

Draft

2016 Annual Land Use Control Monitoring Report,

RVAAP-01 Ramsdell Quarry Landfill

and

RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center

Former Ravenna Army Ammunition Plant

Portage and Trumbull Counties, Ohio

Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers
Louisville District

Prepared by:



December 27, 2016

| | | | | | |
|---|--------------------|-----------------------|---------------------------------------|---|--|
| REPORT DOCUMENTATION PAGE | | | | <i>Form Approved OMB No. 0704-0188</i> | |
| <small>The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</small> | | | | | |
| PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS. | | | | | |
| 1. REPORT DATE (DD-MM-YYYY) | | 2. REPORT TYPE | | 3. DATES COVERED (From - To) | |
| 4. TITLE AND SUBTITLE | | | | 5a. CONTRACT NUMBER | |
| | | | | 5b. GRANT NUMBER | |
| | | | | 5c. PROGRAM ELEMENT NUMBER | |
| 6. AUTHOR(S) | | | | 5d. PROJECT NUMBER | |
| | | | | 5e. TASK NUMBER | |
| | | | | 5f. WORK UNIT NUMBER | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) | | | | 8. PERFORMING ORGANIZATION REPORT NUMBER | |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) | | | | 10. SPONSOR/MONITOR'S ACRONYM(S) | |
| | | | | 11. SPONSOR/MONITOR'S REPORT NUMBER(S) | |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT | | | | | |
| 13. SUPPLEMENTARY NOTES | | | | | |
| 14. ABSTRACT | | | | | |
| 15. SUBJECT TERMS | | | | | |
| 16. SECURITY CLASSIFICATION OF: | | | 17. LIMITATION OF ABSTRACT | 18. NUMBER OF PAGES | 19a. NAME OF RESPONSIBLE PERSON |
| a. REPORT | b. ABSTRACT | c. THIS PAGE | | | 19b. TELEPHONE NUMBER (Include area code) |

Draft

2016 Annual Land Use Control Monitoring Report,

RVAAP-01 Ramsdell Quarry Landfill

and

RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center

Former Ravenna Army Ammunition Plant

Portage and Trumbull Counties, Ohio

Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers
Louisville District

Prepared by:



December 27, 2016

57

58

59

***Place Holder for
Ohio EPA Approval Letter***

60

61

(Letter will be inserted upon approval)

62

63

64

65

66

67

68

69

70

71

72

73

74

DOCUMENT DISTRIBUTION

For the
Draft 2016 Annual Land Use Control Monitoring Report,
RVAAP-01 Ramsdell Quarry Landfill and RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center
Former Ravenna Army Ammunition Plant
Portage and Trumbull Counties, Ohio

| Name/Organization | Number of Printed Copies | Number of Electronic Copies |
|---|-------------------------------------|--|
| Mark Leeper, ARNG-IED-CR | 0 | 1 |
| Kevin Sedlak, ARNG-IED – Camp Ravenna | 0 | 1 |
| Katie Tait, OHARNG – Camp Ravenna | 1 | 0 |
| Nicholas Roope, Ohio EPA Project Manager – NEDO-DERR | 1 | 3 |
| Kelly Kaletsky, Ohio EPA – CO - DERR | 0 | 0 |
| Bob Princic, Ohio EPA, NEDO-DERR | 0 | Transmittal letter |
| Jay Trumble, USACE – Louisville District | 0 | 1 |
| Craig Coombs, USACE – Louisville District | 0 | Transmittal letter |
| Bob Guthrie, Management Solutions, LLC | 0 | Transmittal letter |
| Gail Harris, AR Manager – Camp Ravenna | 2 | 2 CDs |

AR = Administrative Record
ARNG = Army National Guard
ARNG-IED-CR = Army National Guard – Installation Environmental Division – Cleanup Restoration
CO = Central Office
DERR = Division of Environmental Response and Revitalization
EPA = Environmental protection Agency
NEDO = Northeast District Office
OHARNG = Ohio Army National Guard
USACE = U.S. Army Corps of Engineers

TABLE OF CONTENTS

| | |
|--|-----------|
| SECTION 1.0 INTRODUCTION..... | 1 |
| 1.1 Report Introduction..... | 1 |
| 1.2 Facility Location | 1 |
| 1.3 Facility History | 2 |
| 1.4 Land Use Controls, Monitoring, And Reporting Requirements | 3 |
| 1.5 Annual LUC Inspection and Monitoring Report Requirement..... | 3 |
| 1.6 Annual Report for RQL in Compliance with OAC Rule 3745-27-14(A)(6) | 4 |
| SECTION 2.0 ANNUAL LUC Monitoring REPORT FOR RAMSDELL QUARRY LANDFILL.5 | |
| 2.1 Ramsdell Quarry Landfill | 5 |
| 2.2 RQL Annual Inspection Form..... | 6 |
| SECTION 3.0 ANNUAL LUC Monitoring REPORT FOR WINKLEPECK BURNING | |
| GROUNDS | 10 |
| 3.1 Winklepeck Burning Grounds | 10 |
| 3.2 LUC Quarterly Inspection and Report Mechanisms for WBG..... | 10 |
| 3.3 Land Use Control Awareness Training..... | 12 |
| 3.4 Camp Ravenna Perimeter Fence | 12 |
| SECTION 4.0 CONCLUSION..... | 14 |
| 4.1 General LUC Training | 14 |
| 4.2 Land Use Consistency and Land Use Control Effectiveness at RQL..... | 14 |
| 4.3 Land Use Consistency and Land Use Control Effectiveness at WBG..... | 14 |
| 4.4 Land Use Control Deficiency Corrective Action at RQL and WBG..... | 15 |
| 4.5 Land Use Control Effectiveness Certification | 15 |
| SECTION 5.0 REFERENCES..... | 16 |

LIST OF APPENDICES

| | |
|------------|--|
| Appendix A | RQL Annual Report in Compliance with OAC Rule 3745-27-14(A)(6) |
| Appendix B | Quarterly RQL Inspection Reports |
| Appendix C | RQL Access Logs |

LIST OF APPENDICES, continued

| | | |
|-----|------------|--|
| 125 | | |
| 126 | Appendix D | RQL Annual Inspection Photographs |
| 127 | Appendix E | FY 2016 Quarterly Land Use Control Index Maps |
| 128 | Appendix F | Final FY 2016 First Quarter Land Use Control Inspection, RVAAP-05 |
| 129 | | Winklepeck Burning Grounds |
| 130 | Appendix G | Final FY 2016 Second Quarter Land Use Control Inspection, RVAAP-05 |
| 131 | | Winklepeck Burning Grounds |
| 132 | Appendix H | Final FY 2016 Third Quarter Land Use Control Inspection, RVAAP-05 |
| 133 | | Winklepeck Burning Grounds |
| 134 | Appendix I | Final FY 2016 Fourth Quarter Land Use Control Inspection, RVAAP-05 |
| 135 | | Winklepeck Burning Grounds |
| 136 | Appendix J | FY 2016 Perimeter Fence Defect Call Outs Identified and Repaired |
| 137 | | |

LIST OF ACRONYMS AND ABBREVIATIONS

| | | |
|-----|--------------|---|
| 138 | | |
| 139 | ACM | Asbestos Containing Material |
| 140 | AOC | Area of Concern |
| 141 | AR | Army Regulation |
| 142 | ARNG | Army National Guard |
| 143 | bgs | below ground surface |
| 144 | Camp Ravenna | Camp Ravenna Joint Military Training Center |
| 145 | CERCLA | Comprehensive Environmental Response, Compensation, and Liability |
| 146 | | Act |
| 147 | C.F.R. | Code of Federal Regulations |
| 148 | DFFOs | Director's Final Findings and Orders |
| 149 | FWSAP | Facility-Wide Sampling and Analysis Plan |
| 150 | FWGWMPP | Facility-Wide Groundwater Monitoring Program Plan |
| 151 | FY | Fiscal Year |
| 152 | GIS | Geographical Information System |
| 153 | IRP | Installation Restoration Program |
| 154 | LUC | Land Use Control |
| 155 | MK | Mark |
| 156 | MEC | Munitions and Explosives of Concern |
| 157 | MRS | Munitions Response Site |
| 158 | MSW | Municipal Solid Waste |
| 159 | NCP | National Contingency Plan |
| 160 | NBC | Nuclear, Biological, Chemical |
| 161 | OAC | Ohio Administrative Code |
| 162 | Ohio EPA | Ohio Environmental Protection Agency |
| 163 | OHARNG | Ohio Army National Guard |
| 164 | PMP | Property Management Plan |
| 165 | RD | Remedial Design |
| 166 | RDX | Research Department Explosive |
| 167 | ROD | Record of Decision |
| 168 | RQL | Ramsdell Quarry Landfill |
| 169 | RVAAP | Ravenna Army Ammunition Plant |
| 170 | SOP | Standard Operating Procedure |
| 171 | TNT | Trinitrotoluene |
| 172 | U.S.C. | United States Code |
| 173 | USP&FO | United States Property and Fiscal Officer |
| 174 | UXO | Unexploded Ordnance |
| 175 | WBG | Winklepeck Burning Grounds |

SECTION 1.0 INTRODUCTION

1.1 Report Introduction

As of October 2016, two areas at the former Ravenna Army Ammunition Plant (RVAAP), now known as the Camp Ravenna Joint Military Training Center (Camp Ravenna) have designated Land Use Controls (LUCs); Ramsdell Quarry Landfill (RQL) and Winklepeck Burning Grounds (WBG). As explained in greater detail in Sections 1.4 and 1.5, annual reports are required for the areas at Camp Ravenna that utilize LUCs to protect the integrity of an environmental remedy (if present), human health, and the environment by limiting the activities that may occur at those areas.

The following sections present the 2016 Annual Report for LUC Monitoring Report, RVAAP-01 Ramsdell Quarry Landfill and RVAAP-05 Winklepeck Burning Grounds, Camp Ravenna Joint Military Training Facility, Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio. This annual report is laid out as follows:

Section 1.0 – General introduction to the facility, and a general description of Land Use Controls, monitoring and annual reporting requirements.

Section 2.0 – Annual Report for RQL.

Section 3.0 – Annual LUC Monitoring Report for WBG.

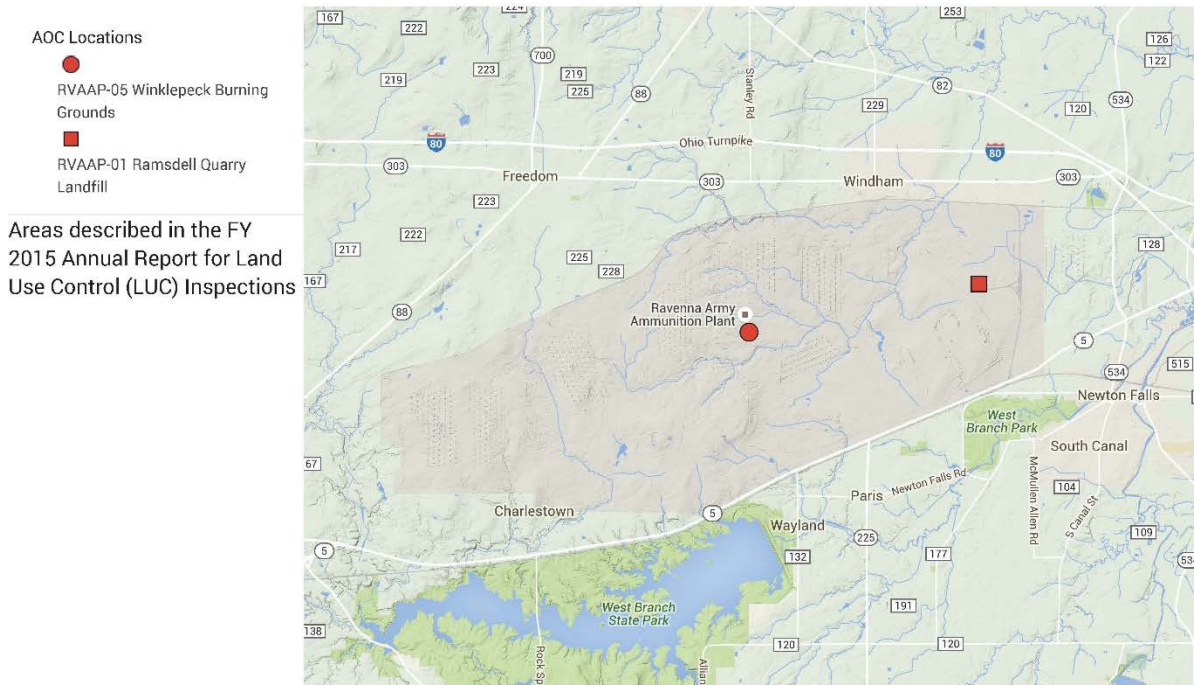
Section 4.0 – Conclusions

Section 5.0 – References

1.2 Facility Location

Camp Ravenna is located in northeastern Ohio within Portage and Trumbull counties, and is approximately three miles east/northeast of the City of Ravenna and one mile north/northwest of the City of Newton Falls. The facility is approximately 11 miles long and 3.5 miles wide. The facility is bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad to the south; Garret, McCormick, and Berry Roads to the west; the Norfolk Southern Railroad to the north; and State Route 534 to the east, as shown in Figure 1. In addition, the facility is surrounded by the communities of Windham, Garrettsville, Charlestown, and Wayland.

