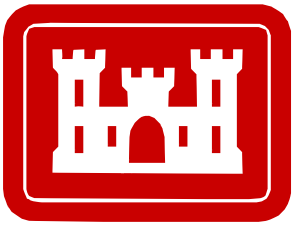
FINAL
REMEDIAL DESIGN

REMEDIAL ACTION
AT RVAAP-06 – C BLOCK QUARRY
FORMER RAVENNA ARMY AMMUNITION PLANT
RESTORATION PROGRAM

CAMP JAMES A. GARFIELD
PORTAGE AND TRUMBULL COUNTIES, OHIO

Prepared for



U.S. Army Corps of Engineers
Louisville District
P.O. Box 59
Louisville, KY 40201-0059

Contract No.: W912QR19D0056
Delivery Order No.: W912QR23F0015

Prepared by
PIKA-Insight JV, LLC
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August 2024

REPORT DOCUMENTATION PAGE

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United States Army Corps of Engineers, Louisville District
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14. ABSTRACT

Construction debris that includes asbestos-containing material (ACM) at RVAAP-06 C Block Quarry requires removal to protect human health and the environment. The contamination is the result of historic dumping of construction debris at the site. This remedial design has been prepared in accordance with the project scope, objectives, organization, planned activities and appropriate sampling procedures to describe how the remedial actions will occur.

15. SUBJECT TERMS

RVAAP-06, C Block Quarry, Asbestos, Remedial Design, Remedial Action, Work Plan

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Nathaniel Peters
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Received October 10, 2024

October 9, 2024

TRANSMITTED ELECTRONICALLY

Mr. Kevin Sedlak
Restoration Program Manager
ARNG-ILE Clean Up
Camp James A Garfield JTC
1438 State Route 534 SW
Newton Falls, OH 44444

RE: US Army Ammunition Plt RVAAP
Remediation Response
Project Records
Remedial Response
Portage County
ID # 267000859266

Sent via email to: Kevin.m.sedlak.ctr@army.mil

Subject: **Former Ravenna Army Ammunition Plant**
Approval Remedial Design Remedial Action at RVAAP-06
C-Block Quarry
Ohio EPA Final Approval

Dear Mr. Sedlak:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Final Remedial Design, Removal Action at FVAAP-06 – C Block Quarry" at the Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio (Camp James A. Garfield)[1]. This document was received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) via email on September 6, 2024.

The document was prepared for the United States Army Corps of Engineers (USACE) on behalf of the National Guard Bureau by PIKA-Insight.

The final document was reviewed by personnel from Ohio EPA's DERR. Pursuant to the Director's Findings and Orders paragraph 39 (b), Ohio EPA considers the document final and approved.

[1] http://edocpub.epa.ohio.gov/publicportal/ViewDocument.aspx?docid=3195542

This letter is an official response from Ohio EPA that will be maintained as a public record. If you have any questions, please contact me at (330) 963-1109, or via email at craig.kowalski@epa.ohio.gov.

Sincerely,

Craig Kowalski

Craig Kowalski
Site Coordinator
Division of Environmental Response and Revitalization

CK/cm

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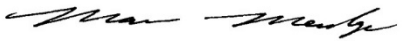
Thomas Schneider, Ohio EPA, SWDO, DERR
Tim Christman, Ohio EPA, CO, DERR
Brian Tucker, Ohio EPA, CO, DERR

CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW

PIKA-Insight JV has completed the preparation of this Remedial Design as part of the Remedial Action at RVAAP-06 – C Block Quarry at the Former Ravenna Army Ammunition Plant (RVAAP)/Camp James A. Garfield. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This independent technical review included evaluation of data quality objectives; technical assumptions; methods, procedures, and material to be used in analyses; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing USACE policy.



9/3/24

Marco Mendoza
Project Manager

Date

9/3/24

Signature
Independent Technical Reviewer

Date

FINAL
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FORMER RAVENNA ARMY AMMUNITION PLANT RESTORATION PROGRAM

Camp James A. Garfield
Portage and Trumbull Counties, Ohio

Submitted to:
USACE Louisville District
P.O. Box 59
Louisville, KY 40201-0059

Prepared by
PIKA-Insight JV, LLC
12723 Capricorn Drive, Suite 500
Stafford, TX 7747

Contract No.: W912QR19D0056
Delivery Order No.: W912QR23F0015

August 2024

PREPARED UNDER THE SUPERVISION OF
& APPROVED FOR SUBMITTAL BY:

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AR	Administrative Record
ARNG	Army National Guard
CO	Central Office
DERR	Division of Environmental Response and Revitalization
OHARNG	Ohio Army National Guard
Ohio EPA	Ohio Environmental Protection Agency
REIMS	Ravenna Environmental Information Management System
USACE	United States Army Corps of Engineers

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ABBREVIATIONS AND ACRONYMS

AAC	Asbestos Abatement Contractor (Bristol Environmental Inc.)
ACM	asbestos-containing material
amsl	above mean sea level
AOC	Area of Concern
APP	Accident Prevention Plan
ARNG	Army National Guard
bgs	below ground surface
CAHAS	Certified Asbestos Hazard Abatement Specialist
CAHES	Certified Asbestos Hazard Evaluation Specialist
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
CJAG	Camp James A. Garfield
Ft	feet
HAZWOPER	Hazardous Waste Operations and Emergency Response
LUC	land use control
LUC RD	Land Use Control Remedial Design
NVLAP	National Voluntary Laboratory Accreditation Program
NIOSH	National Institute for Occupational Safety and Health
OHARNG	Ohio Army National Guard
Ohio EPA	Ohio Environmental Protection Agency
OSHA	Occupational Safety and Health Administration
PBA08	Performance-Based Acquisition 2008
PCM	Phase Contrast Microscopy
%	percent
PIKA-Insight	PIKA-Insight Joint Venture, LLC
PM	Project Manager

PPE	personal protective equipment
PSI	Professional Service Industries, Inc.
QA	Quality assurance
QC	Quality control
RACR	Remedial Action Completion Report
RAO	Remedial Action Objective
RD	Remedial Design
RI	Remedial Investigation
RVAAP	Ravenna Army Ammunition Plant
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
Tetra Tech	Tetra Tech, Inc.
TSCA	Toxic Substance Control Act
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

1.1 PURPOSE

PIKA-Insight Joint Venture, LLC (PIKA-Insight), has been contracted by the U.S. Army Corps of Engineers (USACE), to provide Environmental Remediation Services for Camp James A. Garfield (CJAG) Joint Military Training Center, formerly known as the Ravenna Army Ammunition Plant (RVAAP). PIKA-Insight has developed this Remedial Design (RD) to comply with the Performance Work Statement, dated August 5, 2022, and revised September 7, 2022, for the remedial action at RVAAP-06 – C Block Quarry. This work is being performed in accordance with USACE Contract W912QR19D0056, Delivery Order W912QR23F0015.

Construction debris that includes asbestos-containing material (ACM) at the site require removal to protect human health and the environment. The contamination is the result of historic dumping of construction debris at the site. This RD has been prepared in accordance with the project scope, objectives, organization, planned activities and appropriate sampling procedures.

1.2 SCOPE

The scope of work consists of the removal of surficial suspect ACM (e.g., approximately 10 cubic yards of ACM concrete shingles and black tar paper containing greater than 1% asbestos as indicated in previous sampling records) and any other suspect surficial material at the RVAAP-06 C Block Quarry. The work area encompasses approximately 2,750 square feet (ft) where the ACM is located. Brush and vegetation (not including trees greater than 3 inches in diameter at breast height) removal from the 2,750 square foot area will be included in the scope of work. The site boundaries will be surveyed by a surveyor licensed in the state of Ohio. The means and methods of removal by the asbestos abatement contractor (AAC) is described in Section 5.0, and includes various wet methods to minimize airborne impact. Removal and disposal of the ACM will be in accordance with the more stringent methods and procedures as outlined in the United States Department of Labor, Occupational Safety and Health Administration (OSHA) Asbestos Regulations, Codes of Federal Regulations Title 29, Part 1926, Section 1926.1101, the US Environmental Protection Agency (EPA) 40 CFR Part 61, Subpart M: National Emission Standard

for Hazardous Air Pollutants (NESHAP) Asbestos Regulations and as are written directly into this RD. The sizes of individual pieces of ACM will vary. As part of the ACM removal, the quarry floor will undergo a visual updated inspection by a Tetra Tech Certified Asbestos Hazard Evaluation Specialist (CAHES) to make sure that visible exposed ACM is identified.

2.0 FACILITY AND SITE DESCRIPTION

2.1 FACILITY DESCRIPTION AND HISTORY

The former RVAAP, currently named Camp James A. Garfield, is located in northeastern Ohio within Portage and Trumbull counties, approximately 1 mile northwest of the City of Newton Falls and 3 miles east-northeast of the City of Ravenna (**FIGURE 2-1**). The facility is a parcel of property approximately 11 miles long and 3.5 miles wide bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad on the south; Garrett, McCormick, and Berry roads on the west; the Norfolk Southern Railroad on the north; and State Route 534 on the east.

The former RVAAP was a load, assembly, and pack facility built to produce large caliber artillery projectiles and bombs. Administrative control of the facility (21,683 acres) has been transferred to the U.S. Property and Fiscal Officer for Ohio and subsequently licensed to the Ohio Army National Guard (OHARNG) for use as a military training site. The RVAAP Installation Restoration Program, managed by the Army National Guard (ARNG) and the OHARNG, administers investigation and cleanup of past activities over the entire 21,683 acres of the former RVAAP.

Restoration program activities are conducted in accordance with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). Director's Final Findings and Orders between the Army and Ohio Environmental Protection Agency (Ohio EPA) were memorialized for the RVAAP Restoration Program in June 2004. The Director's Final Findings and Orders acknowledge the Army's responsibility to address the site under CERCLA /National Contingency Plan.

2.2 SITE DESCRIPTION

The RVAAP-06 C Block Quarry is located between roads 3C and 4C of the Block C Storage Area north of Newton Falls Road in the northwestern portion of CJAG (**FIGURE 2-2** and **FIGURE 2-3**). The Superfund Environmental Management System Identifier for RVAAP-06 is OH5210020736.

2.2.1 Site History

C Block Quarry is a 0.96-acre area of concern (AOC) located between roads 3C and 4C of the C Block Storage Area north of Newton Falls Road in the northwestern portion of CJAG. The C Block Storage Area contains parallel roads of 99 aboveground reinforced earth-covered concrete igloos that formerly stored munitions. During the 1940s and 1950s, C Block Quarry was used to mine Homewood Sandstone. This sandstone was quarried for road and construction base material. C Block Quarry currently has a maximum depth of 25 ft below the surrounding grade. In a letter dated March 24, 1950, a conference was conducted to assess waste disposal for the former RVAAP. The conference concluded that C Block Quarry was the most satisfactory location to dispose of sulfuric acid, nitric acid, mercury, chromic acid, phosphoric acid plus accelerator, and alkali compound stripper. Triton N.E. (or X-100) and Naccronal N.R (or Santomerse No.3), which are surfactants commonly used in detergents, also were listed. The summary report of this conference stated the following:

"It was concluded the disposal site (Quarry Group C) was most satisfactory for disposal of these wastes due to:

a) Infiltration benefits through stone substrata. Combinations with elements of the stone substrata due to relative positions of elements.
b) Distance from any water supply or contributory surface water, which might contaminate raw water supply.
c) Lack of recognizable traces in any water supply or surface water to date.
d) Evaporation of mixed compounds which probably leave complex molecular salts of low solubility."

During the 1950s and 1960s, C Block Quarry was used as a disposal area for annealing process waste for a short duration. Liquid waste was dumped on the ground surface in the bottom of the abandoned unlined borrow pit. This liquid waste reportedly included annealing process liquids (chromic acid) from Building 802 at Load Line 2 and spent pickle liquor containing lead, mercury,

chromium, and sulfuric acid from brass finishing operations. The volume of liquid waste disposed of at C Block Quarry is unknown.

2.2.2 Previous Investigations

The 1982 Installation Reassessment of the Ravenna Army Ammunition Plant (USATHAMA, 1982) reassessed RVAAP to review areas with potential for contaminant releases not documented in the 1978 Installation Assessment (USATHAMA, 1978), including C Block Quarry. The 1982 Installation Reassessment also incorporated a review of historical operational information and available environmental data to assess the potential for contaminant releases from operational facilities.

No sampling was performed at C Block Quarry as part of the reassessment. The report recommended that RVAAP coordinate with the U.S. Army Environmental Hygiene Agency for future water quality monitoring and site closure (USATHAMA, 1982). The reassessment identified the following conditions at RVAAP, applicable to C Block Quarry (USATHAMA, 1982):

- Spent rinse solutions and sludge from acid dip tanks were discarded by transporting to and dumping at the stone quarry in the early 1950s and 1960s. Reportedly, this quarry was located in the Block C magazine area and was observed from aerial photographs as a dump site in the 1950s.
- Off-post contaminant migration was not evident, but the quarry bottom dump may be a source of contamination that should be evaluated.

Since 1982, C Block Quarry has been included in various historical assessments and investigations conducted at the former RVAAP. The following environmental investigations have been completed for C Block Quarry:

- Soil and Sediment Analysis Performed for Ravenna Arsenal (Mogul, 1982),
- Installation Reassessment of the Ravenna Army Ammunition Plant (USATHAMA, 1982),
- Soil Contamination Survey (Mogul, 1986),

- Resource Conservation and Recovery Act Facility Assessment (Jacobs, 1989),
- Preliminary Assessment for the Characterization of Areas of Contamination (USACE, 1996),
- Relative Risk Site Evaluation (USACHPPM, 1996),
- 2004/2005 Characterization of 14 AOCs (MKM, 2007), and
- 2010 Remedial Investigation (RI) and 2012 Supplemental Chromium Speciation (Leidos, 2019).

The results of the 2010 RI and 2012 Supplemental Chromium Speciation were combined with applicable results of previous sampling events to evaluate the nature and extent of contamination, examine contaminant fate and transport, conduct risk assessments, and evaluate potential remedial alternatives, as summarized in the C Block Quarry RI/FS Report (Leidos, 2019).

Additionally, during the RI, a certified State of Ohio Department of Health CAHES collected samples and conducted an ACM survey. The ACM survey included visually inspecting the entire quarry, identifying suspect materials, estimating the approximate quantity of suspected ACM, and collecting six bulk samples and one soil sample for analysis by polarized light microscopy.

Four of six bulk samples contained asbestos fibers and were considered friable. The ACM survey indicated several areas of exposed concrete shingle and steel panels with block insulation and paper within C Block Quarry. The survey indicated that suspect ACM occurred in an area of approximately 2,750 square ft, although visible debris occupied less than 10 square ft. Polarized light microscopy analysis of suspect ACM debris samples indicated concrete shingles and insulation material contained up to 35 percent (%) asbestos fibers. Samples of firebrick and suspected burn residue/cinder did not contain detectable asbestos fiber.

The one soil sample collected during the ACM survey near a pile of material with suspected ACM contained less than 1% asbestos fiber. Additionally, nine soil samples collected from RI soil borings did not contain detectable asbestos fibers.

2.2.3 Topography

The topography of CJAG is gently undulating, with an overall decrease in ground elevation from a topographic high of approximately 1,220 ft above mean sea level (amsl) in the far western portion of the facility to low areas at approximately 930 ft amsl in the far eastern portion of the facility.

C Block Quarry is in the northwest portion of CJAG, between roads 3C and 4C of the C Block Storage Area, north of Newton Falls Road. The quarry is characterized by a large plateau which slopes radially in all directions (MKM, 2007). The quarry bottom has a maximum depth of 25 ft below the surrounding grade.

Access to the quarry bottom is limited to two gradually sloped areas near the northwest and southwest corners of the AOC. No fences exist; however, the eastern and western sides of the AOC are defined by the quarry walls.

Ground elevations within C Block Quarry range from 1,174 ft amsl at the quarry rim to 1,150 ft amsl at the center of the quarry bottom. Bedrock is typically encountered at 1,149 ft amsl across the AOC.

No perennial surface water features are present within the AOC or in the immediate vicinity. Intermittent surface water flows into the quarry and accumulates in low-lying areas. Hinkley Creek is approximately 2,400 ft to the west, and Sand Creek is approximately 2,000 ft to the east.

2.2.4 Geology

C Block Quarry is located on a local bedrock high. The bedrock formation observed at C Block Quarry is the Pennsylvanian age Pottsville Formation, Homewood Sandstone Member. The Homewood Sandstone Member, the uppermost unit of the Pottsville Formation, exhibits irregular and widely spaced bedding planes and vertical joints. The Homewood is fine-grained sandstone composed of well-rounded quartz grains and substantial quantities of mica. It is bonded with iron oxides and clay matter. Boring logs describing bedrock lithologies as well as bedrock core photographs to a maximum installation depth of 50 ft below ground surface (bgs) are included in the Characterization of 14 AOCs. Cross-sections of the C Block Quarry subsurface were created

from monitoring well lithology records to illustrate lateral distribution and variation of the discontinuous glacial sediment atop bedrock (MKM, 2007).

