FINAL
FACILITY-WIDE GROUNDWATER MONITORING PROGRAM
RVAAP-66 FACILITY-WIDE GROUNDWATER
REPORT ON THE OCTOBER 2012 SAMPLING EVENT

RAVENNA ARMY AMMUNITION PLANT
RAVENNA, OHIO

May 23, 2013

GSA Contract Number GS-10F-0293K
Delivery Order W912QR-11-F-0266

Prepared for



U.S. Army Corps of Engineers
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202

Prepared by



Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240

REPORT DOCUMENTATION PAGE

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Environmental Quality Management, Inc
1800 Carillon Boulevard
Cincinnati, Ohio 45240

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US Army Corps of Engineers
600 Dr. Martin Luther King Jr. Place
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14. ABSTRACT

This document presents a summary of the facility-wide groundwater monitoring conducted in October 2012. Included in the report are:

• Summary of the groundwater elevations and water level measurements taken for each of the wells sampled.
•Analytical summary tables presenting the analytes detected above the method detection limit for this monitoring event.
• QA/QC and data verification reports for the event.

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Ohio EPA
40 years and moving forward
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

July 2, 2013

RE: RAVENNA ARMY AMMUNITION PLANT, PORTAGE/TRUMBULL COUNTIES, APPROVAL, FINAL–RVAAP-66 FACILITY WIDE GROUNDWATER OCTOBER 2012 SAMPLING EVENT, DATED MAY 23, 2013 OHIO EPA ID # 267-000859-036

Mr. Mark Patterson
Installation Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL
7012 1010 0002 2260 4480

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Final Facility-Wide Ground Water Monitoring Program-RVAAP-66 Facility-Wide Ground Water Report on the October 2012 Sampling Event for the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio." This document was received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR), on May 24, 2013, and is dated May 23, 2013. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by EQM, under Contract Number W912QR-11-F-0266.

Pursuant to the CERCLA process, the property owner usually can provide the expected land uses to assist in ensuring that the investigation addresses all receptors for both current and future land uses. Be advised that due to land use uncertainty, Ohio EPA may require additional work in the future, to address data gaps. It is incumbent upon the Army to finalize land use at Camp Ravenna as soon as possible, otherwise, additional work and schedule slippage may result.

This document was reviewed by personnel from Ohio EPA's Division of Environmental Response and Revitalization (DERR). Ohio EPA has determined that all required text changes have been made to this document and considers it to be final and approved, providing there are no additional comments from the Army or Ohio Army National Guard. If you have any questions, please call me at (330) 963-1160.

Sincerely,

Nancy Zikmanis, CHMM, Environmental Supervisor
Division of Environmental Response and Revitalization

KP:NZ/kss

cc: Ann Wood, NGB
Katie Tait, OHARNG RTLS
Cullen Grasty, USACE

ec: Vicki Deppisch, Ohio EPA, NEDO, DERR
Kevin Palombo, Ohio EPA, NEDO, DERR
Justin Burke, Ohio EPA, CO, DERR
Eileen Mohr, Ohio EPA, NEDO, DERR

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CONTRACTOR'S STATEMENT OF INDEPENDENT TECHNICAL REVIEW

Environmental Quality Management, Inc. (EQM) has completed the *Final Facility-Wide Groundwater Monitoring Program Report on the October 2012 Sampling Event.* Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in this project. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of data quality objectives; technical assumptions, methods, procedures, and materials used; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing United States Corps of Engineers policy.

Colleen Lear, LG, CPG
Senior Project Geologist

5/22/13
Date

John M. Miller, CHMM
Senior Project Manager

5/22/13
Date

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Ravenna Army Ammunition Plant

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USACE Technical Manager, Mark Nichter	2	3
EQM Project Manager, John Miller	1	1

ARNG – Army National Guard
OHARNG – CRJMTC-ENV – Ohio Army National Guard Camp Ravenna Joint Military Training Center – Environmental
Ohio EPA - NEDO - Ohio Environmental Protection Agency – Northeast District Office
RVAAP – Ravenna Army Ammunition Plant
USACE – U.S. Army Corps of Engineers
EQM – Environmental Quality Management, Inc.

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LIST OF GENERAL ACRONYMS

ADR	Automatic Data Review
amsl	Above Mean Sea Level
AOC	Area of Concern
ARNG	Army National Guard
CRJMTC	Camp Ravenna Joint Military Training Center
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLP	Contract Laboratory Program
COPC	Chemical of Potential Concern
DFFOs	Director's Final Findings and Orders
DoD	Department of Defense
EQM	Environmental Quality Management, Inc.
EPA	Environmental Protection Agency
ft	Feet
FWCUGs	Facility-Wide Cleanup Goals
FWGWMP	Facility-Wide Groundwater Monitoring Program
FWGWMPP	Facility-Wide Groundwater Monitoring Program Plan
FWSAP	Facility-Wide Sampling and Analysis Plan
GC	Gas Chromatograph
GOCO	Government-Owned, Contractor-Operated
GSA	Government Services Administration
HMX	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
HPLC	High-Performance Liquid Chromatography
IDW	Investigation-Derived Waste
IRP	Installation Restoration Program
LCS	Laboratory Control Sample
LS	Louisville District Quality Systems Manual Supplement
MCL	Maximum Contaminant Level
MDC	Minimum Detectable Concentration
MDL	Method Detection Limit
mg/L	Milligram per Liter
µg/L	Microgram per Liter
MMRP	Military Munitions Response Program
MRL	Method Reporting Limit
MS	Mass Spectrometer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NORM	naturally occurring radioactive material
Ntu	Nephelometric turbidity unit
OHARNG	Ohio Army National Guard
PBA	Performance Based Acquisition
pCi/L	Picocuries per liter
PCB	Polychlorinated biphenyl
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control

LIST OF GENERAL ACRONYMS
(continued)

QSM	Quality Services Manual
RCRA	Resource Conservation and Recovery Act
RBC	Risk-Based Cleanup
RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine
RI	Remedial Investigation
RL	Reporting Limit
RSL	Regional Screening Level
RVAAP	Ravenna Army Ammunition Plant
SDG	Sample Delivery Group
SRC	Site-Related Contaminant
s.u.	standard units
SVOC	Semivolatile Organic Compound
TAL	Target Analyte List
TNT	2,4,6-Trinitrotoluene
TOC	Top of Casing
U.S.	United States
USACE	U.S. Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USP&FO	United States Property and Fiscal Officer
UV	Ultraviolet
VOC	Volatile Organic Compound

LIST OF AREA OF CONCERN ACRONYMS

ASY	Atlas Scrap Yard
B12	Building 1200
BKG	Background
CBL	C-Block
CBP	Central Burn Pits
CP	Cobbs Pond
DA2	Demolition Area #2
EBG	Erie Burning Grounds
FBQ	Fuze and Booster Quarry
FWG	Facility-Wide Groundwater
LNW	Landfill North of Winklepeck
LL	Load Line
MBS	Mustard Burial Site
NACA	National Advisory Committee for Aeronautics
NTA	NACA Test Area
RQL	Ramsdell Quarry Landfill
SCF	Sharon Conglomerate Formation
WBG	Winklepeck Burning Grounds

EXECUTIVE SUMMARY

Past Department of Defense (DoD) activities at the Ravenna Army Ammunition Plant (RVAAP) in Ravenna, Ohio, date to 1940 and include the manufacturing, loading, handling, and storage of military explosives and ammunition. Residual contamination from these early activities at RVAAP has been identified in groundwater beneath the facility. Currently, the approximately 21,683-acre facility is primarily used for military training.

The United States (U.S.) Army Corps of Engineers (USACE) is performing Comprehensive Environmental Response Compensation and Liability Act (CERCLA) closure at the former RVAAP under the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP). The overall goal is to remediate the RVAAP installation so all of the property can be transferred to the Army National Guard (ARNG) and be used by the Ohio Army National Guard (OHARNG) as a military training site. Activities conducted under the IRP include monitoring of an extensive network (now 281 wells) of groundwater monitoring wells at the RVAAP facility. To date, 243 current Facility-Wide Groundwater Monitoring Program (FWGWMP) wells at the facility have been sampled and analyzed a minimum of four quarters. The remaining 38 wells (installed in 2012) are currently undergoing quarterly monitoring. Monitoring of the facility-wide groundwater is specified as a requirement of the Ohio EPA's "Director's Final Findings and Orders" (DFFOs). The DFFOs were issued to the U.S. Department of the Army on June 10, 2004.

In 2004, the U.S. Army and the Ohio Environmental Protection Agency (EPA) finalized the Facility-Wide Groundwater Monitoring Program (FWGWMP) Plan, which details the requirements of the program for the 243 existing wells. The FWGWMP was initiated in 2005 with three consecutive quarters of FWGWMP well sampling. In addition, five Resource Conservation and Recovery Act (RCRA) wells located at Ramsdell Quarry Landfill (RQLmw-007, RQLmw-008, and RQLmw-009) and Demolition Area 2 (DETmw-003 and DETmw-004) are sampled on a semiannual basis.

The current wells to be sampled and the analytes to be analyzed for each well were approved in the *Final Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Addendum* (FWGWMPP Addendum; EQM, January 2012).

The following activities were conducted by Environmental Quality Management, Inc. (EQM) during the reporting period:

- Immediately prior to the October 2012 sampling event, gauged water levels in 40 RVAAP monitoring wells.
- Performed groundwater sampling of 40 wells for a quarterly event.
- Performed laboratory analyses and data validation for the collected samples.
- Prepared the requisite Investigation-Derived Waste (IDW) characterization and disposal report.

During the October 2012 sampling event, several analytes were detected at levels at/or above their respective Maximum Contaminant Levels (MCLs) and/or USEPA Regional Screening Levels (RSLs) from the 40 wells sampled. The summary of exceedances is as follows.

Inorganic Elements
Aluminum, arsenic, cobalt, cyanide, iron, and manganese were reported at concentrations exceeding their respective MCLs and/or RSLs during this sampling event.

Explosive and Propellant Compounds
As shown in Table 3-3, there were no explosives or propellants detected at levels above their corresponding MCLs or RSLs during the October 2012 sampling.

Volatile Organic Compounds
As shown in Table 3-6, there were no VOCs detected at levels exceeding their corresponding MCLs or RSLs during the October 2012 sampling.

Semivolatile Organic Compounds
As shown in Table 3-7, the following SVOCs were detected at levels exceeding either their corresponding MCLs or RSLs:

- Naphthalene in LL4mw-201 at a level of 0.32 µg/L, and NTAmw-119 at a level of 0.26 µg/L. There is no MCL for Naphthalene. The RSL is 0.14 µg/L.

- Bis(2-ethylhexyl)phthalate in FWGmw-010 at a level of 40 µg/L. The MCL for bis(2-ethylhexyl)phthalate is 6 µg/L. The RSL is 4.8 µg/L.

Bis(2-ethylhexyl)phthalate is being evaluated in two adjacent wells at Load Line 12 – one polyvinyl chloride constructed well (LL12mw-182) and the other a stainless steel constructed well (LL12mw-182ss). The samples from LL12mw-182 and LL12mw-182ss were found to contain bis(2-ethylhexyl) phthalate at concentrations of 1.0 µg/L B and 1.5 µg/L B, respectively, which does not exceed the RSL for this analyte.

Pesticides and Polychlorinated Biphenyls (PCBs)
As shown in Table 3-8, there were no pesticides and/or PCBs detected at levels exceeding either their MCLs or RSLs.

Alpha, Beta, and Gamma Radionuclides
FWGmw-014 was analyzed for alpha, beta, and gamma radionuclides. As shown in Table 3-9 the gamma spectroscopy, gross alpha and beta screening indicated that no results exceeded their respective MCLs.

Analysis for total alpha radium by method 903.0 (approved drinking water method for total alpha radium) and total thorium & uranium by ICPMS, method 6020 were below the EPA drinking water limit. While there is no EPA standard for thorium in drinking water, the thorium results were below the laboratory reporting limit.

Based on this analysis EQM does not believe that there is a radiation concern at well FWGmw-014. This well will, however be monitored for radionuclides for an additional quarter (January 2013).

Hexavalent Chromium

Hexavalent chromium was detected at a level above the RSL of 0.031 µg/L in 1 well, LL3mw-244 at 0.173 µg/L (there is no MCL for hexavalent chromium).

SECTION 1
INTRODUCTION

1.1 Facility Description

Past DoD activities at the Ravenna Army Ammunition Plant (RVAAP) date to 1940 and include the manufacturing, loading, handling, and storage of military explosives and ammunition. Until 1999, the RVAAP was identified as a 21,419-acre installation. The property boundary was resurveyed by the Ohio Army National Guard (OHARNG) over a 2-year period from 2002 and 2003, and the actual total acreage of the property was found to be 21,683.289 acres. As of February 2006, a total of 20,403 acres of the former 21,683-acre RVAAP have been transferred to the United States Property and Fiscal Officer (USP&FO) for Ohio for use by the OHARNG as a military training site. The current RVAAP consists of 1,280 acres in several distinct parcels scattered throughout the confines of the OHARNG Camp Ravenna Joint Military Training Center (CRJMTC). The RVAAP and CRJMTC are collocated on contiguous parcels of property and the CRJMTC perimeter fence completely encloses the remaining parcels of the RVAAP. The CRJMTC is in northeastern Ohio within Portage and Trumbull Counties, approximately 4.8 kilometers (3 miles) east-northeast of the city of Ravenna and approximately 1.6 kilometers (1 mile) northwest of the city of Newton Falls (Figure 1-1). The RVAAP portions of the property are solely located within Portage County. The CRJMTC (inclusive of the RVAAP) is a parcel of property approximately 17.7 kilometers (11 miles) long and 5.6 kilometers (3.5 miles) wide bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad on the south; Garret, McCormick, and Berry roads on the west; the Norfolk Southern Railroad on the north; and State Route 534 on the east. Figures 1-1 and 1-2 present the RVAAP Site Location Map and RVAAP Facility Map. The CRJMTC is surrounded by several communities: Windham on the north; Garrettsville 9.6 kilometers (6 miles) to the northwest; Newton Falls 1.6 kilometers (1 mile) to the southeast; Charlestown to the southwest; and Wayland 4.8 kilometers (3 miles) to the south. When the RVAAP was operational CRJMTC did not exist and the entire 21,683-acre parcel was a government-owned, contractor-operated (GOCO) industrial facility. The RVAAP Installation Restoration Program (IRP) encompasses investigation and cleanup of past activities over the entire 21,683 acres of the former RVAAP, and, therefore, references to the RVAAP in this document are considered to be inclusive of the historical extent of the RVAAP, which is inclusive of the combined acreages of the current CRJMTC and RVAAP, unless otherwise specifically stated.

1.2 Project Description

1.2.1 Historical Monitoring

In 2004, the United States (U.S.) Army and the Ohio Environmental Protection Agency (EPA) finalized the Facility-Wide Groundwater Monitoring Program (FWGWMP) Plan, which details the requirements of the program. The FWGWMP was initiated in 2005 with three consecutive quarters of FWGWMP well sampling. Quarterly sampling has continued through the current

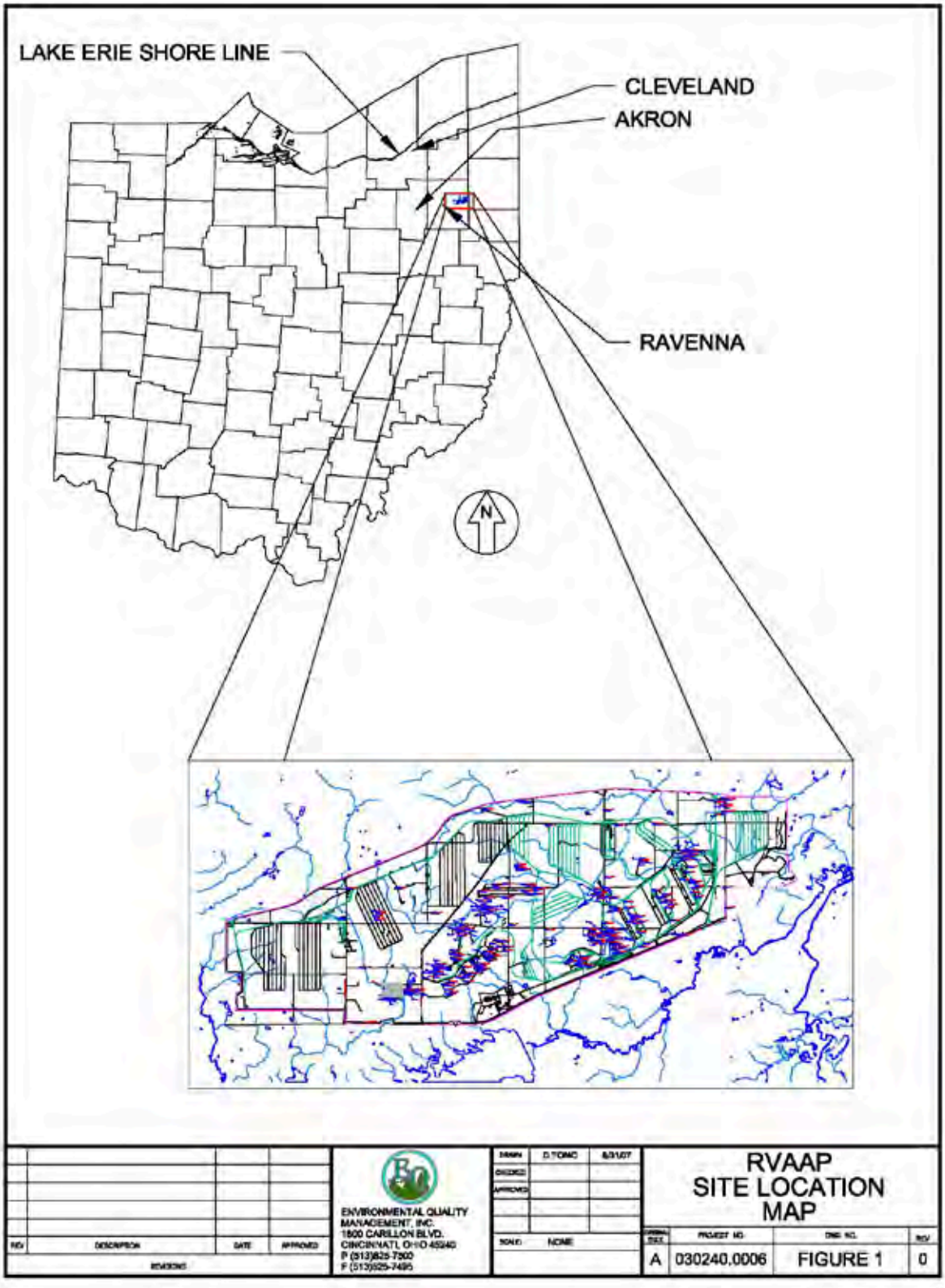

Figure 1-1. RVAAP General Location Map

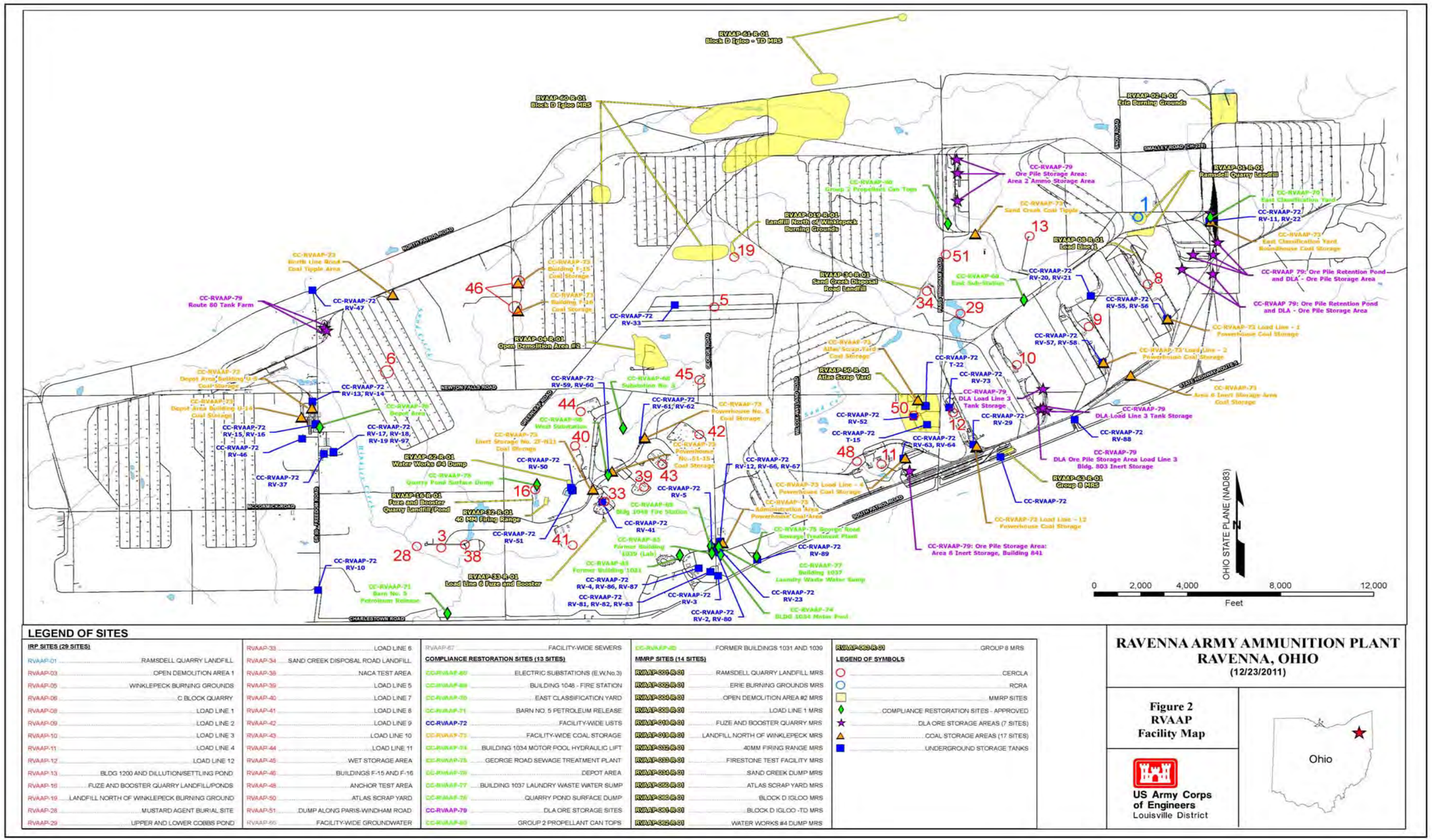

Figure 1-2. RVAAP Facility Map

monitoring event. The initial FWGWMP wells identified for monitoring were sampled once every quarter, with the exception of the five Resource Conservation and Recovery Act (RCRA) wells that include three Ramsdell Quarry Landfill (RQL) wells (RQLmw-007, -008, and -009) and two Demolition Area 2 (DA2) wells (DETmw-003 and DETmw-004). The RQL and DA2 wells are sampled twice a year.

As detailed in the original FWGWMP Plan (FWGWMPP; September 2004), the initial monitoring program consisted of the sampling of 36 wells specified in Table 4-1 of the FWGWMPP. Fourteen of these wells are "Background Wells," and the remaining wells are situated at various Areas of Concern (AOCs) at RVAAP. The first sampling event for this project was conducted in April 2005. The results of the previous FWGWMP sampling events are presented in Section 5 of this report. The final assessment monitoring event for the initial well sampling and analysis was completed in October 2007.

On October 22, 2007, the U.S. Army Corps of Engineers (USACE) submitted to the Ohio EPA the *Preliminary Draft Proposal to Update the Facility-Wide Ground Water Monitoring Program* (USACE, October 2007) at the Ravenna Army Ammunition Plant. This proposal presented recommendations for modifications to the FWGWMP, the Director's Final Findings and Orders (DFFOs), and the Conceptual Plan in Appendix E of the Findings and Orders as presented below.

Section 3.1.2.2 of the original FWGWMPP (September 2004) establishes a protocol for adding and removing wells from the FWGWMP: "*Future wells installed as part of individual AOC investigations conducted under the ongoing Comprehensive Environmental Response Compensation and Liability Act (CERCLA) process at RVAAP will be evaluated for incorporation into the FWGWMP upon completion of at least four quarterly groundwater sampling events to be conducted as part of the Remedial Investigation (RI) phase at each AOC. The frequency of the initial sampling events may be other than quarterly if agreed upon by the Army and Ohio EPA.*" Based on this protocol the USACE notified the Ohio EPA on December 12, 2007, that the wells to be sampled would be changed effective with the January 2008 monitoring event. The Ohio EPA provided concurrence with this change in an email dated January 8, 2008. The Ohio EPA was notified of an additional change on February 27, 2008, increasing the number of wells to be sampled for the April 2008 event. The Ohio EPA was notified on March 21, 2008, that the number of FWGWMP wells to be sampled in April 2008 (and the July 2008, October 2008, and January 2009 events) would be increased to 132 plus the five RCRA wells sampled semi-annually (in order to complete four quarters of sampling for each of the 132 wells).

Beginning with the April 2009 sampling event the remaining wells on the list contained in the *Draft Proposal to Update the Facility-Wide Ground Water Monitoring Program* (USACE, October 2007) were sampled.

A revised list of wells to be sampled during 2010-2011 was submitted to the Ohio EPA in early 2010. The list of wells to be sampled, as well as scheduling issues, were discussed with the Ohio EPA in a telephone conference and verified in a subsequent email on May 26, 2010.

The 2011 wells to be sampled and the analytes to be analyzed from each well were discussed with the Ohio EPA in email correspondences in July 2011. For the groundwater monitoring event it was agreed to monitor the wells and analytes presented in Table 4-2 of the *Draft 2010 Addendum to the Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater* (USACE, 2010).

1.2.2 Current Monitoring

Current activities conducted under the IRP include monitoring of an extensive network (now 281 wells) of groundwater monitoring wells at the RVAAP facility. To date, 243 current Facility-Wide Groundwater Monitoring Program (FWGWMP) wells at the facility have been sampled and analyzed a minimum of four quarters. The remaining 38 wells (installed in 2012) are currently undergoing quarterly monitoring.

Details of the current program design and requirements are contained in the *Final Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Monitoring Addendum* (Semiannual Addendum; EQM, January 2012). Additionally, this document supplements the *Final Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Addendum* (FWGWMPP Addendum; EQM, January 2012), which includes three parts that pertain to the proposed work: Part I- Environmental Investigation Services Addendum (EIS Addendum), Part II- Quality Assurance Project Plan (QAPP) Addendum, and Part III- Site Safety and Health Plan (SSHP) Addendum. Additional details pertaining to performance of field and laboratory activities are contained in the *Final Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio* (FWSAP; SAIC, 2011).

The current wells to be sampled and the analytes to be analyzed from each well were approved in the FWGWMPP Addendum. The current Monitoring Well Schedule is presented in Appendix A. This list presents the list of new wells and the existing semiannual wells to be sampled.

Note that on April 9, 2012, the USACE submitted a letter to the Ohio EPA as a request to adopt the U.S. Environmental Protection Agency's (USEPA) Regional Screening Levels (RSLs) for use in the RVAAP Facility-Wide Groundwater Monitoring Program (FWGWMP). The RSLs are intended as a replacement for the use of USEPA's former Preliminary Remediation Goals (PRGs) for evaluating RVAAP's groundwater quality. The Ohio EPA submitted a response letter on April 23, 2012, approving the request. This represents an official addendum to RVAAP's FWGWMP Plan. Note that the RSLs used in this report are the most recent available (May 2012).

RVAAP's FWGWMP will no longer use USEPA's former PRGs to evaluate groundwater at the facility. From January 2012, RVAAP's groundwater monitoring program shall use USEPA's RSLs.

1.3 Scope of Work for the October 2012 Sampling Event

The USACE, under a Government Services Administration (GSA) Performance Based Acquisition (PBA) contract, retained Environmental Quality Management, Inc. (EQM) (Contract No. GS-10F-0293K – Delivery Order W912QR-11-F-0266) to obtain a signed Record of Decision (ROD) for the facility-wide groundwater (RVAAP-66) at the former RVAAP. One objective of this project is to continue monitoring under the RVAAP Facility-Wide Groundwater Monitoring Program. The following tasks were performed during the October 2012 sampling event in accordance with specifications contained in the Semiannual Addendum, FWGWMPP Addendum, the FWSAP, and the Scope of Work written by the USACE:

- Performed groundwater sampling at the 40 wells identified in Appendix A.
- Performed laboratory analysis of the collected samples.
- Verified, validated, and reduced the laboratory analytical data produced for the event (exclusive of the quality assurance samples analyzed by RTI Laboratories).
- Prepared the Investigation-Derived Waste (IDW) Characterization and Disposal Plan for the IDW collected during monitoring activities.
- Prepared and submitted the monitoring report for the sampling event.

1.4 Report Presentation

This report presents the results of the October 2012 sampling event. The report is structured in the following way:

- Section 1.0 – Introduction.
- Section 2.0 – Description of Project Activities. This section describes project-specific details not contained in the FWSAP, FWGWMPP Addendum, and Semiannual Addendum. Additionally, details are provided on how the tasks described above were performed.
- Section 3.0 – Results of Investigation. The results of the sampling event are summarized, including groundwater elevation measurements, analytical results, and data verification/validation information.
- Section 4.0 – Summary of Results.
- Section 5.0 – References.

- Appendix A - Current Monitoring Well Schedule
- Appendix B – Water-Level Measurements/Field Log Book/Sample and Purge Records/Daily Quality Control Reports
- Appendix C – Hexavalent Chromium Technical Change Order
- Appendix D – Data Verification Reports/Laboratory Data Sheets
- Appendix E – Investigation-Derived Waste Characterization and Disposal Plan
- Appendix F – Historical Load Line 12 Groundwater Flow Maps

- Appendix G – Reporting Limits that Currently Do Not Meet the RVAAP QAPP Project Action Requirements, MCLs, and/or USEPA RSLs
- Appendix H – Correspondence & Comment/Response Table
- Plates

SECTION 2
PROJECT ACTIVITIES

2.1 Groundwater Level Monitoring

Depth to water from the top of the inner casing was measured in the 40 RVAAP wells during October 15-17, 2012. Water-level measurements were taken with a Herron Dipper-T or Enviro Inspector electronic water-level indicator. The depth to the bottom of the well from the top of the inner casing was also measured with the electronic water-level indicator.

Results of the groundwater level monitoring for all the RVAAP wells sampled during this monitoring event are presented in Section 3.1 and Appendix B. Results of the groundwater level monitoring for all the Load Line 12 wells are presented in Section 3.2. The monitoring well location map, identified as Plate 1, is included with this report. Potentiometric maps created from groundwater measurements from the RVAAP monitoring wells in July 2012 are presented on Plates 2, 3, and 4. The potentiometric maps were generated from the July 2012 water-level measurements taken from the 275 new and existing facility wells and the six deep Sharon Conglomerate wells. These maps are updated on a yearly basis. The water levels from the individual events are not included in these plates. Additionally, the groundwater elevations from the Sharon Conglomerate wells were evaluated and determined not to be representative of either the Homewood aquifer or the upper portion of the Sharon aquifer. These wells were installed with their screened intervals positioned at the basal portion of the Sharon Conglomerate. Therefore, the groundwater elevations collected from the basal Sharon Conglomerate wells were used to determine the potentiometric contours for these deep wells as presented in Plate 4.

To determine if groundwater elevations of basal Sharon Conglomerate wells (as determined from the July 2012 water-level measurements) are representative of the Sharon or Homewood aquifers, the groundwater elevation data were compared.

The groundwater elevation of water in the Homewood Aquifer (well LL10mw-003) is more than 77 feet higher than the nearest basal Sharon Conglomerate well (well SCFmw-001). This demonstrates that the Homewood Aquifer and Sharon Conglomerate are not representative of the same hydraulic unit. If they were in the same hydraulic unit, the water levels would be expected to be much the same.

There are five Sharon Conglomerate wells that are located through the basal portion of the Sharon Aquifer. The groundwater elevations of the five wells from the upper portion of the Sharon Aquifer are 0.80 to 18.57 feet higher than the five basal Sharon Conglomerate groundwater elevations at the same locations. The average elevation difference is nearly 8 feet. Again, this groundwater elevation difference indicates that the basal Sharon Conglomerate and the upper portion of the Sharon are separate hydraulic units. The potentiometric map for the basal Sharon Conglomerate wells is included as Plate 4.

2.2 Groundwater Sampling

All identified monitoring wells were sampled from October 15-17, 2012. Wells were sampled using micropurge techniques or a bailer in accordance with the specifications contained in the approved addendum. The wells were micropurged until certain groundwater parameters (i.e., temperature, specific conductivity, pH, and dissolved oxygen) had stabilized with the exception of the one well noted below, which was sampled with a bailer. The groundwater parameters were measured using a Horiba U-22/U-52 with flow cells or equivalent**.** Groundwater parameter measurements obtained during micropurging are presented in Appendix B.

A groundwater pH value of more than 9 standard units (s.u.) has been noted at LL1mw-086 for two quarters (April/July). The high pH in the well could have been indicative of groundwater contamination; however, a full evaluation of the conditions at this well is being conducted/monitored. Prior to the purge/sample activities at LL1mw-086 the well was redeveloped. During redevelopment the pH was lowered from 10.06 to 7.31 s.u. The well was then purged and sampled with a pH of 6.93 s.u. The pH in this well will continue to be monitored in the future. Additionally, a groundwater pH value of less than 4 had been noted at LL12mw-182 in April however was around 7 s.u. for the last two quarters. EQM has reviewed the historical purge records for this well. The historical trend of 6.7 to 7.7 indicates that this reading is potentially an anomaly. EQM will monitor the pH at this well in the future.

High turbidity values [i.e., >700 nephelometric turbidity units (ntu)] were noted at three of the wells (FWGmw-002, FWGmw-007 and LL11mw-011). None of these wells exhibited significant elevated sediment levels (>0.5 ft) during this sampling event.

It should be noted that high turbidity readings are not necessarily an indicator of nonrepresentative (i.e., formation) groundwater as stated in the Ohio EPA Technical Guidance Manual for groundwater: ***"Turbidity****, which is the visible presence of suspended mineral and organic particles in a ground water sample, also is not an indicator of ground water chemical stabilization and does not distinguish between stagnant casing water and formation water*." EQM continued purging after the normal stabilization parameters had stabilized (turbidity is not a stabilization parameter) in an attempt to reach turbidity values that were within 10% of each other. Additionally, the groundwater samples for metals analysis were filtered as part of the FWGWMP sampling, thereby reducing the effect of suspended particles in the groundwater.

Groundwater samples were collected using bladder pump micropurge techniques. Equipment and sampling details are contained in Appendix B. Groundwater samples were collected in laboratory-supplied containers and stored in iced coolers for shipment in accordance with the specifications presented in the FWSAP, Semiannual Addendum, and FWGWMPP. During the October sampling, all coolers were received by the laboratory at temperatures within the prescribed tolerance limits.

Filtered metals samples were collected through the bladder pump using an inline 0.45-micron filter emptying directly into pre-preserved sample bottles containing nitric acid. All sampling procedures for the filtered metals were conducted in accordance with the FWSAP.

2.3 Laboratory Analysis

Laboratory analyses on all primary samples and associated quality control (QC) samples were performed by TestAmerica Laboratories. Table 2-1 presents the analytical methods used to analyze the groundwater samples.

Table 2-1. Analytical Suite of Chemicals

Constituents	Method[1]
Polychlorinated biphenyls (PCBs)	Gas Chromatograph (GC) – Semivolatile Organics (SVOCs) (8082)
Pesticides	GC Semivolatile Organics (8081A)
Base/Neutrals and Acids (SVOCs)	GC/Mass Spectrograph (MS) Semivolatile Organics (8270C)
Volatile Organic Compounds (VOCs)	GC/MS Volatile Organics (8260B)
Nitroguanidine (Propellant)	Organic compounds by UV/HPLC (8330 modified)
Nitroaromatics & Nitramines (Explosives)	GC Semivolatile Organics Explosives (8330)
Nitrocellulose as N (Propellant)	General Chemistry (WS-WC-0050)
Nitrate/Nitrites	General Chemistry (353.2)[2]
Cyanide (Total)	General Chemistry (9012A)
Metals (Magnesium, Manganese, Barium, Nickel, Potassium, Silver, Sodium, Vanadium, Chromium, Calcium, Cobalt, Copper, Arsenic, Lead, Selenium)	Inductively Coupled Plasma (6010B)
Metals (Antimony, Iron, Beryllium, Thallium, Zinc, Cadmium, Aluminum)	Inductively Coupled Plasma Mass Spectrometry (6020)
Mercury	Liquid Waste Cold Vapor Technique (7470A)
Hexavalent Chromium	Method 218.6
Alpha/beta screen	Method 900.0[3]
Gamma radionuclides	Method 901.1[3]

1 = USEPA SW846
2 = EPA Methods for Chemical Analysis of Water and Waste
3 = Prescribed Test Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980

The October groundwater samples were analyzed for the following parameters depending upon the well as presented in Appendix A: explosives, propellants (nitrocellulose and nitroguanidine), cyanide, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), target analyte list (TAL) metals (filtered), pesticides, and polychlorinated biphenyls (PCBs). Depending upon the well location the following were collected: Nitrate/Nitrites at Load Line 12, alpha/beta screen and gamma radionuclides at FWGmw-014. Three locations were analyzed for hexavalent chromium, LL3mw-244, LL12mw-247, and SCFmw-002.

During the October 2011 groundwater monitoring event Method 7196A was used for hexavalent chromium analysis. The method detection limit (MDL) for this method was 2 µg/L and the reporting limit (RL) was 20 µg/L. As noted by the Ohio EPA the RVAAP groundwater cleanup goal (CUG) is listed as 11 µg/L. Additionally, the USEPA Regional Screening Level (RSL) is 0.031 µg/L. It has been determined that the current RL is too high to meet the required clean level screening criteria.

The project action requirement for hexavalent chromium as listed in the RVAAP-66 Facility Wide Groundwater QAPP Addendum is 0.02 mg/L. In order to meet the CUG and RSL for hexavalent chromium at RVAAP, an alternate method other than EPA 7196 as listed in the QAPP Addendum was recommended. After some investigation, substitute methods for the determination of hexavalent chromium were found, EPA 7199 and EPA 218.6. Both methods were researched to see if the RSL could be met. It was determined that hexavalent chromium by EPA 218.6 could meet the RSL requirements. After discussions with the USACE chemist K. Krantz, EQM recommended that hexavalent chromium samples for all future groundwater events be analyzed by EPA method 218.6. Appendix C presents the Technical Change Order for this analytical method change.

Quality control samples, including duplicates and matrix spike/matrix spike duplicates (MS/MSD) were collected from the following wells:

DA2mw-115 – Duplicate Sample
FWGmw-005 – Duplicate Sample
WBGmw-018 – Duplicate Sample
LL12mw-247 – Duplicate and MS/MSD (NO2/NO3 only)
SCFmw-002 – Duplicate (hexavalent chromium only)
FWGmw-014 – Duplicate and MS/MSD (radionuclides only)
LL3mw-245 – Duplicate Sample
FWGmw-012 – MS/MSD
LL1mw-086 – MS/MSD

All samples were picked up from the facility and delivered to the laboratory in iced coolers by a TestAmerica courier under proper chain-of-custody procedures (FWSAP). Hexavalent chromium samples were shipped for analysis to ALS Environmental in Rochester, New York. Laboratory analyses on all quality assurance (QA) samples (i.e., split samples) were performed by RTI Laboratories in Livonia, Michigan. Six QA samples were collected from the same wells where the duplicate samples were collected with the exception of FWGmw-014. All QA samples were shipped in iced coolers via overnight delivery service under proper chain-of-custody procedures. Table 2-2 presents, in tabular form, all analyses and associated QA/QC for the October 2012 monitoring event. The Daily Quality Control Reports are presented in Appendix B.

Laboratory results are summarized in Section 3.3. Laboratory data sheets, including chain-of-custodies and QA/QC information, are contained in Appendix D.

2.4 Data Verification/Validation

Data from TestAmerica and ALS Environmental were verified in accordance with project specifications by EQM chemists Ms. Angye Dragotta and Mr. Eric Corbin using the Automatic Data Review (ADR) program. Data validation/verification is summarized in Section 3.4. The Data Verification/Validation Summary Reports are presented in Appendix D.

2.5 Investigation-Derived Waste

An IDW Report was prepared for the sampling and water-level measurement activities discussed in Section 3. Purge water was collected at each well location in 5-gallon buckets and transferred to 55-gallon drums located inside Building 1036. No more than 4 gallons were purged from any well. Instruments and equipment were decontaminated after purging and sampling each monitoring well. Decontamination fluids were collected in a separate 55-gallon drum stored inside Building 1036. Pending analysis of the monitoring well samples, IDW fluids were stored in the 55-gallon drums until the IDW Report was approved by the Ohio EPA. The IDW was then disposed of in accordance with the FWSAP, FWGWMPP Addendum, and Semiannual Addendum requirements. The IDW Report is presented in Appendix E.

Table 2-2. QA Table for October 2012 Sampling Event

	Contractor Laboratory							Government Laboratory		Requested Laboratory Analysis										
Sample Locations	Primary Lab Sample ID	Date	Sample Type	Assoc. QC Dup Number	Assoc. QC Rinsate Number	Assoc. QC Trip Blank Number	MS/ MSD	QA Lab Sample ID	Assoc. QC Trip Blank Number	VOCs	Bis(2-ethyl hexyl)phthalate	SVOC4	Pesticides	PCBs	Explosives & Propellants	Cyanide	NO2/NO3	Gross Alpha, Beta, Gamma	Filtered Cr+6	Filtered Metals
B12mw-013	FWGB12mw-013-0158-GW/GF	10/15-16/12	GW		EQUIPRinse3-0214	FWGTeam1-Trip				x		x	x	x	x	x				x
CBLmw-005	FWGCBLmw-005-0159-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam3-Trip				x		x	x	x	x	x				x
CBPmw-009	FWGCBPmw-009-0160-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam3-Trip		FWGCBPmw-009-0147s-GW/GF	TRIPBLANK	x		x	x	x	x	x				x
DA2mw-114	FWGDA2mw-114-0161-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam2-Trip				x		x	x	x	x	x				x
DA2mw-115	FWGDA2mw-115-0162-GW/GF	10/17/2012	GW	DUP1-0199	EQUIPRinse3-0214	FWGTeam2-Trip		FWGDA2mw-115-0206s-GW/GF	TRIPBLANK	x		x	x	x	x	x				x
EBGmw-131	FWGEBGmw-131-0163-GW/GF	10/15/2012	GW		EQUIPRinse1-0212	FWGTeam1-Trip				x		x	x	x	x	x				x
FWGmw-001	FWGFWGmw-001-0164-GW/GF	10/15/2012	GW		EQUIPRinse1-0212	FWGTeam2-Trip				x		x	x	x	x	x				x
FWGmw-002	FWGFWGmw-002-0165-GW/GF	10/15/2012	GW		EQUIPRinse1-0212	FWGTeam2-Trip				x		x	x	x	x	x				x
FWGmw-003	FWGFWGmw-003-0166-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam2-Trip				x		x	x	x	x	x				x
FWGmw-004	FWGFWGmw-004-0167-GW/GF	10/15/2012	GW		EQUIPRinse1-0212	FWGTeam3-Trip				x		x	x	x	x	x				x
FWGmw-005	FWGFWGmw-005-0168-GW/GF	10/16/2012	GW	DUP2-0200	EQUIPRinse2-0213	FWGTeam1-Trip		FWGFWGmw-005-0207s-GW/GF	TRIPBLANK	x		x	x	x	x	x				x
FWGmw-006	FWGFWGmw-006-0169-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam3-Trip				x		x	x	x	x	x				x
FWGmw-007	FWGFWGmw-007-0170-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam3-Trip				x		x	x	x	x	x				x
FWGmw-008	FWGFWGmw-008-0171-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam1-Trip				x		x	x	x	x	x				x
FWGmw-009	FWGFWGmw-009-0172-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam1-Trip				x		x	x	x	x	x				x
FWGmw-010	FWGFWGmw-010-0173-GW/GF	10/15/2012	GW		EQUIPRinse1-0212	FWGTeam1-Trip				x		x	x	x	x	x				x
FWGmw-011	FWGFWGmw-011-0174-GW/GF	10/15/2012	GW		EQUIPRinse1-0212	FWGTeam3-Trip				x		x	x	x	x	x				x
FWGmw-012	FWGFWGmw-012-0175-GW/GF	10/15/2012	GW		EQUIPRinse1-0212	FWGTeam3-Trip	Y			x		x	x	x	x	x				x
FWGmw-013	FWGFWGmw-013-0176-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam2-Trip				x		x	x	x	x	x				x
FWGmw-014	FWGFWGmw-014-0178-GW/GF	10/16/2012	GW	DUP4-201[a]	EQUIPRinse2-0213	FWGTeam3-Trip	Y[a]			x		x	x	x	x	x		x[a]		x
FWGmw-015	FWGFWGmw-015-0179-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam1-Trip				x		x	x	x	x	x				x
FWGmw-016	FWGFWGmw-016-0180-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam1-Trip				x		x	x	x	x	x				x
LL1mw-086	FWGLL1mw-086-0181-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam1-Trip	Y			x		x	x	x	x	x				x
LL1mw-087	FWGLL1mw-087-0182GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam1-Trip				x		x	x	x	x	x				x
LL3mw-244	FWGLL3mw-244-0183-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam2-Trip				x		x	x	x	x	x			x	x
LL3mw-245	FWGLL3mw-245-0184-GW/GF	10/15/2012	GW	DUP5-0202	EQUIPRinse1-0212	FWGTeam2-Trip		FWGLL3mw-245-0208s-GW/GF	TRIPBLANK	x		x	x	x	x	x				x
LL4mw-201	FWGLL4mw-201-0185-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam2-Trip				x		x	x	x	x	x				x
LL6mw-008	FWGLL6mw-008-0186-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam3-Trip				x		x	x	x	x	x				x
LL6mw-009	FWGLL6mw-009-0187-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam3-Trip				x		x	x	x	x	x				x
LL11mw-011	FWGLL11mw-011-0188-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam3-Trip				x		x	x	x	x	x				x
LL11mw-012	FWGLL11mw-012-0189-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam2-Trip				x		x	x	x	x	x				x
LL12mw-182	FWGLL12mw-182C-0190-GW	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam2-Trip					x									
LL12mw-182ss	FWGLL12mw-182ss-0191-GW	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam2-Trip					x									
LL12mw-247	FWGLL12mw-247-0192-GW/GF	10/16/2012	GW	DUP6-0203[b]	EQUIPRinse2-0213	FWGTeam2-Trip	Y[b]	FWGLL12mw-247-0209s-GW[b]		x		x	x	x	x	x	x[b]		x[b]	x
NTAmw-119	FWGNTAmw-119-0193-GW/GF	10/16/2012	GW		EQUIPRinse2-0213	FWGTeam2-Trip				x		x	x	x	x	x				x
SCFmw-002	FWGSCFmw-002-0194-GF	10/16/2012	GW	DUP7-0204	EQUIPRinse2-0213	FWGTeam2-Trip	Y	FWGSCFmw-002-0210s-GF											x	
WBGmw-018	FWGWBGmw-018-0195-GW/GF	10/17/2012	GW	DUP8-0205	EQUIPRinse3-0214	FWGTeam3-Trip		FWGWBGmw-018-0211s-GW/GF	TRIPBLANK	x		x	x	x	x	x				x
WBGmw-019	FWGWBGmw-019-0196-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam3-Trip				x		x	x	x	x	x				x
WBGmw-020	FWGWBGmw-020-0197-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam1-Trip				x		x	x	x	x	x				x
WBGmw-021	FWGWBGmw-021-0198-GW/GF	10/17/2012	GW		EQUIPRinse3-0214	FWGTeam1-Trip				x		x	x	x	x	x				x

SVOCs 4 = Full RVAAP RCRA suite
a = Alpha Beta Gamma only for QC analysis
b = NO2NO3 for QC analysis and Cr+6 for MSMSD only

SECTION 3
RESULTS

3.1 Groundwater Elevations

Groundwater elevations were measured in 40 RVAAP monitoring wells during October 15-17, 2012. The locations of monitoring wells at RVAAP are shown on Plate 1. The water-level measurement field sheets are presented in Appendix B. Additionally, groundwater elevation measurements are also obtained each time a groundwater sample is collected as part of the FWGWMP, although the measurements from the quarterly sampling events are not used to produce the potentiometric maps.

Water-level measurements were measured in accordance with procedures in Section 4.3.3.1 of the *Facility-Wide Sampling and Analysis Plan for Environmental Investigations at the Ravenna Army Ammunition Plant, Ravenna, Ohio* (SAIC, February 2011). Water-level measurements were made from the top of the inner casing to the top of the groundwater surface using an electronic measuring tape. The depth to the bottom of the well from the top of the inner casing also was measured with the electronic measuring tape. Depth-to-water and groundwater elevations for the RVAAP wells are presented in Table 3-1.

Since completion of the last annual report (October 2011), a facility-wide groundwater Remedial Investigation (RI) was initiated and 38 new monitoring wells were installed to evaluate potential off-site migration, vertical communication between the "first water" and deeper water-bearing zones and to better define conditions on the western side of RVAAP where AOCs are not located. Prior to the facility-wide RI, AOC-specific well installation programs were designed to screen monitoring wells in the "first water." Across RVAAP the first water was found in both unconsolidated glacial material and in bedrock (i.e., Homewood and Sharon Formations). At some AOCs (e.g., Atlas Scrap Yard, Load Lines 1, 4, 5, 6, and 12, Fuse and Booster Quarry, etc.) "first water" wells were completed in both unconsolidated material and in bedrock.

The monitoring well location map, identified as Plate 1, is included with this report. Discussion of the Load Line 12 wells is presented in Section 3.2. Facility-wide groundwater potentiometric maps (Plates 2, 3, 4, and 5) were created based on all RVAAP groundwater measurements taken during the July 2012 event and are also included in this report (Plates are located at the end of the report).

Table 3-1. October 2012 FWGWMP Monitoring Well Measurements

Well	Monitoring Zone	Top of Casing (TOC) Elevation[a] (ft)	Quarterly Groundwater Elevation (ft) Jan/2012	Quarterly Groundwater Elevation (ft) Apr/2012	Quarterly Groundwater Elevation (ft) July/2012	Quarterly Groundwater Elevation (ft) Oct/2012	Depth to Water below TOC (ft) Oct/2012	Reported Construction Depth from TOC[a] (ft)	Measured Depth from TOC (ft) Oct/2012	Differential - Reported Construction/ Measured Depth (ft) Oct/2012	Description of Bottom Oct/2012
B12mw-013	Sharon	1004.48	NM	987.47	985.56	982.74	21.74	24.25	24.22	0.03	Hard
CBLmw-005	Homewood	1158.10	NM	1134.71	1133.78	1132.51	25.59	32.42	32.44	-0.02	Hard
CBPmw-009	Sharon	972.48	NM	966.49	961.35	960.48	12.00	66.55	66.59	-0.04	Hard
DA2mw-114	Sharon Shale	1031.90	NM	NM	1026.11	1026.17	5.73	21.80	21.76	0.04	Hard
DA2mw-115	Sharon	1038.08	NM	NM	1031.34	1030.96	7.12	46.80	46.80	0.00	Hard
EBGmw-131	Sharon	950.08	NM	NM	938.39	938.58	11.50	73.10	73.50	-0.40	Hard
FWGmw-001	Unconsolidated	956.62	NM	947.78	946.02	946.87	9.75	20.05	19.99	0.06	Hard
FWGmw-002	Unconsolidated	973.10	NM	949.95	949.10	948.91	24.19	70.05	70.00	0.05	Hard
FWGmw-003	Unconsolidated	1131.96	NM	1126.92	1124.98	1126.71	5.25	21.10	21.10	0.00	Hard
FWGmw-004	Unconsolidated	1037.15	NM	1022.56	1020.74	1020.40	16.75	22.60	22.56	0.04	Soft
FWGmw-005	Homewood	1170.10	NM	1149.00	1147.75	1147.15	22.95	31.90	31.80	0.10	Hard
FWGmw-006	Unconsolidated	1184.33	NM	1179.95	1174.08	1172.64	11.69	19.25	19.22	0.03	Hard
FWGmw-007	Unconsolidated	1075.41	NM	1052.09	1051.22	1050.57	24.84	32.35	32.22	0.13	Hard
FWGmw-008	Unconsolidated	1111.61	NM	1105.51	1102.64	1105.12	6.49	22.10	21.95	0.15	Medium
FWGmw-009	Unconsolidated	1102.14	NM	1100.29	1099.05	1099.84	2.3	20.40	20.34	0.06	Hard
FWGmw-010	Unconsolidated	962.15	NM	952.03	949.96	948.93	13.22	19.10	19.10	0.00	Hard
FWGmw-011	Unconsolidated	941.61	NM	939.42	937.13	938.99	2.62	17.80	17.80	0.00	Hard
FWGmw-012	Sharon Shale	941.39	NM	940.69	938.46	938.75	2.64	42.45	42.45	0.00	Hard
FWGmw-013	Sharon	1059.51	NM	1041.55	1037.76	1036.71	22.8	36.70	36.67	0.03	Hard
FWGmw-014	Unconsolidated	1137.57	NM	1133.69	1131.39	1132.16	5.41	21.15	21.15	0.00	Hard
FWGmw-015	Unconsolidated	1014.51	NM	1008.02	1005.77	1005.50	9.01	26.35	26.26	0.09	Hard
FWGmw-016	Sharon	1014.39	NM	997.61	996.09	995.67	18.72	67.50	67.46	0.04	Hard
LL1mw-086	Unconsolidated	940.63	NM	933.14	930.71	930.73	9.9	77.38	77.39	-0.01	Hard
LL1mw-087	Unconsolidated	944.32	NM	938.89	932.95	936.90	7.42	18.55	18.39	0.16	Hard
LL3mw-244	Sharon	988.78	NM	976.19	974.24	972.36	16.42	47.25	47.09	0.16	Hard
LL3mw-245	Sharon	981.24	NM	969.68	967.73	966.29	14.95	48.90	48.75	0.15	Hard
LL4mw-201	Sharon	978.02	NM	969.14	968.25	967.34	10.68	70.15	70.02	0.13	Hard
LL6mw-008	Unconsolidated	1124.15	NM	1109.38	1107.39	1106.11	18.04	20.20	20.08	0.12	Hard
LL6mw-009	Homewood	1123.75	NM	1109.39	1107.43	1106.07	17.68	41.40	41.34	0.06	Medium
LL11mw-011	Unconsolidated	1080.20	NM	1072.10	1070.90	1070.86	9.34	20.45	20.40	0.05	Hard
LL11mw-012	Sharon Shale	1080.36	NM	1060.72	1058.98	1058.64	21.72	119.45	119.45	0.00	Medium
LL12mw-182	Unconsolidated	984.42	976.13	975.90	973.01	971.18	13.24	37.70	38.12	-0.42	Hard
LL12mw-182ss	Unconsolidated	985.02	NM	976.46	973.65	971.73	13.29	38.50	38.43	0.07	Hard
LL12mw-247	Unconsolidated	984.25	NM	978.87	977.46	978.24	6.01	22.60	22.63	-0.03	Hard
NTAmw-119	Unconsolidated	1080.07	NM	1068.32	1067.17	1066.29	13.78	104.60	104.65	-0.05	Hard
SCFmw-002	Sharon Conglom.	984.56	966.96	NM	966.28	963.78	20.78	149.65	150.30	-0.65	Hard
WBGmw-018	Unconsolidated	991.45	NM	NM	969.75	966.65	24.80	24.80	24.82	-0.02	Hard
WBGmw-019	Sharon	990.25	NM	NM	971.87	971.51	18.74	50.50	50.46	0.04	Hard
WBGmw-020	Sharon	1044.31	NM	NM	1030.29	1029.47	14.84	43.80	43.68	0.12	Hard
WBGmw-021	Sharon	1010.92	NM	NM	1000.27	1000.04	10.88	43.10	43.05	0.05	Hard

a = Elevations are in feet above mean sea level (amsl)

NM = New wells added to the sampling schedule, not measured in all quarters

3.2 Load Line 12 Groundwater Elevations

Depth-to-groundwater measurements for the Load Line 12 wells were obtained from October 15-16, 2012, as described in Section 2.2. The groundwater elevations for the Load Line 12 wells are presented in Table 3-2 and Figure 3-1 for the October 2012 monitoring event. Appendix F presents the previously submitted January, April, and July 2012 groundwater flow maps for Load Line 12. In general, the potentiometric map for the October sampling event shows the primary groundwater flow direction across the Load Line 12 area is to the east. In addition, a localized groundwater depression is present in the vicinity of well LL12mw-107 with flow generally to the east. The overall flow pattern indicates recharge to the drainage ditch along the eastern edge of Load Line 12. This is a continuation of the July groundwater conditions and a reversal of conditions evidenced during the April 2012 sampling event and reflects drier weather conditions.

Groundwater measurements have been collected quarterly since January 2012. Groundwater flow has generally been to the east toward the drainage ditch as evidenced during the January, July, and October 2012 sampling events. As mentioned previously, only the April 2012 event showed groundwater flow away from the ditch to the west. This appears to be a seasonal phenomenon related to periods of higher precipitation. Based on the Load Line 12 water level data, localized flow is controlled by the drainage ditch and precipitation events. Consequently, fluctuating conditions are expected to occur on a seasonal basis in the Load Line 12 area. Groundwater flow may also be partially influenced by preferential flow paths in the unconsolidated sediment.

3.3 Summary of Analytical Results

Summaries of laboratory analytical results are presented in Tables 3-3, 3-4, 3-6, 3-7, 3-8, and 3-9. Appendix D presents the Laboratory Data Sheets. A brief summary of the detected compounds and elements are presented in the following sub-sections. The data presented in the tables are the validated and verified data. Data verification and validation is discussed in Section 3.4 and Appendix D.

As part of the ongoing RI for the facility-wide groundwater detected and validated analytes from the monitoring wells will be subjected to the site-related chemical (SRC) screen. The facility-wide SRC screen will follow the general guidance of the RVAAP's Facility Wide Human Health Risk Assessor Manual (Risk Manual; USACE, 2005) with the clarifications listed below. Note that the screening process described below is part of the RI and is not part of this quarterly report. The comparison of detected constituents to RSLs in this report is for the purpose of determining the need for additional assessment prior to the risk assessment process in the RI.

1. **Background Screen** – A background screen will be used to eliminate an inorganic chemical from the facility-wide COPC list as described in the Risk Manual. Specifically, if chemical concentrations are less than the established background values, then these chemicals do not qualify as COPCs. If the chemical concentrations are equal to or greater than the background values, or there are no background values, then the chemicals qualify for further screening.

Table 3-2. October 2012 FWGWMP Load Line 12 Monitoring Well Comparison

Well	Monitoring Zone	Top of Casing (TOC) Elevation[a], ft	Quarterly Groundwater Elevation, ft (Jan/2012)	Quarterly Groundwater Elevation, ft (Apr/2012)	Quarterly Groundwater Elevation, ft (July/2012)	Quarterly Groundwater Elevation, ft (Oct/2012)	Depth to Water below TOC, ft (Oct/2012)
LL12mw-088	Unconsolidated	981.06	974.51	974.92	973.70	972.53	8.53
LL12mw-107	Unconsolidated	980.15	972.35	972.51	970.16	968.29	11.86
LL12mw-113	Sharon Shale	980.18	975.26	974.44	971.55	972.37	7.81
LL12mw-128	Unconsolidated	978.24	970.16	969.86	968.11	966.66	11.58
LL12mw-153	Unconsolidated	977.85	972.80	972.30	970.72	969.90	7.95
LL12mw-154	Unconsolidated	979.06	971.77	971.48	969.43	967.97	11.09
LL12mw-182	Unconsolidated	984.42	976.13	975.90	973.01	971.18	13.24
LL12mw-182ss	Unconsolidated	985.02	NM	976.46	973.65	971.73	13.29
LL12mw-183	Sharon Shale	982.98	972.12	972.33	969.73	968.23	14.75
LL12mw-184	Unconsolidated	983.16	972.66	972.20	970.06	968.70	14.46
LL12mw-185	Unconsolidated	981.31	974.46	974.99	972.92	970.33	10.98
LL12mw-186	Sharon Shale	978.31	973.23	972.72	969.42	971.22	7.09
LL12mw-187	Unconsolidated	979.94	972.25	974.35	968.89	967.45	12.49
LL12mw-188	Unconsolidated	980.63	975.72	972.58	973.10	974.89	5.74
LL12mw-189	Sharon Shale	978.04	974.85	973.27	968.70	971.33	6.71
LL12mw-242	Unconsolidated	981.20	975.05	977.35	970.46	969.61	11.59
LL12mw-243	Unconsolidated	980.79	972.35	972.89	971.37	969.51	11.28
LL12mw-244	Unconsolidated	980.65	972.47	972.46	969.35	967.65	13.00
LL12mw-245	Unconsolidated	980.04	972.60	971.62	971.68	969.90	10.14
LL12mw-246	Unconsolidated	984.83	970.29	977.85	967.86	965.87	18.96
LL12mw-247	Unconsolidated	984.25	NM	969.74	977.46	978.24	6.01

a = Elevations are in feet above mean sea level (amsl)

NM = New wells added to the sampling schedule, not measured in all quarters

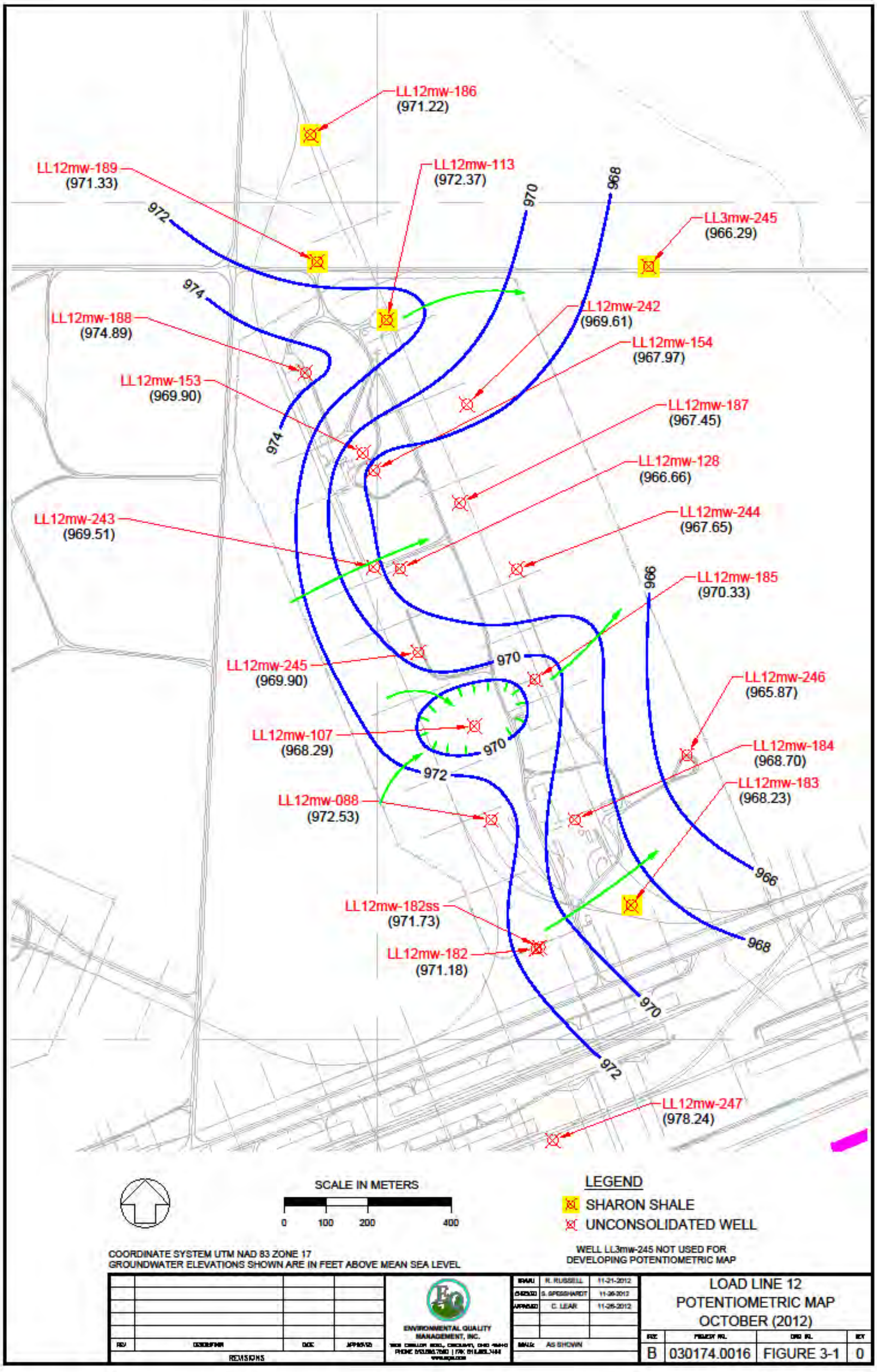

Figure 3-1. October Potentiometric Load Line 12 Monitoring Well Map

2. **Frequency of Detection Screen** – Because the facility-wide data set is large, chemicals meeting the <5% detection rule will not be screened out per Section 3.4.1 of the Risk Manual if they are known to be present in a single AOC (e.g., nitrate/nitrite at Load Line 12) since 5% of the large data set could represent a valid contamination issue. Chemicals that were never detected shall be eliminated as COPCs.
3. **Essential Nutrients** – Consistent with the Risk Manual, chemicals identified as essential nutrients will be screened out. Chemicals that are considered essential nutrients (e.g., calcium, chloride, iodine, iron, magnesium, potassium, phosphorous, and sodium) are an integral part of the human food supply and are often added to foods as supplements. EPA recommends that these chemicals not be evaluated as COPCs as long as they are: a) present at low concentrations (i.e., only slightly elevated above naturally occurring levels, and b) toxic at very high doses (i.e., much higher than those that could be associated with contact at an AOC).

