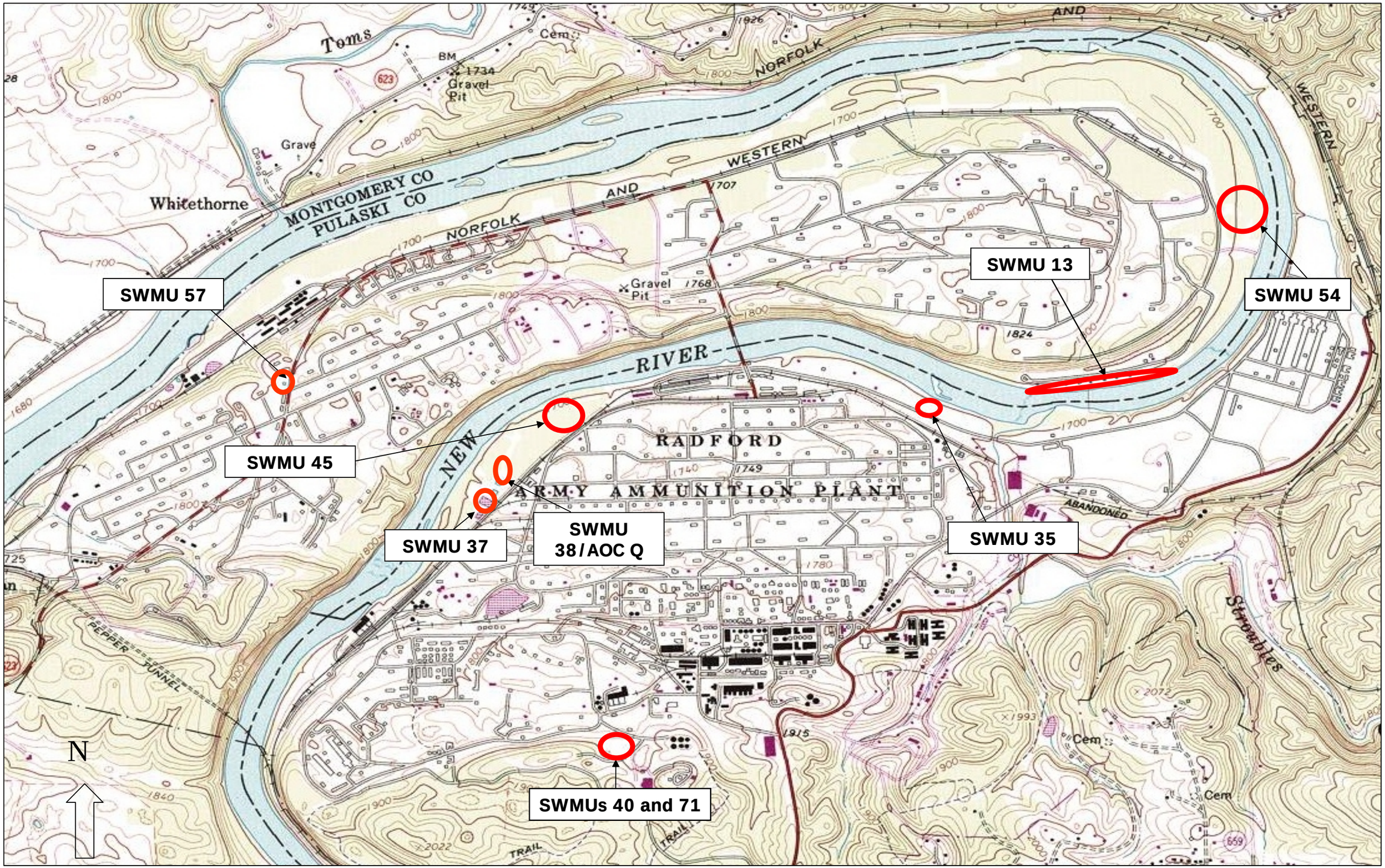
Location	Description	Current Site Status											
		SSP			RFI/CMS			IM		Final Action			
		Workplan	Fieldwork	SSP Report	Workplan	Fieldwork	RFI Report	Workplan	Action Complete	LTM	MNA	LUC	NFA
SWMUs													
SWMU 6	Acid Wastewater Lagoon	●	●	●									●
SWMU 8	$CaSO_4$ Treatment/Disposal Area	●	●	●									●
SWMU 13	Area Outside OBG	●	●	●	●	●	○						
SWMU 35	$CaSO_4$ Treatment/Disposal Area	●	●	●	●	●	○						
SWMU 36	$CaSO_4$ Drying Bed	●	●	●									●
SWMU 37	$CaSO_4$ Treatment/Disposal Area	●	●	●	●	●	○						
SWMU 38	$CaSO_4$ Treatment/Disposal Area	●	●	●	●	●	○						
SWMU 40	Landfill Nitro Area				●	●	●						
SWMU 45	Landfill #3	●	●	○									
SWMU 46	Propellant Burial	●	●	●									●
SWMU 54	Propellant Burning Ash Disposal Area				●	●	●						
SWMU 57	Pond by Building 4931/4932	●	●	●	●	●	●						
SWMU 68	Chromic Acid Treatment Plant Tanks	●	●	●									●
SWMU 69	Pond by Chromic Acid Treatment Plant Tanks	●	●	●									●
SWMU 71	Flash Burn Parts Area				●	●	●						
SWMU 75	Waste Oil Underground Storage Tanks (Inert Gas Plant)	●	●	●									●
SWMU 76	Waste Oil Underground Storage Tanks	●	●	●									●
AOCs													
AOC F	Former Drum Storage Area	●	●	●									●
AOC Q	$CaSO_4$ Treatment/Disposal Area	●	●	●	●	●	○						
SSAs													
SSA 18	Sulfuric Acid Recovery Plant - Waste Acid Treatment			○									
SSA 30	Asbestos Disposal Trench No. 1			○									
SSA 60	Rubble Pile East of Administration Building			○									
SSA 72	Oleam Plant Acidic Wastewater Sump			○									
SSA 77	Garbage Incinerator			○									
SSA 79	Asbestos Disposal Trench No. 2			○									