During the Performance-Based Acquisition 2008 (PBA08) RI, bedrock was encountered at depths ranging from 0.75 ft bgs in the center of the quarry bottom to 7 ft bgs along the northern edge of the AOC boundary. Bedrock was typically encountered in the southern and western extents of the AOC around 4 ft bgs. Historical investigations report the bedrock contact at 2–6 ft bgs at C Block Quarry.

The primary soil type found at C Block Quarry is the Mitiwanga silt loam (MvB) (2-6% slopes) (USDA, 2010). Mitiwanga silt loam is a gently sloping, moderately well drained soil formed from glacial till over weathered sandstone. As observed in PBA08 RI soil borings, the composition of unconsolidated deposits at C Block Quarry generally consist of yellowish-brown to brown medium dense sand-rich silt tills with trace to little weathered sandstone throughout.

Geologic descriptions and geotechnical analyses of subsurface soil samples collected during the PBA08 RI are generally consistent with the conclusions from the Characterization of 14 AOCs. Overall, the PBA08 RI observed sandy silts and silty sands, with trace, discontinuous gravel above sandstone. Groundwater was not observed in unconsolidated borings.

Geotechnical analyses conducted during the Characterization of 14 AOCs indicated a grain size distribution of 49% silt and clay fractions, 39–47% sand fractions, and 2–12% aggregate. The geotechnical sample collected from 0–2 ft bgs was clayey sand with little gravel, and the 2–4 ft bgs sample was characterized as silty sand with trace gravel (MKM, 2007). One geotechnical sample was collected as part of the PBA08 RI from 1.5–3.5 ft bgs. Analyses of undisturbed geotechnical samples collected from 2.5–4.5 ft bgs using a Shelby tube during the PBA08 RI, indicate 34% aggregate, 56% sand, and 10% silt and clay fractions. Geotechnical analysis further indicated a porosity of 35% and a permeability of 5.6E-07 centimeters per second for this sample.

2.2.5 Hydrogeology

Four groundwater monitoring wells were installed around C Block Quarry during the Characterization of 14 AOCs. In 2012, an additional monitoring well (CBLmw-005) was installed near the northeastern corner of the intersection of Road 4C and Newton Falls Road, approximately 850 ft southeast of the AOC. This monitoring well was completed to 31 ft bgs (1,124 ft amsl) and screened in the Homewood Sandstone to monitor groundwater in the bedrock (EQM, 2015).

The monitoring wells (CBLmw-001 through CBLmw-005) are screened in bedrock, and the groundwater elevations were collected under the Facility-Wide Groundwater Monitoring Program. Groundwater elevations ranged from 1,132 to 1,138 amsl in the wells (TEC-Weston, 2018) and at an estimated 1,137 ft amsl within the quarry.

The estimated groundwater flow directions reflect the April 2017 facility-wide potentiometric data presented in the Facility-wide Groundwater Monitoring Program Annual Report for 2017 (TEC-Weston, 2018). The potentiometric surface shows the groundwater flow pattern toward the southeast. The horizontal hydraulic gradient from the 2012 water levels was 0.0028 ft/ft (EQM, 2010), which is lower than the hydraulic gradient (0.005 ft/ft) based on the 2017 water levels.

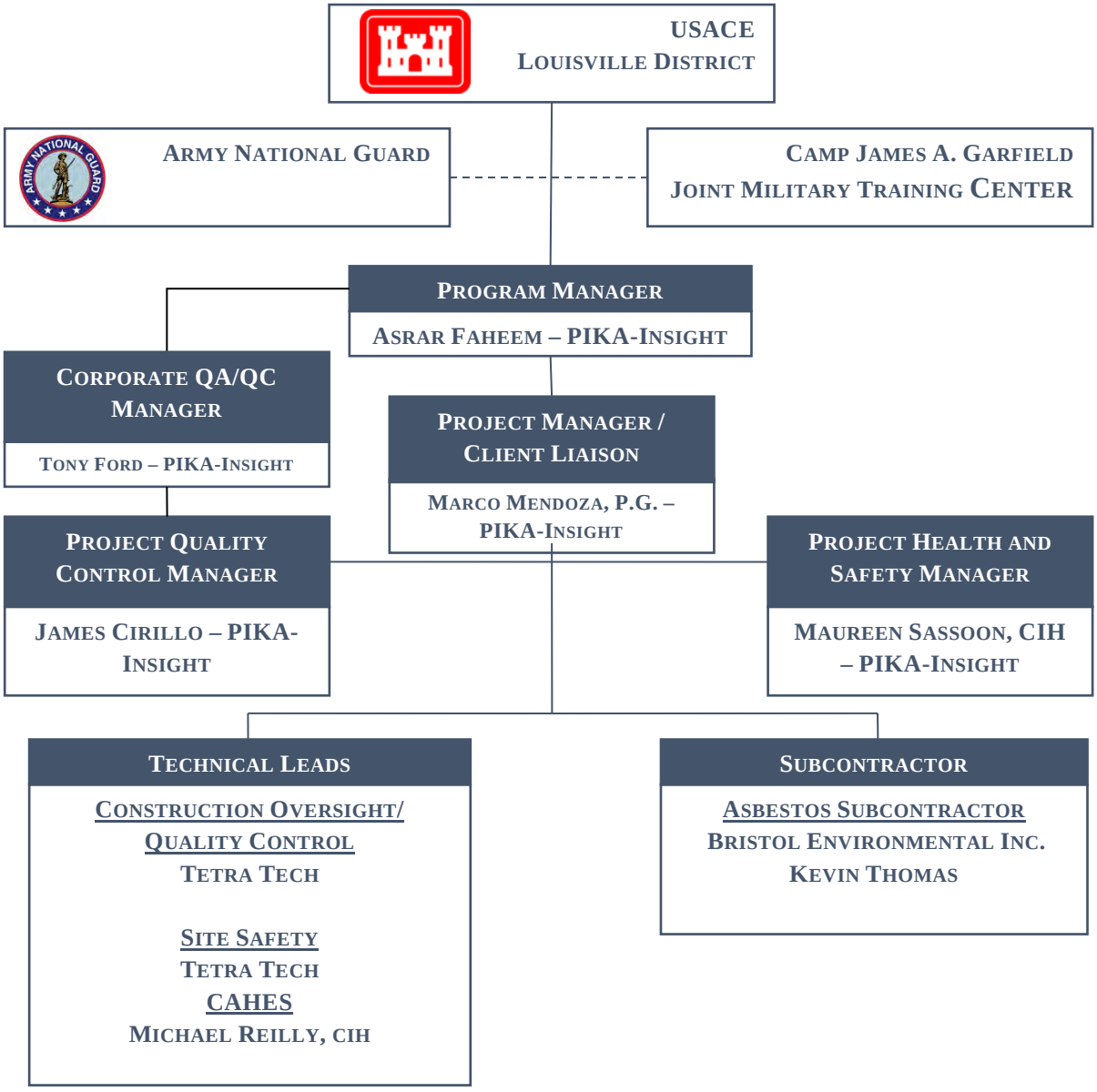
Results of slug tests performed at the four monitoring wells during the Characterization of 14 AOCs indicate an average hydraulic conductivity of 3.80E-04 centimeters per second (MKM, 2007).

2.3 FUTURE LAND USE

C Block Quarry is currently inactive. The site is believed to have been inactive since the 1960s. The future land use for C Block Quarry is Commercial/Industrial use.

3.0 PROJECT ORGANIZATION AND COORDINATION

The following sections provide details pertaining to the organizational structure of the project team and stakeholders. The below diagram illustrates the relationship between the various parties associated with the project.



3.1 USACE CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE

Nat Peters will serve as the USACE Contracting Officer's Representative (COR). Duties include overseeing PIKA-Insight to ensure work is completed in accordance with approved plans. The USACE COR also coordinates responses for unexpected materials encountered.

3.2 ARNG PROJECT MANAGER AND OHARNG RESTORATION REPRESENTATIVE

National Guard representatives include Katie Tait (OHARNG Restoration Representative), and Kevin Sedlak (ARNG Restoration Representative). Mr. Sedlak will provide health and safety oversight, overall coordination support, and field and document review. Ms. Tait will be responsible for signing waste profiles and manifests, waste management, assisting with project coordination and access, and document review.

3.3 OHIO ENVIRONMENTAL PROTECTION AGENCY

The Ohio EPA is the regulatory agency for this project. The Ohio EPA will review project documents and ensure that the field activities are completed in accordance with this RD and regulatory requirements.

3.4 CONTRACTOR PROJECT MANAGER

Marco Mendoza, Professional Geologist, will serve as the Project Manager (PM) and is the person in charge of the overall project and has full authority for coordination and direction of the project. The PM will be assisted by the onsite personnel. The PM will communicate with the USACE, OHARNG, and ARNG. Specific responsibilities of the PM are as follows:

- Manage and execute overall scope, budget, and schedule.
- Interpret and plan overall work effort.
- Oversee preparation and planning of documents for the work.
- Respond to resource requirements by defining resource needs and securing the commitments for staff and equipment.
- Communicate with the Field Superintendent regarding day-to-day activities and alert the appropriate personnel to potential problems.

- Monitor subcontractor performance, schedules, budgets, and invoices.
- Develop, review, and meet work schedule and budget objectives.
- Make sure field, laboratory, data management, and construction activities are technically adequate.
- Manage and coordinate group interfaces.
- Document the need for contract modifications, if needed.
- Compile information from site personnel to write and submit daily reports.

The PM may delegate portions of the responsibilities to the Field Superintendent who is assigned to be on-site for the duration of the project.

3.5 CONTRACTOR FIELD SUPERINTENDENT

The Field Superintendent will be provided by Tetra Tech and is responsible for making sure the resources of the project team are dedicated to executing the field phases of the project and overseeing remedial action and site restoration activities. The Field Superintendent is responsible for on-site client coordination and relating the details of the project and activities to the project team. He/she will assist the PM in maintaining sufficient resource allocations to meet the project schedule and budget and provides daily reports to the PM on progress of the project. The Field Superintendent will be responsible for documenting activities and directly communicating with subcontractors performing the field work. He/she will not make decisions that deviate from established plans without first receiving approval from PIKA-Insight and, if necessary, the Army stakeholders. The Field Superintendent will have knowledge of specific construction practices relating to earthwork, regulations, observation and testing procedures, and documentation procedures.

The responsibilities of the Field Superintendent as they relate to quality of the project include:

- Regularly reviewing the project RD for RVAAP-06;
- Monitoring work progress and adherence to project requirements for task completion;

- Conducting or delegating inspections to verify spill equipment is maintained and no spills have occurred (daily) and dust generation is minimized. Spill response requirements in accordance with the CJAG guidelines are described in the Accident Prevention Plan (APP)/Site Safety and Health Plan (SSHP) (see **APPENDIX A**). Dust control, storm water pollution prevention, and environmental protection in accordance with the CJAG guidelines are described in this RD.
- Administering the Quality Assurance (QA)/Quality Control (QC) program;
- Reporting inspection and certifications to the Project QC Manager
- Conducting site equipment inspections;
- Providing logistical support for field operations;
- Interfacing with the subcontractors;
- Conducting onsite status meetings on a weekly basis;
- Assisting in preparing required submittals;
- Providing integration of subcontractor services to provide optimum support;
- Liaison with project staff and subcontractors as well as the onsite client representative; and
- Notifying the PM if conflicts arise with the proposed schedule.
- Coordinating with the PM for writing daily production reports

3.6 CONTRACTOR HEALTH AND SAFETY MANAGER

The Project Health and Safety Manager, Maureen Sassoon, Certified Industrial Hygienist (CIH), will be responsible for:

- Preparing the SSHP in compliance with USACE EM 385-1-1, Occupational Safety and Health Administration (OSHA) standards 29 Code of Federal Regulations (CFR) 1910.120 and 1926.65, and Engineering Regulations for Hazardous Toxic and Radiological Waste Sites, ER 385-1-92. The SSHP will also comply with the Facility-wide Safety and Health Plan for Environmental Investigations.
- Implementing the Corporate Health and Safety Program and SSHP;
- Reviewing and monitoring compliance with project-specific health and safety plans;
- Implementing corrective measures for health and safety deficiencies; and

- Making sure required training and medical monitoring of personnel.

The Project Health and Safety Manager has the authority to request corrective measures related to health and safety issues and to stop work, if required, to ensure a safe working environment.

3.7 SITE SAFETY AND HEALTH OFFICER

The Site Safety and Health Officer (SSHO) will be responsible for implementation of and adherence to the SSHP. The SSHO will verify and approve that specified health and safety procedures outlined in the SSHP adequately protect on-site personnel during field activities. The SSHO will ensure that health and safety procedures are modified to meet changing needs, if required. The SSHO will also ensure that on-site personnel (including visitors) strictly adhere to the SSHP throughout field activities conducted for the duration of the project. The SSHO will report to the Contractor PM and will inform the Field Superintendent of all information and decisions reported.

3.8 SUBCONTRACTOR CONSTRUCTION SUPERVISOR

The Subcontractor Construction Supervisor will implement specific contracted components of this RD. The Subcontractor Construction Supervisor will be responsible for properly performing specified remedial activities in accordance with this RD, adhering to QA/QC field procedures and the QC Plan, implementing the SSHP, coordinating field personnel activities, and documenting field activities. Each Subcontractor Construction Supervisor will report directly to the Contractor Field Superintendent.

3.9 ASBESTOS COMPETENT PERSON/HAZARD ABATEMENT SPECIALIST

The onsite Asbestos Competent Person will be capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. He/she will have the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f). In addition, for Class I and Class II work he/she is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR part 763) for supervisor, or equivalent.

3.10 CERTIFIED ASBESTOS HAZARD ABATEMENT SPECIALIST

The Certified Asbestos Hazard Abatement Specialist (CAHAS) will be a person with responsibility for the oversight or supervision of asbestos hazard abatement activities, including asbestos hazard abatement project managers, hazard abatement project supervisors and foremen, and employees of school districts or other governmental or public entities who coordinate or directly supervise or oversee asbestos hazard abatement activities performed by school district, governmental, or other public employees in school district, governmental, or other public buildings. The CAHAS (Supervisor) will be trained in Title II of the Toxic Substance Control Act (TSCA) and have a current Ohio EPA license.

3.11 CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST

The CAHES will be a person responsible for the inspection, identification, detection, and assessment of ACM or suspect ACM, the determination of appropriate response actions, or the preparation of asbestos management plans for the purpose of protecting the public health from the hazards associated with exposure to asbestos, including the performance of air and bulk sampling. This category of specialists includes inspectors, management planners, health professionals, industrial hygienists, private consultants, or other individuals involved in asbestos risk identification or assessment or regulatory activities. The CAHES will be trained in Title II of the TSCA and have a current Ohio EPA license.

3.12 ASBESTOS HAZARD ABATEMENT WORKER

The Asbestos Hazard Abatement Specialist Worker is a person responsible in a nonsupervisory capacity for the performance of an asbestos hazard abatement activity. The Asbestos Hazard Abatement Worker will be trained in Title II of the TSCA and have a current Ohio EPA license.

4.0 PROJECT APPROACH

4.1 OBJECTIVES

The remedial action objective (RAO) references cleanup goals and risk levels that are considered protective of human health under current and future use scenarios. The RAOs for C Block Quarry are to 1) prevent Resident Receptor exposure to hexavalent chromium in soil with concentrations above the United States Environmental Protection Agency (USEPA) Resident Soil Regional Screening Level of 3 milligrams per kilogram at sample locations CBLss-003M and CBLss-005M; and 2) prevent Resident Receptor and Industrial Receptor exposure to ACM intermixed with soil. Land Use Controls (LUCs) will be included as part of the Remedial Action Completion Report (RACR) as an Appendix.

FIGURE 2-3 presents the estimated extent surficial ACM requiring removal. TABLE 4-1 presents the remedial cleanup goals.

Table 4-1. Remedial Cleanup Goals

Chemical of Concern	Remedial Cleanup Goal
Asbestos	Non-detectable

Non-detectable ACM will not be visible on the ground surface.

4.2 OVERVIEW OF FIELD EFFORT

A Notification of Demolition and Renovation/Abatement and Notification Fee Worksheet will be submitted to the Ohio EPA, Division of Air Pollution Control at least 15-days prior to the start of asbestos removal activities (see APPENDIX B).

The work described in this RD will include the removal of ACM that was observed on the ground surface at C Block Quarry. An estimated total of 10 cubic yards of exposed ACM (e.g., concrete shingle and steel panels with block insulation and paper) were observed to be on the surface soil at C Block Quarry. The sizes of individual pieces of ACM vary. As part of the ACM removal, the site will undergo a visual inspection by a CAHES to make sure exposed ACM is identified and removed.

