



NATIONAL GUARD BUREAU
111 SOUTH GEORGE MASON DRIVE
ARLINGTON VA 22204-1373

March 4, 2015

Ohio Environmental Protection Agency
DERR-NEDO
Attn: Mr. Edward D'Amato
2110 East Aurora Road
Twinsburg, OH 44087-1924

Subject: Ravenna Army Ammunition Plant (RVAAP) Restoration Program
Portage/Trumbull Counties, RVAAP-69 Building 1048 Fire Station
Ohio EPA ID # 267-000-859-022

Dear Mr. D'Amato:

Enclosed, for your review, is a *Field Change Notice* in support of the Environmental Remediation Services (ERS) project at the CC RVAAP-69 Building 1048 Fire Station of the former Ravenna Army Ammunition Plant (RVAAP) in Ravenna, Ohio. This document was prepared for the US Army Corps of Engineers (USACE) - Louisville District, by ECC under Contract No. W912QR-04-D-0039.

This FCN presents additional subsurface soil samples that are needed to complete the Remedial Investigation being conducted at CC RVAAP-69 Building 1048 Fire Station Area of Concern. The Army's contractor, ECC, would like to complete this work in April 2015. The Army requests Ohio EPA review of this FCN document.

Please contact the undersigned at (703) 607-7955 or mark.s.leeper.civ@mail.mil if there are issues or concerns with this submission.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Leeper".

Mark Leeper
RVAAP Restoration Program Manager
Army National Guard Directorate

cc: Rod Beals, Ohio EPA, DERR-NEDO
Kevin Sedlak, ARNG, Camp Ravenna
Katie Tait, OHARNG Camp Ravenna
Greg Moore, USACE Louisville
Nat Peters, USACE Louisville
Eric Cheng, USACE Louisville
Gail Harris, Vista Sciences



March 4, 2014

Mr. Eric Cheng, P.E.
Technical Manager
U.S. Army Corps of Engineers, Louisville District
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-0059

Subject: Field Change Notice
CC RVAAP-69 Building 1048 Fire Station
Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties
Contract No. W912QR-04-D-0039
Delivery Order No. 0004
Project No. 5161.004

Regional Office

33 Boston Post Rd. West
Suite 420
Marlborough, MA 01752

Phone: (508) 229-2270
Fax: (508) 229-7737

Dear Mr. Cheng:

Investigation activities in accordance with the Site Inspection (SI) and Remedial Investigation (RI) Work Plan (October 2012) were conducted at CC RVAAP-69 Building 1048 Fire Station in December 2012. These sampling activities at this Area of Concern (AOC) identified a detection of carbon tetrachloride (14,000 J micrograms per kilogram) in soil boring SB2 (Figure 1) greater than the US EPA Regional Screening Level (RSL). There is no Facility-Wide Cleanup Goal (FWCUG) for carbon tetrachloride; therefore, the RSL is used. As reported in the Historical Record Review report (SAIC 2011), fire extinguishers containing carbon tetrachloride were discharged to the ground surface. The purpose of this letter is to present the proposed additional subsurface soil samples required to delineate the nature and extent for this detection of carbon tetrachloride in SB2 at CC RVAAP-69.

Carbon tetrachloride was detected at a concentration of 14,000 J micrograms per kilogram ($\mu\text{g}/\text{kg}$) in the subsurface soil sample collected from five to six feet below ground surface in soil boring SB2. There is no Facility-Wide Cleanup Goal (FWCUG) for carbon tetrachloride, but there is a Regional Screening Level (RSL) of 610 parts per billion (ppb). As a result of this detection of carbon tetrachloride in this subsurface soil sample, the nature and extent of carbon tetrachloride has not been defined for the current Remedial Investigation. Additional subsurface soil samples are required to define the nature and extent of the carbon tetrachloride at SB2.

Five soil borings are proposed to delineate the nature and extent of the detection of carbon tetrachloride at SB2. These soil borings are presented in Figure 2. Discrete subsurface soil samples will be collected at several depth intervals from each soil boring. The soil samples will be submitted for laboratory analysis for volatile organic compounds (VOCs) using United States Environmental Protection Agency (US EPA) Method 8260B. Table 1 presents a summary of the soil borings and the anticipated subsurface sample intervals from each soil boring.