Notes:

SWMU = Solid Waste Management Unit
AOC = Area of Concern
SSA = Site Screening Area
SSP = Site Screening Process
NFA = No Further Action

RFI/CMS = RCRA Facility Investigation/Corrective Measures Study
IM = Interim Measures
LTM = Long-Term Monitoring
MNA = Monitored Natural Attenuation
LUC = Land Use Controls

○ = Underway
● = Action Complete



Site Location Map

Radford Army Ammunition Plant

FACT SHEET
SWMU 13
(December 2009)

Introduction

This fact sheet describes the proposed RCRA Facility Investigation (RFI) investigation in the Solid Waste Management Unit (SWMU) 13 RFI study area located outside the current operational area of the open burning ground (OBG) at Radford Army Ammunition Plant (RFAAP).

Background

The SWMU 13 RFI study area is located in the western section of the Horseshoe Area (HSA) between the perimeter berm of the OBG and the north bank of the New River. The SWMU 13 RFI study area is the area adjacent to the OBG not addressed under the RCRA Subpart X Permit. Groundwater in the area of OBG is currently being evaluated under the facility's Subpart X permit issued by the Virginia Department of Environmental Quality (VDEQ) in October 2005. Groundwater monitoring and any required corrective action for groundwater will be addressed under the facility's Subpart X permit; therefore, groundwater will not be further investigated or addressed under this RFI. Soil sampling and any required corrective action within the OBG also will be addressed under the facility's Subpart X permit; therefore, the soil located within the OBG will not be investigated as part of this RFI.

The RFAAP RCRA Corrective Action Permit identified SWMU 13 as an area of concern that had the potential to pose a threat or potential threat to human health and the environment. SWMU 13 was a part of the Site Screening Process (SSP) investigation completed in 2007 which resulted in a recommendation of a focused RFI for the site.