Figure 1.0 Map of Camp Ravenna Joint Military Training Center
(Former Ravenna Army Ammunition Plant)



1.3 Facility History

RVAAP was a load, assemble, and pack facility built to produce large-caliber artillery projectiles and bombs. Although RVAAP downsized after World War II, plant production lines were reactivated during the Korean and Vietnam Wars. Additionally, the plant conducted nearly continuous demilitarization of war stocks, refurbishment of inventoried ammunition, and minor research and development projects. By 1992, the installation's status changed from "inactive but maintained" to that of "caretaker."

The Department of Defense established the Installation Restoration Program (IRP) to provide guidance and funding for the investigation and cleanup of potential contamination and past operations caused by historical activities at military installations. The IRP began at RVAAP in 1989. Administrative accountability for the initial acreage of the facility was transferred to the United States Property and Fiscal Officer (USP&FO) for Ohio in May 1999 with subsequent transfers to follow. To date, administrative accountability for the entire 21,683-acre facility has been transferred to the USP&FO for Ohio and subsequently licensed to the Ohio Army National Guard (OHARNG) for use as a military training site, Camp Ravenna. The RVAAP restoration program involves cleanup of former production/operational areas throughout the facility related to former activities conducted under the RVAAP. The restoration program is currently managed by the Army National Guard (ARNG) with support from the OHARNG.

1.4 Land Use Controls, Monitoring, And Reporting Requirements

All work, plans, and documentation for the RVAAP IRP at Camp Ravenna must be in conformance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) [42 United States Code (U.S.C.) §9601, *et seq.*], the National Contingency Plan (NCP) [40 Code of Federal Regulations (C.F.R.) Part 300], and the Director's Final Findings and Orders (DFFOs) [June 10, 2004]. If residual contamination is left in place after the CERCLA remediation process is complete and the contamination still poses a potential for unacceptable risks or exceeds cleanup standards, then the Record of Decision (ROD) for the Areas of Concern/Munitions Response Sites (AOC/MRS) will require LUCs in accordance with the approved Remedial Design (RD).

LUCs include any physical, legal, or administrative mechanism that places restrictions on the use of, or limits access to, real property to prevent exposure to contaminants at concentrations greater than permissible levels or other safety issues. The intent of using these controls is to protect the integrity of the remedy (if present), human health, and the environment by limiting the activities that may occur at an AOC/MRS. When implemented, these LUCs provide protection to individuals using or working at the AOC/MRS by limiting and/or preventing activities which could potentially result in risks to those individuals. The Army is responsible for controlling land use on active installations such as Camp Ravenna and can internally restrict the use of such property. LUCs may include engineering controls such as fences, Seibert markers and signs, or administrative controls such as awareness training and restrictions on use including type of use and duration.

The Property Management Plan (PMP), dated August 2012, identifies LUCs and restrictions for specific AOCs/MRSs at Camp Ravenna and provides mechanisms to implement and manage those LUCs. The PMP is required under Army Regulation (AR) 210-20 and satisfies requirements of the DFFOs. The PMP lists general performance objectives of LUCs at Camp Ravenna as well as AOC/MRS specific LUCs detailed to address the concerns present on that particular AOC/MRS. According to Section 1.3 of the PMP, it is the responsibility of the Army to implement, inspect, maintain and enforce LUCs set forth under the RVAAP Restoration Program.

1.5 Annual LUC Inspection and Monitoring Report Requirement

The PMP requires that the Army conduct a minimum of an annual inspection of the LUCs to confirm that the LUCs remain effective and still meet the LUC objectives, and also requires that the results of the annual LUC inspection be included in an Annual LUC Monitoring Report to be submitted to the Ohio EPA for review and approval. The Annual LUC Monitoring Report is required to evaluate the status and effectiveness of LUCs with a description of how LUC deficiencies, including inconsistent land uses, were addressed. The Annual LUC Monitoring Reports will be used in the preparation of the CERCLA 121(c) Five-Year Review. This Annual LUC Monitoring Report presents the following:

- RQL - The 2016 Annual Report for the Ramsdell Quarry Landfill. The LUCS were instituted for RQL in December 2014. The first annual report for RQL was submitted on January 27, 2016. This is the second annual LUC report for RQL.
- WBG – The 2016 Annual LUC Monitoring Report for Winklepeck Burning Grounds. A summary of the quarterly monitoring and activities conducted during the Fiscal Year (FY) 2016 for WBG. This is the fourth annual report completed in accordance with the Final PMP dated August 2012.

Additionally, the PMP requires that a written certification will be submitted with the Annual Monitoring Report that states whether or not the LUCs remain in place and are effective. The written certifications for both the RQL and WBL LUCs are presented in Section 4.4.

1.6 Annual Report for RQL in Compliance with OAC Rule 3745-27-14(A)(6)

RQL is a closed Municipal Solid Waste (MSW) facility that was closed in September 1990. As per the Ohio Administrative Code (OAC) Rule 3745-27-14 (Post-closure care of sanitary landfills) Section (A)(6), an annual report is to be submitted to the appropriate Ohio EPA district office and approved health department. The annual report is to contain information on the leachate collection system (if one exists) and the most recent updated post-closure cost estimate adjusted for inflation, and any change in the post-closure cost estimate required by OAC Rule 3745-27-16. Since the RQL does not have a leachate collection system, the annual report submitted in compliance with OAC Rule 3745-27-14(A)(6) will only contain the most recent updated post-closure cost estimate. The annual report containing the post-closure estimate for RQL is presented in Appendix A.

SECTION 2.0 ANNUAL LUC MONITORING REPORT FOR RAMSDELL QUARRY LANDFILL

2.1 Ramsdell Quarry Landfill

RQL encompasses approximately 14 acres in the northeastern portion of Camp Ravenna. RQL was initially a stone quarry that was excavated 30 to 40 feet below existing grade until ceasing quarrying operations in 1941. From 1946 to the 1950s, the bottom of the quarry was used to burn waste explosives from Load Line 1. Between 1941 and 1989, the western and southern sections of the abandoned quarry were used for landfill operations. No information is available regarding landfill disposal activities from 1941 to 1976, and no information is available on other activities at the quarry from the 1950s to 1976. Only nonhazardous solid waste was deposited in RQL from 1976 until it was closed in 1989. In 1978, a portion of the abandoned quarry was permitted as a sanitary landfill by the State of Ohio. The sanitary landfill closed in 1990 under State of Ohio solid waste regulations, and was covered by a clay cap covering approximately four acres.

Although post-closure requirements for RQL under State of Ohio solid waste regulations only require that a quarterly inspection be conducted and an annual post-closure cost estimate be submitted, weekly inspections have been conducted at the site as a best management practice. The weekly inspections assess the condition of various aspects of the RQL, including (but not limited to) vehicular access, gate and fence condition, landfill and cap integrity, and groundwater monitoring well security. The weekly inspection sheets from October 21, 2015 through October 28, 2016 are available in the Camp Ravenna Environmental Office.

A large amount of construction and miscellaneous debris was discovered during soil remediation and removal activities in the quarry bottom in June 2010. A portion of the debris was found to have asbestos-containing material (ACM) in them. After removing and disposing of the soil and construction debris (all considered as ACM), the area was backfilled and graded to the pre-excavation elevation.

RQL is managed as Restricted Access due to residual asbestos and contamination and the closed landfill. Permissible exposure parameters have been established for personnel accessing the RQL, and are defined as one hour/day for 250 days/year for 25 years. In order to enforce the Restricted Access status of the RQL, the following LUCs were established in December 2014:

- All digging or excavation within the quarry bottom is prohibited.
- Digging and excavation on the landfill cap will be regulated by the post-closure care plan and the Ohio solid waste regulations.
- Permanent warning signs will be installed and maintained around RQL on the gates and on the chain-link and high tensile wire fence at 300 ft. centers to warn of the ACM hazard in the quarry bottom. The signs will meet the requirements of OAC 3745-20-07(B)(1)(b).
- As no soil disturbing activities are allowed within the quarry bottom, OSHA asbestos training set forth at 29 CFR 1926.1101(k)(9)(vii) is not required. Any personnel entering the quarry bottom will be briefed of the asbestos hazards.

In order to track exposure, personnel entering the Area of Concern (AOC) sign an access log sheet each time they enter and exit the AOC.

2.2 RQL Annual Inspection Form

Camp Ravenna Joint Military Training Center (Camp Ravenna)/ Former Ravenna Army Ammunition Plant (RVAAP) Land Use Control (LUC) Inspection Form for RVAAP-01 Ramsdell Quarry Landfill AOC

In accordance with the Camp Ravenna/former RVAAP PMP (dated August 2012) and Appendix A-2 and the Final Remedial Design for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill (RQL), a LUC inspection of RQL was conducted by Allan Brillinger (Vista Sciences Corporation) on behalf of Camp Ravenna on September 23, 2016.

According to LUCs set forth in the *Final Remedial Design for Soil and Dry Sediment at the RVAAP-01 Ramsdell Quarry Landfill*, dated 9 April 2014, and memorialized in the PMP, periodic monitoring of LUCs, in the form of site inspections, is required to be conducted by the Army to confirm that the LUCs remain effective and still meet LUC objectives for continued remedy protectiveness. Site inspections are required to be conducted on an annual basis and inspections of the solid waste landfill are conducted in accordance with State of Ohio solid waste regulations and the Ohio Environmental Protection Agency (Ohio EPA) Director's Final Findings and Orders (Ohio EPA 2004). Additional LUC inspections may be conducted when landfill inspections are conducted as needed. The required Annual LUC Report is to be submitted to the Ohio EPA for review and approval.

The inspections shall include the following:

- Review of LUC training/inbriefs/maintenance and access logs and other documentation as applicable to RQL.
- Evaluation of activities at RQL to ensure that all activities executed within RQL are in compliance with the established digging restrictions and established exposure limits (Security Guard/Maintenance Worker - one (1) hour/day for 250 days/year for 25 years).
 - All digging or excavation within the quarry bottom is prohibited due to residual asbestos and contamination.
 - Digging and excavation on the landfill cap will be regulated by the post closure care plan and the Ohio solid waste regulations.
 - Due to not meeting the industrial/commercial standard, exposure monitoring for the full-time facility employee must be conducted to ensure and document that exposure at the AOC is not above the established exposure limit set for the Security Guard/Maintenance worker of one (1) hour/day for 250 days/year for 25 years.
- Inspection of warning signs on gates and fencing.
- Inspection of RQL fencing and gates.

LUC deficiencies or inconsistent land uses that are identified must be reported and identified on the inspection form/report and must also be reported to the Army National Guard (ARNG)/Ohio Army National Guard (OHARNG).

374 **Review of LUCs – Management/Corrective Action**

Activities and Land Use:

- a) This AOC is to be managed as Restricted Access and is restricted from residential land use. Has residential use occurred? Have other land uses or land use changes occurred?*

No residential land use has occurred at the RQL. There have been no other land uses or land use changes over the past year.

- b) What activities have occurred at RQL since last Inspection? Has any maintenance been performed at the AOC?*

This is the second annual inspection of the RQL since the LUCs were instituted in December 2014. Minor soil depressions and animal burrows within the AOC and both on and off the landfill cap were filled with clean soil and seeded in November 2015, May 2016 and October 2016. Repair activities were conducted in accordance with solid waste regulations. Annual mowing was conducted for the RQL in mid-September 2016.

Weekly inspections were conducted in accordance with Ohio solid waste regulations. The weekly inspections sheets are available from the Camp Ravenna Environmental Office. Quarterly inspections were conducted by the Portage County Health Department. The quarterly inspection letters are presented in Appendix B.