The ACM will be removed by trained and certified Asbestos Hazard Abatement Workers under the direction of a designated, onsite Asbestos Hazard Abatement Specialist. Personnel will execute the removal with proper personal protective equipment (PPE), as required by OSHA asbestos removal requirements. Where necessary to remove superficial ACM, removal of brush/vegetation will precede ACM removal. Brush/vegetation removal activities will be conducted in a manner that minimizes the potential for asbestos to become airborne. Care will be taken to ensure brush removal and/or mulching does not cover the ACM and obscure it further.

If needed, water will be used to mist the ACM to prevent asbestos from becoming airborne during the removal. The ACM will be removed and placed in an appropriate-sized container that has a 12-millimeter liner. The container will be sealed, adequately marked in accordance with U.S. Department of Transportation and Ohio EPA requirements and shipped for disposal at an approved landfill. Appropriate waste manifests will accompany each waste shipment. Only regulated and licensed transporters and vehicles will be used.

In addition, an Asbestos Abatement Plan will be developed to outline requirements specific to the removal of ACM, including identifying key personnel and PPE, specifying air monitoring requirements, and stating the site control measures. The Asbestos Abatement Plan is included in the APP/SSHP which is under a separate cover.

5.0 DESCRIPTION OF ACTIVITIES

5.1 PREMOBILIZATION

Premobilization will consist of scheduling and coordination of the field team. Personnel entering CJAG will be on a submitted access roster two weeks in advance of required entry, which includes deliveries, pickups and subcontractors. Work hours are 0700 – 1530 Monday through Friday, except on federal holidays. Extended work days and weekend work hours must be requested by the contractor through the OHARNG cleanup representative and is not guaranteed.

The contractor personnel conducting the cleanup activities at RVAAP-06 are required to be trained Asbestos Hazard Abatement Specialists/Workers in compliance with Title II of the TSCA and licensed by the Ohio EPA prior to conducting field work at CJAG. Training certificates and licenses for the personnel will be maintained by the AAC when on site. The asbestos certificates, Ohio licensures and training certificates for the field personnel will be provided to the USACE, ARNG and OHARNG at least one week in advance of field work.

The work requires using non-intrusive, non-digging methos to remove/pick up observable surficial ACM. Airborne chromium and hexavalent chromium concentrations in the soil would not approach an occupational exposure limit as dust for either contaminant based on background concentrations identified in the RI. The tasks to be undertaken by asbestos workers do not require 40-hour Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) training for this cleanup activity. Additionally, per the ROD, hexavalent chromium is a chemical of concern (COC) for residential land use but is not a COC for commercial/industrial land use.

The field team will inspect equipment to be used during the cleanup event. Prior to the commencement of field activities, team members will review:

- Site activities to be performed;
- Data obtained during previous site visits/investigations;
- Approved field procedures as presented in this RD;

- RD potential hazards specific to the location;
- APP/SSHP (**APPENDIX A**); and
- Safe work practices.

5.1.1 Permitting/Notifications

After review by the OHARNG, the Notification of Demolition and Renovation/Abatement and Notification Fee Worksheet will be submitted to the Ohio EPA, Division of Air Pollution Control by the Ohio EPA eBiz website by the contractor, PIKA-Insight, Tetra Tech or the AAC, at least 15-days prior to the start of asbestos removal activities. A hardcopy of the notification will be submitted to the OHARNG representative for review prior to submission via the Ohio EPA eBiz website. Blank copies of the Notification Fee Worksheet and Draft Notification of Demolition and Renovation/Abatement are included in **APPENDIX B**. PIKA-Insight, Tetra Tech or the AAC will pay the fee to the state of Ohio.

5.2 MOBILIZATION AND SITE PREPARATION

Once the work plans and permits have been approved, the PIKA-Insight team and subcontractors will mobilize resources necessary to perform this work efficiently and completely within the timeframe. **FIGURE 5-1** shows the site layout at RVAAP-06 C Block Quarry.

5.2.1 Sanitary Facilities

The AAC will provide temporary sanitary facilities (i.e., portable toilets and sinks) in the laydown area during project activities.

5.2.2 Removal of Brush/Vegetation

Where necessary to remove superficial ACM, removal of brush/vegetation will precede ACM removal. Brush/vegetation removal activities will be conducted in a manner that minimizes the potential for asbestos to become airborne including utilization of wet methods. Only non-intrusive, non-digging methods are permitted for removal of brush and vegetation. While the need to cut trees 3 inches in diameter or greater is not anticipated, any necessary cutting will be done between 1 October and 31 March.

Due to the amount of underbrush present at the site, Fecon mower attachments may be utilized to remove brush from the site. Fecon mowers can be lowered and raised as needed to minimize disruption of ACM material during brush removal activities. Limbs, branches, brush and tree parts not salvaged will be processed through a wood chipper, removed from the site, and recycled. If only a small amount of chips are generated and the work is not within a cantonment or other maintained area, the chips will be blown/scattered in adjacent unimproved areas/woodlands. Piles of chips will not be generated, and chips will not be placed in wetlands. Brush will be ground or chipped in place as part of the clearing operation. Care will be taken to ensure brush removal and/or mulching does not cover the surficial ACM and obscure it. Surficial ACM removal will be concentrated in the approximately 2700 square feet area of ACM piles identified in the RI/FS Report (Leidos, 2019). In order to facilitate an updated inspection of the entire quarry floor to ensure exposed ACM is identified, swaths of vegetation approximately 5-8 feet wide will be mulched and traverse northward from the bottom of the ingress ramp to allow surficial inspection of the areas of the quarry floor outside of the 2700 square feet area cleared for the removal. Some hand clearing may also be completed for better visualization in areas the Fecon mower cannot access. Personnel will execute the brush removal using Level D PPE.

The results of the updated ACM inspection of the quarry floor and methods of completing the inspection will be included in the RACR.

5.3 REMOVAL ACTIVITIES

The ACM will be removed by trained and certified Asbestos Hazard Abatement Workers in accordance with the laws of the State of Ohio, under the direction of a designated, onsite Asbestos Competent Person and CAHAS (Supervisor). Removal will be accomplished by Abatement Workers walking the area and using non-intrusive, non-digging methos (i.e., picking up ACM materials by hand) to remove observable surficial ACM. Surficial ACM will be transported to lined containers via wheel barrow or bucket. Based on the preliminary site visit in March 2023, surficial ACM should not exceed 50 lbs. and can be abated by hand or with hand tolls. Heavy equipment will not be needed to transport ACM to containers.

The CAHAS will be responsible for making sure the area is fully covered so that the surficial ACM is removed and properly disposed. After removal activities, the CAHAS and CAHES will perform a final walkthrough of the area to verify surficial ACM has been removed. Training certificates in compliance with Title II of the TSCA and Ohio EPA licenses for the personnel are provided in **APPENDIX C** and will be maintained by the AAC when on site. A CAHES will be present during ACM debris removal. CAHES services will be provided by Tetra Tech's Michael Reilly, CIH. His training certificates and licenses will be maintained on site and are provided in **APPENDIX C**.

Personnel will execute the removal of asbestos debris using Level C PPE with full face respirators. This PPE may be downgraded to half face respirators if results from personal breathing zone air sampling data indicate to the CIH that it is safe to do so. Should health and safety monitoring during field activities indicate a threat to field personnel or warrant an upgrade to the next level of protection, work will stop, site conditions will be re-evaluated, and appropriate measures will be implemented based on the site conditions.

A perimeter around the ACM removal area will be established by the AAC Competent Person or Asbestos Hazard Abatement Specialist. Red danger tape will be used to establish the work area during ongoing field activities, and the perimeter will be marked with temporary warning signs with the following legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO THE LUNGS
AUTHORIZED PERSONNEL ONLY

Water will be used to thoroughly dampen suspected ACM materials and areas in an effort to reduce the potential for asbestos to become airborne during removal and other onsite activities.

Field personnel will exit the regulated work area through a decontamination area. The outermost layer of PPE will be rinsed by spray bottles with amended water in the contaminated reduction corridor. The contamination reduction corridor will consist of an area shrouded with 6-mil (0.006-inch) polyolefin sheeting to collect rinse water and dispose of PPE. The sheeting will be laid to

prevent rinse water from escaping the barrier (e.g., curbed ends and overlapped seams). Rinse water will be collected in drums. The sheeting with rinse water will be folded inward to ensure water is confined in the sheeting and will be consolidated with the asbestos-containing wastes prior to being shipped offsite.

5.4 AIR SAMPLING

Air sampling of work areas and surrounding environment will be conducted during ACM removal activities by the CAHAS to evaluate compliance with the codes, regulations, ordinances and these RD specifications. The AAC shall fully cooperate with the CAHAS and the others responsible for sampling, evaluating, and inspecting the work. Air sampling and analysis shall be in accordance with current 40 CFR Part 61 Subpart M National Emission Standard for Asbestos USEPA regulations and requirements of 29 CFR 1926.1101 of the current OSHA regulations, as a minimum. Analysis will be performed by Phase Contrast Microscopy (PCM) per National Institute for Occupational Safety and Health (NIOSH) 7400 Method analytical procedures and/or Transmission Electron Microscopy per USEPA Level II analytical procedures by Professional Service Industries (PSI). PSI is an American Industrial Hygiene Association accredited laboratory (#100373) and a National Voluntary Laboratory Accreditation Program accredited laboratory (#101350-0). The American Industrial Hygiene Association and National Voluntary Laboratory Accreditation Program (NVLAP) certificates are provided in **APPENDIX D**. Airborne fibers referred to above include the fibers regardless of composition as counted by PCM in accordance with NIOSH 7400 Procedure. Air samples collected prior to the start of work (background), during abatement activities (areas and personals), and upon completion of removal activities will be analyzed by PCM. Air samples will be obtained using medium- and high-volume pumps that will be calibrated to a primary standard in accordance with the instrument manufacturer's specifications or standard industry practices.

Should the PCM air monitoring detect 0.01 fibers per cubic centimeter in an air sample collected outside of the work area perimeter (during brush removal and ACM removal) or visible emissions are observed, the AAC shall immediately cease asbestos removal activities until removal methods are corrected. Work shall not recommence until authorized by the CAHAS. The AAC shall strive

to maintain the asbestos concentration inside the work area equal to or less than 0.2 fibers per cubic centimeter over any 30-minute excursion period, by engineering and work practice controls. The AAC will collect representative occupational airborne asbestos air samples with no greater than 1 day turn-around-time to document that these concentrations have not been exceeded during the work.

The following procedures shall be used to resolve any dispute regarding fiber type when a project has been stopped because of excessive airborne fiber concentrations. Samples will be re-analyzed (or new samples will be obtained and analyzed) by transmission electron microscopy utilizing NIOSH 7402 Method by PSI, a NVLAP accredited laboratory.

The AAC is responsible for monitoring its personnel and their work practices in accordance with OSHA regulations 29 CFR 1926.1101 and associated appendices.

Asbestos abatement work will be considered to be substantially complete upon confirmation of final air clearance (PCM < 0.01 fibers per cubic centimeter) by the CAHAS and passing a visual clearance inspection. The CAHAS will give verbal notification to the PIKA-Insight PM of the final clearance results of each test within 24 hours of the receipt of sample analyses.

Air sampling shall be in accordance with, but not necessarily limited to, the following schedule:

Table 5-1. Air Sampling Schedule

Area	When	Number of Samples (minimum)	Volume Sample (liters)	Minimum Collection Rate (liters/min)
Work Area (PCM)	Prior to job start	5	1,200	10-15
Work Area (PCM)	During abatement work	5 Daily	1,000	2-10
Work Area (PCM)	At completion	5	1,200	10-15

5.5 DECONTAMINATION OF PERSONNEL AND EQUIPMENT

Field personnel PPE and reusable equipment used during brush and/or ACM removal will be decontaminated before arriving at and when leaving the site. Field personnel and equipment will exit the regulated work area through a decontamination area.

Field personnel will utilize two layers of disposable coveralls. The outermost layer of PPE will be rinsed by spray bottles with amended water in the contaminated reduction corridor. The AAC will decontaminate reusable equipment with water brought to site (e.g., water buffalo/tanker truck) that will have a surfactant added prior to use in the contamination reduction corridor. PPE and equipment will be thoroughly rinsed and wiped over a 6-mil (0.006-inch) polyolefin sheeting to collect rinse water. The sheeting will be laid to prevent rinse water from escaping the barrier (e.g., curbed ends and overlapped seams). Rinse water will be collected in drums. The sheeting with rinse water will be folded inward to make sure water is confined in the sheeting and will be consolidated with the asbestos-containing wastes prior to being shipped offsite. After employee's outermost level of PPE are decontaminated, they will proceed to a clean change room and remove the second layer of disposable coveralls and change into street clothes.

Disposable equipment will not be field-decontaminated. After its dedicated use, disposable equipment will be consolidated with the asbestos-containing wastes prior to being shipped offsite.

5.6 WASTE MANAGEMENT

The ACM that is visible and that can be removed by non-intrusive, non-digging methos (i.e., picking up ACM materials by hand) will be removed and placed in an appropriate-sized container(s) that has a 12-mil (0.012-inch) polyolefin liner that meets or exceeds the requirements of Title 29, Part 1926, Section 1926.1101(g)(5)(iv)(A)(7) . The AAC will utilize two layers of Aramsco seamless dumpster liners with flaps secured to control leakage. The container will be sealed, adequately marked in accordance with U.S. Department of Transportation requirements, and shipped for disposal at an approved landfill.

Prior to leaving the site, the container(s) with ACM materials will be sealed by a certified asbestos handler. Truck drivers will affix and make visible Class 9 placards and properly cover payloads

according to USEPA and Ohio EPA and U.S. Department of Transportation shipment requirements for friable asbestos materials. Additionally, per the Ohio EPA, "Any containers used to contain ACM will be clearly labeled with the following information written in large, legible, contrasting print:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
R.Q., Asbestos Class 9 NA 2212, III.

During transport, the truck payloads will remain covered in accordance with the requirements stated above. Proper traffic control will be maintained both on- and off-site, per State and local traffic regulations. Transportation routes for incoming and outgoing vehicles and heavy equipment will be established to minimize the impact on CJAG and surrounding community.

On the CJAG facility, signs will be posted to provide traffic directions to key locations to RVAAP-06. These signs will be in visible locations and be updated and maintained as necessary. The proposed truck routes will reflect the shortest egress from RVAAP-06 to the primary roadway (State Route 5). Traffic control devices used on the project will conform to Department of Transportation (DOT) applicable standards. Figure 5-2 outlines the haul route. The plan is to make sure that adequate consideration is given to the safety of workers during the RA.

Waste generated during the asbestos removal activities will be transported by Iron City Express and disposed of at Imperial Landfill owned by Allied Waste Systems of Pennsylvania, LLC (Waste Facility Permit Number 100620) located at 11 Boggs Road, Imperial, PA 15126. Iron City Express is located at 1306 Main St. Crescent Township, Pennsylvania 15046. Iron City Express is licensed and certified by USEPA and Ohio EPA with hazardous materials endorsements. The waste will be transported directly to the landfill and will not be consolidated with other AAC waste generated from other contractor projects. A copy of the Solid Waste Facility License is provided in **APPENDIX E**. The Class 9 placard is represented in Exhibit 1 shown below.

Exhibit 1 -- Class 9 Placard

There will be no visible emissions from asbestos-containing waste materials during on-site transportation, transfer, unloading, deposition, compacting operations, or from any inactive asbestos waste disposal sites.

Properly completed waste profiles and manifests will be signed by the OHARNG representative prior to the waste leaving the facility. The PIKA-Insight PM will notify the OHARNG representative at least 24 hours in advance of the waste shipment. A manifest and waste profile will be provided to the OHARNG representative for review prior to the shipment of waste off-site. Transportation will be by licensed trucks and drivers having current permits. Waste classification forms, waste manifests and Bills of Lading (i.e., certifying delivery of waste was delivered to the landfill) will be properly completed, signed and maintained. The AAC field crew will provide daily reports, including tool box safety meeting forms, load tickets, approximate volumes of ACM removed and copies of the documents applicable to daily activities to the COR, ARNG, and OHARNG.

PPE, plastic sheeting, and other solid waste generated as part of the project will be consolidated with removed ACM wastes prior to being shipped offsite.

Asbestos materials and miscellaneous debris will be transported to the pre-designated disposal site in accordance with the guidelines of the USEPA, 40 CFR 61 Subpart H, and local agencies'

regulations. The landfill used for disposal shall be certified to receive and bury materials contaminated with asbestos.