These discrete subsurface soil samples will be collected in accordance with the sample collection methods presented in Section 5.5 of the Facility-Wide Sampling and Analysis Plan (SAIC 2011) and the Final SI and RI Work Plan (ECC 2012). These soil borings will be advanced with a direct push rig.

Corporate Office

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Table 1: Summary of Subsurface Soil Samples for Determining Nature and Extent of Carbon Tetrachloride in SB2

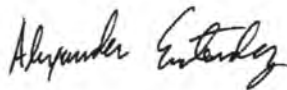
Soil Boring No.	Sample Intervals (ft bgs)	No. of Samples per Interval	Sample Rationale
1	2-3	1	Define nature and extent of carbon tetrachloride detected in SB2 as shown in Figure 2. This boring would replicate SB2 sampling and obtain samples for vertical delineation at this boring location.
	5-6	1	
	7-8	1	
	12-13	1	
2	2-3	1	Define nature and extent of carbon tetrachloride detected in SB2 as shown in Figure 2.
	5-6	1	
	7-8	1	
3	2-3	1	Define nature and extent of carbon tetrachloride detected in SB2 as shown in Figure 2.
	5-6	1	
	7-8	1	
4	2-3	1	Define nature and extent of carbon tetrachloride detected in SB2 as shown in Figure 2.
	5-6	1	
	7-8	1	
5	2-3	1	Define nature and extent of carbon tetrachloride detected in SB2 as shown in Figure 2.
	5-6	1	
	7-8	1	

All field activities will be conducted in accordance with the Facility-Wide Sampling and Analysis Plan (FWSAP) (SAIC 2011) and ECC's Final SI and RI Work Plan (ECC 2012).

These data will be incorporated in the Remedial Investigation report for the CC RVAAP-69 AOC.

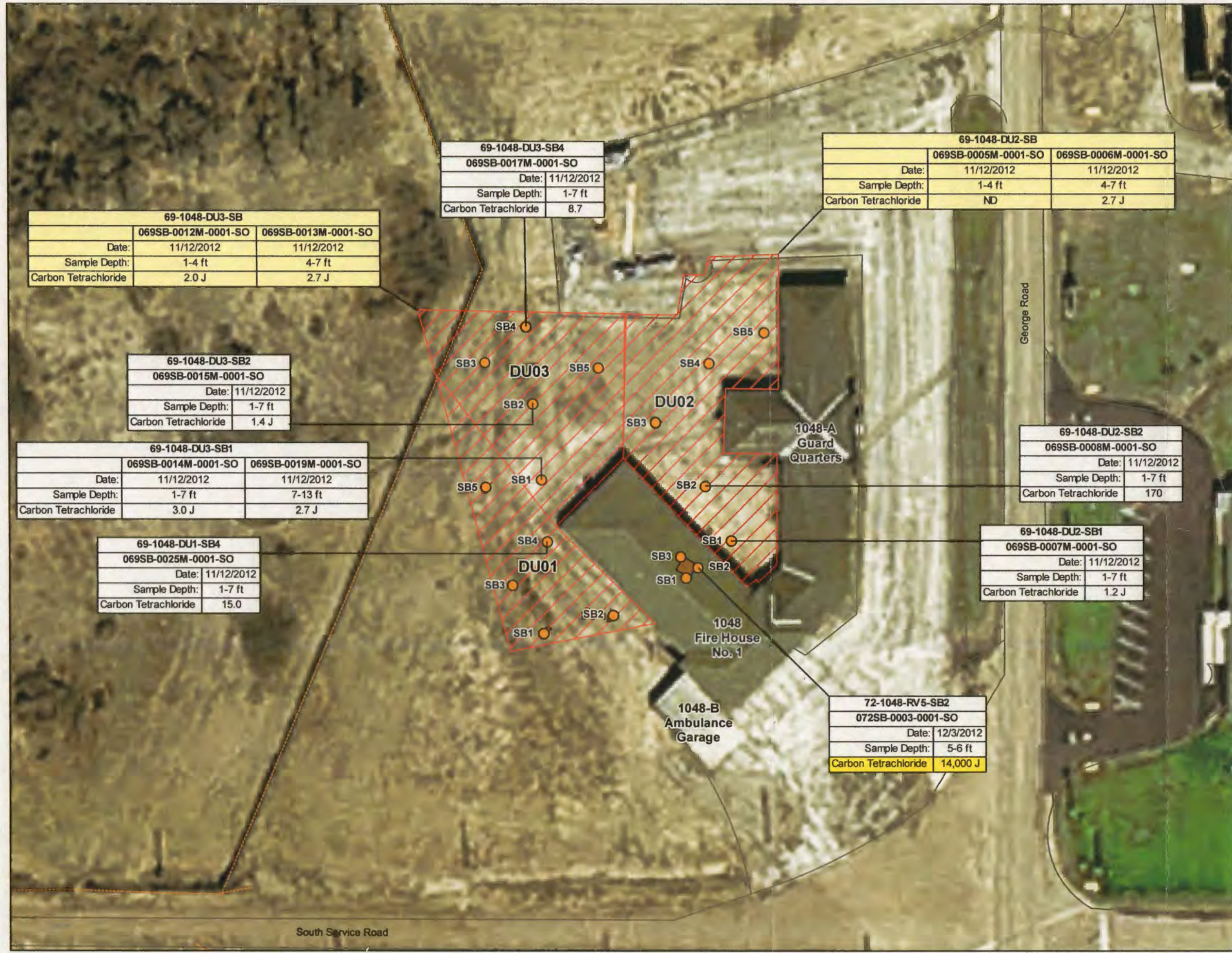
Should you have any questions or wish to discuss the proposed sampling activities further, please do not hesitate to contact the undersigned at 508-229-2270, ext. 22109, or via email.