Semi-annual groundwater monitoring activities were conducted at the RQL in May 2016 and October 2016.

- c) Are activities at RQL being conducted in compliance with established digging restrictions and established exposure limits (exposure for full-time employees who access RQL must be tracked)?*

The activities taking place at RQL are being conducted in accordance with the established digging restrictions. No digging has been conducted, only repair activities (soil fill) to repair any animal burrows or soil depressions on the landfill cap. Personnel exposure is being tracked with Log In sheets that any person entering and exiting the AOC must fill out. The completed Access Log sheets for October 2015 through September 2016 are presented in Appendix C.

- d) Are the warning signs in place and functional? Please note condition and any deficiencies.*

The warning signs are posted on the RQL LUC fence and gate as required. Signs that read “DANGER – Unauthorized Personnel Keep Out” and “Danger – Asbestos Waste Disposal Site – Do Not Create Dust – Breathing Asbestos is Hazardous to Your Health” are posted on the gates and the LUC fence every 300 feet.

e) Is the RQL fencing and gates intact and in good condition? Please note condition and any deficiencies.

The RQL fencing and gate are intact and in good condition. There are no deficiencies with the fence and gates.

Inspections and Reporting

Inspections are required on an annual basis. Periodic monitoring inspections may be conducted as needed. Are annual inspections being conducted as required? Have any additional inspections been completed?

The annual LUC inspection was conducted on September 23, 2016. Other inspections at the AOC include those inspections required for the landfill in accordance with solid waste regulations. As a best management practice, the solid waste landfill is inspected weekly. The weekly RQL inspection forms are on file at the Camp Ravenna Environmental Office. Additionally, the Portage County Health Department conducted three quarterly inspections of the landfill and the Camp Ravenna Environmental Office conducted a quarterly inspection of the landfill in September 2016. The Quarterly Inspection letters are presented in Appendix C. Photographs of the RQL LUC area taken during the annual inspection are presented in Appendix D.

An Annual Report is required. Has the annual report been completed and submitted to the Ohio EPA?

The RQL LUCs were instituted in December 2014. The first annual report was submitted to the Ohio EPA on January 27, 2016. This is the second annual inspection and report for the RQL LUCs.

Training/Inbriefs (as applicable to RQL):

Are RQL LUC training and/or inbriefs (for those who need to access RQL) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).

LUC training is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna, and was conducted on February 23 and 25, 2016. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and specific LUC and other restrictions for RQL, as well as other areas at Camp Ravenna. Training materials and rosters are on file in the Camp Ravenna Environmental Office. Training was conducted for additional Camp Ravenna staff that missed the February training dates as needed.

A "Land Use Control (LUC) Brief for Contractors/Personnel" was conducted for all personnel/contractors that entered the RQL LUC area (required on an annual basis). The

training consisted of a review of the RQL site history, the environmental hazards present at the RQL, the LUC s that have been instituted, and the requirements of all personnel that enter the LUC area. All personnel that have received the brief sign the briefing form that states that they have been briefed and understand the RQL LUC requirements, and that they will comply with all requirements. The briefing was provided for 27 personnel throughout the reporting period. The signed briefing forms are kept on file at the Camp Ravenna Environmental office.

If training was not provided, explain why and what corrective actions were initiated.

Not applicable.

Is access to RQL for full-time employees of the facility being logged in order to track exposure? Please review access logs to ensure exposure is within the established exposure limits.

Access for all personnel entering the RQL LUC area are being tracked with the Access Log. The established exposure limits are one (1) hour/day for 250 days/year for 25 years. The most any one worker was working inside the RQL area from October 23, 2015 through October 31, 2016 was 20 hours for a Maintenance Worker. The Maintenance Worker that had the 20 hours within the LUC area spent 7 hours conducting soil repairs and 13 hours mowing. Therefore exposure is within the established exposure limits.

LUC Violations (if any):

Description of any observed/noted LUC violation(s) as identified.

No LUC violations were noted during the reporting period (October 2015 through October 2016).

Date of Notification of LUC violations (if applicable) to ARNG/OHARNG:

Not applicable.

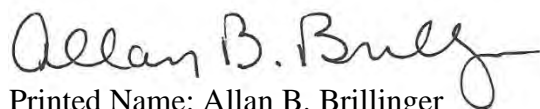
Description of any corrective actions taken to remedy observed LUC violations or recommended corrective actions:

Not applicable.

Additional Notes/Comments:

Original Inspection Completed by:

Signature:



Printed Name: Allan B. Brillinger

Title: Program Manager

| |
|--|
| Organization: Vista Sciences Corporation Date: September 23, 2016 |
|--|

SECTION 3.0 ANNUAL LUC MONITORING REPORT FOR WINKLEPECK BURNING GROUNDS

3.1 Winklepeck Burning Grounds

As described in the Property Management Plan (PMP), WBG encompasses 211.66 acres and is located in the central portion of Camp Ravenna (see Appendix F maps). The burning grounds area has been in operation since 1941. Prior to 1980, burning was conducted on the bare ground and the ash was abandoned at the site. Wastes treated in the area included Research Department Explosive (RDX), antimony sulfide, Composition B, lead azide, trinitrotoluene (TNT), propellants, black powder, waste oil, sludge from the load lines, domestic wastes, and small amounts of laboratory chemicals. From 1980 until 1998, periodic burning of scrap explosives, propellants, and explosive-contaminated waste materials (e.g., wipe rags, paper, and cardboard) was conducted in raised refractory-lined metal trays within a 1.5-acre area. A Part-B permit covering the active portion of the site was withdrawn in 1994. The burn trays along with the 90-day storage unit of Building 1601 were closed in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance in 1998. Munitions and Explosives of Concern (MEC) is present in the AOC. The previously applied remedy at the WBG AOC consisted of excavation of contaminated soil to preclude likely exposure through human contact. A portion of that remedy resulted in hazardous substances, pollutants, or contaminants remaining greater than levels that allow unlimited use and unrestricted exposure. Therefore, a component of the remedial action at the WBG AOC includes LUCs which are detailed in Section A-1.6 of the PMP.

Per the PMP, the land use for the WBG is *Small Arms Range* (including the existing Mark [MK] 19 Grenade Machinegun Range) for the OHARNG Military Use and Training. The Department of the Army has classified the Small Arms Range as an Operational Range at the WBG AOC. The Small Arms Range Land Use, in terms of the Risk Assessment, was created to assess specific training activities that would occur on a small arms range and was developed to assess risks to OHARNG personnel. In addition to the small arms training, certain activities are required to sustain and maintain the area as a range, such routine maintenance and activities are permitted if conducted by authorized personnel. More specific maintenance activities that are to be performed by the National Guard Range Maintenance Soldier and/or other similar authorized personnel on the WBG AOC can be found in the PMP.

3.2 LUC Quarterly Inspection and Report Mechanisms for WBG

The PMP states that site inspections will be conducted on a quarterly basis at WBG. The WBG Inspectors Quarterly Inspection Report Form completed for each quarter of FY 2016 states that all quarterly inspections include evaluation of the following:

- Review of LUC training and documentation as applicable to WBG.

- Evaluation of the facility perimeter fence to ensure that it is maintained in a manner that is protective and effective and deters trespassers.
 - Evaluation of activities at WBG to ensure that all activities executed within WBG are in compliance with OHARNG range safety regulations/standard operating procedures (SOPs), established digging restrictions, and established exposure limits. All digging, intrusive activities, or excavation on the WBG AOC outside of the Unexploded Ordnance (UXO)/MEC-cleared areas within the MK-19 Grenade Machinegun Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the PMP (maintenance of targetry and associated lifting mechanisms, range maintenance activities including removal of practice rounds, vegetation management, compatible natural resource management activities, nuisance wildlife control, drainage maintenance, wetland delineation, grassland management, scientific research and sampling activities);
 - Ground surface repairs by authorized range personnel in support of authorized range activities;
 - Digging along target array areas by authorized range personnel to a depth of one (1) foot below ground surface (bgs).
- This shall also include evaluation of required range signage. The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations.
- Evaluation of groundwater activities to ensure that any groundwater activities are being conducted in a manner consistent with established LUCs. Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:
 - The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent Facility-Wide Sampling and Analysis Plan (FWSAP) as part of the AOC-specific IRP or Facility-Wide Ground Water Monitoring Program Plan (FWGWMPP).
 - The abandonment and replacement of monitoring wells damaged by activities conducted on the Installation and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Four quarterly LUC inspection were conducted during FY 2016. The LUC inspections generally consisted of the following:

- An inspection of the Camp Ravenna perimeter fence.
- A review of current land uses at WBG to determine if they are in compliance with the LUCs.
- A review of activities at WBG since the previous inspection to determine if they are in compliance with the LUCs.
- A review of required warning signage.
- A review of training applicable to WBG LUCs.
- A description of any noted LUC deficiencies, any corrective actions taken to remedy the LUC deficiencies, and/or any recommended corrective action.

The following WBG quarterly inspections were conducted in FY 2016 by Don Trocchio of Vista Sciences Corporation:

- FY 2016 First Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated April 4, 2016, inspection completed December 11, 2015). This report is included in Appendix F.
- FY 2016 Second Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated April 19, 2016, inspection completed January 28, 2016). This report is included in Appendix G.
- FY 2016 Third Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated August 26, 2016, inspection completed April 28, 2016). This report is included in Appendix H.
- FY 2016 Fourth Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated September 29, 2016, inspection completed July 28, 2016). This report is included in Appendix I.

3.3 Land Use Control Awareness Training

Section 4.2 of the PMP, *Land Use Control Awareness Training*, describes requirements and guidelines for LUC awareness training at the facility. LUC awareness training for Camp Ravenna staff and tenant units was conducted on February 23 and 25, 2016, and is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna. Formal LUC training has been conducted since 2006 and refresher training is given annually to all personnel. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and included specific restrictions for WBG. Annual training is conducted throughout the year as needed for additional Camp Ravenna staff.

Using units also receive an in-brief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. They must read and sign the in-brief form. The briefing was provided for 41 personnel throughout the reporting period. Training records are kept on file in the Camp Ravenna Environmental Office.

3.4 Camp Ravenna Perimeter Fence

Currently, the only facility-wide engineering control for the AOCs/MRSs is the perimeter fence, as listed in Section 4.1.1 of the PMP. The Camp Ravenna perimeter fence is situated mostly in Portage County, Ohio, with a small portion (see maps in Appendix E – FY 2016 Quarterly Land Use Control Index Maps) extending easterly into western Trumbull County, Ohio. The entire perimeter fence was inspected for each of the FY 2016 quarterly inspections.

The majority of the original Camp Ravenna perimeter fence is approximately seventy years old. Most, but not all, of the perimeter fence situated within Trumbull County is less than approximately ten years old. Typically, but not all, of the perimeter fence consists of a six foot high chain link fence fabric with steel I-beam shaped posts set on 10 to 12 foot centers set in concrete footers. The top and bottom of the fence fabric is reinforced with a horizontal pipe

running along the entire length. On top of each post is a V bracket with six strands of 15-gauge barb wire, three strands inward facing and three strands outward facing. Twenty-six access gates are scattered throughout the approximate 30 miles of perimeter fencing evaluated (see maps in Appendix E – FY 2016 Quarterly Land Use Control Index Maps). Most of the former railroad access gates have been welded shut along with a few vehicle access gates that are no longer used.

In addition to documenting compliance with training, operation, and maintenance requirement set forth in the PMP, quarterly inspections also identify, document, and map major defects along the perimeter fence for future repair. In the inspector's judgment, a major defect was considered a breach in the fence through which an adult could gain unlawful access to the facility.

Additionally, during the evaluation, major defects noted in previous inspections were visited and repairs logged if completed or ongoing. Geographical Information System (GIS) raw field data collected from the inspections were reduced and compiled in ESRI Arc Map. Index Maps depicting the call outs along with Detail Maps and photographs of each call out were prepared and submitted along with the WBG Inspectors Quarterly Inspection Report Form. Final approved versions of each FY 2016 Quarterly LUC Inspection Report are included in Appendices F, G, H, and I of this report.

The four quarterly inspections performed in FY 2016 reported a total of 30 documented major defects in the perimeter fence. Of this total, 28 repairs were performed and documented in the FY 2016 quarterly inspection reports. See Appendix J for a table of all perimeter fence defect call outs identified and repaired in FY 2016. When a major defect is noted during the LUC field inspection the Army is notified via email detailing the date and location. The date of notification is included in the quarterly LUC inspection report under "Section 6. Date of notification of LUC violation (if applicable)."