All chemicals that are retained during the SRC screening process will proceed through the process for identifying chemicals of potential concern (COPCs). On February 4, 2013, the Army and Ohio EPA agreed to identify COPCs by comparing the maximum detected result to the most restrictive of the Maximum Contaminant Level (MCL) or the EPA RSL [equal to 10^{-6} and hazard index (HI) = 0.1]. If chemical concentrations are less than the RSLs, then these chemicals do not qualify as COPCs. If the chemical concentrations are equal to or greater than the RSLs, then these chemicals qualify as COPCs unless there is evidence that a single detection is a true anomaly. Chemicals detected below the screening levels will be screened from further consideration (i.e., eliminated from the COPC list). Detected chemicals that do not have existing RSLs will not be eliminated from the COPC list in this phase of the screening. The COPC screen will use the USEPA RSL Summary Table dated November 2012 and the current MCLs.

All chemicals that are retained during the COPC screening process will then proceed through the process for identifying chemicals of concern (COCs). The COPCs will be compared to the RSLs (10^{-5} and HI=1) and/or facility-wide cleanup goals (FWCUGs) to identify COCs. The more conservative of the FWCUGs and MCLs will be used to address groundwater mitigation efforts.

Note that the RSLs have been updated to the new (November 2012) values. While there were changes to several constituents, two of the changes are of significance. Bis(2-ethylhexyl)phthalate changed from 0.071 µg/L to 4.8 µg/L. Additionally, cyanide changed from 0.0093 µg/L to 0.0014 µg/L.

Additionally please note the following:

- As discussed in Section 3.4 under the data validation process, data are qualified by EQM's validator following the guidelines and qualifier requirements set forth by the FWSAP, QAPP, and U.S. DoD Quality Services Manual (QSM) for Environmental Laboratories, Version 4.1, and the USACE, Louisville District, Quality Systems Manual Supplement (LS). As a result, the flags designated by EQM sometimes differ from those in the laboratory data sheets. The flags designated by the validator override any flagging of the data by the laboratory. For a complete explanation of the data qualifiers used for

each constituent refer to Section 3.4 and the Data Verification Summary Reports found in Appendix D.

- For purposes of consistency, all detected concentrations that are elevated above both the method detection limit (MDL) and the above-referenced screening levels are called out in the following text. In the tables, the compounds and elements that were detected above the MDL are presented in bold numbers. This includes constituents flagged as estimated.

- Several analytical methods used to analyze a number of explosives, VOCs, SVOCs, metals, PCBs, and pesticides currently do not meet the RVAAP QAPP project action requirements, MCLs, or RSLs. Tables listing the reporting limits that currently do not meet the RVAAP QAPP Project Action Requirements, MCLs, and/or RSLs are presented in Appendix G.

- Note that for this event wells were sampled for specific analytes as identified in the FWGWMPP Addendum.

3.3.1 Explosives and Propellants

Explosive and propellant compound analytical results are summarized in Table 3-3. The following compounds were detected at concentrations above the MDLs:

- 1,3,5-Trinitrotoluene – FWGmw-002 (0.040 µg/L J). There is no MCL for 1,3,5-Trinitrotoluene. The RSL is 460 µg/L.

- 2-Amino-4,6-dinitrotoluene – LL3mw-244 (0.55 µg/L). There is no MCL for 2-Amino-4,6-dinitrotoluene. The RSL is 30 µg/L.

- 4-Amino-2,6-dinitrotoluene – LL3mw-244 (0.53 µg/L J). There is no MCL for 4-Amino-2,6-dinitrotoluene. The RSL is 30 µg/L.

- Nitrate-Nitrite –LL12mw-247 (0.033 mg/L JB). The MCL for Nitrate-Nitrite is 1 mg/L. The RSL is 1.6 mg/L.

- RDX – LL3mw-244 (0.33 µg/L), and WBGmw-018 (0.55 µg/L J). There is no MCL for RDX. The RSL is 0.61 µg/L.

As shown in Table 3-3, there were no explosives or propellants detected at levels above their corresponding MCLs or RSLs during the October 2012 sampling.

Table 3-3. FWGWMP October 2012 Explosive and Propellant Analytical Results

Station ID				B12mw-013	CBLmw-005	CBPmw-009	DA2mw-114	DA2mw-115	EBGmw-131
Sample ID		MCL	USEPA RSL	FWGB12mw-013-0158-GW	FWGCBLmw-005-0159-GW	FWGCBPmw-009-0160-GW	FWGDA2mw-114-0161-GW	FWGDA2mw-115-0162-GW	FWGEBGmw-131-0163-GW
Date Collected				10/15-16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	460	0.054 U	0.052 U	0.050 U	0.054 U	0.053 U	0.051 U
1,3-Dinitrobenzene	µg/L	NS	1.5	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
2,4,6-Trinitrotoluene	µg/L	NS	2.2	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	0.2	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	15	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	30	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
2-Nitrotoluene	µg/L	NS	0.27	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
3-Nitrotoluene	µg/L	NS	1.3	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	30	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
4-Nitrotoluene	µg/L	NS	3.7	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
HMX	µg/L	NS	780	0.054 U	0.052 U	0.050 U	0.054 U	0.053 U	0.051 U
Nitrate-Nitrite	mg/L	1	1.6	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	0.12	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U
Nitrocellulose	mg/L	NS	4.7E+04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nitroglycerin	µg/L	NS	1.5	0.54 U	0.52 U	0.50 U	0.54 U	0.53 U	0.51 U
Nitroguanidine	µg/L	NS	1600	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
PETN	µg/L	NS	16	0.54 U	0.52 U	0.50 U	0.54 U	0.53 U	0.51 U
RDX	µg/L	NS	0.61	0.054 U	0.052 U	0.050 U	0.054 U	0.053 U	0.051 U
Tetryl	µg/L	NS	61	0.11 U	0.10 U	0.10 U	0.11 U	0.11 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates FWGmw-002 and FWGmw-004 were filtered in the laboratory.

Table 3-3. FWGWMP October 2012 Explosive and Propellant Analytical Results

Station ID				FWGmw-001	FWGmw-002	FWGmw-003	FWGmw-004	FWGmw-005	FWGmw-006
Sample ID		MCL	USEPA RSL	FWGFWGmw-001-0164-GW	FWGFWGmw-002-0165-GW	FWGFWGmw-003-0166-GW	FWGFWGmw-004-0167-GW	FWGFWGmw-005-0168-GW	FWGFWGmw-006-0169-GW
Date Collected				10/15/2012	10/15/2012	10/16/2012	10/15/2012	10/16/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	460	0.053 U	**0.040 J**	0.053 U	0.050 U	0.051 U	0.051 U
1,3-Dinitrobenzene	µg/L	NS	1.5	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrotoluene	µg/L	NS	2.2	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	0.2	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	15	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	30	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
2-Nitrotoluene	µg/L	NS	0.27	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
3-Nitrotoluene	µg/L	NS	1.3	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	30	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	3.7	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
HMX	µg/L	NS	780	0.053 U	0.052 U	0.053 U	0.050 U	0.051 U	0.051 U
Nitrate-Nitrite	mg/L	1	1.6	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	0.12	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	4.7E+04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nitroglycerin	µg/L	NS	1.5	0.53 U	0.52 U	0.53 U	0.50 U	0.51 U	0.51 U
Nitroguanidine	µg/L	NS	1600	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
PETN	µg/L	NS	16	0.53 U	0.52 U	0.53 U	0.50 U	0.51 U	0.51 U
RDX	µg/L	NS	0.61	0.053 U	0.052 U	0.053 U	0.050 U	0.051 U	0.051 U
Tetryl	µg/L	NS	61	0.11 U	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates FWGmw-002 and FWGmw-004 were filtered in the laboratory.

Table 3-3. FWGWMP October 2012 Explosive and Propellant Analytical Results

Station ID				FWGmw-007	FWGmw-008	FWGmw-009	FWGmw-010	FWGmw-011	FWGmw-012
Sample ID		MCL	USEPA RSL	FWGFWGmw-007-0170-GW	FWGFWGmw-008-0171-GW	FWGFWGmw-009-0172-GW	FWGFWGmw-010-0173-GW	FWGFWGmw-011-0174-GW	FWGFWGmw-012-0175-GW
Date Collected				10/16/2012	10/16/2012	10/16/2012	10/15/2012	10/15/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	460	0.050 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U
1,3-Dinitrobenzene	µg/L	NS	1.5	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrotoluene	µg/L	NS	2.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	0.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	15	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	30	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Nitrotoluene	µg/L	NS	0.27	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
3-Nitrotoluene	µg/L	NS	1.3	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	30	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	3.7	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
HMX	µg/L	NS	780	0.050 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U
Nitrate-Nitrite	mg/L	1	1.6	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	0.12	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	4.7E+04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nitroglycerin	µg/L	NS	1.5	0.50 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Nitroguanidine	µg/L	NS	1600	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
PETN	µg/L	NS	16	0.50 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
RDX	µg/L	NS	0.61	0.050 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U
Tetryl	µg/L	NS	61	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates FWGmw-002 and FWGmw-004 were filtered in the laboratory.

Table 3-3. FWGWMP October 2012 Explosive and Propellant Analytical Results

Station ID				FWGmw-013	FWGmw-014	FWGmw-015	FWGmw-016	LL1mw-086	LL1mw-087
Sample ID		MCL	USEPA RSL	FWGFWGmw-013-0176-GW	FWGFWGmw-014-0178-GW	FWGFWGmw-015-0179-GW	FWGFWGmw-016-0180-GW	FWGLL1mw-086-0181-GW	FWGLL1mw-087-0182-GW
Date Collected				10/17/2012	10/16/2012	10/16/2012	10/16/2012	10/17/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	460	0.053 U	0.051 U	0.052 U	0.051 U	0.050 U	0.051 U
1,3-Dinitrobenzene	µg/L	NS	1.5	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrotoluene	µg/L	NS	2.2	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	0.2	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	15	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	30	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Nitrotoluene	µg/L	NS	0.27	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
3-Nitrotoluene	µg/L	NS	1.3	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	30	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	3.7	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
HMX	µg/L	NS	780	0.053 U	0.051 U	0.052 U	0.051 U	0.050 U	0.051 U
Nitrate-Nitrite	mg/L	1	1.6	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	0.12	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	4.7E+04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nitroglycerin	µg/L	NS	1.5	0.53 U	0.51 U	0.52 U	0.51 U	0.50 U	0.51 U
Nitroguanidine	µg/L	NS	1600	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
PETN	µg/L	NS	16	0.53 U	0.51 U	0.52 U	0.51 U	0.50 U	0.51 U
RDX	µg/L	NS	0.61	0.053 U	0.051 U	0.052 U	0.051 U	0.050 U	0.051 U
Tetryl	µg/L	NS	61	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates FWGmw-002 and FWGmw-004 were filtered in the laboratory.

Table 3-3. FWGWMP October 2012 Explosive and Propellant Analytical Results

Station ID				LL3mw-244	LL3mw-245	LL4mw-201	LL6mw-008	LL6mw-009	LL11mw-011	LL11mw-012
Sample ID		MCL	USEPA RSL	FWGLL3mw-244-0183-GW	FWGLL3mw-245-0184-GW	FWGLL4mw-201-0185-GW	FWGLL6mw-008-0186-GW	FWGLL6mw-009-0187-GW	FWGLL11mw-011-0188-GW	FWGLL11mw-012-0189-GW
Date Collected				10/16/2012	10/15/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,3,5-Trinitrobenzene	µg/L	NS	460	0.051 U	0.051 U	0.052 U	0.050 U	0.050 U	0.050 U	0.056 U
1,3-Dinitrobenzene	µg/L	NS	1.5	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
2,4,6-Trinitrotoluene	µg/L	NS	2.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
2,4-Dinitrotoluene	µg/L	NS	0.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
2,6-Dinitrotoluene	µg/L	NS	15	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	30	**0.55**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
2-Nitrotoluene	µg/L	NS	0.27	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
3-Nitrotoluene	µg/L	NS	1.3	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	30	**0.53 J**	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
4-Nitrotoluene	µg/L	NS	3.7	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
HMX	µg/L	NS	780	0.051 U	0.051 U	0.052 U	0.050 U	0.050 U	0.050 U	0.056 U
Nitrate-Nitrite	mg/L	1	1.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	0.12	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U
Nitrocellulose	mg/L	NS	4.7E+04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nitroglycerin	µg/L	NS	1.5	0.51 U	0.51 U	0.52 U	0.50 U	0.50 U	0.50 U	0.56 U
Nitroguanidine	µg/L	NS	1600	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
PETN	µg/L	NS	16	0.51 U	0.51 U	0.52 U	0.50 U	0.50 U	0.50 U	0.56 U
RDX	µg/L	NS	0.61	**0.33**	0.051 U	0.052 U	0.050 U	0.050 U	0.050 U	0.056 U
Tetryl	µg/L	NS	61	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.11 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates FWGmw-002 and FWGmw-004 were filtered in the laboratory.

Table 3-3. FWGWMP October 2012 Explosive and Propellant Analytical Results

Station ID				LL12mw-247	NTAmw-119	WBGmw-018	WBGmw-019	WBGmw-020	WBGmw-021
Sample ID		MCL	USEPA RSL	FWGLL12mw-247-0192-GW	FWGNTAmw-119-0193-GW	FWGWBGmw-018-0195-GW	FWGWBGmw-019-0196-GW	FWGWBGmw-020-0197-GW	FWGWBGmw-021-0198-GW
Date Collected				10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,3,5-Trinitrobenzene	µg/L	NS	460	0.052 U	0.053 U	0.050 U	0.051 U	0.051 U	0.051 U
1,3-Dinitrobenzene	µg/L	NS	1.5	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4,6-Trinitrotoluene	µg/L	NS	2.2	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
2,4-Dinitrotoluene	µg/L	NS	0.2	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
2,6-Dinitrotoluene	µg/L	NS	15	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Amino-4,6-dinitrotoluene	µg/L	NS	30	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
2-Nitrotoluene	µg/L	NS	0.27	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
3-Nitrotoluene	µg/L	NS	1.3	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Amino-2,6-Dinitrotoluene	µg/L	NS	30	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
4-Nitrotoluene	µg/L	NS	3.7	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
HMX	µg/L	NS	780	0.052 U	0.053 U	**0.27**	0.051 U	0.051 U	0.051 U
Nitrate-Nitrite	mg/L	1	1.6	**0.033 JB**	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	µg/L	NS	0.12	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U
Nitrocellulose	mg/L	NS	4.7E+04	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Nitroglycerin	µg/L	NS	1.5	0.52 U	0.53 U	0.50 U	0.51 U	0.51 U	0.51 U
Nitroguanidine	µg/L	NS	1600	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U
PETN	µg/L	NS	16	0.52 U	0.53 U	0.50 U	0.51 U	0.51 U	0.51 U
RDX	µg/L	NS	0.61	0.052 U	0.053 U	**0.55 J**	0.051 U	0.051 U	0.051 U
Tetryl	µg/L	NS	61	0.10 U	0.11 U	0.10 U	0.10 U	0.10 U	0.10 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = Not Analyzed
Due to excessive particulates FWGmw-002 and FWGmw-004 were filtered in the laboratory.

Table 3-3. FWGWMP October 2012 Explosive and Propellant Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix C.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J The identification of the analyte is acceptable, but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision (i.e., the quantitative value is estimated). Examples include:
- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers, which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) “B” designation when used by the laboratory as an estimated value for inorganics.

3.3.2 Inorganic Elements

The analytical results for inorganic elements are presented in Table 3-4. The inorganics detected in the samples included: aluminum, antimony, arsenic, barium, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium, and zinc. The inorganic elements that were detected were compared to facility-wide background levels and against elements that are considered as essential nutrients to determine if they are to be considered as Site-Related Contaminants (SRCs). Calcium, magnesium, iron, potassium, and sodium were eliminated as potential SRCs because they are considered essential nutrients. Site-specific background levels for inorganic elements are presented in Table 3-4. The following inorganic elements were detected above the MDLs and the background levels reported in Table 3-5.

Aluminum

- Bedrock Zone: CBLmw-005 (85 µg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: FWGmw-001 (100 µg/L), FWGmw-002 (180 µg/L), FWGmw-003 (1600 µg/L), FWGmw-004 (3200 µg/L), FWGmw-007 (4600 µg/L), FWGmw-008 (290 µg/L J), FWGmw-009 (980 µg/L), FWGmw-011 (220 µg/L), FWGmw-015 (70 µg/L), LL1mw-087 (650 µg/L), LL6mw-008 (23 µg/L J), and LL12mw-247 (3100 µg/L J**).** The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
- The MCL for Aluminum is 200 µg/L. The RSL is 16,000 µg/L.

Antimony

- Bedrock Zone: FWGmw-012 (0.27 µg/L J), LL3mw-244 (1.2 µg/L), LL3mw-245 (0.58 µg/L J), LL6mw-008 (0.67 µg/L B),. The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: FWGmw-002 (0.21 µg/L J), FWGmw-006 (0.31 µg/L J), LL1mw-086 (0.28 µg/L B). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
- The MCL for antimony is 6.0 µg/L. The RSL is 6.0 µg/L.

Arsenic

- Bedrock Zone: CBPmw-009 (3.4 µg/L J), FWGmw-016 (6.2 µg/L J), LL6mw-009 (9.0 µg/L J), WBGmw-019 (4.5 µg/L), WBGmw-021 (6.2 µg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L**.**
- Unconsolidated Zone: LL4mw-201 (35 µg/L). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 11.7 µg/L.
- The MCL for Arsenic is 10 µg /L. The RSL is 0.045 µg/L.

Barium

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 256 µg/L.
- Unconsolidated Zone: None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 82.1 µg/L.

- The MCL for Barium is 2,000 μg/L. The RSL is 2,900 μg/L.

Beryllium

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 0 μg/L.
- Unconsolidated Zone: None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 μg/L.
- The MCL for Beryllium is 4 μg/L. The RSL is 16 μg/L.

Cadmium

- Bedrock Zone: FWGmw-005 (1.0 μg/L). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 μg/L.
- Unconsolidated Zone: LL1mw-086 (0.74 μg/L J B). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 μg/L.
- The MCL for Cadmium is 5 μg/L. The RSL is 6.9 μg/L.

Chromium

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 0 μg/L.
- Unconsolidated Zone: FWGmw-007 (8.8 μg/L). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 7.3 μg/L.
- The MCL for Chromium is 100 μg/L. There is no RSL for total Chromium. The RSL for Chromium III is 16000 μg/L.

Cobalt

- Bedrock Zone: B12mw-013 (1.9 μg/L J), FWGmw-012 (1.5 μg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 μg/L.
- Unconsolidated Zone: FWGmw-004 (1.7 μg/L J), FWGmw-005 (2.0 μg/L J), FWGmw-006 (1.6 μg/L J), FWGmw-007 (4.2 μg/L), FWGmw-010 (15 μg/L), FWGmw-015 (2.2 μg/L J), LL11mw-087 (1.7 μg/L J), LL6mw-009 (32.9 μg/L J). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 μg/L.
- There is no MCL for Cobalt. The RSL is 4.7 μg/L.

Copper

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 0 μg/L.
- Unconsolidated Zone: FWGmw-007 (5.8 μg/L J). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 μg/L.
- The MCL for Copper is 1300 μg/L. The RSL is 620 μg/L.

Cyanide

- Bedrock Zone: FWGmw-013 (0.0071 mg/L J). The Groundwater Bedrock Zone Background Criteria (filtered) is 0 mg/L.

- Unconsolidated: FWGmw-004 (0.0064 mg/L J). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 mg/L.
- The MCL for Cyanide is 0.2 mg/L. The RSL is 0.0014 mg/L.

Lead

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated: FWGmw-004 (1.7 µg/L J), FWGmw-007 (3.2 µg/L J. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
- The MCL for Lead is 15 µg/L. There is no RSL.

Manganese

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 1,340 µg/L.
- Unconsolidated Zone: FWGmw-006 (2000 µg/L), FWGmw-010 (1700 µg/L). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 1,020 µg/L.
- The MCL for Manganese is 50 µg/L. The RSL is 320 µg/L.

Nickel

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 83.4 µg/L.
- Unconsolidated Zone: FWGmw-004 (2.9 µg/L J), FWGmw-007 (9.3 µg/L), FWGmw-010 (21 µg/L), FWGmw-015 (3.0 µg/L J), LL1mw-087 (2.5 µg/L J). The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
- There is no MCL for Nickel. The RSL is 760 µg/L.

Vanadium

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 0 µg/L.
- Unconsolidated Zone: None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 0 µg/L.
- There is no MCL for Vanadium. The RSL is 4,700 µg/L.

Zinc

- Bedrock Zone: None. The Groundwater Bedrock Zone Background Criteria (filtered) is 52.3 µg/L.
- Unconsolidated Zone: None. The Groundwater Unconsolidated Zone Background Criteria (filtered) is 60.9 µg/L.

Several inorganic compounds were detected at levels exceeding the MCLs and/or RSLs. These included aluminum, arsenic, cyanide, cobalt, iron, and manganese in wells from all areas sampled. Note that the inorganic levels for LL1mw-087 appeared significantly higher in the July 2012 monitoring event. EQM believes that inorganic sample was not field filtered (i.e., an error occurred during sampling and the filter was not used). This was corrected and the detections for the October 2012 event show lower numbers similar to other historical events. These

compounds were also detected at concentrations exceeding the Facility-Wide Background Criteria for many of the wells. Table 4-1 in Section 4 presents a summary of all inorganic compounds and the associated wells that had detections exceeding MCLs and/or the RSLs.

The facility-wide groundwater conditions are currently being evaluated under the remedial investigation/feasibility study. This will include an evaluation of aluminum, manganese, arsenic, cobalt, iron, and thallium related to exceedances of MCLs/RSLs. To date there have been no elevated concentrations of the subject parameters found in the groundwater that would pose an immediate threat to human health or the environment.

3.3.3 Volatile Organic Compounds (VOCs)

The analytical results for VOCs are summarized in Table 3-6. The following VOCs were detected above the MDL for this sampling event.

- Acetone – CBLmw-005 (1.1 µg/L J B), CBPmw-009 (1.5 µg/L J B), DA2mw-115 (2.3 µg/L J B), FWGmw-002 (2.5 µg/L B), FWGmw-003 (1.6 µg/L J B), FWGmw-005 (1.1 µg/L B), FWGmw-010 (2.3 µg/L B), FWGmw-011 (1.2 µg/L B), FWGmw-014 (1.3 µg/L J B), LL6mw-008 (1.4 µg/L J B), LL6mw-009 (1.2 µg/L J B), LL11mw-012 (1.1 µg/L B), NTAmw-119 (2.2 µg/L B), WBGmw-018 (1.1 µg/L J B), LL1mw-086 (2.2 µg/L J B), LL1mw-087 (1.4 µg/L J B), LL3mw-244 (2.0 µg/L J B) and LL3mw-245 (1.2 µg/L J B). There is no MCL for Acetone. The RSL is 12,000 µg/L.

- Carbon Disulfide – DA2mw-115 (0.26 µg/L), FWGmw-002 (6.7 µg/L), FWGmw-006 (0.16 µg/L J), FWGmw-010 (0.33 µg/L), LL3mw-245 (0.20 µg/L J), LL4mw-201 (0.17 µg/L J), LL6mw-009 (0.24 µg/L J), LL11mw-012 (0.63 µg/L), and NTAmw-119 (1.2 µg/L). There is no MCL for Carbon Disulfide. The RSL is 720 µg/L.

- Chloroethane – FWGmw-006 (0.32 µg/L). There is no MCL for. The RSL is 21000 µg/L.

As shown in Table 3-6, there were no VOCs detected at levels exceeding their corresponding MCLs or RSLs during the October 2012 sampling.

Table 3-4. FWGWMP October 2012 Inorganics Analytical Results

Station ID				B12mw-013	CBLmw-005	CBPmw-009	DA2mw-114	DA2mw-115	EBGmw-131
Sample ID		MCL	USEPA RSL	FWGB12mw-013-0158-GF	FWGCBLmw-005-0159-GF	FWGCBPmw-009-0160-GF	FWGDA2mw-114-0161-GF	FWGDA2mw-115-0162-GF	FWGEBGmw-131-0163-GF
Date Collected				10/15-16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Aluminum	µg/L	200	16000	60 U	**85**	60 U	60 U	60 U	60 U
Antimony	µg/L	6	6	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Arsenic	µg/L	10	0.045	10 U	10 U	**3.4 J**	10 U	10 U	10 U
Barium	µg/L	2000	2900	**6.3**	**48**	**73**	**29**	**21**	**99**
Beryllium	µg/L	4	16	0.10 U	0.071 U	0.10 UJ	0.10 U	0.10 U	0.10 UJ
Cadmium	µg/L	5	6.9	0.12 UB	0.16 U	0.051 UJB	0.026 UB	0.070 U	0.070 UJ
Calcium	µg/L	NS	NS	**34000**	**10000**	**75000**	**110000**	**100000**	**73000**
Chromium	µg/L	100	16000	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Cobalt	µg/L	NS	4.7	**1.9 J**	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Copper	µg/L	1300	620	10 U	10 U	10 U	10 U	10 U	10 U
Cyanide	mg/L	0.2	0.0014	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Iron	µg/L	300	11000	100 U	100 U	**650**	**1000**	**570**	**650**
Lead	µg/L	15	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium	µg/L	NS	NS	**25000**	**4700**	**25000**	**37000**	**29000**	**28000**
Manganese	µg/L	50	320	**780**	**10**	**98**	**82**	**110**	**130**
Mercury	µg/L	2	0.63	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	760	**7.1**	**7.2**	5.0 U	5.0 U	5.0 U	5.0 U
Potassium	µg/L	NS	NS	**2500**	**940**	**1800**	**4200**	**3600**	**1400**
Selenium	µg/L	50	78	10 U	10 U	10 U	10 U	10 U	10 U
Silver	µg/L	100	71	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	**7900**	**2800**	**13000**	**12000**	**11000**	**2600**
Thallium	µg/L	2	0.16	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	78	2.9 U	4.0 UB	1.7 UB	4.0 U	4.0 U	4.0 U
Zinc	µg/L	5000	4700	20 U	**9.1 B**	20 U	20 U	20 U	20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-4. FWGWMP October 2012 Inorganics Analytical Results

Station ID				FWGmw-001	FWGmw-002	FWGmw-003	FWGmw-004	FWGmw-005	FWGmw-006	FWGmw-007
Sample ID		MCL	USEPA RSL	FWGFWGmw-001-0164-GF	FWGFWGmw-002-0165-GF	FWGFWGmw-003-0166-GF	FWGFWGmw-004-0167-GF	FWGFWGmw-005-0168-GF	FWGFWGmw-006-0169-GF	FWGFWGmw-007-0170-GF
Date Collected				10/15/2012	10/15/2012	10/16/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Aluminum	µg/L	200	16000	**100**	**180**	**1600**	**3200**	60 U	60 U	**4600**
Antimony	µg/L	6	6	0.50 U	**0.21 J**	0.50 U	0.50 U	0.50 U	**0.31 J**	0.50 U
Arsenic	µg/L	10	0.045	10 U	10 U	**5.3 J**	10 U	10 U	**5.1 J**	**6.9 J**
Barium	µg/L	2000	2900	**17**	**74**	**72**	**44**	**55**	**33**	**56**
Beryllium	µg/L	4	16	0.039 UJB	0.10 UJ	0.069 U	0.16 UJB	0.10 U	0.10 U	0.23 U
Cadmium	µg/L	5	6.9	0.032 UJB	0.070 UJ	0.029 U	0.10 UJB	**1.0**	0.25 U	0.23 U
Calcium	µg/L	NS	NS	**21000**	**42000**	**79000**	**89000**	**46000**	**41000**	**200000**
Chromium	µg/L	100	16000	4.0 U	4.0 U	**2.8 J**	**5.3**	4.0 U	4.0 U	**8.8**
Cobalt	µg/L	NS	4.7	4.0 U	4.0 U	4.0 U	**1.7 J**	**2.0 J**	**1.6 J**	**4.2**
Copper	µg/L	1300	620	10 U	10 U	10 U	10 U	10 U	10 U	**5.8 J**
Cyanide	mg/L	0.2	0.0014	0.010 U	0.010 U	0.010 U	**0.0064 J**	0.010 U	0.010 U	0.010 U
Iron	µg/L	300	11000	**170**	**640**	**2300**	**4000**	**3600**	**18000**	**8100**
Lead	µg/L	15	NS	5.0 U	5.0 U	5.0 U	**1.7 J**	5.0 U	5.0 U	**3.2 J**
Magnesium	µg/L	NS	NS	**6500**	**14000**	**20000**	**38000**	**15000**	**21000**	**140000**
Manganese	µg/L	50	320	**12**	**140**	**600**	**75**	**350**	**2000**	**310**
Mercury	µg/L	2	0.63	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	760	5.0 U	5.0 U	5.0 U	**2.9 J**	5.0 U	5.0 U	**9.3**
Potassium	µg/L	NS	NS	**1300**	**14000**	**2500**	**2000**	**1600**	**1300**	**4300**
Selenium	µg/L	50	78	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Silver	µg/L	100	71	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	**3200**	**23000**	**4600**	**4000**	**6100**	**7400**	**18000**
Thallium	µg/L	2	0.16	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	78	4.0 U	2.7 UB	3.4 UB	7.0 UB	1.8 U	1.5 UB	10 U
Zinc	µg/L	5000	4700	20 U	20 U	16 UB	**17 B**	20 U	20 U	**38 B**

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-4. FWGWMP October 2012 Inorganics Analytical Results

Station ID				FWGmw-008	FWGmw-009	FWGmw-010	FWGmw-011	FWGmw-012	FWGmw-013
Sample ID		MCL	USEPA RSL	FWGFWGmw-008-0171-GF	FWGFWGmw-009-0172-GF	FWGFWGmw-010-0173-GF	FWGFWGmw-011-0174-GF	FWGFWGmw-012-0175-GF	FWGFWGmw-013-0176-GF
Date Collected				10/16/2012	10/16/2012	10/15/2012	10/15/2012	10/15/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Aluminum	µg/L	200	16000	**290**	**980**	60 U	**220**	60 U	60 U
Antimony	µg/L	6	6	0.50 U	0.50 U	0.50 U	0.50 U	**0.27 J**	0.50 U
Arsenic	µg/L	10	0.045	**7.5 J**	**11**	**11**	**4.4 J**	10 U	10 U
Barium	µg/L	2000	2900	**40**	**59**	**41**	**44**	**22**	**30**
Beryllium	µg/L	4	16	0.10 U	0.051 UB	0.10 UJ	0.10 UJ	0.16 UJB	0.10 U
Cadmium	µg/L	5	6.9	0.070 U	0.070 U	0.070 UJ	0.070 UJ	0.22 UJB	0.046 UB
Calcium	µg/L	NS	NS	**110000**	**92000**	**9300**	**75000**	**25000**	**55000**
Chromium	µg/L	100	16000	**1.9 J**	**2.1 J**	4.0 U	4.0 U	4.0 U	4.0 U
Cobalt	µg/L	NS	4.7	4.0 U	4.0 U	**15**	4.0 U	**1.5 J**	4.0 U
Copper	µg/L	1300	620	10 U	10 U	10 U	10 U	10 U	10 U
Cyanide	mg/L	0.2	0.0014	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	**0.0071 J**
Iron	µg/L	300	11000	**1100**	**2700**	**35000**	**700**	**2300**	100 U
Lead	µg/L	15	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium	µg/L	NS	NS	**27000**	**25000**	**4500**	**14000**	**5700**	**26000**
Manganese	µg/L	50	320	**690**	**200**	**1700**	**250**	**110**	**520**
Mercury	µg/L	2	0.63	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	760	5.0 U	5.0 U	**21**	5.0 U	5.0 U	5.0 U
Potassium	µg/L	NS	NS	**2000**	**1600**	**2700**	**940**	**890 J**	**2800**
Selenium	µg/L	50	78	10 U	10 U	10 U	10 U	10 U	10 U
Silver	µg/L	100	71	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	**6500**	**7600**	**2500**	**5700**	**7000**	**7600**
Thallium	µg/L	2	0.16	1.0 U	1.0 U	1.0 U	1.0 U	0.98 U	1.0 U
Vanadium	µg/L	NS	78	2.0 U	2.2 U	4.0 U	4.0 U	1.4 UB	4.0 U
Zinc	µg/L	5000	4700	20 U	**12 B**	20 U	20 U	20 U	20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-4. FWGWMP October 2012 Inorganics Analytical Results

Station ID				FWGmw-014	FWGmw-015	FWGmw-016	LL1mw-086	LL1mw-087	LL3mw-244
Sample ID		MCL	USEPA RSL	FWGFWGmw-014-0178-GF	FWGFWGmw-015-0179-GF	FWGFWGmw-016-0180-GF	FWGLL1mw-086-0181-GF	FWGLL1mw-087-0182-GF	FWGLL3mw-244-0183-GF
Date Collected				10/16/2012	10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Aluminum	µg/L	200	16000	60 U	**70**	60 U	**160**	**650**	60 U
Antimony	µg/L	6	6	0.50 U	0.50 U	0.50 U	**0.28 B**	0.50 U	**1.2**
Arsenic	µg/L	10	0.045	10 U	**6.4 J**	**6.2 J**	**3.3 J**	10 U	10 U
Barium	µg/L	2000	2900	**34**	**19**	**54**	**45**	**33**	**17**
Beryllium	µg/L	4	16	0.10 U	0.10 U	0.10 U	0.16 UJB	0.037 UB	0.10 U
Cadmium	µg/L	5	6.9	0.046 U	0.070 U	0.070 U	**0.74 JB**	0.033 UB	0.070 U
Calcium	µg/L	NS	NS	**85000**	**250000**	**100000**	**62000**	**91000**	**23000**
Chromium	µg/L	100	16000	4.0 U	**1.4 J**	4.0 U	4.0 U	**1.8 J**	4.0 U
Cobalt	µg/L	NS	4.7	4.0 U	**2.2 J**	4.0 U	4.0 U	**1.7 J**	4.0 U
Copper	µg/L	1300	620	10 U	10 U	10 U	10 U	10 U	10 U
Cyanide	mg/L	0.2	0.0014	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Iron	µg/L	300	11000	100 U	**240**	**590**	**2000**	**1200**	100 U
Lead	µg/L	15	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium	µg/L	NS	NS	**21000**	**170000**	**28000**	**27000**	**27000**	**8100**
Manganese	µg/L	50	320	**210**	**860**	**200**	**610**	**170**	**1.9 J**
Mercury	µg/L	2	0.63	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	760	5.0 U	**3.0 J**	5.0 U	5.0 U	**2.5 J**	5.0 U
Potassium	µg/L	NS	NS	**1800**	**3900**	**2000**	**2600**	**1100**	**1300**
Selenium	µg/L	50	78	10 U	10 U	10 U	10 U	10 U	10 U
Silver	µg/L	100	71	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	**5300**	**33000**	**11000**	**5600**	**6700**	**3700**
Thallium	µg/L	2	0.16	1.0 U	1.0 U	1.0 U	0.88 UB	1.0 U	0.32 U
Vanadium	µg/L	NS	78	1.8 UB	4.0 U	1.5 U	2.1 UB	1.5 UB	4.0 U
Zinc	µg/L	5000	4700	20 U	20 U	20 U	20 U	**12 B**	20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-4. FWGWMP October 2012 Inorganics Analytical Results

Station ID				LL3mw-245	LL4mw-201	LL6mw-008	LL6mw-009	LL11mw-011	LL11mw-012
Sample ID		MCL	USEPA RSL	FWGLL3mw-245-0184-GF	FWGLL4mw-201-0185-GF	FWGLL6mw-008-0186-GF	FWGLL6mw-009-0187-GF	FWGLL11mw-011-0188-GF	FWGLL11mw-012-0189-GF
Date Collected				10/15/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Aluminum	µg/L	200	16000	60 U	60 U	**23 J**	60 U	**140**	60 U
Antimony	µg/L	6	6	**0.58 J**	0.50 U	**0.67 B**	0.50 U	0.50 U	0.50 U
Arsenic	µg/L	10	0.045	10 U	**35**	10 UJ	**9.0 J**	**4.3 J**	10 U
Barium	µg/L	2000	2900	**45**	**83**	**22**	**30**	**40**	**46**
Beryllium	µg/L	4	16	0.10 UJ	0.10 U	0.10 UJ	0.10 U	0.10 UJ	0.10 U
Cadmium	µg/L	5	6.9	0.070 UJ	0.070 U	0.089 UJB	0.043 UB	0.070 UJ	0.25 UB
Calcium	µg/L	NS	NS	**110000**	**98000**	**110000**	**95000**	**61000**	**87000**
Chromium	µg/L	100	16000	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Cobalt	µg/L	NS	4.7	4.0 U	4.0 U	4.0 U	**2.9 J**	4.0 U	4.0 U
Copper	µg/L	1300	620	10 U	10 U	10 U	10 U	10 U	10 U
Cyanide	mg/L	0.2	0.0014	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Iron	µg/L	300	11000	**530**	**1200**	100 U	**2900**	**630**	**280**
Lead	µg/L	15	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium	µg/L	NS	NS	**38000**	**30000**	**40000**	**33000**	**17000**	**21000**
Manganese	µg/L	50	320	**33**	**150**	**800**	**600**	**570**	**79**
Mercury	µg/L	2	0.63	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	760	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Potassium	µg/L	NS	NS	**6800**	**1800**	**1200**	**1900**	**1200**	**3100**
Selenium	µg/L	50	78	10 U	10 U	10 U	10 U	10 U	10 U
Silver	µg/L	100	71	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	**21000**	**13000**	**3300**	**13000**	**12000**	**13000**
Thallium	µg/L	2	0.16	0.58 UJ	1.0 U	0.39 UB	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	78	1.8 UB	4.0 U	1.3 UB	4.0 U	4.0 U	1.9 U
Zinc	µg/L	5000	4700	20 U	20 U	20 U	20 U	20 U	20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-4. FWGWMP October 2012 Inorganics Analytical Results

Station ID				LL12mw-247	NTAmw-119	WBGmw-018	WBGmw-019	WBGmw-020	WBGmw-021
Sample ID		MCL	USEPA RSL	FWGLL12mw-247-0192-GF	FWGNTAmw-119-0193-GF	FWGWBGmw-018-0195-GF	FWGWBGmw-019-0196-GF	FWGWBGmw-020-0197-GF	FWGWBGmw-021-0198-GF
Date Collected				10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Aluminum	µg/L	200	16000	**3100**	60 U	60 U	60 U	60 U	60 U
Antimony	µg/L	6	6	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Arsenic	µg/L	10	0.045	**11**	10 U	10 U	**4.5 J**	10 U	**6.2 J**
Barium	µg/L	2000	2900	**45**	**76**	**24**	**59**	**16**	**56**
Beryllium	µg/L	4	16	0.15 UB	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Cadmium	µg/L	5	6.9	0.070 U	0.070 U	0.070 UJ	0.077 UB	0.070 U	0.11 UB
Calcium	µg/L	NS	NS	**100000**	**82000**	**16000**	**80000**	**31000**	**73000**
Chromium	µg/L	100	16000	**4.9**	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Cobalt	µg/L	NS	4.7	**2.7 J**	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Copper	µg/L	1300	620	10 U	10 U	10 U	10 U	10 U	10 U
Cyanide	mg/L	0.2	0.0014	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Iron	µg/L	300	11000	**6200**	**2300**	100 U	**480**	**4100**	**490**
Lead	µg/L	15	NS	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Magnesium	µg/L	NS	NS	**53000**	**21000**	**3700**	**23000**	**10000**	**19000**
Manganese	µg/L	50	320	**260**	**310**	**8.8**	**240**	**370**	**220**
Mercury	µg/L	2	0.63	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	µg/L	NS	760	5.6	5.0 U	5.0 U	5.0 U	**2.2 J**	5.0 U
Potassium	µg/L	NS	NS	**4300**	**1700**	**1000**	**1900**	**670 J**	**1300**
Selenium	µg/L	50	78	10 U	10 U	10 U	10 U	10 U	10 U
Silver	µg/L	100	71	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Sodium	µg/L	NS	NS	**22000**	**7000**	**1700**	**7900**	**3600**	**4600**
Thallium	µg/L	2	0.16	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vanadium	µg/L	NS	78	6.3 U	4.0 U	1.6 UB	4.0 U	1.4 UB	4.0 U
Zinc	µg/L	5000	4700	**24 B**	20 U	20 U	20 U	20 U	20 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-4. FWGWMP October 2012 Inorganics Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix C.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J The identification of the analyte is acceptable, but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision (i.e., the quantitative value is estimated). Examples include:
- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers, which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) “B” designation when used by the laboratory as an estimated value for inorganics.

Table 3-5. RVAAP Facility-Wide Background Criteria (SAIC, 2001b)

Media Units	Surface Soil mg/kg	Subsurface Soil mg/kg	Sediment mg/kg	Surface Water µg/L	Groundwater Bedrock Zone Filtered µg/L	Groundwater Bedrock Zone Unfiltered µg/L	Groundwater Unconsolidated Zone Filtered µg/L	Groundwater Unconsolidated Unfiltered µg/L
Analyte								
Cyanide	0	0	0	0	0	0	0	0
Aluminum	17700	19500	13900	3370	0	9410	0	0
Antimony	0.96	0.96	0	0	0	0	0	0
Arsenic	15.4	19.8	19.5	3.2	0	19.1	11.7	11.7
Barium	88.4	124	123	47.5	256	241	82.1	82.1
Beryllium	0.88	0.88	0.38	0	0	0	0	0
Cadmium	0	0	0	0	0	0	0	0
Calcium	15800	35500	5510	41400	53100	48200	115000	115000
Chromium	17.4	27.2	18.1	0	0	19.5	7.3	7.3
Cobalt	10.4	23.2	9.1	0	0	0	0	0
Copper	17.7	32.3	27.6	7.9	0	17	0	0
Iron	23100	35200	28200	2560	1430	21500	279	279
Lead	26.1	19.1	27.4	0	0	23	0	0
Magnesium	3030	8790	2760	10800	15000	13700	43300	43300
Manganese	1450	3030	1950	391	1340	1260	1020	1020
Mercury	0.036	0.044	0.059	0	0	0	0	0
Nickel	21.1	60.7	17.7	0	83.4	85.3	0	0
Potassium	927	3350	1950	3170	5770	6060	2890	2890
Selenium	104	105	107	0	0	0	0	0
Silver	0	0	0	0	0	0	0	0
Sodium	123	145	112	21300	51400	49700	45700	45700
Thallium	0	0.91	0.89	0	0	0	0	0
Vanadium	31.1	37.6	26.1	0	0	15.5	0	0
Zinc	61.8	93.3	532	42	52.3	193	60.9	60.9

Table 3-6. FWGWMP October 2012 VOC Analytical Results

Station ID				B12mw-013	CBLmw-005	CBPmw-009	DA2mw-114	DA2mw-115	EBGmw-131
Sample ID		MCL	USEPA RSL	FWGB12mw-013-0158-GW	FWGCBLmw-005-0159-GW	FWGCBPmw-009-0160-GW	FWGDA2mw-114-0161-GW	FWGDA2mw-115-0162-GW	FWGEBGmw-131-0163-GW
Date Collected				10/15-16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,1,1-Trichloroethane	µg/L	200	7500	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.066	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2-Trichloroethane	µg/L	5	0.24	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	µg/L	NS	2.4	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
1,1-Dichloroethene (total)	µg/L	7	260	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane	µg/L	NS	0.0065	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethane	µg/L	5	0.15	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethene (total)	µg/L	NS	130	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	µg/L	5	0.38	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
2-Butanone	µg/L	NS	4900	0.57 U	0.57 R	0.57 U	0.57 R	0.57 R	0.57 U
2-Hexanone	µg/L	NS	34	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 U
4-Methyl-2-pentanone	µg/L	NS	1000	0.50 U	0.50 R	0.50 U	0.50 R	0.50 R	0.50 U
Acetone	µg/L	NS	12000	1.1 U	**1.1 JB**	**1.5 JB**	1.1 U	**2.3 JB**	1.1 U
Benzene	µg/L	5	0.39	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Bromochloromethane	µg/L	NS	83	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	µg/L	NS	0.12	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Bromoform	µg/L	NS	7.9	0.64 U	0.64 UJ	0.64 U	0.64 U	0.64 U	0.64 U
Bromomethane	µg/L	NS	7	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
Carbon disulfide	µg/L	NS	720	0.25 U	0.25 UJ	0.24 J	0.25 U	**0.26**	0.25 U
Carbon tetrachloride	µg/L	5	0.39	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Chlorobenzene	µg/L	10	72	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Chloroethane	µg/L	NS	21000	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	µg/L	NS	0.19	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Chloromethane	µg/L	NS	190	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-dichloroethene	µg/L	70	28	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
cis-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Dibromochloromethane	µg/L	NS	0.15	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Ethylbenzene	µg/L	700	1.3	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 UJ
m&p-xylenes	µg/L	NS	190	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 UJ
Methylene chloride	µg/L	5	9.9	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
o-xylene	µg/L	NS	190	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Styrene	µg/L	100	1100	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 UJ
Tetrachloroethene	µg/L	5	9.7	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	µg/L	1000	860	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-dichloroethene	µg/L	100	86	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Trichloroethene	µg/L	5	0.44	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Vinyl chloride	µg/L	2	0.015	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U
Total Xylenes	µg/L	10000	190	0.75 UJ	0.75 UJ	0.75 U	0.75 U	0.75 U	0.75 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-6. FWGWMP October 2012 VOC Analytical Results

Station ID				FWGmw-001	FWGmw-002	FWGmw-003	FWGmw-004	FWGmw-005	FWGmw-006
Sample ID		MCL	USEPA RSL	FWGFWGmw-001-0164-GW	FWGFWGmw-002-0165-GW	FWGFWGmw-003-0166-GW	FWGFWGmw-004-0167-GW	FWGFWGmw-005-0168-GW	FWGFWGmw-006-0169-GW
Date Collected				10/15/2012	10/15/2012	10/16/2012	10/15/2012	10/16/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,1,1-Trichloroethane	µg/L	200	7500	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.066	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
1,1,2-Trichloroethane	µg/L	5	0.24	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	µg/L	NS	2.4	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
1,1-Dichloroethene (total)	µg/L	7	260	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane	µg/L	NS	0.0065	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
1,2-Dichloroethane	µg/L	5	0.15	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
1,2-Dichloroethene (total)	µg/L	NS	130	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	µg/L	5	0.38	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
2-Butanone	µg/L	NS	4900	0.57 U	0.57 U	0.57 R	0.57 U	0.57 U	0.57 U
2-Hexanone	µg/L	NS	34	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
4-Methyl-2-pentanone	µg/L	NS	1000	0.50 U	0.50 U	0.50 R	0.50 U	0.50 U	0.50 U
Acetone	µg/L	NS	12000	1.1 U	**2.5 B**	**1.6 JB**	1.1 U	**1.1 B**	1.1 U
Benzene	µg/L	5	0.39	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Bromochloromethane	µg/L	NS	83	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
Bromodichloromethane	µg/L	NS	0.12	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Bromoform	µg/L	NS	7.9	0.64 U	0.64 U	0.64 UJ	0.64 U	0.64 U	0.64 U
Bromomethane	µg/L	NS	7	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
Carbon disulfide	µg/L	NS	720	0.25 U	**6.7**	0.25 UJ	0.25 U	0.25 U	**0.16 J**
Carbon tetrachloride	µg/L	5	0.39	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Chlorobenzene	µg/L	10	72	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Chloroethane	µg/L	NS	21000	0.50 U	**0.33 J**	0.50 UJ	0.50 U	0.50 U	0.50 U
Chloroform	µg/L	NS	0.19	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Chloromethane	µg/L	NS	190	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
cis-1,2-dichloroethene	µg/L	70	28	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
cis-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Dibromochloromethane	µg/L	NS	0.15	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Ethylbenzene	µg/L	700	1.3	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U
m&p-xylenes	µg/L	NS	190	0.50 UJ	0.50 UJ	0.50 UJ	0.50 U	0.50 U	0.50 U
Methylene chloride	µg/L	5	9.9	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
o-xylene	µg/L	NS	190	0.25 U	0.25 U	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ
Styrene	µg/L	100	1100	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U
Tetrachloroethene	µg/L	5	9.7	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
Toluene	µg/L	1000	860	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
trans-1,2-dichloroethene	µg/L	100	86	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
trans-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Trichloroethene	µg/L	5	0.44	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Vinyl chloride	µg/L	2	0.015	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Total Xylenes	µg/L	10000	190	0.75 UJ	0.75 UJ	0.75 UJ	0.75 U	0.75 U	0.75 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-6. FWGWMP October 2012 VOC Analytical Results

Station ID				FWGmw-007	FWGmw-008	FWGmw-009	FWGmw-010	FWGmw-011	FWGmw-012
Sample ID		MCL	USEPA RSL	FWGFWGmw-007-0170-GW	FWGFWGmw-008-0171-GW	FWGFWGmw-009-0172-GW	FWGFWGmw-010-0173-GW	FWGFWGmw-011-0174-GW	FWGFWGmw-012-0175-GW
Date Collected				10/16/2012	10/16/2012	10/16/2012	10/15/2012	10/15/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,1,1-Trichloroethane	µg/L	200	7500	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.066	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2-Trichloroethane	µg/L	5	0.24	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	µg/L	NS	2.4	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-Dichloroethene (total)	µg/L	7	260	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane	µg/L	NS	0.0065	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethane	µg/L	5	0.15	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethene (total)	µg/L	NS	130	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	µg/L	5	0.38	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
2-Butanone	µg/L	NS	4900	0.57 R	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-Hexanone	µg/L	NS	34	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-pentanone	µg/L	NS	1000	0.50 R	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Acetone	µg/L	NS	12000	1.1 UJ	1.1 U	1.1 U	**2.3 B**	**1.2 B**	1.1 U
Benzene	µg/L	5	0.39	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Bromochloromethane	µg/L	NS	83	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	µg/L	NS	0.12	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Bromoform	µg/L	NS	7.9	0.64 UJ	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
Bromomethane	µg/L	NS	7	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon disulfide	µg/L	NS	720	0.25 UJ	0.25 U	0.25 U	**0.33**	0.25 U	0.25 U
Carbon tetrachloride	µg/L	5	0.39	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chlorobenzene	µg/L	10	72	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chloroethane	µg/L	NS	21000	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	µg/L	NS	0.19	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chloromethane	µg/L	NS	190	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-dichloroethene	µg/L	70	28	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
cis-1,3-Dichloropropene	µg/L	NS	0.41	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Dibromochloromethane	µg/L	NS	0.15	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Ethylbenzene	µg/L	700	1.3	0.25 UJ	0.25 U	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ
m&p-xylenes	µg/L	NS	190	0.50 UJ	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ	0.50 UJ
Methylene chloride	µg/L	5	9.9	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-xylene	µg/L	NS	190	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U
Styrene	µg/L	100	1100	0.25 UJ	0.25 U	0.25 UJ	0.25 UJ	0.25 UJ	0.25 UJ
Tetrachloroethene	µg/L	5	9.7	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	µg/L	1000	860	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-dichloroethene	µg/L	100	86	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,3-Dichloropropene	µg/L	NS	0.41	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Trichloroethene	µg/L	5	0.44	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Vinyl chloride	µg/L	2	0.015	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Total Xylenes	µg/L	10000	190	0.75 UJ	0.75 U	0.75 UJ	0.75 UJ	0.75 UJ	0.75 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-6. FWGWMP October 2012 VOC Analytical Results

Station ID				FWGmw-013	FWGmw-014	FWGmw-015	FWGmw-016	LL1mw-086	LL1mw-087	LL3mw-244
Sample ID		MCL	USEPA RSL	FWGFWGmw-013-0093-GW	FWGFWGmw-014-0178-GW	FWGFWGmw-015-0179-GW	FWGFWGmw-016-0180-GW	FWGLL1mw-086-0181-GW	FWGLL1mw-087-0182-GW	FWGLL3mw-244-0183-GW
Date Collected				10/17/2012	10/16/2012	10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,1,1-Trichloroethane	µg/L	200	7500	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
1,1,2,2-Tetrachloroethane	µg/L	NS	0.066	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
1,1,2-Trichloroethane	µg/L	5	0.24	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
1,1-Dichloroethane	µg/L	NS	2.4	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
1,1-Dichloroethene (total)	µg/L	7	260	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
1,2-Dibromoethane	µg/L	NS	0.0065	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
1,2-Dichloroethane	µg/L	5	0.15	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
1,2-Dichloroethene (total)	µg/L	NS	130	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
1,2-Dichloropropane	µg/L	5	0.38	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
2-Butanone	µg/L	NS	4900	0.57 U	0.57 R	0.57 U	0.57 U	0.57 R	0.57 R	0.57 R
2-Hexanone	µg/L	NS	34	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 UJ	0.50 UJ	0.50 UJ
4-Methyl-2-pentanone	µg/L	NS	1000	0.50 U	0.50 R	0.50 U	0.50 U	0.50 R	0.50 R	0.50 R
Acetone	µg/L	NS	12000	1.1 U	**1.3 JB**	1.1 U	1.1 U	**2.2 JB**	**1.4 JB**	**2.0 JB**
Benzene	µg/L	5	0.39	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Bromochloromethane	µg/L	NS	83	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
Bromodichloromethane	µg/L	NS	0.12	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Bromoform	µg/L	NS	7.9	0.64 U	0.64 UJ	0.64 U	0.64 U	0.64 U	0.64 U	0.64 UJ
Bromomethane	µg/L	NS	7	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
Carbon disulfide	µg/L	NS	720	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Carbon tetrachloride	µg/L	5	0.39	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Chlorobenzene	µg/L	10	72	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Chloroethane	µg/L	NS	21000	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
Chloroform	µg/L	NS	0.19	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Chloromethane	µg/L	NS	190	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
cis-1,2-dichloroethene	µg/L	70	28	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
cis-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Dibromochloromethane	µg/L	NS	0.15	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Ethylbenzene	µg/L	700	1.3	0.25 U	0.25 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 UJ
m&p-xylenes	µg/L	NS	190	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 UJ
Methylene chloride	µg/L	5	9.9	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
o-xylene	µg/L	NS	190	0.25 U	0.25 UJ	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 UJ
Styrene	µg/L	100	1100	0.25 U	0.25 UJ	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 UJ
Tetrachloroethene	µg/L	5	9.7	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ
Toluene	µg/L	1000	860	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
trans-1,2-dichloroethene	µg/L	100	86	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
trans-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Trichloroethene	µg/L	5	0.44	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Vinyl chloride	µg/L	2	0.015	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Total Xylenes	µg/L	10000	190	0.75 U	0.75 UJ	0.75 U	0.75 UJ	0.75 U	0.75 U	0.75 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-6. FWGWMP October 2012 VOC Analytical Results

Station ID				LL3mw-245	LL4mw-201	LL6mw-008	LL6mw-009	LL11mw-011	LL11mw-012
Sample ID		MCL	USEPA RSL	FWGLL3mw-245-0184-GW	FWGLL4mw-201-0185-GW	FWGLL6mw-008-0186-GW	FWGLL6mw-009-0187-GW	FWGLL11mw-011-0188-GW	FWGLL11mw-012-0189-GW
Date Collected				10/15/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,1,1-Trichloroethane	µg/L	200	7500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.066	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2-Trichloroethane	µg/L	5	0.24	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	µg/L	NS	2.4	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-Dichloroethene (total)	µg/L	7	260	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane	µg/L	NS	0.0065	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethane	µg/L	5	0.15	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethene (total)	µg/L	NS	130	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	µg/L	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
2-Butanone	µg/L	NS	4900	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U
2-Hexanone	µg/L	NS	34	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
4-Methyl-2-pentanone	µg/L	NS	1000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Acetone	µg/L	NS	12000	**1.2 JB**	1.1 U	**1.4 JB**	**1.2 JB**	1.6 UJ	**1.1 B**
Benzene	µg/L	5	0.39	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Bromochloromethane	µg/L	NS	83	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	µg/L	NS	0.12	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Bromoform	µg/L	NS	7.9	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
Bromomethane	µg/L	NS	7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon disulfide	µg/L	NS	720	**0.20 J**	**0.17 J**	0.25 U	**0.24 J**	0.25 U	**0.63**
Carbon tetrachloride	µg/L	5	0.39	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chlorobenzene	µg/L	10	72	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chloroethane	µg/L	NS	21000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.48 J
Chloroform	µg/L	NS	0.19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chloromethane	µg/L	NS	190	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-dichloroethene	µg/L	70	28	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
cis-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Dibromochloromethane	µg/L	NS	0.15	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Ethylbenzene	µg/L	700	1.3	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
m&p-xylenes	µg/L	NS	190	0.50 UJ	0.50 U	0.50 UJ	0.50 U	0.50 UJ	0.50 U
Methylene chloride	µg/L	5	9.9	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-xylene	µg/L	NS	190	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 UJ
Styrene	µg/L	100	1100	0.25 UJ	0.25 U	0.25 UJ	0.25 U	0.25 UJ	0.25 U
Tetrachloroethene	µg/L	5	9.7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	µg/L	1000	860	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-dichloroethene	µg/L	100	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Trichloroethene	µg/L	5	0.44	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Vinyl chloride	µg/L	2	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Total Xylenes	µg/L	10000	190	0.75 UJ	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-6. FWGWMP October 2012 VOC Analytical Results

Station ID				LL12mw-247	NTAmw-119	WBGmw-018	WBGmw-019	WBGmw-020	WBGmw-021
Sample ID		MCL	USEPA RSL	FWGLL12mw-247-0192-GW	FWGNTAmw-119-0193-GW	FWGWBGmw-018-0195-GW	FWGWBGmw-019-0196-GW	FWGWBGmw-020-0197-GW	FWGWBGmw-021-0198-GW
Date Collected				10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,1,1-Trichloroethane	µg/L	200	7500	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2,2-Tetrachloroethane	µg/L	NS	0.066	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1,2-Trichloroethane	µg/L	5	0.24	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,1-Dichloroethane	µg/L	NS	2.4	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-Dichloroethene (total)	µg/L	7	260	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane	µg/L	NS	0.0065	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethane	µg/L	5	0.15	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethene (total)	µg/L	NS	130	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichloropropane	µg/L	5	0.38	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
2-Butanone	µg/L	NS	4900	0.57 U	0.57 U	0.57 U	0.57 U	0.57 R	0.57 U
2-Hexanone	µg/L	NS	34	0.50 U	0.50 U	0.50 U	0.50 U	0.50 UJ	0.50 U
4-Methyl-2-pentanone	µg/L	NS	1000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 R	0.50 U
Acetone	µg/L	NS	12000	1.1 U	**2.2 B**	**1.1 JB**	1.1 U	1.1 U	1.1 U
Benzene	µg/L	5	0.39	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Bromochloromethane	µg/L	NS	83	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Bromodichloromethane	µg/L	NS	0.12	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Bromoform	µg/L	NS	7.9	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
Bromomethane	µg/L	NS	7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Carbon disulfide	µg/L	NS	720	0.25 U	**1.2**	0.25 U	0.25 U	0.25 U	0.25 U
Carbon tetrachloride	µg/L	5	0.39	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chlorobenzene	µg/L	10	72	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chloroethane	µg/L	NS	21000	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chloroform	µg/L	NS	0.19	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Chloromethane	µg/L	NS	190	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
cis-1,2-dichloroethene	µg/L	70	28	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
cis-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Dibromochloromethane	µg/L	NS	0.15	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Ethylbenzene	µg/L	700	1.3	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
m&p-xylenes	µg/L	NS	190	0.50 U	0.50 U	0.50 UJ	0.50 U	0.50 U	0.50 U
Methylene chloride	µg/L	5	9.9	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
o-xylene	µg/L	NS	190	0.25 UJ	0.25 UJ	0.25 U	0.25 U	0.25 U	0.25 UJ
Styrene	µg/L	100	1100	0.25 U	0.25 U	0.25 UJ	0.25 U	0.25 U	0.25 U
Tetrachloroethene	µg/L	5	9.7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Toluene	µg/L	1000	860	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-dichloroethene	µg/L	100	86	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,3-Dichloropropene	µg/L	NS	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Trichloroethene	µg/L	5	0.44	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Vinyl chloride	µg/L	2	0.015	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Total Xylenes	µg/L	10000	190	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U

Notes:

NS = no standard

Bold = detected compound above the MDL

Table 3-6. FWGWMP October 2012 VOC Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix C.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J The identification of the analyte is acceptable, but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision (i.e., the quantitative value is estimated). Examples include:
- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers, which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) “B” designation when used by the laboratory as an estimated value for inorganics.

3.3.4 Semivolatile Organic Compounds (SVOCs)

The analytical results for SVOCs are summarized in Table 3-7. The following SVOCs were detected above the MDL for this sampling event.

