

**FINAL
OPERATIONAL RANGE ASSESSMENT PROGRAM
PHASE I QUALITATIVE ASSESSMENT REPORT
ARDEN HILLS ARMY TRAINING SITE
ARDEN HILLS, MINNESOTA**

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Prepared for:

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ABBREVIATIONS/ACRONYMS

AEDB-R	Army Environmental Database - Restoration
AHATS	Arden Hills Army Training Site
AMSL	above mean sea level
ARID-GEO	Army Range Inventory Database-Geodatabase
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. This is referring to range grouping, pathway designation always precedes E designation.
FCC	Facility Category Code
GIS	Geographic Information System
GW	Groundwater pathway identified. This is referring to range grouping, M designation always precedes GW designation.
H	Human receptors identified. This is referring to range grouping, pathway designation always precedes H designation.
IRP	Installation Restoration Program
LS	Limited Source
M	Munitions used. This is referring to range grouping, M designation always precedes applicable pathway.
MCOC	Munitions Constituents of Concern
mm	millimeter
MN	Minnesota
MNARNG	Minnesota Army National Guard
ORAP	Operational Range Assessment Program
ORIS	Operational Range Inventory Sustainment
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PU	Munitions used. Pathway unlikely or incomplete. This is referring to range grouping, M designation always precedes PU designation.
RFMSS	Range Facility Management Support System
SVOC	Semi-volatile organic compounds
SW	Surface water pathway identified. This is referring to range grouping, M designation always precedes SW designation.
TCAAP	Twin Cities Army Ammunition Plant
U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compounds
°F	Degrees Fahrenheit

EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense policy and to support the U.S. Army Sustainable Range Program. The operational range qualitative assessment (hereinafter referred to as Phase I Assessment) is the first phase of the U.S. Army Operational Range Assessment Program (ORAP). This Phase I Assessment evaluates the operational range area at Arden Hills Army Training Site (AHATS) to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. In conducting the Phase I Assessment, MCOC sources, potential off-range migration pathways, and potential off-range human and ecological receptors are evaluated as appropriate.

AHATS encompasses approximately 1,493 acres in Ramsey County, Minnesota (USAEC, 2006). The installation is located approximately eight miles north of the St. Paul city limits and six miles northeast of the Minneapolis city limits. The surrounding municipalities include Arden Hills, New Brighton, Mounds View, and Shoreview (MNARNG, 2001). The operational ranges include 10 training ranges covering 1,493 acres. On the operational ranges, there is a mixture of maintenance buildings, offices, and storage areas/buildings.

A review of available records and background data, as well as interviews with installation personnel, indicated that the ranges at AHATS are not used for training involving live military munitions; only pyrotechnics, simulators, and small arms blank ammunition in small quantities are used, and the limited usage is dispersed over a large area. Training currently conducted at AHATS is limited to small unit operations and field training exercises (non-live-fire) (MNARNG, 2006).

Historically, AHATS was owned by the U.S. Army and commissioned as the Twin Cities Army Ammunition Plant (TCAAP). TCAAP has been in the Installation Response Program (IRP) since June 1981, as a result of contamination in the soil and groundwater from former manufacturing operations. All MCOC sources that are the result of former Army activities as part of the TCAAP have been remediated or are currently being addressed as part of the TCAAP IRP; as a result, they are not considered MCOC sources under ORAP. Groundwater contamination from TCAAP's activities is also being addressed with an on-site water treatment facility. It is expected that this facility will be actively treating the contaminants in the groundwater for decades, with an estimated completion date of 2040. This program will remain under the control and funding of the Army until completion (TCAAP, 2005).

The ten operational ranges at AHATS are categorized as Unlikely.

Unlikely – Five-Year Review

Ten ranges at AHATS are categorized as Unlikely, totaling 1,493 acres. These ranges include nine maneuvering and training areas for heavy forces and a field training area (USAEC, 2006). Ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions that could present an unacceptable risk to human health or the environment are categorized as Unlikely. Ranges categorized as Unlikely are required to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., change in range operations or site conditions, regulatory changes) occur that affect determinations made during this Phase I Assessment.

Table ES-1 summarizes the Phase I Assessment findings.

Table ES-1: Summary of Findings and Conclusions for AHATS

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	10 operational ranges; 1,493 acres	Limited military munitions use – pyrotechnics, simulators, and blank small arms ammunition	Not evaluated (limited munitions use)			Re-evaluate during the five-year review. No source was identified.