The Camp Ravenna maintenance crews are limited to making only minor fence repairs. Repair logs make reference to "contractor needed" on some call out sections where more extensive repairs are required. An example would be storm washouts (i.e., SE2A) along the perimeter road that continue to damage the perimeter fence. Culvert pipe inlets and outlets become clogged with debris, old corrugated metal culvert pipes have rusted and collapsed and some pipe sizes are unable to handle the storm runoff, all contributing to the washouts along the perimeter road.

It should be noted that only repairs of defects called out and included in previous LUC Inspection Reports are conveyed in the detail sheets of the subsequent LUC Inspection Reports. These repairs are documented in repair logs kept by the Camp Ravenna Maintenance Crews and are included with the quarterly reports in Attachment 2 – Camp Ravenna Fence Repair Log (Appendices F, G, H, and I of this report). Numerous minor repairs (consisting of patching smaller openings in the fence fabric, replacing missing/broken barb wire, repairing frost heaved posts, removing fallen trees and branches resting on top of the fence) that were not sited during the LUC field inspection, were, and continue to be, repaired by the Camp Ravenna staff/maintenance crew and are not documented in repair logs. Overall, the perimeter fence at Camp Ravenna is intact and in good condition, and is an effective LUC for the WBG.

SECTION 4.0 CONCLUSION

4.1 General LUC Training

The OHARNG provided training to all Camp Ravenna staff and tenant units including an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/MRSs, and specific restrictions for RQL and WBG (See Section 2.2 and 3.3). All training requirements presented in the PMP were met by the OHARNG in FY 2016. Training compliance is demonstrated in the RQL Inspection Form (Section 2.2) and in the FY 2016 Quarterly LUC Inspection Reports for WBG that are included in Appendices F, G, H, and I of this report. Training materials and rosters are on file in the Camp Ravenna Environmental Office.

4.2 Land Use Consistency and Land Use Control Effectiveness at RQL

The land use at RQL is Restricted Access due to residual asbestos, contamination and the closed landfill. Based on the completed weekly and quarterly inspections (for the landfill) and the annual inspections at RQL (2015 and 2016), there are no inconsistent uses or activities discovered or reported at RQL. All activities conducted within the RQL AOC were performed in compliance with established digging restrictions, and established exposure limits as described in the PMP. This indicates current LUC objectives are being met to ensure the remedy is effective and protective.

An in-brief was provided to all personnel entering the RQL LUC area that included an overview of the history of the RQL, the land use controls/restrictions, and specific restrictions for RQL. All training and maintenance requirements specific to the RQL LUC were met by the OHARNG during this reporting period and is documented in the pages of this report.

4.3 Land Use Consistency and Land Use Control Effectiveness at WBG

Per the PMP, the land use for the WBG is Small Arms Range (including the existing MK-19 Grenade Machinegun Range) for the OHARNG Military Use and Training. Based on the completed inspections during FY 2016, there were no inconsistent uses or activities discovered or reported at WBG. All training and activities conducted within the WBG AOC were performed in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits as described in the PMP. This indicates current LUC objectives are being met to ensure the remedy is effective and protective of human health and the environment.

The LUCs for the WBG AOC were evaluated quarterly in FY 2016 as stated in the PMP using the parameters listed in Section 3.1 LUC Quarterly Inspection and Reporting Mechanisms for WBG. These Quarterly LUC Inspections show all LUCs requirements presented in the PMP for WBG remained in place and were effective through FY 2016.

Units that utilize the range at WBG also receive an in brief prior to firing on the range and are not allowed down range. Contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. All training, operation, and maintenance requirements specific to WBG presented in the PMP were met by the OHARNG in FY 2016 and

is documented in the FY 2016 Quarterly LUC Inspection Reports included in Appendix F, G, H, and I of this report.

4.4 Land Use Control Deficiency Corrective Action at RQL and WBG

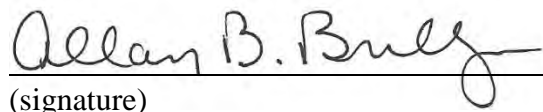
The main purpose of inspecting and monitoring LUCs is to identify and correct LUC deficiencies and violations. LUC inspection reports allow the OHARNG to document consistent land use, as well as corrective action if deficiencies are encountered.

For the RQL, inspections were conducted by personnel familiar with the RQL so that changes (if present) were readily noted. Minor fence repairs and soil cover deficiencies were noted and corrected as weather conditions allowed. There repairs were tracked throughout the year to monitor their effectiveness.

For the WBG, each quarterly inspection has been conducted using the same parameters, resulting in a uniform and concise system of identification and repair of perimeter fence defect call outs. Of the total number of perimeter fence defect call-outs identified, approximately 80% were repaired by the next quarterly inspection.

4.5 Land Use Control Effectiveness Certification

This certifies that to the best of my knowledge and belief all of the information contained in this Annual LUC Monitoring Report is accurate, and that the Land Use Controls instituted for the Ramsdell Quarry Landfill and the Winklepeck Burning Grounds are in place and remain effective.

 / October 31, 2016
(signature) (date)

Allan B. Brillinger
(printed name)

Program Manager, Vista Sciences Corporation
(Title).

SECTION 5.0 REFERENCES

Final Property Management Plan for the Designated Areas of Concern and Munitions Response Sites, Volume One – Version 1.0. U.S. Army Corps of Engineers. August 2012.

Ravenna Army Ammunition Plant Restoration Program website: www.rvaap.org

Final Remedial Action Report for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill, Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio. US Army Corps of Engineers. January 30, 2015

Appendix A

RQL Annual Report in Compliance with

OAC Rule 3745-27-14(A)(6)

(The RQL Annual Report in Compliance with OAC Rule 3745-27-14(A)(6) will be included in the Final 2016 Annual Land Use Monitoring Report, RVAAP-01 Ramsdell Quarry Landfill and RVAAP-05 Winklepeck Burning Grounds)

Appendix B

Quarterly RQL Inspection Reports

**STATE OF OHIO
ADJUTANT GENERAL'S DEPARTMENT
CAMP RAVENNA JOINT MILITARY TRAINING CENTER
1438 State Route 534 SW
Newton Falls, OH 44444**

12 November 2015

Environmental Office

Colum McKenna, Project Manager
Ohio Environmental Protection Agency
Division of Emergency and Remedial Response
2110 East Aurora Road
Twinsburg, Ohio 44087-1924

Reference: Closed Ramsdell Quarry Landfill Status Report

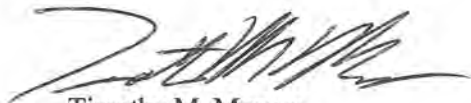
Dear Mr. McKenna,

On October 30, 2015, the subject Landfill was inspected by Portage County General Health District (see attached inspection report).

The Camp Ravenna Joint Military Training Center Support Services Contractor, Vista Sciences Corporation, conducts weekly inspections of the conditions of the landfill cap. A copy of the weekly inspection conducted on October 30, 2015 is also attached for your records. No deficiencies have been detected since January 1, 2006. These inspection reports are available for your viewing at the Vista office located at Camp Ravenna Environmental Office.

If you have any further questions or require further clarification concerning this subject, please feel free to contact the undersigned at (614) 336-6568 or timothy.m.morgan.nfg@mail.mil at any time. The OHARNG is committed to environmental excellence and compliance and will work with the Ohio EPA should any issues ensue. Thank you for your time and consideration in this matter.

Sincerely,



Timothy M. Morgan
Fort Ohio Environmental Supervisor

cc: Mark Leeper
Katie Tait
Kevin Sedlak
Rod Beals
Bob Princic

PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street
Suite 208
Ravenna, Ohio 44266

Phone: 330-296-9919
Fax: 330-297-3597
E-mail: pchd@portageco.com



Joseph J. Diorio, MPH, MS, RS
Health Commissioner

Web: www.co.portage.oh.us/dept/healthdepartment

November 3, 2015

Al Brillinger
Vista Sciences Corp.
1438 St. Rt. 534 SW
Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On October 30, 2015, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was partly cloudy, about 55° F and pleasant. The slopes of the quarry are well vegetated and there were no serious issues.

No violations of Post Closure Rules were noted. Thank you for your cooperation and efforts.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

Jack Madved, R.S.

JM:maa

cc: Portage County Commissioners
Bill Steiner, Director of Portage County Solid Waste Management
Colum McKenna, Northeast District of OEPA

Enclosure



Closed MSW Landfill Inspection Checklist

| | | |
|------------------------------|-------------------------|------|
| Facility Name | Ramsdell Quarry | |
| Address | Ravenna Arsenal | |
| Date | 10-30-15 | Time |
| Inspection Representative(s) | | |
| Facility | Brad Kline / Katie Tate | |
| Health District | Jack Madved | |
| Ohio EPA | Colin McKenna | |
| Other | | |

| | | |
|---|--|--------------------------------|
| Inspection Type | Reason for Inspection | |
| <input checked="" type="checkbox"/> Comprehensive | <input type="checkbox"/> Required | <input type="checkbox"/> Other |
| <input type="checkbox"/> Focused | <input type="checkbox"/> Re-Inspection | |

Is the above site being operated in compliance with the following regulations? Please mark the box in the appropriate column to denote compliance status. Marking the box in the NO column indicates that a violation has been noted. Please mark the N/A box if not applicable to this location. This checklist is not all inclusive of regulations applicable to closed municipal solid waste landfills.

| Y | N | N/A | | Y | N | N/A | |
|---|---|-----|--|---|---|-----|--|
| | | | 3745-27-14 Post closure care of MSW Landfills | | | | |
| | | | (A) Post-closure care activities | | | | (5) Monitoring and reporting requirements of OAC 3745-27-10, 3745-27-12, 3745-76 |
| | | | (1) Leachate management, surface water management, explosive gas extraction and monitoring, ground water monitoring system | | | | (6) Annual report |
| | | | (2) Integrity of cap system | | | | (7) Record keeping |
| | | | (3) Repair leachate outbreaks | | | | (D) Facility access |
| | | | (4) Quarterly inspections-report to Ohio EPA within 15 days | | | | Provide access to facility for Ohio EPA and local health department inspections |

Comments:

No Violations Noted - Some concern with small animal burrows but no issues noted.

Partly
Cloudy - 55° F

| | | |
|--|------------------------|------------------|
| Jack Madved Print Name of Inspector Completing Form | J. Madved Signature | 10-30-15 Date |
|--|------------------------|------------------|

WEEKLY INSPECTION OF RAMSDELL QUARRY LANDFILL

| Date: October 30, 2015 | | |
|---|-----------------------|---------------------|
| Inspected by: Al Brillinger | | |
| Weather Conditions / Recent Precipitation: 41°, rain previous night & morning | | |
| Time: | Started 11:00 (am/pm) | Completed (am/pm) |
| Type of inspection: | Windshield | Site Walk |
| Other | | |
| Inspected | Status/Condition | Comments |
| 1. Vehicular Access | Good | |
| 2. Entrance | | |
| a. Gate/Chain | Good | both gates locked |
| 3. Landfill Site/Cap Integrity | | |
| a. Vegetative Cover | good | |
| b. Standing Water on Cap | none | |
| c. Animal Disturbances | minor | cap not compromised |
| d. Woody Vegetation | good | |
| e. Gully Erosion/Soil Cover | good | |
| f. Runoff, Siltation | none | |
| g. Leachate | none | |
| 4. Monitoring Wells (5) | | |
| a. Locks in place? | good | |
| b. Condition of Casing | good | |
| c. Well ID Legible | yes | |
| 5. Comments: | | |
| accompanied by Jack Macked (Portage Co. Health), Colum McKenna (OEPA) | | |
| Katie Tait and Brad Kline (OHARNG) | | |
| 6. Description of Repairs/Remedial Action needed: | | |
| minor animal burrows to be filled | | |

STATE OF OHIO
ADJUTANT GENERAL'S DEPARTMENT
CAMP RAVENNA JOINT MILITARY TRAINING CENTER
1438 State Route 534 SW
Newton Falls, OH 44444

28 March 2016

Environmental Office

Jack Madved
Portage County Combined General Health District
705 Oakwood Street, Suite 208
Ravenna, Ohio 44266

Reference: Closed Ramsdell Quarry Landfill Status Report

Dear Mr. Madved,

On March 9, 2016, the subject Landfill was inspected by Portage County General Health District (see attached inspection report). In the future please send these inspection reports and related correspondences to the Ohio Army National Guard at:

ATTN: Tim Morgan
Fort Ohio Environmental Supervisor
Camp Ravenna Joint Military Training Center
1438 State Route 534 SW
Newton Falls OH 44444

The Camp Ravenna Joint Military Training Center Support Services Contractor, Vista Sciences Corporation, conducts weekly inspections of the conditions of the landfill cap. These inspection reports are available for your viewing at the Vista office located at Camp Ravenna Environmental Office. A copy of the weekly inspection conducted on March 9, 2016 is also attached for your records.