- Bis(2-ethylhexyl)phthalate –B12mw-013 (2.9 µg/L), CBPmw-009 (1.6 µg/L B), DA2mw-115 (2.2 µg/L J), FWGmw-002 (2.5 µg/L J B), FWGmw-004 (1.2 µg/L B), FWGmw-005 (0.841 µg/L), FWGmw-007 (1.5 µg/L), FWGmw-008 (0.95 µg/L), FWGmw-009 (1.1 µg/L), FWGmw-010 (40 µg/L), FWGmw-011 (1.1 µg/L B), FWGmw-012 (2.8 µg/L J B), FWGmw-013 (1.9 µg/L), FWGmw-015 (1.2 µg/L), LL1mw-086 (1.2 µg/L J), LL1mw-087 (0.85 µg/L), LL6mw-009 (1.9 µg/L), LL11mw-011 (1.3 µg/L B), LL12mw-182 (1.0 µg/L B), LL12mw-182ss (1.5 µg/L B), WBGmw-018 (0.95 µg/L J), WBGmw-020 (0.88 µg/L), and WBGmw-021 (0.81 µg/L). The MCL for bis(2-ethylhexyl)phthalate is 6 µg/L. The RSL is 4.8 µg/L.

- Dimethyl phthalate – B12mw-013 (1.3 µg/L), FWGmw-015 (2.6 µg/L), LL1mw-087 (0.92 µg/L), and LL11mw-011 (0.66 µg/L J). There is no MCL or RSL for Dimethyl phthalate.

- Naphthalene –LL4mw-201 (0.32 µg/L J), and NTAmw-119 (0.26 µg/L). There is no MCL for Naphthalene. The RSL is 0.14 µg/L.

As shown in Table 3-7, the following SVOCs were detected at levels exceeding either their corresponding MCLs or RSLs:

- Naphthalene in LL4mw-201 at a level of 0.32 µg/L, and NTAmw-119 at a level of 0.26 µg/L. There is no MCL for Naphthalene. The RSL is 0.14 µg/L.

- Bis(2-ethylhexyl)phthalate in FWGmw-010 at a level of 40 µg/L. The MCL for bis(2-ethylhexyl)phthalate is 6 µg/L. The RSL is 4.8 µg/L.

Bis(2-ethylhexyl)phthalate is being evaluated in two adjacent wells at Load Line 12 – one polyvinyl chloride constructed well (LL12mw-182) and the other a stainless steel constructed well (LL12mw-182ss). The samples from LL12mw-182 and LL12mw-182ss were found to contain bis(2-ethylhexyl) phthalate at concentrations of 1.0 µg/L B and 1.5 µg/L B, respectively, which does not exceed the RSL for this analyte.

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				B12mw-013	CBLmw-005	CBPmw-009	DA2mw-114	DA2mw-115	EBGmw-131
Sample ID		MCL	USEPA RSL	FWGB12mw-013-0158-GW	FWGCBLmw-005-0159-GW	FWGCBPmw-009-0160-GW	FWGDA2mw-114-0161-GW	FWGDA2mw-115-0162-GW	FWGEBGmw-131-0163-GW
Date Collected				10/15-16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,2,4-Trichlorobenzene	µg/L	70	0.99	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
1,2-Dichlorobenzene	µg/L	600	280	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
1,3-Dichlorobenzene	µg/L	NS	NS	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
1,4-Dichlorobenzene	µg/L	75	0.42	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2,4,5-Trichlorophenol	µg/L	NS	890	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2,4,6-Trichlorophenol	µg/L	NS	3.5	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2,4-Dichlorophenol	µg/L	NS	35	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2,4-Dimethylphenol	µg/L	NS	270	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2,4-Dinitrophenol	µg/L	NS	30	2.4 U	2.3 U	2.3 U	2.4 UJ	2.5 UJ	2.3 U
2-Chloronaphthalene	µg/L	NS	550	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
2-Chlorophenol	µg/L	NS	71	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2-Methylnaphthalene	µg/L	NS	27	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
2-Methylphenol	µg/L	NS	720	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2-Nitroaniline	µg/L	NS	150	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
2-Nitrophenol	µg/L	NS	NS	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
3,3'-Dichlorobenzidine	µg/L	NS	0.11	0.79 U	0.76 U	0.76 UJ	0.81 UJ	0.83 UJ	0.76 U
3- and 4-Methylphenol	µg/L	NS	720	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
3-Nitroaniline	µg/L	NS	NS	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
4,6-Dinitro-2-methylphenol	µg/L	NS	1.2	2.4 U	2.3 U	2.3 U	2.4 U	2.5 U	2.3 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
4-Chloro-3-methylphenol	µg/L	NS	1100	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
4-Chloroaniline	µg/L	NS	0.32	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
4-Nitroanaline	µg/L	NS	3.3	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
4-Nitrophenol	µg/L	NS	NS	2.4 U	2.3 U	2.3 U	2.4 U	2.5 U	2.3 U
Acenaphthene	µg/L	NS	400	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Acenaphthylene	µg/L	NS	NS	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Anthracene	µg/L	NS	1300	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Benzo(a)anthracene	µg/L	NS	0.029	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Benzo(a)pyrene	µg/L	0.2	0.0029	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Benzo(b)fluoranthene	µg/L	NS	0.029	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				B12mw-013	CBLmw-005	CBPmw-009	DA2mw-114	DA2mw-115	EBGmw-131
Sample ID		MCL	USEPA RSL	FWGB12mw-013-0158-GW	FWGCBLmw-005-0159-GW	FWGCBPmw-009-0160-GW	FWGDA2mw-114-0161-GW	FWGDA2mw-115-0162-GW	FWGEBGmw-131-0163-GW
Date Collected				10/15-16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Benzo(g,h,i)perylene	µg/L	NS	NS	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Benzo(k)fluoranthene	µg/L	NS	0.29	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Benzoic acid	µg/L	NS	58000	9.9 U	9.5 U	9.5 U	10 U	10 U	9.5 U
Benzyl alcohol	µg/L	NS	1500	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
bis(2-Chloroethoxy)methane	µg/L	NS	46	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
bis(2-Chloroethyl)ether	µg/L	NS	0.012	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
bis(2-Ethylhexyl)phthalate	µg/L	6	4.8	**2.9**	0.76 U	**1.6 B**	0.81 U	**2.2 J**	0.76 U
Butyl benzyl phthalate	µg/L	NS	14	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Carbazole	µg/L	NS	NS	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Chrysene	µg/L	NS	2.9	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0029	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Dibenzofuran	µg/L	NS	5.8	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Diethyl phthalate	µg/L	NS	11000	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Dimethyl phthalate	µg/L	NS	NS	**1.3**	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Di-n-butyl phthalate	µg/L	NS	670	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Di-n-octyl phthalate	µg/L	NS	190	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Fluoranthene	µg/L	NS	630	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Fluorene	µg/L	NS	220	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Hexachlorobenzene	µg/L	1	0.042	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Hexachlorobutadiene	µg/L	NS	0.26	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Hexachlorocyclopentadiene	µg/L	50	22	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Hexachloroethane	µg/L	NS	0.79	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.029	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Isophorone	µg/L	NS	67	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Naphthalene	µg/L	NS	0.14	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
N-Nitroso-di-n-propylamine	µg/L	NS	0.0093	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
N-Nitrosodiphenylamine	µg/L	NS	10	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Pentachlorophenol	µg/L	1	0.035	2.4 U	2.3 U	2.3 U	2.4 U	2.5 U	2.3 U
Phenanthrene	µg/L	NS	NS	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U
Phenol	µg/L	NS	4500	0.79 U	0.76 U	0.76 U	0.81 U	0.83 U	0.76 U
Pyrene	µg/L	NS	87	0.099 U	0.095 U	0.095 U	0.10 U	0.10 U	0.095 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = not analyzed

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				FWGmw-001	FWGmw-002	FWGmw-003	FWGmw-004	FWGmw-005	FWGmw-006	FWGmw-007
Sample ID		MCL	USEPA RSL	FWGFWGmw-001-0164-GW	FWGFWGmw-002-0165-GW	FWGFWGmw-003-0166-GW	FWGFWGmw-004-0167-GW	FWGFWGmw-005-0168-GW	FWGFWGmw-006-0169-GW	FWGFWGmw-007-0170-GW
Date Collected				10/15/2012	10/15/2012	10/16/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
1,2,4-Trichlorobenzene	µg/L	70	0.99	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
1,2-Dichlorobenzene	µg/L	600	280	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
1,3-Dichlorobenzene	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
1,4-Dichlorobenzene	µg/L	75	0.42	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4,5-Trichlorophenol	µg/L	NS	890	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4,6-Trichlorophenol	µg/L	NS	3.5	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dichlorophenol	µg/L	NS	35	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dimethylphenol	µg/L	NS	270	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dinitrophenol	µg/L	NS	30	2.6 U	2.4 UJ	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
2-Chloronaphthalene	µg/L	NS	550	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
2-Chlorophenol	µg/L	NS	71	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2-Methylnaphthalene	µg/L	NS	27	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
2-Methylphenol	µg/L	NS	720	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2-Nitroaniline	µg/L	NS	150	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2-Nitrophenol	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
3,3'-Dichlorobenzidine	µg/L	NS	0.11	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 UJ	0.76 U	0.76 U
3- and 4-Methylphenol	µg/L	NS	720	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
3-Nitroaniline	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4,6-Dinitro-2-methylphenol	µg/L	NS	1.2	2.6 U	2.4 UJ	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chloro-3-methylphenol	µg/L	NS	1100	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chloroaniline	µg/L	NS	0.32	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Nitroanaline	µg/L	NS	3.3	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Nitrophenol	µg/L	NS	NS	2.6 U	2.4 UJ	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Acenaphthene	µg/L	NS	400	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Acenaphthylene	µg/L	NS	NS	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Anthracene	µg/L	NS	1300	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(a)anthracene	µg/L	NS	0.029	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(a)pyrene	µg/L	0.2	0.0029	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(b)fluoranthene	µg/L	NS	0.029	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				FWGmw-001	FWGmw-002	FWGmw-003	FWGmw-004	FWGmw-005	FWGmw-006	FWGmw-007
Sample ID		MCL	USEPA RSL	FWGFWGmw-001-0164-GW	FWGFWGmw-002-0165-GW	FWGFWGmw-003-0166-GW	FWGFWGmw-004-0167-GW	FWGFWGmw-005-0168-GW	FWGFWGmw-006-0169-GW	FWGFWGmw-007-0170-GW
Date Collected				10/15/2012	10/15/2012	10/16/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
Benzo(g,h,i)perylene	µg/L	NS	NS	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(k)fluoranthene	µg/L	NS	0.29	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzoic acid	µg/L	NS	58000	11 U	10 UJ	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
Benzyl alcohol	µg/L	NS	1500	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethoxy)methane	µg/L	NS	46	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethyl)ether	µg/L	NS	0.012	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
bis(2-Ethylhexyl)phthalate	µg/L	6	4.8	0.87 U	**2.5 JB**	0.76 U	**1.2 B**	**0.84**	0.76 U	**1.5**
Butyl benzyl phthalate	µg/L	NS	14	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Carbazole	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Chrysene	µg/L	NS	2.9	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0029	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Dibenzofuran	µg/L	NS	5.8	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Diethyl phthalate	µg/L	NS	11000	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Dimethyl phthalate	µg/L	NS	NS	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Di-n-butyl phthalate	µg/L	NS	670	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Di-n-octyl phthalate	µg/L	NS	190	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Fluoranthene	µg/L	NS	630	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Fluorene	µg/L	NS	220	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Hexachlorobenzene	µg/L	1	0.042	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Hexachlorobutadiene	µg/L	NS	0.26	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Hexachlorocyclopentadiene	µg/L	50	22	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Hexachloroethane	µg/L	NS	0.79	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.029	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Isophorone	µg/L	NS	67	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Naphthalene	µg/L	NS	0.14	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
N-Nitroso-di-n-propylamine	µg/L	NS	0.0093	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
N-Nitrosodiphenylamine	µg/L	NS	10	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Pentachlorophenol	µg/L	1	0.035	2.6 U	2.4 UJ	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Phenanthrene	µg/L	NS	NS	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Phenol	µg/L	NS	4500	0.87 U	0.82 UJ	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Pyrene	µg/L	NS	87	0.11 U	0.10 UJ	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = not analyzed

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				FWGmw-008	FWGmw-009	FWGmw-010	FWGmw-011	FWGmw-012	FWGmw-013
Sample ID		MCL	USEPA RSL	FWGFWGmw-008-0171-GW	FWGFWGmw-009-0172-GW	FWGFWGmw-010-0173-GW	FWGFWGmw-011-0174-GW	FWGFWGmw-012-0175-GW	FWGFWGmw-013-0093-GW
Date Collected				10/16/2012	10/16/2012	10/15/2012	10/15/2012	10/15/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,2,4-Trichlorobenzene	µg/L	70	0.99	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
1,2-Dichlorobenzene	µg/L	600	280	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
1,3-Dichlorobenzene	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
1,4-Dichlorobenzene	µg/L	75	0.42	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2,4,5-Trichlorophenol	µg/L	NS	890	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2,4,6-Trichlorophenol	µg/L	NS	3.5	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2,4-Dichlorophenol	µg/L	NS	35	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2,4-Dimethylphenol	µg/L	NS	270	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2,4-Dinitrophenol	µg/L	NS	30	2.3 U	2.3 U	2.3 U	2.4 U	2.3 UJ	2.6 UJ
2-Chloronaphthalene	µg/L	NS	550	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
2-Chlorophenol	µg/L	NS	71	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2-Methylnaphthalene	µg/L	NS	27	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
2-Methylphenol	µg/L	NS	720	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2-Nitroaniline	µg/L	NS	150	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
2-Nitrophenol	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
3,3'-Dichlorobenzidine	µg/L	NS	0.11	0.76 UJ	0.76 UJ	0.76 U	0.80 U	0.76 JB	0.86 UJ
3- and 4-Methylphenol	µg/L	NS	720	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
3-Nitroaniline	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
4,6-Dinitro-2-methylphenol	µg/L	NS	1.2	2.3 U	2.3 U	2.3 U	2.4 U	2.3 UJ	2.6 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
4-Chloro-3-methylphenol	µg/L	NS	1100	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
4-Chloroaniline	µg/L	NS	0.32	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
4-Nitroanaline	µg/L	NS	3.3	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
4-Nitrophenol	µg/L	NS	NS	2.3 U	2.3 U	2.3 U	2.4 U	2.3 UJ	2.6 U
Acenaphthene	µg/L	NS	400	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Acenaphthylene	µg/L	NS	NS	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Anthracene	µg/L	NS	1300	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Benzo(a)anthracene	µg/L	NS	0.029	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Benzo(a)pyrene	µg/L	0.2	0.0029	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Benzo(b)fluoranthene	µg/L	NS	0.029	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				FWGmw-008	FWGmw-009	FWGmw-010	FWGmw-011	FWGmw-012	FWGmw-013
Sample ID		MCL	USEPA RSL	FWGFWGmw-008-0171-GW	FWGFWGmw-009-0172-GW	FWGFWGmw-010-0173-GW	FWGFWGmw-011-0174-GW	FWGFWGmw-012-0175-GW	FWGFWGmw-013-0093-GW
Date Collected				10/16/2012	10/16/2012	10/15/2012	10/15/2012	10/15/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Benzo(g,h,i)perylene	µg/L	NS	NS	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Benzo(k)fluoranthene	µg/L	NS	0.29	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Benzoic acid	µg/L	NS	58000	9.5 U	9.5 U	9.5 U	10 U	9.5 UJ	11 U
Benzyl alcohol	µg/L	NS	1500	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
bis(2-Chloroethoxy)methane	µg/L	NS	46	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
bis(2-Chloroethyl)ether	µg/L	NS	0.012	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
bis(2-Ethylhexyl)phthalate	µg/L	6	4.8	**0.95**	**1.1**	**40**	**1.1 B**	**2.8 JB**	**1.9**
Butyl benzyl phthalate	µg/L	NS	14	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Carbazole	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Chrysene	µg/L	NS	2.9	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0029	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Dibenzofuran	µg/L	NS	5.8	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Diethyl phthalate	µg/L	NS	11000	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Dimethyl phthalate	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Di-n-butyl phthalate	µg/L	NS	670	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Di-n-octyl phthalate	µg/L	NS	190	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Fluoranthene	µg/L	NS	630	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Fluorene	µg/L	NS	220	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Hexachlorobenzene	µg/L	1	0.042	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Hexachlorobutadiene	µg/L	NS	0.26	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Hexachlorocyclopentadiene	µg/L	50	22	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Hexachloroethane	µg/L	NS	0.79	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.029	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Isophorone	µg/L	NS	67	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Naphthalene	µg/L	NS	0.14	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
N-Nitroso-di-n-propylamine	µg/L	NS	0.0093	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
N-Nitrosodiphenylamine	µg/L	NS	10	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Pentachlorophenol	µg/L	1	0.035	2.3 U	2.3 U	2.3 U	2.4 U	2.3 UJ	2.6 U
Phenanthrene	µg/L	NS	NS	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U
Phenol	µg/L	NS	4500	0.76 U	0.76 U	0.76 U	0.80 U	0.76 UJ	0.86 U
Pyrene	µg/L	NS	87	0.095 U	0.095 U	0.095 U	0.10 U	0.095 UJ	0.11 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = not analyzed

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				FWGmw-014	FWGmw-015	FWGmw-016	LL1mw-086	LL1mw-087	LL3mw-244
Sample ID		MCL	USEPA RSL	FWGFWGmw-014-0178-GW	FWGFWGmw-015-0179-GW	FWGFWGmw-016-0180-GW	FWGLL1mw-086-0181-GW	FWGLL1mw-087-0182-GW	FWGLL3mw-244-0183-GW
Date Collected				10/16/2012	10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,2,4-Trichlorobenzene	µg/L	70	0.99	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
1,2-Dichlorobenzene	µg/L	600	280	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
1,3-Dichlorobenzene	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
1,4-Dichlorobenzene	µg/L	75	0.42	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4,5-Trichlorophenol	µg/L	NS	890	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4,6-Trichlorophenol	µg/L	NS	3.5	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dichlorophenol	µg/L	NS	35	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dimethylphenol	µg/L	NS	270	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dinitrophenol	µg/L	NS	30	2.3 U	2.3 U	2.3 U	2.3 UJ	2.3 UJ	2.3 U
2-Chloronaphthalene	µg/L	NS	550	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
2-Chlorophenol	µg/L	NS	71	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2-Methylnaphthalene	µg/L	NS	27	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
2-Methylphenol	µg/L	NS	720	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2-Nitroaniline	µg/L	NS	150	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
2-Nitrophenol	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
3,3'-Dichlorobenzidine	µg/L	NS	0.11	0.76 U	0.76 UJ	0.76 UJ	0.76 UJ	0.76 UJ	0.76 U
3- and 4-Methylphenol	µg/L	NS	720	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
3-Nitroaniline	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4,6-Dinitro-2-methylphenol	µg/L	NS	1.2	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chloro-3-methylphenol	µg/L	NS	1100	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chloroaniline	µg/L	NS	0.32	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Nitroanaline	µg/L	NS	3.3	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Nitrophenol	µg/L	NS	NS	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Acenaphthene	µg/L	NS	400	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Acenaphthylene	µg/L	NS	NS	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Anthracene	µg/L	NS	1300	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(a)anthracene	µg/L	NS	0.029	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(a)pyrene	µg/L	0.2	0.0029	0.095 U	0.095 U	0.095 U	0.095 UJ	0.095 U	0.095 U
Benzo(b)fluoranthene	µg/L	NS	0.029	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				FWGmw-014	FWGmw-015	FWGmw-016	LL1mw-086	LL1mw-087	LL3mw-244
Sample ID		MCL	USEPA RSL	FWGFWGmw-014-0178-GW	FWGFWGmw-015-0179-GW	FWGFWGmw-016-0180-GW	FWGLL1mw-086-0181-GW	FWGLL1mw-087-0182-GW	FWGLL3mw-244-0183-GW
Date Collected				10/16/2012	10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Benzo(g,h,i)perylene	µg/L	NS	NS	0.095 U	0.095 U	0.095 U	0.095 UJ	0.095 U	0.095 U
Benzo(k)fluoranthene	µg/L	NS	0.29	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Benzoic acid	µg/L	NS	58000	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U
Benzyl alcohol	µg/L	NS	1500	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethoxy)methane	µg/L	NS	46	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethyl)ether	µg/L	NS	0.012	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
bis(2-Ethylhexyl)phthalate	µg/L	6	4.8	0.76 U	**1.2**	0.76 U	**1.2 J**	**0.85**	0.76 U
Butyl benzyl phthalate	µg/L	NS	14	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Carbazole	µg/L	NS	NS	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Chrysene	µg/L	NS	2.9	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0029	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Dibenzofuran	µg/L	NS	5.8	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Diethyl phthalate	µg/L	NS	11000	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Dimethyl phthalate	µg/L	NS	NS	0.76 U	**2.6**	0.76 U	0.76 U	**0.92**	0.76 U
Di-n-butyl phthalate	µg/L	NS	670	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Di-n-octyl phthalate	µg/L	NS	190	0.76 U	0.76 U	0.76 U	0.76 UJ	0.76 U	0.76 U
Fluoranthene	µg/L	NS	630	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Fluorene	µg/L	NS	220	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Hexachlorobenzene	µg/L	1	0.042	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Hexachlorobutadiene	µg/L	NS	0.26	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Hexachlorocyclopentadiene	µg/L	50	22	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Hexachloroethane	µg/L	NS	0.79	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.029	0.095 U	0.095 U	0.095 U	0.095 UJ	0.095 U	0.095 U
Isophorone	µg/L	NS	67	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Naphthalene	µg/L	NS	0.14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
N-Nitroso-di-n-propylamine	µg/L	NS	0.0093	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
N-Nitrosodiphenylamine	µg/L	NS	10	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Pentachlorophenol	µg/L	1	0.035	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U
Phenanthrene	µg/L	NS	NS	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
Phenol	µg/L	NS	4500	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
Pyrene	µg/L	NS	87	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = not analyzed

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				LL3mw-245	LL4mw-201	LL6mw-008	LL6mw-009	LL11mw-011	LL11mw-012
Sample ID		MCL	USEPA RSL	FWGLL3mw-245-0184-GW	FWGLL4mw-201-0185-GW	FWGLL6mw-008-0186-GW	FWGLL6mw-009-0187-GW	FWGLL11mw-011-0188-GW	FWGLL11mw-012-0189-GW
Date Collected				10/15/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,2,4-Trichlorobenzene	µg/L	70	0.99	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
1,2-Dichlorobenzene	µg/L	600	280	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
1,3-Dichlorobenzene	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
1,4-Dichlorobenzene	µg/L	75	0.42	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2,4,5-Trichlorophenol	µg/L	NS	890	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2,4,6-Trichlorophenol	µg/L	NS	3.5	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dichlorophenol	µg/L	NS	35	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dimethylphenol	µg/L	NS	270	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2,4-Dinitrophenol	µg/L	NS	30	2.3 U	2.3 UJ	2.3 UJ	2.3 UJ	2.3 U	2.3 U
2-Chloronaphthalene	µg/L	NS	550	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
2-Chlorophenol	µg/L	NS	71	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2-Methylnaphthalene	µg/L	NS	27	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
2-Methylphenol	µg/L	NS	720	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2-Nitroaniline	µg/L	NS	150	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
2-Nitrophenol	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
3,3'-Dichlorobenzidine	µg/L	NS	0.11	0.76 U	0.76 UJ	0.76 UJ	0.76 UJ	0.76 UJ	0.76 U
3- and 4-Methylphenol	µg/L	NS	720	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
3-Nitroaniline	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
4,6-Dinitro-2-methylphenol	µg/L	NS	1.2	2.3 U	2.3 UJ	2.3 U	2.3 U	2.3 U	2.3 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
4-Chloro-3-methylphenol	µg/L	NS	1100	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
4-Chloroaniline	µg/L	NS	0.32	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
4-Nitroanaline	µg/L	NS	3.3	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
4-Nitrophenol	µg/L	NS	NS	2.3 U	2.3 UJ	2.3 U	2.3 U	2.3 U	2.3 U
Acenaphthene	µg/L	NS	400	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Acenaphthylene	µg/L	NS	NS	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Anthracene	µg/L	NS	1300	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(a)anthracene	µg/L	NS	0.029	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(a)pyrene	µg/L	0.2	0.0029	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(b)fluoranthene	µg/L	NS	0.029	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				LL3mw-245	LL4mw-201	LL6mw-008	LL6mw-009	LL11mw-011	LL11mw-012
Sample ID		MCL	USEPA RSL	FWGLL3mw-245-0184-GW	FWGLL4mw-201-0185-GW	FWGLL6mw-008-0186-GW	FWGLL6mw-009-0187-GW	FWGLL11mw-011-0188-GW	FWGLL11mw-012-0189-GW
Date Collected				10/15/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Benzo(g,h,i)perylene	µg/L	NS	NS	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Benzo(k)fluoranthene	µg/L	NS	0.29	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Benzoic acid	µg/L	NS	58000	9.5 U	9.5 UJ	9.5 U	9.5 U	9.5 U	9.5 U
Benzyl alcohol	µg/L	NS	1500	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethoxy)methane	µg/L	NS	46	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethyl)ether	µg/L	NS	0.012	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
bis(2-Ethylhexyl)phthalate	µg/L	6	4.8	0.76 U	0.76 UJ	0.76 U	**1.9**	**1.3 B**	0.76 U
Butyl benzyl phthalate	µg/L	NS	14	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Carbazole	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Chrysene	µg/L	NS	2.9	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0029	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Dibenzofuran	µg/L	NS	5.8	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Diethyl phthalate	µg/L	NS	11000	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Dimethyl phthalate	µg/L	NS	NS	0.76 U	0.76 UJ	0.76 U	0.76 U	**0.66 J**	0.76 U
Di-n-butyl phthalate	µg/L	NS	670	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Di-n-octyl phthalate	µg/L	NS	190	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Fluoranthene	µg/L	NS	630	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Fluorene	µg/L	NS	220	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Hexachlorobenzene	µg/L	1	0.042	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Hexachlorobutadiene	µg/L	NS	0.26	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Hexachlorocyclopentadiene	µg/L	50	22	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Hexachloroethane	µg/L	NS	0.79	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.029	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Isophorone	µg/L	NS	67	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Naphthalene	µg/L	NS	0.14	0.095 U	**0.32 J**	0.095 U	0.095 U	0.095 U	0.095 U
N-Nitroso-di-n-propylamine	µg/L	NS	0.0093	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
N-Nitrosodiphenylamine	µg/L	NS	10	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Pentachlorophenol	µg/L	1	0.035	2.3 U	2.3 UJ	2.3 U	2.3 U	2.3 U	2.3 U
Phenanthrene	µg/L	NS	NS	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U
Phenol	µg/L	NS	4500	0.76 U	0.76 UJ	0.76 U	0.76 U	0.76 U	0.76 U
Pyrene	µg/L	NS	87	0.095 U	0.095 UJ	0.095 U	0.095 U	0.095 U	0.095 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = not analyzed

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				LL12mw-247	NTAmw-119	WBGmw-018	WBGmw-019	WBGmw-020	WBGmw-021
Sample ID		MCL	USEPA RSL	FWGLL12mw-247-0192-GW	FWGNTAmw-119-0193-GW	FWGWBGmw-018-0195-GW	FWGWBGmw-019-0196-GW	FWGWBGmw-020-0197-GW	FWGWBGmw-021-0198-GW
Date Collected				10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
1,2,4-Trichlorobenzene	µg/L	70	0.99	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
1,2-Dichlorobenzene	µg/L	600	280	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
1,3-Dichlorobenzene	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
1,4-Dichlorobenzene	µg/L	75	0.42	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2,2-oxybis (1-chloropropane)	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2,4,5-Trichlorophenol	µg/L	NS	890	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2,4,6-Trichlorophenol	µg/L	NS	3.5	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2,4-Dichlorophenol	µg/L	NS	35	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2,4-Dimethylphenol	µg/L	NS	270	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2,4-Dinitrophenol	µg/L	NS	30	2.6 U	2.3 U	2.4 UJ	2.3 UJ	2.3 UJ	2.3 UJ
2-Chloronaphthalene	µg/L	NS	550	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
2-Chlorophenol	µg/L	NS	71	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2-Methylnaphthalene	µg/L	NS	27	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
2-Methylphenol	µg/L	NS	720	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2-Nitroaniline	µg/L	NS	150	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
2-Nitrophenol	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
3,3'-Dichlorobenzidine	µg/L	NS	0.11	0.87 U	0.76 U	0.78 UJ	0.76 UJ	0.76 UJ	0.76 UJ
3- and 4-Methylphenol	µg/L	NS	720	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
3-Nitroaniline	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
4,6-Dinitro-2-methylphenol	µg/L	NS	1.2	2.6 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U
4-Bromophenyl phenyl ether	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
4-Chloro-3-methylphenol	µg/L	NS	1100	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
4-Chloroaniline	µg/L	NS	0.32	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
4-Nitroanaline	µg/L	NS	3.3	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
4-Nitrophenol	µg/L	NS	NS	2.6 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U
Acenaphthene	µg/L	NS	400	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Acenaphthylene	µg/L	NS	NS	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Anthracene	µg/L	NS	1300	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Benzo(a)anthracene	µg/L	NS	0.029	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Benzo(a)pyrene	µg/L	0.2	0.0029	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Benzo(b)fluoranthene	µg/L	NS	0.029	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Station ID				LL12mw-247	NTAmw-119	WBGmw-018	WBGmw-019	WBGmw-020	WBGmw-021
Sample ID		MCL	USEPA RSL	FWGLL12mw-247-0192-GW	FWGNTAmw-119-0193-GW	FWGWBGmw-018-0195-GW	FWGWBGmw-019-0196-GW	FWGWBGmw-020-0197-GW	FWGWBGmw-021-0198-GW
Date Collected				10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
Benzo(g,h,i)perylene	µg/L	NS	NS	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Benzo(k)fluoranthene	µg/L	NS	0.29	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Benzoic acid	µg/L	NS	58000	11 U	9.5 U	9.8 U	9.5 U	9.5 U	9.5 U
Benzyl alcohol	µg/L	NS	1500	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethoxy)methane	µg/L	NS	46	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
bis(2-Chloroethyl)ether	µg/L	NS	0.012	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
bis(2-Ethylhexyl)phthalate	µg/L	6	4.8	0.87 U	0.76 U	**0.95 J**	0.76 U	**0.88**	**0.81**
Butyl benzyl phthalate	µg/L	NS	14	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Carbazole	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Chrysene	µg/L	NS	2.9	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Dibenzo(a,h)anthracene	µg/L	NS	0.0029	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Dibenzofuran	µg/L	NS	5.8	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Diethyl phthalate	µg/L	NS	11000	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Dimethyl phthalate	µg/L	NS	NS	0.87 U	0.76 U	0.78 U	0.76 U	0.53 J	0.76 U
Di-n-butyl phthalate	µg/L	NS	670	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Di-n-octyl phthalate	µg/L	NS	190	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Fluoranthene	µg/L	NS	630	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Fluorene	µg/L	NS	220	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Hexachlorobenzene	µg/L	1	0.042	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Hexachlorobutadiene	µg/L	NS	0.26	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Hexachlorocyclopentadiene	µg/L	50	22	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Hexachloroethane	µg/L	NS	0.79	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Indeno(1,2,3-cd)pyrene	µg/L	NS	0.029	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Isophorone	µg/L	NS	67	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Naphthalene	µg/L	NS	0.14	0.11 U	**0.26**	0.098 U	0.095 U	0.095 U	0.095 U
N-Nitroso-di-n-propylamine	µg/L	NS	0.0093	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
N-Nitrosodiphenylamine	µg/L	NS	10	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Pentachlorophenol	µg/L	1	0.035	2.6 U	2.3 U	2.4 U	2.3 U	2.3 U	2.3 U
Phenanthrene	µg/L	NS	NS	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U
Phenol	µg/L	NS	4500	0.87 U	0.76 U	0.78 U	0.76 U	0.76 U	0.76 U
Pyrene	µg/L	NS	87	0.11 U	0.095 U	0.098 U	0.095 U	0.095 U	0.095 U

Notes:
NS = no standard
Bold = detected compound above the MDL
N/A = not analyzed

Table 3-7. FWGWMP October 2012 SVOC Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix C.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J The identification of the analyte is acceptable, but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision (i.e., the quantitative value is estimated). Examples include:
- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers, which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) “B” designation when used by the laboratory as an estimated value for inorganics.

3.3.5 Pesticides and Polychlorinated Biphenyls (PCBs)

The analytical results for pesticides and PCBs are summarized in Table 3-8.

- beta-BHC – EBGmw-131 (0.0081 µg/L J B). There is no MCL for beta-BHC. The RSL is 0.022 µg/L.

- delta-BHC – FWGmw-015 (0.013 µg/L J). There is no MCL or RSL for delta-BHC.

- Endrin Ketone – FWGmw-008 (0.0075 µg/L J), and LL11mw-012 (0.014 µg/L J). There is no MCL or RSL for Endrin Ketone.

As shown in Table 3-8, there were no pesticides and/or PCBs detected at levels exceeding either their MCLs or RSLs.

3.3.6 Alpha, Beta, and Gamma Radionuclides

FWGmw-014 was analyzed for alpha, beta, and gamma radionuclides. As shown in Table 3-9 the gamma spectroscopy, gross alpha and beta screening indicated that no results exceeded their respective MCLs. Since the analysis of the July samples had indicated a potential contamination, EQM made the determination to continue analysis in October in order to get a better understanding of any potential issues as described below.

A review of the data from the October 2012 sampling event did not identified a detection for Ra-226 similar to the July and April 2012 events. EQM believed the reported Ra-226 concentration was likely a false positive, due to a combination of both a misidentification by the gamma spectroscopy software and the elevated reporting limit of the analytical method applied.

Analysis for total alpha radium by method 903.0 (approved drinking water method for total alpha radium) and total thorium & uranium by ICPMS, method 6020 were as follows; the total alpha radium was below the EPA drinking water limit of 5.0 Picocuries per liter (pCi/L) at 0.47 pCi/L. The total uranium results were also reported to be below EPA limits of 30 µg/L. Total uranium was reported at 0.54 µg/L. While there is no EPA standard for thorium in drinking water, the thorium results were below the laboratory reporting limit of 2 µg/L. Thorium was detected at 0.56 µg/L.

Based on this analysis EQM does not believe that there is a radiation concern at well FWGmw-014. This well will, however be monitored for radionuclides for one additional quarter (January 2013).

Table 3-8. FWGWMP October 2012 Pesticides and PCBs Analytical Results

Station ID				B12mw-013	CBLmw-005	CBPmw-009	DA2mw-114	DA2mw-115	EBGmw-131	FWGmw-001
Sample ID		MCL	USEPA RSL	FWGB12mw-013-0158-GW	FWGCBLmw-005-0159-GW	FWGCBPmw-009-0160-GW	FWGDA2mw-114-0161-GW	FWGDA2mw-115-0162-GW	FWGEBGmw-131-0163-GW	FWGFWGmw-001-0164-GW
Date Collected				10/15-16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/15/2012	10/15/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units									
4,4'-DDD	µg/L	NS	0.027	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
4,4'-DDE	µg/L	NS	0.2	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
4,4'-DDT	µg/L	NS	0.2	0.033 U	0.029 U	0.029 U	0.030 U	0.029 U	0.029 U	0.029 U
Aldrin	µg/L	NS	0.004	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
alpha-BHC	µg/L	NS	0.0062	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
alpha-Chordane	µg/L	NS	NS	0.015 U	0.013 U	0.013 U	0.014 U	0.013 U	0.013 U	0.013 U
beta-BHC	µg/L	NS	0.022	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	**0.0081 JB**	0.0095 U
delta-BHC	µg/L	NS	NS	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
Dieldrin	µg/L	NS	0.0015	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
Endosulfan I	µg/L	NS	78	0.014 U	0.012 U	0.013 U	0.013 U	0.012 U	0.012 U	0.012 U
Endosulfan II	µg/L	NS	78	0.013 U	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U
Endosulfan sulfate	µg/L	NS	NS	0.012 U	0.010 U	0.011 U	0.011 U	0.010 U	0.010 U	0.010 U
Endrin	µg/L	2	1.7	0.012 U	0.010 U	0.011 U	0.011 U	0.010 U	0.010 U	0.010 U
Endrin aldehyde	µg/L	NS	NS	0.012 U	0.010 U	0.011 U	0.011 U	0.010 U	0.010 U	0.010 U
Endrin ketone	µg/L	NS	NS	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
gamma-BHC	µg/L	0.2	0.036	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
gamma-Chlordane	µg/L	NS	NS	0.013 U	0.011 U	0.012 U	0.012 U	0.011 U	0.011 U	0.011 U
Heptachlor	µg/L	0.4	0.0018	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
Heptachlor epoxide	µg/L	0.2	0.0033	0.011 U	0.0095 U	0.0096 U	0.0099 U	0.0095 U	0.0095 U	0.0095 U
Methoxychlor	µg/L	40	27	0.035 U	0.030 U	0.031 R	0.032 U	0.030 U	0.030 U	0.030 U
Toxaphene	µg/L	3	0.013	0.55 U	0.48 UJ	0.48 U	0.50 UJ	0.48 U	0.48 UJ	0.48 U
PCB- 1016	µg/L	0.5	0.96	0.22 UJ	0.19 U	0.19 U	0.20 U	0.19 U	0.19 U	0.21 UJ
PCB- 1221	µg/L	0.5	0.004	0.22 UJ	0.19 U	0.19 U	0.20 U	0.19 U	0.19 U	0.21 UJ
PCB- 1232	µg/L	0.5	0.004	0.22 UJ	0.19 U	0.19 U	0.20 U	0.19 U	0.19 U	0.21 UJ
PCB- 1242	µg/L	0.5	0.034	0.44 UJ	0.38 U	0.38 U	0.40 U	0.38 U	0.38 U	0.42 UJ
PCB- 1248	µg/L	0.5	0.034	0.22 UJ	0.19 U	0.19 U	0.20 U	0.19 U	0.19 U	0.21 UJ
PCB- 1254	µg/L	0.5	0.034	0.22 UJ	0.19 U	0.19 U	0.20 U	0.19 U	0.19 U	0.21 UJ
PCB- 1260	µg/L	0.5	0.034	0.22 UJ	0.19 U	0.19 U	0.20 U	0.19 U	0.19 U	0.21 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-8. FWGWMP October 2012 Pesticides and PCBs Analytical Results

Station ID				FWGmw-002	FWGmw-003	FWGmw-004	FWGmw-005	FWGmw-006	FWGmw-007
Sample ID		MCL	USEPA RSL	FWGFWGmw-002-0165-GW	FWGFWGmw-003-0166-GW	FWGFWGmw-004-0167-GW	FWGFWGmw-005-0168-GW	FWGFWGmw-006-0169-GW	FWGFWGmw-007-0170-GW
Date Collected				10/15/2012	10/16/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
4,4'-DDD	µg/L	NS	0.027	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
4,4'-DDE	µg/L	NS	0.2	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
4,4'-DDT	µg/L	NS	0.2	0.032 U	0.029 U	0.029 UJ	0.029 U	0.029 U	0.029 U
Aldrin	µg/L	NS	0.004	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
alpha-BHC	µg/L	NS	0.0062	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
alpha-Chordane	µg/L	NS	NS	0.015 U	0.013 U	0.013 UJ	0.013 U	0.013 U	0.014 U
beta-BHC	µg/L	NS	0.022	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
delta-BHC	µg/L	NS	NS	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
Dieldrin	µg/L	NS	0.0015	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
Endosulfan I	µg/L	NS	78	0.014 U	0.012 U	0.013 UJ	0.012 U	0.012 U	0.013 U
Endosulfan II	µg/L	NS	78	0.013 U	0.011 U	0.012 UJ	0.011 U	0.011 U	0.012 U
Endosulfan sulfate	µg/L	NS	NS	0.012 U	0.010 U	0.011 UJ	0.010 U	0.010 U	0.011 U
Endrin	µg/L	2	1.7	0.012 U	0.010 U	0.011 UJ	0.010 U	0.010 U	0.011 U
Endrin aldehyde	µg/L	NS	NS	0.012 U	0.010 U	0.011 UJ	0.010 U	0.010 U	0.011 U
Endrin ketone	µg/L	NS	NS	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
gamma-BHC	µg/L	0.2	0.036	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
gamma-Chlordane	µg/L	NS	NS	0.013 U	0.011 U	0.012 UJ	0.011 U	0.011 U	0.012 U
Heptachlor	µg/L	0.4	0.0018	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
Heptachlor epoxide	µg/L	0.2	0.0033	0.011 U	0.0095 U	0.0096 UJ	0.0095 U	0.0095 U	0.0097 U
Methoxychlor	µg/L	40	27	0.034 U	0.030 U	0.031 UJ	0.030 U	0.030 U	0.031 U
Toxaphene	µg/L	3	0.013	0.53 U	0.48 UJ	0.48 UJ	0.48 U	0.48 UJ	0.49 UJ
PCB- 1016	µg/L	0.5	0.96	0.21 UJ	0.19 U	0.19 R	0.19 UJ	0.19 UJ	0.19 UJ
PCB- 1221	µg/L	0.5	0.004	0.21 UJ	0.19 U	0.19 R	0.19 UJ	0.19 UJ	0.19 UJ
PCB- 1232	µg/L	0.5	0.004	0.21 UJ	0.19 U	0.19 R	0.19 UJ	0.19 UJ	0.19 UJ
PCB- 1242	µg/L	0.5	0.034	0.43 UJ	0.38 U	0.38 R	0.38 UJ	0.38 UJ	0.38 UJ
PCB- 1248	µg/L	0.5	0.034	0.21 UJ	0.19 U	0.19 R	0.19 UJ	0.19 UJ	0.19 UJ
PCB- 1254	µg/L	0.5	0.034	0.21 UJ	0.19 U	0.19 R	0.19 UJ	0.19 UJ	0.19 UJ
PCB- 1260	µg/L	0.5	0.034	0.21 UJ	0.19 U	0.19 R	0.19 UJ	0.19 UJ	0.19 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-8. FWGWMP October 2012 Pesticides and PCBs Analytical Results

Station ID				FWGmw-008	FWGmw-009	FWGmw-010	FWGmw-011	FWGmw-012	FWGmw-013
Sample ID		MCL	USEPA RSL	FWGFWGmw-008-0171-GW	FWGFWGmw-009-0172-GW	FWGFWGmw-010-0173-GW	FWGFWGmw-011-0174-GW	FWGFWGmw-012-0175-GW	FWGFWGmw-013-0176-GW
Date Collected				10/16/2012	10/16/2012	10/15/2012	10/15/2012	10/15/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
4,4'-DDD	µg/L	NS	0.027	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
4,4'-DDE	µg/L	NS	0.2	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 UJ	0.011 U
4,4'-DDT	µg/L	NS	0.2	0.029 U	0.029 U	0.029 U	0.029 U	0.029 UJ	0.032 U
Aldrin	µg/L	NS	0.004	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
alpha-BHC	µg/L	NS	0.0062	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
alpha-Chordane	µg/L	NS	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.015 U
beta-BHC	µg/L	NS	0.022	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
delta-BHC	µg/L	NS	NS	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
Dieldrin	µg/L	NS	0.0015	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
Endosulfan I	µg/L	NS	78	0.012 U	0.012 U	0.012 U	0.013 U	0.012 U	0.014 U
Endosulfan II	µg/L	NS	78	0.011 U	0.011 U	0.011 U	0.012 U	0.011 U	0.013 U
Endosulfan sulfate	µg/L	NS	NS	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U	0.012 U
Endrin	µg/L	2	1.7	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U	0.012 U
Endrin aldehyde	µg/L	NS	NS	0.010 U	0.010 U	0.010 U	0.011 U	0.010 U	0.012 U
Endrin ketone	µg/L	NS	NS	**0.0075 J**	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
gamma-BHC	µg/L	0.2	0.036	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
gamma-Chlordane	µg/L	NS	NS	0.011 U	0.011 U	0.011 U	0.012 U	0.011 U	0.013 U
Heptachlor	µg/L	0.4	0.0018	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
Heptachlor epoxide	µg/L	0.2	0.0033	0.0095 U	0.0095 U	0.0095 U	0.0096 U	0.0095 U	0.011 U
Methoxychlor	µg/L	40	27	0.030 U	0.030 U	0.030 U	0.031 U	0.030 U	0.034 U
Toxaphene	µg/L	3	0.013	0.48 U	0.48 U	0.48 U	0.48 U	0.48 UJ	0.53 UJ
PCB- 1016	µg/L	0.5	0.96	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.21 U
PCB- 1221	µg/L	0.5	0.004	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.21 U
PCB- 1232	µg/L	0.5	0.004	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.21 U
PCB- 1242	µg/L	0.5	0.034	0.38 UJ	0.38 UJ	0.38 UJ	0.38 U	0.38 UJ	0.42 U
PCB- 1248	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.21 U
PCB- 1254	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.21 U
PCB- 1260	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.21 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-8. FWGWMP October 2012 Pesticides and PCBs Analytical Results

Station ID				FWGmw-014	FWGmw-015	FWGmw-016	LL1mw-086	LL1mw-087	LL3mw-244
Sample ID		MCL	USEPA RSL	FWGFWGmw-014-0178-GW	FWGFWGmw-015-0179-GW	FWGFWGmw-016-0180-GW	FWGLL1mw-086-0181-GW	FWGLL1mw-087-0182-GW	FWGLL3mw-244-0183-GW
Date Collected				10/16/2012	10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
4,4'-DDD	µg/L	NS	0.027	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
4,4'-DDE	µg/L	NS	0.2	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
4,4'-DDT	µg/L	NS	0.2	0.029 U	0.029 U	0.029 U	0.029 U	0.029 U	0.029 U
Aldrin	µg/L	NS	0.004	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
alpha-BHC	µg/L	NS	0.0062	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
alpha-Chordane	µg/L	NS	NS	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
beta-BHC	µg/L	NS	0.022	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
delta-BHC	µg/L	NS	NS	0.0095 U	**0.013 J**	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Dieldrin	µg/L	NS	0.0015	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Endosulfan I	µg/L	NS	78	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U
Endosulfan II	µg/L	NS	78	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
Endosulfan sulfate	µg/L	NS	NS	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin	µg/L	2	1.7	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin aldehyde	µg/L	NS	NS	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin ketone	µg/L	NS	NS	0.0095 U	0.0095 U	0.0095 U	0.0095 UJ	0.0095 U	0.0095 U
gamma-BHC	µg/L	0.2	0.036	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
gamma-Chlordane	µg/L	NS	NS	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
Heptachlor	µg/L	0.4	0.0018	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Heptachlor epoxide	µg/L	0.2	0.0033	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Methoxychlor	µg/L	40	27	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U
Toxaphene	µg/L	3	0.013	0.48 UJ	0.48 U	0.48 U	0.48 UJ	0.48 UJ	0.48 UJ
PCB- 1016	µg/L	0.5	0.96	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.19 UJ	0.19 U
PCB- 1221	µg/L	0.5	0.004	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.19 UJ	0.19 U
PCB- 1232	µg/L	0.5	0.004	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.19 UJ	0.19 U
PCB- 1242	µg/L	0.5	0.034	0.38 UJ	0.38 UJ	0.38 U	0.38 UJ	0.38 UJ	0.38 U
PCB- 1248	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.19 UJ	0.19 U
PCB- 1254	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.19 UJ	0.19 U
PCB- 1260	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 U	0.19 UJ	0.19 UJ	0.19 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-8. FWGWMP October 2012 Pesticides and PCBs Analytical Results

Station ID				LL3mw-245	LL4mw-201	LL6mw-008	LL6mw-009	LL11mw-011	LL11mw-012
Sample ID		MCL	USEPA RSL	FWGLL3mw-245-0184-GW	FWGLL4mw-201-0185-GW	FWGLL6mw-008-0186-GW	FWGLL6mw-009-0187-GW	FWGLL11mw-011-0188-GW	FWGLL11mw-012-0189-GW
Date Collected				10/15/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012	10/16/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
4,4'-DDD	µg/L	NS	0.027	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
4,4'-DDE	µg/L	NS	0.2	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
4,4'-DDT	µg/L	NS	0.2	0.032 U	0.029 U	0.029 U	0.029 U	0.029 U	0.029 U
Aldrin	µg/L	NS	0.004	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
alpha-BHC	µg/L	NS	0.0062	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
alpha-Chordane	µg/L	NS	NS	0.015 U	0.013 U	0.013 U	0.013 U	0.013 U	0.014 U
beta-BHC	µg/L	NS	0.022	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
delta-BHC	µg/L	NS	NS	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
Dieldrin	µg/L	NS	0.0015	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
Endosulfan I	µg/L	NS	78	0.014 U	0.013 U	0.012 U	0.012 U	0.012 U	0.013 U
Endosulfan II	µg/L	NS	78	0.013 U	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U
Endosulfan sulfate	µg/L	NS	NS	0.012 U	0.011 U	0.010 U	0.010 U	0.010 U	0.011 U
Endrin	µg/L	2	1.7	0.012 U	0.011 U	0.010 U	0.010 U	0.010 U	0.011 U
Endrin aldehyde	µg/L	NS	NS	0.012 U	0.011 U	0.010 U	0.010 U	0.010 U	0.011 U
Endrin ketone	µg/L	NS	NS	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	**0.014 J**
gamma-BHC	µg/L	0.2	0.036	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
gamma-Chlordane	µg/L	NS	NS	0.013 U	0.012 U	0.011 U	0.011 U	0.011 U	0.012 U
Heptachlor	µg/L	0.4	0.0018	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
Heptachlor epoxide	µg/L	0.2	0.0033	0.011 U	0.0096 U	0.0095 U	0.0095 U	0.0095 U	0.0097 U
Methoxychlor	µg/L	40	27	0.034 U	0.031 U	0.030 R	0.030 R	0.030 R	0.031 U
Toxaphene	µg/L	3	0.013	0.53 U	0.48 UJ	0.48 U	0.48 U	0.48 U	0.49 U
PCB- 1016	µg/L	0.5	0.96	0.21 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U
PCB- 1221	µg/L	0.5	0.004	0.21 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U
PCB- 1232	µg/L	0.5	0.004	0.21 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U
PCB- 1242	µg/L	0.5	0.034	0.42 U	0.38 U	0.38 UJ	0.38 U	0.38 U	0.39 U
PCB- 1248	µg/L	0.5	0.034	0.21 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U
PCB- 1254	µg/L	0.5	0.034	0.21 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U
PCB- 1260	µg/L	0.5	0.034	0.21 U	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-8. FWGWMP October 2012 Pesticides and PCBs Analytical Results

Station ID				LL12mw-247	NTAmw-119	WBGmw-018	WBGmw-019	WBGmw-020	WBGmw-021
Sample ID		MCL	USEPA RSL	FWGLL12mw-247-0192-GW	FWGWBGmw-119-0193-GW	FWGWBGmw-018-0195-GW	FWGWBGmw-019-0196-GW	FWGWBGmw-020-0197-GW	FWGWBGmw-021-0198-GW
Date Collected				10/16/2012	10/16/2012	10/17/2012	10/17/2012	10/17/2012	10/17/2012
Sample Type				Grab	Grab	Grab	Grab	Grab	Grab
Analyte	Units								
4,4'-DDD	µg/L	NS	0.027	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
4,4'-DDE	µg/L	NS	0.2	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
4,4'-DDT	µg/L	NS	0.2	0.032 U	0.58 U	0.029 U	0.029 U	0.029 U	0.029 U
Aldrin	µg/L	NS	0.004	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
alpha-BHC	µg/L	NS	0.0062	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
alpha-Chordane	µg/L	NS	NS	0.015 U	0.27 U	0.013 U	0.013 U	0.013 U	0.013 U
beta-BHC	µg/L	NS	0.022	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
delta-BHC	µg/L	NS	NS	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Dieldrin	µg/L	NS	0.0015	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Endosulfan I	µg/L	NS	78	0.014 U	0.25 U	0.012 U	0.012 U	0.012 U	0.012 U
Endosulfan II	µg/L	NS	78	0.013 U	0.23 U	0.011 U	0.011 U	0.011 U	0.011 U
Endosulfan sulfate	µg/L	NS	NS	0.012 U	0.21 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin	µg/L	2	1.7	0.012 U	0.21 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin aldehyde	µg/L	NS	NS	0.012 U	0.21 U	0.010 U	0.010 U	0.010 U	0.010 U
Endrin ketone	µg/L	NS	NS	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
gamma-BHC	µg/L	0.2	0.036	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
gamma-Chlordane	µg/L	NS	NS	0.013 U	0.23 U	0.011 U	0.011 U	0.011 U	0.011 U
Heptachlor	µg/L	0.4	0.0018	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Heptachlor epoxide	µg/L	0.2	0.0033	0.011 U	0.19 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U
Methoxychlor	µg/L	40	27	0.034 U	0.62 R	0.030 U	0.030 U	0.030 U	0.030 U
Toxaphene	µg/L	3	0.013	0.53 U	9.6 U	0.48 UJ	0.48 UJ	0.48 UJ	0.48 UJ
PCB- 1016	µg/L	0.5	0.96	0.19 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 UJ
PCB- 1221	µg/L	0.5	0.004	0.19 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 UJ
PCB- 1232	µg/L	0.5	0.004	0.19 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 UJ
PCB- 1242	µg/L	0.5	0.034	0.38 UJ	0.38 UJ	0.38 U	0.38 U	0.38 U	0.38 UJ
PCB- 1248	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 UJ
PCB- 1254	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 UJ
PCB- 1260	µg/L	0.5	0.034	0.19 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 UJ

Notes:

NS = no standard

Bold = detected compound above the MDL

N/A = not analyzed

Table 3-8. FWGWMP October 2012 Pesticides and PCBs Analytical Results

Data Qualifiers

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the USACE Louisville Chemistry Guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix C.

U The analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.

J The identification of the analyte is acceptable, but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision (i.e., the quantitative value is estimated). Examples include:
- Results detected above the laboratory MDL but less than the laboratory reporting limit.
- MS/MSD percent recoveries outside the acceptance criteria.
- Laboratory control sample (LCS) percent recoveries outside acceptance criteria.

R Data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample [e.g., the method reporting limit (MRL) verification standard was below quality control guidelines; associated sample results that were non-detect are unusable].

UJ This flag is a combination of the U and J qualifiers, which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit (RL).

B The B flag is used for both organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the Contract Laboratory Program (CLP) “B” designation when used by the laboratory as an estimated value for inorganics.

Table 3-9. FWGWMP October 2012 Radionuclide Results

Analyte	Method	units	Sample ID: FWGFWGmw-014-0178-GW	
Gross Alpha	900.0 MOD	pCi/L	1.2	UJ
Gross Beta	900.0 MOD	pCi/L	**2.8**	**J**
Actimium 227 (assumes equilibrium w/ Th-227)	901.1 MOD	pCi/L	-2.5	UJ
Actinium 228	901.1 MOD	pCi/L	7	UJ
Bismuth 212	901.1 MOD	pCi/L	29	UJ
Bismuth 214	901.1 MOD	pCi/L	10	U
Cesium 137	901.1 MOD	pCi/L	0.0	UJ
Lead 210	901.1 MOD	pCi/L	50	UJ
Lead 212	901.1 MOD	pCi/L	-2	UJ
Lead 214	901.1 MOD	pCi/L	**24**	**J**
Potassium 40	901.1 MOD	pCi/L	-21	UJ
Protactinium 231	901.1 MOD	pCi/L	-30	UJ
Radium (226)	901.1 MOD	pCi/L	10	U
Radium 228	901.1 MOD	pCi/L	7	UJ
Thallium 208	901.1 MOD	pCi/L	1.8	U
Thorium 234	901.1 MOD	pCi/L	-50	UJ
Uranium 235	901.1 MOD	pCi/L	27	U
Uranium 238	901.1 MOD	pCi/L	-50	UJ
Thorium	6020	ug/L	**0.56**	**J**
Uranium	6020	ug/L	**0.54**	
Radium (total)	903.0 MOD	pCi/L	**0.47**	**J**

Note:

Bold = detected compound

Uranium [RSL = 47 ug/L, MCL =30 ug/L This MCL is for uranium isotopes (U-234, U-235 and U-238).]

Gross Alpha [MCL = 15 pCi/L This MCL is for "gross alpha" which includes all alpha emitters except uranium and radon.]

Radium (total) [MCL = 5 pCi/L This MCL is a limitation on two kinds (or "isotopes") of radium: Ra-226, (mostly emits alpha radiation) and Ra-228 (mostly emits beta radiation).]

Picocuries per liter (pCi/L) = a unit for measuring radioactive concentrations and reported in units of radioactivity. The curie (Ci) unit is the activity of 1 gram of radiological material with a +/- factor.

3.3.7 Hexavalent Chromium

Hexavalent chromium was detected at levels above the reporting limit in 1 well LL3mw-244 at 0.173 µg/L. This detection was elevated above the RSL of 0.031 µg/L (there is no MCL for hexavalent chromium). Note that three wells (LL3mw-244, LL12mw-247 and SCFmw-002) were resampled for hexavalent chromium during the October 2012 monitoring event after being elevated above the RSL detection in July 2012.

3.4 Data Verification/Validation

As discussed in Sections 2.4 and 3.3, all primary chemical data were generated by TestAmerica. RTI conducted the independent QA analysis; however, EQM is not required to verify RTI data. A multi-step process is conducted, which involves the lab, the ADR data program, and a data validator performing the data verification and validation of the data. During the First Step each lab analyzes the data and assigns a qualifier as necessary in full accordance with DoD QSM and LS guidelines.

Analytical data was then reviewed by qualified EQM personnel, and a report was generated according to Step 2 of the LS and the DoD QSM, with any deviations/outliers noted in the summary report. The USACE-supplied ADR program assigns qualifiers to the data, as necessary, consistent with the programmed criteria of the ADR software. Additionally, the data validator uses professional judgment to check the validity of the qualified data and either accepts, rejects, or re-qualifies the ADR results following strict DoD QSM and LS guidelines.

After this multi-step process has been completed, the resulting final ADR qualifiers may not match the original lab qualifiers that are presented on the laboratory data sheets. As a result of the data validation process, one or more of four possibilities may occur:

1. The lab assigns a B, J, or E to the data, and ADR and/or the data validator changes the qualifier to a J, UJ, U, B, or R.
2. The lab assigns no qualifier to the data, and ADR and/or the data validator assigns a J, UJ, U, B, or R to the data.
3. The lab assigns a B, J, or E to the data, and ADR and/or the data validator assigns no qualifier to the data.
4. The lab assigns a J qualifier or uses no qualifier, and ADR and/or the data validator accepts the lab designation.

For the October 2012 Sampling Event Report, the laboratory data, with laboratory-derived qualifiers that follow DoD QSM and LS criteria, are presented in Appendix D. The verification reports for the data are also presented in Appendix D, which includes the definitions of the ADR qualifiers. The data presented in Tables 3-3, 3-4, 3-6, 3-7, 3-8, and 3-9 are the result of the data that has been subjected to the multi-step process of verification and validation. These tables display the final assigned data qualifier in accordance with DoD QSM and LS criteria.

Data qualifier flags are used in an effort to describe the quality of each piece of data for each constituent. These flags are letter codes appended to the numerical data. The following data qualifiers are specified in the guidelines. For a complete explanation of qualifiers used for each constituent please refer to the Data Verification Summaries in Appendix D.

- U = the analyte was analyzed for but not detected. The numerical value preceding the U is the associated reporting limit.
- J = the identification of the analyte is acceptable, but the quality assurance criteria indicate that the quantitative values may be outside the normal expected range of precision (i.e., the quantitative value is estimated). Examples include:
  - Results detected above the laboratory MDL but less than the laboratory reporting limit.
  - MS/MSD percent recoveries outside the acceptance criteria.
  - LCS percent recoveries outside acceptance criteria.

- R = data are considered to be rejected and shall not be used. This flag denotes the failure of quality control criteria such that it cannot be determined if the analyte is present or absent from the sample (e.g., MRL verification standard was below quality control guidelines; associated sample results that were non-detect are unusable).

- UJ = a combination of the U and J qualifiers, which indicate that the analyte is not present. The reported value is considered to be an estimated reporting limit.

- B = used for organic and inorganic analyses when the analyte is found in the method blank or any of the field blanks. This designation overrides the CLP "B" designation when used by the laboratory as an estimated value for inorganics.

Forty wells were sampled during a 4-day sampling event from October 15 through October 17, 2012. During the event, nine trip blanks were submitted to TestAmerica for volatile organic analysis.

Seven field duplicates were collected during the sampling event in order to assess the quality and consistency of sample collection. Project requirements of 10% field duplicates were met for this sampling event. In addition, six laboratory splits were collected and analyzed in order to assess the quality and consistency of the laboratory analysis. The project requirements of taking 10% laboratory splits were met for this sampling event. One equipment rinsate blank was collected during each day of monitoring well sampling; a total of three equipment rinsate blanks were collected.

For the October 2012 sampling event, the following laboratory or field contamination was identified at detections greater than ½ MRL for the field QA/QC samples.

SDG 240-16425

Trip Blank Contamination

Acetone was detected in FWG TEAM#1 TRIP at 1.9 µg/L, at 1.5 µg/L in samples FWG TEAM 2-TRIP and FWG TEAM3-TRIP. The acetone results for samples FWGFWGmw-002-0165-

GW, FWGFWGmw-010-0173-GW, FWGFWGmw-011-0174-GW, FWGEQUIPRINSE1-0212-GW and FWGLL3mw-245-0184-GW were qualified, "B".

Method Blank Contamination

- Methylene chloride was detected in the method blank from batch 240-62557 analyzed 10/24/12 at 1.94 μg/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.
- bis(2-Ethylhexyl)phthalate was detected in the method blank from batch 240-62729 at 1.65 μg/L. The detected bis(2-ethylhexyl)phthalate results for samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were qualified, "B".
- The method blank from batch 240-62240 had beryllium detected at 0.14 μg/L, cadmium at 0.189 μg/L and zinc at 9.35 μg/L. The cadmium and beryllium results for samples FWGFWGmw-001-164-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified "B". The zinc result for sample FWGFWGmw-004-0167-GW was qualified "B".

Equipment Rinse Contamination- FWGEQUIPRINSE1-0212-GW

- Acetone was detected at 17 μg/L and 2-butanone at 0.89 μg/L. As there were no detected 2-butanone results reported for the associated field samples, no qualification was made for the 2-butanone contamination in the equipment rinse. The acetone results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-010-0173-GW, FWGFWGmw-011-0174-GW and FWGLL3mw-245-0184-GW were qualified, "B".
- Benzyl alcohol was detected at 4.2 μg/L, phenol at 1.4 μg/L and bis(2-ethylhexyl)phthalate at 0.92 μg/L. The detected bis(2-ethylhexyl)phthalate results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-004-0167-GW, FWGFWGmw-011-0174-GW and FWGFWGmw-012-0175-GW were qualified, "B". No qualifications were made for the phenol or benzyl alcohol contamination as there were no detected concentrations of these targets reported in the associated field samples.
- Vanadium was detected at 1.6 μg/L. The vanadium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-202-GF, FWGFWGmw-002-165-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified, "B".

SDG 240-16465

Trip Blank Contamination

Acetone was detected in FWG TEAM 1 TRIP at 1.8 μg/L, FWG TEAM 2-TRIP at 1.6 μg/L and in FWG TEAM 3TRIP at 1.5 μg/L. The acetone results for samples FWGFWGmw-005-0168-GW, FWGFWGmw-014-0178-GW, FWGFWGmw-003-0166-GW, FWGNTAmw-119-0193-GW, FWGLL11mw-012-0189-GW, FWGCBLmw-005-0159-GW, FWGFWGEquipRinse2-0213-GW and FWGLL3mw-244-0183-GW were qualified, "B".