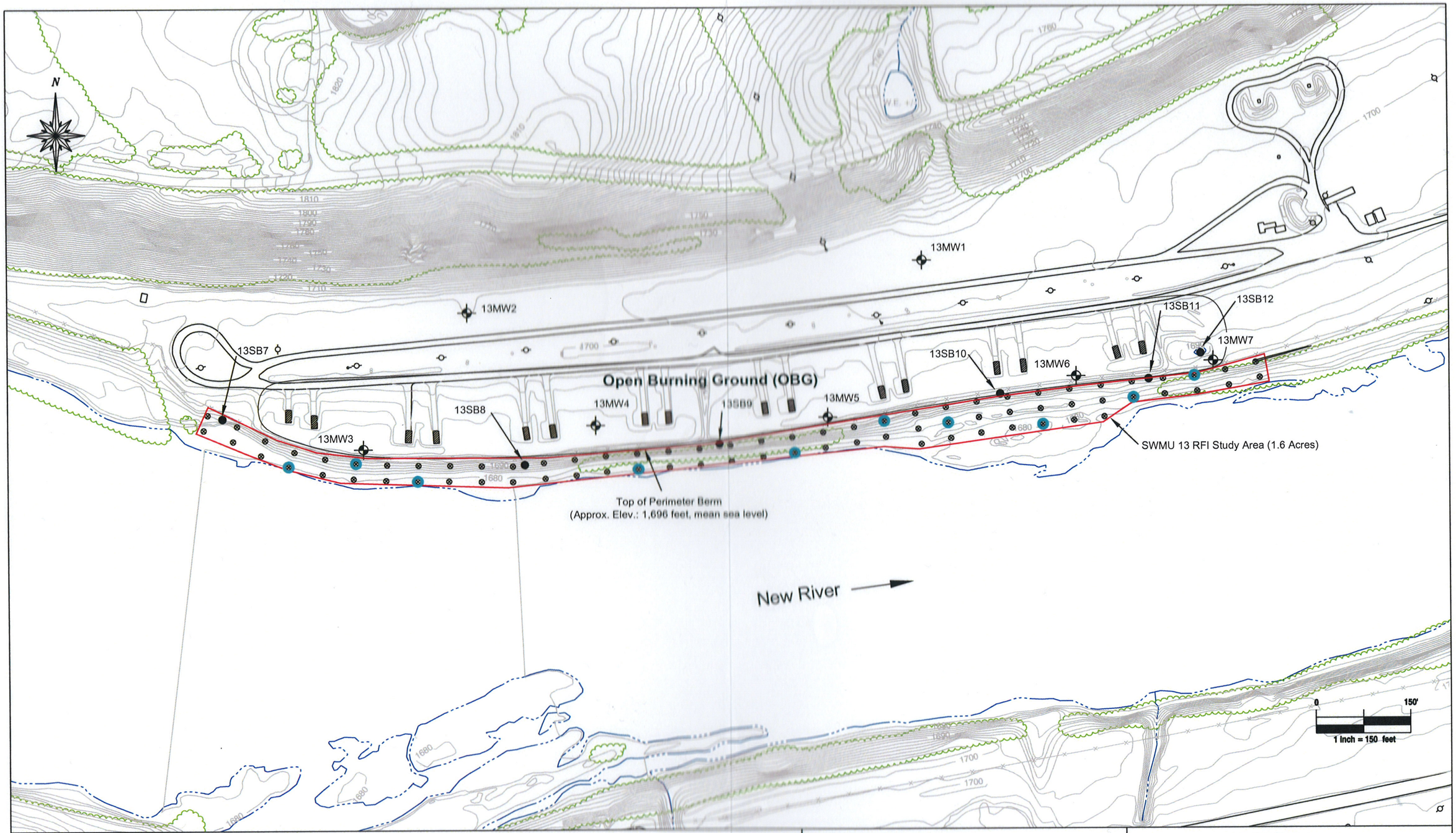
RCRA Facility Investigation (RFI)

RFI field efforts were completed at the site in November 2008. The investigation focuses on soil conditions in this area and evaluates soil within the SWMU 13 RFI study area as a potential source for future impacts to the New River. A soil sampling grid was established within the SWMU 13 RFI study area to further assess the spatial distribution of lead in soil. Data was collected on a central aligned rectangular grid to provide coverage across the entire study area providing for approximately 79 sample point locations across the site, with two to three rows of samples between the OBG berm and the New River. Additional chemical data for semi-volatile organic compounds (SVOCs), explosives including nitroglycerin, and Target Analyte List metals were collected from 10 specific grid sample locations. These data was used to confirm SSP sample results and provide additional data for use in the risk assessments and background evaluations (for metals).

Conclusions and Recommendations

Lead was the primary chemical of concern identified in soil at the site. Based on the results of the risk assessments and fate and transport assessment, the RFI resulted in a recommendation of no further action for the study area.

The data, findings, assessments, and recommendations are contained in the SWMU 13 RFI Report (Draft), July 2009, and is currently being reviewed by the USEPA and VDEQ.