The items noted in the attached inspection report will be addressed in the near future. By 30 May 2016 the depressions indicated in items 1 and 2 of the attached report will be filled and seeded. The water seep area indicated in item 3 will be monitored every two weeks and the condition discussed at the next quarterly inspection.

If you have any further questions or require further clarification concerning this subject, please feel free to contact the undersigned at (614) 336-6568 or timothy.m.morgan.nfg@mail.mil at any time. The OHARNG is committed to environmental excellence and compliance and will work with the Ohio EPA should any issues ensue. Thank you for your time and consideration in this matter.

Sincerely,



Timothy M. Morgan
Fort Ohio Environmental Supervisor

cc: Mark Leeper, ARNG
Katie Tait, OHARNG
Kevin Sedlak, ARNG
Josh Adams, Ohio EPA
Bob Princic, Ohio EPA
Jay Trumble, USACE-Louisville

PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street
Suite 208
Ravenna, Ohio 44266

Phone: 330-296-9919
Fax: 330-297-3597
E-mail: pchd@portageco.com



Joseph J. Diorio, MPH, MS, RS
Health Commissioner

Web: www.co.portage.oh.us/dept/healthdepartment

March 16, 2016

CERTIFIED MAIL #9171 9690 0935 0112 3904 78

Al Brillinger
Vista Sciences Corp.
1438 St. Rt. 534 SW
Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On March 9, 2016, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was cloudy, about 67° F and pleasant. The slopes of the quarry are well vegetated and there were no serious issues.

There were several areas on the landfill that are of concern.

1. There is a small slump or depression on the northwest base of the slope.
2. A small slump or depression on the central west slope.
3. A leachate or water seep on the toe of the southwest slope. This area may need more attention to determine the effective remediation of this issue.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

Jack Madved, R.S.

JM:mas

cc: Portage County Commissioners
Bill Steiner, Director of Portage County Solid Waste Management
Joshua Adams, Northeast District of OEPA

Enclosure



Closed MSW Landfill Inspection Checklist

| | |
|---|--|
| Facility Name <u>Ramsdell Quarry</u> | |
| Address <u>Ravenna Arsenal</u> | |
| Date <u>3-9-16</u> | Time |
| Inspection Representatives | |
| Facility <u>Brad Kline - Katie Tate Al Brillinger</u> | |
| Health District <u>Jack Madved</u> | <u>Gary Brunswick</u> |
| Ohio EPA <u>Josh Adams</u> | |
| Other | |
| Inspection Type | Reason for Inspection |
| <input checked="" type="checkbox"/> Comprehensive | <input type="checkbox"/> Required <input type="checkbox"/> Other |
| <input type="checkbox"/> Focused | <input type="checkbox"/> Re-Inspection |

Is the above site being operated in compliance with the following regulations? Please mark the box in the appropriate column to denote compliance status. Marking the box in the NO column indicates that a violation has been noted. Please mark the N/A box if not applicable to this location. This checklist is not all inclusive of regulations applicable to closed municipal solid waste landfills.

| Y | N | N/A | | Y | N | N/A | |
|---|---|-----|--|---|---|-----|--|
| | | | 3745-27-14 Post closure care of MSW Landfills | | | | |
| | | | (A) Post-closure care activities | | | | (5) Monitoring and reporting requirements of OAC 3745-27-10, 3745-27-12, 3745-76 |
| | | | (1) Leachate management, surface water management, explosive gas extraction and monitoring, ground water monitoring system | | | | (6) Annual report |
| | | | (2) Integrity of cap system | | | | (7) Record keeping |
| | | | (3) Repair leachate outbreaks | | | | (D) Facility access |
| | | | (4) Quarterly inspections-report to Ohio EPA within 15 days | | | | Provide access to facility for Ohio EPA and local health department inspections |

Comments:

- Small slump still occurring NW base of landfill
- Small slump central west slope
- Leachate at S.W toe of slope. All have been flagged - will need engineering plans if large scale work is needed.

| | | |
|---|-------------------------------|-----------------------|
| <u>J. Madved</u> Print Name of Inspector Completing Form | <u>J. Madved</u> Signature | <u>3-9-16</u> Date |
|---|-------------------------------|-----------------------|

**STATE OF OHIO
ADJUTANT GENERAL'S DEPARTMENT
CAMP RAVENNA JOINT MILITARY TRAINING CENTER
1438 State Route 534 SW
Newton Falls, OH 44444**

14 July 2016

Environmental Office

Joshua Adams, Environmental Specialist II
Ohio Environmental Protection Agency
Division of Emergency and Remedial Response
2110 East Aurora Road
Twinsburg, Ohio 44087-1924

Reference: Closed Ramsdell Quarry Landfill Status Report

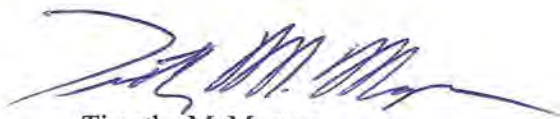
Dear Mr. Adams,

On June 6, 2016, the subject Landfill was inspected by the Portage County General Health District (see attached inspection report).

The Camp Ravenna Joint Military Training Center Support Services Contractor, Vista Sciences Corporation, conducts weekly inspections of the conditions of the landfill cap. A copy of the weekly inspection conducted on June 10, 2016 is also attached for your records. These inspection reports are available for your viewing at the Vista office located at Camp Ravenna Environmental Office.

If you have any further questions or require further clarification concerning this subject, please feel free to contact the undersigned at (614) 336-6568 or timothy.m.morgan.nfg@mail.mil at any time. The OHARNG is committed to environmental excellence and compliance and will work with the Ohio EPA should any issues ensue. Thank you for your time and consideration in this matter.

Sincerely,



Timothy M. Morgan
Fort Ohio Environmental Supervisor

Attachments

cc: Mark Leeper NGB
Katie Tait – ARNG Camp Ravenna
Kevin Sedlak – ARNG Camp Ravenna
Rod Beals – Ohio EPA
Bob Princic – Ohio EPA
Jay Trumble – USACE Louisville

PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street
Suite 208
Ravenna, Ohio 44266

Phone: 330-296-9919
Fax: 330-297-3597
E-mail: pchd@portageco.com



Joseph J. Diorio, MPH, MS, RS
Health Commissioner

Web: www.co.portage.oh.us/dept/healthdepartment

June 10, 2016

Al Brillinger
Vista Sciences Corp.
1438 St. Rt. 534 SW
Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On June 6, 2016, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was sunny, about 76° F and pleasant. The slopes of the quarry are well vegetated and there were no serious issues.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

Jack Madved, R.S.

JM:mas

cc: Portage County Commissioners
Bill Steiner, Director of Portage County Solid Waste Management
Joshua Adams, Northeast District of OEPA

Enclosure



Closed MSW Landfill Inspection Checklist

| | | |
|----------------------------|-----------------|------|
| Facility Name | Ramsdell Quarry | |
| Address | Ravenon Arsenal | |
| Date | 6-6-16 | Time |
| Inspection Representatives | | |
| Facility | Dad Kline | |
| Health District | Jack Madved | |
| Ohio EPA | | |
| Other | | |

| Inspection Type | Reason for Inspection | |
|---|--|--------------------------------|
| <input checked="" type="checkbox"/> Comprehensive | <input type="checkbox"/> Required | <input type="checkbox"/> Other |
| <input type="checkbox"/> Focused | <input type="checkbox"/> Re-Inspection | |

Is the above site being operated in compliance with the following regulations? Please mark the box in the appropriate column to denote compliance status. Marking the box in the NO column indicates that a violation has been noted. Please mark the N/A box if not applicable to this location. This checklist is not all inclusive of regulations applicable to closed municipal solid waste landfills.

| Y | N | N/A | | Y | N | N/A | |
|---|---|-----|--|---|---|-----|--|
| | | | 3745-27-14 Post closure care of MSW Landfills | | | | |
| | | | (A) Post-closure care activities | | | | (5) Monitoring and reporting requirements of OAC 3745-27-10, 3745-27-12, 3745-76 |
| | | | (1) Leachate management, surface water management, explosive gas extraction and monitoring, ground water monitoring system | | | | (6) Annual report |
| | | | (2) Integrity of cap system | | | | (7) Record keeping |
| | | | (3) Repair leachate outbreaks | | | | (D) Facility access |
| | | | (4) Quarterly inspections-report to Ohio EPA within 15 days | | | | Provide access to facility for Ohio EPA and local health department inspections |

Comments: Sunny, 76° F

High grass - will be cut before Sept.
AOCS dry, no issues noted from previous inspection.

| | | |
|---|-----------|--------|
| J. Madved | J. Madved | 6-6-16 |
| Print Name of Inspector Completing Form | Signature | Date |

PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street
Suite 208
Ravenna, Ohio 44266

Phone: 330-296-9919
Fax: 330-297-3597
E-mail: pchd@portageco.com



Joseph J. Diorio, MPH, MS, RS
Health Commissioner

Web: www.co.portage.oh.us/dept/healthdepartment

October 27, 2016

Al Brillinger
Vista Sciences Corp.
1438 St. Rt. 534 SW
Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On October 26, 2016, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was cloudy, about 45° F and pleasant. The animal burrows noted have been filled and plugged. The slopes of the quarry are well vegetated and there were no serious issues.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

Jack Madved, R.S.

JM:mas

cc: Portage County Commissioners
Bill Steiner, Director of Portage County Solid Waste Management
Joshua Adams, Northeast District of OEPA

Enclosure



Closed MSW Landfill Inspection Checklist

| | |
|---|------|
| Facility Name <u>Ransdell Quarry</u> | |
| Address | |
| Date <u>10-26-16</u> | Time |
| Inspection Representatives | |
| Facility <u>Brad Kline, Al Brithinger, Katie Tate</u> | |
| Health District <u>Tack Madved</u> | |
| Ohio EPA <u>Josh Adam, Terry Parker</u> | |
| Other | |

| | | |
|---|--|--------------------------------|
| Inspection Type | Reason for Inspection | |
| <input checked="" type="checkbox"/> Comprehensive | <input type="checkbox"/> Required | <input type="checkbox"/> Other |
| <input type="checkbox"/> Focused | <input type="checkbox"/> Re-Inspection | |

Is the above site being operated in compliance with the following regulations? Please mark the box in the appropriate column to denote compliance status. Marking the box in the NO column indicates that a violation has been noted. Please mark the N/A box if not applicable to this location. This checklist is not all inclusive of regulations applicable to closed municipal solid waste landfills.

| Y | N | N/A | | Y | N | N/A | |
|---|---|-----|---|---|---|-----|--|
| | | | 3745-27-14 Post closure care of MSW Landfills | | | | |
| | | | (A) Post-closure care activities | | | | (5) Monitoring and reporting requirements of OAC 3745-27-10, 3745-27-12, 3745-76 |
| | | | (1) <u>Leachate management, surface water management, explosive gas extraction and monitoring, ground water monitoring system</u> | | | | (6) Annual report |
| | | | (2) Integrity of cap system | | | | (7) Record keeping |
| | | | (3) Repair leachate outbreaks | | | | (D) Facility access |
| | | | (4) Quarterly inspections-report to Ohio EPA within 15 days | | | | Provide access to facility for Ohio EPA and local health department inspections |

Comments: Meeting w/ OEPA + Adj Gen. Office, discuss the workings + maintenance at the facility, inspection reports and cover letter to OEPA
Animal burrows filled w/ earth.
No leachate outbreaks noted.
No nuisances observed.
Weather - Cloudy 45° F

| | | |
|---|-------------------------------|-------------------------|
| <u>J. Madved</u> Print Name of Inspector Completing Form | <u>J. Madved</u> Signature | <u>10-26-16</u> Date |
|---|-------------------------------|-------------------------|