Method Blank Contamination

- Methylene chloride was detected in the method blank from batch 240-62557 at 1.94 μg/L and in batch 240-62676 at 1.13 μg/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.

- The method blank from batch 240-62201 had vanadium detected at 1.31 µg/L. The vanadium results for samples FWGFWGmw-003-166-GF, FWGFWGmw-006-169-GF, FWGFWGmw-014-178-GF and FWGCBLmw-005-0159-GW were qualified, "B".
- The method blank from batch 240-62240 had beryllium detected at 0.14 µg/L, cadmium at 0.189 µg/L and zinc at 9.35 µg/L. The method blank from batch 240-62201 had zinc detected at 9.02 µg/L. The zinc and beryllium results for samples FWGLL12mw-247-192-GF and FWGFWGmw-009-0172-GF were qualified "B". The zinc results for samples FWGFWGmw-003-166-GF, FWGFWGmw-007-170-GF, and FWGCBLmw-005-0159-GW were qualified "B". The cadmium results for samples FWGB12mw-013-0158-GF and FWGLL11mw-012-0189-GF were qualified, "B".
- Nitrate-Nitrite was detected at 0.013mg/L. The results for samples FWGFWGEQUIPRinse2-0213-GW, FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified, "B".

Equipment Rinse Contamination- FWGEQUIPRINSE2-0213-GW

- Acetone was detected at 9.4 µg/L and 2-butanone at 0.72 µg/L. The acetone results for samples FWGFWGmw-005-0168-GW, FWGFWGmw-014-0178-GW, FWGFWGmw-003-0166-GW, FWGNTAmw-119-0193-GW, FWGLL11mw-012-0189-GW, FWGCBLmw-005-0159-GW and FWGLL3mw-244-0183-GW were qualified, "B". As there were no detected 2-butanone results reported for the associated field samples, so no qualifications were made for the 2-butanone contamination.
- Diethyl phthalate was detected at 0.64 µg/L. No qualifications were made as there were no detected diethyl phthalate concentrations reported in the associated field samples.
- Nitrate-nitrite was detected at 0.015mg/L. Samples FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified, "B".

Filter Blank

A filter blank was prepped and analyzed with 1,3,5-trinitrobenzene detected at 0.0543 µg/L. No qualifications were made as there were no detected 1,3,5-trinitrobenzene results reported for the associated field samples.

SDG 240-16475 (Radiochemistry)

No blank contamination was noted.

SDG 240-16528

Trip Blank Contamination

Acetone was detected in FWG TEAM 1 TRIP at and FWG TEAM 2 TRIP at 1.6 µg/L and in FWG TEAM3-TRIP at 1.8 µg/L. The acetone results for samples FWGEQUIPRINSE3-0214-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGDA2mw-115-0162-GW, FWGDA2mw-DUP1-0199-GW, FWGWBGmw-018-0195-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGLL11mw-011-0188-GW were qualified, "B".

Method Blank Contamination

- Methylene chloride was detected in the method blank from batch 240-62557 at 1.94 µg/L, in batch 240-62676 at 1.13 µg/L and in batch 240-63255 at 1.23 µg/L. No

qualifications were made as detected methylene chloride results were not reported for the associated field samples.

- The method blank associated with batch 240-62371 had bis(2-ethylhexyl)phthalate detected at 1.2 µg/L and the method blank from batch 240-62510 had bis(2-ethylhexyl)phthalate detected at 0.804 µg/L . The bis(2-ethylhexyl)phthalate results for samples FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGDA2mw-115-0162-GW, FWGLL12mw-182c-0190-GW, FWGLL12mw-0182ss-0191-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGLL6mw-009-0187-GW, FWGCBPmw-009-0160-GW and FWGFWGmw-011-0188-GW and were qualified, "B".
- The method blank from batch 240-62201 had vanadium detected at 1.31 µg/L and from batch 240-22741, vanadium was detected at 1.57 µg/L. The vanadium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGWBGmw-020-0197-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGWBGmw-018-0195-GF, FWGDA2mw-DUP1-0199-GF and FWGWBGmw-DUP8-0205-GF were qualified, "B".
- The method blank from batch 240-62201 had zinc detected at 9.02 µg/L. The zinc result for sample FWGLL1mw-087-182-GF was qualified "B".
- 1,3,5-trinitrobenzene was detected in the method blank analyzed 11/1/12 at 0.0543 µg/L. No qualifications were made as there were no detected 1,3,5-trinitrobenzene results reported for the associated field samples.

Equipment Rinse Contamination- FWGEQUIPRINSE3-0214-GW

- Acetone was detected at 9 µg/L. The acetone results for samples FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGDA2mw-115-0162-GW, FWGDA2mw-DUP1-0199-GW, FWGWBGmw-018-0195-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGLL11mw-011-0188-GW were qualified, "B".
- Benzyl alcohol was detected at 0.61 µg/L. No qualifications were made as there were no detected benzyl alcohol concentrations reported in the associated field samples.
- Antimony was detected at 0.24 µg/L. The antimony results for samples FWGLL1mw-086-181-GF and FWGLL6mw-008-0186-GF were qualified as estimated. "B".
- Beryllium was detected at 0.16 µg/L. The beryllium results for samples FWGLL1mw-087-0182-GF and FWGLL1mw-086-0181-GF were qualified, "B".
- Cadmium was detected at 0.15 µg/L. The cadmium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGWBGmw-021-0198-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGLL6mw-009-0187-GF, FWGWBGmw-019-0196-GF, FWGFWGmw-013-0176-GF, FWGDA2mw-114-0161-GF and FWGWBGmw-DUP8-0205-GF were qualified, "B".
- Iron was detected at 54 µg/L. No qualifications were made for the iron contamination, as all detected iron results were greater than 5x blank contamination.
- Thallium was detected at 0.67 µg/L. The thallium results for samples FWGLL1mw-086-0181-GF and FWGLL6mw-008-0186-GF were qualified, "B".

R1207075 (Hexavalent Chromium)

No blank contamination was noted.

For a discussion of method blank contamination please reference the Data Verification Reports and the Laboratory Case Narrative in Appendix D. Laboratory analyses were performed in analytical batches of ≤20 in order to maximize efficiency and group quality control requirements. Method blanks and laboratory control samples were analyzed at a frequency of 1:20 (5%) samples or in each analytical batch, whichever was greater. Sufficient volume was provided to the laboratory in order to assess matrix spike analysis on project samples at a frequency of 1:10 (10%) samples. Matrix spike/matrix spike duplicate analysis was performed by the laboratory as batch quality control at a frequency of 1:20 (5%).

Field quality control and laboratory quality control results were evaluated as part of the verification assessment provided in Appendix D. Project requirements were met for the frequency and quality of these samples.

Table 3-10 presents the percent, by analytical method, of data that were acceptable (based on data not rejected) for use. The pesticide surrogates did not recover in sample FWGFWGmw-004-0167-GW. The results for sample FWGFWGmw-004-0167-GW were qualified as unusable, "R". The MRL failed below limits for 2-butanone and 4-methyl-2-pentanone. The 2-butanone and 4-methyl-2-pentanone results for samples FWGWBGmw-020-0197-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWG TEAM 2 Trip, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW, FWGDA2mw-DUP1-0199-GW FWGLL3mw-244-0183-GW, FWGFWGmw-014-0178-GW, FWGFWGmw-007-0170-GW, FWGCBLmw-005-0159-GW and FWGFWGmw-003-0166-GW were qualified as unusable, "R". The MRL did not recover for methoxychlor. The methoxychlor results for sample FWGNTAmw-119-0193-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBP-009-0160-GW and FWGLL11mw-011-0188-GW were qualified as unusable, "R". This does not, however, have any negative effect on the usability of other parameters analyzed under the same method. Rejected data do call into question the interpretation of that particular data for a given monitoring event and it is important to correct any problems to prevent a reoccurrence for future sampling events.

All qualified data are discussed in the Data Verification Reports contained in Appendix D. All other data meet the requirements specified in the DoD QSM, LS criteria, and the QAPP associated with this site.

Table 3-10. Percent of Acceptable Data

Analytical Method	Total Number of Analytes	Number of Rejects	Percent Completeness
218.6	5	0	100.0
353.2	3	0	100.0
6010B	616	0	100.0
6020	358	0	100.0
7470A	44	0	100.0
8081A	924	5	99.5
8082	308	7	97.7
8260B	2067	26	98.7
8270C-SVOC1	2	0	100.0
8270C-SVOC4	2772	0	100.0
8330	704	0	100.0
900.0 MOD	6	0	100.0
901.1 MOD	48	0	100.0
9012A	44	0	100.0
903.0 MOD	3	0	100.0
SW8330 Modified	44	0	100.0
WS-WC-0050	44	0	100.0
TOTAL	**7992**	**38**	**99.5**

SECTION 4
SUMMARY OF RESULTS

Explosive and Propellant Compounds
As shown in Table 3-3, there were no explosives or propellants detected at levels above their corresponding MCLs or RSLs during the October 2012 sampling.

Inorganic Elements
Several inorganic compounds were detected at levels exceeding the MCLs and/or RSLs. These included aluminum, arsenic, cyanide, cobalt, iron, and manganese in wells from all areas sampled. Note that the inorganic levels for LL1mw-087 appeared significantly higher in the July 2012 monitoring event. EQM believes that inorganic sample was not field filtered (i.e., an error occurred during sampling and the filter was not used). This was corrected and the detections for the October 2012 event show lower numbers similar to other historical events. These compounds were also detected at concentrations exceeding the Facility-Wide Background Criteria for many of the wells. Table 4-1 in Section 4 presents a summary of all inorganic compounds and the associated wells that had detections exceeding MCLs and/or the RSLs. Many of the reported exceedances presented in Table 4-1 were detected at concentrations below the applicable background criteria.

Volatile Organic Compounds
As shown in Table 3-6, there were no VOCs detected at levels exceeding their corresponding MCLs or RSLs during the October 2012 sampling.

Semivolatile Organic Compounds
As shown in Table 3-7, the following SVOCs were detected at levels exceeding either their corresponding MCLs or RSLs:

- Naphthalene in LL4mw-201 at a level of 0.32 μg/L, and NTAmw-119 at a level of 0.26 μg/L. There is no MCL for Naphthalene. The RSL is 0.14 μg/L.

- Bis(2-ethylhexyl)phthalate in FWGmw-010 at a level of 40 μg/L. The MCL for bis(2-ethylhexyl)phthalate is 6 μg/L. The RSL is 4.8 μg/L.

Bis(2-ethylhexyl)phthalate is being evaluated in two adjacent wells at Load Line 12 – one polyvinyl chloride constructed well (LL12mw-182) and the other a stainless steel constructed well (LL12mw-182ss). The samples from LL12mw-182 and LL12mw-182ss were found to contain bis(2-ethylhexyl) phthalate at concentrations of 1.0 μg/L B and 1.5 μg/L B, respectively, which does not exceed the RSL for this analyte.

Pesticides and Polychlorinated Biphenyls (PCBs)
As shown in Table 3-8, there were no pesticides and/or PCBs detected at levels exceeding either their MCLs or RSLs.

Alpha, Beta, and Gamma Radionuclides

FWGmw-014 was analyzed for alpha, beta, and gamma radionuclides. As shown in Table 3-9 the gamma spectroscopy, gross alpha and beta screening indicated that no results exceeded their respective MCLs.

Analysis for total alpha radium by method 903.0 (approved drinking water method for total alpha radium) and total thorium & uranium by ICPMS, method 6020 were below the EPA drinking water limit. While there is no EPA standard for thorium in drinking water, the thorium results were below the laboratory reporting limit.

Based this analysis EQM does not believe that there is a radiation concern at well FWGmw-014. This well will, however be monitored for radionuclides for an additional quarter (January 2013).

Hexavalent Chromium

Hexavalent chromium was detected at a level above the RSL of 0.031 µg/L in 1 well, LL3mw-244 at 0.173 µg/L (there is no MCL for hexavalent chromium).

Table 4-1. Inorganic Elements Detected at Concentrations Exceeding the MCLs or RSLs

Area	Well Number	Compound or Element Detected	Oct-12 Level (ug/L)	MCL (ug/L)	RSL (ug/L)	Facility-Wide Background Criteria (ug/L)
Building 1200	B12mw-013*	Manganese	**780**	50	320	1,340
Central Burn Pits	CBPmw-009*	Arsenic	**3.4 J**	10	0.045	0.0
		Iron	**650**	300	11,000	1,430
		Manganese	**98**	50	320	1,340
Demolition Area #2	DA2mw-114*	Iron	**1000**	300	11,000	1,430
		Manganese	**82**	50	320	1,340
	DA2mw-115*	Iron	**570**	300	11,000	1,430
		Manganese	**110**	50	320	1,340
Erie Burning Grounds	EBGmw-131*	Iron	**650**	300	11,000	1,430
		Manganese	**130**	50	320	1,340
Facility-Wide	FWGmw-002*	Iron	**640**	300	11,000	279
		Manganese	**140**	50	320	1,020
	FWGmw-003*	Aluminum	**1600**	200	16,000	0
		Arsenic	**5.3 J**	10	0	11.7
		Iron	**2300**	300	11,000	279
		Manganese	**600**	50	320	1,020
	FWGmw-004*	Aluminum	**3200**	200	16,000	0
		Cyanide	**0.0064 J**	0.2	0.0014	0
		Iron	**4000**	300	11,000	279
		Manganese	**75**	50	320	1,020
	FWGmw-005*	Iron	**3600**	300	11,000	1,430
		Manganese	**350**	50	320	1,340
	FWGmw-006*	Arsenic	**5.1 J**	10	0.045	11.7
		Iron	**18000**	300	11,000	279
		Manganese	**2000**	50	320	1,020
	FWGmw-007*	Aluminum	**4600**	200	16,000	0
		Arsenic	**6.9 J**	10	0.045	11.7
		Iron	**8100**	300	11,000	279
		Manganese	**310**	50	320	1,020
	FWGmw-008*	Aluminum	**290**	200	16,000	0
		Arsenic	**7.5 J**	10	0.045	11.7
		Iron	**1100**	300	11,000	279
		Manganese	**690**	50	320	1,020
	FWGmw-009*	Aluminum	**980**	200	16,000	0
		Arsenic	**11**	10	0.045	11.7
		Iron	**2700**	300	11,000	279
		Manganese	**200**	50	320	1,020
	FWGmw-010*	Arsenic	**11**	10	0.045	11.7
		Cobalt	**15**	NS	4.7	0
		Iron	**35000**	300	11,000	279
		Manganese	**1700**	50	320	1,020
	FWGmw-011*	Aluminum	**220**	200	16,000	0
		Arsenic	**4.4 J**	10	0.045	11.7
		Iron	**700**	300	11,000	279
		Manganese	**250**	50	320	1,020
	FWGmw-012*	Iron	**2300**	300	11,000	1,430
		Manganese	**110**	50	320	1,340
	FWGmw-013*	Cyanide	**0.0071 J**	0.2	0.0014	0
		Manganese		50	320	1,340
	FWGmw-014*	Manganese	**210**	50	320	1,020
	FWGmw-015*	Arsenic	**6.4 J**	10	0.045	11.7
		Manganese	**860**	50	320	1,020
	FWGmw-016*	Arsenic	**6.2 J**	10	0.045	0.0
		Iron	**590**	300	11,000	1,430
		Manganese	**200**	50	320	1,340

Table 4-1. Inorganic Elements Detected at Concentrations Exceeding the MCLs or RSLs

Area	Well Number	Compound or Element Detected	Oct-12 Level (ug/L)	MCL (ug/L)	RSL (ug/L)	Facility-Wide Background Criteria (ug/L)
Load Line 1	LL1mw-086*	Arsenic	**3.3 J**	10	0.045	11.7
		Iron	**2000**	300	11,000	279
		Manganese	**610**	50	320	1,020
	LL1mw-087*	Aluminum	**650**	200	16,000	0
		Iron	**1200**	300	11,000	279
		Manganese	**170**	50	320	1,020
Load Line 3	L3mw-245*	Iron	**530**	300	11,000	1,430
Load Line 4	LL4mw-201*	Arsenic	**35**	10	0.045	0.0
		Iron	**1200**	300	11,000	1,430
		Manganese	**150**	50	320	1,340
Load Line 6	LL6mw-008*	Manganese	**800**	50	320	1,340
	LL6mw-009*	Arsenic	**9 J**	10	0.045	11.7
		Iron	**2900**	300	11,000	279
		Manganese	**600**	50	320	1,020
Load Line 11	LL11mw-011*	Aluminum	**140**	200	16,000	0
		Arsenic	**4.3 J**	10	0.045	11.7
		Iron	**630**	300	11,000	279
		Manganese	**570**	50	320	1,020
	LL11mw-012*	Manganese	**79**	50	320	1,340
Load Line 12	LL12mw-247*	Aluminum	**3100**	200	16,000	0
		Arsenic	**11**	10	0.045	11.7
		Iron	**6200**	300	11,000	279
		Manganese	**260**	50	320	1,020
NACA Test Area	NTAmw-119*	Iron	**2300**	300	11,000	279
		Manganese	**310**	50	320	1,020
Winklepeck Burning Grounds	WBGmw-019*	Arsenic	**4.5 J**	10	0.045	0
		Iron	**480**	300	11,000	1,430
		Manganese	**240**	50	320	1,340
	WBGmw-020*	Iron	**4100**	300	11,000	1,430
		Manganese	**370**	50	320	1,340
	WBGmw-021*	Arsenic	**6.2 J**	10	0.045	0
		Iron	**4*90**	300	11,000	1,430
		Manganese	**220**	50	320	1,340

Notes:

* denotes newly installed well

J = estimated result. Results have been qualified "J" For more details refer to Data Verification/Validation Reports in Appendix C

SECTION 5
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APPENDIX A

CURRENT MONITORING WELL SCHEDULE

October 2012 Well Sampling List	
Well ID Number	**RVAAP Location**
LL1mw-086	SE/Load Line 1
EBGmw-131	Paired with EBGmw-125
LL1mw-087	Southeast area of RVAAP
LL12mw-247	Southeast area of RVAAP
LL4mw-201	South of Load Line 4
LL3mw-244	South of Load Line 3
LL3mw-245	East of Load Line 3
CBPmw-009	Central Burn Pits
FWGmw-001	Group 2 DLA Ore Storage Area
B12mw-013	Building 1200
FWGmw-002	North Perimeter
FWGmw-003	North Line Road Coal Tipple
WBGmw-018	Near WBGmw-007 (west)
WBGmw-019	Near WBGmw-007 (west)
WBGmw-020	Paired with WBGmw-009
WBGmw-021	Paired with WBGmw-006
DA2mw-114	Near DA2mw-108
DA2mw-115	Paired with DETmw-003
FWGmw-004	Administration Area/George Road
FWGmw-005	Western Area of Facility
FWGmw-006	Western Area of Facility
FWGmw-007	Southwestern Area of Facility
FWGmw-008	Western Depot Area
FWGmw-009	Western Depot Area
NTAmw-119	NACA Test
LL6mw-008	Load Line 6
LL6mw-009	Load Line 6
LL11mw-011	Load Line 11
LL11mw-012	Load Line 11
FWGmw-010	DLA Main Ore Storage Yard Area
FWGmw-011	East Classification Yard
FWGmw-012	East Classification Yard
FWGmw-013	Wet Storage Area
FWGmw-014	Route 80 Tank Farm
CBLmw-005	C Block
FWGmw-015	Admin/ George Road
FWGmw-016	Admin/ George Road
LL12mw-182ss	Load Line 12
LL12mw-182	Load Line 12
SCFmw-002	Southeast area of RVAAP

APPENDIX B

WATER-LEVEL MEASUREMENTS/FIELD LOG BOOK/SAMPLE AND PURGE RECORDS/DAILY QUALITY CONTROL REPORTS

Signature Page

October 2012 FWGMP Quarterly Monitoring Well Event
Field Personnel Abbreviations and Signatures Page

Field Personnel

Name	Affiliation	Initials
Kory Anstead	EQM	KA
Angela S. Dragotta	EQM	AD/ASD
Colleen A. Lear	EQM	CL/CAL
Erik Corbin	EQM	EC
John Miller	EQM	JM
Phil Heikkila	EQM	PH
Stephen Stuergon	EQM	SS

Project and Field Leads

Name, Title, Affiliation

John Miller, Project Manager / QC Check, EQM

Signature: _____

Colleen A. Lear, Field Manager / QC Check, EQM

Signature: _____

Erik Corbin, Sample Manager, EQM

Signature: _____

Comprehensive Water Level Measurements

COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

October 2012

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
B12mw-013	Building 1200	10/15/2012	15:10	21.74	24.22	Hard	5767
CBLmw-005	C-Block Quarry	10/16/2012	9:20	25.59	32.44	Hard	5767
CBPmw-009	Central Burn Pits	10/15/2012	17:00	12.00	66.59	Hard	5767
DA2mw-114	Demo.Area 2	10/16/2012	11:30	5.73	21.76	Hard	5767
DA2mw-115	Demo.Area 2	10/16/2012	11:45	7.12	46.80	Hard	5767
EBGmw-131	Erie Burning Grounds	10/15/2012	11:45	11.50	73.50	Hard	5767
FWGmw-001	Facilitywide	10/15/2012	14:15	9.75	19.99	Hard	5767
FWGmw-002	Facilitywide	10/15/2012	14:05	24.19	70.00	Hard	5767
FWGmw-003	Facilitywide	10/16/2012	9:35	5.25	21.10	Hard	5767
FWGmw-004	Facilitywide	10/15/2012	14:25	16.75	22.56	Soft	5767
FWGmw-005	Facilitywide	10/16/2012	8:55	22.95	31.80	Hard	5767
FWGmw-006	Facilitywide	10/16/2012	8:45	11.69	19.22	Hard	5767
FWGmw-007	Facilitywide	10/16/2012	10:05	24.84	32.22	Hard	5767
FWGmw-008	Facilitywide	10/16/2012	9:50	6.49	21.95	Medium	5767
FWGmw-009	Facilitywide	10/16/2012	9:40	2.30	20.34	Hard	5767
FWGmw-010	Facilitywide	10/15/2012	13:55	13.22	19.10	Hard	5767
FWGmw-011	Facilitywide	10/15/2012	12:10	2.62	17.80	Hard	5767
FWGmw-012	Facilitywide	10/15/2012	11:50	2.64	42.45	Hard	5767
FWGmw-013	Facilitywide	10/16/2012	12:20	22.80	36.67	Hard	5767
FWGmw-014	Facilitywide	10/16/2012	9:25	5.41	21.15	Hard	5767
FWGmw-015	Facilitywide	10/15/2012	14:30	9.01	26.26	Hard	5767
FWGmw-016	Facilitywide	10/15/2012	14:50	18.72	67.46	Hard	5767
LL1mw-086	Loadline 1	10/15/2012	12:15	9.90	77.12	Hard	5767
LL1mw-087	Loadline 1	10/15/2012	13:45	7.42	18.39	Hard	5767
LL3mw-244	Loadline 3	10/15/2012	15:35	16.42	46.85	Hard	5767
LL3mw-245	Loadline 3	10/15/2012	11:30	14.95	48.75	Hard	5767
LL4mw-201	Loadline 4	10/15/2012	16:50	10.68	69.88	Hard	5767
LL6mw-008	Loadline 6	10/16/2012	10:15	18.04	20.08	Hard	5767
LL6mw-009	Loadline 6	10/16/2012	10:20	17.68	41.34	Medium	5767

*All measurements from top of casing
NR = Not Recorded

COMPREHENSIVE WATER LEVEL MEASUREMENTS

RVAAP FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

October 2012

Well Number	Location	Date	Time	Depth to Water*	Depth to Bottom	Description of bottom	Instrument/Serial Number
LL11mw-011	Loadline 11	10/16/2012	9:15	9.34	20.40	Hard	5767
LL11mw-012	Loadline 11	10/16/2012	9:10	21.72	119.45	Medium	2911
LL12mw-088	Loadline 12	10/16/2012	13:35	8.53	NR	NR	5767
LL12mw-107	Loadline 12	10/16/2012	13:30	11.86	NR	NR	5767
LL12mw-113	Loadline 12	10/16/2012	12:55	7.81	NR	NR	5767
LL12mw-128	Loadline 12	10/16/2012	13:20	11.58	NR	NR	5767
LL12mw-153	Loadline 12	10/16/2012	13:05	7.95	NR	NR	5767
LL12mw-154	Loadline 12	10/16/2012	13:10	11.09	NR	NR	5767
LL12mw-182	Loadline 12	10/15/2012	15:50	13.24	38.12	Hard	5767
LL12mw-182ss	Loadline 12	10/15/2012	16:00	13.29	38.43	Hard	5767
LL12mw-183	Loadline 12	10/16/2012	12:25	14.75	NR	NR	5767
LL12mw-184	Loadline 12	10/16/2012	13:40	14.46	NR	NR	5767
LL12mw-185	Loadline 12	10/16/2012	12:45	10.98	NR	NR	5767
LL12mw-186	Loadline 12	10/16/2012	14:00	7.09	NR	NR	5767
LL12mw-187	Loadline 12	10/16/2012	12:50	12.49	NR	NR	5767
LL12mw-188	Loadline 12	10/16/2012	13:00	5.74	NR	NR	5767
LL12mw-189	Loadline 12	10/16/2012	13:50	6.71	NR	NR	5767
LL12mw-242	Loadline 12	10/16/2012	12:40	11.59	NR	NR	5767
LL12mw-243	Loadline 12	10/16/2012	13:15	11.28	NR	NR	5767
LL12mw-244	Loadline 12	10/16/2012	12:35	13.00	NR	NR	5767
LL12mw-245	Loadline 12	10/16/2012	13:25	10.14	NR	NR	5767
LL12mw-246	Loadline 12	10/16/2012	12:30	18.96	NR	NR	5767
LL12mw-247	Loadline 12	10/15/2012	15:20	6.01	22.63	Hard	5767
NTAmw-119	NACA Test Area	10/16/2012	8:30	13.78	104.65	Hard	2911
SCFmw-002	Sharon Conglomerate	10/15/2012	15:45	20.78	150.30	Hard	2911
WBGmw-018	Winklepeck Burning Grounds	10/17/2012	8:15	24.80	24.82	Hard	5767
WBGmw-019	Winklepeck Burning Grounds	10/17/2012	8:20	18.74	50.46	Hard	5767
WBGmw-020	Winklepeck Burning Grounds	10/17/2012	8:30	14.84	43.68	Hard	5767
WBGmw-021	Winklepeck Burning Grounds	10/17/2012	8:40	10.88	43.05	Hard	5767

*All measurements from top of casing
NR = Not Recorded

Logbook

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

ALL-WEATHER
ENVIRONMENTAL FIELD BOOK

Name EQM
1800 CARILLON BLVD
Address Cincinnati Oh 45240

Phone 1-800 229 7495

Project RVAAP - USACE
FACILITYWIDE GROUNDWATER
RVAAP-66

This book is printed on "Rite in the Rain" A[illegible]er Writing Paper - A unique paper created to shed water and enhanc[illegible]en image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

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RVAAP BOOK #2

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22-23	RED October "TDG / EPLO" 30240	11-2-11/11-3-11
24-27	POTENTIAL/PROPOSED WELL SITING 30174	2011 12-19/12-20
28-31	RVAAP 66 QTRLY / GSA SEMI ANN 30174	2012 1-30/2-1
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155 Conversions (Concentrations, Volume/Flow or Time, Velocity, Acceleration)
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Location RVAAP Date 10/15/12

Project / Client USACE JM CAL SS ADEC

RVAAP-46 40s-60s trace rain cldy KA PH

1000 mobilization to site
1030 prep for field event - waterlevels and purge/sample and re develop
1045 H+S briefing
1100 begin events - develop, WL + purge
develop well LL1mw-086
1240 LL1mw-086 ph start 10.06 SU @ 9.90'
1300 removed 7.5 gallon ph @ 8.14 SU w/
finished 20 gallons removed 7.31 SU / 9.95'
1345 Continue water levels
1700 partial crews to 1036. wells
Complete EBG-131 ELmw-3
Start FWG and B12.
Team 2 equip rense
1745 samples prepped and packed
sent to fed ex.
1800 samples - lab pickup
Offsite

Location RVAAP Date Oct 16 2012

Project / Client USACE

RVAAP-66

Drum Log

EQM 2012-8 - Decon Water

EQM 2012-9 GW Purge Water

EQM 2012-10 GW Purge Water

*Facility-Wide New Wells

Location RVAAP Date 10/16/12

Project / Client USACE PH JM CAL SS

RVAAP66 40s-50s P Cldy EC AD KA

0730 onsite prep for the day purge sample and water levels.

0815 H+S briefing.

0830 Continue w/ the water levels begin purge and surge finalize B12 minimum volume. CBL U3 U11 U12 SCF continue FWG

Team 3 Equipment Rinse collection.

Additional aliquots collected to assist lab w/ an internal TA study.

1740 prep samples for the lab and fed express.

1800 Sample to fed exp. and Labpicking.

Off site.

Location RVAAP Date 10/17/12

Project / Client USACE PH JM CAL AD EC KA SS

RVAAP66 40-70s P Sunny

0730 Onsite prep for the day. finalize water levels

0800 H+S briefing access WBG. Continue purge sample event.

Equipment Rinse with team 1.

1740 finalize the site prep coolers for lab and federal express.

1800 samples to fed express labpick up.

Offsite

Location RVAAP Date 10/18/12

Project / Client USACE PH CAL KA

RVAAP66 Rain EC SS AP

0730	onsite to pack complete IDW.
	clean bldg 1036.
1000	demob to Cincinnati.
	Sample for IDW to TA.
1030	offsite/travel

Location Date

Project / Client

page intentionally left blank

Static Water Level Measurements

EQM MONITOR WELL STATIC WATER LEVEL FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

FIELD BOOK#: 2 DATE: 10/15/2012

Monitor Well Number	Location	Total Well Depth (ft)	Water Level Indicator	Sampler	Time	Depth to Static Water Level (ft)	Sounding	PID Reading (above bkgrnd)
B12mw-013	Building 120	24.22	5767	JM	15:10	21.74		0
	Cmt:Good, Hard							
CBPmw-009	Central Burn	66.59	5767	JM	17:00	12		0
	Cmt:Good, Hard							
EBGmw-131	Erie Burning	73.5	5767	JM	11:45	11.5		0
	Cmt:Good, Hard							
FWGmw-012	Facilitywide	42.45	5767	JM	11:50	2.64		0
	Cmt:Good, Hard							
FWGmw-011	Facilitywide	17.8	5767	JM	12:10	2.62		0
	Cmt:Good, Hard							
FWGmw-010	Facilitywide	19.1	5767	JM	13:55	13.22		0
	Cmt:Good, Hard							
FWGmw-002	Facilitywide	70	5767	JM	14:05	24.19		0
	Cmt:Good, Hard							
FWGmw-001	Facilitywide	19.99	5767	JM	14:15	9.75		0
	Cmt:Good, Hard							
FWGmw-004	Facilitywide	22.56	5767	JM	14:25	16.75		0
	Cmt:Good, Soft							
FWGmw-015	Facilitywide	26.26	5767	JM	14:30	9.01		0
	Cmt:Good, Hard							
FWGmw-016	Facilitywide	67.46	5767	JM	14:50	18.72		0
	Cmt:Good, Hard							
LL1mw-086	Loadline 1	77.12	5767	JM	12:15	9.9		0
	Cmt:Good, Hard							
LL1mw-087	Loadline 1	18.39	5767	JM	13:45	7.42		0
	Cmt:Good, Hard							
LL12mw-247	Loadline 12	22.63	5767	JM	15:20	6.01		0
	Cmt:Good, Hard							
LL12mw-182	Loadline 12	38.12	5767	JM	15:50	13.24		0
	Cmt:Good, Hard							
LL12mw-182ss	Loadline 12	38.43	5767	JM	16:00	13.29		0
	Cmt:Good, Hard							

EQM MONITOR WELL STATIC WATER LEVEL FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

FIELD BOOK#: 2 DATE: 10/15/2012

Monitor Well Number	Location	Total Well Depth (ft)	Water Level Indicator	Sampler	Time	Depth to Static Water Level (ft)	Sounding	PID Reading (above bkgrnd)
LL3mw-245	Loadline 3	48.75	5767	JM	11:30	14.95		0
	Cmt:Good, Hard							
LL3mw-244	Loadline 3	46.85	5767	JM	15:35	16.42		0
	Cmt:Good, Hard							
LL4mw-201	Loadline 4	69.88	5767	JM	16:50	10.68		0
	Cmt:Good, Hard							
SCFmw-002	Sharon Con	150.3	2911	JM	15:45	20.78		0
	Cmt:Good, Hard							

EQM MONITOR WELL STATIC WATER LEVEL FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

FIELD BOOK#: 2 DATE: 10/16/2012

Monitor Well Number	Location	Total Well Depth (ft)	Water Level Indicator	Sampler	Time	Depth to Static Water Level (ft)	Sounding	PID Reading (above bkgrnd)
CBLmw-005	C-Block Qua	32.44	5767	JM	9:20	25.59		0
	Cmt:Good, Hard							
DA2mw-114	Demo.Area	21.76	5767	JM	11:30	5.73		0
	Cmt:Good, Hard							
DA2mw-115	Demo.Area	46.8	5767	JM	11:45	7.12		0
	Cmt:Good, Hard							
FWGmw-006	Facilitywide	19.22	5767	JM	8:45	11.69		0
	Cmt:Good, Hard							
FWGmw-005	Facilitywide	31.8	5767	JM	8:55	22.95		0
	Cmt:Good, Hard							
FWGmw-014	Facilitywide	21.15	5767	JM	9:25	5.41		0
	Cmt:Good, Hard							
FWGmw-003	Facilitywide	21.1	5767	JM	9:35	5.25		0
	Cmt:Good, Hard							
FWGmw-009	Facilitywide	20.34	5767	JM	9:40	2.3		0
	Cmt:Good, Hard							
FWGmw-008	Facilitywide	21.95	5767	JM	9:50	6.49		0
	Cmt:Good, Medium							
FWGmw-007	Facilitywide	32.22	5767	JM	10:05	24.84		0
	Cmt:Good, Hard							
FWGmw-013	Facilitywide	36.67	5767	JM	12:20	22.8		0
	Cmt:Good, Hard							
LL11mw-012	Loadline 11	119.45	2911	JM	9:10	21.72		0
	Cmt:Good, Medium							
LL11mw-011	Loadline 11	20.4	5767	JM	9:15	9.34		0
	Cmt:Good, Hard							
LL6mw-008	Loadline 6	20.08	5767	JM	10:15	18.04		0
	Cmt:Good, Hard							
LL6mw-009	Loadline 6	41.34	5767	JM	10:20	17.68		0
	Cmt:Good, Medium							
NTAmw-119	NACA Test	104.65	2911	JM	8:30	13.78		0
	Cmt:Good, Hard							

EQM MONITOR WELL STATIC WATER LEVEL FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

FIELD BOOK#: 2 DATE: 10/17/2012

Monitor Well Number	Location	Total Well Depth (ft)	Water Level Indicator	Sampler	Time	Depth to Static Water Level (ft)	Sounding	PID Reading (above bkgrnd)
WBGmw-018	Winklepeck	24.82	5767	JM	8:15	24.8		0
	Cmt:Good, Hard							
WBGmw-019	Winklepeck	50.46	5767	JM	8:20	18.74		0
	Cmt:Good, Hard							
WBGmw-020	Winklepeck	43.68	5767	JM	8:30	14.84		0
	Cmt:Good, Hard							
WBGmw-021	Winklepeck	43.05	5767	JM	8:40	10.88		0
	Cmt:Good, Hard							

Purge/Sample Records

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: BUILDING 120 DATE: 10/15/2012 START TIME: 16:25

WELL ID: B12mw-013

WELL DEPTH: INITIAL WATER LEVEL: 21.52

WELL DIAMETER 2 in. SCREEN INTERVAL: 11.5 - 21.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 19.5

PUMP READINGS: Throttle: 50 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
16:30	21.81	0.1	0.25	12.52	0.9	2.91	5.15	440	111
16:33	21.92	0.1	0.3	12.43	0.9	2.91	5.08	383	123
16:36	22.02	0.1	0.3	12.38	0.9	3.43	4.98	352	126
16:39	22.11	0.1	0.3	12.36	0.9	4.09	4.96	249	128
16:42	22.22	0.1	0.3	12.34	0.9	4.12	4.96	229	127
16:45	22.30	0.1	0.3	12.34	0.9	4.15	4.95	196	128

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **BUILDING 120** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: B12mw-013 SampleID: FWGB12mw-013-058-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 16:50

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	162	Color:	Clear
	ORP (mV):	129	Odor:	None

pH: 4.94 Temperature (°C): 12.32 DO (mg/L): 4.18 Specific Conductivity (mS/cm): 0.9

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: Y WIND DIRECTION: NW AMBIENT TEMP (°F): 52

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt: went dry during sampling returned later to collect minimum volume

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	1	4C	8081	Pest
40ml/Vial	3	HCl	8260	VOC
1L/Poly	1	HNO3	6010/6020/7470	Metals
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	1	4C	353.2/8330	Propellants
1L/Amber	1	4C	8082	PCB
1L/Amber	2	4C	8270	SVOC
1L/Amber	1	4C	8330	Explo

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: C-BLOCK QUA DATE: 10/16/2012 START TIME: 14:05

WELL ID: CBLmw-005

WELL DEPTH: _____ INITIAL WATER LEVEL: 25.35

WELL DIAMETER 2 in. SCREEN INTERVAL: 22 - 30

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 28.0

PUMP READINGS: Throttle: 50 Recharge: 10 Discharge: 5

COMMENTS clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
14:11	25.54	0.2	0.25	16.25	0.106	4.32	6.53	165	210
14:14	25.53	0.2	0.6	15.37	0.106	4.32	5.83	106	231
14:17	25.58	0.2	0.6	15.09	0.106	4.49	5.52	87.2	244
14:20	25.59	0.2	0.8	14.73	0.108	4.67	5.2	67.4	253
14:23	25.62	0.2	0.8	14.75	0.114	4.95	5.27	56.4	249
14:26	25.65	0.2	0.6	14.63	0.119	5.02	5.25	50.8	250
14:29	25.66	0.2	0.6	14.64	0.12	5.01	5.24	45.5	252
14:32	25.67	0.2	0.6	14.55	0.122	5.08	5.23	44.1	252

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: AD

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **C-BLOCK QU** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: CBLmw-005 SampleID: FWGCBLmw-005-0159-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 14:33

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 42.4	Color:	clear
	ORP (mV): 251	Odor:	None

pH: 5.24 Temperature (°C): 14.53 DO (mg/L): 5.11 Specific Conductivity (mS/cm): 0.125

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: AD Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8330	Explo
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8082	PCB
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	1	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: CENTRAL BUR DATE: 10/17/2012 START TIME: 15:15

WELL ID: CBPmw-009

WELL DEPTH: INITIAL WATER LEVEL: 12.1

WELL DIAMETER 2 in. SCREEN INTERVAL: 54 - 64

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 62.0

PUMP READINGS: Throttle: 120 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
15:23	12.20	0.2	0.4	15.5	0.464	0	7.68	55.7	-181
15:26	12.19	0.2	0.6	14.89	0.471	0	7.64	41.3	-176
15:29	12.20	0.2	0.6	14.13	0.478	0	7.62	35.5	-173
15:32	12.26	0.2	0.6	13.91	0.481	0	7.62	30.2	-172
15:35	12.20	0.2	0.6	13.79	0.484	0	7.62	27.6	-171

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **CENTRAL BU** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: CBPmw-009 SampleID: FWGCBPmw-009-0160-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 15:49

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 27.2	Color:	Clear
	ORP (mV): -171	Odor:	None

pH: 7.61 Temperature (°C): 13.77 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.483

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 69

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8270	SVOC
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8330	Explo
1L/Amber	1	4C	353.2/8330	Propellants
40ml/Vial	3	HCl	8260	VOC
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: DEMO.AREA 2 DATE: 10/17/2012 START TIME: 9:10

WELL ID: DA2mw-114

WELL DEPTH: _____ INITIAL WATER LEVEL: 5.68

WELL DIAMETER 2 in. SCREEN INTERVAL: 11.5 - 21.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 19.5

PUMP READINGS: Throttle: 40 Recharge: 12 Discharge: 3

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
9:11	5.90	0.2	0.25	12.91	0.898	3.54	6.73	321	-90
9:13	5.90	0.2	0.4	12.86	0.894	3.68	6.81	295	-97
9:16	5.90	0.2	0.6	12.84	0.89	5.03	6.92	277	-105
9:19	5.90	0.2	0.6	12.82	0.891	4.97	6.96	234	-109
9:22	5.90	0.2	0.6	12.73	0.898	4.89	6.98	221	-112

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **DEMO.AREA** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: DA2mw-114 SampleID: FWGDA2mw-114-0161-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 9:24

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	195	Color:	Clear
	ORP (mV):	-113	Odor:	None

pH: 6.98 Temperature (°C): 12.7 DO (mg/L): 5.05 Specific Conductivity (mS/cm): 0.899

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 45

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	1	4C	8330	Explo
1L/Poly	1	HNO3	6010/6020/7470	Metals
250ml/Poly	1	NaOH	9012	Cyanide
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	353.2/8330	Propellants
1L/Amber	2	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: DEMO.AREA 2 DATE: 10/17/2012 START TIME: 10:20

WELL ID: DA2mw-115

WELL DEPTH: _____ INITIAL WATER LEVEL: 7.1

WELL DIAMETER 2 in. SCREEN INTERVAL: 36.5 - 46.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 44.5

PUMP READINGS: Throttle: 40 Recharge: 12 Discharge: 3

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
10:22	7.15	0.2	0.2	12.17	0.705	7.08	7.3	44.9	-184
10:25	7.23	0.2	0.6	12.03	0.744	6.89	7.27	54.8	-184
10:28	7.30	0.2	0.6	12.02	0.748	7.84	7.24	53.4	-184
10:31	7.38	0.2	0.6	11.95	0.749	7.8	7.22	43.9	-186
10:34	7.45	0.2	0.6	11.92	0.751	7.71	7.21	40.6	-189

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **DEMO.AREA** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: DA2mw-115 SampleID: FWGDA2mw-115-0162-GW/GF DuplID: FWGDA2mw-DUP1-01990GW/GF

SplitID: FWGDA2mw-115-0206s-GW/GF RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 10:38

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 42.4	Color:	Clear
	ORP (mV): -190	Odor:	None

pH: 7.21 Temperature (°C): 11.94 DO (mg/L): 7.46 Specific Conductivity (mS/cm): 0.756

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab PU/FedEx

SHIPPED TO: Multiple Labs

SAMPLER: CAL Cmt: duplicate @1138

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	6	4C	8270	SVOC
1L/Poly	3	HNO3	6010/6020/7470	Metals
1L/Amber	5	4C	8081	Pest
40ml/Vial	9	HCl	8260	VOC
1L/Amber	6	4C	353.2/8330	Propellants
1L/Amber	5	4C	8082	PCB
1L/Amber	3	4C	8330	Explo
250ml/Poly	3	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: ERIE BURNIN DATE: 10/15/2012 START TIME: 12:30

WELL ID: EBGmw-131

WELL DEPTH: _____ INITIAL WATER LEVEL: 11.5

WELL DIAMETER 2 in. SCREEN INTERVAL: 63 - 73

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 71.0

PUMP READINGS: Throttle: 120 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:rotten smell

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
12:31	11.52	0.2	0.5	13.15	0.9	0	8.55	0	-148
12:34	11.52	0.2	0.6	12.91	0.9	0	8.4	0	-145
12:37	11.53	0.2	0.6	12.81	0.9	0	8.21	0	-135
12:40	11.54	0.2	0.6	12.77	0.9	0	8.13	0	-134
12:43	11.55	0.2	0.6	12.63	0.9	0	7.95	0	-129
12:46	11.56	0.2	0.6	12.58	0.9	0	7.89	0	-125
12:49	11.57	0.2	0.6	12.58	0.9	0	7.84	0	-124
12:52	11.57	0.2	0.6	12.56	0.9	0	7.8	0	-121

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **ERIE BURNIN** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: EBGmw-131 SampleID: FWGEBGmw-131-0163-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 13:00

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 0	Color:	Clear
	ORP (mV): -119	Odor:	rotten smell

pH: 7.74 Temperature (°C): 12.54 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.9

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt: rotten odor

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	353.2/8330	Propellants
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	1	4C	8330	Explo
250ml/Poly	1	NaOH	9012	Cyanide
1L/Poly	1	HNO3	6010/6020/7470	Metals

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/15/2012 START TIME: 16:15

WELL ID: FWGmw-001

WELL DEPTH: _____ INITIAL WATER LEVEL: 9.7

WELL DIAMETER 2 in. SCREEN INTERVAL: 10 - 20

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 18.0

PUMP READINGS: Throttle: 40 Recharge: 12 Discharge: 3

COMMENTS tint Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
16:19	9.83	0.2	0.25	13.4	0.382	5.78	7.52	371	-55
16:22	9.89	0.25	0.75	13.52	0.363	3.68	7.36	362	-47
16:25	9.94	0.25	0.75	13.59	0.302	4.01	7.06	339	-21
16:28	9.96	0.25	0.75	13.42	0.267	6.45	6.54	315	-2
16:31	9.98	0.25	0.75	13.71	0.225	8.03	6.35	291	0
16:34	9.99	0.25	0.75	13.73	0.22	8.18	6.3	277	4
16:37	10.00	0.25	0.75	13.76	0.223	8.09	6.28	246	6

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-001 SampleID: FWGFWGmw-002-0164-GW/GF DuplID:

SplitID: RinseID: FWGEQUIPRinse1-0212-GW

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 16:38

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 221	Color:	tint
	ORP (mV): 10	Odor:	None

pH: 6.25 Temperature (°C): 13.78 DO (mg/L): 8.04 Specific Conductivity (mS/cm): 0.22

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: N AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt: slight tint orange

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	353.2/8330	Propellants
1L/Poly	1	HNO3	6010/6020/7470	Metals
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8270	SVOC
40ml/Vial	3	HCl	8260	VOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/15/2012 START TIME: 14:43

WELL ID: FWGmw-002

WELL DEPTH: 70 INITIAL WATER LEVEL: 24.19

WELL DIAMETER 2 in. SCREEN INTERVAL: 60 - 70

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 68.0

PUMP READINGS: Throttle: 70 Recharge: 12 Discharge: 3

COMMENTS due to high turb purged extra and dumped flo thru to reread ntu cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
14:47	24.30	0.24	0.25	11.69	0.483	9.03	9.32	614	-169
14:50	24.43	0.2	0.6	11.65	0.517	8.58	9.1	661	-186
14:53	24.59	0.2	0.6	11.62	0.607	8.23	9.01	878	-197
14:56	24.70	0.2	0.6	11.67	0.63	7.28	8.58	945	-216
14:59	24.79	0.2	0.6	11.66	0.641	7.08	8.53	965	-235
15:02	24.76	0.2	0.6	11.76	0.638	6.89	8.48	978	-241
15:05	24.77	0.2	0.6	11.76	0.601	6.34	8.43	999	-243
15:08	24.76	0.2	0.6	11.77	0.61	4.4	8.38	999	-242
15:11	24.77	0.2	0.6	11.7	0.617	3.3	8.36	999	-246
15:14	24.77	0.2	0.6	11.69	0.62	3.16	8.34	999	-222
15:17	24.77	0.2	0.6	11.67	0.629	3.08	8.39	999	-226

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-002 SampleID: FWGFWGmw-002-0165-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 15:18

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 999	Color:	cloudy
	ORP (mV): -233	Odor:	None

pH: 8.42 Temperature (°C): 11.65 DO (mg/L): 3.06 Specific Conductivity (mS/cm): 0.633

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: N AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt: after extra purge time still 999ntu,halfway through sample still 999ntu

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	353.2/8330	Propellants
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8270	SVOC
40ml/Vial	3	HCl	8260	VOC
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 15:40

WELL ID: FWGmw-003

WELL DEPTH: INITIAL WATER LEVEL: 5.38

WELL DIAMETER 2 in. SCREEN INTERVAL: 11 - 21

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 19.0

PUMP READINGS: Throttle: 30 Recharge: 10 Discharge: 5

COMMENTS Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
15:42	5.44	0.2	0.25	16.72	0.488	1	6.59	521	-119
15:45	5.89	0.2	0.6	16.44	0.489	0.8	6.79	503	-123
15:48	6.30	0.2	0.6	16.26	0.492	0	6.92	533	-126
15:51	6.59	0.2	0.6	16.23	0.493	0	7.02	432	-124
15:54	6.84	0.2	0.6	16.24	0.493	0	7.08	410	-119
15:57	6.99	0.2	0.6	16.22	0.495	0	7.11	370	-114

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: AD

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-003 SampleID: FWGFWGmw-003-0166-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 16:03

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	341	Color:	Cloudy
	ORP (mV):	-112	Odor:	None

pH: 7.16 Temperature (°C): 16.23 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.496

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NE AMBIENT TEMP (°F): 60

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: AD Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8330	Explo
1L/Amber	1	4C	353.2/8330	Propellants
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/15/2012 START TIME: 15:45

WELL ID: FWGmw-004

WELL DEPTH: _____ INITIAL WATER LEVEL: 16.75

WELL DIAMETER 2 in. SCREEN INTERVAL: 12.5 - 22.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 20.5

PUMP READINGS: Throttle: 30 Recharge: 10 Discharge: 5

COMMENTS Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
16:02	16.90	0.2	0.2	15.65	0.99	5.78	6.8	9999	29
16:08	16.92	0.2	1.2	15.38	0.99	0.1	6.95	9999	44
16:16	16.95	0.2	0.6	15.12	0.99	0	6.92	9999	55
16:20	16.95	0.2	0.8	15.01	0.99	0.19	6.31	753	157
16:23	16.96	0.2	0.6	14.97	0.99	0	6.66	734	144
16:26	16.97	0.2	0.6	15.03	0.99	0	6.69	633	134
16:30	17.00	0.2	0.8	14.98	0.99	0	6.85	500	126
16:33	17.00	0.2	0.6	14.96	0.99	0	6.84	457	117
16:36	17.00	0.2	0.6	14.94	0.99	0	6.89	351	113

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-004 SampleID: FWGFWGmw-004-0167-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 16:39

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	296	Color:	Cloudy
	ORP (mV):	118	Odor:	None

pH: 6.9 Temperature (°C): 14.92 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.999

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: Y WIND DIRECTION: SW AMBIENT TEMP (°F): 51

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
40ml/Vial	3	HCl	8260	VOC
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8330	Explo
1L/Amber	2	4C	8270	SVOC
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	1	4C	353.2/8330	Propellants

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 8:45

WELL ID: FWGmw-005

WELL DEPTH: INITIAL WATER LEVEL: 22.95

WELL DIAMETER 2 in. SCREEN INTERVAL: 21.6 - 31.6

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 29.6

PUMP READINGS: Throttle: 60 Recharge: 10 Discharge: 5

COMMENTS cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
8:54	22.96	0.2	0.25	11.15	0.9	1.27	8.07	999	-34
8:57	22.98	0.2	0.6	11.15	0.9	0	7.69	999	-34
9:00	22.98	0.2	0.6	11.04	0.9	0	7.67	999	-20
9:03	22.98	0.2	0.6	11.03	0.9	0	7.66	999	-21
9:06	22.98	0.2	0.6	11.03	0.9	0	7.64	999	-21
9:09	22.98	0.2	0.6	11.02	0.9	0	7.59	999	-15
9:12	22.98	0.2	0.6	11.04	0.999	0	7.59	999	-16
9:30	22.98	0.2	0.6	11	0.999	0	7.49	876	-9
9:33	22.98	0.2	0.6	11.01	0.999	0	7.5	750	-10
9:36	22.98	0.2	0.6	11.04	0.999	0	7.42	689	-7

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-005 SampleID: FWGFWGmw-005-0168-GW/GF DupIID: FWGFWGmw-DUP2-0200-GW/GF

SplitID: FWGFWGmw-005-0207s-GW/GF RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 9:45

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 632	Color:	cloudy
	ORP (mV): -7	Odor:	None

pH: 7.42 Temperature (°C): 11.04 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.9

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 48

SHIPPED VIA: Lab PU/FedEx

SHIPPED TO: Multiple Labs

SAMPLER: EC Cmt: duplicate @1045

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	3	4C	8330	Explo
1L/Amber	6	4C	8270	SVOC
1L/Amber	5	4C	8082	PCB
40ml/Vial	9	HCl	8260	VOC
1L/Amber	6	4C	353.2/8330	Propellants
250ml/Poly	3	NaOH	9012	Cyanide
1L/Poly	3	HNO3	6010/6020/7470	Metals
1L/Amber	5	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 9:05

WELL ID: FWGmw-006

WELL DEPTH: _____ INITIAL WATER LEVEL: 11.98

WELL DIAMETER 2 in. SCREEN INTERVAL: 9 - 19

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 17.0

PUMP READINGS: Throttle: 30 Recharge: 10 Discharge: 5

COMMENTS Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
9:09	11.90	0.2	0.25	14.6	0.377	0	6	215	-35
9:25	11.82	0.2	3.2	14.6	0.381	0	6.03	155	-40
9:28	11.90	0.2	0.6	14.56	0.384	0	6.03	139	-44

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: AD

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-006 SampleID: FWGFWGmw-006-0169-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 9:43

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 117	Color:	Cloudy
	ORP (mV): -49	Odor:	None

pH: 6.04 Temperature (°C): 14.54 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.386

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: AD Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8330	Explo
1L/Amber	1	4C	353.2/8330	Propellants
1L/Poly	1	HNO3	6010/6020/7470	Metals
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 12:40

WELL ID: FWGmw-007

WELL DEPTH: _____ INITIAL WATER LEVEL: 24.85

WELL DIAMETER 2 in. SCREEN INTERVAL: 22 - 32

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 30.0

PUMP READINGS: Throttle: 50 Recharge: 10 Discharge: 5

COMMENTS Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
12:41	24.98	0.2	0.25	14.81	2.09	0.9	7.15	231	49
12:44	25.05	0.2	0.6	14.21	2.08	0.7	7.13	359	43
12:47	25.10	0.2	0.6	13.78	2.09	0	7.14	494	41
12:50	25.14	0.2	0.6	13.65	2.1	0	7.15	645	43
12:53	25.14	0.2	0.6	13.53	2.11	0	7.16	818	45

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: AD

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-007 SampleID: FWGFWGmw-007-0170-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 13:03

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	891	Color:	Cloudy
	ORP (mV):	46	Odor:	None

pH: 7.16 Temperature (°C): 13.44 DO (mg/L): 0 Specific Conductivity (mS/cm): 2.12

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: NE AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: AD Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8330	Explo
1L/Amber	1	4C	353.2/8330	Propellants
1L/Amber	2	4C	8081	Pest
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8270	SVOC
40ml/Vial	3	HCl	8260	VOC
1L/Poly	1	HNO3	6010/6020/7470	Metals

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 12:45

WELL ID: FWGmw-008

WELL DEPTH: _____ INITIAL WATER LEVEL: 6.43

WELL DIAMETER 2 in. SCREEN INTERVAL: 12 - 22

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 20.0

PUMP READINGS: Throttle: 60 Recharge: 10 Discharge: 5

COMMENTS cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
12:52	6.48	0.2	0.25	13.36	0.999	3.34	8.6	965	-108
12:55	6.48	0.2	0.6	13.45	0.999	0	8.54	999	-109
12:58	6.48	0.2	0.6	13.64	0.9	0	8.51	999	-109
13:01	6.48	0.2	0.6	13.45	0.9	5	8.31	999	-91
13:12	6.48	0.2	0.6	13.69	0.998	4	8.45	999	-86
13:15	6.48	0.2	0.6	13.43	0.998	1.37	8.75	999	-104
13:27	6.48	0.2	0.6	13.38	0.999	1.2	8.81	999	-107
13:30	6.48	0.2	0.6	13.56	0.9	2	8.67	999	-90
13:39	6.48	0.2	1.8	13.24	0.9	2.78	8.72	717	-98
13:42	6.48	0.2	0.6	13.43	0.9	2.64	8.73	642	-98
13:45	6.48	0.2	0.6	13.64	0.9	2.54	8.72	584	-98

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-008 SampleID: FWGFWGmw-008-0171-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 13:55

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 506	Color:	cloudy
	ORP (mV): -102	Odor:	None

pH: 8.72 Temperature (°C): 13.58 DO (mg/L): 2.44 Specific Conductivity (mS/cm): 0.9

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 54

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 11:30

WELL ID: FWGmw-009

WELL DEPTH: _____ INITIAL WATER LEVEL: 2.09

WELL DIAMETER 2 in. SCREEN INTERVAL: 10 - 20

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 18.0

PUMP READINGS: Throttle: 50 Recharge: 10 Discharge: 5

COMMENTS slightly cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
11:37	2.38	0.2	0.25	12.73	0.9	1.72	8.25	577	-73
11:40	2.45	0.2	0.6	12.77	0.9	7.65	8.33	575	-81
11:43	2.45	0.2	0.6	12.81	0.91	3.56	8.34	519	-83
11:46	2.45	0.2	0.6	12.74	0.91	0	8.37	387	-85
11:49	2.45	0.2	0.6	12.68	0.9	0	8.39	308	-90
11:52	2.45	0.2	0.6	12.7	0.9	0	8.4	250	-90

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-009 SampleID: FWGFWGmw-009-0172-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 12:05

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	234	Color:	slightly cloudy
	ORP (mV):	-92	Odor:	None

pH: 8.41 Temperature (°C): 12.77 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.9

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	353.2/8330	Propellants
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/15/2012 START TIME: 14:30

WELL ID: FWGmw-010

WELL DEPTH: _____ INITIAL WATER LEVEL: 12.78

WELL DIAMETER 2 in. SCREEN INTERVAL: 9 - 19

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 17.0

PUMP READINGS: Throttle: 40 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
14:36	13.65	0.15	0.25	14.05	0.71	0.46	6.98	175	-55
14:39	13.91	0.15	0.45	13.96	0.705	0	6.88	126	-50
14:42	13.95	0.15	0.45	13.99	0.702	0	6.85	119	-49
14:45	14.05	0.15	0.45	13.97	0.701	0	6.81	90.3	-48

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-010 SampleID: FWGFWGmw-010-0173-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 14:55

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	84.4	Color:	Clear
	ORP (mV):	-48	Odor:	None

pH: 6.8 Temperature (°C): 13.97 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.701

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: Y WIND DIRECTION: N AMBIENT TEMP (°F): 54

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/15/2012 START TIME: 14:25

WELL ID: FWGmw-011

WELL DEPTH: INITIAL WATER LEVEL: 2.7

WELL DIAMETER 2 in. SCREEN INTERVAL: 7.5 - 17.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 15.5

PUMP READINGS: Throttle: 30 Recharge: 10 Discharge: 5

COMMENTS cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
14:27	2.92	0.3	0.25	15.54	0.99	0	6.62	374	-111
14:31	2.90	0.3	1.2	15.49	0.99	0	6.7	335	-116
14:36	2.95	0.3	1.5	15.48	0.99	0	6.82	350	-101
14:39	2.95	0.3	0.9	15.48	0.99	0	6.82	430	-94
14:42	3.00	0.3	0.9	15.49	0.99	0	6.86	477	-86

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-011 SampleID: FWGFWGmw-011-0174-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 14:53

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 426	Color:	cloudy
	ORP (mV): -84	Odor:	None

pH: 6.89 Temperature (°C): 15.48 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.999

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: SW AMBIENT TEMP (°F): 53

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	8330	Explo
1L/Amber	1	4C	353.2/8330	Propellants
1L/Poly	1	HNO3	6010/6020/7470	Metals

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/15/2012 START TIME: 12:30

WELL ID: FWGmw-012

WELL DEPTH: 43.3 INITIAL WATER LEVEL: 2.64

WELL DIAMETER 2 in. SCREEN INTERVAL: 32.3 - 43.3

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 41.3

PUMP READINGS: Throttle: 30 Recharge: 10 Discharge: 5

COMMENTS Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
12:32	2.72	0.2	0.25	14.57	0.629	0	5.73	468	28
12:35	2.75	0.2	0.6	14.46	0.623	0	5.71	448	32
12:39	2.76	0.2	0.8	14.33	0.609	0	5.72	391	33
12:42	2.76	0.2	0.6	14.29	0.609	0	5.72	350	32

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-012 SampleID: FWGFWGmw-012-0175-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: Y

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 13:03

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 336	Color:	Cloudy
	ORP (mV): 32	Odor:	None

pH: 5.73 Temperature (°C): 14.29 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.609

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: SW AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	6	4C	8081	Pest
1L/Amber	8	4C	8270	SVOC
1L/Amber	3	4C	353.2/8330	Propellants
1L/Amber	6	4C	8330	Explo
1L/Amber	6	4C	8082	PCB
1L/Poly	3	HNO3	6010/6020/7470	Metals
250ml/Poly	3	NaOH	9012	Cyanide
40ml/Vial	9	HCl	8260	VOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/17/2012 START TIME: 15:50

WELL ID: FWGmw-013

WELL DEPTH: _____ INITIAL WATER LEVEL: 22.66

WELL DIAMETER 2 in. SCREEN INTERVAL: 26.5 - 36.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 34.5

PUMP READINGS: Throttle: 0 Recharge: 0 Discharge: 0

COMMENTS orange Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
15:55	23.00	0.2	0.4	13.67	0.513	8.64	7.1	999	49
15:58	23.15	0.2	0.6	13.61	0.51	8.13	7.04	732	50
16:01	23.36	0.2	0.6	13.32	0.507	7.99	7.01	414	49
16:04	23.52	0.2	0.6	13.15	0.507	7.78	6.98	273	38
16:07	23.68	0.2	0.6	13.18	0.508	7.69	6.97	256	33

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-013 SampleID: FWGFWGmw-013-0176-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 16:08

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	188	Color:	orange
	ORP (mV):	32	Odor:	None

pH: 6.95 Temperature (°C): 13.16 DO (mg/L): 7.59 Specific Conductivity (mS/cm): 0.507

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: SW AMBIENT TEMP (°F): 65

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8270	SVOC
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Poly	1	HNO3	6010/6020/7470	Metals
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	353.2/8330	Propellants
40ml/Vial	3	HCl	8260	VOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 10:39

WELL ID: FWGmw-014

WELL DEPTH: _____ INITIAL WATER LEVEL: 5.5

WELL DIAMETER 2 in. SCREEN INTERVAL: 11 - 21

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 19.0

PUMP READINGS: Throttle: 50 Recharge: 10 Discharge: 5

COMMENTS Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
10:41	5.18	0.3	0.25	15.83	0.49	1	6.6	120	-50
10:44	5.60	0.3	0.9	15.88	0.489	0	6.66	124	-51
10:47	5.78	0.3	0.9	15.85	0.492	0	6.84	143	-53
10:50	5.83	0.3	0.9	15.83	0.494	0	6.9	172	-52
10:53	5.81	0.3	0.9	15.76	0.496	0	6.99	203	-51
10:56	5.83	0.3	0.9	15.74	0.497	0	7.02	198	-53
10:59	5.89	0.3	0.9	15.71	0.498	0	7.05	214	-51

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: AD

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-014 SampleID: FWGFWGmw-014-0178-GW/GF DupIID: FWGFWG-014-DUP4-0201-GW