Legend

- Topographic Contour Line (feet, mean sea level)
- Surface Water
- OBG Boundary
- Study Area Boundary
- Monitoring Well Location
- Sample Location (Lead)
- Sample Location (TCL Metals, SVOCs, Explosives, and Nitroglycerin)
- SSP Sample Locations
- Light/Electric Pole
- Vegetation
- Burning Pan

FIGURE 1

RFI Sampling Locations

Date: January 2008	URS Project #: 11656367
Prepared by: DBC	Approved by: JOS
Scale: 1 inch = 150 feet	File Name: Fig.1 RFI Locs

SWMU 13

RCRA Facility Investigation
Radford Army Ammunition Plant
Radford, Virginia

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Radford Army Ammunition Plant

FACT SHEET
SWMUs 35, 37, 38, and AOC Q

(December 2009)

Introduction

This fact sheet outlines the RCRA Facility Investigation (RFI) activities conducted at Solid Waste Management Units (SWMUs) 35, 37, and 38 – Calcium Sulfate Drying Beds and Area of Concern (AOC) Q – Calcium Sulfate Treatment and Disposal Area at Radford Army Ammunition Plant (RFAAP). RFI activities were completed in accordance with the United States Environmental Protection Agency (USEPA) RCRA Corrective Action Permit to the U.S. Department of the Army (Army) and Alliant Ammunition and Powder Company (Alliant) issued on October 31, 2000.

Background

SWMU 35 is an approximately 160 ft by 80 ft calcium sulfate drying bed located in the northeast section of the MMA at RFAAP between SWMU 8 (east) and SWMU 10 (west). The drying bed is an enclosed depressed area (approximately 5 ft from surrounding areas). A USEPA RCRA Facility Assessment (RFA) conducted at RFAAP identified the SWMU 35 calcium sulfate drying bed as having the potential to release contaminants into the environment.

SWMU 37, SWMU 38, and AOC are calcium sulfate drying beds located along the New River in the northwestern section of the MMA. SWMU 37 is densely vegetated area comprising approximately 0.62 acres. It is located immediately southwest of, and adjacent to, the SWMU 9 Calcium Sulfate Settling Lagoons. SWMU 38 is a smaller densely vegetated area comprising approximately 0.23 acres. AOC Q is a densely wooded depression comprising approximately 0.076 acres. Each unit is surrounded by an earthen berm and has an approximate depth of 4 to 8 feet.

Within the RCRA Corrective Action permit (Part II, Section D.4), there is a provision allowing for SWMUs or AOCs which are determined to represent negligible or minimal impact to be investigated in accordance with the EPA approved Site Screening Process (SSP). In 2007, a site screening process was performed at SWMU 37, SWMU 38, and AOC Q to assess whether releases of hazardous substances, pollutants, contaminants, hazardous wastes, or hazardous constituents have occurred to the environment at the sites. Based on the results of the site screening process, a focused RFI was recommended for the sites