Appendix C

RQL Access Logs

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|---------------------|----------|----------|----------|---|---|
| Al Brillinger - VSC | 9-11-15 | 11:10 | 11:30 | Weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input checked="" type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY, B. | 10-1-15 | 1:10 | 4:00 PM | mowing | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| GARY, B. | 10-2-15 | 8:00 | 4:00 | " | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger | 10-2-15 | 10:00 - | 10:15 | Weekly inspection - check on mowing ops. | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY, B. | 10-5-15 | 8:00 - | 4:30 PM | mowing | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY, B. | 10-6-15 | 8:00 | 4:30 PM | mowing | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY, B. | 10-7-15 | 10:00 | 4:30 PM | mowing | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Al Brillinger | 10-15-15 | 1:45 PM | 2:30 PM | • Annual inspection • Weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger | 10-30-15 | 11:00 am | 11:35 | • Quarterly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Colum McKenna | 10/30/15 | 11:00 am | 11:35 | Quarterly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|---------------------------------|----------------|---------|----------|---|--|
| Brad Kline | 30 Oct 2015 | 1100 | 1135 | Quarterly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Jack Madrud | 30 Oct 2015 | 1100 | 1135 | Quarterly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Katre Tait | 30 Oct 2015 | 1100 | 1135 | Quarterly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY, B | 11/24 | 1:00 | 4:15 | Fill Holes | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger | 11/25/15 | 10:50 | 11:10 | weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Becky Haney | 11/25/15 | 10:55 | 11:40 | Weekly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger | 01/22/16 | 11:05 | 11:40 | Weekly Inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Brad Kline | 3/9/16 | 1028 | 1127 | Quarterly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Al Brillinger Gary Brunswick | 3/9/16 | 10:30 | 1127 | Quarterly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Jack Madrud J. Madrud | 3/9/16 | 10:30 | 1127 | Quarterly Insp. | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|--|---------|---------|----------|---|--|
| ^{OEPA} JOSHUA ADAMS | 9 MAR | 1030 | 1127 | inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 3/24/16 | 12:35 | 12:50 | weekly inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 4/8/16 | 12:00 | 12:20 | weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 4/15/16 | 14:00 | 14:30 | weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Tim St John Elizabeth Kirby | 4/18/16 | 1315 | 1400 | well installations pump | <input type="checkbox"/> Quarry bottom <input checked="" type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| ↓ | ↓ | 1420 | 1435 | Well pump installations | <input type="checkbox"/> Quarry bottom <input checked="" type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Gina Lee, Amibeth Salvatore, Bill Schelle | 4/21/16 | 0945 | 1030 | Solid waste Debris Recon | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 4/22/16 | 12:00 | 12:20 | weekly inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY B VSC | 5/3/16 | 900 | 1100 | REPAIR CAP | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger - VSC | 5/6/16 | 10:40 | 11:10 | weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|----------------------------------|---------|---------|----------|---|---|
| Monty Hummel | 5/12/16 | 0825 | 1335 | gw sampling | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Tom St John | 5/12/16 | 0825 | 1400 | GW sampling | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Charles Dursatzina | 5/12/16 | 0825 | 1400 | GW Sampling | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Al Brillinger | 5/20/16 | 11:30 | 11:50 | weekly insp. | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger | 5/26/16 | 10:40 | 11:00 | weekly insp. | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Brad Kline | 6/6/16 | 1000 | 1101 | Quarterly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Jack Madved | 6/6/16 | 10:00 | 11:01 | Quarterly Insp. | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC Becky Haney | 6-10-16 | 11:00 | 11:30 | weekly inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 6-24-16 | 11:35 | 11:55 | weekly inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 7-8-16 | 10:10 | 10:20 | weekly inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|----------------------|------------|---------|----------|---|--|
| Katie Tait | 7/14/16 | 1:20 | 2:00 | Site walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Brian Tucker | 14 July 16 | 1:20 | 2:00 | Site walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Kevin Palombo | 14 July 16 | 1:20 | 2:00 | Site walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Nick Roope | 7-14-16 | 1:21 | 2:00 | Site walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Kevin Seale | 7/14/16 | 1:21 | 2:00 | Site walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Carrie Rando | 7/14/16 | 1:21 | 2:00 | Site walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Rich Sprinzel | 7/19/16 | 1035 | 11:30 | Site Walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Kevin Seale | 7/19/16 | 1035 | 11:30 | Site Walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Katie Tait | 7/19/16 | 1035 | 11:30 | Site walk | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger vsc | 7/22/16 | 10:50 | 11:10 | weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name/Company | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|-------------------------|-------------|---------|----------|--|---|
| Al Brillinger VSC | 8/5/16 | 10:40 | 11:00 | weekly inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Jim Stachowski USACE | 8/10/16 | 14:50 | 15:35 | Five-year review inspection | <input checked="" type="checkbox"/> Quarry bottom <input checked="" type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 8-19-16 | 10:30 | 10:50 | Weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 8 9-2-16 | 10:00 | 10:20 | Weekly Inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 9-16-16 | 10:30 | 10:50 | weekly inspection | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY B VSC | 9-20-16 | 8:30 | 4:30 | mowing | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| GARY B VSC | 9-21-16 | 8:20 | 4:30 | mowing | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger | 9-23-16 | 9:00 | 10:00 | quarterly LF inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name/Company | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|-----------------------|----------|---------|----------|--|--|
| Brad Kline/OHARNG | 9/23/16 | 0915 | 10:00 | Quarterly Inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Jack Madrol PCHD | 9-23-16 | 0915 | 10:00 | Quarterly Insp. | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Katie Tait/ OHARNG | 9/23/16 | 0915 | 10:00 | Quarterly Inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Tom St. John | 9/29/16 | 0918 | 0947 | GW Gauging | <input type="checkbox"/> Quarry bottom <input checked="" type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Charles Dusetzina | 9/29/16 | 0918 | 0947 | GW Gauging | <input type="checkbox"/> Quarry bottom <input checked="" type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Ethan B | 10-3-16 | 1:00 | 3:00 | filling holes in cap | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Al Brillinger VSC | 10-7-16 | 9:15 | 9:45 | weekly inspection | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Rich Sprinzel | 10/14/16 | 9:07 | 1507 | Sediment Sampling | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |

Sign In/Out Sheet for Ramsdell Quarry Landfill – Please sign in and out when entering and exiting the Ramsdell Quarry Landfill.
Please also note what activities were performed and what areas of the AOC were accessed.

| Name/Company | Date | Time In | Time Out | Description of Activities Performed (i.e., mowing, gw sampling, etc) | Areas Accessed (please choose and check) |
|---------------------------------|----------|---------|----------|--|--|
| Michael Reilly LEIDOS | 10/12/16 | 9:07am | 1507 | Sediment Sampling | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Vasu Peterson LEIDOS | 10/12/16 | 9:08 | 1320 | Sediment Sampling | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| JOHN HERBERT LEIDOS | 10/12/16 | 9:09 | 1507 | SEDIMENT SAMPLING | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input type="checkbox"/> Landfill cap |
| Al Brillinger Vista Sciences | 10/26/16 | 12:40 | 1:20 | Site visit | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Brad Kline OHARNG | 10/26/16 | 1245 | 1:00 | Site visit | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Katie Tait OHARNG | " | " | 1:00 | Site visit | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| Jack Madvek P.C.H.D | " | " | 1:20 | Site Visit | <input checked="" type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |
| D2 Paul PHIO EPA | " | " | 1:00 | SITE VISIT | <input type="checkbox"/> Quarry bottom <input type="checkbox"/> Groundwater monitoring wells <input checked="" type="checkbox"/> Landfill cap |

Appendix D

RQL Annual Inspection Photographs



West side of Ramsdell Quarry Landfill, looking south from west gate.



South side of Ramsdell Quarry Landfill, looking east from southwest corner.



East side of Ramsdell Quarry Landfill, looking north from southeast corner.



Land Use Control fence along west side of Ramsdell Quarry Landfill, looking south from northwest corner.

Appendix E

FY 2016 Quarterly Land Use Control Index Maps

WINKLEPECK BURNING GROUNDS (WBG) RVAAP-05 LAND USE CONTROL (LUC) INSPECTION 1st Qtr. FY 2016

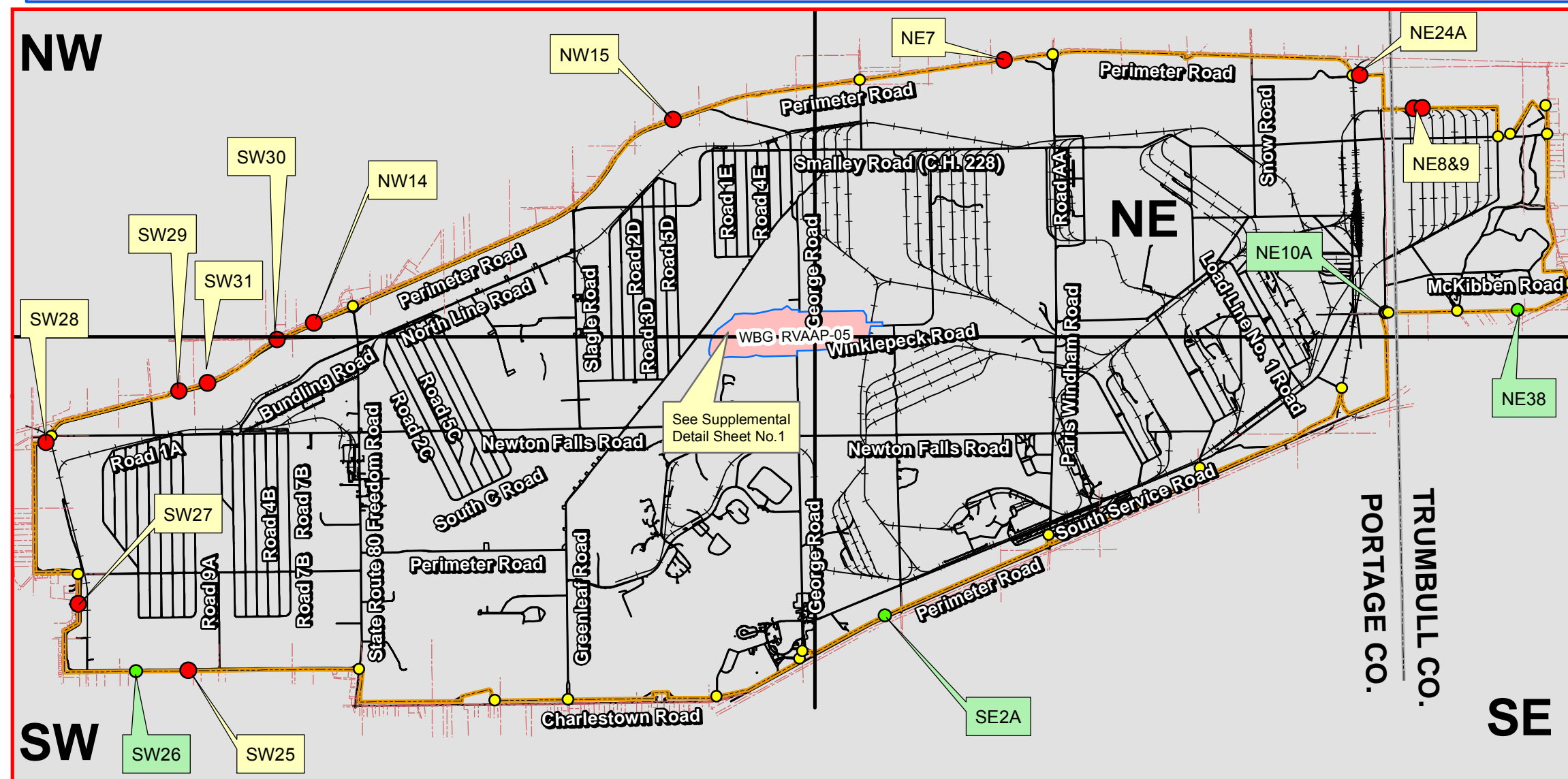


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (12 locations)
- Repaired (4 Locations)
- Gates (26 locations for reference only, no detail sheets)
All gates appear to be maintained and are in working order

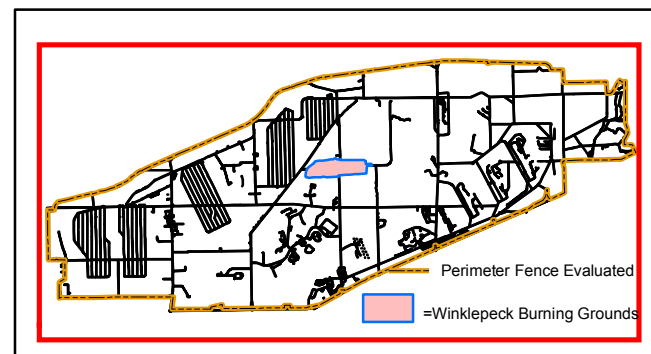
SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