SplitID: RinseID: FWGFWGEQUIPRinse2-0213-GW

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: Y

GRAB: **Y** COMPOSITE: **N** DATE: 10/16/2012 TIME: 11:13

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	218	Color:	Cloudy
	ORP (mV):	-50	Odor:	None

pH: 7.09 Temperature (°C): 15.64 DO (mg/L): 0.33 Specific Conductivity (mS/cm): 0.499

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: NE AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab PU/FedEx

SHIPPED TO: Multiple Labs

SAMPLER: AD Cmt: Collected Rad Chem with MSMSD, and duplicate (@1213)

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	1	4C	353.2/8330	Propellants
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8330	Explo
1L/Poly	1	HNO3	6010/6020/7470	Metals
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 16:25

WELL ID: FWGmw-015

WELL DEPTH: _____ INITIAL WATER LEVEL: 8.55

WELL DIAMETER 2 in. SCREEN INTERVAL: 16 - 26

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 24.0

PUMP READINGS: Throttle: 55 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
16:30	9.34	0.2	0.25	14.16	2.25	0.58	8.62	165	-88
16:33	9.82	0.2	0.6	14.05	2.25	0	8.62	137	-92
16:36	10.17	0.2	0.6	13.97	2.24	0	8.65	134	-95
16:39	10.56	0.2	0.6	13.94	2.24	0	8.65	128	-96

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-015 SampleID: FWGFGWmw-015-0179-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 16:50

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 122	Color:	Clear
	ORP (mV): -97	Odor:	None

pH: 8.65 Temperature (°C): 13.93 DO (mg/L): 0 Specific Conductivity (mS/cm): 2.24

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 56

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8082	PCB
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: FACILITYWID DATE: 10/16/2012 START TIME: 15:05

WELL ID: FWGmw-016

WELL DEPTH: _____ INITIAL WATER LEVEL: 18.73

WELL DIAMETER 2 in. SCREEN INTERVAL: 57.2 - 67.2

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 65.2

PUMP READINGS: Throttle: 120 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
15:12	18.84	0.2	0.5	13.55	0.9	0.93	9.23	0	-117
15:15	18.84	0.2	0.6	13.05	0.9	0	8.98	0	-100
15:18	18.84	0.2	0.6	12.95	0.92	0	8.92	0	-96
15:21	18.84	0.2	0.6	12.89	0.94	0	8.79	0	-89
15:24	18.85	0.2	0.6	12.85	0.93	0	8.72	0	-83
15:27	18.85	0.2	0.6	12.8	0.92	0	8.68	0	-80
15:30	18.85	0.2	0.6	12.8	0.91	0	8.65	0	-83

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **FACILITYWI** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: FWGmw-016 SampleID: FWGFWGmw-016-0180-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 15:40

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	0	Color:	Clear
	ORP (mV):	-80	Odor:	None

pH: 8.63 Temperature (°C): 12.75 DO (mg/L): 0.9 Specific Conductivity (mS/cm): 0.9

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 56

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest
40ml/Vial	3	HCl	8260	VOC
1L/Poly	1	HNO3	6010/6020/7470	Metals

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 1 DATE: 10/17/2012 START TIME: 13:50

WELL ID: LL1mw-086

WELL DEPTH: _____ INITIAL WATER LEVEL: 9.86

WELL DIAMETER 2 in. SCREEN INTERVAL: 64.5 - 74.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 72.5

PUMP READINGS: Throttle: 200 Recharge: 10 Discharge: 5

COMMENTS cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
14:05	9.89	0.2	0.25	12.82	0.564	19.83	7.84	272	-198
14:08	9.89	0.2	0.6	12.65	0.558	19.59	7.64	182	-197
14:11	9.89	0.2	0.6	12.45	0.554	19.32	7.52	168	-195
14:14	9.89	0.2	0.6	12.47	0.562	18.74	7.39	152	-190
14:17	9.89	0.2	0.6	12.57	0.546	18.31	7.31	509	-168
14:20	9.91	0.2	0.6	12.45	0.553	17.97	7.27	541	-172
14:23	9.92	0.2	0.6	12.38	0.588	17.79	7.22	770	-170
14:26	9.92	0.2	0.6	12.47	0.611	17.63	7.16	728	-168
14:29	9.92	0.2	0.6	12.44	0.632	17.52	7.11	800	-164
14:32	9.92	0.2	0.6	12.44	0.689	17.37	7.07	693	-162
14:35	9.92	0.2	0.6	12.49	0.683	16.86	7.03	689	-159
14:38	9.92	0.2	0.6	12.4	0.669	17.08	7	577	-157
14:41	9.92	0.2	0.6	12.4	0.653	17.08	6.98	572	-156
14:44	9.92	0.2	0.6	12.36	0.626	17.16	6.96	560	-156
14:47	9.92	0.2	0.6	12.35	0.619	17.1	6.95	555	-155
14:50	9.92	0.2	0.6	12.42	0.601	17	6.94	445	-155
14:53	9.92	0.2	0.6	12.41	0.581	16.93	6.93	340	-154
14:56	9.92	0.2	0.6	12.41	0.573	16.92	6.93	555	-154
14:59	9.92	0.2	0.6	12.49	0.562	16.98	6.9	272	-136
15:02	9.94	0.2	0.6	12.31	0.654	17.05	6.93	248	-142
15:05	9.94	0.2	0.6	12.2	0.65	17.17	6.92	250	-144
15:08	9.95	0.2	0.6	12.24	0.648	17.24	6.91	234	-145

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 1** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL1mw-086 SampleID: FWGLL1mw-086-0181-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: Y

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 15:15

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 222	Color:	cloudy
	ORP (mV): -145	Odor:	None

pH: 6.91 Temperature (°C): 12.22 DO (mg/L): 17.26 Specific Conductivity (mS/cm): 0.646

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: SW AMBIENT TEMP (°F): 58

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	3	HNO3	6010/6020/7470	Metals
250ml/Poly	3	NaOH	9012	Cyanide
1L/Amber	6	4C	353.2/8330	Propellants
1L/Amber	3	4C	8330	Explo
1L/Amber	6	4C	8081	Pest
1L/Amber	6	4C	8270	SVOC
40ml/Vial	9	HCl	8260	VOC
1L/Amber	6	4C	8082	PCB

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 1 DATE: 10/17/2012 START TIME: 12:45

WELL ID: LL1mw-087

WELL DEPTH: _____ INITIAL WATER LEVEL: 6.89

WELL DIAMETER 2 in. SCREEN INTERVAL: 7 - 17

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 15.0

PUMP READINGS: Throttle: 30 Recharge: 10 Discharge: 5

COMMENTS DID NOT CHANGE TUBING-MAY NEED TO BE CHANGED slightly cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
12:53	7.68	0.2	0.25	17.12	0.674	4.33	6.79	466	114
12:56	8.03	0.2	0.6	17.17	0.671	4.12	6.87	294	86
12:59	8.18	0.2	0.6	17.22	0.672	4	6.9	239	72
13:02	8.42	0.2	0.6	17.35	0.677	3.95	6.96	175	57

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 1** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL1mw-087 SampleID: FWGLL1mw-087-0182-GW/GF DuplID:

SplitID: RinseID: FWGEQUIPRinse3-0214-GW

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 13:15

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	145	Color:	slightly cloudy
	ORP (mV):	51	Odor:	None

pH: 6.98 Temperature (°C): 17.32 DO (mg/L): 3.91 Specific Conductivity (mS/cm): 0.678

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: SW AMBIENT TEMP (°F): 58

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	353.2/8330	Propellants
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	8082	PCB
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 3 DATE: 10/16/2012 START TIME: 15:58

WELL ID: LL3mw-244

WELL DEPTH: _____ INITIAL WATER LEVEL: 16.37

WELL DIAMETER 2 in. SCREEN INTERVAL: 37 - 47

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 45.0

PUMP READINGS: Throttle: 40 Recharge: 12 Discharge: 3

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
16:04	16.40	0.15	0.25	13.69	0.266	7.32	6.73	81.2	91
16:07	16.42	0.15	0.45	13.3	0.258	6.74	6.4	53.1	96
16:10	16.44	0.2	0.6	12.28	0.251	6.98	6.11	18.4	107
16:13	16.46	0.2	0.6	11.98	0.25	7.21	6.09	9	110
16:16	16.44	0.2	0.6	11.64	0.248	7.58	6.02	3.3	125
16:19	16.42	0.2	0.6	11.6	0.249	7.42	5.99	1.2	127
16:22	16.41	0.2	0.6	11.54	0.25	7.34	5.95	0.6	129

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 3** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL3mw-244 SampleID: FWGLL3mw-244-0183-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 16:24

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 0.3	Color:	Clear
	ORP (mV): 132	Odor:	None

pH: 5.96 Temperature (°C): 11.57 DO (mg/L): 7.29 Specific Conductivity (mS/cm): 0.249

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	1	4C	8330	Explo
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8082	PCB
250ml/Poly	1	NaOH	9012	Cyanide
250ml/Poly	1	4C	218.6	Hex. Chrom.
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	353.2/8330	Propellants

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 3 DATE: 10/15/2012 START TIME: 12:04

WELL ID: LL3mw-245

WELL DEPTH: _____ INITIAL WATER LEVEL: 14.96

WELL DIAMETER 2 in. SCREEN INTERVAL: 38.5 - 48.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 46.5

PUMP READINGS: Throttle: 50 Recharge: 12 Discharge: 3

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
12:34	15.10	0.2	0.25	11.7	1.04	9.43	6.93	28.7	-225
12:37	15.20	0.2	0.6	11.69	1.05	9.1	7.05	11.9	-220
12:40	15.15	0.2	0.6	11.74	1.03	7.34	7.04	32	-211
12:43	15.13	0.2	0.6	11.69	1.02	7.1	7.05	35.8	-208
12:46	15.12	0.2	0.6	11.63	1.02	7.04	7.04	45.8	-205

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 3** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL3mw-245 SampleID: FWGLL3mw-245-0184-GW/GF DuplID: FWGLL3mw-DUP5-0202-GW/GF

SplitID: FWGLL3mw-245-0208s-GW/GF RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/15/2012 TIME: 12:52

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 35.6	Color:	Clear
	ORP (mV): -197	Odor:	None

pH: 7.04 Temperature (°C): 11.56 DO (mg/L): 6.82 Specific Conductivity (mS/cm): 1.01

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab PU/FedEx

SHIPPED TO: Multiple Labs

SAMPLER: CAL Cmt: duplicate @ 1332

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	3	HNO3	6010/6020/7470	Metals
1L/Amber	6	4C	353.2/8330	Propellants
40ml/Vial	9	HCl	8260	VOC
1L/Amber	3	4C	8330	Explo
1L/Amber	5	4C	8082	PCB
250ml/Poly	3	NaOH	9012	Cyanide
1L/Amber	5	4C	8081	Pest
1L/Amber	6	4C	8270	SVOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 4 DATE: 10/17/2012 START TIME: 14:17

WELL ID: LL4mw-201

WELL DEPTH: _____ INITIAL WATER LEVEL: 10.76

WELL DIAMETER 2 in. SCREEN INTERVAL: 60.5 - 70.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 68.5

PUMP READINGS: Throttle: 50 Recharge: 12 Discharge: 3

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
14:26	10.77	0.2	0.2	13.58	0.757	3.81	7.24	32.6	-205
14:29	10.76	0.225	0.675	13.13	0.758	6.22	7.25	14.4	-195
14:32	10.76	0.225	0.675	13.08	0.753	6.52	7.25	3	-173
14:35	10.76	0.225	0.675	13.01	0.755	6.49	7.24	1.2	-171

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 4** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL4mw-201 SampleID: FWGLL4mw-201-0185-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 14:42

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 0.7	Color:	Clear
	ORP (mV): -169	Odor:	None

pH: 7.23 Temperature (°C): 12.96 DO (mg/L): 6.39 Specific Conductivity (mS/cm): 0.755

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 65

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	353.2/8330	Propellants
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	8082	PCB
40ml/Vial	3	HCl	8260	VOC
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8270	SVOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 6 DATE: 10/17/2012 START TIME: 13:40

WELL ID: LL6mw-008

WELL DEPTH: _____ INITIAL WATER LEVEL: 17.82

WELL DIAMETER 2 in. SCREEN INTERVAL: 10 - 20

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 18.0

PUMP READINGS: Throttle: 30 Recharge: 10 Discharge: 5

COMMENTS only 2' of water in well but level stays steady Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
13:44	18.10	0.2	0.4	17.58	0.651	0	7.18	9999	-7
13:47	18.08	0.2	0.6	16.71	0.652	0	7.17	9999	-4
13:50	18.07	0.2	0.6	15.93	0.656	0	7.19	9999	-5
13:53	18.07	0.2	0.6	15.6	0.659	0	7.2	890	-4
13:56	18.08	0.2	0.6	15.22	0.663	0	7.18	496	-5
13:59	18.08	0.2	0.6	15.11	0.664	0	7.18	461	-6

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 6** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL6mw-008 SampleID: FWGLL6mw-008-0186-GW/GF DupIID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 14:13

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	432	Color:	Cloudy
	ORP (mV):	-6	Odor:	None

pH: 7.18 Temperature (°C): 15.11 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.664

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 65

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8330	Explo
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8082	PCB
1L/Amber	1	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 6 DATE: 10/17/2012 START TIME: 12:30

WELL ID: LL6mw-009

WELL DEPTH: INITIAL WATER LEVEL: 17.6

WELL DIAMETER 2 in. SCREEN INTERVAL: 31.3 - 41.3

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 39.3

PUMP READINGS: Throttle: 80 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
12:38	17.65	0.2	0.25	15.05	0.575	0	7.14	32.4	-102
12:41	17.64	0.2	0.6	14.41	0.582	0	7	31	-99
12:44	17.63	0.2	0.6	14	0.586	0	6.99	20.3	-102
12:47	17.64	0.2	0.6	13.83	0.588	0	6.98	13.4	-105
12:50	17.64	0.2	0.6	13.71	0.589	0	6.97	26.7	-108

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 6** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL6mw-009 SampleID: FWGLL6mw-009-0187-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 13:03

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 6	Color:	Clear
	ORP (mV): -109	Odor:	None

pH: 6.97 Temperature (°C): 13.72 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.589

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 65

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8330	Explo
1L/Amber	1	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 11 DATE: 10/17/2012 START TIME: 16:36

WELL ID: LL11mw-011

WELL DEPTH: INITIAL WATER LEVEL: 9.29

WELL DIAMETER 2 in. SCREEN INTERVAL: 10.3 - 20.3

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 18.3

PUMP READINGS: Throttle: 50 Recharge: 10 Discharge: 5

COMMENTS extra purge time to lower ntu Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
16:39	9.45	0.2	0.6	17.72	0.382	2.53	7.9	9999	-100
16:42	9.44	0.2	0.6	16.45	0.383	0	7.67	9999	-105
16:45	9.48	0.2	0.6	16.18	0.38	0	7.59	9999	-106
16:48	9.52	0.2	0.6	16.07	0.377	0	7.55	9999	-106
16:51	9.56	0.2	0.6	15.93	0.378	0	7.53	9999	-106
16:55	9.50	0.2	0.8	15.92	0.378	0	7.53	956	-108
16:58	9.46	0.2	0.6	15.92	0.378	0	7.53	893	-109

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 11** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL11mw-011 SampleID: FWGFWG11mw-011-0188-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 17:03

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 947	Color:	Cloudy
	ORP (mV): -109	Odor:	None

pH: 7.53 Temperature (°C): 15.94 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.379

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 70

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	1	4C	353.2/8330	Propellants
250ml/Poly	2	NaOH	9012	Cyanide
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8330	Explo
1L/Amber	2	4C	8270	SVOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 11 DATE: 10/16/2012 START TIME: 11:10

WELL ID: LL11mw-012

WELL DEPTH: _____ INITIAL WATER LEVEL: 21.41

WELL DIAMETER 2 in. SCREEN INTERVAL: 109.4 - 119.4

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 117.4

PUMP READINGS: Throttle: 80 Recharge: 25 Discharge: 35

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
11:15	21.41	0.3	0.5	12.31	0.677	4.46	7.34	34.8	-102
11:18	21.21	0.3	0.9	12.11	0.679	4.01	7.33	25.5	-122
11:21	21.45	0.3	0.9	12.03	0.676	3.32	7.32	19.6	-148
11:24	21.45	0.3	0.9	11.79	0.676	2	7.31	6.5	-167
11:27	21.45	0.3	0.9	11.73	0.675	1.82	7.3	11.2	-165
11:30	21.45	0.3	0.9	11.63	0.673	1.73	7.29	11.3	-165

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 11** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL11mw-012 SampleID: FWGLL11mw-012-0189-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 11:32

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	6.7	Color:	Clear
	ORP (mV):	-163	Odor:	None

pH: 7.28 Temperature (°C): 11.73 DO (mg/L): 1.71 Specific Conductivity (mS/cm): 0.674

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	353.2/8330	Propellants
1L/Amber	1	4C	8330	Explo
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8270	SVOC
40ml/Vial	3	HCl	8260	VOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 12 DATE: 10/17/2012 START TIME: 13:02

WELL ID: LL12mw-182

WELL DEPTH: _____ INITIAL WATER LEVEL: 13.22

WELL DIAMETER 2 in. SCREEN INTERVAL: 25.2 - 35.2

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 33.2

PUMP READINGS: Throttle: 40 Recharge: 12 Discharge: 3

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
13:08	13.40	0.175	0.2	14.74	0.953	5.09	7.15	266	-150
13:11	13.73	0.175	0.525	14.24	1.07	4.1	7.12	288	-142
13:14	13.96	0.175	0.525	13.95	1.09	3.82	7.08	272	-132
13:17	14.04	0.175	0.525	13.84	1.1	3.68	7.06	231	-119
13:20	14.19	0.175	0.525	13.73	1.1	3.69	7.05	219	-112

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 12** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL12mw-182 SampleID: FWGLL12mw-182-0190-GW DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 13:22

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	229	Color:	Clear
	ORP (mV):	-105	Odor:	None

pH: 7.05 Temperature (°C): 13.68 DO (mg/L): 3.73 Specific Conductivity (mS/cm): 1.1

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: NW AMBIENT TEMP (°F): 60

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8270	SVOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 12 DATE: 10/17/2012 START TIME: 13:03

WELL ID: LL12mw-182ss

WELL DEPTH: _____ INITIAL WATER LEVEL: 13.07

WELL DIAMETER 2 in. SCREEN INTERVAL: 25.25 - 35.25

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 33.3

PUMP READINGS: Throttle: 40 Recharge: 12 Discharge: 3

COMMENTS wl 13.3 after purge of 182 complete and 13.10 w pump in well Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
13:39	13.29	0.175	0.2	16.04	1.09	5.12	7.41	68.3	-149
13:42	13.52	0.18	0.54	15.42	1.08	4.23	7.33	70.4	-157
13:45	13.73	0.18	0.54	15.17	1.08	5.33	7.32	58.1	-161
13:48	13.91	0.18	0.54	14.98	1.07	5.51	7.28	68.5	-162
13:51	14.05	0.18	0.54	14.97	1.06	5.45	7.23	55.6	-163

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 12** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL12mw-182ss SampleID: FWGLL12mw-182ss-0191-GW DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 13:53

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	66.4	Color:	Clear
	ORP (mV):	-164	Odor:	None

pH: 7.21 Temperature (°C): 14.88 DO (mg/L): 5.46 Specific Conductivity (mS/cm): 1.07

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 60

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	2	4C	8270	SVOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: LOADLINE 12 DATE: 10/16/2012 START TIME: 13:00

WELL ID: LL12mw-247

WELL DEPTH: 22.74 INITIAL WATER LEVEL: 6.12

WELL DIAMETER 2 in. SCREEN INTERVAL: 12.5 - 22.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 20.5

PUMP READINGS: Throttle: 35 Recharge: 12 Discharge: 3

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
13:53	6.43	0.175	0.2	14.31	1.1	10.4	7.03	580	-115
13:56	6.71	0.175	0.525	14.36	1.09	9.46	7.02	543	-125
13:59	6.79	0.175	0.525	14.24	1.09	8.85	7.01	495	-133
14:02	6.91	0.175	0.525	14.25	1.08	8.5	7.01	420	-143
14:05	7.02	0.175	0.525	14.21	1.07	8.29	7.02	384	-150
14:08	7.14	0.174	0.522	14.3	1.06	8.16	7.08	321	-157
14:11	7.27	0.175	0.525	14.45	1.05	7.99	7.08	272	-159

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **LOADLINE 12** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: LL12mw-247 SampleID: FWGLL12mw-247-0192-GW/GF DupIID: FWGLL12mw-DUP6-0203-GW

SplitID: FWGLL12mw-247-0209s-GW RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: Y

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 14:14

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	231	Color:	Clear
	ORP (mV):	-161	Odor:	None

pH: 7.1 Temperature (°C): 14.48 DO (mg/L): 7.78 Specific Conductivity (mS/cm): 1.05

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab PU/FedEx

SHIPPED TO: Multiple Labs

SAMPLER: CAL Cmt: partial analyte duplicate (@1432)/ split and msmsd

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	1	4C	8330	Explo
40ml/Vial	3	HCl	8260	VOC
1L/Amber	3	4C	8270	SVOC
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	3	4C	8082	PCB
1L/Amber	3	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide
250ml/Poly	3	4C	218.6	Hex. Chrom.
250ml/Poly	5	H2SO4	353.2	NO3/NO2
1L/Amber	3	4C	8081	Pest

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: NACA TEST A DATE: 10/16/2012 START TIME: 9:00

WELL ID: NTAmw-119

WELL DEPTH: _____ INITIAL WATER LEVEL: 13.75

WELL DIAMETER 2 in. SCREEN INTERVAL: 94.2 - 104.2

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 102.2

PUMP READINGS: Throttle: 80 Recharge: 30 Discharge: 30

COMMENTS sulfur odor gray tint tinted Odor:sulfur

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
9:23	13.75	0.3	0.25	10.81	0.703	3.3	7.4	183	-276
9:29	13.75	0.3	1.8	10.94	0.685	2.3	7.48	487	-278
9:32	13.75	0.3	0.9	10.94	0.682	2.01	7.47	504	-283
9:35	13.75	0.3	0.9	10.91	0.678	1.82	7.43	409	-282
9:38	13.76	0.3	0.9	10.89	0.669	1.75	7.39	328	-278

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **NACA TEST A** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: NTAmw-119 SampleID: FWGNTAmw-119-0193-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 9:42

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 307	Color:	tinted
	ORP (mV): -277	Odor:	sulfur

pH: 7.38 Temperature (°C): 10.91 DO (mg/L): 1.64 Specific Conductivity (mS/cm): 0.67

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: N AMBIENT TEMP (°F): 45

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide
40ml/Vial	3	HCl	8260	VOC

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: SHARON CON DATE: 10/16/2012 START TIME: 12:50

WELL ID: SCFmw-002

WELL DEPTH: INITIAL WATER LEVEL: 20.78

WELL DIAMETER 2 in. SCREEN INTERVAL: 137 - 147

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 145.0

PUMP READINGS: Throttle: 75 Recharge: 25 Discharge: 35

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
13:05	17.90	0.3	0.5	12.52	0.711	3.72	7.47	32.8	-127
13:08	16.60	0.275	0.825	12.78	0.73	3.27	7.35	30.1	-133
13:11	16.15	0.28	0.84	12.96	0.735	2.88	7.29	17.4	-141
13:14	16.30	0.275	0.825	13.03	0.742	2.59	7.24	0	-147
13:17	16.25	0.28	0.84	13.2	0.744	2.37	7.22	0	-151
13:20	16.17	0.28	0.84	12.78	0.75	2.31	7.21	0	-153

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: CAL

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **SHARON CON** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: SCFmw-002 SampleID: FWGSCFmw-002-0194-GF DuplID: FWGSCFmw-DUP7-0204-GF

SplitID: FWGSCFmw-002-0210s-GF RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/16/2012 TIME: 13:28

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 0	Color:	Clear
	ORP (mV): -156	Odor:	None

pH: 7.19 Temperature (°C): 12.85 DO (mg/L): 2.2 Specific Conductivity (mS/cm): 0.75

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab PU/FedEx

SHIPPED TO: Multiple Labs

SAMPLER: CAL Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
250ml/Poly	3	4C	218.6	Hex. Chrom.

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: WINKLEPECK DATE: 10/17/2012 START TIME: 9:02

WELL ID: WBGmw-018

WELL DEPTH: INITIAL WATER LEVEL: 21.84

WELL DIAMETER 2 in. SCREEN INTERVAL: 14.6 - 24.8

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 22.8

PUMP READINGS: Throttle: 50 Recharge: 10 Discharge: 5

COMMENTS cleaned flow thru out after 910 reading extra purge Cloudy Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
9:04	21.84	0.2	0.25	14.66	0.117	5.81	5.7	9999	228
9:07	21.80	0.2	0.6	14.12	0.117	5.65	5.7	9999	228
9:10	21.78	0.2	0.6	13.58	0.114	5.68	5.79	9999	228
9:14	21.80	0.2	0.8	13.4	0.111	7.83	5.87	9999	229
9:17	21.80	0.2	0.6	13.37	0.112	6.03	5.73	9999	233
9:20	21.80	0.2	0.6	13.28	0.111	5.93	5.69	929	237
9:23	21.80	0.2	0.6	13.26	0.11	5.91	5.68	658	237

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: AD

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **WINKLEPEC** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: WBGmw-018 SampleID: FWGWBGmw-018-0195-GW/GF DupIID: FWGWBGmw-DUP8-0205-GW/GF

SplitID: FWGWBGmw-018-0211s-GW/GF RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 9:33

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	631	Color:	Cloudy
	ORP (mV):	238	Odor:	None

pH: 5.67 Temperature (°C): 13.27 DO (mg/L): 5.91 Specific Conductivity (mS/cm): 0.11

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 50

SHIPPED VIA: Lab PU/FedEx

SHIPPED TO: Multiple Labs

SAMPLER: AD Cmt: duplicate @ 1033

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Amber	5	4C	8082	PCB
1L/Poly	3	HNO3	6010/6020/7470	Metals
250ml/Poly	3	NaOH	9012	Cyanide
40ml/Vial	9	HCl	8260	VOC
1L/Amber	4	4C	353.2/8330	Propellants
1L/Amber	5	4C	8081	Pest
1L/Amber	6	4C	8270	SVOC
1L/Amber	5	4C	8330	Explo

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: WINKLEPECK DATE: 10/17/2012 START TIME: 11:00

WELL ID: WBGmw-019

WELL DEPTH: _____ INITIAL WATER LEVEL: 18.73

WELL DIAMETER 2 in. SCREEN INTERVAL: 40.4 - 50.5

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 48.5

PUMP READINGS: Throttle: 75 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
11:04	18.73	0.2	0.25	14.02	0.422	0	6.76	0	-86
11:07	18.73	0.2	0.6	13.51	0.431	0	6.85	0.2	-89
11:10	18.72	0.2	0.6	12.82	0.438	0	6.94	0.1	-91
11:13	18.72	0.2	0.6	12.56	0.441	0	6.99	0.4	-91
11:16	18.72	0.2	0.6	12.41	0.443	0	7.04	0.8	-92

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: KA

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **WINKLEPEC** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: WBGmw-019 SampleID: FWGWBGmw-019-0196-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 11:19

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 0.6	Color:	Clear
	ORP (mV): -92	Odor:	None

pH: 7.05 Temperature (°C): 12.37 DO (mg/L): 0 Specific Conductivity (mS/cm): 0.444

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: W AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: KA Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	353.2/8330	Propellants
1L/Amber	2	4C	8330	Explo
1L/Amber	2	4C	8082	PCB
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8270	SVOC
40ml/Vial	3	HCl	8260	VOC
1L/Poly	1	HNO3	6010/6020/7470	Metals

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: WINKLEPECK DATE: 10/17/2012 START TIME: 8:45

WELL ID: WBGmw-020

WELL DEPTH: _____ INITIAL WATER LEVEL: 14.75

WELL DIAMETER 2 in. SCREEN INTERVAL: 33.7 - 43.8

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 41.8

PUMP READINGS: Throttle: 70 Recharge: 10 Discharge: 5

COMMENTS DO sensor possibly not correct? Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
8:58	14.88	0.2	0.25	12.37	0.327	4.24	5.9	29.6	-93
9:01	14.94	0.2	0.6	12.37	0.314	3.88	6.13	29.6	-107
9:04	14.98	0.2	0.6	12.31	0.312	3.61	6.27	23.9	-119
9:07	14.98	0.2	0.6	12.27	0.298	3.49	6.34	16.9	-127
9:10	14.98	0.2	0.6	12.31	0.292	3.24	6.41	12.8	-132
9:13	14.98	0.2	0.6	12.28	0.288	2.96	6.44	10.8	-136
9:16	14.98	0.2	0.6	12.26	0.286	2.83	6.46	9	-137
9:19	14.98	0.2	0.6	12.25	0.285	2.8	6.46	8.5	-138

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **WINKLEPEC** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: WBGmw-020 SampleID: FWGWBGmw-020-0197-GW/GF DupIID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 9:20

FIELD READINGS / OBSERVATIONS

	Turb (NTU):	7.3	Color:	Clear
	ORP (mV):	-140	Odor:	None

pH: 6.48 Temperature (°C): 12.24 DO (mg/L): 2.5 Specific Conductivity (mS/cm): 0.285

GENERAL INFORMATION

SUN/OVERCAST Overcast PERCIPITATION: N WIND DIRECTION: SW AMBIENT TEMP (°F): 55

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt: DO measurements may be inaccurate will replace membrane

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
1L/Amber	2	4C	8270	SVOC
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	1	4C	8330	Explo
1L/Amber	2	4C	353.2/8330	Propellants
250ml/Poly	1	NaOH	9012	Cyanide

EQM MONITOR WELL PURGING FORM

PROJECT NAME: **RVAAP** PROJECT NUMBER: **030174.0016.001**

LOCATION: WINKLEPECK DATE: 10/17/2012 START TIME: 10:50

WELL ID: WBGmw-021

WELL DEPTH: INITIAL WATER LEVEL: 10.78

WELL DIAMETER 2 in. SCREEN INTERVAL: 33 - 43.1

PUMP/PURGING DEVICE: BP - BLADDER PUMP PUMP INTAKE DEPTH: 41.1

PUMP READINGS: Throttle: 75 Recharge: 10 Discharge: 5

COMMENTS Clear Odor:None

TIME	WATER LEVEL (btoc)	PURGE RATE L/min)	VOLUME PURGED (L)	TEMP. (°C)	SPECIFIC CONDUCT. (mS/cm)	DO (mg/L)	pH	Turb (NTU)	ORP (mV)
11:06	10.79	0.2	0.25	12.84	0.561	14.46	6.18	16.4	-47
11:09	10.79	0.2	0.6	12.82	0.547	4.38	6.44	18.1	-86
11:12	10.79	0.2	0.6	12.82	0.535	4.42	6.62	17.5	-105
11:15	10.79	0.2	0.6	12.82	0.534	4.49	6.66	17.2	-106
11:18	10.79	0.2	0.6	12.87	0.531	4.49	6.69	16.9	-109

Note: Condition of the well: See STATIC WATER LEVEL FORM

Field Personnel: EC

EQM FIELD SAMPLING REPORT

PROJECT: **RVAAP** LOCATION: **WINKLEPEC** PROJECT NO.: **030174.0016.001**

SAMPLE INFORMATION

WELL: WBGmw-021 SampleID: FWGWBGmw-021-0198-GW/GF DuplID:

SplitID: RinseID:

MATRIX: WG - Ground Water SAMPLING METHOD: BP - Bladder Pump MS/MSD: N

GRAB: Y COMPOSITE: N DATE: 10/17/2012 TIME: 11:30

FIELD READINGS / OBSERVATIONS

	Turb (NTU): 14.7	Color:	Clear
	ORP (mV): -112	Odor:	None

pH: 6.7 Temperature (°C): 12.88 DO (mg/L): 4.53 Specific Conductivity (mS/cm): 0.53

GENERAL INFORMATION

SUN/OVERCAST Sunny PERCIPITATION: N WIND DIRECTION: SW AMBIENT TEMP (°F): 56

SHIPPED VIA: Lab Pickup

SHIPPED TO: Testamerica

SAMPLER: EC Cmt:

CONTAINER		PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
SIZE/TYPE	*NUMBER*			
1L/Poly	1	HNO3	6010/6020/7470	Metals
40ml/Vial	3	HCl	8260	VOC
1L/Amber	2	4C	8270	SVOC
1L/Amber	2	4C	8081	Pest
1L/Amber	2	4C	8082	PCB
1L/Amber	1	4C	8330	Explo
250ml/Poly	1	NaOH	9012	Cyanide
1L/Amber	2	4C	353.2/8330	Propellants

Daily QC Records

Date: 15-Oct

S	M	T	W	T	F	S
	x					

DAILY QUALITY CONTROL REPORT

COE Project Manager: Glen Beckham

Project: Ravenna Army Ammunition Plant Groundwater Monitoring

Job No.: 030174.0016.001

Contract No.: GSA Contract Number GS-10F-0293K Delivery Order W912QR-11-F-0266

Weather	Bright Sun	Clear	Over-Cast	Rain	Snow
			x	x	
Temp	To 32	32-50	50-70	70-85	85 up
		x	x		
Wind	Still	Moder	High	Report No.	
	x				
Humidity	Dry	Moder	Humid	101512	
		x			

SUB-CONTRACTORS ON SITE:

Environmental Quality Management, Inc.

EQUIPMENT ON SITE:

Water level meters, Four water quality meters (Horiba-U22/U52); One multigas detector (MSA); Four bladder pumps w/ associated controllers and compressors and one deep well bladder set up.

WORK PERFORMED (INCLUDING SAMPLING):

Arrive at Building 1036, unload/load and organize equipment. Event water level collections. Redevelop LL1mw-086.

Purge and sample work completed at the wells. Samples were collected at the following locations: FWGmw-(001, 002, 004, 010, 011, and 012), EBGmw-131, and LL3mw-245

Field duplicate and QA split samples were collected from LL3mw-245. Extra volume was collected from FWGmw-012 to be designated for matrix spike/matrix spike duplicate analysis at the laboratory. Additionally, a field rinsate was collected by Team # 2.

Project	Ravenna Army Ammunition Plant Groundwater Monitorin	Report No.	101512
Job No.	030174.0016.001	Date:	10/15/2012

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS):

All field equipment was calibrated prior to mobilizing to the field. Water level meter devices were checked for correct footage. Water quality meters were calibrated with AutoCal Solution - certified values are: Conductivity - 4.49 mS/cm; Turbidity - 0 NTU; pH - 4.0 and 7.0 su.
Multigas detector calibrated with Zero Air Standard and 100 ppm Isobutylene. All field equipment was within calibration criteria.

HEALTH AND SAFETY LEVELS AND ACTIVITIES:
H&S briefing conducted prior to mobilizing to the field. All personnel to don modified Level 4 PPE (i.e. steel-toed shoes, safety glasses, & nitrile gloves). First Aid kits were included in each vehicle, & personnel were made aware of eyewash station locations.
Each team was equipped with a cellular phone. Personnel were instructed to hydrate frequently and watch for signs of heat/cold stress. Personnel were also instructed to be alert for storms, poisonous plants, stinging insect, ticks, and roaming deer/turkey.

PROBLEMS ENCOUNTERED/CORRECTIVE ACTION (S) TAKEN:

B12mw-013 did not have enough water and went dry during purge. Partial collection and will contine for more tomorrow. Some COCs indicated that a bottle preserved with H2SO4 was submitted which is false, when noticed notifications were made.

SPECIAL NOTES:

N/A

TOMORROWS EXPECTATIONS:

Expectations for tomorrow are to safely and correctly collect samples from a minimum of 9 wells and continue water level collections.

Date: 16-Oct

S	M	T	W	T	F	S
		X				

DAILY QUALITY CONTROL REPORT

COE Project Manager: Glen Beckham

Project: Ravenna Army Ammunition Plant Groundwater Monitoring

Job No.: 030174.0016.001

Contract No.: GSA Contract Number GS-10F-0293K Delivery Order W912QR-11-F-0266

Weather	Bright Sun	Clear	Over-Cast	Rain	Snow
			x		
Temp	To 32	32-50	50-70	70-85	85 up
		x	x		
Wind	Still	Moder	High	Report No.	
	x				
Humidity	Dry	Moder	Humid	101612	
	x				

SUB-CONTRACTORS ON SITE:

Environmental Quality Management, Inc.

EQUIPMENT ON SITE:

Water level meters, Four water quality meters (Horiba-U22/U52); One multigas detector (MSA); Four bladder pumps w/ associated controllers and compressors and one deep well bladder set up.

WORK PERFORMED (INCLUDING SAMPLING):

Arrive at Building 1036, unload/load and organize equipment. Continue event water level collections. Continue purge and sample work at the wells. Samples were collected at the following locations: B12mw-013, LL12mw-247 LL3mw-244, LL11mw-012, CBLmw-005, SCFmw-002, FWGmw-(003, 005, 006, 007, 008, 009, 014, 015, and 016)

Field duplicate and QA split samples were collected from FWGmw-005. FWGmw-014 (radiochemistry only) and LL12mw-247 (NO2/NO3 only) had Field duplicate and QA split samples and Extra volume was collected from to be designated for matrix spike/matrix spike duplicate analysis at the laboratory. Hexavalent chromium matrix spike/matrix spike duplicate was collected at LL12mw-247 and the Field duplicate and QA split samples was collected at SCFmw-002. Additionally, a field rinsate was collected by Team # 3.

Project	Ravenna Army Ammunition Plant Groundwater Monitorin	Report No.	101612
Job No.	030174.0016.001	Date:	10/16/2012

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS):

All field equipment was calibrated prior to mobilizing to the field. Water level meter devices were checked for correct footage. Water quality meters were calibrated with AutoCal Solution - certified values are: Conductivity - 4.49 mS/cm; Turbidity - 0 NTU; pH - 4.0 and 7.0 su.
Multigas detector calibrated with Zero Air Standard and 100 ppm Isobutylene. All field equipment was within calibration criteria.

HEALTH AND SAFETY LEVELS AND ACTIVITIES:
H&S briefing conducted prior to mobilizing to the field. All personnel to don modified Level 4 PPE (i.e. steel-toed shoes, safety glasses, & nitrile gloves). First Aid kits were included in each vehicle, & personnel were made aware of eyewash station locations.
Each team was equipped with a cellular phone. Personnel were instructed to hydrate frequently and watch for signs of heat/cold stress. Personnel were also instructed to be alert for storms, poisonous plants, stinging insect, ticks, and roaming deer/turkey.

PROBLEMS ENCOUNTERED/CORRECTIVE ACTION (S) TAKEN:

Samples at FWGmw-005 split were labeled correctly but logged incorrectly on COC, and notification was made when mistake noticed. Some COCs indicated that a bottle preserved with H2SO4 was submitted which is false, when noticed notifications were made.

SPECIAL NOTES:

N/A

TOMORROWS EXPECTATIONS:

Expectations for tomorrow are to safely and correctly collect samples the remaining wells and finalize the remaining water levels.

Date: 17-Oct

S	M	T	W	T	F	S
			X			

DAILY QUALITY CONTROL REPORT

COE Project Manager: Glen Beckham

Project: Ravenna Army Ammunition Plant Groundwater Monitoring

Job No.: 030174.0016.001

Contract No.: GSA Contract Number GS-10F-0293K Delivery Order W912QR-11-F-0266

Weather	Bright Sun	Clear x	Over-Cast x	Rain	Snow
Temp	To 32	32-50 x	50-70 x	70-85	85 up
Wind	Still x	Moder	High	Report No.	
Humidity	Dry x	Moder	Humid	101712	

SUB-CONTRACTORS ON SITE:

Environmental Quality Management, Inc.

EQUIPMENT ON SITE:

Water level meters, Four water quality meters (Horiba-U22/U52); One multigas detector (MSA); Four bladder pumps w/ associated controllers and compressors and one deep well bladder set up.

WORK PERFORMED (INCLUDING SAMPLING):

Arrive at Building 1036, unload/load and organize equipment.
Finalize purge and sample work at the wells. Samples were collected at the following locations: WBGmw-(018, 019, 020, and 021), LL1mw-(086, 087), DA2mw-(114, 115), LL12mw-(182, 182ss), LL4mw-201, FWGmw-(011, 013), LL6mw-(008, 009) and CBPmw-009

Field duplicate and QA split samples were collected from WBGmw-018. Extra volume was collected from LL1mw-086 to be designated for matrix spike/matrix spike duplicate analysis at the laboratory. Additionally, a field rinseate was collected by Team #1.

Project	Ravenna Army Ammunition Plant Groundwater Monitorin	Report No.	101712
Job No.	030174.0016.001	Date:	10/17/2012

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS):

All field equipment was calibrated prior to mobilizing to the field. Water quality meters were calibrated with AutoCal Solution - certified values are: Conductivity - 4.49 mS/cm; Turbidity - 0 NTU; pH - 4.0 and 7.0 su. Multigas detector calibrated with Zero Air Standard and 100 ppm Isobutylene. All field equipment was within calibration criteria.

HEALTH AND SAFETY LEVELS AND ACTIVITIES:

H&S briefing conducted prior to mobilizing to the field. All personnel to don modified Level 4 PPE (i.e. steel-toed shoes, safety glasses, & nitrile gloves). First Aid kits were included in each vehicle, & personnel were made aware of eyewash station locations.

Each team was equipped with a cellular phone. Personnel were instructed to hydrate frequently and watch for signs of heat/cold stress. Personnel were also instructed to be alert for storms, poisonous plants, stinging insect, ticks, and roaming deer/turkey.

PROBLEMS ENCOUNTERED/CORRECTIVE ACTION (S) TAKEN:

Samples were labeled correctly but logged incorrectly on COC, and notification was made when mistake noticed.

SPECIAL NOTES:

N/A

TOMORROWS EXPECTATIONS:

Finalize the IDW sampling, and demob.

Date: 18-Oct

S	M	T	W	T	F	S
				X		

DAILY QUALITY CONTROL REPORT

COE Project Manager: Glen Beckham

Project: Ravenna Army Ammunition Plant Groundwater Monitoring

Job No.: 030174.0016.001

Contract No.: GSA Contract Number GS-10F-0293K Delivery Order W912QR-11-F-0266

Weather	Bright Sun	Clear	Over-Cast	Rain	Snow
			x	x	
Temp	To 32	32-50	50-70	70-85	85 up
		x			X
Wind	Still	Moder	High	Report No.	
	x	x			
Humidity	Dry	Moder	Humid	101812	
			x		

SUB-CONTRACTORS ON SITE:

Environmental Quality Management, Inc.

EQUIPMENT ON SITE:

Water level meters, Four water quality meters (Horiba-U22/U52); One multigas detector (MSA); Four bladder pumps w/ associated controllers and compressors.

WORK PERFORMED (INCLUDING SAMPLING):

Arrive at Building 1036, unload/load and organize equipment.
IDW sampling collected. Packed equipment for return back to Cincinnati, and cleaned Building 1036.

Project Ravenna Army Ammunition Plant Groundwater Monitorin Report No. 101812

Job No. 030174.0016.001 Date: 10/18/2012

QUALITY CONTROL ACTIVITIES (INCLUDING FIELD CALIBRATIONS): N/A
HEALTH AND SAFETY LEVELS AND ACTIVITIES: H&S briefing conducted prior to mobilizing to the field. All personnel to don modified Level 4 PPE (i.e. steel-toed shoes, safety glasses). Each team was equipped with a cellular phone.
PROBLEMS ENCOUNTERED/CORRECTIVE ACTION (S) TAKEN: N/A
SPECIAL NOTES: N/A
TOMORROWS EXPECTATIONS: NA

APPENDIX C

HEXAVALENT CHROMIUM TECHNICAL CHANGE ORDER

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

TECHNICAL CHANGE ORDER

OHIO EPA NEDO
JUL 03 2012
RECEIVED

Subject: Groundwater Sampling – Hexavalent Chromium Analysis

File: GSA Contract Number GS-10F-0293K

Date: July 2, 2012

Distribution List: V. Deppisch - OEPA K. Elgin - OHARNG
M. Patterson – BRAC M. Nichter – USACE

During the October 2011 groundwater monitoring event Method 7196A was used for hexavalent chromium analysis. The method detection limit (MDL) for this method was 2 ug/L and the reporting limit (RL) was 20 µg/L. As noted by the Ohio EPA the RVAAP groundwater cleanup goal (CUG) is listed as 11 µg/L. Additionally, the USEPA Regional Screening Level (RSL) is 0.031 µg/L. It has been determined that the current RL is too high to meet the required clean level screening criteria.

The project action requirement for hexavalent chromium as listed in the RVAAP-66 Facility Wide Groundwater QAPP Addendum is 0.02 mg/L. In order to meet the CUG and RSL for hexavalent chromium at RVAAP, an alternate method other than EPA 7196 as listed in the QAPP Addendum is being recommended. After some investigation, substitute methods for the determination of hexavalent chromium were found, EPA 7199 and EPA 218.6. Both methods were researched to see if the RSL could be met. It was determined that hexavalent chromium by EPA 218.6 could meet the RSL requirements. After discussions with the USACE chemist K. Krantz, EQM is recommending that hexavalent chromium samples for all future groundwater events be analyzed by EPA method 218.6. Benefits of EPA 218.6 versus current EPA 7196 method include a lower reporting limit of 0.03 µg/L and increased holding time of properly preserved samples from 24 hours to 28 days. The EPA method for 218.6 is attached as a reference.

This requested change will not impact cost or schedule for this project.

John M. Miller EQM Project Manager	Mark Nichter 7/9/12 USACE Technical Manager	Vicki Deppisch 7/5/12 Ohio EPA

OHIO EPA NEDO
JUL 30 2012
RECEIVED

METHOD #: 218.6 Recommended for Approval for NPDES (August, 1991)

TITLE: Determination Of Dissolved Hexavalent Chromium In Drinking Water, Groundwater And Industrial Wastewater Effluents By Ion Chromatography

ANALYTE: CAS # Chromium 7440-47-3, Cr

INSTRUMENTATION: IC

1.0 Scope and Application

1.1 This method provides procedures for the determinatbn of dissolved hexavalent chromium in drinking water, groundwater and industrial wastewater effluents.

1.2 The Method Detection Limits (MDL, defined in Sectin 3) for the above matrices are listed in Table 1. The MDL obtained by an individual laboratory for a specific matrix may differ from those listed depending on the nature of the sample and the instrumentation used.

1.3 Samples containing high levels of anionic species such as suHate and chloride may cause column overload. Samples containing high levels of organics or sulfides cause rapid reduction of soluble Cr(VI) toCr(III). Samples must be stored at 4°C and analyzed within twenty-four hours of collection.

1.4 This method should be used by analysts experienced in the use of ion chromatography and the interpretatbn of ion chromatograms.

2.0 Summary of Method

2.1 An aqueous sample is filtered through a 0.45 um filter and the filtrate is adjusted to a pH of 9 to 9.5 with a buffer solution. A measured volume of the sample (50-250 µL) is introduced into the ion chromatograph. A guard column removes organics from the sample before the Cr(VI) as CrO_4^{2-} is separated on an anion exchange separator column. Post-Column derivatization of the Cr(VI) with diphenylcarbazide is followed by detection of the colored complex a 530 nm.

3.0 Definitions

3.1 Dissolved--Material that will pass through a 0.45 um membrane filter.

3.2 Method Detection Limit (MDL)- The minimum concentration of an analyte that can be identified, measured and reported with 99% confidence that the analyte concentration is greater than zero and determined from analysis of a sample in a given matrix containing analyte (1).

3.3 Linear Dynamic Range- The concentratbn range over which the analytical working curve remains linear.

3.4 Laboratory Reagent Blank (LRB)- An aliquot of reagent water that is treated exactly like a sample including exposure to all glassware, equipment, solvents and reagents that are used with samples. The LRB is used to determine if the method analyte is present in the laboratory environment, the reagents or apparatus.

3.5 Stock Standard Solution- A concentrated, certified standard solution of the method analyte. The stock standard solution is used to prepare calibration standards.

3.6 Calibration Standard (CAL)- A solution prepared from the stock standard and used to calibrate the instrument response with respect to analyte concentration.

3.7 Laboratory FonHied Blank (LFB)- An aliquot of reagent water to which a known quantity of method analyte is added in the laboratory. The LFB is analyzed exactly like a sample, and its purpose is to determine whether the method is within accepted control limits.

3.8 Laboratory Fortified Sample Matrix (LFM)- An aliquot of an environmental sample to which a known quantity of method analyte is added in the laboratory. The LFM is analyzed exactly like a sample, and its purpose is to determine whether the sample matrix contributes bias to the analytical result. The background concentration of the analyte in the sample matrix must be determined in a separate aliquot and the measured value in the LFM corrected for the concentration found.

3.9 Quality Control Sample (QCS)- A solution containing a known concentration of analyte prepared by a laboratory other than the laboratory performing the analysis. The sample is used to check laboratory performance.

3.10 Laboratory Duplicates (LD)- Two albuots of the same sample that ara treated exactly the same throughout preparative and analytical procedures. Analyses of laboratory duplicates indicate precision associated with laboratory procedures.

3.11 Laboratory Performance Check Standards (LPC)- A solution of the analyte prepared in the laboratory by making appropriate dilutions of the stock standard in reagent water. The LPC is used to evaluate the performance of the instrument system within a given calibration Curve.

4.0 Interferences

4.1 Interferences which affect the accurate determination of Cr(VI) may come from several sources.

4.1.1 Contamination- A trace amount of Cr is sometimes found in reagent grade salts. Since a concentrated buffer solution is used in this method to adjust the pH of samples, reagent blanks should be analyzed to assess for potential Cr(VI) contamination. Contamination can also come from improperly cleaned glassware or contact of caustic or acidic reagents or samples with stainless steel or pigmented material.

4.1.2 Oxidation of soluble Cr(III) to Cr(VI) can occur in an alkaline medium in the presence of oxidants such as Fe(III) and oxidized Mn or as a result of the aeration that occurs in most extraction procedures (2-5).

4.1.3 Reduction of Cr(VI) to Cr(III) can occur in the presence of reducing species in an acidic medium. At a pH of 6.5 or greater, however, $HCrO_4^{-1}$ is converted to CrO_4^{2-} which is less reactive than the $HCrO_4^{-1}$.

4.1.4 Overloading of the analytical column capacity with high concentrations of anionic species, especially chloride and sulfate, will cause a loss of Cr(VI). The column specified in this method can handle samples containing up to 5% sodium sulfate or 2% sodium chloride (6). Poor recoveries from fortified samples and tailing peaks are typical manifestations of column overload.

5.0 Safety

5.1 Hexavalent chromium is toxic and a suspected carcinogen and should be handled with appropriate precautbns (3,4). Extreme care should be exercised when weighing the salt for preparation of the stock standard. Each laboratory is responsible for maintaining a current awareness file of OSHA regulations regarding the safe handling of chemicals specified in this method. A reference file of material safety data sheets should also be available to all personnel involved in the chemical analysis (7,8).

6.0 Apparatus and Equipment

6.1 Ion Chromatograph

6.1.1 Instrument equipped with a pump capable of withstanding a minimum backpressure of 2000 psi and capable of delivering a constant flow in the range of 1-5 mL/min and containing no metal parts in the sample, eluent or reagent flow path.

6.1.2 Helium gas supply (high purity, 99.995%).

6.1.3 Pressurized eluent container, plastic, one or two liter size.

6.1.4 Sample loops of various sizes (50-250µL).

6.1.5 A pressurized reagent delivery module with a mixing tee and beaded mixing coil.

6.1.6 Guard Column- A column placed before the separator column containing a sorbent capable of removing strongly absorbing organics and particles that would otherwise damage the separator column (Dionex IonPac NG1 or equivalent).

6.1.7 Separator Column- A column packed with a high capacity anion exchange resin capable of resolving CrO_4^{2-} from other sample constituents (Dionex IonPac AS7 or equivalent).

6.1.8 A low-volume flow-through cell visible lamp detector containing no metal parts in contact with the eluent flow path. Detection wavelength is at 530 nm.

6.1.9 Recorder, integrator or computer for receiving analog or digital signals for recording detector response (peak height or area) as a function of time.

6.2 Labware- All reusable glassware (glass, quartz, polyethylene, Teflon, etc.) including the sample containers should be soaked overnight in laboratory grade detergent and water, rinsed with water, and soaked for four hours in a mixture of dilute nitric and hydrochloric acid (1+2+9) followed by rinsing with tap water and ASTM Type I water.

NOTE: chromic acid must not be used for the cleaning of glassware.

6.2.1 Glassware- Class A volumetric flasks and a graduated cylinder.

6.2.2 Assorted Class A calibrated pipettes.

6.2.3 10 mL male luer-bck disposable syringes.

6.2.4 0.45 µm syringe filters.

6.2.5 Storage bottle--high density polypropylene, 1 liter capacity.

6.3 Sample Processing Equipment

6.3.1 Liquid sample transport containers- high density polypropylene, 125 mL capacity.

6.3.2 Supply of dry ice or refrigerant packing and styrofoam shipment boxes.
6.3.3 pH meter- to read pH range 0-14 with accuracy ± 0.03 pH.
6.3.4 0.45 um filter discs, 7.3 cm diameter (Gelman Acro 50A, Mfr. No.4262 or equivalent)
6.3.5 Plastic syringe filtration unit (Baxter Scientific, Cat. No. 1240 IN or equivalent).

7.0 Reagents and Consumable Materials

7.1 Reagents- All chemicals are ACS grade unless otherwise indicated.
7.1.1 Ammonium hydroxide, NH_4OH, (sp.gr. 0.902), (CAS RN 1336-21-6).
7.1.2 Ammonium sulfate, NH_2SO_4, (CAS RN 7783-20-2).
7.1.3 1,5 Diphenylcarbazide, (CAS RN 1 40-22-7).
7.1.4 Methanol, HPLC grade.
7.1.5 Sulfuric acid, concentrated (sp.gr. 1.84).
7.2 Water- For all sample preparations and dilutions, ASTM Type I water (ASTM D1193) is required. Suitable water may be obtained by passing distilled water through a mixed bed of anion and cation exchange resins.
7.3 Cr(VI) Stock Solution- Dissolve 4,501 g of Na2CrO4*4H2O in ASTM Type I water and dilute to one liter. Transfer to a polypropylene storage container.
7.4 Laboratory Reagent Blank (LRB)- Aqueous LRBs can be prepared by adjusting the pH of ASTM Type I water to 9-9.5 with the same volume of buffer as was used for the samples.
7.5 Laboratory Fortified Blank (LFB)- To an aliquot of reagent blank add an aliquot of stock standard to produce a final concentration of 100 µg/L of Cr(VI). The LFB must be carried through the entire sample preparation and analysis scheme.
7.6 Quality Control Sample (QCS)- A quality control sample must be obtained from an outside laboratory. Dilute an aliquot according to instructions and analyze with samples.
7.7 Eluent- Dissolve 33 g of ammonium sulfate in 500 mL of ASTM Type I water and add 6.5 mL of ammonium hydroxide. Dilute to one liter with ASTM Type I water.
7.8 Post-column Reagent- Dissolve 0.5 g of 1,5 diphenylcarbazide in 100 mL of HPLC grade methanol. Add to about 500 mL of ASTM Type I water containing 28 mL of 98% sulfuric acid while stirring. Dilute with ASTM Type I water to one liter in a volumetric flask. Reagent is stable for four or five days but should only be prepared in one liter quantities as needed.
7.9 Buffer Solution- Dissolve 33 g of ammonium sulfate in 75 mL of ASTM Type I water and add 6.5 mL of ammonium hydroxide. Dilute to 100 mL with ASTM Type I water.

8.0 Sample Collection, Preservation and Storage

8.1 Prior to the collection of the sample, consideration should be given to the type of data required so that appropriate preservation and pretreatment steps can be taken. Filtration and pH adjustment should be performed at the time of sample collection or as soon thereafter as practically possible.

8.2 For the determination of dissolved Cr(VI), the sample should be filtered through a 0.45 um filter. Use a portion of the sample to rinse the syringe filtration unit and filter and then collect the required volume of filtrate. Adjust the pH of the sample to 9-9.5 by adding dropwise a solution of the buffer, periodically checking the pH with the pH meter. Approximately 10 mLs of sample are sufficient for three IC analyses.

8.3 Ship and store the samples at 4°C. Bring to ambient temperature prior to analysis. Samples should be analyzed within twenty-four hours of collection.

9.0 Calibration

9.1 Calibration- At the time samples are analyzed a calibration should be performed using a minimum of three calibration solutbns that bracket the anticipated concentratbn range of the samples. Calibration standards should be prepared from the stock standard (Sectbn 7.3) by appropriate dilution with ASTM Type I water (Sectbn 7.2) in volumetric flasks. The solution should be adjusted to a pH of 9-9.5 with the buffer solution (Section 7.9) prior to final dilution.

9.1.1 Establish ion chromatographic operating conditions as indicated in Table 2. The flow rate of the eluent pump is set at 1.5 mL/min and the pressure of the reagent delivery module adjusted so that the final flow rate from the detector is 2.0 mL/min. This requires manual adjustment and measurement of the final flow using a graduated cylinder and a stop watch. A warm up period of approximately 30 minutes after the flow rate has been adjusted is recommended and the flow rate should be checked prior to calibration and sample analysis.

9.1.2 Injection loop size is chosen based on standard and sample concentrations and the selected attenuator setting. A 250 uL loop was used to establish the method detection limits in Table 1. A 50 uL loop is normally sufficient for higher concentrations. The sample volume used to had the injection loop should be at least 10 times the loop size so that all tubing in contact with sample is thoroughly flushed with new sample to prevent cross contamination.

9.1.3 A calibration curve of analyte response (peak height or area) versus analyte concentration should be constructed. The coefficient of correlation for the curve should be 0.999 or greater.

9.2 Instrument Performance- Check the performance of the instrument and verify the calibration using data gathered trom analyses of laboratory blanks, calibration standards and the quality control sample.

9.2.1 After the calibration has been established, it should be verified by analyzing the QCS (Section 7.6). If the measured value of the QCS exceeds ± 10% of the established value, a second analysis should be performed. If the value still exceed the established value, the analysis should be terminated until the source of the problem is identified and corrected.

9.2.2 To verify that the instrument is properly calibrated on a continuing basis, run an LRB and an LPC after every ten analyses. The results of the analyses of the standards will indicate whether the calibration remains valid. If the measured concentration of the analyte deviates from the true concentration by more than ± 5%, the instrument must be

recalibrated and the previous ten samples re-analyzed. The instrument response from the calibration check may be used for recalibration purposes.

10.0 Quality Control

10.1 Each laboratory using this method is required to operate a formal Quality Control (QC) program. The minimum requirements of this program consist of an initial demonstration of laboratory capability, and the analysis of laboratory reagent blanks, fortified blanks and samples as a continuing check on performance. The laboratory is required to maintain performance records that define the quality of the data thus generated.

10.2 Initial Demonstration of Performance

10.2.1 The initial demonstration of performance is used to characterize instrument performance (method detection limits and linear calibration ranges) for analyses conducted by this method.

10.2.2 Method Detection Limit (MDL)- Method Detection Limit should be established using reagent water (blank) fortified at a concentration of two to five times the estimated detection limit. To determine the MDL value, take seven replicate aliquots of the fortified reagent water and process through the entire analytical method. Perform all calculations defined in the method and report the concentratbn values in the appropriate units. Calculate the MDL as follows:

$$MDL = (t) \times (s)$$

where:

t = students' t value for a 99% confidence level and a standard deviation estimate with n-1 degrees of freedom [t = 3.143 for seven replicates].

s = standard deviation of the replicate analyses.

10.2.3 Linear dynamic range- linear dynamic ranges are governed by Beer's Law. A set of at least five standards covering the estimated linear range should be prepared fresh from the stock solution and one analysis of each performed. A log vs. log plot of peak height vs. analyte concentration having a slope between 0.98 and 1.02 will indicate linearity (7). The linear dynamic range for this method covered four orders of magnitude (1 µg/L to 10,000 µg/L) when peak height was used.

10.3 Assessing Laboratory Performnance Reagent and Fortified Blanks

10.3.1 Laboratory Reagent Blank (LRB)- the laboratory must analyze at least one reagent blank (Section 7.4) with each set of samples. Reagent blank data are used to assess contamination from a laboratory environment. If the Cr(VI) value in the reagent blank exceeds the determined MDL, then laboratory or reagent contaminatbn should be suspected. Any determined source of contaminatbn should be corrected and the samples re-analyzed.

10.3.2 Laboratory Fortified Biank (LFB)- the laboratory must analyze at least one fortified blank (Section 7.5) with each set of samples. Calculate accuracy as percent recovery (see 10.4.2). If the recovery of Cr(VI) falls outside the control limits (see10.3.3), then the procedure is judged out of control, and the source of the problem should be identified and resolved before continuing the analysis.

10.3.3 Until sufficient data become available (usually a minimum of twenty to thirty analyses), the laboratory should assess laboratory performance against recovery limits of 90-110%. When sufficient internal performance data becomes available, develop control limits from the percent mean recovery (x) and the standard deviation (s) of the mean recovery. These data are used to establish upper and lower control limits as follows:
Upper Control Limit = x + 3s
Lower Control Limit = x - 3s

10.4 Assessing Analyte Recovery- Laboratory Fortified Sample Matrix

10.4.1 The laboratory must add a known amount of Cr(VI) to a minimum of 10% of the routine samples. The concentration level can be the same as that of the laboratory fortified blank (Section 7.5) for liquid samples.

10.4.2 Calculate the percent recovery for Cr(VI) corrected for background concentration measured in the unfortified sample, and compare this value to the control limits established in Section10.3.3 for the analysis of LFBs. Fortified recovery calculations are not required if the fortified concentration is less than 10% of the sample background concentration. Percent recovery may be calculated in units appropriate to the matrix, using the following equation:

$$R = \frac{(C_F - C) \times 100}{F}$$

Where:
R = percent recovery.
C_F = fortified sample concentration.
C = sample baekground concentration.
F = concentration equivalent of Cr(VI) added to sample.

10.4.3 If the reeovery of Cr(VI) falls outside control limits, while the reeovery obtained for the LFB was shown to be in control (Section 10.3), the recovery problem encountered with the fortified sample is judged to be matrix related, not system related. The result for Cr(VI) in the unfortified sample must be labelled "suspect matrix".

10.5 Quality Control Sample (QCS)- Each quarter, the laboratory should analyze one or more QCS (if available). If criteria provided with the QCS are not met, corrective action should be taken and documented.

11.0 Procedure

11.1 Sample Preparation Filtered, pH adjusted samples at 4°C should be brought to ambient temperature prior to analysis.

11.2 Initiate instrument operating configuration and calibrate (Section 9).

11.3 Draw into a new, unused syringe (6.2.3) approximately 3 mL of sample and attach a syringe filter to the syringe. Discard 0.5 mL through the filter and load 10X the sample loop volume. Samples having concentrations higher than the established linear dynamic range should be diluted into the calibration range and re-analyzed.

12.0 Calculations

12.1 From the calibration curve the concentration of the sample can be determined. For the above procedure, if there is no dilution, the concentration of the sample should be reported as µg/L. Data should be corrected for any Cr(VI) contamination found in reagent blanks.

12.2 The QC data obtained during the analyses provide an indication of the quality of the sample data and should be provided with the sample results.

13.0 Precision and Accuracy

13.1 Instrument operating conditions used for single laboratory testing of the method are summarized in Table 2. Dissolved Cr(VI) method detection limits determined using the procedure in 10.2.2 are listed in Table 1.