Waste disposal manifests will also indicate the amounts of waste in cubic yards or tons. Waste disposal manifests will be submitted with the final report. Generator copies of the manifests will be kept by OHARNG. The AAC will be responsible for obtaining the return manifests and weight tickets for the wastes and providing to OHARNG prior to submission of the RACR so that monthly waste tracking can be conducted. Returned manifests and weight tickets for the wastes will also be provided in the RACR. Daily and project waste tracking sheets are provided in **APPENDIX F**.

Onsite storage of hazardous/non-hazardous wastes is not anticipated as waste containers will be picked up and transported after ACM pieces are picked up by hand, however, if hazardous/non-hazardous wastes are stored onsite, the CJAG Weekly Non-Hazardous & Hazardous Waste Inspection/Inventory Sheet will be used during weekly inspections. Weekly inspections and inventory will be completed by a PIKA-Insight, Tetra Tech or AAC person qualified (i.e., CAHAS or CAHES) to make sure the containers are in good condition (i.e., free from rust, dents, crack or other signs of corrosion) and submitted to the RVAAP Restoration Program Hazardous Waste Manager. A copy of the CJAG Weekly Non-Hazardous and Hazardous Waste Inspection/Inventory Sheet embedded within the CJAG Waste Management Guidelines is provided in Appendix G. If there is a spill onsite or in the storage areas the QRG 2.2 First Responder Reporting form in Appendix G will be completed and submitted to the OHARNG Representative and Range Control within 24 hours.

Any waste container(s) with ACM materials requiring temporary onsite storage at a waste storage area will comply with 40CFR 262.34(c)(1) and will be sealed by a certified asbestos handler and labelled per the Ohio EPA Danger label sited in Section 5.6 as well as contractors name and contact information, waste type and accumulation start date.

5.7 BACKFILL AND SITE RESTORATION

If, during removal activities, it becomes evident that other ACM is visible beneath the surface, the area will be covered with at least 6 inches of clean fill. The backfill will be procured from Freedom

Materials and will be free of invasive species. The backfill will be sampled and proven clean prior being brought onsite and used. One composite sample for every 4,000 cubic yards of backfill will be collected. This quantity of backfill will come from the same source or an additional sample must be collected. The sample will be analyzed for the following parameters: VOCs (total compound list), SVOCs (total compound list), pesticides (total compound list), PCBs, Explosives, Nitro-glycerine, Nitro-guanadine, Nitrocellulose, TAL Metals, pH. The results will be screened by the contractor against a provided list of facility background levels. The fill must be approved by the OHARNG and, at a minimum, be at or below the facility-wide background values.

Any depressions created by removing ACM from the surface will likewise be filled with clean fill to the existing ground surface. Clean fill, approved by the ARNG for use at the site, will be brought to the laydown area, temporarily stockpiled, and driven to locations requiring backfilling using material handling equipment such as a skid-loader.

It is anticipated that small areas will be disturbed or backfilled, seeded, and mulched where ACM is partially buried and cannot be removed. Disturbed, exposed ground, and backfilled areas will be seeded and mulched in accordance with the requirements of the CJAG OHARNG Environmental Procedures Restoration Program Specific Version (15 July 2022) for soil stabilization or graded to provide erosion and runoff control. A seed mix will be selected and provided to the OHARNG for approval based on the time/season of the year. Only native species, as identified in the Environmental Procedures, will be used. Annual rye may be placed to provide a quick temporary cover. The annual rye may be mixed with other more permanent species to provide long-term cover once the annual rye dies off. Non-native species will not be introduced. PIKA-Insight will coordinate the required seed mixes with the OHARNG Restoration Representative prior to mobilizing.

5.8 SIGN AND SEIBERT STAKE INSTALLATION

Seibert stakes are currently present onsite and will be utilized if found in good condition. If additional Seibert stakes are required, PIKA-Insight will provide and install the appropriate t-post using the same type of post already installed onsite. CJAG has informed PIKA-Insight of an

abundance of available Seibert stakes to utilize for the project, therefore additional stakes will likely not be necessary. The top reflective part will be provided for each additional stake. Asbestos signage will be erected onsite and will alternate with Seibert stakes placement. Signage will be in accordance with the State of Ohio and OSHA regulations and will bear the following legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO THE LUNGS
AUTHORIZED PERSONNEL ONLY

Seibert stakes and signage shall be placed every 100 ft around the AOC perimeter for C Block Quarry. Vegetation in the area for the Seibert stakes and signs will be removed so the stakes and signs are clearly visible.

6.0 SAMPLE HANDLING AND CUSTODY REQUIREMENTS

6.1 SAMPLE DOCUMENTATION

Sample documents will be legible and written in ink. Corrections or revisions to sample documentation shall be made by striking through the original entry and initialing any changes. The following sub-sections outline air sampling documentation procedures that will be employed when conducting the removal action.

6.1.1 Field Logbook

A field logbook will be maintained detailing site activities and observations. The field logbook will be bound and have consecutively numbered pages. Entries will be signed by the individuals who are making them. The field logbook entries will document the following specific information:

- Site name and project number;
- Contractor name and address;
- Names of personnel at the site;
- Dates and times of entries;
- Descriptions of site activities, including entry and exit times;
- Noteworthy events and discussions;
- Weather conditions;
- Site observations;
- Identification and description of sample locations;
- Subcontractor information and names of on-site personnel;
- Dates and start/stop times of air samples and chain of custody information (i.e., pre/post calibration, minutes of sampling time, liters of air sampled);
- Records of daily photographs;
- Site sketches including area air sample locations;
- Relevant information delineated in field data sheets and air sample labels; and
- Equipment calibration and maintenance activities.

6.1.2 Sample Labels

Sample labels will be used to identify samples and document air sampling conditions and activities. Sample labels will be securely affixed to the air sampling cassette. They will clearly identify the particular air sample and will include the following information:

- Site name and designated project number;
- Sample identification number (pre-approved by the Ravenna Environmental Information Management System administrator [Leidos]);
- Date and start/stop time the sample was collected;
- Analysis requested;
- Sampling location; and
- Sampler's initials.

6.1.3 Chain of Custody Record

A chain-of-custody record will be maintained from the time of air sample collection until final deposition. The chain-of-custody record will include the following information:

- Contractor name and address;
- Sample identification number;
- Air sample location;
- Sample collection date and time;
- Pre and post calibration for air sampling pumps;
- Total minutes of sampling time and liters of air sampled;
- Sample information (matrix type, media collected on, etc.);
- Parameters to be tested;
- Names and signatures of samplers; and
- Signatures of all individuals who have had custody of the samples.

6.2 AIR SAMPLE HANDLING, SHIPMENT, AND ANALYSIS

Air sample cassettes prepared for shipment will be securely closed with a custody seal affixed to each cassette inlet and outlet. Air sample cassettes will be labeled as described in **SECTION 6.1.2**. Subsequently, the air sample cassettes will be placed in a plastic storage bag. Sample documentation will then be placed inside each plastic storage bag. When transferring possession of samples, the individual receiving the samples will sign and date the chain of custody. The plastic storage bag will be sealed and a custody seal will be placed on the bag.

Custody seals will be used to demonstrate that a plastic storage bag has not been opened or tampered with in transit to the laboratory. The individual who has sample custody will sign, date, and affix the custody seal to the plastic storage bag so it cannot be removed.

Air samples will be driven daily by a Tetra Tech representative to PSI in Pittsburgh, PA (accreditations listed in **SECTION 5.4** and provided in **APPENDIX D**) to be analyzed by PCM per NIOSH 7400 Method analytical procedures and/or transmission electron microscopy per USEPA Level II analytical procedures.

6.3 BACKFILL AND IDW SAMPLE HANDLING, SHIPMENT, AND ANALYSIS

If samples of backfill and IDW are collected, the samples will be placed in appropriate containers, labeled, sealed, and managed under a chain of custody. Samples will be shipped same day via laboratory courier service to ALS Middletown in Middletown, Pennsylvania. ALS possesses DoD Environmental Laboratory Accreditation Program certification. Laboratory analyses will be performed by ALS Middletown, a fixed-base laboratory. Backfill samples will be analyzed for the parameters identified in Section 5.7 and IDW samples will be analyzed for the parameters required for disposal at the facility such as TCLP VOC, SVOC, PCB, and inorganics/metals at a minimum. Backfill and IDW sampling results will be provided to the OHARNG prior to commencing backfilling and disposal operations.

7.0 CONSTRUCTION SEQUENCE AND SCHEDULE

Remedial action activities consist of planning, mobilization and site preparation, brush clearing, removal of ACM, site restoration, and demobilization. Field activities for this remedial action are scheduled to begin in Fall 2023, weather permitting and approval of the RD by the regulators. Field activities and anticipated duration are projected as shown in TABLE 7-1 below.

Table 7-1. Remedial Action Schedule

Task	Start Date	Duration (Days)	End Date
Mobilization, Site Preparation, and Land Survey	Thursday, March 7, 2024	3	Sunday, March 10, 2024
Brush Clearance	Monday, March 11, 2024	2	Wednesday, March 13, 2024
ACM Removal	Monday April 15, 2024	7	Friday April 19, 2024
Site Restoration	Monday, April 22, 2024	3	Wednesday, April 25, 2024
Installation of Signs and Seibert Stakes	Thursday April 26, 2024	3	Monday, April 29, 2024
Demobilization	Tuesday April 30, 2024	2	Wednesday May 1, 2024

8.0 HEALTH AND SAFETY

An APP/SSHP has been developed for the proposed removal action activities and is included as a separate document in **APPENDIX A**. The APP/SSHP has been prepared in accordance with OSHA, US Department of Labor and USACE requirements. In addition, an Asbestos Abatement Plan will be included in the APP/SSHP in compliance with USACE EM 385-1-1 to outline requirements specific to the removal of ACM, including identifying key personnel and PPE, specifying air monitoring requirements, and stating the site control measures.

Personnel performing the removal activities at the site will have training in compliance with Title II of the TSCA for Contractor Supervisors and Workers. The CAHES will, at a minimum, maintain an Asbestos Building Inspector/Management Planner training certification in compliance with Title II of TSCA. The CAHES will review project requirements with site personnel performing asbestos debris removal activities prior to removal activities.

During field work, PIKA-Insight and its subcontractors will be alert for conditions that warrant immediate or emergency action beyond that required throughout the course of routine site activities. Types of conditions that may lead to such immediate or emergency action include, but are not limited to, threats of fire and/or explosion, direct contact with hazardous substances, or a continuing release of hazardous substances due to sources other than that described in this RD, such as abandoned drums, munitions and explosives of concern, or other improperly disposed wastes. Upon discovery of such conditions, PIKA-Insight will immediately stop work and notify the USACE COR, CJAG Range Control, ARNG, and OHARNG.

RVAAP-06 was not a designated munitions response site but if munitions and explosives of concern are encountered, it will not be disturbed and best effort will be made to note its location before immediately leaving the site. The “3R’s” of explosives safety” shall be followed. The “3R’s” include:

1. Recognize: when something may be a munition and the dangers involved;

2. Retreat: do not touch the potential munition and carefully leave the area; and,

3. Report: immediately report the finding to local law enforcement.

9.0 DELIVERABLES

A RACR will be prepared following site activities. The RACR will document the work performed and will include sampling results, quantities of material removed and replaced, and results of the updated ACM inspection of the quarry floor. Field forms (APPENDIX H), figures, analytical result tables, photographs, laboratory reports, waste tracker, final manifests, profiles, and notifications will be included in the RACR.

A LUC RD will also be developed to set forth LUC requirements for C Block Quarry. The LUC requirements will include LUC objectives, land use restrictions (no residential use), site disturbance restrictions (no digging), sign and stake specification and maintenance, potential modification and termination of LUCs, monitoring and reporting requirements, LUC enforcement and training, and property transfers. The LUC RD will be an appendix to the RACR.

The actions listed below will be described in the LUC RD to achieve the RAOs for C Block Quarry:

1. Prevent Resident Receptor use of the site.
2. Prevent intrusive and digging activities, as friable ACM potentially exists in the subsurface soil. Any necessary intrusive activities will be performed in accordance with asbestos regulations.
3. Install signs to enhance compliance with digging restrictions at the site.
4. Install Seibert stakes to ensure high visibility of the site boundary.
5. Maintain the LUC training program.

A schedule outlining the order and timeframe of deliverables is included in the Project Management Plan (PIKA-Insight, 2023). Preliminary draft, draft, and final versions of deliverables will be prepared, as presented in the Performance Work Statement. All deliverables will be submitted to the USACE, ARNG Representative, OHARNG Representative, and the Administrative Record Coordinator for review and resolution. Additionally, the draft version of the deliverable will be submitted to the Ohio EPA for review and comment and the final version of the deliverable will be submitted to the Ohio EPA for their records.

10.0 REFERENCES

EQM (Environmental Quality Management, Inc.) 2010. Facility-wide Groundwater Monitoring Program Report on the January 2010 Sampling Event, Ravenna Army Ammunition Plant, Ravenna, Ohio. July 2010.

EQM 2015. Final Facility-wide Groundwater Monitoring Program Annual Report for 2014, Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio. March 2015.

Jacobs (Jacobs Engineering Group, Inc.) 1989. Resource Conservation and Recovery Act Facility Assessment, Preliminary Review/ Visual Site Inspection Ravenna Army Ammunition Plant, Ravenna, Ohio. October 1989.

Leidos 2019. Remedial Investigation/Feasibility Study Report for Soil, Sediment, and Surface Water at RVAAP-06 C Block Quarry. February 2019.

MKM (MKM Engineering, Inc.) 2007. Characterization of 14 Areas of Concern. August 2007.

Mogul (Mogul Corporation) 1982. Soil and Sediment Analysis Performed for: Ravenna Arsenal, Ravenna, Ohio. May 1982.

Mogul 1986. C Block Quarry Soil Contamination Survey, Ravenna Arsenal, Ravenna, Ohio. December 1986.

PIKA-Insight, 2023. Final Project Management Plan for the Removal Action at CC RVAAP-70 – East Classification Yard, RVAAP-06 – C Block Quarry, and RVAAP-50 Atlas Scrap Yard. January.

TEC-Weston 2018. Facility-wide Groundwater Monitoring Program' RVAAP-66 Facility-wide Groundwater, Annual Report for 2017, Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio. July 2018.U.S. Government 1950. Office Memorandum – Conference on Waste Disposal. Operations Division to Post Engineer. March 1950.

USACE (U.S. Army Corps of Engineers) 1996. Preliminary Assessment for the Characterization of Areas of Contamination at the Ravenna Army Ammunition Plant, Ravenna, Ohio. February 1996.

USACHPPM (U.S. Army Center for Health Promotion and Preventative Medicine) 1996. Hazardous and Medical Waste Study No. 37-EF-5360-97 Relative Risk Site Evaluation, Ravenna Army Ammunition Plant. November 1996.

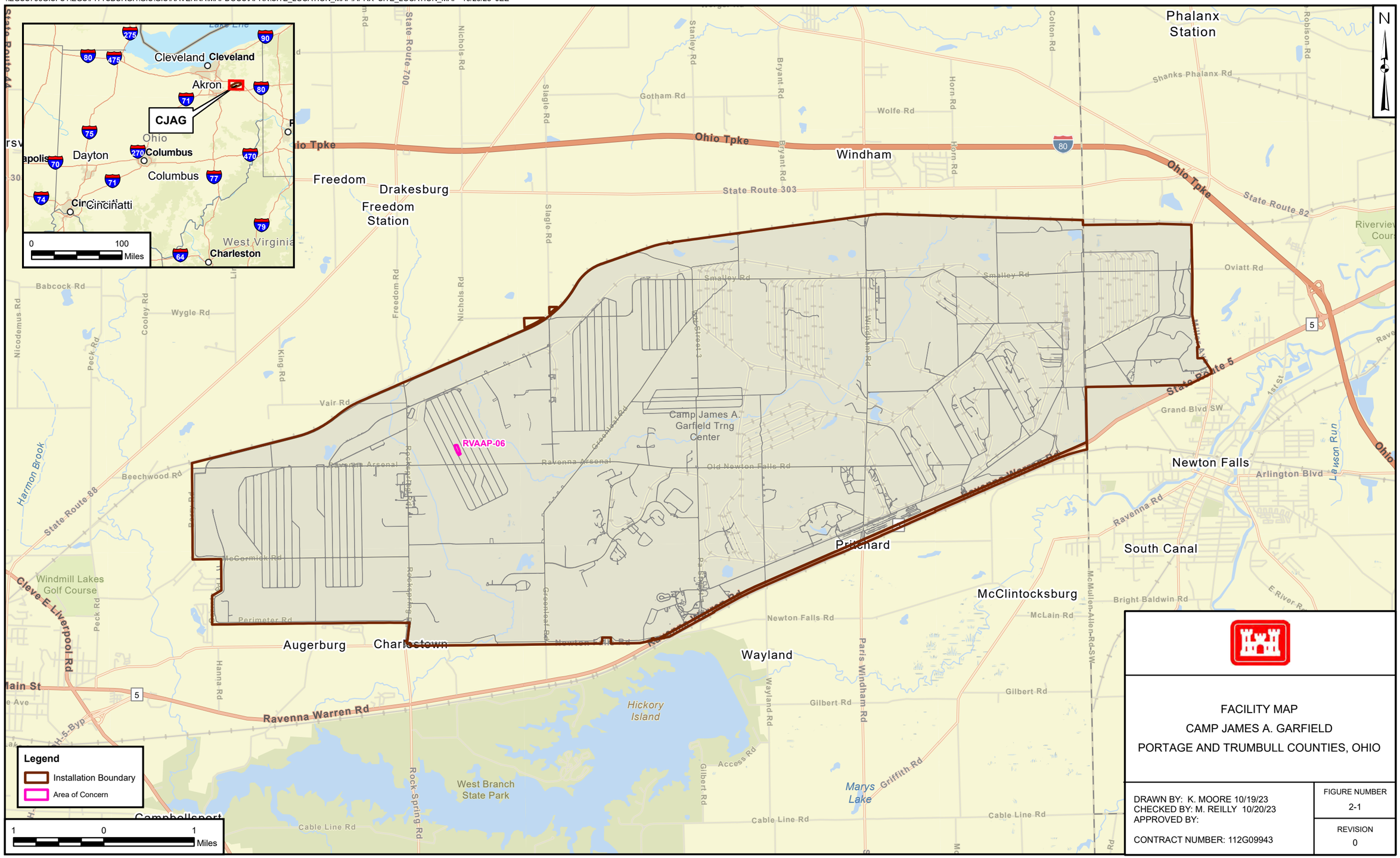
USATHAMA (U.S. Army Toxic and Hazardous Materials Agency) 1978. Installation Assessment of Ravenna Army Ammunition Plant, Records Evaluation Report No. 132. November 1978.