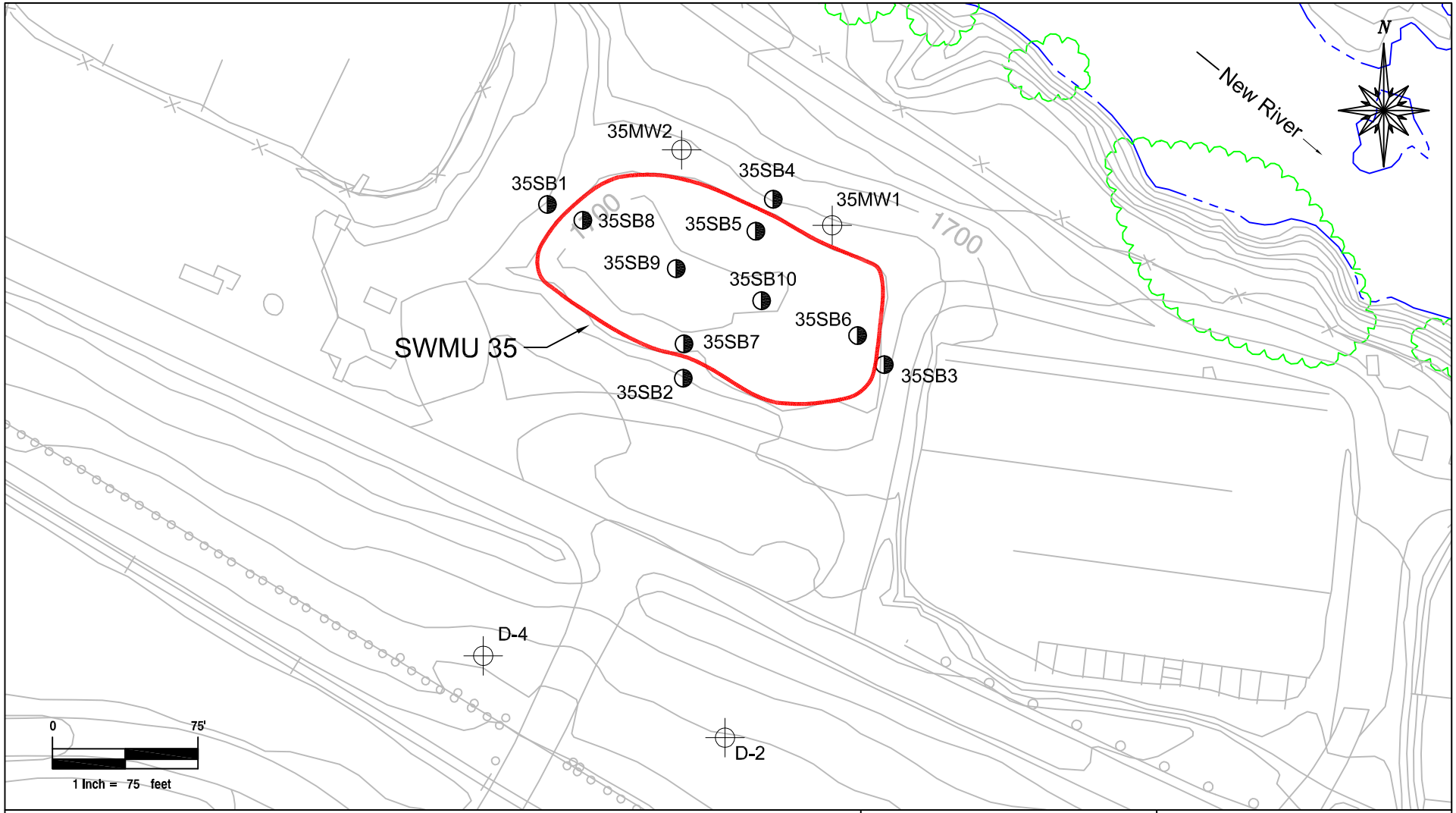
RCRA Facility Investigation (RFI)/Corrective Measures Study (CMS)

RFI field efforts were conducted in 2007. At SWMU 35, 6 borings were completed inside and 4 borings were completed outside the drying bed to assess the nature and extent of contamination within the source area and the extent and volume of sludge inside the drying bed and two monitoring wells were installed at the site. Four monitoring wells (2 existing and 3 newly installed) were sampled as part of the RFI. At SWMU 37, 4 additional borings were completed inside and 3 additional borings were completed outside the drying bed to assess the nature and extent of contamination within the source area and the extent and volume of sludge inside the drying bed and two monitoring wells were installed at the site. During the SSP investigation, 3 soil borings had been completed inside the drying bed and 1 boring had been completed outside the drying bed. Three newly installed monitoring wells were sampled as part of the RFI. At SWMU 38/AOC Q, 5 additional borings were completed inside and 3 additional borings were completed outside the drying beds to assess the nature and extent of contamination within the source area and the extent and volume of sludge inside the drying bed and two monitoring wells were installed at the site. During the SSP investigation, 4 soil borings had been completed inside the drying beds and 2 borings had been completed outside the drying beds. Three newly installed monitoring wells were sampled as part of the RFI.

Conclusions and Recommendations

Metals and Aroclor 1254 were the primary chemicals of concern identified in soil at the sites. Based on the results of the risk assessments and fate and transport assessment, the RFI resulted in a recommendation of no further action for the study area.

The data, findings, assessments, and recommendations are contained in the SWMUs 35, 37, 38, and AOC Q RFI Report (Draft), July 2009, and is currently being reviewed by the USEPA and VDEQ.