13.2 Data obtained from single laboratory testing of the method are summarized in Table 3 for five water samples representing drinking water, deionized water, groundwater, treated municipal sewage wastewater and treated electroplating wastewater. Samples were fortified with 100 and 1000 µg/L of Cr(VI) and recoveries determine (Section 10.4.2).

14.0 References

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2. Bartlett, R. and James, B., "Behavior of Chromium in Soils: ill. Oxidation," J. Environ. Qual., Vol. 8, No. 1,1979, pp. 31-35.
3. Zatka, V.J., "Speciation of Hexavalent Chromium in Welding Fumes Interference by Air Oxidation of Chromium," Am. Ind. Hyg. Assoc.J., Vol. 46, No. 7,1985, pp. 327-331.
4. Pedersen, B., Thomsen, E. and Stern, R.M., "Some Problems in Sampling, Analysis and Evaluation of Welding Fumes Containing Cr(VI)", Ann. Occup. HYg., Vol. 31, No. 3,1987, pp.325-338.
5. Messman, J.D., Churchwell, M.E., et. al. Determination of Stable Valence States of Chromium in Aqueous and Solid Waste Matrices - Experimental Verification of Chemical Behavior. EPA/600/S4-86/039, U.S. Environmental Protection Agency, Cincinnati, Ohio, 1987, 112 pp.
6. Dionex Technical Note No. 26, May 1990.

7. "Proposed OSHA Safety and Health Standards, Laboratories," Occupational Safety and Health Administratbn, Federal Register, July 24, 1986.
8. "OSHA Safety and Health Standards, General Industry," (29 CFR 1910), Occupational Safety and Health Administration, OSHA 2206, revised January 1976.
9. Johnson, D.C., Anal. Chim. Acta, Vol. 204, No. 1 1988.

Table 1. Method Detection Limit for Cr(VI)

Matrix Type	Conc. used to compute MDL (µg/L)	Method Detection Limit (a) (µg/L)
Reagent Water	1	0.4
Drinking Water	2	0.3
Ground Water	2	0.3
Primary Sewage Wastewater	2	0.3
ElectroplatingWastewater	2	0.8

(a) MDL concentrations are computed for final analysis solution (Section 11.2).

Table 2. Ion Chromatographic Conditions

Columns:	Guard Column - Dionex IonPac NG1 Separator Column - Dionex IonPac AS7
Eluent:	250 mM $(NH_4)_2SO_4$ 100 mM NH_4OH Flow rate - 1.5 mL/min
Post-Column Reagent:	2 mM Diphenylcarbohydrazide 10% v/v CH_3OH 1 N H_2SO_4 Flow rate - 0.5 mL/min
Detector:	Visible 530 nm
Retention Time:	3.8 min.

APPENDIX D

DATA VERIFICATION REPORTS/ LABORATORY DATA SHEETS

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012
Sample Delivery Group: 240-16425

Date: February 11, 2013
Revision: 2

Data Reviewer: Angye Dragotta /Environmental Quality Management, Inc. (EQM, Inc.)

QA/QC Summary

On October 15, 2012 the following samples were collected from groundwater-monitoring wells at Ravenna Army Ammunition Plant and analyzed as part of SDG 240-16425. Sample analysis was performed by Test America, North Canton with the exception of the analytical for methods 8330, M8330, 353.2 and TALSOPWS-WC-0050. Methods 8330, M8330, 353.2 and TALSOPWS-WC-0050 were analyzed by Test America, West Sacramento.

Sample ID	VOC by EPA8260	SVOC 4 by EPA 8270	Pesticides by EPA 8081	PCBs/ EPA 8082	Explosives/Propellants by EPA 8330, Mod. 8330 and TALSOPWS-	Cyanide EPA 9012	NO2/NO3, 353.2	Metals [4]		
								EPA 6010B	EPA 6020	Mercury by EPA 7470A
FWGEBGmw-131-0163-GW	x	x	x	x	x	x		x	x	x
FWGEQUIPRINSE1-0212-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-001-0164-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-002-0165-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-004-0167-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-010-0173-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-011-0174-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-012-0175-GW	x	x	x	x	x	x		x	x	x
FWGLL3mw-245-0184-GW	x	x	x	x	x	x		x	x	x
FWGLL3mw-DUP5-0202-GW	x	x	x	x	x	x		x	x	x
FWGEBGmw-131-0163-GW	x	x	x	x	x	x		x	x	x

Notes:

1) All metals samples with the exception of FWGEQUIPRinse1-0212-GW were field filtered.
2) FWG TEAM #1-TRIP, FWG TEAM 2-TRIP and FWG TEAM3-TRIP were collected and analyzed for VOC by EPA 8260B.
3) SVOC4= Full SVOC List
4) EPA 6020 metals include aluminum, antimony, beryllium, cadmium, iron, sodium, thallium and zinc. EPA 6010B metals include arsenic, chromium, cobalt, lead, selenium, silver, vanadium, barium, calcium, copper, magnesium, manganese, nickel and potassium.

The data presented in this report were evaluated according to the *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January, 2012.* The following documents were used as needed to supplement the project documentation: The United States Department of Defense (DoD) Quality Services Manual (QSM) for Environmental Laboratories, Version 4.1, and the United States Army Corps of Engineers (USACE), Louisville District Quality Systems Manual Supplement (LS), *EPA National Functional Guidelines (NFG) for Organic Data Review, EPA-540/R-08-01, June 2008, NFG for Inorganic Data Review, EPA-540/R-04-004, October 2004*, Analytical Methods, and Laboratory Standard Operating Procedures. The QC criteria provided in the reference documents represent accuracy and precision performance goals for each analytical method. QC criteria reviewed for each method are listed below, along with any outliers.

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16425 **Revision:** 2

All analytical results have been verified against compliance requirements specified in the project QAP, QSM, LS, associated analytical methods and/or SOPs, as appropriate, and reported by the laboratory as directed by the DoD QSM.

Per the DoD QSM, the laboratory data is reported as follows: Non detected results (< DL) were reported at the LOD with a "U" flag. Detected results between the DL and LOQ were reported as estimated, qualified with a "J" flag.

LOD - An estimate of the minimum amount of a substance that an analytical process can reliably detect.

LOQ - The lowest concentration that produces a quantitative result within specified limits of precision and bias.

DL- The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence.

Checklists used in review of the data have been presented in Appendix 1. Outliers have been noted below and results requiring qualification, as a result of this verification process, have been summarized in Appendix 2.

The completeness objective for the project was 90%. The completeness objective was met for this SDG, at 99.6%. Limitations, if any, on the data are indicated with qualifiers detailed below.

The cooler temperatures were documented as being acceptable upon receipt at the North Canton Laboratory. The COC indicated that the laboratory received bottles for samples FWGEBGmw-131-0163-GW and FWGFWGmw-010-0173-GW preserved with sulfuric acid. No samples were collected and preserved with sulfuric acid.

VOAs - 8260B

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV/CCV criteria
- Internal standard area counts and retention times
- LOD and MRL verification criteria
- Method/Field/Trip blank Criteria
- Surrogate recoveries
- Field duplicate RPD criteria
- Laboratory Control Sample criteria
- Matrix Spike Recovery Criteria and RPD

MRL Recovery

10/23/12- Opening MRL analyzed @ 1046 recovered above control limits of 70-130% for bromomethane at 131%, chloroethane at 177%, methylene chloride at 142% and vinyl chloride at 138%. The closing MRL analyzed at 2043 recovered above control limits of 70-130% for methylene chloride at 232% and below limits for ethylbenzene at 69%, m,p-xylene at 67%, styrene at 63% and total xylenes at 66%. The ethylbenzene, m,p-xylene, styrene and total xylenes results for samples FWG TEAM 2-TRIP, FWGLL3mw-245-0184-GW, FWGLL3mw-DUP5-0202-GW, FWGFWGmw-002-0165-GW, FWGFWGmw-001-0164-GW, FWGEQUIPRINSE1-0212-GW, FWG TEAM #1 TRIP, FWGEBGmw-131-0163-GW, FWGFWGmw-010-0173-GW, FWGFWGmw-012-0175-GW and FWGFWGmw-011-0174-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride as there were no detected methylene chloride concentrations reported for the bracketed field samples.

10/24/12- Opening MRL analyzed @ 1105 recovered above control limits of 70-130% for methylene chloride at 322%, chloroethane at 134%, vinyl chloride at 133% and at 144% for chloromethane. The closing MRL analyzed at 2028 recovered above control limits of 70-130% for methylene chloride at 318% and below limits at 68% for o-

xylene. The o-xylene results for FWG TEAM3-TRIP and FWGFWGmw-004-0167-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride as there were no detected methylene chloride concentrations reported for the bracketed field samples.

CCV
10/24/12 @ 0957- The %D for methylene chloride was above control limits of 20% D at 23.7%. No qualifications were required as there were no detected methylene chloride concentrations reported for the bracketed field samples.

Blanks
Methylene chloride was detected in the method blank from batch 240-62557 analyzed 10/24/12 at 1.94ug/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.

Acetone was detected in FWG TEAM#1 TRIP at 1.9ug/L, at 1.5ug/L in sample FWG TEAM 2-TRIP and FWG TEAM3-TRIP. FWGEQUIPRINSE1-0212-GW had acetone detected at 17ug/L and 2-butanone at 0.89ug/L. The acetone results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-010-0173-GW, FWGFWGmw-011-0174-GW and FWGLL3mw-245-0184-GW were qualified, "B". As there were no detected 2-butanone results reported for the associated field, no qualification was made for the 2-butanone contamination in the equipment rinse.

Field Duplicate RPD
The field duplicate, FWGLL3mw-DUP5-0202-GW, collected on sample FWGLL3mw-245-0184-GW had an RPD above control limits of 30% for acetone at 200%. The acetone result for sample FWGLL3mw-245-0184-GW was qualified as estimated, "J".

SVOCs- 8270C
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV/CCV criteria
- Internal standard area counts and retention times
- LOD and MRL verification criteria
- Method/Field blank Criteria
- Surrogate recoveries
- Field duplicate RPD criteria
- Laboratory Control Sample criteria
- Matrix Spike Recovery Criteria and RPD

Hold Time
Samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were re extracted due to failed surrogate recovery outside hold time of seven days at 10 days. As the samples were re extracted with 2x hold, the results for samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were qualified as estimated, "J/UJ".

ICV
10/23/12 @ 0937- The ICV recovered above limits of 20% for 2-nitrophenol with a %D of 25.5%, hexachlorocyclopentadiene with a %D of 21.3%, 2-nitroaniline at 26.4% and 2,4-dinitrotoluene at 26.0%. No qualifications were made for the listed ICV outliers as there were no detected 2-nitrophenol, hexachlorocyclopentadiene, 2-nitroaniline or 2,4-dinitrotoluene concentrations reported for the associated field samples.

10/25/12 @ 1715- The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 26.2%. The 3,3'-dichlorobenzidine results for samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were qualified as estimated, "UJ".

Blanks
bis(2-Ethylhexyl)phthalate was detected in the method blank from batch 240-62729 at 1.65ug/L. The detected bis(2-ethylhexyl)phthalate results for samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were qualified, "B".

Benzyl alcohol was detected in FWGEQUIPRINSE1-0212-GW at 4.2ug/L, phenol at 1.4ug/L and bis(2-ethylhexyl)phthalate at 0.92ug/L. The detected bis(2-ethylhexyl)phthalate results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-004-0167-GW, FWGFWGmw-011-0174-GW and FWGFWGmw-012-0175-GW were qualified, "B". No qualifications were made for the phenol or benzyl alcohol contamination as there were no detected concentrations of these targets reported in the associated field samples.

Matrix Spikes
A matrix spike analysis was performed on sample FWGFWGmw-012-0175-GW. The MS % recovery was below control limits of 20-110 for 3,3'-dichlorobenzidine at 14% and for benzo(a)pyrene at 21% (lower control limit of 55%). The MS/MSD RPD was above control limits of 20% for 3,3'-dichlorobenzidine at 98%, benzo(a)pyrene at 99%, benzo (g,h,i) perylene and bis(2-ethylhexyl)phthalate at 34%, di-n-octylphthalate at 35% and n-nitrosodiphenylamine at 43%. The 3,3'-dichlorobenzidine, benzo(a)pyrene, benzo(g,h,i) perylene, bis(2-ethylhexyl)phthalate, di-n-octylphthalate and n-nitrosodiphenylamine results for sample FWGFWGmw-012-0175-GW were qualified as estimated, "J/UJ".

Pesticides- 8081A
The following QC criteria were reviewed with acceptable results, except as noted below:

- Preservation, holding time and sample handling
- Initial Calibration criteria
- DDT and Endrin breakdown criteria
- Retention time criteria
- ICV criteria
- CCV Criteria
- Method/Field blank Criteria
- LCS Recoveries
- Field Duplicate Criteria
- LOD and MRL verification criteria
- Matrix Spike Recovery Criteria and RPD
- Surrogate Recoveries
- Second Column confirmation criteria

Breakdown Criteria
The 4,4'-DDT % breakdown analyzed 10/25/12 at 0810 on CLP-2 was above control limits at 21.3%. No qualification was made as the CLP-2 was used for confirmation purposes only and there were no detected concentrations on CLP-1 that required confirmation.

MRL Recovery
The opening MRL analyzed 10/25/12 @1605 recovered above control limits of 70-130% for 4,4-DDD at 172% on CLP-1 and on CLP-2 above control limits for 4,4'-DDE at 185%, 4,4'-DDT at 135%, delta-BHC at 208%, dieldrin at 143% and endrin ketone at 160%.

The closing MRL analyzed 10/26/12 @ 0540 recovered above control limits of 70-130% for 4,4-DDD at 267%, endosulfan sulfate at 142% and methoxychlor at 161% on CLP-1. On CLP-2 the closing MRL recovered above control limits of 70-130% for 4,4'- 4,4'-DDT at 160%, delta-BHC at 228%, endosulfan sulfate at 141% and endrin ketone at 181%.

No qualifications were made for the MRL outliers as there were no detected concentrations reported for the bracketed field samples.

ICV Criteria
The ICV analyzed 10/25/12 @ 1107 recovered above control limits of 20% D for endrin ketone at 34.4% on CLP-2. No qualifications were made as CLP-2 was used for confirmation only and there were no detected endrin ketone results reported for the field samples.

CCV Criteria
The CCV analyzed 10/25/12 @ 2059 on CLP-1 had %D above control limits of 20% for alpha-BHC at 26.2%, gamma-BHC at 21.6%, beta-BHC at 27.3%, delta-BHC at 25.6%, heptachlor at 28.0%, aldrin at 24.8%, heptachlor epoxide at 34.1%, gamma-chlordane at 24.9%, alpha-chlordane at 28.9%, endosulfan I at 40.2%, 4,4'-DDE at 30.5%, dieldrin at 34.0%, endrin at 41.8%, 4,4'-DDD at 69.0%, 4,4'-DDT at 31.1%, endrin aldehyde at 30.0%, methoxychlor at 66.1%, endosulfan sulfate at 53.6% and endrin ketone at 29.7%.

The CCV analyzed 10/25/12 @ 2059 on CLP-2 had %D above control limits of 20% for alpha-BHC at 22.2%, beta-BHC at 29.7%, delta-BHC at 30.1%, aldrin at 24.4%, heptachlor epoxide at 30.7%, gamma-chlordane at 22.4%, alpha-chlordane at 28.3%, endosulfan I at 25.7%, 4,4'-DDE at 24.8%, dieldrin at 23.9%, endrin at 32.3%, 4,4'-DDD and endosulfan II at 34.0%, 4,4'-DDT at 20.7%, endrin aldehyde at 28.0%, methoxychlor at 50.9%, endosulfan sulfate at 44.8% and endrin ketone at 54.0%.

The CCV analyzed 10/26/12 @ 0119 on CLP-1 had %D above control limits of 20% for endosulfan I at 25.2%, endrin at 25.7%, 4,4'-DDD at 48.8%, 4,4'-DDT at 25.1 %, endrin aldehyde at 24.9%, methoxychlor at 50.4% and endosulfan sulfate at 44.9%.

The CCV analyzed 10/26/12 @0119 on CLP-2 had a %D above control limits of 20% for endrin at 21.6%, endosulfan sulfate at 33.7%, methoxychlor at 30.9% and endrin ketone at 35.6%.

No qualifications were made for CCV outliers as there were no detected concentrations reported for the bracketed field samples.

Matrix Spike Recovery
A matrix spike analysis was performed on sample FWGFWGmw-012-0175-GW. The MS/MSD RPD was above control limits of 30% for 4,4'-DDE at 33% and 4,4'-DDT at 39%. The matrix spike recovered below control limits of 70-130% for toxaphene at 67%. The 4,4'-DDE, toxaphene and 4,4'-DDT results for sample FWGFWGmw-012-0175-GW were qualified as estimated, "UJ".

Surrogate Recovery
The surrogate TCMX recovered below control limits of 25-140% on CLP-1 and CLP-2 at 11% in sample FWGFWGmw-004-0167-GW. The surrogate DCB recovered below control limits of 30-135% on CLP-1 at 8% and on CLP-2 at 6% in sample FWGFWGmw-004-0167-GW. The results for FWGFWGmw-004-0167-GW were qualified as estimated, "UJ".

The surrogate DCB recovered below control limits of 30-135% on CLP-2 at 26% in sample FWGFWGmw-011-0174-GW. No qualification was made as CLP-2 was used for confirmation only and there were no detected concentrations reported for sample FWGFWGmw-011-0174-GW.

PCB- 8082

The following QC criteria were reviewed with acceptable results, except as noted below:

- Preservation, holding time and sample handling
- Initial Calibration criteria
- DDT and Endrin breakdown criteria
- Retention time criteria
- ICV criteria
- CCV Criteria
- Method/Field blank Criteria
- LCS Recoveries
- Field Duplicate Criteria
- LOD and MRL verification criteria
- Matrix Spike Recovery Criteria and RPD
- Surrogate Recoveries
- Second Column confirmation criteria

Hold Time

The following samples were re-prepared outside the holding time of seven days but were extracted because of low surrogates within 2x hold (14 days) and the associated results were qualified as estimated, "J/UJ": FWGEBGmw-131-0163-GW, FWGFWGmw-001-0164-GW and FWGFWGmw-012-0175-GW.

Matrix Spike Recovery

A matrix spike analysis was performed on sample FWGFWGmw-012-0175-GW. The aroclor 1016 MS/MSD RPD was above control limits of 30% at 39%. The results for sample FWGFWGmw-012-0175-GWwere qualified as estimated, "UJ".

Surrogate Recovery

The surrogate, DCB, recovered below control limits of 40-135% for sample FWGFWGmw-002-0165-GW at 29% on both columns, at 37% on CLP-1 and 36% on CLP-2 for sample FWGFWGmw-010-0173-GW and at 20% on CLP-1 and 19% on CLP-2 for sample FWGFWGmw-011-0174-GW. For sample FWGFWGmw-004-0167-GW, TCMX recovered below limits at 10% on both columns (control limits 40-140%) and at 0% for DCB on both columns. The results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-010-0173-GW and FWGFWGmw-011-0174-GW GW were qualified as estimated, "UJ". The results for sample FWGFWGmw-004-0167-GW were qualified as unusable, "R".

Metals - 6010B

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Lab and Field duplicate RPD criteria

Blanks

The ICB analyzed 10/23/12 had vanadium detected at 2.68ug/L. The vanadium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-202-GF, FWGFWGmw-002-165-GF, FWGEQUIPRINSE1-0212-GW, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified, "U".

The CCBs analyzed 10/23/12 had vanadium detected from 2.16ug/L to 2.31ug/L. The vanadium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-202-GF, FWGFWGmw-002-165-GF, FWGEQUIPRINSE1-0212-GW, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified, "U".

FWGEQUIPRINSE1-0212-GW had vanadium detected at 1.6ug/L. The vanadium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-202-GF, FWGFWGmw-002-165-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified, "B".

Metals - 6020

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Matrix Spike and Spike Duplicate Recovery and RPD Criteria
- Lab and Field Duplicate RPD Criteria

Blanks

The ICB analyzed 10/26/12 had thallium detected at 0.491ug/L. The thallium results for samples FWGLL3mw-245-0184-GF and FWGFWGmw-012-0175-GF were qualified, "U".

The CCBs analyzed 10/26/12 had thallium detected from 0.373 to 0.632ug/L, cadmium from 0.041ug/L to 09ug/L and beryllium from 0.059ug/L to 0.067ug/L.. The thallium results for samples FWGLL3mw-245-0184-GF and FWGFWGmw-012-0175-GF were qualified, "U". The cadmium and beryllium results for samples FWGFWGmw-001-164-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified "U".

The method blank from batch 240-62240 had beryllium detected at 0.14ug/L, cadmium at 0.189ug/L and zinc at 9.35ug/L. The cadmium and beryllium results for samples FWGFWGmw-001-164-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified "B". The zinc result for sample FWGFWGmw-004-0167-GW was qualified "B".

Field Duplicate RPD

The field duplicate FWGLL3mw-DUP5-0202-GF was collected and analyzed for FWGLL3mw-245-0184-GF. The field duplicate RPD was above control limits of 30% for antimony at 86% and thallium at 200%. The antimony and thallium results for sample FWGLL3mw-245-0184-GF were qualified as estimated, "J".

Lab Duplicate RPD

The lab duplicate analyzed on FWGFWGmw-012-0175-GF recovered above control limits of 20% for beryllium at 57% and cadmium at 103%. The beryllium and cadmium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-0202-GF, FWGFWGmw-002-0165-GF, FWGFWGmw-001-0164-GF, FWGEQUIPRINSE1-0212-GW, FWGEBGmw-131-0163-GF, FWGFWGmw-010-0173-GF, FWGFWGmw-012-0175-GF, FWGFWGmw-011-0174-GF and FWGFWGmw-004-0167-GF were qualified as estimated, "UJ/J".

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16425 **Revision:** 2

Mercury - 7470A

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Lab and Field duplicate RPD criteria

No QC outliers noted.

Cyanide - 9012

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- MRL and MDL verification criteria
- LCS percent recovery criteria
- MS percent recovery
- Matrix Duplicate RPD criteria
- Field duplicate RPD criteria

No QC outliers were noted.

Explosives- 8330

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV and CCV criteria
- Retention time criteria
- LOD and MRL verification criteria
- Surrogate recovery criteria
- Equipment and method blanks free from contamination
- LCS/LCD Recovery and RPD Criteria

Samples FWGFWGmw-002-0165-GW and FWGFWGmw-004-0167-GW were filtered prior to analysis due to excessive sediment. A filter blank was prepped and analyzed with no detected results.

MRL Recovery

10/29/12 @ 1102 MRL recovered above control limits of 70-130% for 2-nitrotoluene and 2,6-dintrotoluene at 141% on LC 10.

10/30/12 @ 1029 MRL recovered above control limits of 70-130% for 4-amino-2,6-dintrotoluene at 134% and 2-amino-4,6-dintrotoluene at 136% on LC10.

No qualifications were required as there were no detected concentrations of for 2-nitrotoluene, 2,6-dintrotoluene, 4-amino-2,6-dintrotoluene and 2-amino-4,6-dintrotoluene reported for the associated field samples.

Surrogate Recovery
The surrogate 3,4-dinitrotoluene recovered above control limits of 79-111% on LC12 for sample FWGEQUIPRINSE1-0212-GW at 140%. No qualifications were required as there were no detected concentrations reported.

Nitroguanidine- 8330M
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- Retention time criteria
- LOD and MRL verification criteria
- ICV and CCV criteria
- The method blank and equipment blanks were free from contamination
- LCS/LCSD percent recoveries and RPD value criteria
- Matrix spike recovery criteria

No QC outliers were noted.

Nitrocellulose – WS-WC-0050
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Sample preparation criteria
- Initial Calibration criteria
- ICV and CCV criteria
- The method and equipment blanks were free from contamination
- LOD and MRL verification criteria
- ICB and CCBs were free from contamination
- LCS/LCSD percent recoveries and RPD value criteria
- MS/MSD percent recoveries

No QC outliers were noted.

Job ID: 240-16425-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Environmental Quality Mgt., Inc.

Project: RVAAP (OH)

Report Number: 240-16425-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 353.2 Nitrocellulose, 8330 Nitroguanidine and 8330A Explosives analysis were performed at the TestAmerica West Sacramento Laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters for which TestAmerica North Canton has certification were evaluated to the limit of detection (LOD) and include qualified results where applicable. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

RECEIPT

The samples were received on 10/16/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 0.7° C, 1.5° C, 1.8° C, 2.0° C, 2.4° C, 2.4° C, 3.1° C, 3.5° C, 3.6° C, 4.1° C, 4.2° C and 4.6° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWG TEAM 2-TRIP (240-16425-1), FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWG TEAM #1 TRIP (240-16425-11), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWG TEAM3-TRIP (240-16425-16), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846

Job ID: 240-16425-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

Method 8260B DoD. The samples were analyzed on 10/23/2012 and 10/24/2012.

Methylene Chloride was detected in method blank MB 240-62557/6 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

Ethylbenzene, m-Xylene & p-Xylene, o-Xylene, Styrene and Xylenes, Total failed the recovery criteria low for MRL 240-62416/30. Methylene Chloride failed the recovery criteria high. Bromomethane, Chloroethane, Methylene Chloride and Vinyl chloride failed the recovery criteria high for MRL 240-62416/5. o-Xylene failed the recovery criteria low for MRL 240-62557/29. Methylene Chloride failed the recovery criteria high. Chloroethane, Chloromethane, Methylene Chloride and Vinyl chloride failed the recovery criteria high for MRL 240-62557/5. Refer to the QC report for details.

The method blank for preparation batch 62557 contained Methylene Chloride above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

The continuing calibration verification (CCV) for Methylene Chloride associated with batch 62557 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 10/18/2012 and 10/25/2012 and analyzed on 10/23/2012 and 10/28/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Bis(2-ethylhexyl) phthalate was detected in method blank MB 240-62729/23-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

3,3'-Dichlorobenzidine and Benzo[a]pyrene failed the recovery criteria low for the MS of sample FWGFWGmw-012-0175-GWMS (240-16425-17) in batch 240-63027. Several analytes exceeded the rpd limit for the MSD of sample FWGFWGmw-012-0175-GWMSD (240-16425-17) in batch 240-63027. Refer to the QC report for details.

One BN surrogate recovery for the following samples was outside control limits: FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-012-0175-GW (240-16425-17 MS), FWGFWGmw-012-0175-GW (240-16425-17 MSD). Re-extraction and re-analysis was performed outside of holding time with acceptable results. Only the reextracted results have been reported.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

NITROGUANIDINE (HPLC)

Samples FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for nitroguanidine (HPLC) in accordance with EPA SW-846 Method 8330_Ngu. The samples were prepared on 10/18/2012 and analyzed on 11/03/2012.

No difficulties were encountered during the explosives analyses. All quality control parameters were within the acceptance limits.

Job ID: 240-16425-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

CHLORINATED PESTICIDES

Samples FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A DoD. The samples were prepared on 10/19/2012 and analyzed on 10/25/2012.

DCB Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for FWGFWGmw-004-0167-GW (240-16425-21). Refer to the QC report for details.

The opening Pesticide Performance Evaluation Mix (PEM) did not meet breakdown criteria for the initial calibration (ICAL) for the confirmation column; therefore all data is reported from the primary column. All associated samples FWGEBGmw-131-0163-GW (240-16425-12), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGFWGmw-001-0164-GW (240-16425-8), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-011-0174-GW (240-16425-19), FWGFWGmw-012-0175-GW (240-16425-17), FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4) were opened with a passing PEM on both columns.

The initial calibration verification (ICV) for analytical batch 62662 exceeded control criteria for Endrin Ketone on the confirmation column. The data for the associated samples FWGEBGmw-131-0163-GW (240-16425-12), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGFWGmw-001-0164-GW (240-16425-8), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-011-0174-GW (240-16425-19), FWGFWGmw-012-0175-GW (240-16425-17), FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4) have been reported from the primary column.

Some of the analytes in the opening and closing Minimum Report Limits (MRL) associated with batch 62662 were biased high. The associated samplesFWGEBGmw-131-0163-GW (240-16425-12), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGFWGmw-001-0164-GW (240-16425-8), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-011-0174-GW (240-16425-19), FWGFWGmw-012-0175-GW (240-16425-17), FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4) were non-detect for the affected analytes; therefore the data have been reported.

The closing continuing calibration verification (CCV) associated with batch 62662 recovered above the upper control limit. The samples associated with this CCV FWGEBGmw-131-0163-GW (240-16425-12), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGFWGmw-001-0164-GW (240-16425-8), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4) were non-detects for the affected analytes; therefore the data have been reported.

The opening and closing continuing calibration verification (CCV) standards associated with batch 62662 recovered above the upper control limit. The samples associated with these CCVS FWGFWGmw-011-0174-GW (240-16425-19) were non-detects for the affected analytes; therefore the data have been reported.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for DDE and DDT for batch 61996 met control limits but the Relative Percent Difference (RPD) was outside acceptance limits. Re-extraction and reanalysis was not performed because the associated sampleFWGFWGmw-012-0175-GW (240-16425-17) was outside double the holding time limit.

Surrogate recovery for the following sample was outside control limits: FWGFWGmw-004-0167-GW (240-16425-21). Re-extraction and re-analysis was performed with concurring results. The original analysis has been reported.

The opening Pesticide Performance Evaluation Mix (PEM) did not meet breakdown criteria for the initial calibration (ICAL) for the confirmation column; therefore all data is reported from the primary column. All associated samples FWGFWGmw-004-0167-GW (240-16425-21)were opened with a passing PEM on both columns.

The initial calibration verification (ICV) for analytical batch 62662 exceeded control criteria for Endrin Ketone on the confirmation column. . The data for the associated samples FWGFWGmw-004-0167-GW (240-16425-21) have been reported from the primary column.

Some of the analytes in the opening a closing Minimum Report Limits (MRL) associated with batch 62662 were biased high. The associated samples FWGFWGmw-004-0167-GW (240-16425-21) were non-detect for the affected analytes; therefore the data have been

Job ID: 240-16425-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

reported.

The opening and closing continuing calibration verification (CCV) standards associated with batch 62662 recovered above the upper control limit. The samples associated with these CCVs FWGFWGmw-004-0167-GW (240-16425-21) were non-detects for the affected analytes; therefore the data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 63083. 3520C 8081_DoD.

No other difficulties were encountered during the pesticides analyses. All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082 DOD. The samples were prepared on 10/19/2012 and 10/29/2012 and analyzed on 10/23/2012 and 11/05/2012.

DCB Decachlorobiphenyl failed the surrogate recovery criteria low for samples FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-011-0174-GW (240-16425-19), and FWGFWGmw-002-0165-GW (240-16425-6). DCB Decachlorobiphenyl and Tetrachloro-m-xylene failed the surrogate recovery criteria low for FWGFWGmw-004-0167-GW (240-16425-21).

Aroclor-1016 exceeded the rpd limit for the MSD of sample FWGFWGmw-012-0175-GWMSD (240-16425-17) in batch 240-63757. Refer to the QC report for details.

Surrogate recovery for the following samples was outside control limits: FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-001-0164-GW (240-16425-8), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-012-0175-GW (240-16425-17 MS), FWGFWGmw-012-0175-GW (240-16425-17 MSD). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Only the re-extract data is reported.

Surrogate recovery for the following samples was outside control limits: FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-004-0167-GW (240-16425-21), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-011-0174-GW (240-16425-19). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

No other difficulties were encountered during the PCBs analyses. All other quality control parameters were within the acceptance limits.

EXPLOSIVES

Samples FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for explosives in accordance with EPA SW-846 Method 8330A. The samples were prepared on 10/18/2012 and analyzed on 10/23/2012, 10/24/2012 and 10/29/2012.

The samples listed below contained excessive sediment/particulates. Samples were filtered prior to extraction.

240-16425-L-6
240-16425-K-21

The method reporting limit calibration verifications (MRL) for analytical batch 5034 exceeded control criteria for the analytes listed below. The data have been qualified and reported. The corrective action for this deficiency is an analysis of a standard at approximately 2X the MDL. This MRL standard is approximately 2X the MDL. The acceptance criteria for the 2X MDL standard is detection of the compound. As the compound was detected, the data is reported wit no further corrective action.

Job ID: 240-16425-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

MRL 1- 2,6 Dinitrotoluene and 0-Nitrotoluene
MRL2- 2 Amino-4,6-Dinitrotoluene, 4 Amino- 2,6-Dinitrotoluene, and RDX

No other difficulties were encountered during the explosives analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Samples FWGLL3mw-245-0184-GF (240-16425-3), FWGLL3mw-DUP5-0202-GF (240-16425-5), FWGFWGmw-002-0165-GF (240-16425-7), FWGFWGmw-001-0164-GF (240-16425-9), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GF (240-16425-13), FWGFWGmw-010-0173-GF (240-16425-15), FWGFWGmw-012-0175-GF (240-16425-18), FWGFWGmw-011-0174-GF (240-16425-20) and FWGFWGmw-004-0167-GF (240-16425-22) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B DoD. The samples were prepared on 10/22/2012 and analyzed on 10/23/2012.

ICB, CCB, and ICSA samples are evaluated using the lowest LOD and DL criteria in LIMS. Using this criteria, an individual element may occasionally be flagged as out of control. If the element has a higher LOD or DL, the data is evaluated to the higher limit and determined to be acceptable.

No difficulties were encountered during the metals analyses. All quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples FWGLL3mw-245-0184-GF (240-16425-3), FWGLL3mw-DUP5-0202-GF (240-16425-5), FWGFWGmw-002-0165-GF (240-16425-7), FWGFWGmw-001-0164-GF (240-16425-9), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GF (240-16425-13), FWGFWGmw-010-0173-GF (240-16425-15), FWGFWGmw-012-0175-GF (240-16425-18), FWGFWGmw-011-0174-GF (240-16425-20) and FWGFWGmw-004-0167-GF (240-16425-22) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020 DoD. The samples were prepared on 10/22/2012 and analyzed on 10/26/2012 and 10/29/2012.

ICB, CCB, and ICSA samples are evaluated using the lowest LOD and DL criteria in LIMS. Using this criteria, an individual element may occasionally be flagged as out of control. If the element has a higher LOD or DL, the data is evaluated to the higher limit and determined to be acceptable.

Beryllium, Cadmium and Zinc were detected in method blank MB 240-62240/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The CCB was greater than the MDLV for Cadmium. Since the sample results were below the reporting limit, the results were accpeted. FWGFWGmw-002-0165-GF (240-16425-7), FWGFWGmw-012-0175-GF (240-16425-18), FWGLL3mw-245-0184-GF (240-16425-3), FWGLL3mw-DUP5-0202-GF (240-16425-5).

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

TOTAL MERCURY - DOD

Samples FWGLL3mw-245-0184-GF (240-16425-3), FWGLL3mw-DUP5-0202-GF (240-16425-5), FWGFWGmw-002-0165-GF (240-16425-7), FWGFWGmw-001-0164-GF (240-16425-9), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GF (240-16425-13), FWGFWGmw-010-0173-GF (240-16425-15), FWGFWGmw-012-0175-GF (240-16425-18), FWGFWGmw-011-0174-GF (240-16425-20) and FWGFWGmw-004-0167-GF (240-16425-22) were analyzed for Total Mercury - DOD in accordance with EPA SW-846 Method 7470A. The samples were prepared on 10/22/2012 and analyzed on 10/23/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

NITROCELLULOSE

Samples FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for Nitrocellulose in accordance with EPA Method 353.2. The samples were prepared and analyzed on 10/23/2012 and 11/07/2012.

Job ID: 240-16425-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 4875 (240-16425-17MS, 240-16425-17MSD) were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other difficulties were encountered during the Nitrocellulose analyses. All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples FWGLL3mw-245-0184-GW (240-16425-2), FWGLL3mw-DUP5-0202-GW (240-16425-4), FWGFWGmw-002-0165-GW (240-16425-6), FWGFWGmw-001-0164-GW (240-16425-8), FWGEQUIPRINSE1-0212-GW (240-16425-10), FWGEBGmw-131-0163-GW (240-16425-12), FWGFWGmw-010-0173-GW (240-16425-14), FWGFWGmw-012-0175-GW (240-16425-17), FWGFWGmw-011-0174-GW (240-16425-19) and FWGFWGmw-004-0167-GW (240-16425-21) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 10/25/2012.

No difficulties were encountered during the cyanide analyses. All quality control parameters were within the acceptance limits.

Method Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Method	Method Description	Protocol	Laboratory
8260B/DoD	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
8270C/DoD	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NC
8081/DOD	Organochlorine Pesticides (GC)	SW846	TAL NC
8082/DOD	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL NC
8330 Modified	Nitroguanidine (HPLC)	SW846	TAL WSC
8330A	Nitroaromatics and Nitramines	SW846	TAL WSC
6010B/DOD	Metals (ICP)	SW846	TAL NC
6020/DOD	Metals (ICP/MS)	SW846	TAL NC
7470A/DOD	Mercury (CVAA)	SW846	TAL NC
9012A	Cyanide, Total and/or Amenable	SW846	TAL NC
WS-WC-0050	Nitrocellulose	TAL-SAC	TAL WSC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-SAC = TestAmerica Laboratories, West Sacramento, Facility Standard Operating Procedure.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-16425-1	FWG TEAM 2-TRIP	Water	10/15/12 10:00	10/16/12 09:00
240-16425-2	FWGLL3mw-245-0184-GW	Water	10/15/12 12:52	10/16/12 09:00
240-16425-3	FWGLL3mw-245-0184-GF	Water	10/15/12 12:52	10/16/12 09:00
240-16425-4	FWGLL3mw-DUP5-0202-GW	Water	10/15/12 13:32	10/16/12 09:00
240-16425-5	FWGLL3mw-DUP5-0202-GF	Water	10/15/12 13:32	10/16/12 09:00
240-16425-6	FWGFWGmw-002-0165-GW	Water	10/15/12 15:18	10/16/12 09:00
240-16425-7	FWGFWGmw-002-0165-GF	Water	10/15/12 15:18	10/16/12 09:00
240-16425-8	FWGFWGmw-001-0164-GW	Water	10/15/12 16:38	10/16/12 09:00
240-16425-9	FWGFWGmw-001-0164-GF	Water	10/15/12 16:38	10/16/12 09:00
240-16425-10	FWGEQUIPRINSE1-0212-GW	Water	10/15/12 17:18	10/16/12 09:00
240-16425-11	FWG TEAM #1 TRIP	Water	10/15/12 12:00	10/16/12 09:00
240-16425-12	FWGEBGmw-131-0163-GW	Water	10/15/12 13:00	10/16/12 09:00
240-16425-13	FWGEBGmw-131-0163-GF	Water	10/15/12 13:00	10/16/12 09:00
240-16425-14	FWGFWGmw-010-0173-GW	Water	10/15/12 14:55	10/16/12 09:00
240-16425-15	FWGFWGmw-010-0173-GF	Water	10/15/12 14:55	10/16/12 09:00
240-16425-16	FWG TEAM3-TRIP	Water	10/15/12 10:00	10/16/12 09:00
240-16425-17	FWGFWGmw-012-0175-GW	Water	10/15/12 13:03	10/16/12 09:00
240-16425-18	FWGFWGmw-012-0175-GF	Water	10/15/12 13:03	10/16/12 09:00
240-16425-19	FWGFWGmw-011-0174-GW	Water	10/15/12 14:53	10/16/12 09:00
240-16425-20	FWGFWGmw-011-0174-GF	Water	10/15/12 14:53	10/16/12 09:00
240-16425-21	FWGFWGmw-004-0167-GW	Water	10/15/12 16:39	10/16/12 09:00
240-16425-22	FWGFWGmw-004-0167-GF	Water	10/15/12 16:39	10/16/12 09:00

Client Sample ID: FWG TEAM 2-TRIP
Date Collected: 10/15/12 10:00
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-1
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 12:07	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 12:07	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 12:07	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 12:07	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 12:07	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 12:07	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 12:07	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 12:07	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 12:07	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 12:07	1
Acetone	**1.5**	**J**	10	1.1	1.1	ug/L		10/23/12 12:07	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:07	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 12:07	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 12:07	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:07	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:07	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 12:07	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 12:07	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 12:07	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 12:07	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 12:07	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 12:07	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 12:07	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 12:07	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 12:07	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 12:07	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 12:07	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 12:07	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 12:07	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 12:07	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 12:07	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 12:07	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:07	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 12:07	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 12:07	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 12:07	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 12:07	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 12:07	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 12:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 120*		*10/23/12 12:07*	*1*
4-Bromofluorobenzene (Surr)	*79*		*75 - 120*		*10/23/12 12:07*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/23/12 12:07*	*1*
Dibromofluoromethane (Surr)	*102*		*85 - 115*		*10/23/12 12:07*	*1*

Client Sample ID: FWGLL3mw-245-0184-GW
Date Collected: 10/15/12 12:52
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-2
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 20:20	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 20:20	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 20:20	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 20:20	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 20:20	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 20:20	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 20:20	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 20:20	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 20:20	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 20:20	1
Acetone	**1.2**	**J**	10	1.1	1.1	ug/L		10/23/12 20:20	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 20:20	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 20:20	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 20:20	1
Carbon disulfide	**0.20**	**J**	1.0	0.25	0.13	ug/L		10/23/12 20:20	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 20:20	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 20:20	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 20:20	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 20:20	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 20:20	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 20:20	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 20:20	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 20:20	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 20:20	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 20:20	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 20:20	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 20:20	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 20:20	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 20:20	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 20:20	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 20:20	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 20:20	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 20:20	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 20:20	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 20:20	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 20:20	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 20:20	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 20:20	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 120*		*10/23/12 20:20*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/23/12 20:20*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/23/12 20:20*	*1*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*10/23/12 20:20*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1

Client Sample ID: FWGLL3mw-245-0184-GW
Date Collected: 10/15/12 12:52
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-2
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/23/12 12:40	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/23/12 12:40	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 12:40	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 12:40	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 12:40	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 12:40	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 12:40	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 12:40	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/23/12 12:40	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 12:40	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 12:40	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 12:40	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/23/12 12:40	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/23/12 12:40	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 12:40	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 12:40	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/23/12 12:40	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 12:40	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 12:40	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 12:40	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 12:40	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/23/12 12:40	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 12:40	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 12:40	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 12:40	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 12:40	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 12:40	1

Client Sample ID: FWGLL3mw-245-0184-GW
Date Collected: 10/15/12 12:52
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-2
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 12:40	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 12:40	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 12:40	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 12:40	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/23/12 12:40	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 12:40	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 12:40	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 12:40	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 12:40	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/23/12 12:40	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/23/12 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	67		50 - 110	10/18/12 10:24	10/23/12 12:40	1
2-Fluorophenol (Surr)	75		20 - 110	10/18/12 10:24	10/23/12 12:40	1
Nitrobenzene-d5 (Surr)	72		40 - 110	10/18/12 10:24	10/23/12 12:40	1
Phenol-d5 (Surr)	74		10 - 115	10/18/12 10:24	10/23/12 12:40	1
Terphenyl-d14 (Surr)	76		50 - 135	10/18/12 10:24	10/23/12 12:40	1
2,4,6-Tribromophenol (Surr)	67		40 - 125	10/18/12 10:24	10/23/12 12:40	1

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.011	U	0.053	0.011	0.010	ug/L		10/25/12 17:26	1
4,4'-DDE	0.011	U	0.053	0.011	0.010	ug/L		10/25/12 17:26	1
4,4'-DDT	0.032	U	0.053	0.032	0.017	ug/L		10/25/12 17:26	1
Aldrin	0.011	U	0.032	0.011	0.0086	ug/L		10/25/12 17:26	1
alpha-BHC	0.011	U	0.032	0.011	0.0074	ug/L		10/25/12 17:26	1
alpha-Chlordane	0.015	U	0.053	0.015	0.015	ug/L		10/25/12 17:26	1
beta-BHC	0.011	U	0.053	0.011	0.0088	ug/L		10/25/12 17:26	1
delta-BHC	0.011	U	0.053	0.011	0.0092	ug/L		10/25/12 17:26	1
Dieldrin	0.011	U	0.032	0.011	0.0079	ug/L		10/25/12 17:26	1
Endosulfan I	0.014	U	0.053	0.014	0.014	ug/L		10/25/12 17:26	1
Endosulfan II	0.013	U	0.053	0.013	0.013	ug/L		10/25/12 17:26	1
Endosulfan sulfate	0.012	U	0.053	0.012	0.012	ug/L		10/25/12 17:26	1
Endrin	0.012	U	0.053	0.012	0.012	ug/L		10/25/12 17:26	1
Endrin aldehyde	0.012	U	0.053	0.012	0.012	ug/L		10/25/12 17:26	1
Endrin ketone	0.011	U	0.053	0.011	0.0082	ug/L		10/25/12 17:26	1
gamma-BHC (Lindane)	0.011	U	0.053	0.011	0.0067	ug/L		10/25/12 17:26	1
gamma-Chlordane	0.013	U	0.053	0.013	0.013	ug/L		10/25/12 17:26	1
Heptachlor	0.011	U	0.032	0.011	0.0084	ug/L		10/25/12 17:26	1
Heptachlor epoxide	0.011	U	0.032	0.011	0.0075	ug/L		10/25/12 17:26	1
Methoxychlor	0.034	U	0.11	0.034	0.034	ug/L		10/25/12 17:26	1
Toxaphene	0.53	U	2.1	0.53	0.34	ug/L		10/25/12 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	75		30 - 135	10/19/12 10:13	10/25/12 17:26	1
DCB Decachlorobiphenyl	74		30 - 135	10/19/12 10:13	10/25/12 17:26	1
Tetrachloro-m-xylene	76	M	25 - 140	10/19/12 10:13	10/25/12 17:26	1
Tetrachloro-m-xylene	79		25 - 140	10/19/12 10:13	10/25/12 17:26	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGLL3mw-245-0184-GW
Date Collected: 10/15/12 12:52
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-2
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.21	U	0.53	0.21	0.18	ug/L		10/23/12 13:42	1
Aroclor-1221	0.21	U	0.53	0.21	0.14	ug/L		10/23/12 13:42	1
Aroclor-1232	0.21	U	0.53	0.21	0.17	ug/L		10/23/12 13:42	1
Aroclor-1242	0.42	U	0.53	0.42	0.23	ug/L		10/23/12 13:42	1
Aroclor-1248	0.21	U	0.53	0.21	0.11	ug/L		10/23/12 13:42	1
Aroclor-1254	0.21	U	0.53	0.21	0.17	ug/L		10/23/12 13:42	1
Aroclor-1260	0.21	U	0.53	0.21	0.18	ug/L		10/23/12 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*40 - 140*	*10/19/12 10:23*	*10/23/12 13:42*	*1*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/19/12 10:23*	*10/23/12 13:42*	*1*
DCB Decachlorobiphenyl	*66*		*40 - 135*	*10/19/12 10:23*	*10/23/12 13:42*	*1*
DCB Decachlorobiphenyl	*64*		*40 - 135*	*10/19/12 10:23*	*10/23/12 13:42*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 00:51	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		10/29/12 14:23	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 14:23	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 14:23	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 14:23	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 14:23	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 14:23	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/29/12 14:23	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/29/12 14:23	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/29/12 14:23	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 14:23	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 14:23	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 14:23	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 14:23	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 14:23	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		10/29/12 14:23	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		10/29/12 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/18/12 06:17*	*10/29/12 14:23*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:40	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:00	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGLL3mw-245-0184-GF
Date Collected: 10/15/12 12:52
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-3
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:18	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:18	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 13:18	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:18	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:18	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:18	1
Vanadium	**1.8**	**J**	7.0	4.0	1.3	ug/L		10/23/12 13:18	1
Barium	**45**	**J**	200	5.0	2.8	ug/L		10/23/12 13:18	1
Calcium	**110000**		5000	1000	630	ug/L		10/23/12 13:18	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:18	1
Magnesium	**38000**		5000	300	120	ug/L		10/23/12 13:18	1
Manganese	**33**		15	5.0	1.8	ug/L		10/23/12 13:18	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 13:18	1
Potassium	**6800**		5000	900	300	ug/L		10/23/12 13:18	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 12:37	1
Antimony	**0.58**	**J**	2.0	0.50	0.21	ug/L		10/26/12 17:37	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 17:37	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 17:37	1
Iron	**530**		150	100	44	ug/L		10/26/12 17:37	1
Sodium	**21000**		1000	400	160	ug/L		10/26/12 17:37	1
Thallium	**0.58**	**J**	2.0	1.0	0.32	ug/L		10/26/12 17:37	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 12:37	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:21	1

Client Sample ID: FWGLL3mw-DUP5-0202-GW — **Lab Sample ID: 240-16425-4**
Date Collected: 10/15/12 13:32 — **Matrix: Water**
Date Received: 10/16/12 09:00

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 13:15	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 13:15	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 13:15	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 13:15	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 13:15	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 13:15	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 13:15	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 13:15	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 13:15	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 13:15	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 13:15	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 13:15	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 13:15	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 13:15	1
Carbon disulfide	**0.17**	**J**	1.0	0.25	0.13	ug/L		10/23/12 13:15	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 13:15	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 13:15	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 13:15	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 13:15	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 13:15	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 13:15	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 13:15	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 13:15	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 13:15	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 13:15	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 13:15	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 13:15	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 13:15	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 13:15	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 13:15	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 13:15	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 13:15	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 13:15	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 13:15	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 13:15	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 13:15	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 13:15	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 13:15	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 120*		*10/23/12 13:15*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/23/12 13:15*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/23/12 13:15*	*1*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*10/23/12 13:15*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1

Client Sample ID: FWGLL3mw-DUP5-0202-GW
Lab Sample ID: 240-16425-4
Date Collected: 10/15/12 13:32
Matrix: Water
Date Received: 10/16/12 09:00

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/23/12 13:00	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/23/12 13:00	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 13:00	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 13:00	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 13:00	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 13:00	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 13:00	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 13:00	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/23/12 13:00	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 13:00	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 13:00	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 13:00	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/23/12 13:00	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/23/12 13:00	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 13:00	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 13:00	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/23/12 13:00	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 13:00	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 13:00	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 13:00	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 13:00	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/23/12 13:00	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 13:00	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 13:00	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 13:00	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 13:00	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 13:00	1

Client Sample ID: FWGLL3mw-DUP5-0202-GW
Date Collected: 10/15/12 13:32
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-4
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 13:00	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 13:00	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 13:00	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 13:00	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/23/12 13:00	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 13:00	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 13:00	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 13:00	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 13:00	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/23/12 13:00	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/23/12 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*50 - 110*	*10/18/12 10:24*	*10/23/12 13:00*	*1*
2-Fluorophenol (Surr)	*76*		*20 - 110*	*10/18/12 10:24*	*10/23/12 13:00*	*1*
Nitrobenzene-d5 (Surr)	*72*		*40 - 110*	*10/18/12 10:24*	*10/23/12 13:00*	*1*
Phenol-d5 (Surr)	*74*		*10 - 115*	*10/18/12 10:24*	*10/23/12 13:00*	*1*
Terphenyl-d14 (Surr)	*82*		*50 - 135*	*10/18/12 10:24*	*10/23/12 13:00*	*1*
2,4,6-Tribromophenol (Surr)	*72*		*40 - 125*	*10/18/12 10:24*	*10/23/12 13:00*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.010	U	0.052	0.010	0.010	ug/L		10/25/12 17:50	1
4,4'-DDE	0.010	U	0.052	0.010	0.010	ug/L		10/25/12 17:50	1
4,4'-DDT	0.031	U	0.052	0.031	0.017	ug/L		10/25/12 17:50	1
Aldrin	0.010	U	0.031	0.010	0.0085	ug/L		10/25/12 17:50	1
alpha-BHC	0.010	U	0.031	0.010	0.0073	ug/L		10/25/12 17:50	1
alpha-Chlordane	0.015	U	0.052	0.015	0.015	ug/L		10/25/12 17:50	1
beta-BHC	0.010	U	0.052	0.010	0.0088	ug/L		10/25/12 17:50	1
delta-BHC	0.010	U	0.052	0.010	0.0091	ug/L		10/25/12 17:50	1
Dieldrin	0.010	U	0.031	0.010	0.0078	ug/L		10/25/12 17:50	1
Endosulfan I	0.014	U	0.052	0.014	0.014	ug/L		10/25/12 17:50	1
Endosulfan II	0.013	U	0.052	0.013	0.013	ug/L		10/25/12 17:50	1
Endosulfan sulfate	0.011	U	0.052	0.011	0.011	ug/L		10/25/12 17:50	1
Endrin	0.011	U	0.052	0.011	0.011	ug/L		10/25/12 17:50	1
Endrin aldehyde	0.011	U	0.052	0.011	0.011	ug/L		10/25/12 17:50	1
Endrin ketone	0.010	U	0.052	0.010	0.0081	ug/L		10/25/12 17:50	1
gamma-BHC (Lindane)	0.010	U	0.052	0.010	0.0067	ug/L		10/25/12 17:50	1
gamma-Chlordane	0.013	U	0.052	0.013	0.013	ug/L		10/25/12 17:50	1
Heptachlor	0.010	U	0.031	0.010	0.0083	ug/L		10/25/12 17:50	1
Heptachlor epoxide	0.010	U	0.031	0.010	0.0074	ug/L		10/25/12 17:50	1
Methoxychlor	0.033	U	0.10	0.033	0.033	ug/L		10/25/12 17:50	1
Toxaphene	0.52	U	2.1	0.52	0.33	ug/L		10/25/12 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*85*	*M*	*30 - 135*	*10/19/12 10:13*	*10/25/12 17:50*	*1*
DCB Decachlorobiphenyl	*86*	*M*	*30 - 135*	*10/19/12 10:13*	*10/25/12 17:50*	*1*
Tetrachloro-m-xylene	*85*	*M*	*25 - 140*	*10/19/12 10:13*	*10/25/12 17:50*	*1*
Tetrachloro-m-xylene	*78*		*25 - 140*	*10/19/12 10:13*	*10/25/12 17:50*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGLL3mw-DUP5-0202-GW
Date Collected: 10/15/12 13:32
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-4
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.21	U	0.52	0.21	0.18	ug/L		10/23/12 13:57	1
Aroclor-1221	0.21	U	0.52	0.21	0.14	ug/L		10/23/12 13:57	1
Aroclor-1232	0.21	U	0.52	0.21	0.17	ug/L		10/23/12 13:57	1
Aroclor-1242	0.42	U	0.52	0.42	0.23	ug/L		10/23/12 13:57	1
Aroclor-1248	0.21	U	0.52	0.21	0.10	ug/L		10/23/12 13:57	1
Aroclor-1254	0.21	U	0.52	0.21	0.17	ug/L		10/23/12 13:57	1
Aroclor-1260	0.21	U	0.52	0.21	0.18	ug/L		10/23/12 13:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*40 - 140*	*10/19/12 10:23*	*10/23/12 13:57*	*1*
Tetrachloro-m-xylene	*78*		*40 - 140*	*10/19/12 10:23*	*10/23/12 13:57*	*1*
DCB Decachlorobiphenyl	*64*		*40 - 135*	*10/19/12 10:23*	*10/23/12 13:57*	*1*
DCB Decachlorobiphenyl	*66*		*40 - 135*	*10/19/12 10:23*	*10/23/12 13:57*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 01:05	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.052	U	0.16	0.052	0.032	ug/L		10/29/12 15:03	1
1,3-Dinitrobenzene	0.10	U	0.16	0.10	0.052	ug/L		10/29/12 15:03	1
2,4,6-Trinitrotoluene	0.10	U	0.16	0.10	0.052	ug/L		10/29/12 15:03	1
2,4-Dinitrotoluene	0.10	U	0.14	0.10	0.052	ug/L		10/29/12 15:03	1
2,6-Dinitrotoluene	0.10	U	0.14	0.10	0.052	ug/L		10/29/12 15:03	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.16	0.10	0.016	ug/L		10/29/12 15:03	1
2-Nitrotoluene	0.10	U	0.52	0.10	0.092	ug/L		10/29/12 15:03	1
3-Nitrotoluene	0.10	U	0.52	0.10	0.059	ug/L		10/29/12 15:03	1
4-Nitrotoluene	0.10	U	0.52	0.10	0.092	ug/L		10/29/12 15:03	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.16	0.10	0.052	ug/L		10/29/12 15:03	1
HMX	0.052	U	0.16	0.052	0.037	ug/L		10/29/12 15:03	1
RDX	0.052	U	0.16	0.052	0.037	ug/L		10/29/12 15:03	1
Nitrobenzene	0.10	U	0.16	0.10	0.052	ug/L		10/29/12 15:03	1
Tetryl	0.10	U	0.16	0.10	0.052	ug/L		10/29/12 15:03	1
Nitroglycerin	0.52	U	0.68	0.52	0.34	ug/L		10/29/12 15:03	1
PETN	0.52	U	0.68	0.52	0.31	ug/L		10/29/12 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/18/12 06:17*	*10/29/12 15:03*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:40	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:02	1

Client Sample ID: FWGLL3mw-DUP5-0202-GF
Date Collected: 10/15/12 13:32
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-5
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:29	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:29	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 13:29	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:29	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:29	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:29	1
Vanadium	**1.5**	**J**	7.0	4.0	1.3	ug/L		10/23/12 13:29	1
Barium	**45**	**J**	200	5.0	2.8	ug/L		10/23/12 13:29	1
Calcium	**110000**		5000	1000	630	ug/L		10/23/12 13:29	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:29	1
Magnesium	**39000**		5000	300	120	ug/L		10/23/12 13:29	1
Manganese	**31**		15	5.0	1.8	ug/L		10/23/12 13:29	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 13:29	1
Potassium	**7000**		5000	900	300	ug/L		10/23/12 13:29	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 12:43	1
Antimony	**0.23**	**J**	2.0	0.50	0.21	ug/L		10/26/12 17:44	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 17:44	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 17:44	1
Iron	**540**		150	100	44	ug/L		10/26/12 17:44	1
Sodium	**22000**		1000	400	160	ug/L		10/26/12 17:44	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 17:44	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 12:43	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:20	1

Client Sample ID: FWGFWGmw-002-0165-GW
Date Collected: 10/15/12 15:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-6
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 13:37	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 13:37	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 13:37	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 13:37	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 13:37	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 13:37	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 13:37	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 13:37	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 13:37	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 13:37	1
Acetone	**2.5**	**J**	10	1.1	1.1	ug/L		10/23/12 13:37	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 13:37	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 13:37	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 13:37	1
Carbon disulfide	**6.7**		1.0	0.25	0.13	ug/L		10/23/12 13:37	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 13:37	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 13:37	1
Chloroethane	**0.33**	**J**	1.0	0.50	0.29	ug/L		10/23/12 13:37	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 13:37	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 13:37	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 13:37	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 13:37	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 13:37	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 13:37	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 13:37	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 13:37	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 13:37	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 13:37	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 13:37	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 13:37	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 13:37	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 13:37	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 13:37	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 13:37	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 13:37	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 13:37	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 13:37	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 13:37	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/23/12 13:37*	*1*
4-Bromofluorobenzene (Surr)	*85*		*75 - 120*		*10/23/12 13:37*	*1*
Toluene-d8 (Surr)	*88*		*85 - 120*		*10/23/12 13:37*	*1*
Dibromofluoromethane (Surr)	*109*		*85 - 115*		*10/23/12 13:37*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Acenaphthylene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1

Client Sample ID: FWGFWGmw-002-0165-GW
Date Collected: 10/15/12 15:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-6
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Benzo[a]anthracene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Benzo[a]pyrene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Benzo[b]fluoranthene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Benzo[g,h,i]perylene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Benzoic acid	10	U H	26	10	10	ug/L		10/28/12 12:29	1
Benzo[k]fluoranthene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Benzyl alcohol	0.82	U H	5.1	0.82	0.39	ug/L		10/28/12 12:29	1
Bis(2-chloroethoxy)methane	0.82	U H	1.0	0.82	0.33	ug/L		10/28/12 12:29	1
Bis(2-chloroethyl)ether	0.10	U H	1.0	0.10	0.10	ug/L		10/28/12 12:29	1
Bis(2-ethylhexyl) phthalate	**2.5**	**H B**	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
4-Bromophenyl phenyl ether	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
Butyl benzyl phthalate	0.82	U H	1.0	0.82	0.82	ug/L		10/28/12 12:29	1
Carbazole	0.82	U H	1.0	0.82	0.29	ug/L		10/28/12 12:29	1
4-Chloroaniline	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
4-Chloro-3-methylphenol	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
2-Chloronaphthalene	0.10	U H	1.0	0.10	0.10	ug/L		10/28/12 12:29	1
2-Chlorophenol	0.82	U H	1.0	0.82	0.30	ug/L		10/28/12 12:29	1
4-Chlorophenyl phenyl ether	0.82	U H	2.0	0.82	0.31	ug/L		10/28/12 12:29	1
Chrysene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Dibenz(a,h)anthracene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Dibenzofuran	0.10	U H	1.0	0.10	0.10	ug/L		10/28/12 12:29	1
1,2-Dichlorobenzene	0.82	U H	1.0	0.82	0.30	ug/L		10/28/12 12:29	1
1,3-Dichlorobenzene	0.82	U H	1.0	0.82	0.82	ug/L		10/28/12 12:29	1
1,4-Dichlorobenzene	0.82	U H	1.0	0.82	0.35	ug/L		10/28/12 12:29	1
3,3'-Dichlorobenzidine	0.82	U H	5.1	0.82	0.38	ug/L		10/28/12 12:29	1
2,4-Dichlorophenol	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
Diethyl phthalate	0.82	U H	1.0	0.82	0.61	ug/L		10/28/12 12:29	1
2,4-Dimethylphenol	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
Dimethyl phthalate	0.82	U H	1.0	0.82	0.30	ug/L		10/28/12 12:29	1
Di-n-butyl phthalate	0.82	U H	1.0	0.82	0.68	ug/L		10/28/12 12:29	1
4,6-Dinitro-2-methylphenol	2.4	U H	5.1	2.4	2.4	ug/L		10/28/12 12:29	1
2,4-Dinitrophenol	2.4	U H	5.1	2.4	2.4	ug/L		10/28/12 12:29	1
Di-n-octyl phthalate	0.82	U H	1.0	0.82	0.82	ug/L		10/28/12 12:29	1
Fluoranthene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Fluorene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Hexachlorobenzene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Hexachlorobutadiene	0.82	U H	1.0	0.82	0.28	ug/L		10/28/12 12:29	1
Hexachlorocyclopentadiene	0.82	U H	10	0.82	0.82	ug/L		10/28/12 12:29	1
Hexachloroethane	0.82	U H	1.0	0.82	0.82	ug/L		10/28/12 12:29	1
Indeno[1,2,3-cd]pyrene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Isophorone	0.82	U H	1.0	0.82	0.28	ug/L		10/28/12 12:29	1
2-Methylnaphthalene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
2-Methylphenol	0.82	U H	1.0	0.82	0.82	ug/L		10/28/12 12:29	1
3 & 4 Methylphenol	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
Naphthalene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
2-Nitroaniline	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1
3-Nitroaniline	0.82	U H	2.0	0.82	0.29	ug/L		10/28/12 12:29	1
4-Nitroaniline	0.82	U H	2.0	0.82	0.82	ug/L		10/28/12 12:29	1