USATHAMA 1982. Installation Reassessment of Ravenna Army Ammunition Plant, Records Evaluation Report No. 132R. December 1982.

USDA 2010. Soil Map of Portage County, Version 4. Website: www.websoilsurvey.nrcs.usda.gov. January.

FIGURES

\\EGSS706GISFS1\EGS\PITTSBURGH\GIS\GIS\RAVENNA\MAPDOCS\APRX\SITE_LOCATION_MAP.APRX SITE_LOCATION_MAP 10/20/23 JEE



FACILITY MAP
CAMP JAMES A. GARFIELD
PORTAGE AND TRUMBULL COUNTIES, OHIO

DRAWN BY: K. MOORE 10/19/23
CHECKED BY: M. REILLY 10/20/23
APPROVED BY:

CONTRACT NUMBER: 112G09943

FIGURE NUMBER
2-1

REVISION
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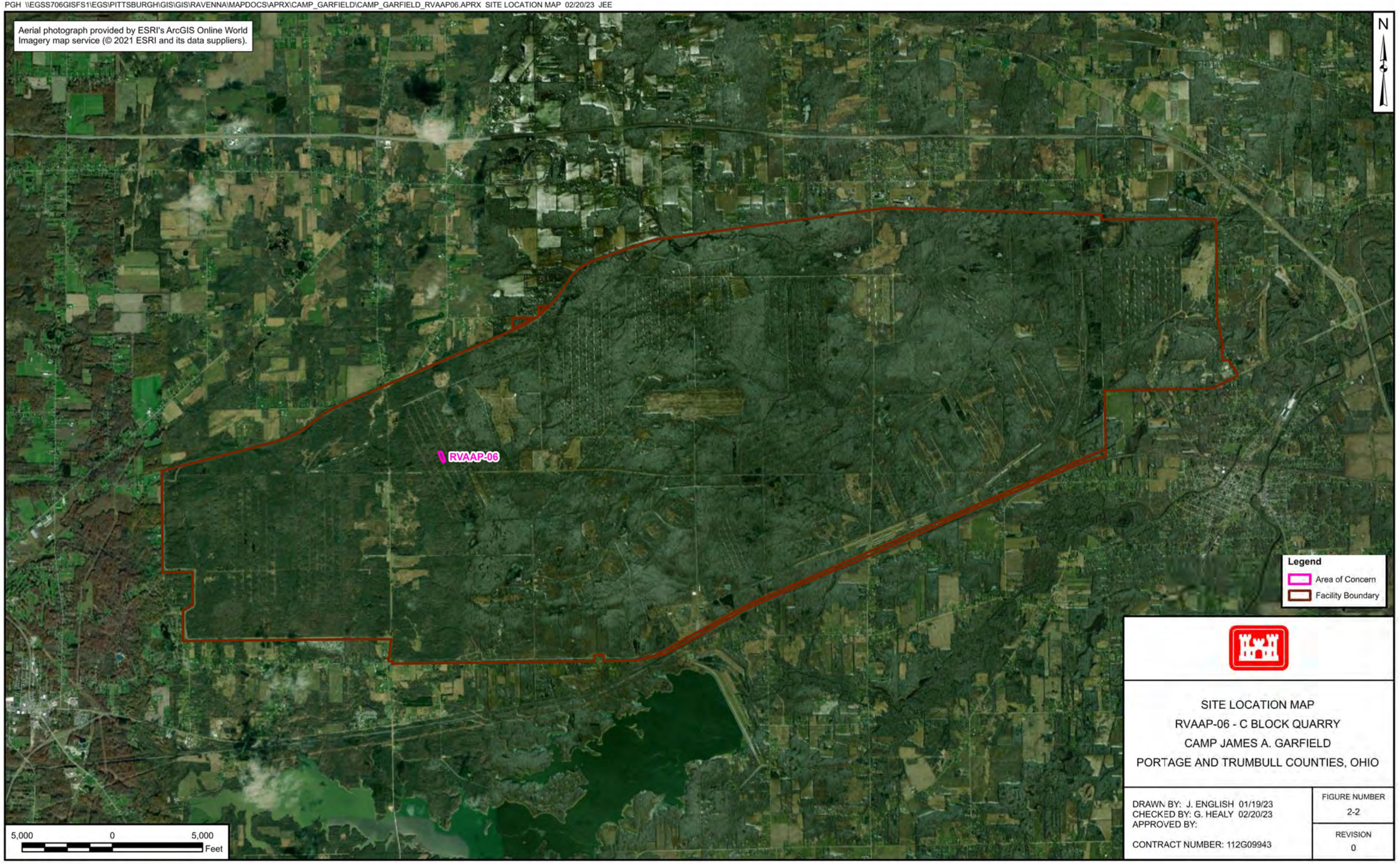
PGH \\EGSS706GISFS1\EGS\PITTSBURGH\GIS\GIS\RAVENNA\MAPDOCS\APRX\CAMP_GARFIELD\CAMP_GARFIELD_RVAAP06.APRX SITE LOCATION MAP 02/20/23 JEE



SITE LOCATION MAP
RVAAP-06 - C BLOCK QUARRY
CAMP JAMES A. GARFIELD
PORTAGE AND TRUMBULL COUNTIES, OHIO

DRAWN BY: J. ENGLISH 01/19/23
CHECKED BY: G. HEALY 02/20/23
APPROVED BY:

CONTRACT NUMBER: 112G09943

FIGURE NUMBER
2-2

REVISION
0

\\EGSS706GISFS1\EGS\PITTSBURGH\GIS\GIS\RAVENNA\MAPDOCS\APRX\CAMP_GARFIELD\CAMP_GARFIELD_RVAAP06.APRX SITE MAP 11/21/23 JEE

Notes:
1) Aerial photograph provided by ESRI's ArcGIS Online World Imagery map service (© 2021 ESRI and its data suppliers).
2) The wetlands shown here are from the most current data available. This figure will be updated as new data is received.

N

3-C-6-DB
7-C-6-DB
1-C-12
2-C-12
3-C-11
4-C-11
5-C-10
6-C-10
7-C-9
FC-16
1-C-5-DB
5-C-3-DB
7-C-5-DB
1-C-11
2-C-11
3-C-10
4-C-10
5-C-9
6-C-9
7-C-8
Road7C
3-C-5-DB
7-C-4-DB
1-C-10
Road1C
2-C-10
3-C-9
4-C-9
5-C-8
6-C-8
7-C-7
Road2C
Road3C
RVAAP-06
Road4C
Road5C
FC-13
Road6C
1-C-9
2-C-9
3-C-8
4-C-8
5-C-7
6-C-7
1-C-4-DB
3-C-4-DB
5-C-2-DB
1-C-8
2-C-8
3-C-7
4-C-7
5-C-6
Newton Falls Road
1-C-7
Road11C
2-C-7
3-C-6
4-C-6

Legend
- Area of Concern
- Building
- NWI Wetland
- Stream/Creek

250 0 250 Feet

SITE MAP
RVAAP-06 - C BLOCK QUARRY
CAMP JAMES A. GARFIELD
PORTAGE AND TRUMBULL COUNTIES, OHIO

DRAWN BY: J. ENGLISH 01/19/23
CHECKED BY: G. HEALY 11/21/23
APPROVED BY:

CONTRACT NUMBER: 112G09943

FIGURE NUMBER
2-3

REVISION
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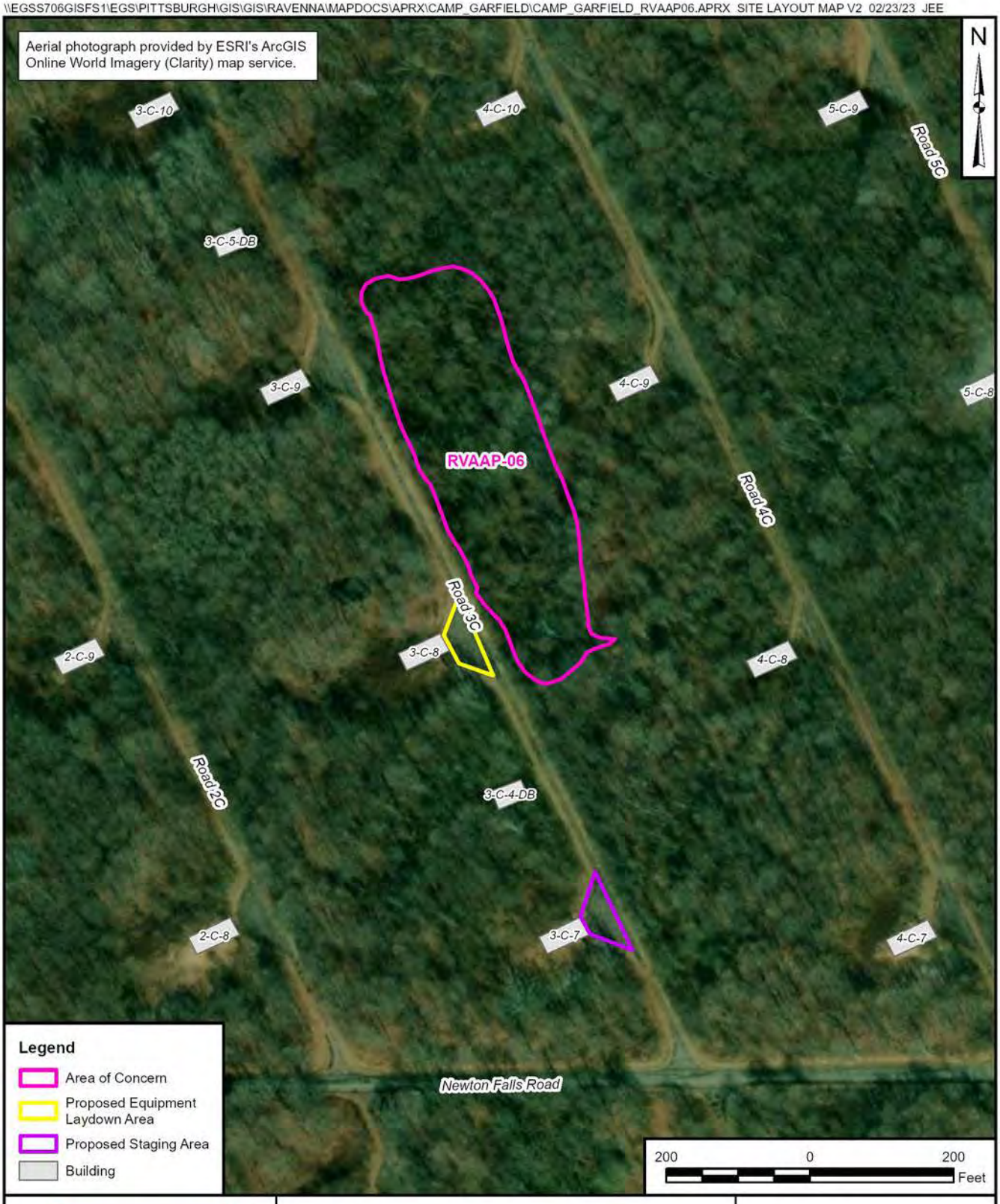
\\EGSS706GISFS1\EGS\PITTSBURGH\GIS\GIS\RAVENNA\MAPDOCS\APRX\CAMP_GARFIELD\CAMP_GARFIELD_RVAAP06.APRX SITE LAYOUT MAP V2 02/23/23 JEE



SITE LAYOUT MAP
RVAAP-06 - C BLOCK QUARRY
CAMP JAMES A. GARFIELD
PORTAGE AND TRUMBULL COUNTIES, OHIO

DRAWN BY: J. ENGLISH 02/23/23
CHECKED BY: G. HEALY 02/23/23
APPROVED BY:

CONTRACT NUMBER: 112G09943

FIGURE NUMBER	REV
5-1	0

\\EGSS706GISFS1\EGS\PITTSBURGH\GIS\GIS\RAVENNA\MAPDOCS\APRX\RVAAP06_TRAFFIC_PLAN_OCT2023.APRX RVAAP-06 TRAFFIC PLAN LAYOUT 11/14/23 JEE

N

RVAAP-06

ROUTE 3C

GREENLEAF ROAD

OLD NEWTON FALLS ROAD

GEORGE ROAD

MAIN GATE

STATE ROUTE 5

TO INTERSTATE 76

TO INTERSTATE 80

A

B

C

D

1,800 0 1,800 Feet

TRAFFIC CONTROL PLAN
RVAAP-06 - C BLOCK QUARRY
CAMP JAMES A.GARFIELD
PORTAGE AND TRUMBULL COUNTIES, OHIO

DRAWN BY: J. ENGLISH 10/20/23
CHECKED BY: B. DAVIS 11/14/23
APPROVED BY:

CONTRACT NUMBER: 112G09943

FIGURE NUMBER
5-2

REVISION
0

LEGEND

- TRUCK TRAFFIC ARROW
- BUILDING
- ROAD
- FENCE
- STREAM

Projection: NAD 1983 SPCS Ohio North (Feet).

NOTES:

1. ALL VEHICLES MUST ENTER CJAG THROUGH THE MAIN GATE (8451 STATE ROUTE 5, RAVENNA, OHIO).
2. ALL VEHICLES AND CONTENTS ARE SUBJECT TO SEARCH AND INSPECTION.
3. NO WEAPONS, LIGHTERS OR SIMILAR FIRE STARTERS, OR ALCOHOL ARE PERMITTED ONSITE. PROHIBITED ITEMS MAY BE LEFT WITH SECURITY WHILE ONSITE. SECURITY WILL CONFISCATE ANY PROHIBITED ITEMS DISCOVERED DURING INSPECTIONS.
4. ALL PERSONNEL ENTERING CJAG MUST COMPLETE THE OHARNG SECURITY ACCESS FORM AND SUBMIT IT TO TETRA TECH/INSIGHT ENVIRONMENTAL FOR COORDINATION FOR ACCESS TO THE FACILITY TO COORDINATE WITH THE OHARNG WHO WILL APPROVE ALL ACCESS TO THE FACILITY. ACCESS MUST BE COORDINATED AT LEAST 48 HOURS IN ADVANCE. ALL WEEKEND AND HOLIDAY WORK MUST BE APPROVED BY THE OHARNG.
5. ALL ON-ROAD HAUL TRUCKS WILL ADHERE TO ODOT TRANSPORTATION GUIDELINES. THE SUBCONTRACTOR IS RESPONSIBLE FOR ENSURING AND VERIFYING TRUCKS DO NOT EXCEED 80,000 POUNDS GROSS WEIGHT.
6. ALL HAUL TRUCKS WILL HAVE OPERATIONAL LOAD COVERS IN GOOD CONDITION (I.E., FREE OF HOLES, TEARS). LOADS WILL BE COVERED PRIOR TO DEPARTING THE PROJECT AREAS AND WILL STAY IN PLACE UNTIL UNLOADING AT THE APPROVED DISPOSAL SITE.
7. ON-ROAD HAUL TRUCKS HAULING WASTE SHALL BE LINED IN ACCORDANCE WITH THE APPROVED DISPOSAL FACILITY REQUIREMENTS.
8. ROADS SHALL NOT BE BLOCKED. TRAFFIC SHALL BE MAINTAINED ON AT LEAST ONE HALF OF THE ROADWAY WIDTH AT ALL TIMES.
9. SUBCONTRACTOR SHALL CONFIRM NO OVERHEAD HAZARDS (I.E., POWER LINES), MANHOLES, AND WATER VALVES WILL IMPEDE REMEDIAL ACTIVITIES.
10. THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGES TO ROADS AS A RESULT OF HIS OR HER SUBCONTRACTORS' ACTIONS.