Legend

- Topographic Contour
- SWMU Boundary
- Perimeter Fence
- Vegetation
- Aboveground Piping
- Monitoring Well
- RFI Soil Boring Location

FIGURE 1

Sample Locations - SWMU 35

Date: June 2008	URS Project #: 21354887
Prepared by: DBC	Approved by: JOS
Scale: 1" = 75'	File Name: Fig. 3-1 RFI Locs

SWMUs 35, 37, 38, and AOC Q
RFI/CMS Report
Radford Army Ammunition Plant
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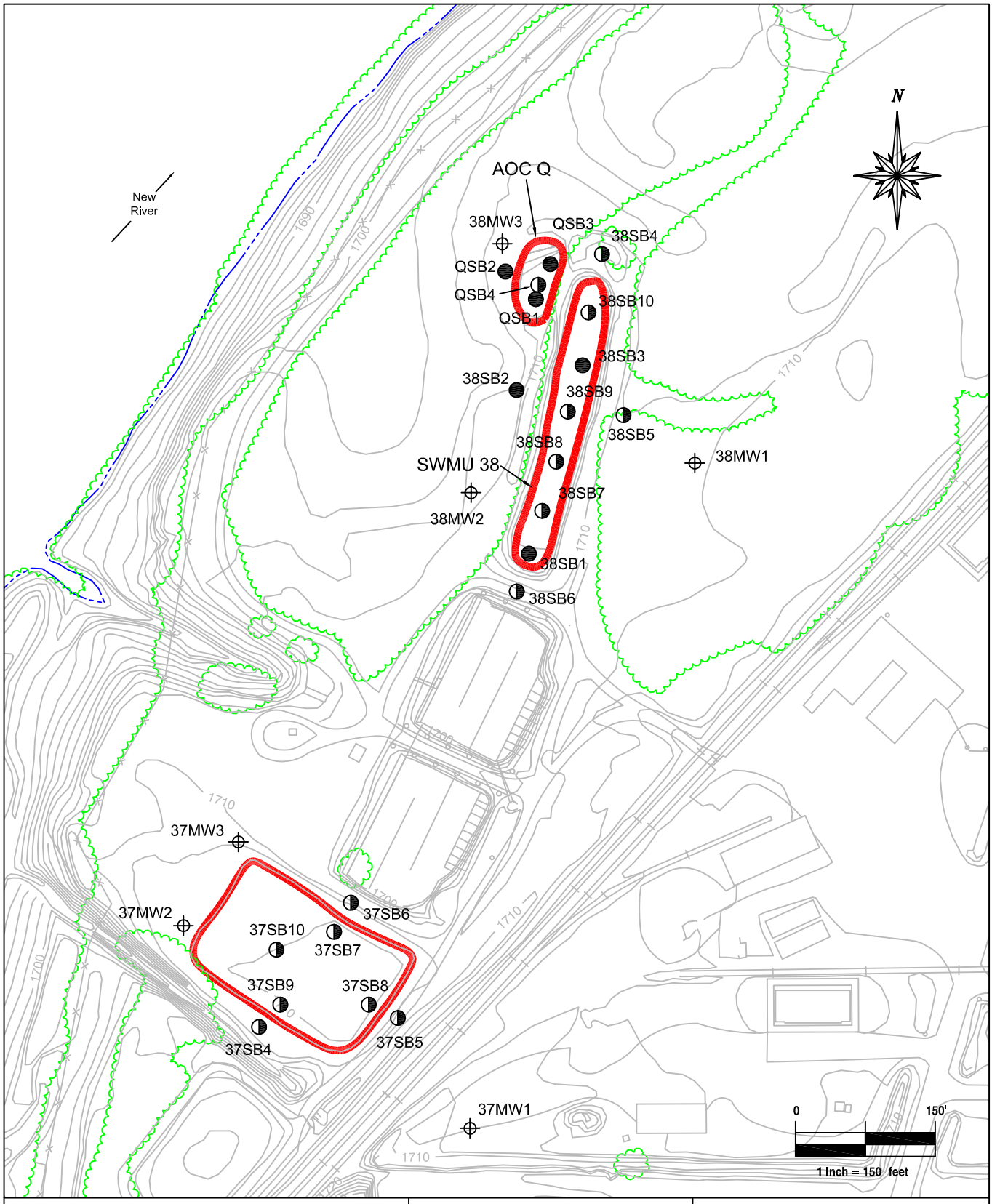

Legend

- Topographic Contour
- SWMU Boundary
- Perimeter Fence
- Vegetation
- Aboveground Piping
- Monitoring Well
- RFI Soil Boring Location
- SSP Soil Boring Location

FIGURE 1

Sample Locations - SWMUs 37, 38, and AOC Q

Date: June 2008	URS Project #: 21354887
Prepared by: DBC	Approved by: JOS
Scale: 1 inch = 150 feet	File Name: Fig.1 SampleLocs

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