Client Sample ID: FWGFWGmw-002-0165-GW
Date Collected: 10/15/12 15:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-6
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.82	U H	2.0	0.82	0.29	ug/L		10/28/12 12:29	1
4-Nitrophenol	2.4	U H	5.1	2.4	2.4	ug/L		10/28/12 12:29	1
N-Nitrosodi-n-propylamine	0.82	U H	1.0	0.82	0.82	ug/L		10/28/12 12:29	1
N-Nitrosodiphenylamine	0.82	U H	1.0	0.82	0.32	ug/L		10/28/12 12:29	1
2,2'-oxybis[1-chloropropane]	0.82	U H	1.0	0.82	0.41	ug/L		10/28/12 12:29	1
Pentachlorophenol	2.4	U H	5.1	2.4	2.4	ug/L		10/28/12 12:29	1
Phenanthrene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
Phenol	0.82	U H	1.0	0.82	0.61	ug/L		10/28/12 12:29	1
Pyrene	0.10	U H	0.20	0.10	0.10	ug/L		10/28/12 12:29	1
1,2,4-Trichlorobenzene	0.82	U H	1.0	0.82	0.29	ug/L		10/28/12 12:29	1
2,4,5-Trichlorophenol	0.82	U H	5.1	0.82	0.31	ug/L		10/28/12 12:29	1
2,4,6-Trichlorophenol	0.82	U H	5.1	0.82	0.82	ug/L		10/28/12 12:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*50 - 110*	*10/25/12 10:35*	*10/28/12 12:29*	*1*
2-Fluorophenol (Surr)	*81*		*20 - 110*	*10/25/12 10:35*	*10/28/12 12:29*	*1*
Nitrobenzene-d5 (Surr)	*76*		*40 - 110*	*10/25/12 10:35*	*10/28/12 12:29*	*1*
Phenol-d5 (Surr)	*86*		*10 - 115*	*10/25/12 10:35*	*10/28/12 12:29*	*1*
Terphenyl-d14 (Surr)	*64*		*50 - 135*	*10/25/12 10:35*	*10/28/12 12:29*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*40 - 125*	*10/25/12 10:35*	*10/28/12 12:29*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.011	U	0.053	0.011	0.010	ug/L		10/25/12 18:13	1
4,4'-DDE	0.011	U	0.053	0.011	0.010	ug/L		10/25/12 18:13	1
4,4'-DDT	0.032	U	0.053	0.032	0.017	ug/L		10/25/12 18:13	1
Aldrin	0.011	U	0.032	0.011	0.0087	ug/L		10/25/12 18:13	1
alpha-BHC	0.011	U	0.032	0.011	0.0074	ug/L		10/25/12 18:13	1
alpha-Chlordane	0.015	U	0.053	0.015	0.015	ug/L		10/25/12 18:13	1
beta-BHC	0.011	U	0.053	0.011	0.0089	ug/L		10/25/12 18:13	1
delta-BHC	0.011	U	0.053	0.011	0.0093	ug/L		10/25/12 18:13	1
Dieldrin	0.011	U	0.032	0.011	0.0080	ug/L		10/25/12 18:13	1
Endosulfan I	0.014	U	0.053	0.014	0.014	ug/L		10/25/12 18:13	1
Endosulfan II	0.013	U	0.053	0.013	0.013	ug/L		10/25/12 18:13	1
Endosulfan sulfate	0.012	U	0.053	0.012	0.012	ug/L		10/25/12 18:13	1
Endrin	0.012	U	0.053	0.012	0.012	ug/L		10/25/12 18:13	1
Endrin aldehyde	0.012	U	0.053	0.012	0.012	ug/L		10/25/12 18:13	1
Endrin ketone	0.011	U	0.053	0.011	0.0083	ug/L		10/25/12 18:13	1
gamma-BHC (Lindane)	0.011	U	0.053	0.011	0.0068	ug/L		10/25/12 18:13	1
gamma-Chlordane	0.013	U	0.053	0.013	0.013	ug/L		10/25/12 18:13	1
Heptachlor	0.011	U	0.032	0.011	0.0085	ug/L		10/25/12 18:13	1
Heptachlor epoxide	0.011	U	0.032	0.011	0.0076	ug/L		10/25/12 18:13	1
Methoxychlor	0.034	U	0.11	0.034	0.034	ug/L		10/25/12 18:13	1
Toxaphene	0.53	U	2.1	0.53	0.34	ug/L		10/25/12 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*39*		*30 - 135*	*10/19/12 10:13*	*10/25/12 18:13*	*1*
DCB Decachlorobiphenyl	*38*		*30 - 135*	*10/19/12 10:13*	*10/25/12 18:13*	*1*
Tetrachloro-m-xylene	*92*		*25 - 140*	*10/19/12 10:13*	*10/25/12 18:13*	*1*
Tetrachloro-m-xylene	*82*	*M*	*25 - 140*	*10/19/12 10:13*	*10/25/12 18:13*	*1*

Client Sample ID: FWGFWGmw-002-0165-GW
Date Collected: 10/15/12 15:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-6
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.21	U	0.53	0.21	0.18	ug/L		10/23/12 14:12	1
Aroclor-1221	0.21	U	0.53	0.21	0.14	ug/L		10/23/12 14:12	1
Aroclor-1232	0.21	U	0.53	0.21	0.17	ug/L		10/23/12 14:12	1
Aroclor-1242	0.43	U	0.53	0.43	0.23	ug/L		10/23/12 14:12	1
Aroclor-1248	0.21	U	0.53	0.21	0.11	ug/L		10/23/12 14:12	1
Aroclor-1254	0.21	U	0.53	0.21	0.17	ug/L		10/23/12 14:12	1
Aroclor-1260	0.21	U	0.53	0.21	0.18	ug/L		10/23/12 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*40 - 140*	*10/19/12 10:23*	*10/23/12 14:12*	*1*
Tetrachloro-m-xylene	*83*		*40 - 140*	*10/19/12 10:23*	*10/23/12 14:12*	*1*
DCB Decachlorobiphenyl	*29*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 14:12*	*1*
DCB Decachlorobiphenyl	*29*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 14:12*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 01:19	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	**0.040**	**J**	0.15	0.052	0.032	ug/L		10/29/12 15:43	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.052	ug/L		10/23/12 22:58	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.052	ug/L		10/29/12 15:43	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		10/29/12 15:43	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		10/29/12 15:43	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 15:43	1
2-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		10/29/12 15:43	1
3-Nitrotoluene	0.10	U	0.52	0.10	0.059	ug/L		10/29/12 15:43	1
4-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		10/29/12 15:43	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.052	ug/L		10/29/12 15:43	1
HMX	0.052	U	0.15	0.052	0.037	ug/L		10/29/12 15:43	1
RDX	0.052	U	0.15	0.052	0.037	ug/L		10/29/12 15:43	1
Nitrobenzene	0.10	U	0.15	0.10	0.052	ug/L		10/29/12 15:43	1
Tetryl	0.10	U	0.15	0.10	0.052	ug/L		10/23/12 22:58	1
Nitroglycerin	0.52	U	0.67	0.52	0.34	ug/L		10/29/12 15:43	1
PETN	0.52	U	0.67	0.52	0.31	ug/L		10/29/12 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*83*		*79 - 111*	*10/18/12 06:17*	*10/23/12 22:58*	*1*
3,4-Dinitrotoluene	*88*	*M*	*79 - 111*	*10/18/12 06:17*	*10/29/12 15:43*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:40	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:04	1

Client Sample ID: FWGFWGmw-002-0165-GF
Date Collected: 10/15/12 15:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-7
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:33	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:33	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 13:33	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:33	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:33	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:33	1
Vanadium	**2.7**	**J**	7.0	4.0	1.3	ug/L		10/23/12 13:33	1
Barium	**74**	**J**	200	5.0	2.8	ug/L		10/23/12 13:33	1
Calcium	**42000**		5000	1000	630	ug/L		10/23/12 13:33	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:33	1
Magnesium	**14000**		5000	300	120	ug/L		10/23/12 13:33	1
Manganese	**140**		15	5.0	1.8	ug/L		10/23/12 13:33	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 13:33	1
Potassium	**14000**		5000	900	300	ug/L		10/23/12 13:33	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**180**		60	60	20	ug/L		10/29/12 12:48	1
Antimony	**0.21**	**J**	2.0	0.50	0.21	ug/L		10/26/12 17:50	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 17:50	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 17:50	1
Iron	**640**		150	100	44	ug/L		10/26/12 17:50	1
Sodium	**23000**		1000	400	160	ug/L		10/26/12 17:50	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 17:50	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 12:48	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:07	1

Client Sample ID: FWGFWGmw-001-0164-GW
Date Collected: 10/15/12 16:38
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-8
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:00	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:00	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 14:00	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:00	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:00	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:00	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 14:00	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:00	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 14:00	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:00	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 14:00	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:00	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 14:00	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 14:00	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:00	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:00	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:00	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:00	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 14:00	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 14:00	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:00	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 14:00	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:00	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:00	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 14:00	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 14:00	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 14:00	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 14:00	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 14:00	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 14:00	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 14:00	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:00	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:00	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:00	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:00	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:00	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:00	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 14:00	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/23/12 14:00*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/23/12 14:00*	*1*
Toluene-d8 (Surr)	*85*		*85 - 120*		*10/23/12 14:00*	*1*
Dibromofluoromethane (Surr)	*112*		*85 - 115*		*10/23/12 14:00*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Acenaphthylene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1

Client Sample ID: FWGFWGmw-001-0164-GW
Date Collected: 10/15/12 16:38
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-8
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Benzo[a]anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Benzo[a]pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Benzo[b]fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Benzo[g,h,i]perylene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Benzoic acid	11	U	27	11	11	ug/L		10/23/12 13:38	1
Benzo[k]fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Benzyl alcohol	0.87	U	5.4	0.87	0.41	ug/L		10/23/12 13:38	1
Bis(2-chloroethoxy)methane	0.87	U	1.1	0.87	0.35	ug/L		10/23/12 13:38	1
Bis(2-chloroethyl)ether	0.11	U	1.1	0.11	0.11	ug/L		10/23/12 13:38	1
Bis(2-ethylhexyl) phthalate	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
4-Bromophenyl phenyl ether	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
Butyl benzyl phthalate	0.87	U	1.1	0.87	0.87	ug/L		10/23/12 13:38	1
Carbazole	0.87	U	1.1	0.87	0.30	ug/L		10/23/12 13:38	1
4-Chloroaniline	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
4-Chloro-3-methylphenol	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
2-Chloronaphthalene	0.11	U	1.1	0.11	0.11	ug/L		10/23/12 13:38	1
2-Chlorophenol	0.87	U	1.1	0.87	0.32	ug/L		10/23/12 13:38	1
4-Chlorophenyl phenyl ether	0.87	U	2.2	0.87	0.33	ug/L		10/23/12 13:38	1
Chrysene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Dibenz(a,h)anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Dibenzofuran	0.11	U	1.1	0.11	0.11	ug/L		10/23/12 13:38	1
1,2-Dichlorobenzene	0.87	U	1.1	0.87	0.32	ug/L		10/23/12 13:38	1
1,3-Dichlorobenzene	0.87	U	1.1	0.87	0.87	ug/L		10/23/12 13:38	1
1,4-Dichlorobenzene	0.87	U	1.1	0.87	0.37	ug/L		10/23/12 13:38	1
3,3'-Dichlorobenzidine	0.87	U	5.4	0.87	0.40	ug/L		10/23/12 13:38	1
2,4-Dichlorophenol	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
Diethyl phthalate	0.87	U	1.1	0.87	0.65	ug/L		10/23/12 13:38	1
2,4-Dimethylphenol	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
Dimethyl phthalate	0.87	U	1.1	0.87	0.32	ug/L		10/23/12 13:38	1
Di-n-butyl phthalate	0.87	U	1.1	0.87	0.73	ug/L		10/23/12 13:38	1
4,6-Dinitro-2-methylphenol	2.6	U	5.4	2.6	2.6	ug/L		10/23/12 13:38	1
2,4-Dinitrophenol	2.6	U	5.4	2.6	2.6	ug/L		10/23/12 13:38	1
Di-n-octyl phthalate	0.87	U	1.1	0.87	0.87	ug/L		10/23/12 13:38	1
Fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Fluorene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Hexachlorobenzene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Hexachlorobutadiene	0.87	U	1.1	0.87	0.29	ug/L		10/23/12 13:38	1
Hexachlorocyclopentadiene	0.87	U	11	0.87	0.87	ug/L		10/23/12 13:38	1
Hexachloroethane	0.87	U	1.1	0.87	0.87	ug/L		10/23/12 13:38	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Isophorone	0.87	U	1.1	0.87	0.29	ug/L		10/23/12 13:38	1
2-Methylnaphthalene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
2-Methylphenol	0.87	U	1.1	0.87	0.87	ug/L		10/23/12 13:38	1
3 & 4 Methylphenol	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
Naphthalene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
2-Nitroaniline	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1
3-Nitroaniline	0.87	U	2.2	0.87	0.30	ug/L		10/23/12 13:38	1
4-Nitroaniline	0.87	U	2.2	0.87	0.87	ug/L		10/23/12 13:38	1

Client Sample ID: FWGFWGmw-001-0164-GW
Date Collected: 10/15/12 16:38
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-8
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.87	U	2.2	0.87	0.30	ug/L		10/23/12 13:38	1
4-Nitrophenol	2.6	U	5.4	2.6	2.6	ug/L		10/23/12 13:38	1
N-Nitrosodi-n-propylamine	0.87	U	1.1	0.87	0.87	ug/L		10/23/12 13:38	1
N-Nitrosodiphenylamine	0.87	U	1.1	0.87	0.34	ug/L		10/23/12 13:38	1
2,2'-oxybis[1-chloropropane]	0.87	U	1.1	0.87	0.43	ug/L		10/23/12 13:38	1
Pentachlorophenol	2.6	U	5.4	2.6	2.6	ug/L		10/23/12 13:38	1
Phenanthrene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
Phenol	0.87	U	1.1	0.87	0.65	ug/L		10/23/12 13:38	1
Pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/23/12 13:38	1
1,2,4-Trichlorobenzene	0.87	U	1.1	0.87	0.30	ug/L		10/23/12 13:38	1
2,4,5-Trichlorophenol	0.87	U	5.4	0.87	0.33	ug/L		10/23/12 13:38	1
2,4,6-Trichlorophenol	0.87	U	5.4	0.87	0.87	ug/L		10/23/12 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*50 - 110*	*10/18/12 10:24*	*10/23/12 13:38*	*1*
2-Fluorophenol (Surr)	*77*		*20 - 110*	*10/18/12 10:24*	*10/23/12 13:38*	*1*
Nitrobenzene-d5 (Surr)	*76*		*40 - 110*	*10/18/12 10:24*	*10/23/12 13:38*	*1*
Phenol-d5 (Surr)	*78*		*10 - 115*	*10/18/12 10:24*	*10/23/12 13:38*	*1*
Terphenyl-d14 (Surr)	*78*		*50 - 135*	*10/18/12 10:24*	*10/23/12 13:38*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*40 - 125*	*10/18/12 10:24*	*10/23/12 13:38*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/25/12 18:37	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/25/12 18:37	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/25/12 18:37	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/25/12 18:37	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/25/12 18:37	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 18:37	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/25/12 18:37	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/25/12 18:37	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/25/12 18:37	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 18:37	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 18:37	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 18:37	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 18:37	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 18:37	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/25/12 18:37	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/25/12 18:37	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 18:37	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/25/12 18:37	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/25/12 18:37	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/25/12 18:37	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/25/12 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*32*		*30 - 135*	*10/19/12 10:13*	*10/25/12 18:37*	*1*
DCB Decachlorobiphenyl	*31*		*30 - 135*	*10/19/12 10:13*	*10/25/12 18:37*	*1*
Tetrachloro-m-xylene	*66*		*25 - 140*	*10/19/12 10:13*	*10/25/12 18:37*	*1*
Tetrachloro-m-xylene	*66*		*25 - 140*	*10/19/12 10:13*	*10/25/12 18:37*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGFWGmw-001-0164-GW
Date Collected: 10/15/12 16:38
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-8
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.21	U H	0.53	0.21	0.18	ug/L		11/05/12 11:43	1
Aroclor-1221	0.21	U H	0.53	0.21	0.14	ug/L		11/05/12 11:43	1
Aroclor-1232	0.21	U H	0.53	0.21	0.17	ug/L		11/05/12 11:43	1
Aroclor-1242	0.42	U H	0.53	0.42	0.23	ug/L		11/05/12 11:43	1
Aroclor-1248	0.21	U H	0.53	0.21	0.11	ug/L		11/05/12 11:43	1
Aroclor-1254	0.21	U H	0.53	0.21	0.17	ug/L		11/05/12 11:43	1
Aroclor-1260	0.21	U H	0.53	0.21	0.18	ug/L		11/05/12 11:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*40 - 140*	*10/29/12 10:19*	*11/05/12 11:43*	*1*
Tetrachloro-m-xylene	*89*		*40 - 140*	*10/29/12 10:19*	*11/05/12 11:43*	*1*
DCB Decachlorobiphenyl	*56*		*40 - 135*	*10/29/12 10:19*	*11/05/12 11:43*	*1*
DCB Decachlorobiphenyl	*59*		*40 - 135*	*10/29/12 10:19*	*11/05/12 11:43*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 01:33	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.053	U	0.16	0.053	0.033	ug/L		10/29/12 16:23	1
1,3-Dinitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		10/29/12 16:23	1
2,4,6-Trinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		10/29/12 16:23	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		10/29/12 16:23	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		10/29/12 16:23	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.16	0.11	0.016	ug/L		10/29/12 16:23	1
2-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		10/29/12 16:23	1
3-Nitrotoluene	0.11	U	0.53	0.11	0.060	ug/L		10/29/12 16:23	1
4-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		10/29/12 16:23	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		10/29/12 16:23	1
HMX	0.053	U	0.16	0.053	0.038	ug/L		10/29/12 16:23	1
RDX	0.053	U	0.16	0.053	0.038	ug/L		10/29/12 16:23	1
Nitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		10/29/12 16:23	1
Tetryl	0.11	U	0.16	0.11	0.053	ug/L		10/29/12 16:23	1
Nitroglycerin	0.53	U	0.69	0.53	0.35	ug/L		10/29/12 16:23	1
PETN	0.53	U	0.69	0.53	0.32	ug/L		10/29/12 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/18/12 06:17*	*10/29/12 16:23*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:40	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:14	1

Client Sample ID: FWGFWGmw-001-0164-GF
Date Collected: 10/15/12 16:38
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-9
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:37	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:37	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 13:37	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:37	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:37	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:37	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 13:37	1
Barium	**17**	**J**	200	5.0	2.8	ug/L		10/23/12 13:37	1
Calcium	**21000**		5000	1000	630	ug/L		10/23/12 13:37	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:37	1
Magnesium	**6500**		5000	300	120	ug/L		10/23/12 13:37	1
Manganese	**12**	**J**	15	5.0	1.8	ug/L		10/23/12 13:37	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 13:37	1
Potassium	**1300**	**J**	5000	900	300	ug/L		10/23/12 13:37	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**100**		60	60	20	ug/L		10/29/12 13:06	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:08	1
Beryllium	**0.039**	**J**	1.0	0.10	0.033	ug/L		10/26/12 18:08	1
Cadmium	**0.032**	**J**	2.0	0.070	0.023	ug/L		10/26/12 18:08	1
Iron	**170**		150	100	44	ug/L		10/26/12 18:08	1
Sodium	**3200**		1000	400	160	ug/L		10/26/12 18:08	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:08	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:06	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:26	1

Client Sample ID: FWGEQUIPRINSE1-0212-GW
Date Collected: 10/15/12 17:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-10
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:22	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:22	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 14:22	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:22	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:22	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:22	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 14:22	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:22	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 14:22	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:22	1
Acetone	**17**		10	1.1	1.1	ug/L		10/23/12 14:22	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:22	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 14:22	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 14:22	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:22	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:22	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:22	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:22	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 14:22	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 14:22	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:22	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 14:22	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:22	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:22	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 14:22	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 14:22	1
2-Butanone (MEK)	**0.89**	**J**	10	0.57	0.57	ug/L		10/23/12 14:22	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 14:22	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 14:22	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 14:22	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 14:22	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:22	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:22	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:22	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:22	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:22	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:22	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 14:22	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 120*		*10/23/12 14:22*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/23/12 14:22*	*1*
Toluene-d8 (Surr)	*90*		*85 - 120*		*10/23/12 14:22*	*1*
Dibromofluoromethane (Surr)	*110*		*85 - 115*		*10/23/12 14:22*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Acenaphthylene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1

Client Sample ID: FWGEQUIPRINSE1-0212-GW
Date Collected: 10/15/12 17:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-10
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Benzo[a]anthracene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Benzo[a]pyrene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Benzo[b]fluoranthene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Benzo[g,h,i]perylene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Benzoic acid	9.8	U	25	9.8	9.8	ug/L		10/23/12 13:57	1
Benzo[k]fluoranthene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Benzyl alcohol	**4.2**	**J**	4.9	0.78	0.37	ug/L		10/23/12 13:57	1
Bis(2-chloroethoxy)methane	0.78	U	0.98	0.78	0.31	ug/L		10/23/12 13:57	1
Bis(2-chloroethyl)ether	0.098	U	0.98	0.098	0.098	ug/L		10/23/12 13:57	1
Bis(2-ethylhexyl) phthalate	**0.92**	**J**	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
4-Bromophenyl phenyl ether	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
Butyl benzyl phthalate	0.78	U	0.98	0.78	0.78	ug/L		10/23/12 13:57	1
Carbazole	0.78	U	0.98	0.78	0.27	ug/L		10/23/12 13:57	1
4-Chloroaniline	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
4-Chloro-3-methylphenol	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
2-Chloronaphthalene	0.098	U	0.98	0.098	0.098	ug/L		10/23/12 13:57	1
2-Chlorophenol	0.78	U	0.98	0.78	0.28	ug/L		10/23/12 13:57	1
4-Chlorophenyl phenyl ether	0.78	U	2.0	0.78	0.29	ug/L		10/23/12 13:57	1
Chrysene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Dibenz(a,h)anthracene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Dibenzofuran	0.098	U	0.98	0.098	0.098	ug/L		10/23/12 13:57	1
1,2-Dichlorobenzene	0.78	U	0.98	0.78	0.28	ug/L		10/23/12 13:57	1
1,3-Dichlorobenzene	0.78	U	0.98	0.78	0.78	ug/L		10/23/12 13:57	1
1,4-Dichlorobenzene	0.78	U	0.98	0.78	0.33	ug/L		10/23/12 13:57	1
3,3'-Dichlorobenzidine	0.78	U	4.9	0.78	0.36	ug/L		10/23/12 13:57	1
2,4-Dichlorophenol	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
Diethyl phthalate	0.78	U	0.98	0.78	0.59	ug/L		10/23/12 13:57	1
2,4-Dimethylphenol	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
Dimethyl phthalate	0.78	U	0.98	0.78	0.28	ug/L		10/23/12 13:57	1
Di-n-butyl phthalate	0.78	U	0.98	0.78	0.66	ug/L		10/23/12 13:57	1
4,6-Dinitro-2-methylphenol	2.4	U	4.9	2.4	2.4	ug/L		10/23/12 13:57	1
2,4-Dinitrophenol	2.4	U	4.9	2.4	2.4	ug/L		10/23/12 13:57	1
Di-n-octyl phthalate	0.78	U	0.98	0.78	0.78	ug/L		10/23/12 13:57	1
Fluoranthene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Fluorene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Hexachlorobenzene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Hexachlorobutadiene	0.78	U	0.98	0.78	0.26	ug/L		10/23/12 13:57	1
Hexachlorocyclopentadiene	0.78	U	9.8	0.78	0.78	ug/L		10/23/12 13:57	1
Hexachloroethane	0.78	U	0.98	0.78	0.78	ug/L		10/23/12 13:57	1
Indeno[1,2,3-cd]pyrene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Isophorone	0.78	U	0.98	0.78	0.26	ug/L		10/23/12 13:57	1
2-Methylnaphthalene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
2-Methylphenol	0.78	U	0.98	0.78	0.78	ug/L		10/23/12 13:57	1
3 & 4 Methylphenol	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
Naphthalene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
2-Nitroaniline	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1
3-Nitroaniline	0.78	U	2.0	0.78	0.27	ug/L		10/23/12 13:57	1
4-Nitroaniline	0.78	U	2.0	0.78	0.78	ug/L		10/23/12 13:57	1

Client Sample ID: FWGEQUIPRINSE1-0212-GW
Date Collected: 10/15/12 17:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-10
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.78	U	2.0	0.78	0.27	ug/L		10/23/12 13:57	1
4-Nitrophenol	2.4	U	4.9	2.4	2.4	ug/L		10/23/12 13:57	1
N-Nitrosodi-n-propylamine	0.78	U	0.98	0.78	0.78	ug/L		10/23/12 13:57	1
N-Nitrosodiphenylamine	0.78	U	0.98	0.78	0.30	ug/L		10/23/12 13:57	1
2,2'-oxybis[1-chloropropane]	0.78	U	0.98	0.78	0.39	ug/L		10/23/12 13:57	1
Pentachlorophenol	2.4	U	4.9	2.4	2.4	ug/L		10/23/12 13:57	1
Phenanthrene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
Phenol	**1.4**		0.98	0.78	0.59	ug/L		10/23/12 13:57	1
Pyrene	0.098	U	0.20	0.098	0.098	ug/L		10/23/12 13:57	1
1,2,4-Trichlorobenzene	0.78	U	0.98	0.78	0.27	ug/L		10/23/12 13:57	1
2,4,5-Trichlorophenol	0.78	U	4.9	0.78	0.29	ug/L		10/23/12 13:57	1
2,4,6-Trichlorophenol	0.78	U	4.9	0.78	0.78	ug/L		10/23/12 13:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*50 - 110*	*10/18/12 10:24*	*10/23/12 13:57*	*1*
2-Fluorophenol (Surr)	*78*		*20 - 110*	*10/18/12 10:24*	*10/23/12 13:57*	*1*
Nitrobenzene-d5 (Surr)	*79*		*40 - 110*	*10/18/12 10:24*	*10/23/12 13:57*	*1*
Phenol-d5 (Surr)	*79*		*10 - 115*	*10/18/12 10:24*	*10/23/12 13:57*	*1*
Terphenyl-d14 (Surr)	*82*		*50 - 135*	*10/18/12 10:24*	*10/23/12 13:57*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*40 - 125*	*10/18/12 10:24*	*10/23/12 13:57*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0099	U	0.050	0.0099	0.0095	ug/L		10/25/12 19:01	1
4,4'-DDE	0.0099	U	0.050	0.0099	0.0096	ug/L		10/25/12 19:01	1
4,4'-DDT	0.030	U	0.050	0.030	0.016	ug/L		10/25/12 19:01	1
Aldrin	0.0099	U	0.030	0.0099	0.0081	ug/L		10/25/12 19:01	1
alpha-BHC	0.0099	U	0.030	0.0099	0.0069	ug/L		10/25/12 19:01	1
alpha-Chlordane	0.014	U	0.050	0.014	0.014	ug/L		10/25/12 19:01	1
beta-BHC	0.0099	U	0.050	0.0099	0.0083	ug/L		10/25/12 19:01	1
delta-BHC	0.0099	U	0.050	0.0099	0.0086	ug/L		10/25/12 19:01	1
Dieldrin	0.0099	U	0.030	0.0099	0.0074	ug/L		10/25/12 19:01	1
Endosulfan I	0.013	U	0.050	0.013	0.013	ug/L		10/25/12 19:01	1
Endosulfan II	0.012	U	0.050	0.012	0.012	ug/L		10/25/12 19:01	1
Endosulfan sulfate	0.011	U	0.050	0.011	0.011	ug/L		10/25/12 19:01	1
Endrin	0.011	U	0.050	0.011	0.011	ug/L		10/25/12 19:01	1
Endrin aldehyde	0.011	U	0.050	0.011	0.011	ug/L		10/25/12 19:01	1
Endrin ketone	0.0099	U	0.050	0.0099	0.0077	ug/L		10/25/12 19:01	1
gamma-BHC (Lindane)	0.0099	U	0.050	0.0099	0.0063	ug/L		10/25/12 19:01	1
gamma-Chlordane	0.012	U	0.050	0.012	0.012	ug/L		10/25/12 19:01	1
Heptachlor	0.0099	U	0.030	0.0099	0.0079	ug/L		10/25/12 19:01	1
Heptachlor epoxide	0.0099	U	0.030	0.0099	0.0070	ug/L		10/25/12 19:01	1
Methoxychlor	0.032	U	0.099	0.032	0.032	ug/L		10/25/12 19:01	1
Toxaphene	0.50	U	2.0	0.50	0.32	ug/L		10/25/12 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*30 - 135*	*10/19/12 10:13*	*10/25/12 19:01*	*1*
DCB Decachlorobiphenyl	*97*	*M*	*30 - 135*	*10/19/12 10:13*	*10/25/12 19:01*	*1*
Tetrachloro-m-xylene	*82*		*25 - 140*	*10/19/12 10:13*	*10/25/12 19:01*	*1*
Tetrachloro-m-xylene	*87*		*25 - 140*	*10/19/12 10:13*	*10/25/12 19:01*	*1*

Client Sample ID: FWGEQUIPRINSE1-0212-GW
Date Collected: 10/15/12 17:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-10
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.20	U	0.50	0.20	0.17	ug/L		10/23/12 14:42	1
Aroclor-1221	0.20	U	0.50	0.20	0.13	ug/L		10/23/12 14:42	1
Aroclor-1232	0.20	U	0.50	0.20	0.16	ug/L		10/23/12 14:42	1
Aroclor-1242	0.40	U	0.50	0.40	0.22	ug/L		10/23/12 14:42	1
Aroclor-1248	0.20	U	0.50	0.20	0.099	ug/L		10/23/12 14:42	1
Aroclor-1254	0.20	U	0.50	0.20	0.16	ug/L		10/23/12 14:42	1
Aroclor-1260	0.20	U	0.50	0.20	0.17	ug/L		10/23/12 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*40 - 140*	*10/19/12 10:23*	*10/23/12 14:42*	*1*
Tetrachloro-m-xylene	*81*		*40 - 140*	*10/19/12 10:23*	*10/23/12 14:42*	*1*
DCB Decachlorobiphenyl	*67*		*40 - 135*	*10/19/12 10:23*	*10/23/12 14:42*	*1*
DCB Decachlorobiphenyl	*70*		*40 - 135*	*10/19/12 10:23*	*10/23/12 14:42*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U M	20	6.0	2.4	ug/L		11/03/12 01:48	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		10/29/12 17:04	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:04	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:04	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 17:04	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 17:04	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 17:04	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 17:04	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/29/12 17:04	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 17:04	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:04	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 17:04	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 17:04	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:04	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/24/12 00:03	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		10/29/12 17:04	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		10/29/12 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*140*	*J Q*	*79 - 111*	*10/18/12 06:17*	*10/24/12 00:03*	*1*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/18/12 06:17*	*10/29/12 17:04*	*1*

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:41	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:41	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 13:41	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:41	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:41	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:41	1
Vanadium	**1.6**	**J**	7.0	4.0	1.3	ug/L		10/23/12 13:41	1
Barium	5.0	U	200	5.0	2.8	ug/L		10/23/12 13:41	1

Client Sample ID: FWGEQUIPRINSE1-0212-GW
Date Collected: 10/15/12 17:18
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-10
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Calcium	1000	U	5000	1000	630	ug/L		10/23/12 13:41	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:41	1
Magnesium	300	U	5000	300	120	ug/L		10/23/12 13:41	1
Manganese	5.0	U	15	5.0	1.8	ug/L		10/23/12 13:41	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 13:41	1
Potassium	900	U	5000	900	300	ug/L		10/23/12 13:41	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 13:12	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:14	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 18:14	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 18:14	1
Iron	100	U	150	100	44	ug/L		10/26/12 18:14	1
Sodium	400	U	1000	400	160	ug/L		10/26/12 18:14	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:14	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:12	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:24	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:40	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:16	1

Client Sample ID: FWG TEAM #1 TRIP
Date Collected: 10/15/12 12:00
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-11
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:44	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:44	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 14:44	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:44	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:44	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:44	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 14:44	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:44	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 14:44	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:44	1
Acetone	**1.9**	**J**	10	1.1	1.1	ug/L		10/23/12 14:44	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:44	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 14:44	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 14:44	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:44	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:44	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:44	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:44	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 14:44	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 14:44	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:44	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 14:44	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 14:44	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:44	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 14:44	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 14:44	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 14:44	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 14:44	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 14:44	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 14:44	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 14:44	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 14:44	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 14:44	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:44	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 14:44	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 14:44	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 14:44	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 14:44	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 120*		*10/23/12 14:44*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/23/12 14:44*	*1*
Toluene-d8 (Surr)	*86*		*85 - 120*		*10/23/12 14:44*	*1*
Dibromofluoromethane (Surr)	*111*		*85 - 115*		*10/23/12 14:44*	*1*

Client Sample ID: FWGEBGmw-131-0163-GW — **Lab Sample ID: 240-16425-12**

Date Collected: 10/15/12 13:00 — **Matrix: Water**

Date Received: 10/16/12 09:00

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 15:06	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 15:06	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 15:06	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 15:06	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 15:06	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 15:06	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 15:06	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 15:06	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 15:06	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 15:06	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 15:06	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 15:06	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 15:06	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 15:06	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 15:06	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 15:06	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 15:06	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 15:06	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 15:06	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 15:06	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 15:06	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 15:06	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 15:06	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 15:06	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 15:06	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 15:06	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 15:06	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 15:06	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 15:06	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 15:06	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 15:06	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 15:06	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 15:06	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 15:06	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 15:06	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 15:06	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 15:06	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 15:06	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 120*		*10/23/12 15:06*	*1*
4-Bromofluorobenzene (Surr)	*79*		*75 - 120*		*10/23/12 15:06*	*1*
Toluene-d8 (Surr)	*85*		*85 - 120*		*10/23/12 15:06*	*1*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*10/23/12 15:06*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1

Client Sample ID: FWGEBGmw-131-0163-GW
Date Collected: 10/15/12 13:00
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-12
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/23/12 14:17	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/23/12 14:17	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 14:17	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 14:17	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:17	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 14:17	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 14:17	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 14:17	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/23/12 14:17	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 14:17	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 14:17	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:17	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/23/12 14:17	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/23/12 14:17	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 14:17	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 14:17	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/23/12 14:17	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:17	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:17	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:17	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 14:17	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/23/12 14:17	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:17	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 14:17	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:17	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 14:17	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:17	1

Client Sample ID: FWGEBGmw-131-0163-GW
Date Collected: 10/15/12 13:00
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-12
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 14:17	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:17	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:17	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 14:17	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/23/12 14:17	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:17	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 14:17	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:17	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 14:17	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/23/12 14:17	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/23/12 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*		*50 - 110*	*10/18/12 10:24*	*10/23/12 14:17*	*1*
2-Fluorophenol (Surr)	*85*		*20 - 110*	*10/18/12 10:24*	*10/23/12 14:17*	*1*
Nitrobenzene-d5 (Surr)	*80*		*40 - 110*	*10/18/12 10:24*	*10/23/12 14:17*	*1*
Phenol-d5 (Surr)	*83*		*10 - 115*	*10/18/12 10:24*	*10/23/12 14:17*	*1*
Terphenyl-d14 (Surr)	*84*		*50 - 135*	*10/18/12 10:24*	*10/23/12 14:17*	*1*
2,4,6-Tribromophenol (Surr)	*82*		*40 - 125*	*10/18/12 10:24*	*10/23/12 14:17*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/25/12 19:24	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/25/12 19:24	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/25/12 19:24	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/25/12 19:24	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/25/12 19:24	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 19:24	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/25/12 19:24	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/25/12 19:24	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/25/12 19:24	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 19:24	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 19:24	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 19:24	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 19:24	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 19:24	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/25/12 19:24	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/25/12 19:24	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 19:24	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/25/12 19:24	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/25/12 19:24	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/25/12 19:24	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/25/12 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*31*		*30 - 135*	*10/19/12 10:13*	*10/25/12 19:24*	*1*
DCB Decachlorobiphenyl	*31*		*30 - 135*	*10/19/12 10:13*	*10/25/12 19:24*	*1*
Tetrachloro-m-xylene	*71*		*25 - 140*	*10/19/12 10:13*	*10/25/12 19:24*	*1*
Tetrachloro-m-xylene	*72*		*25 - 140*	*10/19/12 10:13*	*10/25/12 19:24*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGEBGmw-131-0163-GW
Date Collected: 10/15/12 13:00
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-12
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.20	U H	0.50	0.20	0.17	ug/L		11/05/12 11:58	1
Aroclor-1221	0.20	U H	0.50	0.20	0.13	ug/L		11/05/12 11:58	1
Aroclor-1232	0.20	U H	0.50	0.20	0.16	ug/L		11/05/12 11:58	1
Aroclor-1242	0.40	U H	0.50	0.40	0.22	ug/L		11/05/12 11:58	1
Aroclor-1248	0.20	U H	0.50	0.20	0.10	ug/L		11/05/12 11:58	1
Aroclor-1254	0.20	U H	0.50	0.20	0.16	ug/L		11/05/12 11:58	1
Aroclor-1260	0.20	U H	0.50	0.20	0.17	ug/L		11/05/12 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*40 - 140*	*10/29/12 10:19*	*11/05/12 11:58*	*1*
Tetrachloro-m-xylene	*87*		*40 - 140*	*10/29/12 10:19*	*11/05/12 11:58*	*1*
DCB Decachlorobiphenyl	*77*		*40 - 135*	*10/29/12 10:19*	*11/05/12 11:58*	*1*
DCB Decachlorobiphenyl	*81*		*40 - 135*	*10/29/12 10:19*	*11/05/12 11:58*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 02:02	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		10/29/12 17:44	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:44	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:44	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 17:44	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 17:44	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 17:44	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/29/12 17:44	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/29/12 17:44	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/29/12 17:44	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:44	1
HMX	0.051	U	0.15	0.051	0.036	ug/L		10/29/12 17:44	1
RDX	0.051	U	0.15	0.051	0.036	ug/L		10/29/12 17:44	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:44	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 17:44	1
Nitroglycerin	0.51	U	0.66	0.51	0.33	ug/L		10/29/12 17:44	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		10/29/12 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*93*		*79 - 111*	*10/18/12 06:17*	*10/29/12 17:44*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:40	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:18	1

Client Sample ID: FWGEBGmw-131-0163-GF
Date Collected: 10/15/12 13:00
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-13
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:44	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:44	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 13:44	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:44	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:44	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:44	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 13:44	1
Barium	**99**	**J**	200	5.0	2.8	ug/L		10/23/12 13:44	1
Calcium	**73000**		5000	1000	630	ug/L		10/23/12 13:44	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:44	1
Magnesium	**28000**		5000	300	120	ug/L		10/23/12 13:44	1
Manganese	**130**		15	5.0	1.8	ug/L		10/23/12 13:44	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 13:44	1
Potassium	**1400**	**J**	5000	900	300	ug/L		10/23/12 13:44	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 13:17	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:19	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 18:19	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 18:19	1
Iron	**650**		150	100	44	ug/L		10/26/12 18:19	1
Sodium	**2600**		1000	400	160	ug/L		10/26/12 18:19	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:19	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:17	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 19:57	1

Client Sample ID: FWGFWGmw-010-0173-GW
Date Collected: 10/15/12 14:55
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-14
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 15:29	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 15:29	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 15:29	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 15:29	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 15:29	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 15:29	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 15:29	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 15:29	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 15:29	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 15:29	1
Acetone	**2.3**	**J**	10	1.1	1.1	ug/L		10/23/12 15:29	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 15:29	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 15:29	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 15:29	1
Carbon disulfide	**0.33**	**J**	1.0	0.25	0.13	ug/L		10/23/12 15:29	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 15:29	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 15:29	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 15:29	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 15:29	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 15:29	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 15:29	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 15:29	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 15:29	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 15:29	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 15:29	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 15:29	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 15:29	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 15:29	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 15:29	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 15:29	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 15:29	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 15:29	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 15:29	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 15:29	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 15:29	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 15:29	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 15:29	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 15:29	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 120*		*10/23/12 15:29*	*1*
4-Bromofluorobenzene (Surr)	*85*		*75 - 120*		*10/23/12 15:29*	*1*
Toluene-d8 (Surr)	*94*		*85 - 120*		*10/23/12 15:29*	*1*
Dibromofluoromethane (Surr)	*114*		*85 - 115*		*10/23/12 15:29*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGFWGmw-010-0173-GW
Date Collected: 10/15/12 14:55
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-14
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/23/12 14:36	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/23/12 14:36	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 14:36	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 14:36	1
Bis(2-ethylhexyl) phthalate	**40**		1.9	0.76	0.76	ug/L		10/23/12 14:36	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:36	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 14:36	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 14:36	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 14:36	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/23/12 14:36	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 14:36	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 14:36	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:36	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/23/12 14:36	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/23/12 14:36	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 14:36	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 14:36	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/23/12 14:36	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:36	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:36	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:36	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 14:36	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/23/12 14:36	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:36	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 14:36	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:36	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 14:36	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 14:36	1

Client Sample ID: FWGFWGmw-010-0173-GW
Date Collected: 10/15/12 14:55
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-14
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 14:36	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:36	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 14:36	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 14:36	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/23/12 14:36	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 14:36	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 14:36	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 14:36	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 14:36	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/23/12 14:36	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/23/12 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*50 - 110*	*10/18/12 10:24*	*10/23/12 14:36*	*1*
2-Fluorophenol (Surr)	*83*		*20 - 110*	*10/18/12 10:24*	*10/23/12 14:36*	*1*
Nitrobenzene-d5 (Surr)	*79*		*40 - 110*	*10/18/12 10:24*	*10/23/12 14:36*	*1*
Phenol-d5 (Surr)	*82*		*10 - 115*	*10/18/12 10:24*	*10/23/12 14:36*	*1*
Terphenyl-d14 (Surr)	*77*		*50 - 135*	*10/18/12 10:24*	*10/23/12 14:36*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*40 - 125*	*10/18/12 10:24*	*10/23/12 14:36*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/25/12 19:48	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/25/12 19:48	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/25/12 19:48	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/25/12 19:48	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/25/12 19:48	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 19:48	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/25/12 19:48	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/25/12 19:48	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/25/12 19:48	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 19:48	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 19:48	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 19:48	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 19:48	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 19:48	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/25/12 19:48	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/25/12 19:48	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 19:48	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/25/12 19:48	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/25/12 19:48	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/25/12 19:48	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/25/12 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*52*		*30 - 135*	*10/19/12 10:13*	*10/25/12 19:48*	*1*
DCB Decachlorobiphenyl	*52*		*30 - 135*	*10/19/12 10:13*	*10/25/12 19:48*	*1*
Tetrachloro-m-xylene	*71*		*25 - 140*	*10/19/12 10:13*	*10/25/12 19:48*	*1*
Tetrachloro-m-xylene	*71*		*25 - 140*	*10/19/12 10:13*	*10/25/12 19:48*	*1*

Client Sample ID: FWGFWGmw-010-0173-GW
Date Collected: 10/15/12 14:55
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-14
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 15:12	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 15:12	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 15:12	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 15:12	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 15:12	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 15:12	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*40 - 140*	*10/19/12 10:23*	*10/23/12 15:12*	*1*
Tetrachloro-m-xylene	*79*		*40 - 140*	*10/19/12 10:23*	*10/23/12 15:12*	*1*
DCB Decachlorobiphenyl	*36*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 15:12*	*1*
DCB Decachlorobiphenyl	*37*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 15:12*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 02:16	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		10/29/12 18:24	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 18:24	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 18:24	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 18:24	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 18:24	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 18:24	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 18:24	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/29/12 18:24	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 18:24	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 18:24	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 18:24	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 18:24	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 18:24	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/24/12 01:08	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		10/29/12 18:24	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		10/29/12 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*87*		*79 - 111*	*10/18/12 06:17*	*10/24/12 01:08*	*1*
3,4-Dinitrotoluene	*90*		*79 - 111*	*10/18/12 06:17*	*10/29/12 18:24*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:20	1

Client Sample ID: FWGFWGmw-010-0173-GF
Date Collected: 10/15/12 14:55
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-15
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**11**		10	10	3.3	ug/L		10/23/12 13:48	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:48	1
Cobalt	**15**		7.0	4.0	1.5	ug/L		10/23/12 13:48	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:48	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:48	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:48	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 13:48	1
Barium	**41**	**J**	200	5.0	2.8	ug/L		10/23/12 13:48	1
Calcium	**9300**		5000	1000	630	ug/L		10/23/12 13:48	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:48	1
Magnesium	**4500**	**J**	5000	300	120	ug/L		10/23/12 13:48	1
Manganese	**1700**		15	5.0	1.8	ug/L		10/23/12 13:48	1
Nickel	**21**	**J**	40	5.0	2.2	ug/L		10/23/12 13:48	1
Potassium	**2700**	**J**	5000	900	300	ug/L		10/23/12 13:48	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 13:22	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:25	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 18:25	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 18:25	1
Iron	**35000**		150	100	44	ug/L		10/26/12 18:25	1
Sodium	**2500**		1000	400	160	ug/L		10/26/12 18:25	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:25	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:22	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 19:59	1

Client Sample ID: FWG TEAM3-TRIP
Date Collected: 10/15/12 10:00
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-16
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 12:38	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 12:38	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 12:38	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 12:38	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 12:38	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 12:38	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 12:38	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 12:38	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 12:38	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 12:38	1
Acetone	**1.5**	**J**	10	1.1	1.1	ug/L		10/24/12 12:38	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:38	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 12:38	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 12:38	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:38	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:38	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 12:38	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 12:38	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 12:38	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 12:38	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 12:38	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 12:38	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 12:38	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 12:38	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 12:38	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 12:38	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 12:38	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 12:38	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 12:38	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 12:38	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 12:38	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 12:38	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:38	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 12:38	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 12:38	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 12:38	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 12:38	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 12:38	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 120*		*10/24/12 12:38*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 120*		*10/24/12 12:38*	*1*
Toluene-d8 (Surr)	*85*		*85 - 120*		*10/24/12 12:38*	*1*
Dibromofluoromethane (Surr)	*105*		*85 - 115*		*10/24/12 12:38*	*1*

Client Sample ID: FWGFWGmw-012-0175-GW — **Lab Sample ID: 240-16425-17**

Date Collected: 10/15/12 13:03 — **Matrix: Water**

Date Received: 10/16/12 09:00

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 12:30	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 12:30	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 12:30	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 12:30	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 12:30	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 12:30	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 12:30	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 12:30	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 12:30	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 12:30	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 12:30	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:30	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 12:30	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 12:30	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:30	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:30	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 12:30	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 12:30	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 12:30	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 12:30	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 12:30	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 12:30	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 12:30	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 12:30	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 12:30	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 12:30	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 12:30	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 12:30	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 12:30	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 12:30	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 12:30	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 12:30	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 12:30	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 12:30	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 12:30	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 12:30	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 12:30	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 12:30	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 120*		*10/23/12 12:30*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/23/12 12:30*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/23/12 12:30*	*1*
Dibromofluoromethane (Surr)	*108*		*85 - 115*		*10/23/12 12:30*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Acenaphthylene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1

Client Sample ID: FWGFWGmw-012-0175-GW
Date Collected: 10/15/12 13:03
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-17
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Benzo[a]anthracene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Benzo[a]pyrene	0.095	U H J	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Benzo[b]fluoranthene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Benzo[g,h,i]perylene	0.095	U H J	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Benzoic acid	9.5	U H	24	9.5	9.5	ug/L		10/28/12 12:48	1
Benzo[k]fluoranthene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Benzyl alcohol	0.76	U H	4.8	0.76	0.36	ug/L		10/28/12 12:48	1
Bis(2-chloroethoxy)methane	0.76	U H	0.95	0.76	0.30	ug/L		10/28/12 12:48	1
Bis(2-chloroethyl)ether	0.095	U H	0.95	0.095	0.095	ug/L		10/28/12 12:48	1
Bis(2-ethylhexyl) phthalate	**2.8**	**H B J**	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
4-Bromophenyl phenyl ether	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
Butyl benzyl phthalate	0.76	U H	0.95	0.76	0.76	ug/L		10/28/12 12:48	1
Carbazole	0.76	U H	0.95	0.76	0.27	ug/L		10/28/12 12:48	1
4-Chloroaniline	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
4-Chloro-3-methylphenol	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
2-Chloronaphthalene	0.095	U H	0.95	0.095	0.095	ug/L		10/28/12 12:48	1
2-Chlorophenol	0.76	U H	0.95	0.76	0.28	ug/L		10/28/12 12:48	1
4-Chlorophenyl phenyl ether	0.76	U H	1.9	0.76	0.29	ug/L		10/28/12 12:48	1
Chrysene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Dibenz(a,h)anthracene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Dibenzofuran	0.095	U H	0.95	0.095	0.095	ug/L		10/28/12 12:48	1
1,2-Dichlorobenzene	0.76	U H	0.95	0.76	0.28	ug/L		10/28/12 12:48	1
1,3-Dichlorobenzene	0.76	U H	0.95	0.76	0.76	ug/L		10/28/12 12:48	1
1,4-Dichlorobenzene	0.76	U H	0.95	0.76	0.32	ug/L		10/28/12 12:48	1
3,3'-Dichlorobenzidine	0.76	U H J	4.8	0.76	0.35	ug/L		10/28/12 12:48	1
2,4-Dichlorophenol	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
Diethyl phthalate	0.76	U H	0.95	0.76	0.57	ug/L		10/28/12 12:48	1
2,4-Dimethylphenol	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
Dimethyl phthalate	0.76	U H	0.95	0.76	0.28	ug/L		10/28/12 12:48	1
Di-n-butyl phthalate	0.76	U H	0.95	0.76	0.64	ug/L		10/28/12 12:48	1
4,6-Dinitro-2-methylphenol	2.3	U H	4.8	2.3	2.3	ug/L		10/28/12 12:48	1
2,4-Dinitrophenol	2.3	U H	4.8	2.3	2.3	ug/L		10/28/12 12:48	1
Di-n-octyl phthalate	0.76	U H J	0.95	0.76	0.76	ug/L		10/28/12 12:48	1
Fluoranthene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Fluorene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Hexachlorobenzene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Hexachlorobutadiene	0.76	U H	0.95	0.76	0.26	ug/L		10/28/12 12:48	1
Hexachlorocyclopentadiene	0.76	U H	9.5	0.76	0.76	ug/L		10/28/12 12:48	1
Hexachloroethane	0.76	U H	0.95	0.76	0.76	ug/L		10/28/12 12:48	1
Indeno[1,2,3-cd]pyrene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Isophorone	0.76	U H	0.95	0.76	0.26	ug/L		10/28/12 12:48	1
2-Methylnaphthalene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
2-Methylphenol	0.76	U H	0.95	0.76	0.76	ug/L		10/28/12 12:48	1
3 & 4 Methylphenol	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
Naphthalene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
2-Nitroaniline	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1
3-Nitroaniline	0.76	U H	1.9	0.76	0.27	ug/L		10/28/12 12:48	1
4-Nitroaniline	0.76	U H	1.9	0.76	0.76	ug/L		10/28/12 12:48	1

Client Sample ID: FWGFWGmw-012-0175-GW
Date Collected: 10/15/12 13:03
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-17
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U H	1.9	0.76	0.27	ug/L		10/28/12 12:48	1
4-Nitrophenol	2.3	U H	4.8	2.3	2.3	ug/L		10/28/12 12:48	1
N-Nitrosodi-n-propylamine	0.76	U H	0.95	0.76	0.76	ug/L		10/28/12 12:48	1
N-Nitrosodiphenylamine	0.76	U H J	0.95	0.76	0.30	ug/L		10/28/12 12:48	1
2,2'-oxybis[1-chloropropane]	0.76	U H	0.95	0.76	0.38	ug/L		10/28/12 12:48	1
Pentachlorophenol	2.3	U H	4.8	2.3	2.3	ug/L		10/28/12 12:48	1
Phenanthrene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
Phenol	0.76	U H	0.95	0.76	0.57	ug/L		10/28/12 12:48	1
Pyrene	0.095	U H	0.19	0.095	0.095	ug/L		10/28/12 12:48	1
1,2,4-Trichlorobenzene	0.76	U H	0.95	0.76	0.27	ug/L		10/28/12 12:48	1
2,4,5-Trichlorophenol	0.76	U H	4.8	0.76	0.29	ug/L		10/28/12 12:48	1
2,4,6-Trichlorophenol	0.76	U H	4.8	0.76	0.76	ug/L		10/28/12 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*50 - 110*	*10/25/12 10:35*	*10/28/12 12:48*	*1*
2-Fluorophenol (Surr)	*70*		*20 - 110*	*10/25/12 10:35*	*10/28/12 12:48*	*1*
Nitrobenzene-d5 (Surr)	*73*		*40 - 110*	*10/25/12 10:35*	*10/28/12 12:48*	*1*
Phenol-d5 (Surr)	*74*		*10 - 115*	*10/25/12 10:35*	*10/28/12 12:48*	*1*
Terphenyl-d14 (Surr)	*66*		*50 - 135*	*10/25/12 10:35*	*10/28/12 12:48*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*40 - 125*	*10/25/12 10:35*	*10/28/12 12:48*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/25/12 20:11	1
4,4'-DDE	0.0095	U J	0.048	0.0095	0.0092	ug/L		10/25/12 20:11	1
4,4'-DDT	0.029	U J	0.048	0.029	0.015	ug/L		10/25/12 20:11	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/25/12 20:11	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/25/12 20:11	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 20:11	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/25/12 20:11	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/25/12 20:11	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/25/12 20:11	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 20:11	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 20:11	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 20:11	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 20:11	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 20:11	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/25/12 20:11	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/25/12 20:11	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 20:11	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/25/12 20:11	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/25/12 20:11	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/25/12 20:11	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/25/12 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*50*		*30 - 135*	*10/19/12 10:13*	*10/25/12 20:11*	*1*
DCB Decachlorobiphenyl	*41*		*30 - 135*	*10/19/12 10:13*	*10/25/12 20:11*	*1*
Tetrachloro-m-xylene	*76*		*25 - 140*	*10/19/12 10:13*	*10/25/12 20:11*	*1*
Tetrachloro-m-xylene	*73*		*25 - 140*	*10/19/12 10:13*	*10/25/12 20:11*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGFWGmw-012-0175-GW
Date Collected: 10/15/12 13:03
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-17
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H J	0.48	0.19	0.16	ug/L		11/05/12 12:57	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/05/12 12:57	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 12:57	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/05/12 12:57	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/05/12 12:57	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 12:57	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*40 - 140*	*10/29/12 10:19*	*11/05/12 12:57*	*1*
Tetrachloro-m-xylene	*87*		*40 - 140*	*10/29/12 10:19*	*11/05/12 12:57*	*1*
DCB Decachlorobiphenyl	*54*		*40 - 135*	*10/29/12 10:19*	*11/05/12 12:57*	*1*
DCB Decachlorobiphenyl	*60*		*40 - 135*	*10/29/12 10:19*	*11/05/12 12:57*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 02:31	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		10/29/12 19:44	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 19:44	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 19:44	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 19:44	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 19:44	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 19:44	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 19:44	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.059	ug/L		10/29/12 19:44	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 19:44	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 19:44	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 19:44	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 19:44	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 19:44	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 19:44	1
Nitroglycerin	0.51	U	0.67	0.51	0.34	ug/L		10/29/12 19:44	1
PETN	0.51	U	0.67	0.51	0.31	ug/L		10/29/12 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/18/12 06:17*	*10/29/12 19:44*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/07/12 13:38	1

Client Sample ID: FWGFWGmw-012-0175-GF
Lab Sample ID: 240-16425-18
Date Collected: 10/15/12 13:03
Matrix: Water
Date Received: 10/16/12 09:00

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 12:59	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 12:59	1
Cobalt	**1.5**	**J**	7.0	4.0	1.5	ug/L		10/23/12 12:59	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 12:59	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 12:59	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 12:59	1
Vanadium	**1.4**	**J**	7.0	4.0	1.3	ug/L		10/23/12 12:59	1
Barium	**22**	**J**	200	5.0	2.8	ug/L		10/23/12 12:59	1
Calcium	**25000**		5000	1000	630	ug/L		10/23/12 12:59	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 12:59	1
Magnesium	**5700**		5000	300	120	ug/L		10/23/12 12:59	1
Manganese	**110**		15	5.0	1.8	ug/L		10/23/12 12:59	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 12:59	1
Potassium	**890**	**J**	5000	900	300	ug/L		10/23/12 12:59	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 12:08	1
Antimony	**0.27**	**J**	2.0	0.50	0.21	ug/L		10/26/12 17:04	1
Beryllium	**0.16**	**J**	1.0	0.10	0.033	ug/L		10/26/12 17:04	1
Cadmium	**0.22**	**J**	2.0	0.070	0.023	ug/L		10/26/12 17:04	1
Iron	**2300**		150	100	44	ug/L		10/26/12 17:04	1
Sodium	**7000**		1000	400	160	ug/L		10/26/12 17:04	1
Thallium	**0.98**	**J**	2.0	1.0	0.32	ug/L		10/26/12 17:04	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 12:08	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 19:51	1

Client Sample ID: FWGFWGmw-011-0174-GW
Date Collected: 10/15/12 14:53
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-19
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 16:14	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 16:14	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 16:14	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 16:14	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 16:14	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 16:14	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 16:14	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 16:14	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 16:14	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 16:14	1
Acetone	**1.2**	**J**	10	1.1	1.1	ug/L		10/23/12 16:14	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 16:14	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 16:14	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 16:14	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 16:14	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 16:14	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 16:14	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 16:14	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 16:14	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 16:14	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 16:14	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 16:14	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 16:14	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 16:14	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 16:14	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 16:14	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 16:14	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 16:14	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 16:14	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 16:14	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 16:14	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 16:14	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 16:14	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 16:14	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 16:14	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 16:14	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 16:14	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 16:14	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/23/12 16:14*	*1*
4-Bromofluorobenzene (Surr)	*80*		*75 - 120*		*10/23/12 16:14*	*1*
Toluene-d8 (Surr)	*91*		*85 - 120*		*10/23/12 16:14*	*1*
Dibromofluoromethane (Surr)	*112*		*85 - 115*		*10/23/12 16:14*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Acenaphthylene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1

Client Sample ID: FWGFWGmw-011-0174-GW
Lab Sample ID: 240-16425-19
Date Collected: 10/15/12 14:53
Matrix: Water
Date Received: 10/16/12 09:00

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Benzo[a]anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Benzo[a]pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Benzo[b]fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Benzo[g,h,i]perylene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Benzoic acid	10	U	25	10	10	ug/L		10/23/12 14:55	1
Benzo[k]fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Benzyl alcohol	0.80	U	5.0	0.80	0.38	ug/L		10/23/12 14:55	1
Bis(2-chloroethoxy)methane	0.80	U	1.0	0.80	0.32	ug/L		10/23/12 14:55	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	0.10	ug/L		10/23/12 14:55	1
Bis(2-ethylhexyl) phthalate	**1.1**	**J**	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
4-Bromophenyl phenyl ether	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
Butyl benzyl phthalate	0.80	U	1.0	0.80	0.80	ug/L		10/23/12 14:55	1
Carbazole	0.80	U	1.0	0.80	0.28	ug/L		10/23/12 14:55	1
4-Chloroaniline	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
4-Chloro-3-methylphenol	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
2-Chloronaphthalene	0.10	U	1.0	0.10	0.10	ug/L		10/23/12 14:55	1
2-Chlorophenol	0.80	U	1.0	0.80	0.29	ug/L		10/23/12 14:55	1
4-Chlorophenyl phenyl ether	0.80	U	2.0	0.80	0.30	ug/L		10/23/12 14:55	1
Chrysene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Dibenz(a,h)anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Dibenzofuran	0.10	U	1.0	0.10	0.10	ug/L		10/23/12 14:55	1
1,2-Dichlorobenzene	0.80	U	1.0	0.80	0.29	ug/L		10/23/12 14:55	1
1,3-Dichlorobenzene	0.80	U	1.0	0.80	0.80	ug/L		10/23/12 14:55	1
1,4-Dichlorobenzene	0.80	U	1.0	0.80	0.34	ug/L		10/23/12 14:55	1
3,3'-Dichlorobenzidine	0.80	U	5.0	0.80	0.37	ug/L		10/23/12 14:55	1
2,4-Dichlorophenol	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
Diethyl phthalate	0.80	U	1.0	0.80	0.60	ug/L		10/23/12 14:55	1
2,4-Dimethylphenol	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
Dimethyl phthalate	0.80	U	1.0	0.80	0.29	ug/L		10/23/12 14:55	1
Di-n-butyl phthalate	0.80	U	1.0	0.80	0.67	ug/L		10/23/12 14:55	1
4,6-Dinitro-2-methylphenol	2.4	U	5.0	2.4	2.4	ug/L		10/23/12 14:55	1
2,4-Dinitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/23/12 14:55	1
Di-n-octyl phthalate	0.80	U	1.0	0.80	0.80	ug/L		10/23/12 14:55	1
Fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Fluorene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Hexachlorobenzene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Hexachlorobutadiene	0.80	U	1.0	0.80	0.27	ug/L		10/23/12 14:55	1
Hexachlorocyclopentadiene	0.80	U	10	0.80	0.80	ug/L		10/23/12 14:55	1
Hexachloroethane	0.80	U	1.0	0.80	0.80	ug/L		10/23/12 14:55	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Isophorone	0.80	U	1.0	0.80	0.27	ug/L		10/23/12 14:55	1
2-Methylnaphthalene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
2-Methylphenol	0.80	U	1.0	0.80	0.80	ug/L		10/23/12 14:55	1
3 & 4 Methylphenol	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
Naphthalene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
2-Nitroaniline	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1
3-Nitroaniline	0.80	U	2.0	0.80	0.28	ug/L		10/23/12 14:55	1
4-Nitroaniline	0.80	U	2.0	0.80	0.80	ug/L		10/23/12 14:55	1