SIGNAGE DETAILS - NOT TO SCALE

APPENDIX A

ACCIDENT PREVENTION PLAN / SITE SAFETY AND HEALTH PLAN

(UNDER SEPARATE COVER)

APPENDIX B

NOTIFICATION OF DEMOLITION AND RENOVATION/ABATEMENT

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, **including payment**, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at ***epa.ohio.gov/asbestos***. This form can be completed, and payment made, at ***ebiz.epa.ohio.gov***. Questions? ***asbestos@epa.ohio.gov*** or (614) 466-0061.

Ohio EPA Use Only	Notification #:	Postmarked: / /	Received: / /	☐ Hand-Delivered

1) Notification Information (Check all that apply)

☐ Original	☐ Revision # (count):	☐ Installation	☐ Emergency	☐ Annual	☐ Cancellation	**Project County:**
☐ NESHAP Residential Exemption						

2) Owner, Asbestos Abatement Contractor, Billing and Fire Department Information **Revised?** ☐

Owner		
Name:		Is this a company? ☐ Yes ☐ No
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -
Asbestos Abatement Contractor (if applicable)		
Name:	License #: AC	Expiration Date: / /
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -
Billing Contact (Entity paying for original notification)		
Is this contact associated with the ☐ Owner, ☐ Asbestos Abatement Contractor, or ☐ Demolition Contractor (if not installation)?		
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -
Fire Department (if applicable)		
Name:		
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -

3) Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure **Revised?** ☐

Evaluation Specialist:	Certification #: ES	Expiration Date: / /
Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II non-friable asbestos-containing material: ☐ PLM ☐ Point Count ☐ TEM ☐ Other Method (Explain Below):		

4) Procedures to be followed should unexpected RACM be discovered (check all that apply) **Revised?** ☐

☐ Stop work and keep wet	☐ Evacuate area	☐ Demarcate area	☐ Contact licensed abatement contractor
☐ Contact district office/local air authority			
☐ Other (Explain):			

5) Planned Demolition (check all that apply) **Revised?** ☐

Describe demolition work to be performed and method(s) to be employed, including demolition techniques to be used: ☐ Implosion ☐ Fire Training ☐ Wet Methods ☐ Manual Demolition ☐ Mechanical Demolition ☐ Other (Explain):
Description of affected facility components (include attachment if necessary):

Mail completed form and payment to:
Ohio EPA, DAPC – Asbestos
P.O. Box 1049, Columbus, OH 43216-1049

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Continued

6) Asbestos Description and Engineering Controls (if asbestos is being abated) **Revised?** ☐

For the material listed in each project, describe the type(s) of ACM to be abated, engineering controls and work practices to be used to minimize emissions and ensure proper waste handling:					
Type of ACM to be abated:	☐ Surfacing	☐ Mechanical	☐ Other		
Engineering Controls:	☐ Wet Methods	☐ Glove Bag	☐ NPE	☐ AFD	☐ Other:
Work Practices:	☐ Intact Removal	☐ Manual	☐ Mechanical	☐ Other:	

7) Asbestos Waste Transporter (if applicable) **Revised?** ☐

Transporter #1 Name:		
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -
Transporter #2 Name (if applicable):		
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -

8) Asbestos Waste Disposal Site (if applicable) **Revised?** ☐

Name:		
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -

9) Emergency Demolition (complete if you checked "Emergency" above and "Demolition" for any project) **Revised?** ☐

A copy of the issued order, including the following information, **must be attached** to this notification.	
Government Official Issuing Order:	Title:
Agency:	Authority of Order (Citation of Code):
Date of Order: / /	Demolition Date: / /

10) Emergency Renovation/Abatement (complete if you checked "Emergency" above and "Renovation/Abatement" for any project) **Revised?** ☐

Date of Emergency: / /	Time of Emergency: : ☐ a.m. ☐ p.m.
Description of Sudden, Unexpected Event:	
Explanation of how the event caused unsafe conditions or equipment damage:	

11) Attestation **Revised?** ☐

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification. I acknowledge that the submission of false or misleading statements is prohibited by law and I certify that facts contained in this notification are true, accurate, and complete.	
Signature:	Date: / /
Name:	Title:
Organization:	

Notification of Demolition and Renovation/Abatement
Section 2: Project Address Specific Information
Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only	Project ID #:

A. Facility Description **Revised?** ☐

Building Name (if applicable):	Site Location (specific):	
Address:		
City:	State: OH	Zip: -
Building Size (square feet):	No. of Floors:	Age:
Present Use:	Prior Use:	

B. Type of Operation (check all that apply) **Revised?** ☐

☐ Demolition	☐ Renovation/Abatement – Type: ☐ Removal ☐ Repair ☐ Encapsulation ☐ Enclosure

C. Asbestos Present (check one) **Revised?** ☐

☐ Yes	☐ No	☐ No, previously abated	Year Abated:

D. Approximate Amount of Asbestos-Containing Materials (complete table below and Section 1 #6 if asbestos is present) **Revised?** ☐

	Material to be Removed			Material NOT to be Removed	
		Non-friable Asbestos-Containing Material		Non-friable Asbestos-Containing Material	
	RACM	Category I	Category II	Category I	Category II
Pipes (linear feet)					
Surface area on other facility components (ft^2)					
Volume if length or area cannot be measured (ft^3)					

E. Asbestos Abatement Schedule and Abatement Specialist (original notification is required 10 working days prior to the start of work) **Revised?** ☐

Setup Date: / /		Abatement Date: / /			Complete Date: / /		
(Shift 1) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	
(Shift 2) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	

F. Demolition Contractor (if applicable) **Revised?** ☐

Name:		
Address:	Contact Person:	
City:	State:	Zip: -
Email:	Phone: ( ) -	Fax: ( ) -

G. Demolition Schedule (original notification is required 10 working days prior to the start of work) **Revised?** ☐

Start Date: / /	Complete Date: / /

H. Project Hold **Revised?** ☐

Asbestos Abatement Offsite/On Hold as of Date: / /	Asbestos Abatement On Site/Off Hold, Work Resume Date: / /
Demolition Offsite/On Hold as of Date: / /	Demolition On Site/Off Hold, Work Resume Date: / /

APPENDIX C

ASBESTOS PERSONNEL TRAINING AND LICENSES

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Abatement Specialist

Kody
Barto

DOB: 3/2/87

Card not Valid if Altered

Bristol Environmental, Inc
415 Becks Run Rd
Pittsburgh PA 15210

Certification Number	Expiration Date
AS544431	9/15/24

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Abatement Specialist

Dylan R.
Brooks

Ohio

Bristol Environmental Inc
415 Becks Run Rd
Pittsburgh PA 15210

DOB: 3/31/99

Card not Valid if Altered

Certification Number	Expiration Date
AS549225	9/8/24

PENNSYLVANIA LABORERS' TRAINING CENTER

317 DEER CREEK ROAD, SAXONBURG, PA 16056 (724) 352-2224

Certificate of Training

issued to:

DYLAN R. BROOKS

1531 MAIN BLVD
SOUTH PARK, PA 15129

The holder of this certificate has completed a training course in:

ASBESTOS SUPERVISOR REFRESHER

In recognition of this accomplishment, PENNSYLVANIA LABORERS' TRAINING CENTER hereby awards certificate # 767740751023 which expires 10/19/2024.

Asbestos Abatement Contractor/Supervisor 8hrRecertification course Accreditation TSCA Title II E.P.A. Approved

Attested this date of 10/19/2023 by: _____
ERIC BEVILACQUA, Instructor

_____
Marc Ferrari, Administrator

_____
Philip Ameris, Chairman

COURSE DATE(S): 10/19/2023 - 10/19/2023 EXAM DATE: 10/19/2023 CERTIFICATE #: 767740751023 EXPIRATION: 10/19/2024

PENNSYLVANIA LABORERS' TRAINING CENTER

317 DEER CREEK ROAD, SAXONBURG, PA 16056 (724) 352-2224

Certificate of Training

issued to:

DONALD L. MILLER
166 COBBLESTONE DRIVE
VALLEY GROVE, WV 26060

The holder of this certificate has completed a training course in:

ASBESTOS SUPERVISOR REFRESHER

In recognition of this accomplishment, PENNSYLVANIA LABORERS' TRAINING CENTER hereby awards certificate # 862740750823 which expires 8/24/2024.

Asbestos Abatement Contractor/Supervisor 8hrRecertification course Accreditation TSCA Title II E.P.A. Approved

Attested this date of 8/24/2023 by: Eric Bevilacqua
ERIC BEVILACQUA, Instructor

Marc Ferrari, Administrator

Philip Ameris, Chairman

COURSE DATE(S): 8/24/2023 - 8/24/2023 EXAM DATE: 8/24/2023 CERTIFICATE #: 862740750823 EXPIRATION: 8/24/2024

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Abatement Specialist

Donald
Miller

Ohio

Bristol Environmental, Inc.
415 Becks Run Rd
Pittsburgh PA 15210

DOB: 3/3/59

Card not valid if Altered

Certification Number	Expiration Date
AS27778	11/18/23

PENNSYLVANIA LABORERS TRAINING CENTER

317 DEER CREEK ROAD, SAXONBURG, PA 16056 (724) 352-2224

Certificate of Training

issued to:

ELIJAH D. MILLER

166 COBBLESTONE DRIVE
VALLEY GROVE, WV 26060

The holder of this certificate has completed a training course in:

ASBESTOS SUPERVISOR REFRESHER

In recognition of this accomplishment, PENNSYLVANIA LABORERS TRAINING CENTER hereby awards certificate # 615440750323 which expires 3/30/2024.

Asbestos Abatement Contractor/Supervisor 8hrRecertification course Accreditation TSCA Title II E.P.A. Approved

Attested this date of 3/30/2023 by: _____
ERIC BEVILACQUA, Instructor

_____
Marc Ferrari, Administrator

_____
Philip Ameris, Chairman

COURSE DATE(S): 3/30/2023 - 3/30/2023 EXAM DATE: 3/30/2023 CERTIFICATE #: 615440750323 EXPIRATION: 3/30/2024

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Abatement Specialist

Elijah
Miller

DOB: 12/11/98

Card not Valid if Altered

Bristol Environmental Inc
415 Becks Run Rd
Pittsburgh PA 15210

Certification Number	Expiration Date
AS545912	11/18/23

Professional Training Associates, Inc.

ASBESTOS CONTRACTOR/SUPERVISOR

Refresher Training Course

Kody W. Barto

has successfully completed the Asbestos Contractor/Supervisor Refresher Course and passed the course examination for purposes of accreditation under Section 206 of Title II of the Toxic Substance Control Act (TSCA). Conducted by Professional Training Associates, Inc., 46 South Linden Street, Suite C, Duquesne, PA 15110, (412) 460-0266.

BARTOKO
CSR113022DUQUESN

Location:	**Duquesne, PA**	Examination:	**November 30, 2022**
Course Date:	**November 30, 2022**	Expiration:	**November 30, 2023**
Course Director:	**Gregory S. Ashman**	Certificate Number:	**PTA 22 - 22-61288**

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Abatement Specialist

Geno F
Marchese

Bristol Environmental, Inc.
415 Becks Run Rd
Pittsburgh PA 15210

DOB: 6/18/63

Card not Valid if Altered

Certification Number	Expiration Date
AS27984	9/16/24

PENNSYLVANIA LABORERS' TRAINING CENTER

317 DEER CREEK ROAD, SAXONBURG, PA 16056 (724) 352-2224

Certificate of Training

issued to:

GENO F. MARCHESE

146 WILLIAMSBURG ROAD
IMPERIAL, PA 15126

The holder of this certificate has completed a training course in:

ASBESTOS SUPERVISOR REFRESHER

In recognition of this accomplishment, PENNSYLVANIA LABORERS' TRAINING CENTER hereby awards certificate # 774640751023 which expires 10/19/2024.

Asbestos Abatement Contractor/Supervisor 8hrRecertification course Accreditation TSCA Title II E.P.A. Approved

Attested this date of 10/19/2023 by: _____
ERIC BEVILACQUA, Instructor

_____
Marc Ferrari, Administrator

_____
Philip Ameris, Chairman

COURSE DATE(S): 10/19/2023 - 10/19/2023 EXAM DATE: 10/19/2023 CERTIFICATE #: 774640751023 EXPIRATION: 10/19/2024

PENNSYLVANIA LABORERS' TRAINING CENTER

317 DEER CREEK ROAD, SAXONBURG, PA 16056 (724) 352-2224

Certificate of Training

issued to:

REGIS S. SAUER

1737 GREENLEAF STREET
PITTSBURGH, PA 15211

The holder of this certificate has completed a training course in:

ASBESTOS SUPERVISOR REFRESHER

In recognition of this accomplishment, PENNSYLVANIA LABORERS' TRAINING CENTER hereby awards certificate # 920240750723 which expires 7/13/2024.

Asbestos Abatement Contractor/Supervisor 8hrRecertification course Accreditation TSCA Title II E.P.A. Approved

Attested this date of 7/13/2023 by: _____
ERIC BEVILACQUA, Instructor

_____
Marc Ferrari, Administrator

_____
Philip Ameris, Chairman

COURSE DATE(S): 7/13/2023 - 7/13/2023 EXAM DATE: 7/13/2023 CERTIFICATE #: 920240750723 EXPIRATION: 7/13/2024

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Abatement Specialist

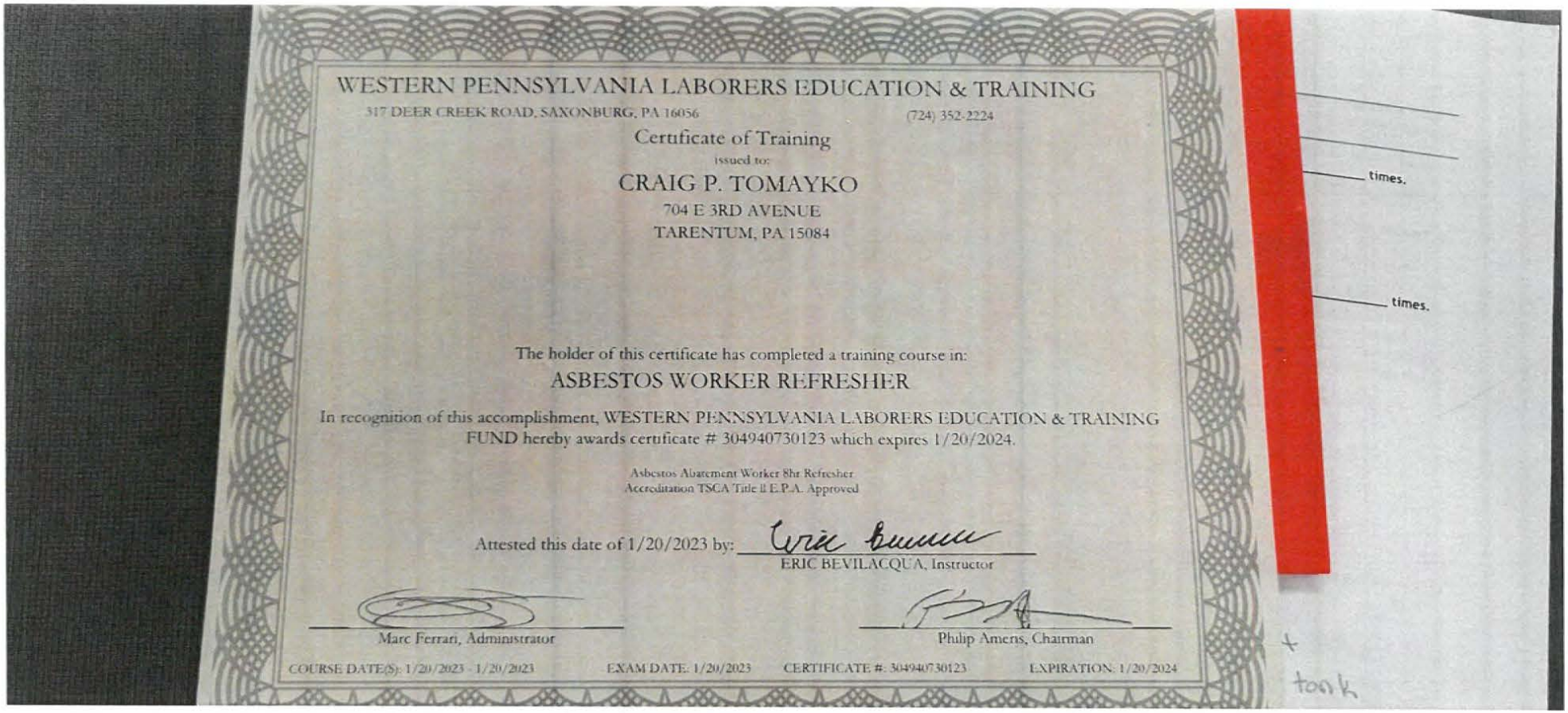
Regis
Sauer

DOB: 1/1/96

Card not Valid if Altered

Bristol Environmental, Inc.
415 Becks Run Rd
Pittsburgh PA 15210

Certification Number	Expiration Date
AS543979	10/1/24



WESTERN PENNSYLVANIA LABORERS EDUCATION & TRAINING

317 DEER CREEK ROAD, SAXONBURG, PA 16056 (724) 352-2224

Certificate of Training

issued to:

CRAIG P. TOMAYKO
704 E 3RD AVENUE
TARENTUM, PA 15084

The holder of this certificate has completed a training course in:

ASBESTOS WORKER REFRESHER

In recognition of this accomplishment, WESTERN PENNSYLVANIA LABORERS EDUCATION & TRAINING FUND hereby awards certificate # 304940730123 which expires 1/20/2024.