— Perimeter Fence Evaluated (29.8 miles)

Detail Sheet
Callout

Detail Sheet
Repair Callout

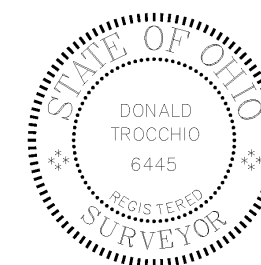
Camp Ravenna
Joint Military Training Center



Portage & Trumbull County
LOCATOR MAP



Ohio Army National Guard



Produced in December 2015 for:



US Army Corps of
Engineers

600 Dr. Martin Luther King Jr. Place
Louisville, KY 40202

Louisville District



Projection Datum is NAD83, Ohio State
Plane Rectangular Grid, North Zone

0 2,500 5,000 10,000 15,000 Feet
Bar Scale in Feet



Camp Ravenna JMTc
1438 State Route 534 SW
Newton Falls, OH 44444
Don Trocchio, PS
don.trocchio@vistasciences.com

MGRS 17T NF01946150 (NAD83)

FIGURE 1 INDEX MAP

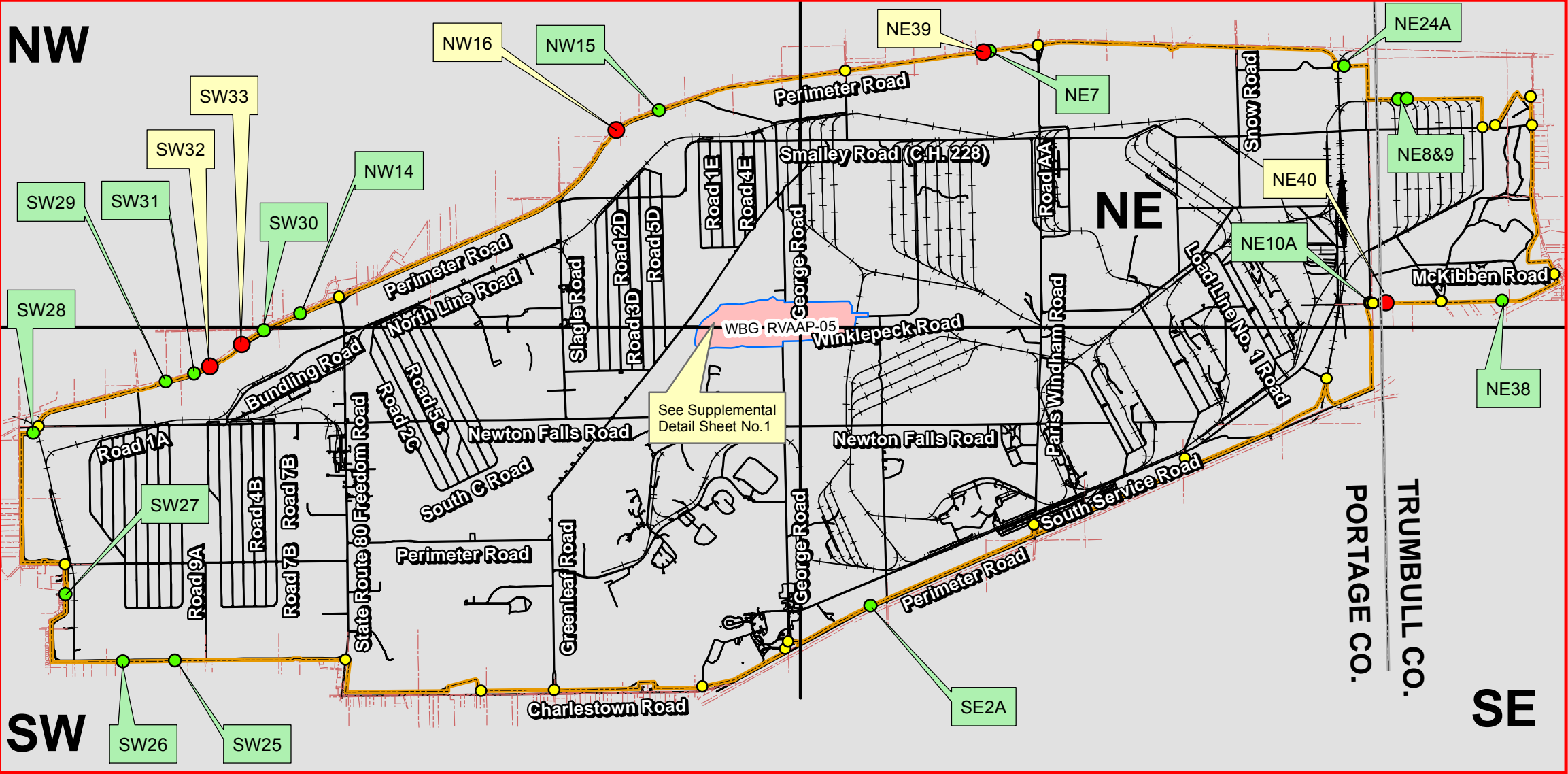


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'±) and/or fabric missing/damaged (5 locations)
- Repaired (16 Locations)
- Gates (26 locations for reference only, no detail sheets)
All gates appear to be maintained and are in working order

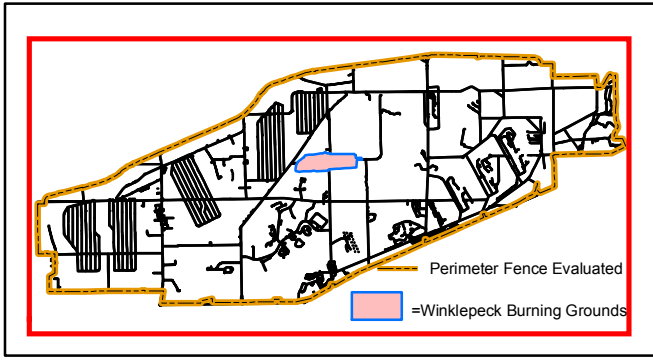
— Perimeter Fence Evaluated (29.6 miles)

Detail Sheet
Callout

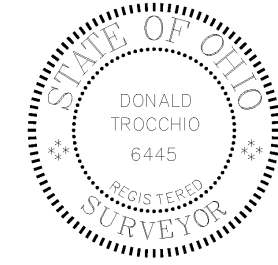
Detail Sheet
Repair Callout

SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna
Joint Military Training Center



Portage & Trumbull County
LOCATOR MAP



Produced in January 2016 for:

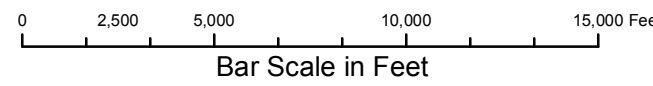


**US Army Corps of
Engineers**
600 Dr. Martin Luther King Jr. Place
Louisville, KY 40202

Louisville District



Projection Datum is NAD83, Ohio State
Plane Rectangular Grid, North Zone



Camp Ravenna JMTC
1438 State Route 534 SW
Newton Falls, OH 44444
Don Trocchio, PS
don.trocchio@vistasciences.com
MGRS 17T NF01946150 (NAD83)

FIGURE 1 INDEX MAP

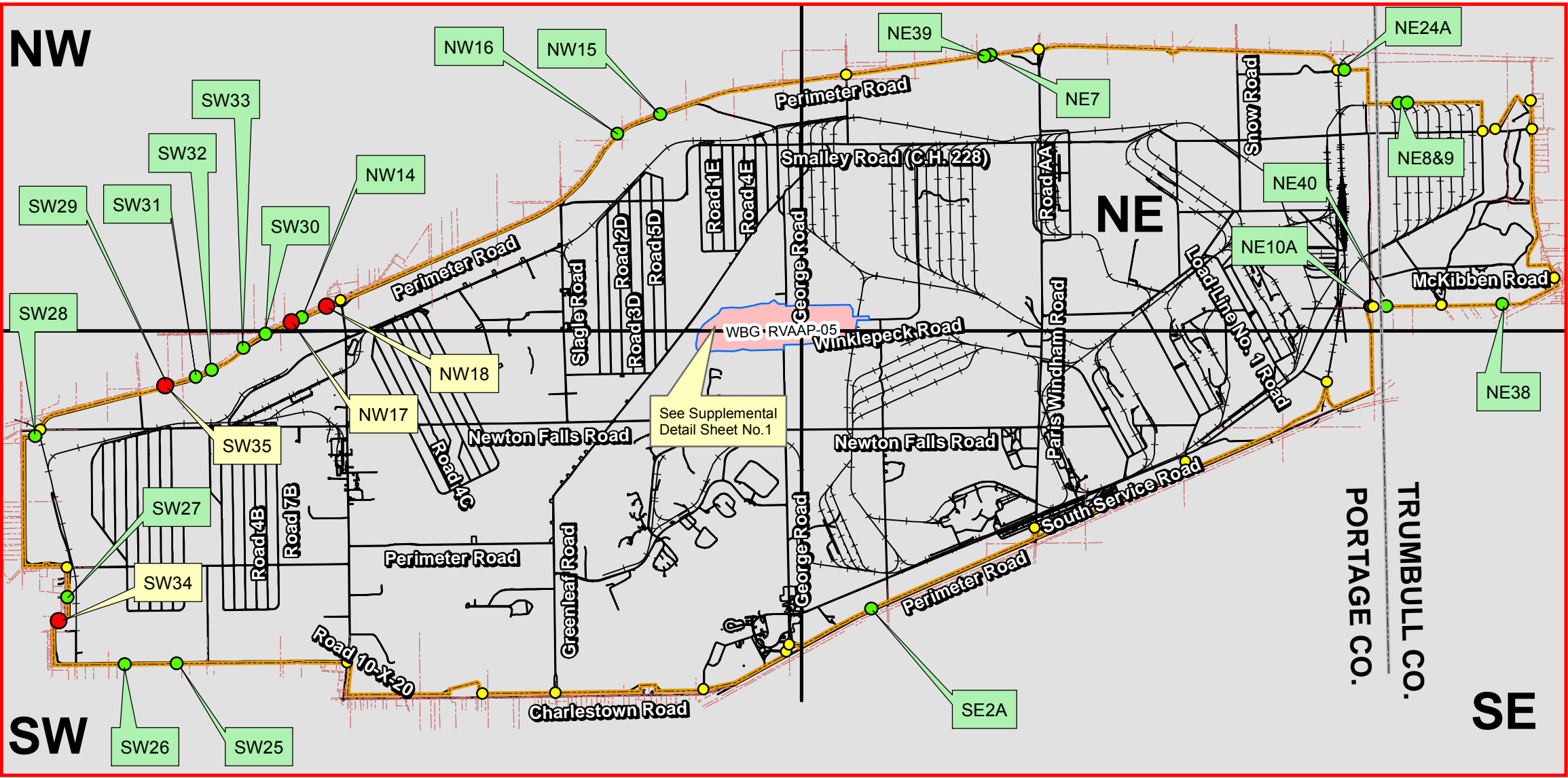


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

Legend

LUC Inspection of Perimeter Fence

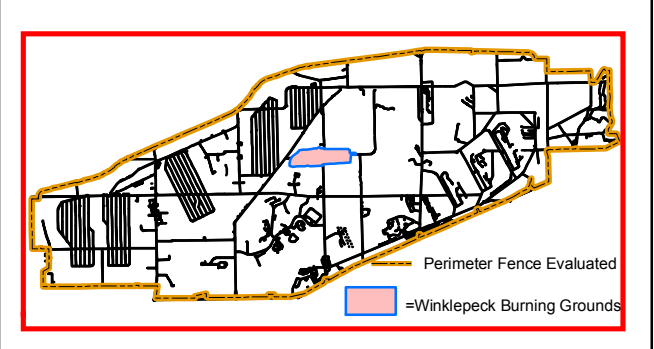
- Opening in fence (2'≥) and/or fabric missing/damaged (4 locations)
- Repaired (21 Locations)
- Gates (26 locations for reference only, no detail sheets)
All gates appear to be maintained and are in working order

— Perimeter Fence Evaluated (29.6 miles)