Regards,
ECC



Alexander Easterday
Sr. Project Manager

Copy: Edward D'Amato, Ohio EPA
Rod Beals, Ohio EPA
Mark Leeper, ARNG
Kevin Sedlak, ARNG
Katie Tait, OHARNG
Greg Moore, USACE Louisville
Nat Peters, USACE Louisville
Gail Harris, Vista Sciences



LEGEND	
	Direct Push Boring Location
	Fence Line
	Road/Pavement
	Former UST RV-5 (100-gallon gasoline tank)
	Decision Unit for CC RVAAP-69 RI
	ISM Horizontal Sample
	Concentration Exceeds FWCUG (HQ=0.1/Target Risk of 10 ⁻⁶) or RSL

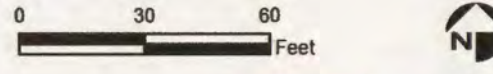
- NOTES & SOURCES**
- Map Coordinates: NAD 83, UTM Zone 17N.
 - Aerial photograph shown is from 2006, prior to demolition of the fire station (Building 1048).
 - Concentrations shown are for site-related chemicals (SRCs) at each sampling location. Concentrations which exceed the most stringent Facility-Wide Cleanup Goal (FWCUG) or Regional Screening Level (RSL) are highlighted.
 - Location of underground storage tank (UST) is based upon descriptions provided in the Final Historical Records Review Report Appendix S (SAIC, 2011b).
 - All concentrations shown are in micrograms per kilogram (µg/kg).
 - J = estimated value
 - HQ = hazard quotient
 - ISM = incremental sampling methodology
 - RI = remedial investigation
 - ND = not detected

TITLE







Carbon Tetrachloride Detected in Subsurface Soil Samples

CC RVAAP-69 Former Building 1048 Fire Station

Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio





LEGEND	
	SB2 Boring from CC RVAAP-72 SI
	Proposed Soil Boring Location
	Decision Unit for CC RVAAP-69 RI
	Former UST RV-5 (100-gallon gasoline tank)
	Fence Line
	Road/Pavement

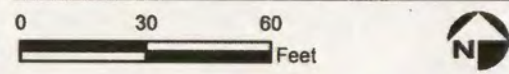
NOTES & SOURCES
1. Map Coordinates: NAD 83, UTM Zone 17N.
2. Aerial photograph shown is from 2006, prior to demolition of the fire station (Building 1048).
3. Location of underground storage tank (UST) is based upon descriptions provided in the Final Historical Records Review Report Appendix S (SAIC, 2011b).
4. RI = remedial investigation
5. SI = site inspection

TITLE

Proposed Subsurface Soil Boring Locations

**CC RVAAP-69
Former Building 1048
Fire Station**

Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio



ECC
Marlborough, Massachusetts

GIS Server
F:\Projects\Ravenna\MapDocuments\RI_RPT\69\RI69_FigXX_B1048_CTClocx.mxd
October 2014 DWN BY: CG CHKD BY: AE

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