Asbestos Abatement Worker 8hr Refresher
Accreditation TSCA Title II E.P.A. Approved

Attested this date of 1/20/2023 by: Eric Bevilacqua
ERIC BEVILACQUA, Instructor

Marc Ferrari, Administrator

Philip Ameris, Chairman

COURSE DATE(S): 1/20/2023 - 1/20/2023 EXAM DATE: 1/20/2023 CERTIFICATE #: 304940730123 EXPIRATION: 1/20/2024

times.

times.

+
task

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Abatement Worker

Craig P.
Tomayko

Bristol Environmental, Inc
415 Becks Run Rd
Pittsburgh PA 15210

DOB: 7/14/91

Card not Valid if Altered

Certification Number	Expiration Date
WK545728	9/23/24

Professional Training Associates, Inc.

ASBESTOS MANAGEMENT PLANNER

Refresher Training Course

Michael E. Reilly

has successfully completed the Asbestos Management Planner Refresher Course and passed the course examination for purposes of accreditation under section 206 of Title II of the Toxic Substance Control Act (TSCA). Conducted by Professional Training Associates, Inc., 46 South Linden Street, Suite C, Duquesne, PA 15110, (412) 460-0266.

REILLMI
MPR120723DUQUESN

Location:	Duquesne, PA	Examination:	December 7, 2023
Course Date:	December 7, 2023	Expiration:	December 7, 2024
Course Director:	John J. Curcio	Certificate Number:	PTA 23 - 24 - 64003

Professional Training Associates, Inc.

ASBESTOS BUILDING INSPECTOR

Refresher Training Course

Michael E. Reilly

has successfully completed the Asbestos Building Inspector Refresher Course and passed the course examination for purposes of accreditation under Section 206 of Title II of the Toxic Substance Control Act (TSCA). Conducted by Professional Training Associates, Inc., 46 South Linden Street, Suite C, Duquesne, PA 15110, (412) 460-0266.

REILLMI
BIR120723DUQUESN

Location:	Duquesne, PA	Examination:	December 7, 2023
Course Date:	December 7, 2023	Expiration:	December 7, 2024
Course Director:	William W. Tomlinson	Certificate Number:	PTA 23 - 23 - 63978

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Evaluation Specialist

Michael
Reilly

Ohio Environmental Protection Agency

405 Archer St
McKeesport PA 15132

DOB: 11/21/88

Certification Number	Expiration Date
ES548659	8/29/25

Card not Valid if Altered

APPENDIX D
LABORATORY CERTIFICATIONS

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

Intertek-PSI, Inc.

850 Poplar St Pittsburgh, PA 15220-2828

Laboratory ID: LAP-100373

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

☑	**INDUSTRIAL HYGIENE**	Accreditation Expires: July 01, 2024
☑	**ENVIRONMENTAL LEAD**	Accreditation Expires: July 01, 2024
☑	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: July 01, 2024
☐	**FOOD**	Accreditation Expires:
☐	**UNIQUE SCOPES**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Cheryl O. Morton

Cheryl O Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision20: 06/07/2022

Date Issued: 07/01/2022

APPENDIX E

SOLID WASTE FACILITY LICENSE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

Permit
For
Solid Waste Disposal and/or Processing Facility
FORM NO. 8

Permit No.	100620
Date Issued	September 22, 2005
Date Revised	September 21, 2015
Date Expires	September 22, 2025

Under the provisions of the Pennsylvania Solid Waste Management Act of July 7, 1980, Act 97, a permit for a solid waste disposal and/or processing at (municipality) **Finlay Township** in the County of **Allegheny** is granted to (applicant) **Allied Waste Systems of Pennsylvania, LLC** (address) **11 Boggs Road, P.O. Box 47 Imperial, PA 15126-0047**

This permit is applicable to the facility named as **Imperial Landfill** and described as:

Latitude: 40° 26′ 54″

Longitude: 80° 16′ 31″

This permit is subject to modification, amendment and supplement by the Department of Environmental Protection and is further subject to revocation or suspension by the Department of Environmental Protection for any violation of the applicable laws or the rules and regulations adopted thereunder, for failure to comply in whole or in part with the conditions of this permit and the provisions set forth in application no. **100620** which is made a part hereof, or for causing any condition inimical to the public health, safety or welfare.

See attachment for waste limitations and/or special conditions

FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

THIS PERMIT IS NON-TRANSFERABLE

Effective Date

B. The permittee is hereby authorized to accept and dispose of residual and municipal special handling wastes at the Imperial Landfill associated with the following general categories: 9/22/05

General Category or Category Code*	Generic Waste Type	9/22/05
Special Handling Waste (Municipal)	Sewage Sludges (including incinerated sewage sludges)	
Special Handling Waste (Municipal)	Municipal Waste Ash (MWA) from Resource Recovery Facilities	
Residual Waste Category 000	Combustion Residues	
Residual Waste Category 100	Metallurgical Process Residues	
Residual Waste Category 200	Sludges, Scales	
Residual Waste Category 300	Chemical Wastes	
Residual Waste Category 500	Special Handling Residues	
Residual Waste Category 700	Industrial Equipment, Scrap	
Residual Waste Category 800	Non-Coal Mining Waste	
Residual Waste Category 900	Other (specify): A) Auto Shredder Fluff B) Industrial Lab Waste C) Nonhazardous Residue from the Treatment of Hazardous Waste	
Generic Residual Waste as listed in Attachment No. 1 (Permittee Table No. E.1) of this permit.	Formerly "Municipal-Like Residual Waste" (does not include treated wood wastes from the manufacture of treated wood or freshly treated wood waste).	
Special Handling Waste (Residual)	Asbestos Containing Waste (ACW)	
Special Handling Waste (Residual)	Soil Contaminated with Virgin Petroleum Fuel	

* The following restrictions apply to the above referenced generic waste streams: 9/22/05

1. any waste stream having a flash point of less than 140ºF or 60ºC as referenced in 40 CFR Section 261.21, even if it is an excluded hazardous waste, shall not be solidified or disposed;
2. any excluded hazardous waste which would otherwise meet the requirements for a reactive waste as referenced in 40 CFR Section 261.23 shall not be solidified or disposed;
3. waste oil (RWC 509) shall not be solidified or disposed;
4. waste having free liquids or free petroleum products must be solidified before disposal, except for situations described in 25 Pa. Code Section 273.201(g);
5. any waste excluded in 25 Pa. Code Section 273.201 shall not be solidified or disposed;
6. other 900 waste streams which will be evaluated on a case-by-case basis and will require specific Department approval before disposal or solidification.

APPENDIX F

WASTE TRACKING SHEET

Construction/Demolition Diversion and Waste Disposal Form/Tracker

Project Title _____ **Project Number** _____

Date	Material Type*	Material Description**	Total Quantity of Material	Tons/lbs/CY/each	Total Number of Manifest/Disposal Tickets Attached

***Material Type:** C&D Debris, Recyclable/Reutilized Material, Universal Waste, TSCA Regulated Waste

****Material Description:** C&D Debris (wood, glass, asphalt, concrete, soil, plastic etc…)
Recyclable Material (scrap metal and concrete etc….)
Universal Waste (bulbs, mercury containing devices, used batteries)
TSCA Waste (asbestos, PCB's, lead based paints)

REGULATED ASBESTOS MATERIAL
WASTE SHIPMENT RECORD

GENERATOR SECTION

I. Facility Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Owner's Name: _____

Telephone: (____) _____ Fax: (____) _____

II. Operator's Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: (____) _____ Fax: (____) _____

III. Waste Disposal Site (WDS) Name: _____

"On-Site" Disposal ☐ Yes ☐ No

Physical Location:

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: (____) _____ Fax: (____) _____

Mailing Address:

City: _____ State: _____ Zip Code: _____

Telephone: (____) _____ Fax: (____) _____

IV. Responsible Agency (The Local, District, State, or EPA Office with jurisdiction over the county, where the **WDS** address is located) see **contacts** at http://epa.ohio.gov/dapc/atu/asbestos for assistance

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

V. Description of Materials	**VI. Containers**		**VII. Total Quantity** (cubic yards)
	Number	**Type**	

VIII. Special Handling Instructions and Additional Information

IX. Generator's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

_____ _____ _____

Signature Date Type or Print Name and Title

REGULATED ASBESTOS MATERIAL
WASTE SHIPMENT RECORD

TRANSPORTER SECTION

X. **Transporter 1** (Acknowledgement of receipt of materials)

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: (____) _____ Fax: (____) _____

_____ _____ _____

Signature Date Type or Print Name and Title

Rejected Materials (if any)	Destination

XI. **Transporter 2** (Acknowledgement of receipt of materials)

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: (____) _____ Fax: (____) _____

_____ _____ _____

Signature Date Type or Print Name and Title

Rejected Materials (if any)	Destination

DISPOSAL SITE SECTION

XII. Discrepancy indication space

XIII. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item XII

_____ _____ _____

Signature Date Type or Print Name and Title

APPENDIX G

CAMP JAMES A. GARFIELD WASTE MANAGEMENT GUIDELINES

ANNEX E - APPENDIX B

Waste Management Guidelines

Camp James A. Garfield Joint Military Training Center

Integrated Environmental Contingency Plan

Table of Contents

E.B. 1 - PURPOSE

Guidelines to be followed by contractors working at military installations owned by the Ohio Army National Guard (OHARNG) who are generating/shipping Hazardous or Non-Hazardous Waste. NOTE: The text in this document is taken directly from the *OHIO ARMY NATIONAL GUARD WASTE MANAGEMENT GUIDELINES* published April 30, 2020.

E.B. 2 - POLICY

The policy of the OHARNG is to comply with all local, state, federal and installation requirements.

E.B. 3 – OHARNG Waste Management POCs

NAME	JOB TITLE	OFFICE	Email
Shane Mathey	OHARNG Hazardous Waste Manager	(614) 336-7394	michael.s.mathey.nfg@mail.mil
Shane Mathey's Alternate	Shane Mathey's Environmental Supervisor	(614) 336-7395	michael.s.mathey.nfg@mail.mil
Brad Kline	CJAG Hazardous Waste Manager	(614) 336-4918	bradley.w.kline2.nfg@mail.mil
Katie Tait	RVAAP Restoration Program Hazardous Waste Manager	(614) 336-6136	kathryn.s.tait.nfg@mail.mil
B. Kline / K. Tait Alternate	Environmental Supervisor Alternate	(614) 336-6568	See above

E.B. 4 - COORDINATION

1. Coordinate all waste generation and shipments with the appropriate POC listed above or the Environmental Supervisor in their absence.

2. Notify the POC prior to waste sampling for characterization. Details about sampling activities (i.e., number of sample, analysis, etc.) must be provided.

3. All Hazardous and Non-Hazardous waste storage locations must be pre-approved by POC prior to generation.

4. Ensure all labels include: Accumulation Start Date, Contractor, and Waste Type.

5. When contractors have waste onsite, a weekly inspection and inventory must be completed and submitted to the POC.

6. All wastes shall be tracked and logged throughout the duration of the project. Contractor will provide the POC with a monthly rollup report of all waste and recycled streams generated by no later than the 10th day of the following month.

E.B. 5 - HAZARDOUS WASTE TSDF AND WASTE HAULERS

Contractors are required to utilize qualified Defense Logistics Agency (DLA) waste haulers and Treatment, Storage, and Disposal Facilities (TSDFs). The current qualified waste hauler and TSDF list can be viewed by following the "Qualified Facilities" and "Qualified Transporters" links found on the DLA Hazardous Waste Disposal Homepage:

http://www.dla.mil/DispositionServices/Offers/Disposal/HazardousWaste/HazWasteDisposal.aspx

E.B. 6 - HAZARDOUS OR NON-HAZARDOUS MANIFEST FORM INSTRUCTIONS

1. OHARNG Sites other than CJAG and RVAAP Restoration Program:

    A. The OHARNG Waste Management POC is Mr. Shane Mathey

    B. Site name and address for each facility will be provided upon request.

    C. Ohio EPA identification number for each facility will be provided upon request.

2. CJAG:

    A. The OHARNG Waste Management POC is Mr. Brad Kline

    B. Military and non-restoration operations waste Site Name is Camp Ravenna Joint Military Training Center.

    C. Site Address: 1438 State Route 534 SW, Newton Falls, Ohio 44444, (614) 336-4918.

    D. Mailing Address: Camp James A. Garfield ENV, ATTN: Brad Kline, 1438 State Route 534 SW, Newton Falls, Ohio 44444, (614) 336-4918.

    E. Ohio EPA ID#: OHD981192925.

3. RVAAP Environmental Restoration Program:

    A. The OHARNG Waste Management POC is Ms. Katie Tait

    B. Restoration Program waste Site Name is Former Ravenna Army Ammunition Plant.

    C. Site Address: 8451 State Route 5, Ravenna, Ohio 44266, (614) 336-6136.

    D. Mailing Address: Camp James A. Garfield ENV, ATTN: Katie Tait, 1438 State Route 534 SW, Newton Falls, Ohio 44444, (614) 336-6136.

    E. Ohio EPA ID#: OH5210020736

4. All OHARNG Sites

    A. Contractor's shipping Hazardous Waste must provide a Land Disposal Restriction (LDR) in accordance with 40 CFR Part 268.

    B. Profiling;

        1) The required shipping documentation (i.e. waste profile and executive summary of lab reports (if available)) need to be submitted to the appropriate OHARNG POC, or designee(s) for approval and signature prior to shipping.

        2) Results of characterization must be submitted to the appropriate OHARNG POC within 30 days after collecting sample.

    C. Manifests - Hazardous and Non-Hazardous:

        1) The waste carrier/transporter provides appropriate manifest to the contractor.

        2) The contractor is required to:

            a. Insure the OHARNG POC or designee(s) is available to sign the manifest on the scheduled day of shipment;

            b. Verify that each manifest is properly completed and signed by the OHARNG POC or designee(s);

            c. Provide the Generator copy of the manifest to Shane Mathey or designee(s); and

            d. Ensure that the original Generator copy of the manifest signed by the treatment storage disposal facility is returned to the appropriate OHARNG address within 30 days of the shipping date for Hazardous and Non-Hazardous Waste.

            e. The use of a Bill of Lading, in lieu of a waste manifest, must be approved in advance by the OHARNG POC.

E.B. 7 – SAAS, CAAS, AND CONTAINERS

1. All Satellite Accumulation Areas (SAAs) and containers will comply with 40CFR 262.34(c)(1).

2. From the time any waste is placed in a waste storage container, proper labeling must be on the container (proper labeling includes contractors name and contact information, waste type). An accumulation start date must also be included on containers stored in a Central Accumulation Areas (CAAs).

3. Any waste that is subject to Hazardous Waste Manifest Requirements of the USEPA must comply with 40 CFR Part 262.

4. Pending analysis label is to be used from the time the sample is taken and until the results are received. In no case will waste labeled pending analysis exceed 45 days.

5. For all hazardous waste containers, a container log must be maintained.

6. SAAs and CAAs must be properly documented and closed out once a project are complete.

E.B. 8 – RECORDS

1. All OHARNG Hazardous and Non-Hazardous records except for CJAG and RVAAP Restoration Program records are maintained at the Columbus environmental office, point of contact is Shane Mathey at (614) 336-7394.

2. All CJAG and RVAAP Restoration Program Hazardous and Non-Hazardous records are maintained at the CJAG environmental office, point of contacts are Katie Tait at (614) 336-6136 and Brad Kline at (614) 336-4918.