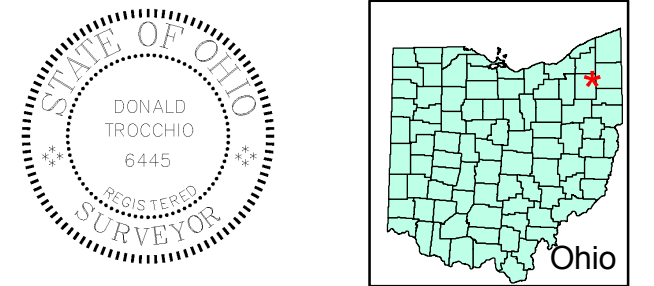
| | |
|----------------------|-----------------------------|
| Detail Sheet Callout | Detail Sheet Repair Callout |
|----------------------|-----------------------------|

SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna
Joint Military Training Center



Portage & Trumbull County
LOCATOR MAP



Produced in April 2016 for:

US Army Corps of Engineers
600 Dr. Martin Luther King Jr. Place
Louisville, KY 40202

Louisville District

Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone

0 2,500 5,000 10,000 15,000 Feet
Bar Scale in Feet

Camp Ravenna JMTc
1438 State Route 534 SW
Newton Falls, OH 44444
Don Trocchio, PS
don.trocchio@vistasciences.com
MGRS 17T NF01946150 (NAD83)

FIGURE 1 INDEX MAP

WINKLEPECK BURNING GROUNDS (WBG) RVAAP-05 LAND USE CONTROL (LUC) INSPECTION 4th Qtr. FY 2016

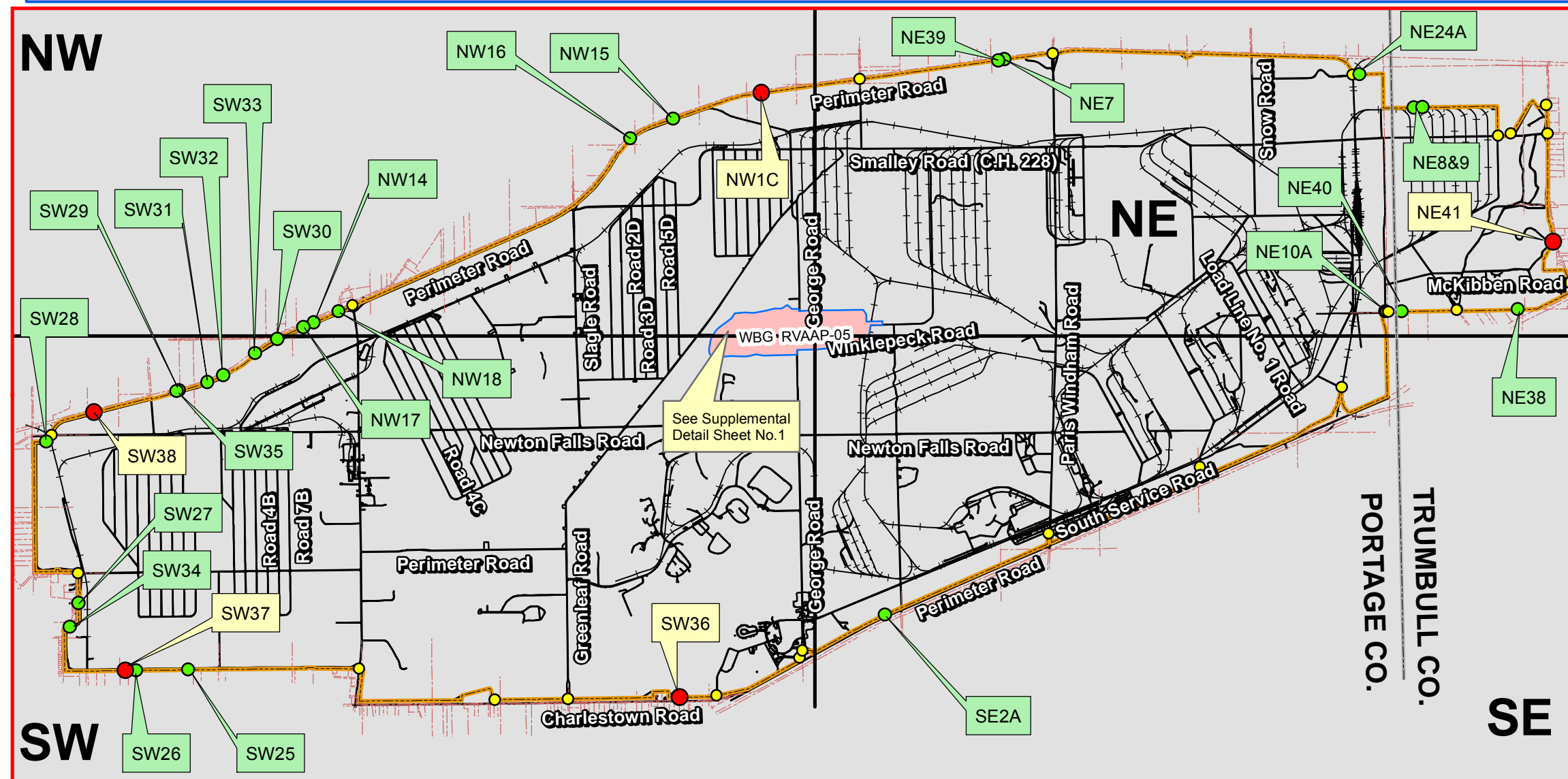


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'±) and/or fabric missing/damaged (5 locations)
- Repaired (25 Locations)
- Gates (26 locations for reference only, no detail sheets)
All gates appear to be maintained and are in working order

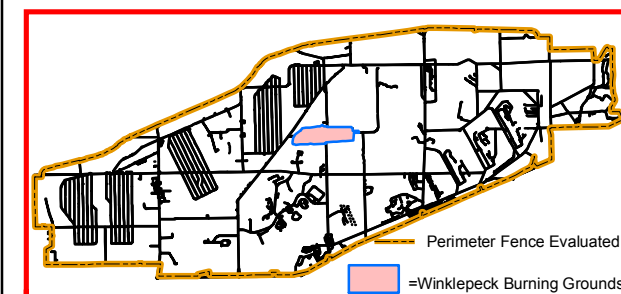
SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Perimeter Fence Evaluated (29.6 miles)

Detail Sheet
Callout

Detail Sheet
Repair Callout

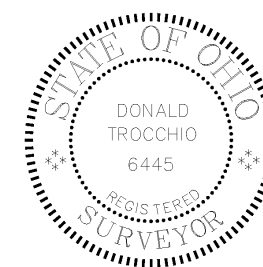
Camp Ravenna
Joint Military Training Center



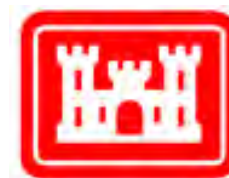
Portage & Trumbull County
LOCATOR MAP



Ohio Army National Guard



Produced in July 2016 for:



US Army Corps of
Engineers

600 Dr. Martin Luther King Jr. Place
Louisville, KY 40202

Louisville District



Projection Datum is NAD83, Ohio State
Plane Rectangular Grid, North Zone

0 2,500 5,000 10,000 15,000 Feet
Bar Scale in Feet



Camp Ravenna JMTC
1438 State Route 534 SW
Newton Falls, OH 44444
Don Trocchio, PS
don.trocchio@vistasciences.com
MGRS 17T NF01946150 (NAD83)

FIGURE 1 INDEX MAP

Appendix F

Final FY 2016 First Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds

(The Final FY 2016 Annual Report for the Land Use Control Inspections, RVAAP-05 Winklepeck Burning Grounds will include the entire Ohio EPA approved version of the FY 2016 First Quarter Land Use Control Inspection)

Appendix G

Final FY 2016 Second Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds

(The Final FY 2016 Annual Report for the Land Use Control Inspections,
RVAAP-05 Winklepeck Burning Grounds will include the entire Ohio EPA
approved version of the FY 2016 Second Quarter Land Use Control Inspection)

Appendix H

Final FY 2016 Third Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds

(The Final FY 2016 Annual Report for the Land Use Control Inspections,
RVAAP-05 Winklepeck Burning Grounds will include the entire Ohio EPA
approved version of the FY 2016 Third Quarter Land Use Control Inspection)

Appendix I

Final FY 2016 Fourth Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds

(The Final FY 2016 Annual Report for the Land Use Control Inspections,
RVAAP-05 Winklepeck Burning Grounds will include the entire Ohio EPA
approved version of the FY 2016 Fourth Quarter Land Use Control Inspection)

Appendix J

FY 2016 Perimeter Fence Defect Call Outs Identified and Repaired

FISCAL YEAR 2016 LAND USE CONTROL INSPECTION SUMMARY TABLE
Camp Ravenna Joint Military Training Center

| Callout | Comments | US Survey Ft | | Fiscal Year and Quarter Identified | Fiscal Year and Quarter Repaired |
|---------|--|--------------|---------|------------------------------------|----------------------------------|
| | | Northing | Eastng | | |
| NE07 | poacher hole | 572923 | 2365753 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| NE08 | poacher hole | 571065 | 2381537 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| NE09 | poacher hole | 571077 | 2381869 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| NE10A | fence fabric and top rail damaged to permit access | 563195 | 2380440 | FY 2016 - 1 Qtr. | FY 2016 - 1 Qtr. |
| NE24A | repeat poacher hole in fence | 572341 | 2379439 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| NE38 | 12in. tree blow down on top of fence | 563279 | 2385540 | FY 2016 - 1 Qtr. | FY 2016 - 1 Qtr. |
| NE39 | poacher hole | 572888 | 2365520 | FY 2016 - 2 Qtr. | FY 2016 - 2 Qtr. |
| NE40 | large tree limb has fallen on the fence and damaged the fabric | 563200 | 2381066 | FY 2016 - 2 Qtr. | FY 2016 - 2 Qtr. |
| NE41 | tree blow down on fence | 565895 | 2386901 | FY 2016 - 4 Qtr. | N/C |
| | | | | | |
| NW14 | poacher hole in fence | 562792 | 2339131 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| NW15 | poacher hole in new section of fence | 570632 | 2352984 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| NW16 | poacher hole | 569866 | 2351337 | FY 2016 - 2 Qtr. | FY 2016 - 2 Qtr. |
| NW17 | poacher hole | 562602 | 2338724 | FY 2016 - 3 Qtr. | FY 2016 - 3 Qtr. |
| NW18 | poacher hole | 563194 | 2340084 | FY 2016 - 3 Qtr. | FY 2016 - 3 Qtr. |
| NW1C | poacher hole | 571637 | 2356382 | FY 2016 - 4 Qtr. | N/C |
| | | | | | |
| SE02A | washout {10x6 box culvert} from debris plugged security cage | 551498 | 2361141 | FY 2016 - 1 Qtr. | FY 2016 - 1 Qtr. |
| | | | | | |
| SW25 | poacher hole | 549381 | 2334296 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| SW26 | blow down/top rail repaired by vista in-between inspections | 549355 | 2332269 | FY 2016 - 1 Qtr. | FY 2016 - 1 Qtr. |
| SW27 | fence fabric has been detached from 4 posts | 551961 | 2330049 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| SW28 | poacher hole | 558184 | 2328802 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| SW29 | poacher hole in fence | 560157 | 2333938 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| SW30 | poacher hole in fence | 562148 | 2337710 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| SW31 | abandoned railroad utility pole has fallen onto fence | 560476 | 2335035 | FY 2016 - 1 Qtr. | FY 2016 - 2 Qtr. |
| SW32 | poacher hole | 560748 | 2335631 | FY 2016 - 2 Qtr. | FY 2016 - 2 Qtr. |
| SW33 | poacher hole | 561584 | 2336866 | FY 2016 - 2 Qtr. | FY 2016 - 2 Qtr. |
| SW34 | poacher hole | 551036 | 2329710 | FY 2016 - 3 Qtr. | FY 2016 - 3 Qtr. |
| SW35 | poacher hole | 560125 | 2333841 | FY 2016 - 3 Qtr. | FY 2016 - 3 Qtr. |
| SW36 | poacher hole | 548328 | 2353232 | FY 2016 - 4 Qtr. | FY 2016 - 4 Qtr. |
| SW37 | poacher hole at bottom of fence | 549355 | 2331868 | FY 2016 - 4 Qtr. | FY 2016 - 4 Qtr. |
| SW38 | poacher hole | 559324 | 2330662 | FY 2016 - 4 Qtr. | FY 2016 - 4 Qtr. |
| | | | | | |
| | | | | | |
| | | | | | |

NOTE: NC = Indicates Repair Not Yet Completed