3. Due to the LQG requirement to comply with the training requirements at 40 CFR 265.16, contractors are required to meet personnel training provisions. If the amount of hazardous waste generated during a project causes an OHARNG facility to be a LQG, contractors must be properly trained on RCRA duties/requirements. Documentation of this training must be kept in the project file.

WEEKLY NON-HAZARDOUS & HAZARDOUS WASTE INSPECTION/INVENTORY SHEET

Contractor: _____ **Month:** _____ **Year:** _____ **Waste Description:** _____

Container Nos.:

	WEEK 1	WEEK 2	WEEK 3	WEEK 4
	Date: **Time:**	**Date:** **Time:**	**Date:** **Time:**	**Date:** **Time:**
Point of Contact (Name / Number)				
Project Name:				
Contracting Agency and POC:				
Waste Determination: Pending Analysis, Hazardous, Non-Hazardous, etc.				
*Location on installation:				
Date Generated:				
Projected date of disposal:				
Non-Haz, Satellite, 90 day storage area				
Waste generation site:				
Number of Containers (size / type):				
Condition of Container:				
Containers closed, no loose lids, no loose bungs?	yes / no	yes / no	yes / no	yes / no
Waste labeled properly and visible (40 CFR 262.34 (c) (1):	yes / no	yes / no	yes / no	yes / no
Secondary containment	yes / no	yes / no	yes / no	yes / no
Incompatibles stored together?	yes / no	yes / no	yes / no	yes / no
Any spills?	yes / no	yes / no	yes / no	yes / no
Spill kit available?	yes / no	yes / no	yes / no	yes / no
Fire extinguisher present and charged?	yes / no	yes / no	yes / no	yes / no
Containers grounded if ignitable?	yes / no / na	yes / no / na	yes / no / na	yes / no / na
Emergency notification form/info present?	yes / no	yes / no	yes / no	yes / no
Container log binder present?	yes / no	yes / no	yes / no	yes / no
Signs posted if required?	yes / no	yes / no	yes / no	yes / no
Photo's submitted	yes / no	yes / no	yes / no	yes / no
Printed Name:				
Signature:				

This form is required for Non-Hazardous and Hazardous waste including PCB and special waste.

CONTRACTORS ARE REQUIRED TO SUBMIT THIS FORM WEEKLY TO THE CJAG-ENV OFFFICE WHEN WASTE IS STORED ON SITE.

CONTRACTORS ARE ENCOURAGED TO INCLUDE PHOTOS WITH EACH WEEKLY INSPECTION SHEET WHEN WASTE IS STORED ON SITE.

*Draw detailed map showing location of waste within the site.

APPENDIX H
FIELD FORMS

BRISTOL ENVIRONMENTAL INC

Bristol Environmental, Inc.
415 Becks Run Road
Pittsburgh, PA 15210
Phone: 412-881-7800
Fax: 412-881-7808

WORK ENTRY LOG

Project Name: _____ Date: _____ Day: _____

BEI Project Number: _____ Work Area: _____

WORKERS IN CONTAINMENT

Respirator Type: ☐ 1/2 Face ☐ Full Face ☐ PAPR ☐ Type "C"

Work Activity: ☐ Prep ☐ Removal ☐ Clean/Bag ☐ Other: _____

	Employee Name	Signature	SSN	IN	OUT	IN	OUT	IN	OUT
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

BRISTOL ENVIRONMENTAL

OSHA SAMPLING LOG

Project Name _____ Job No. _____ Date _____

Address _____ Supervisor _____

City/State/Zip _____ Type of Sample asbestos lead other

Type of Material _____

Location: Bristol Md Pittsburgh FL Boston Taken By: _____ Ph. _____

[1] Sample No. _____ TWA ID: _____ Employee Name: _____ ID No. _____

Location (room) _____ Activity _____

Respirator	Code*	Time On	Time Off	Total Time	Flow ON	Flow OFF	Flow Rate	TOT VOL	Fiber Count	Analysl f/cc

[2] Sample No. _____ TWA ID: _____ Employee Name: _____ ID No. _____

Location (room) _____ Activity _____

Respirator	Code*	Time On	Time Off	Total Time	Flow ON	Flow OFF	Flow Rate	TOT VOL	Fiber Count	Analysl f/cc

[3] Sample No. _____ TWA ID: _____ Employee Name: _____ ID No. _____

Location (room) _____ Activity _____

Respirator	Code*	Time On	Time Off	Total Time	Flow ON	Flow OFF	Flow Rate	TOT VOL	Fiber Count	Analysl f/cc

[4] Sample No. _____ TWA ID: _____ Employee Name: _____ ID No. _____

Location (room) _____ Activity _____

Respirator	Code*	Time On	Time Off	Total Time	Flow ON	Flow OFF	Flow Rate	TOT VOL	Fiber Count	Analysl f/cc

[5] Sample No. _____ TWA ID: _____ Employee Name: _____ ID No. _____

Location (room) _____ Activity _____

Respirator	Code*	Time On	Time Off	Total Time	Flow ON	Flow OFF	Flow Rate	TOT VOL	Fiber Count	Analysl f/cc

*Code: *BKG-Background* *IWA-Inside Work Area* *OWA Outside Work Area* *EXC-Excursion* *PRS-Personal* *FNL-Final*

****CHAIN OF CUSTODY****

Print Name	Signature	Date
Individual Taking Samples:		
Relinquished to:		
Lab Custody:		

BEI DAILY SAFETY HUDDLE

Job No.:	Job Name:	Meeting Conducted By:
Date:	To be completed by supervisor prior to beginning each day/shift, when changes in work procedures occur, or when additional hazards are present.	

JOB/TASK DISCUSSION ITEMS (CHECK ALL THAT APPLY)

Required PPE		LOTO/Mech. Disconnect/Cut/Cap		Manual Lifting	
Emergencies & Evacuation		GFCI Use		Tool Use	
1st Aid/Eye Wash/Fire Ext.		Scaffold Use		Confined Space Hazard (Y or N)	
Report incidents/accidents/Injuries		Ladder Use		Lead Hazard (Y or N)	
Hazcom/SDS		Aerial Lift Use		Asbestos Hazard (Y or N)	
Fall Hazard		Scissor Lift Use		Silica Hazard (Y or N)	
Electrocution Hazard		Slips, Trips, Falls		Silica WECP (Y or N)	

TOPICS DETAILS, CONCERNS AND EMPLOYEE SUGGESTIONS

	Y	N	Comments
Have instructions and expectations for these work tasks/job activities been communicated?			
Does the work crew have the competence, experience and training to complete this work safely?			
Have adequate resources been made available to complete this task safely? (tools, equipment, material, information, processes, time, access, authority)			

	Name	Signature
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		

BRISTOL ENVIRONMENTAL INC

BRISTOL ENVIRONMENTAL, INC.
1123 BEAVER STREET
BRISTOL, PA 19007
215-788-6040 (PHONE)
215-788-6141 (FAX)

FIELD REPORT

Project Name: _____ Date: ___/___/___ Day: M T W T F S S

BEI Project Number: _____ Work Area: _____
(e.g. bldg no., room no., etc.)

Time: _____ . M. to _____ . M. Weather: _____ Temperature: _____

Air Monitor (Owner's): _____
On Site Technician: _____
OSHA Monitoring Technician: _____

---------- HOURS ----------

	Employee Name	Prep	Mech Removal	Other Removal	Final Clean/ Bag Out/ Misc
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Provide detailed description of tasks performed (i.e. prep containment, construct decon, glovebag 50 lf pipe ins., etc.). Record unusual events (i.e. accidents [complete required forms], emergencies, equipment breakdown). Log in visits to the job site of non-BEI employees [have them sign a Jobsite Visitor Notification form]. [If the visitor enters a containment area, they must sign the Worker in Containment Log]. Record agency inspections performed including inspector's name & agency, time, results of inspection [sign Visitor form & Containment log].

NARRATIVE LOG

			Delivered	Picked-Up	Wait & Load
Containers:	Asbestos	(qty)			
	Lead/Haz	(qty)			
	Trash	(qty)			

Supervisor's Signature: _____ [ ] cont'd on page 2

WASTE SHIPMENT RECORD

13126

Owner and Contractor Information

1. Work Site Name	Generator/ Owner's Name/Address	Generator/Owners Phone

Work Site Address

Street: City State: Zip Code:

2. Contractors Name and Mailing address
Bristol Environmental, Inc.
415 Becks Run Road
Pittsburgh, PA 15210

Contractors Phone Number
412-881-7800

3. Waste Disposal Site, Name, Address and Physical Site Location
Republic Services
11 Boggs Road
Imperial, PA 15126
Permit No. 100620

WDS Phone Number
724-695-0900

4. Name and Address of EPA Office, local, state or regional (Check Appropriate)

☐ PADER
400 Waterfront Drive
Pittsburgh, PA 15222

☐ USEPA
841 Chestnut Street
Philadelphia, PA 19107

☐ Other:_____

5 Type of Asbestos (Friable/Nonfriable)	6. Description of Material	7. Estimated Total Quantity (tons) (cubic yards)

8. Special Handling Instructions and Additional Information.

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international, and government regulations. A representative of Bristol Environmental, Inc, executes this form as the Owners Agent and assumes no liability for, nor ownership of, the waste materials.

Printed/Typed Name and Title	Signature	Date

10 Friable Asbestos Shipping Information

a. Shipping Name: Asbestos	d. Identification Number : NA2212
b. Hazard Class: 9	e. Packing Group: III
c. Addition Description RQ (Reportable Quantity is 1 pound)	

Transporter(s)

11. Transporter #1 (Acknowledgment of Receipt of Materials)

Asbestos Hauler Name Iron City Express

Hauler Mailing Address

Street: 1306 Main Street City: Glenwillard State: PA Zip Code: 15046

Printed/Typed Name and Title	Signature	Date

11. Transporter #2 (Acknowledgment of Receipt of Materials)

Asbestos Hauler Name

Hauler Mailing Address

Zip Code:

Printed/Typed Name and Title	Signature	Date

Disposal Site

12. Discrepancy Indication Space

13. Waste Disposal Site Owner or Operator:
Certification of receipt of asbestos material covered by this manifest except as noted in Number 12.

Printed/Typed Name and Title	Signature	Date

White - Disposal Canary - Sent by Landfill Generator Pink - Hauler Goldenrod - Generator

APPENDIX I
OHIO EPA COMMENT LETTERS

May 14, 2024

Received May 15, 2024

TRANSMITTED ELECTRONICALLY

Mr. Kevin Sedlak
Restoration Program Manager
ARNG-ILE Clean Up
Camp James A Garfield JTC
1438 State Route 534 SW
Newton Falls, OH 44444

RE: US Army Ravenna Ammunition Plt RVAAP
Remediation Response
Project Records
RD
Remedial Response
Portage County
ID # 267000859266

Sent via email to: Kevin.m.sedlak.ctr@army.mil

Subject: Draft Remedial Design RVAAP-06 C- Block Quarry Report
Ravenna Army Ammunition Plant Restoration Program
Ohio EPA Comments

Dear Mr. Sedlak:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) has received and reviewed the Ravenna Army Ammunition Plant (RVAAP) Restoration Program, Portage/Trumbull Counties, Ohio, Draft Remedial Design for RVAAP-06 C-Block Quarry dated February 14, 2024[1]. This document was received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) via email on February 14, 2024. The document was prepared for the United States Army National Guard.

Comments on the document based on Ohio EPA review are provided below. Please provide responses to the enclosed comments in accordance with the Directors Findings and Orders.

Comment 1) Section 5.4 AIR SAMPLING

Soil confirmation sampling details are needed in the work plan. The Plan states in part: "(a)sbestos abatement work will be considered to be substantially complete upon confirmation of final air clearance (PCM < 0.01 fibers per cubic centimeter) by the CAHAS and passing a visual clearance inspection. The CAHAS will give verbal notification to the PIKA-Insight PM of the final clearance results of each test within 24 hours of the receipt of sample analyses."

The March 1, 2022, final Record of Decision (ROD) and supporting documents identified asbestos in soil and lists a remedial cleanup goal for asbestos of non-detectable (non-detectable concentration of asbestos will

[1] http://edocpub.epa.ohio.gov/publicportal/ViewDocument.aspx?docid=2795620

August 30, 2024

Received August 30, 2024

TRANSMITTED ELECTRONICALLY

Mr. Kevin Sedlak
Restoration Program Manager
ARNG-ILE Clean Up
Camp James A Garfield JTC
1438 State Route 534 SW
Newton Falls, OH 44444

Sent via email to:
Kevin.m.sedlak.ctr@army.mil

RE: US Army Ravenna Ammunition Plt
RVAAP
Remediation Response
Project Records
Remedial Design
Remedial Response
Portage County
ID # 267000859266

Subject: Former Ravenna Army Ammunition Plant
Response to Comments for Ohio EPA comments on the Draft Remedial Design for RVAAP-06 C Block Quarry
Ohio EPA Request for Final

Dear Mr. Sedlak:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO) has received and reviewed the Ravenna Army Ammunition Plant (RVAAP) Restoration Program, Portage/Trumbull Counties, Ohio, Response to Comments for Ohio EPA Comments on the Draft Remedial Design for RVAAP-06 C-Block Quarry, dated June 5, 2024[1]. This document was received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) via email on June 5, 2024. Ohio EPA received the Draft Remedial Design on February 14, 2024[2] and provided comments on May 14, 2024[3]. The Draft Remedial Design was prepared for the United States Army Corps of Engineers (USACE) on behalf of the National Guard Bureau by PIKA-Insight.

[1] http://edocpub.epa.ohio.gov/publicportal/ViewDocument.aspx?docid=2936508
[2] http://edocpub.epa.ohio.gov/publicportal/ViewDocument.aspx?docid=2795620
[3] http://edocpub.epa.ohio.gov/publicportal/ViewDocument.aspx?docid=2845788

Ohio EPA has no further comments. Please provide the final Remedial Design for RVAAP-06 C Block Quarry for Ohio EPA Approval.

If you have any questions, please contact me at (330) 963-1109, or via email at craig.kowalski@epa.ohio.gov.

Sincerely,

Craig Kowalski

Craig Kowalski
Site Coordinator
Division of Environmental Response and Revitalization

CK/cm

ec: Katie Tait, OHARNG RTLS, CJAG
Steve Kvaal, USACE Louisville
Nathaniel Peters, USACE Louisville
Angela Cobbs, Chenega Reliable Services
Jennifer Tierney, Chenega Reliable Services
Megan Oravec, Ohio EPA, NEDO DERR
Natalie Oryshkewych, Ohio EPA, NEDO DERR
Thomas Schneider, Ohio EPA, SWDO DERR
Tim Christman, Ohio EPA DERR, CO
Brian Tucker, Ohio EPA, CO DERR

be determined by using test methods with an analytical sensitivity of at least 0.25 percent by weight. (page 37 or ROD)). Confirmation samples should be collected to ensure the asbestos is removed from the soil and meets the remedial cleanup goal.

Comment 2)

Source material contributing to ground water contamination is likely present in the subsurface and may require additional remediation to restore contaminated ground water in the area of concern (AOC).

Soil to ground water remediation levels were not considered in the Feasibility Study (FS) or ROD and if ground water contamination is identified per the AOC investigation in the facility-wide ground water evaluation, then additional soil removal and/or treatment may still be required for the AOC. As noted in the work plan summary and other investigative documents, the C-Block quarry is one of the few AOCs at Camp James A Garfield JTC (CJAG) where liquid wastes were known to be disposed of over time. Per the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and expectations of ground water restoration under CERCLA, "EPA expects to return usable ground waters to their beneficial uses wherever practicable, within a timeframe that is reasonable given the particular circumstances of the site. When restoration of ground water to beneficial uses is not practicable, EPA expects to prevent further migration of the plume, prevent exposure to the contaminated ground water, and evaluate further risk reduction." See: https://semspub.epa.gov/work/HQ/175202.pdf for additional information.

The final document was reviewed by personnel from Ohio EPA's DERR. Pursuant to the Director's Findings and Orders paragraph 39 (b), Ohio EPA considers the document.

If you have any questions, please contact me at (330) 963-1109, or via email at craig.kowalski@epa.ohio.gov.

Sincerely,

Craig Kowalski

Craig Kowalski
Site Coordinator
Division of Environmental Response and Revitalization

CK/cm

ec: Megan Oravec, Ohio EPA, NEDO, DERR
Natalie Oryshkewych, Ohio EPA, NEDO, DERR
Thomas Schneider, Ohio EPA, SWDO, DERR
Tim Christman, Ohio EPA, CO, DERR
Brian Tucker, Ohio EPA, CO, DERR
Katie Tait, OHARNG RTLS, CJAG
Steve Kvaal, USACE Louisville
Nathaniel Peters, USACE Louisville
Jennifer M. Tierney, Chenega Reliable Services
Angela Cobbs, Chenega Reliable Services