Client Sample ID: FWGFWGmw-011-0174-GW
Date Collected: 10/15/12 14:53
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-19
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.80	U	2.0	0.80	0.28	ug/L		10/23/12 14:55	1
4-Nitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/23/12 14:55	1
N-Nitrosodi-n-propylamine	0.80	U	1.0	0.80	0.80	ug/L		10/23/12 14:55	1
N-Nitrosodiphenylamine	0.80	U	1.0	0.80	0.31	ug/L		10/23/12 14:55	1
2,2'-oxybis[1-chloropropane]	0.80	U	1.0	0.80	0.40	ug/L		10/23/12 14:55	1
Pentachlorophenol	2.4	U	5.0	2.4	2.4	ug/L		10/23/12 14:55	1
Phenanthrene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
Phenol	0.80	U	1.0	0.80	0.60	ug/L		10/23/12 14:55	1
Pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/23/12 14:55	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.28	ug/L		10/23/12 14:55	1
2,4,5-Trichlorophenol	0.80	U	5.0	0.80	0.30	ug/L		10/23/12 14:55	1
2,4,6-Trichlorophenol	0.80	U	5.0	0.80	0.80	ug/L		10/23/12 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*50 - 110*	*10/18/12 10:24*	*10/23/12 14:55*	*1*
2-Fluorophenol (Surr)	*83*		*20 - 110*	*10/18/12 10:24*	*10/23/12 14:55*	*1*
Nitrobenzene-d5 (Surr)	*79*		*40 - 110*	*10/18/12 10:24*	*10/23/12 14:55*	*1*
Phenol-d5 (Surr)	*85*		*10 - 115*	*10/18/12 10:24*	*10/23/12 14:55*	*1*
Terphenyl-d14 (Surr)	*58*		*50 - 135*	*10/18/12 10:24*	*10/23/12 14:55*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*40 - 125*	*10/18/12 10:24*	*10/23/12 14:55*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0096	U	0.048	0.0096	0.0092	ug/L		10/25/12 22:34	1
4,4'-DDE	0.0096	U	0.048	0.0096	0.0093	ug/L		10/25/12 22:34	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/25/12 22:34	1
Aldrin	0.0096	U	0.029	0.0096	0.0079	ug/L		10/25/12 22:34	1
alpha-BHC	0.0096	U	0.029	0.0096	0.0067	ug/L		10/25/12 22:34	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 22:34	1
beta-BHC	0.0096	U	0.048	0.0096	0.0081	ug/L		10/25/12 22:34	1
delta-BHC	0.0096	U	0.048	0.0096	0.0084	ug/L		10/25/12 22:34	1
Dieldrin	0.0096	U	0.029	0.0096	0.0072	ug/L		10/25/12 22:34	1
Endosulfan I	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 22:34	1
Endosulfan II	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 22:34	1
Endosulfan sulfate	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 22:34	1
Endrin	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 22:34	1
Endrin aldehyde	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 22:34	1
Endrin ketone	0.0096	U	0.048	0.0096	0.0075	ug/L		10/25/12 22:34	1
gamma-BHC (Lindane)	0.0096	U	0.048	0.0096	0.0062	ug/L		10/25/12 22:34	1
gamma-Chlordane	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 22:34	1
Heptachlor	0.0096	U	0.029	0.0096	0.0077	ug/L		10/25/12 22:34	1
Heptachlor epoxide	0.0096	U	0.029	0.0096	0.0068	ug/L		10/25/12 22:34	1
Methoxychlor	0.031	U	0.096	0.031	0.031	ug/L		10/25/12 22:34	1
Toxaphene	0.48	U	1.9	0.48	0.31	ug/L		10/25/12 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*33*		*30 - 135*	*10/19/12 10:13*	*10/25/12 22:34*	*1*
DCB Decachlorobiphenyl	*26*	*Q*	*30 - 135*	*10/19/12 10:13*	*10/25/12 22:34*	*1*
Tetrachloro-m-xylene	*75*		*25 - 140*	*10/19/12 10:13*	*10/25/12 22:34*	*1*
Tetrachloro-m-xylene	*79*		*25 - 140*	*10/19/12 10:13*	*10/25/12 22:34*	*1*

Client Sample ID: FWGFWGmw-011-0174-GW
Date Collected: 10/15/12 14:53
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-19
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 16:27	1
Aroclor-1221	0.19	U	0.48	0.19	0.13	ug/L		10/23/12 16:27	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 16:27	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 16:27	1
Aroclor-1248	0.19	U	0.48	0.19	0.096	ug/L		10/23/12 16:27	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 16:27	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*40 - 140*	*10/19/12 10:23*	*10/23/12 16:27*	*1*
Tetrachloro-m-xylene	*78*		*40 - 140*	*10/19/12 10:23*	*10/23/12 16:27*	*1*
DCB Decachlorobiphenyl	*19*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 16:27*	*1*
DCB Decachlorobiphenyl	*20*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 16:27*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 03:28	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		10/29/12 21:44	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 21:44	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 21:44	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 21:44	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/29/12 21:44	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 21:44	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 21:44	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.059	ug/L		10/29/12 21:44	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/29/12 21:44	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 21:44	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 21:44	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		10/29/12 21:44	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 21:44	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/29/12 21:44	1
Nitroglycerin	0.51	U	0.67	0.51	0.34	ug/L		10/29/12 21:44	1
PETN	0.51	U	0.67	0.51	0.31	ug/L		10/24/12 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*86*		*79 - 111*	*10/18/12 06:17*	*10/24/12 02:14*	*1*
3,4-Dinitrotoluene	*90*		*79 - 111*	*10/18/12 06:17*	*10/29/12 21:44*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:28	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16425-1

Client Sample ID: FWGFWGmw-011-0174-GF
Date Collected: 10/15/12 14:53
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-20
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**4.4**	**J**	10	10	3.3	ug/L		10/23/12 13:52	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:52	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 13:52	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:52	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:52	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:52	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 13:52	1
Barium	**44**	**J**	200	5.0	2.8	ug/L		10/23/12 13:52	1
Calcium	**75000**		5000	1000	630	ug/L		10/23/12 13:52	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:52	1
Magnesium	**14000**		5000	300	120	ug/L		10/23/12 13:52	1
Manganese	**250**		15	5.0	1.8	ug/L		10/23/12 13:52	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 13:52	1
Potassium	**940**	**J**	5000	900	300	ug/L		10/23/12 13:52	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**220**		60	60	20	ug/L		10/29/12 13:28	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:30	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 18:30	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 18:30	1
Iron	**700**		150	100	44	ug/L		10/26/12 18:30	1
Sodium	**5700**		1000	400	160	ug/L		10/26/12 18:30	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:30	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:28	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:32	1

Client Sample ID: FWGFWGmw-004-0167-GW — **Lab Sample ID: 240-16425-21**

Date Collected: 10/15/12 16:39 — **Matrix: Water**

Date Received: 10/16/12 09:00

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:01	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:01	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 13:01	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:01	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:01	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:01	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 13:01	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:01	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 13:01	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:01	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/24/12 13:01	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:01	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 13:01	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 13:01	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:01	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:01	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:01	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:01	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 13:01	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 13:01	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:01	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 13:01	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:01	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:01	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 13:01	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 13:01	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 13:01	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 13:01	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 13:01	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 13:01	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 13:01	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:01	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:01	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:01	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:01	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:01	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:01	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 13:01	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 120*		*10/24/12 13:01*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/24/12 13:01*	*1*
Toluene-d8 (Surr)	*91*		*85 - 120*		*10/24/12 13:01*	*1*
Dibromofluoromethane (Surr)	*108*		*85 - 115*		*10/24/12 13:01*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1

Client Sample ID: FWGFWGmw-004-0167-GW
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Lab Sample ID: 240-16425-21
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/23/12 15:14	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/23/12 15:14	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 15:14	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 15:14	1
Bis(2-ethylhexyl) phthalate	**1.2**	**J**	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 15:14	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 15:14	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 15:14	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 15:14	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/23/12 15:14	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/23/12 15:14	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 15:14	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 15:14	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/23/12 15:14	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/23/12 15:14	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 15:14	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/23/12 15:14	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/23/12 15:14	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 15:14	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 15:14	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 15:14	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 15:14	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/23/12 15:14	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 15:14	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/23/12 15:14	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 15:14	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 15:14	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/23/12 15:14	1

Client Sample ID: FWGFWGmw-004-0167-GW
Date Collected: 10/15/12 16:39
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Lab Sample ID: 240-16425-21
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/23/12 15:14	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 15:14	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/23/12 15:14	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/23/12 15:14	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/23/12 15:14	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/23/12 15:14	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/23/12 15:14	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/23/12 15:14	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/23/12 15:14	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/23/12 15:14	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/23/12 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*50 - 110*	*10/18/12 10:24*	*10/23/12 15:14*	*1*
2-Fluorophenol (Surr)	*75*		*20 - 110*	*10/18/12 10:24*	*10/23/12 15:14*	*1*
Nitrobenzene-d5 (Surr)	*74*		*40 - 110*	*10/18/12 10:24*	*10/23/12 15:14*	*1*
Phenol-d5 (Surr)	*75*		*10 - 115*	*10/18/12 10:24*	*10/23/12 15:14*	*1*
Terphenyl-d14 (Surr)	*69*		*50 - 135*	*10/18/12 10:24*	*10/23/12 15:14*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*40 - 125*	*10/18/12 10:24*	*10/23/12 15:14*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0096	U	0.048	0.0096	0.0092	ug/L		10/25/12 22:57	1
4,4'-DDE	0.0096	U	0.048	0.0096	0.0093	ug/L		10/25/12 22:57	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/25/12 22:57	1
Aldrin	0.0096	U	0.029	0.0096	0.0079	ug/L		10/25/12 22:57	1
alpha-BHC	0.0096	U	0.029	0.0096	0.0067	ug/L		10/25/12 22:57	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 22:57	1
beta-BHC	0.0096	U	0.048	0.0096	0.0081	ug/L		10/25/12 22:57	1
delta-BHC	0.0096	U	0.048	0.0096	0.0084	ug/L		10/25/12 22:57	1
Dieldrin	0.0096	U	0.029	0.0096	0.0072	ug/L		10/25/12 22:57	1
Endosulfan I	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 22:57	1
Endosulfan II	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 22:57	1
Endosulfan sulfate	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 22:57	1
Endrin	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 22:57	1
Endrin aldehyde	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 22:57	1
Endrin ketone	0.0096	U	0.048	0.0096	0.0075	ug/L		10/25/12 22:57	1
gamma-BHC (Lindane)	0.0096	U	0.048	0.0096	0.0062	ug/L		10/25/12 22:57	1
gamma-Chlordane	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 22:57	1
Heptachlor	0.0096	U	0.029	0.0096	0.0077	ug/L		10/25/12 22:57	1
Heptachlor epoxide	0.0096	U	0.029	0.0096	0.0068	ug/L		10/25/12 22:57	1
Methoxychlor	0.031	U	0.096	0.031	0.031	ug/L		10/25/12 22:57	1
Toxaphene	0.48	U	1.9	0.48	0.31	ug/L		10/25/12 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*8*	*Q*	*30 - 135*	*10/19/12 10:13*	*10/25/12 22:57*	*1*
DCB Decachlorobiphenyl	*6*	*Q*	*30 - 135*	*10/19/12 10:13*	*10/25/12 22:57*	*1*
Tetrachloro-m-xylene	*11*	*M Q*	*25 - 140*	*10/19/12 10:13*	*10/25/12 22:57*	*1*
Tetrachloro-m-xylene	*11*	*Q*	*25 - 140*	*10/19/12 10:13*	*10/25/12 22:57*	*1*

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Lab Sample ID: 240-16425-21
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 16:42	1
Aroclor-1221	0.19	U	0.48	0.19	0.13	ug/L		10/23/12 16:42	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 16:42	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 16:42	1
Aroclor-1248	0.19	U	0.48	0.19	0.096	ug/L		10/23/12 16:42	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 16:42	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*10*	*Q*	*40 - 140*	*10/19/12 10:23*	*10/23/12 16:42*	*1*
Tetrachloro-m-xylene	*10*	*Q*	*40 - 140*	*10/19/12 10:23*	*10/23/12 16:42*	*1*
DCB Decachlorobiphenyl	*0*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 16:42*	*1*
DCB Decachlorobiphenyl	*0*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 16:42*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 03:42	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/29/12 22:24	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/29/12 22:24	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/29/12 22:24	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/29/12 22:24	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/29/12 22:24	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/29/12 22:24	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/29/12 22:24	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		10/29/12 22:24	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/29/12 22:24	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/29/12 22:24	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		10/29/12 22:24	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		10/29/12 22:24	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/29/12 22:24	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		10/29/12 22:24	1
Nitroglycerin	0.50	U	0.65	0.50	0.33	ug/L		10/29/12 22:24	1
PETN	0.50	U	0.65	0.50	0.30	ug/L		10/29/12 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*88*		*79 - 111*	*10/18/12 06:17*	*10/29/12 22:24*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	**0.0064**	**J**	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:30	1

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Date Collected: 10/15/12 16:39
Date Received: 10/16/12 09:00

Lab Sample ID: 240-16425-22
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:56	1
Chromium	**5.3**	**J**	7.0	4.0	1.4	ug/L		10/23/12 13:56	1
Cobalt	**1.7**	**J**	7.0	4.0	1.5	ug/L		10/23/12 13:56	1
Lead	**1.7**	**J**	10	5.0	1.7	ug/L		10/23/12 13:56	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:56	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:56	1
Vanadium	**7.0**		7.0	4.0	1.3	ug/L		10/23/12 13:56	1
Barium	**44**	**J**	200	5.0	2.8	ug/L		10/23/12 13:56	1
Calcium	**89000**		5000	1000	630	ug/L		10/23/12 13:56	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:56	1
Magnesium	**38000**		5000	300	120	ug/L		10/23/12 13:56	1
Manganese	**75**		15	5.0	1.8	ug/L		10/23/12 13:56	1
Nickel	**2.9**	**J**	40	5.0	2.2	ug/L		10/23/12 13:56	1
Potassium	**2000**	**J**	5000	900	300	ug/L		10/23/12 13:56	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**3200**		60	60	20	ug/L		10/29/12 13:34	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:36	1
Beryllium	**0.16**	**J**	1.0	0.10	0.033	ug/L		10/26/12 18:36	1
Cadmium	**0.10**	**J**	2.0	0.070	0.023	ug/L		10/26/12 18:36	1
Iron	**4000**		150	100	44	ug/L		10/26/12 18:36	1
Sodium	**4000**		1000	400	160	ug/L		10/26/12 18:36	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:36	1
Zinc	**17**	**J**	40	20	8.8	ug/L		10/29/12 13:34	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:37	1

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: NORTH CANTON

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: E. CORBIN	Lab Contact: M. Loeb	COC No: 043246
Address: 1800 CARLSON BLVD	Telephone: 513 825 7500	Telephone: 5138257500	Telephone:	1 of 1 COCs
City/State/Zip: CINCINNATI OH 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 513825 7500	fax 5138257495	TAT if different from below: ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Loc: 240 16425
Project Name: RVAAP	Method of Shipment/Carrier: LAB PICK UP			
Project Number: 30174.0016.001.	Shipping/Tracking No:			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other	Filtered Sample (Y/N)	Composite C / Grab G	VOC 8260	SVOC 8270	Pest 8081	PCB 8082	EXPLO 8330	Propellants	Cyanide 9012	Metals 6010/7470/7471 Filtered	Sample Specific Notes / Special Instructions: Cooler 10#
FWG TEAM 2-Trip	10-15-12	1000		X										2	N		X								Zappa Zappa
FWGLL3mw-245-0184-GW		1252		X						3	1		9		N	G	X	X	X	X	X	X	X		C119
FWGLL3mw-245-0184-GF				X					1						Y	G								X	FILTERED C119
FWGLL3mw-DUP5-0202-GW		1332		X						3	1		9		N	G	X	X	X	X	X	X	X		465
FWGLL3mw-DUP5-0202-GF				X					1						Y	G								X	FILTERED 465
FWGFWG mw-002-0165-GW		1518		X						3	1		9		N	G	X	X	X	X	X	X	X		Zappa Zappa
FWGFWG mw-002-0165-GF				X					1						Y	G								X	FILTERED. Zappa Zappa
FWGFWG mw-001-0164-GW		1638		X						3	1		9		N	G	X	X	X	X	X	X	X		L690
FWGFWG mw-001-0164-GF				X					1						Y	G								X	FILTERED L690
FWG EQUIP Rinse-0212-GW		1718		X					1	3	1		9		N	G	X	X	X	X	X	X	X	X	NOT FILTERED STL2

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Metals are field filtered.

Samples may not meet requirements if sample time is close to lab pick up time.

ALL VOAs in Cooler # Zappa Zappa

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	EQM	10-15-12 1800	TC	TAL-NC	10-15-12 1800
TC	TAL-NC	10-15-12 1850		TA	10-16-12 0900
			Received in Laboratory by:		

TAL 0018-1 (04/10)

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: CANTON, OA
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: JOHN MILLER	Site Contact: ERIK CORBIN	Lab Contact: MARK LOEB	COC No: 043245
Address: 1800 CARILLON BLVD	Telephone: (513) 825-7500	Telephone: (513) 825-7500	Telephone: (330) 497-9396	1 of 1 COCs
City/State/Zip: CINCINNATI, OH 45240	Email: ECORBIN@EQM.COM JMILLER@EQM.COM	Analysis Turnaround Time (in BUS days)		For lab use only
Phone: (513) 825-7500		TAT if different from below ____		Walk-in client ☐
Project Name: RVAAP66 (OH)	Method of Shipment/Carrier: LAB PICKUP	PER SOW ☑ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Lab pickup ☐ Lab sampling ☐
Project Number: PGH ~~030240~~ 030174.0016.001.09.01	Shipping/Tracking No: N/A			Job/SDG No:
PO #				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: AIF	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260	SVOC	PEST 8081	PCB 8082	EXPLO 8330	PROPELLANTS	CYANIDE 9012	METALS 6010/6020 7470			Sample Specific Notes / Special Instructions: COOLER ID:
FWGTEAM#1 TRIP	10/15/12	12:00		X						2					N	G	X										AD7
FWGEBG MW-131-0163-GW	10/15/12	13:00		X				1		3	1		9		N	G	X	X	X	X	X	X	X				AD7
FWGEBG MW-131-0163-GF	10/15/12	13:00		X					1						Y	G								X			AD7
FWGFWG MW-010-0173-GW	10/15/12	14:55		X				1		3	1		9		N	G	X	X	X	X	X	X	X				12
FWGFWG MW-010-0173-GF	10/15/12	14:55		X					1						Y	G								X			12
~~FWGB12 MW-013-0158-GW~~	~~10/15/12~~	~~16:50~~		~~X~~				~~1~~		~~3~~	~~1~~		~~9~~		~~N~~	~~G~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~				~~AD 10/15/12~~
~~FWGB12 MW-013-0158-GF~~	~~10/15/12~~	~~16:50~~		~~X~~					~~1~~						~~Y~~	~~G~~								~~X~~			~~AD 10/15/12~~

AD 10/15/12

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments: ALL METALS ARE FIELD FILTERED. ALL VOA'S IN COOLER: AD7
TEMPS MAY NOT MEET REQUIREMENTS IF SAMPLE COLLECTION IS CLOSE TO LAB PICKUP TIME.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQ	10/15/12 1800	[signature]	TAL-NC	10-15-12-1800
[signature]	TAL-NC	10-15-12-1850	[signature]	TA	10-16-12 0900 ~~1850~~
			Received in Laboratory by:		

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: Erik Corbin	Lab Contact: Mark Loeb	COC No: 043256
Address: 1800 Carillon Blvd.	Telephone: 513-825-7500	Telephone: 513-825-7500	Telephone: 330-497-9396	1 of 1 COCs
City/State/Zip: Cinti/OH/45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days): Per Gov		For lab use only:
Phone: 513-825-7500		TAT if different from below: ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: RVAAP (66)	Method of Shipment/Carrier: Lab Pickup			Job/SDG No:
Project Number: 030174.0016.009.01	Shipping/Tracking No: N/A			
PO #				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C / Grab G	VOC 8260	SVOC 4 8270	Pest 8081	PCB 8082	Explosives/Propellant	Cyanide 9012	Metals 6010/6020 7470	Sample Specific Notes / Special Instructions: COOLER ID
FWGTEAM3-TRIP	10/15/10	1000		X						3					N		X							C222
FWGFWGMW-012-0175-GW	↓	1303		X						9	3		29		N	G	X	X	X	X	X	X		MS/MSD C99,404 C222
FWGFWGMW-012-0175-GF		↓		X					3						Y	G							X	↓
FWGFWGMW-011-0174-GW		1453		X						3	1		9		N	G	X	X	X	X	X	X		Gatech
FWGFWGMW-011-0174-GF		↓		X					1						Y	G							X	↓
FWGFWGMW-004-0167-GW		1639		X						3	1		9		N	G	X	X	X	X	X	X		13
FWGFWGMW-004-0167-GF	↓	↓		X					1						Y	G							X	↓

TC 10/15/12

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Metals field filtered. All VOAs in cooler. ~~C99~~ C222 10/15/12
Samples collected near pickup may not meet temp req

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQ	10/15/12 1800	[signature]	TAL-NC	10-15-12-1850
[signature]	TAL-NC	10-15-12 1850	[signature]	TA	10-16-12 0920 1850
			Received in Laboratory by:		

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TAL 0018-1 (04/10)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 16425

Client FQM Site Name _____ By: _____

Cooler Received on 10-16-12 Opened on 10-16-12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off ~~TestAmerica Courier~~ Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 8	(CF 0°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C

Multiple on Back

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 24	Yes	No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were custody seals on the bottle(s)?	Yes	No
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Did all bottles arrive in good condition (Unbroken)?	Yes	No
7. Could all bottle labels be reconciled with the COC?	Yes	No
8. Were correct bottle(s) used for the test(s) indicated?	Yes	No
9. Sufficient quantity received to perform indicated analyses?	Yes	No
10. Were sample(s) at the correct pH upon receipt?	Yes	No NA
11. Were VOAs on the COC?	Yes	No
12. Were air bubbles >6 mm in any VOA vials?	Yes	No NA
13. Was a trip blank present in the cooler(s)?	Yes	No

Contacted PM MJZ Date 10/16/12 by CSL via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

2 Sample's marked for HS204 bottle did not receive.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
1252 FW	≥12	10-16-12	~S
1332	≥12		
1518	≥12		
1638	≥12		
1718	≥12		
1300	≥12		
1455	≥12		
1303	≥12		
1453	≥12		
1639	≥12		
1252 GF	≥12		
1332	≥12		
1518	≥12		
1638	≥12		
1718	≥12		
1300	≥12		
1455	≥12		
1303	≥12		
1453	≥12		
1639	≥12		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant
C119	2.4	2.4	8	Ice
465	4.1	4.1		
2AP8A	4.6	4.6		
16900	3.5	3.5		
STL1	2.0	2.0		
AD7	1.8	1.8		
12	4.2	4.2		
C222	3.6	3.6		
C99	1.5	1.5		
C 2/04	2.4	2.4		
13	3.1	3.1		
GA Tech	0.7	0.7		

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16425-1

Login Number: 16425
List Number: 1
Creator: Livengood, Chris

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16425-1

Login Number: 16425
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica West Sacramento
List Creation: 10/17/12 05:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1,0,0,0,0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	Rec'd #21 not listed on coc.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16425-1

Login Number: 16425
List Number: 2
Creator: Sadler, Jeremy

List Source: TestAmerica West Sacramento
List Creation: 11/06/12 01:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix I

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 12, 2012

SDG: 240-16425-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1,
3. Were holding times met?	X				QAPP Table 5-1, J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1,
5. Were all QAPP addendum-specified target analytes reported?	X				QAPP Table 4-5
6. Was the GC/MS system tuned with bromofluorobenzene (BFB) during each 12 hour shift (prior to ICAL and Cal Ver.)?	X				QSM Table F-4
7. Calibration					
7a. Did the initial calibration curve consist of 5 concentration levels?	X			Instrument A3UX15–10/10/12	QSM Table F-4 R
7b. Did the Calibration Check Compounds (CCCs) (see Table 1 below) relative standard deviations (%RSD) ≤ 30%?	X				QSM Table F-4 R
7c. Were the minimum response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) met?	X				QSM Table F-4
7d. Did target analytes with an average calibration type have an RSD ≤ 15%?	X				QSM Table F-4 15% <RSD< 20% = J/UJ
7e. IF the RSD was >15% was a different calibration option used?	X				
7f. If a linear regression curve was used, was the correlation coefficient r>0.995?	X			Methylene chloride used a linear fit with r>0.995.	QSM Table F-4 R<0.99=-J/R
7g. If a non-linear regression was used, was the COD r≥0.99, with a minimum of 6 points for second order and 7 points for third order?			X	cis-1,3-Dichloropropene, trans-1,3-dichloropropene, bromoform and dibromochloromethane used a quadratic fit.	QSM Table F-4 R<0.99=-J/R
8. Was a LOD Level Verification performed quarterly for each reported analyte with detected results?	X			7/31/12 @ 1236, 1258 and 1320	QSM Table F-4 and section D.1.2.1
9. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours?	X				

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
10. Were the QC/MRL recoveries 70-130%		X		10/23/12- Opening MRL analyzed @ 1046 recovered above control limits of 70-130% for bromomethane at 131%, chloroethane at 177%, methylene chloride at 142% and vinyl chloride at 138%. The closing MRL analyzed at 2043 recovered above control limits of 70-130% for methylene chloride at 232% and below limits for ethylbenzene at 69%, m,p-xylene at 67%, styrene at 63% and total xylenes at 66%. The ethylbenzene, m,p-xylene, styrene and total xylenes results for samples FWG TEAM 2-TRIP, FWGLL3mw-245-0184-GW, FWGLL3mw-DUP5-0202-GW, FWGFWGmw-002-0165-GW, FWGFWGmw-001-0164-GW, FWGEQUIPRINSE1-0212-GW, FWG TEAM #1 TRIP, FWGEBGmw-131-0163-GW, FWGFWGmw-010-0173-GW, FWGFWGmw-012-0175-GW and FWGFWGmw-011-0174-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride as there were no detected methylene chloride concentrations reported for the bracketed field samples. 10/24/12- Opening MRL analyzed @ 1105 recovered above control limits of 70-130% for methylene chloride at 322%, chloroethane at 134%, vinyl chloride at 133% and at 144% for chloromethane. The closing MRL analyzed at 2028 recovered above control limits of 70-130% for methylene chloride at 318% and below limits at 68% for o-xylene. The o-xylene results for FWG TEAM3-TRIP and FWGFWGmw-004-0167-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride as there were no detected methylene chloride concentrations reported for the bracketed field samples.	Louisville Supplement to the DOD QSM
11. Was a second source verification (ICV) analyzed? Were results 80-120%?	X			10/10/12 @ 1344	QSM Table F-4 J=<80% and >120%
12. Was a CCV run daily prior to analysis and every 12 hours of analysis time?	X			10/23/12 @ 0938 and 10/24/12 @ 0957	QSM Table F-4
12a. Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) met?	X				QSM Table F-4
12b. Were all target analytes ≤ 20%D?		X		10/24/12 @ 0957- The %D for methylene chloride was above control limits of 20% D at 23.7%. No qualifications were required as there	QSM Table F-4 %D <20% = J/UJ

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				were no detected methylene chloride concentrations reported for the bracketed field samples.	
13. Were the internal standards added to every sample?	X				QSM Table F-4
13a. Was the EICP area between -50% and +100% of the ICAL mid-point standard?	X				QSM Table F-4 R
13b. Were the retention times for all IS compounds within ±30 seconds from the RT of the mid-point standard in the ICAL?	X				QSM Table F-4 J/UJ
14. Were the retention times for target analytes within ±0.06 RRT units from the RT of the mid-point standard in the ICAL or the most recently updated RRT for all samples?	X				QSM Table F-4 J
15. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-4
15a. Were target analytes detected in the method blank >1/2 the MRL >RL for common contaminants?	X			Checked by ADR. Methylene chloride was detected in the method blank from batch 240-62557 analyzed 10/24/12 at 1.94ug/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.	QSM Table F-4 <5/10X =B
16. Was a field blank (equipment and/or trip) collected and analyzed?	X				
16a. Were target analytes detected in the field blank?	X			Checked by ADR. Acetone was detected in FWG TEAM#1 TRIP at 1.9ug/L, at 1.5ug/L in sample FWG TEAM 2-TRIP and FWG TEAM3-TRIP. FWGEQUIPRINSE1-0212-GW had acetone detected at 17ug/L and 2-butanone at 0.89ug/L. The acetone results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-010-0173-GW, FWGFWGmw-011-0174-GW and FWGLL3mw-245-0184-GW were qualified, "B". As there were no detected 2-butanone results reported for the associated field, no qualification was made for the 2-butanone contamination in the equipment rinse.	QSM Table F-4 <5/10X =B
17. Was a LCS prepared and analyzed with each batch?	X				QSM Table F-4
17a. Were the LCS recoveries within limits specified in Table G-5 of the DoD QSM?	X			ADR checked section;	QSM Table F-4, Table G-5, J/UJ
18. Was a MS/MSD prepared with each batch?	X			A matrix spike was performed on sample FWGFWGmw-012-0175-	QSM Table F-4

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 12, 2012

SDG: 240-16425-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				GW.	
18a. Were the MS/MSD recoveries within limits specified in Table G-4 of the DoD QSM with an RPD <30%?	**X**				QSM Table F-4, Table G-5 J/UJ Parent sample only
19. Was a field duplicate analyzed?	**X**			Field duplicate analyzed on sample FWGLL3mw-245-0184-GW	QSM Table F-4,
19a. Were the field duplicates RPDs within ±30%?		**X**		Checked by ADR. The field duplicate, FWGLL3mw-DUP5-0202-GW, collected on sample FWGLL3mw-245-0184-GW had an RPD above control limits of 30% for acetone at 200%. The acetone result for sample FWGLL3mw-245-0184-GW was qualified as estimated, "J".	QSM Table F-4, RPD >30=J Parent sample only
20. Were surrogate recoveries within control limits specified in the DOD QSM?	X				QSM Tables F-4 & G-3 >150%=J; 10% - 50%=J/UJ; <10%=J/R
21. Were reported sample concentrations within calibration range?	**X**				

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010
Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007
Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012
Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Table1- CCCs

Analyte
1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

Table 2- SPCCs

Analyte	Minimum RF
Chloromethane	0.10
1,1-Dichlorethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 13, 2012

SDG: 240-16425-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1,
3.Were holding times met?		X		Samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were re extracted due to failed surrogate recovery outside hold time of seven days at 10 days. As the samples were re extracted with 2x hold, the results for samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were qualified as estimated, "J/UJ".	QAPP Table 5-1, J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1,
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-6
6. Was the GC/MS system tuned each 12 hour shift (prior to ICAL and Cal Ver.)?	X				QSM Table F-4
7. Initial Calibration					
7a. Did the initial calibration curve consist of 5 concentration levels?	X			Instrument A4HP9–10/22/12, 10/25/12	QSM Table F-4 R
7b. Did the Calibration Check Compounds (CCCs) (see Table 1 below) relative standard deviations (%RSD) ≤ 30%?	X				QSM Table F-4 R
7c. Were the minimum response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) ≤0.050?	X				QSM Table F-4
7d. Were all other target analytes reported with an avg response have an RSD ≤ 15%?	X				QSM Table F-4 15% <RSD< 20% = J/UJ
7e. IF the RSD was >15% was a different calibration option used?	X				
7f. If a linear regression curve was used, was the correlation coefficient r>0.995?	X				QSM Table F-4 R<0.99=-J/R
7g. If a non-linear regression was used, was the COD r≥0.99, with a minimum of 6 points for second order and 7 points for third order?	X			10/22/12 Benzoic acid, 4,6-dinitro-2-methylphenol, 2,6-dintrotoluene, 4-nitroaniline and 2,4-dinitrophenol used a quadratic fit. 10/22/12 Benzoic acid and 2,4-dinitrophenol used a quadratic fit.	QSM Table F-4 R<0.99=-J/R
8. Was a LOD Level Verification performed quarterly for each reported analyte?	X			9/29/12 @1247, 9/21/12 @1338, 1357 and 1416	QSM Table F-4 and section D.1.2.1

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 13, 2012

SDG: 240-16425-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
9 Was a breakdown check run at the beginning of every 12 hours with DDT degradation <20% and tailing factors of benzidine and pentachlorophenol ≤2?	X				QSM Table F-4 R
10. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours with recoveries within 70-130%?	X				Louisville Supplement to the DOD QSM
11. Was a second source verification (ICV) analyzed? Were results 80-120%?		X		10/23/12 @ 0937, The ICV recovered above limits of 20% for 2-nitrophenol with a %D of 25.5%, hexachlorocyclopentadiene with a %D of 21.3%, 2-nitroaniline at 26.4% and 2,4-dinitrotoluene at 26.0%. No qualifications were made for the listed ICV outliers as there were no detected 2-nitrophenol, hexachlorocyclopentadiene, 2-nitroaniline or 2,4-dinitrotoluene concentrations reported for the associated field samples. 10/25/12 @ 1715, The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 26.2%. The 3,3'-dichlorobenzidine results for samples FWGFWGmw-002-0165-GW and FWGFWGmw-012-0175-GW were qualified as estimated, "UJ".	QSM Table F-4 J=<80% and >120%
12. Was a CCV run daily prior to analysis and every 12 hours of analysis time?	X			10/23/12 @ 0918, 10/28/12 @1034	QSM Table F-4
12a. Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) ≥0.050?	X				QSM Table F-4
12b. Were all target analytes ≤ 20%D?	X				QSM Table F-4 %D <20% = J/UJ
13. Were the internal standards added to every sample?	X				QSM Table F-4
13a. Was the EICP area between -50% and +100% of the ICAL mid-point standard?	X				QSM Table F-4 R
13b. Were the retention times for all IS compounds within ±30 seconds from the RT of the mid-point standard in the ICAL?	X				QSM Table F-4 J/UJ
14. Were the retention times for target analytes within ±0.06 RRT units from the RT of the mid-point standard in the ICAL or the most recently	X				QSM Table F-4 J

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 13, 2012

SDG: 240-16425-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
updated RRT for all samples?					
15. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-4
15a. Were target analytes detected in the method blank >1/2 the MRL, >RL for common contaminants?	X			Checked by ADR. . bis(2-Ethylhexyl)phthalate was detected in the method blank from batch 240-62729 at 1.65ug/L. The detected bis(2-ethylhexyl)phthalate results for samples FWGFWGmw-002-0165-GW, and FWGFWGmw-012-0175-GW were qualified, "B".	QSM Table F-4 <5/10X =B
16. Was a field blank (equipment and/or trip) collected and analyzed?	X			FWGEQUIPRINSE1-0212-GW	
16a. Were target analytes detected in the field blank?	X			Checked by ADR. Benzyl alcohol was detected in FWGEQUIPRINSE1-0212-GW at 4.2ug/L, phenol at 1.4ug/L and bis(2-ethylhexyl)phthalate at 0.92ug/L. The detected bis(2-ethylhexyl)phthalate results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-004-0167-GW, FWGFWGmw-011-0174-GW and FWGFWGmw-012-0175-GW were qualified, "B". No qualifications were made for the phenol or benzyl alcohol contamination as there were no detected concentrations of these targets reported in the associated field samples.	QSM Table F-4 <5/10X =B
17. Was a LCS prepared and analyzed with each batch?	X				QSM Table F-4
17a. Were the LCS recoveries within limits specified in Table G-6 of the DoD QSM?		X		ADR checked section;	QSM Table F-4, Table G-6 J/UJ
18. Was a MS/MSD prepared with each batch?	X			A matrix spike analysis was performed on sample FWGFWGmw-012-0175-GW.	
18a. Were the MS/MSD recoveries within limits specified in Table G-6 of the DoD QSM with an RPD <30%?		X		The MS % recovery was below control limits of 20-110 for 3,3'-dichlorobenzidine at 14% and for benzo(a)pyrene at 21% (lower control limit of 55%). The MS/MSD RPD was above control limits of 20% for 3,3'-dichlorobenzidine at 98%, benzo(a)pyrene at 99%, benzo (g,h,i) perylene and bis(2-ethylhexyl)phthalate at 34%, di-n-octylphthalate at 35% and n-nitrosodiphenylamine at 43%. The 3,3'-dichlorobenzidine, benzo(a)pyrene, benzo(g,h,i) perylene, bis(2-ethylhexyl)phthalate, di-n-octylphthalate and n-nitrosodiphenylamine results for sample FWGFWGmw-012-0175-GW were qualified as estimated, "J/UJ".	QSM Table F-4, Table G-6 J/UJ Parent sample only

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 13, 2012

SDG: 240-16425-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
19. Was a field duplicate analyzed?	X			Checked by ADR	
19a. Were the field duplicates RPDs within ±50%?	X			Checked by ADR.	QSM Table F-4, RPD >50=J Parent sample only
20. Were surrogate recoveries within control limits specified in the DOD QSM?	X				QSM Tables F-4 & G-3 >150%=J; 10% - 50%=J/UJ; <10%=J/R
21. Were reported sample concentrations within calibration range?	X				

References:

- *DoD Quality Systems Manual (QSM), version 4.1, October 2010*
- *Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007*
- *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012*
- *Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011*

Additional Comments:

Table 1: CCCs *(All analytes if CCCs not included in standard)*

Base / Neutral Compounds	Acid Compounds
Acenaphthalene	4-Chloro-3-methylphenol
1,4-Dichlorobenzene	2,4-Dichlorophenol
Hexachlorobutadiene	2-Nitrophenol
N-Nitrosodiphehylamine	Phenol
Di-n-octylphthalate	Pentachlorophenol
Fluoroanthene	2,4,6-Trichlorophenol
Benzo(a)pyrene	

Table 2: SPCCs -

N-Nitroso-di-n-propylamine	0.050
Hexachlorocyclopentadiene	0.050
2,4-Dinitrophenol	0.050
4-Nitrophenol	0.050

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta / November 13, 2012

SDG: 240-16425 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X			Checked by ADR	QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a DDT standard analyzed every 12 hours? Was the DDT %breakdown < 15%?	X			The 4,4'-DDT % breakdown analyzed 10/25/12 at 0810 on CLP-2 was above control limits at 21.3%. No qualification was made as the CLP-2 was used for confirmation purposes only and there were no detected concentrations on CLP-1 that required confirmation.	QSM Table F-2 >15%=J/R
7. Was an endrin standard analyzed every 12 hours? Was the endrin %breakdown <15%?	X				QSM Table F-2 >15%=J/R
8. Initial Calibration					
8a. Does the initial calibration curve consist of 5 concentration levels?	X			Instrument A2HP9 10/25/12	QSM Table F-2 R
8a. Were the %RSDs for each analyte ≤ 20%? OR was the average %RSD ≥20% with the r >0.990?	X			CLP-1 used a linear fit for 4,4'-DDD. CLP-2 used a linear fit for delta-BHC, 4,4'-DDT and a quadratic fir for endrin ketone.	QSM Table F-2 RSD>20% or r<0.99=J/R
9. Was a LOD Level Verification performed once per quarter with all target analytes detected?	X			9/18/12 @2208, 2231, 2255, 2319	QSM Table F-2 R
10. Was a MRL Verification performed at the beginning and end of the sequence or every 12 hours with results within limits of 70-130%?	X			The opening MRL analyzed 10/25/12 @1605 recovered above control limits of 70-130% for 4,4-DDD at 172% on CLP-1 and on CLP-2 above control limits for 4,4'-DDE at 185%, 4,4'-DDT at 135%, delta-BHC at 208%, dieldrin at 143% and endrin ketone at 160%. The closing MRL analyzed 10/26/12 @ 0540 recovered above control limits of 70-130% for 4,4-DDD at 267%, endosulfan sulfate at 142% and methoxychlor at 161% on CLP-1. On CLP-2 the closing MRL recovered above control limits of 70-130% for 4,4'- 4,4'-DDT at 160%, delta-BHC at 228%, endosulfan sulfate at 141% and endrin ketone at 181%. No qualifications were made for the MRL outliers as there were no detected	QSM Table F-2, G-14 >UL=J; <LL=J/UJ/R

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				concentrations reported for the bracketed field samples.	
11. Was a second source (ICV) verification analyzed after the ICAL? Were results 80-120%?	X			10/25/12 @1107, 1438 (tox) The ICV analyzed 10/25/12 @ 1107 recovered above control limits of 20% D for endrin ketone at 34.4% on CLP-2. No qualifications were made as CLP-2 was used for confirmation only and there were no detected endrin ketone results reported for the field samples.	QSM Table F-2 >120%=J; <80%=J/UJ
12. Was a CCV run every 12 hours or at the beginning and end of the analytical run with the %D for all target analytes ≤20%?		X		The CCV analyzed 10/25/12 @ 2059 on CLP-1 had %D above control limits of 20% for alpha-BHC at 26.2%, gamma-BHC at 21.6%, beta-BHC at 27.3%, delta-BHC at 25.6%, heptachlor at 28.0%, aldrin at 24.8%, heptachlor epoxide at 34.1%, gamma-chlordane at 24.9%, alpha-chlordane at 28.9%, endosulfan I at 40.2%, 4,4'-DDE at 30.5%, dieldrin at 34.0%, endrin at 41.8%, 4,4'-DDD at 69.0%, 4,4'-DDT at 31.1%, endrin aldehyde at 30.0%, methoxychlor at 66.1%, endosulfan sulfate at 53.6% and endrin ketone at 29.7%. The CCV analyzed 10/25/12 @ 2059 on CLP-2 had %D above control limits of 20% for alpha-BHC at 22.2%, beta-BHC at 29.7%, delta-BHC at 30.1%, aldrin at 24.4%, heptachlor epoxide at 30.7%, gamma-chlordane at 22.4%, alpha-chlordane at 28.3%, endosulfan I at 25.7%, 4,4'-DDE at 24.8%, dieldrin at 23.9%, endrin at 32.3%, 4,4'-DDD and endosulfan II at 34.0%, 4,4'-DDT at 20.7%, endrin aldehyde at 28.0%, methoxychlor at 50.9%, endosulfan sulfate at 44.8% and endrin ketone at 54.0%. The CCV analyzed 10/26/12 @ 0119 on CLP-1 had %D above control limits of 20% for endosulfan I at 25.2%, endrin at 25.7%, 4,4'-DDD at 48.8%, 4,4'-DDT at 25.1 %, endrin aldehyde at 24.9%, methoxychlor at 50.4% and endosulfan sulfate at 44.9%. The CCV analyzed 10/26/12 @0119 on CLP-2 had a %D above control limits of 20% for endrin at 21.6%, endosulfan sulfate at 33.7%, methoxychlor at 30.9% and endrin ketone at 35.6%. No qualifications were made for CCV outliers as there were no detected concentrations reported for the bracketed field samples.	QSM Table F-2 >120%=J; <80%=J/UJ
13. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-2

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta / November 13, 2012

SDG: 240-16425 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
14. Were target analytes detected> ½ the RL?		X			QSM Table F-2 <5x=B
15. Was a field blank collected and analyzed?	X				
16. Were target analytes detected in the field blank analyses >1/2 the MRL?		X			QSM Table F-2 <5x=B
17. Was an LCS prepared and analyzed with each batch?	X				QSM Table F-2
18. Were the LCS recoveries within limits specified in QSM Table G-14?	X			Checked by ADR.	QSM Table G-14 >UL=J; <LL=J/UJ/R
19. Was a MS/MSD pair prepared with each batch?	X				QSM Table F-2
20. Was the MS/MSD parent a Ravenna sample?	X			A matrix spike analysis was performed on sample FWGFWGmw-012-0175-GW.	
21. Were MS/MSD recoveries and RPD within limits specified in QSM Table G-14?		X		Checked by ADR. The MS/MSD RPD was above control limits of 30% for 4,4'-DDE at 33% and 4,4'-DDT at 39%. The matrix spike recovered below control limits of 70-130% for toxaphene at 67%. The 4,4'-DDE, toxaphene and 4,4'-DDT results for sample FWGFWGmw-012-0175-GW were qualified as estimated, "UJ".	QSM Table F-2 Pj with >UL=J; <LL=J/UJ/R
22. Were surrogate recoveries as specified in QSM table G-3?		X		The surrogate TCMX recovered below control limits of 25-140% on CLP-1 and CLP-2 at 11% in sample FWGFWGmw-004-0167-GW. The surrogate DCB recovered below control limits of 30-135% on CLP-1 at 8% and on CLP-2 at 6% in sample FWGFWGmw-004-0167-GW. The results for FWGFWGmw-004-0167-GW were qualified as estimated, "UJ". The surrogate DCB recovered below control limits of 30-135% on CLP-2 at 26% in sample FWGFWGmw-011-0174-GW. No qualification was made as CLP-2 was used for confirmation and there were no detected concentrations reported for sample FWGFWGmw-011-0174-GW.	QSM Table F-2 >LL=J; <LL=UJ/J/R
23. Was a field duplicate analyzed? Were the RPDs ≤50%?	X			Checked by ADR.	RPD >50=J parent sample only
24. Were all positive results verified by a second column confirmation? Were the RPD's ≤ 40?			X	There were no detected concentrations greater than the LOD, so no evaluation was made.	QSM Table F-2 >40 RPD=J

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta / November 13, 2012

SDG: 240-16425 R0
Analysis: SW846 8081A

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-16425-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1
3. Were holding times met?		X		The following samples were re-prepared outside the holding time of seven days but were extracted because of low surrogates within 2x hold (14 days) and the associated results were qualified as estimated, "J/UJ": FWGEBGmw-131-0163-GW, FWGFWGmw-001-0164-GW and FWGFWGmw-012-0175-GW.	QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Calibration					
6a. Does the initial calibration curve consist of 5 concentration levels of Aroclors 1016 and 1260?	X			Instrument A2HP13 10/21/12 Stds = 0.05, 0.1, 0.2, 0.5, 1.0, 2.0	QSM Table F-2 R
6b. Was the % RSD ≤ 20%? or Were the r^2s >0.990?	X				QSM Table F-2 RSD>20% or r<0.99= J/R
7. Was a LOD Verification performed once per quarter? Were all target analytes detected?	X			8/31/12	QSM Table F-2 R
8. Was an MRL Level Verification performed at the beginning and end of the sequence or every 12 hours? Were recoveries 70-130%?	X				LCG Table 3 >UCL=J; <LCL=J/UJ/R;
9. Was a second source (ICV) verification performed after the ICAL? Were the avg of all peaks for each aroclor 80-120%?	X				QSM Table F-2 >120%=J; <80%=J/ UJ/R
10. Were single standards of the other five Aroclors run to aid in pattern recognition and to determine a single point calibration factor?			X	All other aroclors calibrated.	Method 8082 Section 5.6.2
11. Was a CCV run every 12 hours?	X				QSM Table F-2

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-16425-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
12. Was the % D ≤ 20 % for each analyte?	X				QSM Table F-2 D>20%(neg)=J/R D>20% (pos) =J
13. Was a method blank prepared and analyzed with each batch?	X			Section checked by ADR	QSM Table F-2
14. Were target analytes <1/2 the MRL?	X				QSM Table F-2 <5x = B
15. Was an equipment blank collected and analyzed?	X				
16. Were target analytes in the field blank analyses (equipment) <1/2 the MRL?	X			Section checked by ADR	QSM Table F-2 <5x = B
17. Was an LCS prepared and analyzed with each batch?	X				QSM Table F-2
18. Were the LCS recoveries within limits specified in LCG Appendix C?	X			Section checked by ADR	QSM Table F-2, Table G-16 >UL=J; <LCL%=J/R/UJ;
19. Was a MS/MSD pair prepared with each batch?	X				LCG Table 3
20. Was the MS/MSD parent a Ravenna sample?	X			A matrix spike analysis was performed on sample FWGFWGmw-012-0175-GW.	
21. Were MS/MSD recoveries and RPD within limits specified in the DOD QSM Table G-16?		X		The aroclor 1016 MS/MSD RPD was above control limits of 30% at 39%. The results for sample FWGFWGmw-012-0175-GWwere qualified as estimated, "UJ".	QSM Table F-2, Table G-16 >UL=J; <LCL%=J/R/UJ;
22. Was the surrogate spiked into all samples?	X				
23. Were surrogate recoveries As specified in table G-3 of the DoD QSM?		X		Checked by ADR. The surrogate, DCB, recovered below control limits of 40-135% for sample FWGFWGmw-002-0165-GW at 29% on both columns, at 37% on CLP-1 and 36% on CLP-2 for sample FWGFWGmw-010-0173-GW and at 20% on CLP-1 and 19% on CLP-2 for sample FWGFWGmw-011-0174-GW. In sample FWGFWGmw-004-0167-GW, TCMX recovered below limits at 10% on both columns (control limits 40-140%) and at 0% for DCB on both columns. The results for samples FWGFWGmw-002-0165-GW, FWGFWGmw-010-0173-GW and FWGFWGmw-011-0174-GW GW were qualified as estimated, "UJ". The results for	QSM Table F-2, Table G-3 >UCL=J; <LCL=J/UJ/R

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-16425-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				sample FWGFWGmw-004-0167-GW were qualified as unusable, "R".	
24. Was a field duplicate analyzed? Were the RPDs <50%?			X	Checked by ADR. No detected concentrations were reported.	QSM Table F-2, RPD >50=J
25. Were all positive results verified by a second dissimilar column confirmation? Was the RPD ≤ 40?			X	No detected concentrations were reported.	QSM Table F-2, RPD>40=J

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-14625-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Was a LOD Verification performed once per quarter with all target analytes detected?	X			ICP 7/10/12, ICPMS 7/12/12 and mercury, 7/13/12	DoD QSM Table F-8
7. Tuning (ICP MS Only)					
7a. Was a tune performed daily prior to calibration	X				DoD QSM Table F-8 R
7b. Mass Calibration <0.1 amu from true value	X				
7c. Resolution <0.9 amu full width at 10 % peak height	X				
7d. RSD <%5 for a minimum of four replicate analyses	X				
8.Calibration	X				
8a. Was the ICAL performed daily with at least	X				DoD QSM Tables F-8 and F-7
3 standards and a blank for ICP	X				
2 standards and a blank for ICP MS	X				
5 standards and a blank for Hg	X				
8b. Was the correlation coefficient r≥0.995 for each analyte?	X				DoD QSM Tables F-8 and F-7 r<0.995=J/R
8c. Was the ICV (second source verification) analyzed after the ICAL with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7
8d. Was the ICB analyzed after the ICV with detected results <1/2 the MRL?	X			ICP The ICB analyzed 10/23/12 had vanadium detected at 2.68ug/L. The vanadium results	DoD QSM Tables F-8 and F-7

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-14625-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-202-GF, FWGFWGmw-002-165-GF, FWGEQUIPRINSE1-0212-GW, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified, "U". ICPMS The ICB analyzed 10/26/12 had thallium detected at 0.491ug/L. The thallium results for samples FWGLL3mw-245-0184-GF and FWGFWGmw-012-0175-GF were qualified, "U".	< 5x = U
Sample Analysis					
9. Was a MRL Level Verification performed at the beginning of the daily sequence and end of the analytical sequence bracketing samples? Were results 70-130%?	X				LS to the DoD QSM DoD QSM Table G-18 >130%=J; 70-80%=J/UJ; <70%=J/UJ <65%=R, unless DL check with detected results
10. Were CCVs analyzed every 10 samples and at the end of the analytical sequence with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7 >110%=J, <85%=J/R 90-85%=J/UJ;
11. Were the CCBs run every 10 samples and at the end of the analytical sequence? Were results <1/2 the MRL?		**X**		ICP The CCBs analyzed 10/23/12 had vanadium detected from 2.16ug/L to 2.31ug/L. The vanadium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-202-GF, FWGFWGmw-002-165-GF, FWGEQUIPRINSE1-0212-GW, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified, "U". ICPMS The CCBs analyzed 10/26/12 had thallium detected from 0.373 to 0.632ug/L, cadmium from 0.041ug/L to 09ug/L and beryllium from 0.059ug/L to 0.067ug/L.. The thallium results for samples FWGLL3mw-245-0184-GF and FWGFWGmw-012-0175-GF were qualified, "U". The cadmium and beryllium results for samples FWGFWGmw-001-164-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified "U".	DoD QSM Tables F-8 and F-7 <5x = U
12. Was an Interelement Check Standard run at the beginning of the analytical sequence and every 12 hours with the ICS recovery within 80 to 120% of true value for each element of interest (ICP and ICPMS only)?	**X**				DoD QSM Tables F-8 and F-7 >120%=J; 50-79%=J/UJ; <50%=Pj/R

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-14625-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
13. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
14. Were target analytes <1/2 the MRL in the method blank?		X		Checked by ADR. ICPMS-The method blank from batch 240-62240 had beryllium detected at 0.14ug/L, cadmium at 0.189ug/L and zinc at 9.35ug/L. The cadmium and beryllium results for samples FWGFWGmw-001-164-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified "B". The zinc result for sample FWGFWGmw-004-0167-GW was qualified "B".	DoD QSM Tables F-8 and F-7 <5x = B
15. Was a field blank collected and analyzed?	X				
16. Were target analytes reported in the field blank analyses >1/2 the MRL?		X		ADR checked section. FWGEQUIPRINSE1-0212-GW had vanadium detected at 1.6ug/L. The vanadium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-202-GF, FWGFWGmw-002-165-GF, FWGFWGmw-012-0175-GF and FWGFWGmw-004-0167-GW were qualified, "B".	DoD QSM Tables F-8 and F-7
17. Was a LCS prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
18. Were the LCS recoveries within limits specified in LCG Appendix C?	X			Checked by ADR.	DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R
19. Was a matrix spike (MS) and lab duplicate sample prepared with each batch?	X				DoD QSM Tables F-8 and F-7
20. Was the MS and Lab Duplicate parent a Ravenna sample?	X				
21. Were the MS recoveries within 80-120%?	X				DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R All samples in batch

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-14625-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
22. Was the lab sample duplicate RPD ≤ 20%?		X		The lab duplicate analyzed on FWGFWGmw-012-0175-GF recovered above control limits of 20% for beryllium at 57% and cadmium at 103%. The beryllium and cadmium results for samples FWGLL3mw-245-0184-GF, FWGLL3mw-DUP5-0202-GF, FWGFWGmw-002-0165-GF, FWGFWGmw-001-0164-GF, FWGEQUIPRINSE1-0212-GW, FWGEBGmw-131-0163-GF, FWGFWGmw-010-0173-GF, FWGFWGmw-012-0175-GF, FWGFWGmw-011-0174-GF and FWGFWGmw-004-0167-GF were qualified as estimated, "UJ/J".	DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
23. Was a serial dilution performed, with the five fold dilution within ± 10% of the original result?			X	Post spike results and matrix spike results acceptable.	DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
24. Was a Post Digestion Spike analyzed as needed? Were results within 75-125%?	X				LCG Table 7 >125%=J; 30-75%=J/UJ; <30%=R
25. Was a field duplicate analyzed? Were the RPDs ± 50% for sample results detected above the LOD?		X		Checked by ADR. ICPMS-The field duplicate FWGLL3mw-DUP5-0202-GF was collected and analyzed for FWGLL3mw-245-0184-GF. The field duplicate RPD was above control limits of 30% for antimony at 86% and thallium at 200%. The antimony and thallium results for sample FWGLL3mw-245-0184-GF were qualified as estimated, "J".	QAPP Table 3-2 >30% = J parent sample only
26. Were internal standards added to all ICPMS samples with intensity within 30-120% of the intensity of the ICAL internal standard?	X				DoD QSM Table F-8 >120%=J/R <20%=J

References:

- *DoD Quality Systems Manual (QSM), version 4.1, October 2010*
- *Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007*
- *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012*
- *Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011*

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-16425-1
Analysis: SW846 9012

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Does the initial calibration curve consist of at least 6 standards and one blank, with the correlation coefficient R $\geq$ 0.995? ?	X				*DoD QSM Table F-10* R
7. Were a high and low standard distilled and analyzed with results within $\pm$ 15%?	X				*DoD QSM Table F-10* R
8. Was an LOD Verification performed at least once per quarter with all target analytes detected?	X			8/7/12	LCG Table 10 R
9. Was a MRL Level Verification performed at the beginning of every and end of the daily sequence? Were results within 70-130%?	X				LCG Table 10, LS >130%=J; 65-70%=J/UJ; <65%=J/R
10. Was a second source verification (ICV) analyzed after the ICAL and all analytes 85-115%?	X				*DoD QSM Table F-10* >115%=J; 80-85%=J/UJ; <80%=J/R
11. Was a method blank prepared and analyzed with each batch?	X				*DoD QSM Table F-10*
12. Were target analytes detected in the method blank >1/2 the MRL?		X		Checked by ADR.	*DoD QSM Table F-10* <5x=B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes in the field blank analyses <1/2 the MRL?	X				*DoD QSM Table F-10* <5x=B
15. Was a field duplicate analyzed? Were the RPDs $\leq$20%?	X			Checked by ADR.	>30% = J
16. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-10

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-16425-1
Analysis: SW846 9012

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
17. Were the LCS recoveries 80-118%?	X			Checked by ADR.	*DoD QSM Table F-10* Lab Limits >118%=J; 50-79%=J/UJ; <50%=R
18. Was a MS and duplicate (sample or matrix) prepared once per every 10 samples?	X				DoD QSM Table F-10
19. Was the MS parent a Ravenna sample?	X				
20. Were matrix spike recoveries 42-140%?	X			Checked by ADR.	DoD QSM Table F-10 >140%=J; <42%=J/UJ/R

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011
Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 15, 2012

SDG: 240-16425 R0
Analysis: SW846 8330 Explosives

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a LOD Verification analyzed once per quarter with all target analytes detected?	X			LC10 9/1/12 @ 1911 LC12 10/1/12 @ 0029	DoD QSM Table F-3 R
7.Calibration					
7a. Does the initial calibration curve consist of 5 concentration levels? (6 stds for quadratic curves)	X			LC10 9/1/12 LC12 10/1/12, 2-nitrotoluene coelutes with 4-nitrotoluene, LC12 not used as primary reporting column of 2-nitrotoluene and 4-nitrotoluene	DoD QSM Table F-3 R
7b. Did all target analytes using avg response have an RSD $\leq$ 15% ?	X				
7c. If a linear regression curve was used, was the correlation coefficient r≥0.995? (0.990 for Quadratic curve).			X		
8. Was a second source verification (ICV) analyzed after the ICAL and all analytes 80-120%?	X			LC10 9/1/12 1751 LC12 10/1/12 @2324	DoD QSM Table F-3 >120%=J; <80%= J/UJ;
Sample Analysis					
9. Was a CCV run at the beginning of the analytical sequence, every 10 samples and at the end of the analytical run with targets and surrogates recovering 80-120% of the true value?	X				DoD QSM Table F-3 J/UJ
10. Was a MRL Level verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D < 30%?		X		10/29/12 @ 1102 MRL recovered above control limits of 70-130% for 2-nitrotoluene and 2,6-dintrotoluene at 141%. 10/30/12 @ 1029 MRL recovered above control limits of 70-130% for 4-amino-2,6-dintrotoluene at 134% and 2-amino-4,6-dintrotoluene at 136% No qualifications were required as there were no detected concentrations of for 2-nitrotoluene, 2,6-dintrotoluene, 4-amino-2,6-dintrotoluene and 2-amino-4,6-dintrotoluene reported for the associated field samples.	LCG Table 5 >30%=J

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 15, 2012

SDG: 240-16425 R0
Analysis: SW846 8330 Explosives

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
11. Was a method blank prepared and analyzed with each batch?	X			Samples FWGFWGmw-002-0165-GW and FWGFWGmw-004-0167-GW were filtered prior to analysis due to excessive sediment. A filter blank was prepped and analyzed with no detected results.	DoD QSM Table F-3
12. Were target analytes detected in the method blank <1/2 the MRL?		X		Checked by ADR.	DoD QSM Table F-3 <5x = B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes detected in the field blank analyses > ½ the MRL?		X		Checked by ADR	DoD QSM Table F-3 <5x=B
15. Was a field duplicate analyzed? Were the RPDs ≤30%?	X				RPD >30=J
16. Were all positive results confirmed with a second column confirmation? Were the RPDs ≤ 40%?			X	No detected concentrations were reported.	DoD QSM Table F-3 RPD>40%=J
17. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-3
18. Were the LCS recoveries within limits specified in table G-12 of the DoD QSM?	X			Checked by ADR.	DoD QSM Table F-3 <UL=J; 30-LL=J/UJ; <30%=J/R
19.Was a MS/MSD or MS and sample duplicate prepared with each batch?	X				DoD QSM Table F-3
20. Were MS/MSD recoveries within limits specified in table G-12 of the DoD QSM with an RPD ≤20%?	X				DoD QSM Table F-3 Pj
21. Were surrogate recoveries within laboratory limits (79-111%)?		X		The surrogate 3,4-dinitrotoluene recovered above control limits of 79-111% on LC12 for sample FWGEQUIPRINSE1-0212-GW at 140%. No qualifications were required as there were no detected concentrations reported for FWGEQUIPRINSE1-0212-GW.	QSM Tables F-2 >UL=J; <LL =J/UJ

References: DoD Quality Systems Manual (QSM), version 4.1, October 2010
Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007
Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012
Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 15, 2012

SDG: 240-16425-1
Analysis: SW846 8330M Nitroguanidine

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a LOD Verification analyzed once per quarter with all target analytes detected?	X			10/17/12 @1124	DoD QSM Table F-3 R
7.Calibration					
7a. Does the initial calibration curve consist of 5 concentration levels? (6 stds for quadratic curves)	X			PDA-1 10/17/12	DoD QSM Table F-3 R
7b. Did all target analytes using avg response have an RSD $\leq$ 15% ?	X				
7c. If a linear regression curve was used, was the correlation coefficient r$\geq$0.995? (0.990 for Quadratic curve).			X		
7d. Did reanalysis of the low level standard after calibration, recover within 15%?	X			10/17/12 @1138	
8. Was a second source verification (ICV) analyzed after the ICAL and all analytes 80-120%?	X			10/17/12 @ 1110	DoD QSM Table F-3 >120%=J; <80%= J/UJ;
Sample Analysis					
9. Was a CCV run at the beginning of the analytical sequence, every 10 samples and at the end of the analytical run with targets and surrogates recovering 80-120% of the true value?	X				DoD QSM Table F-3 J/UJ
10. Was a MRL Level verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D < 30%?	X				LCG Table 5 >30%=J
11. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Table F-3

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 15, 2012

SDG: 240-16425-1
Analysis: SW846 8330M Nitroguanidine

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
12. Were target analytes detected in the method blank <1/2 the MRL?		X		Checked by ADR.	DoD QSM Table F-3 <5x = B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes detected in the field blank analyses < ½ the MRL?		X		Checked by ADR.	DoD QSM Table F-3 <5x=B
15. Was a field duplicate analyzed? Were the RPDs ≤30%?	X				RPD >30=J
16. Were all positive results confirmed with a second column confirmation? Were the RPDs ≤ 40%?			X	No detected concentrations were reported.	DoD QSM Table F-3 RPD>40%=J
17. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-3
18. Were the LCS recoveries within laboratory limits of 79%-119%?	X			Checked by ADR.	DoD QSM Table F-3 <UL=J; 30-LL=J/UJ; <30%=J/R
19. Was a MS/MSD or MS and sample duplicate prepared with each batch?	X				DoD QSM Table F-3
20. Were MS/MSD recoveries within laboratory limits of 40%-150% with an RPD ≤20%?	X				DoD QSM Table F-3 Pj

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-16425-1
Analysis: TAL SOP WS-WC-0050

Review Questions:	Yes	No	N/A	Comments	Qualifier
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Does the initial calibration curve consist of 5 concentration levels with the low standard near but > MDL?	X				STL SOP Section 10.2 R
7. Was the correlation coefficient >0.995?	X				STL SOP Section 10.2
8. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D <30%?	X				LCG Table 5 >30%=J
9. Was a second source verification (ICV) analyzed after the ICAL? Were all analytes 90-110%?	X				STL SOP Section 9.8, 10.3, LCG >110%=J; 90-85%=J/UJ; <85%=J/R
10. Was the ICB analyzed after the ICV with results <1/2 the MRL?	X				STL SOP Section 9.8, LCG ,< 5x = U
11. Was a CCV run every 10 samples and at the end of the analytical run?	X				STL SOP Section 10.4
12. Was the ICV and CCV a mid-level standard from the initial calibration curve?	X				STL SOP Section 10.3.1
13. Were all CCV calibration analytes within 90-110%?	X				STL SOP Section 10.4, >110%=J; 85-90%=J/UJ; <85%=J/R
14. Was the ICB analyzed after the ICV with results <1/2 the MRL?	X				STL SOP Section 10.4, QSM, < 5x = U

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 14, 2012

SDG: 240-16425-1
Analysis: TAL SOP WS-WC-0050

Review Questions:	Yes	No	N/A	Comments	Qualifier
15. Was the Nitrocellulose assay available and/or analyzed to be within 10%?	X				STL SOP Section 7.14.1, R
16. Was a method blank prepared and analyzed with each batch?	X				
17. Were target analytes detected in the method blank <1/2 the MRL?		X		ADR checked section.	STL SOP Section 9.4, LCG, *<5x=B*
18. Was a field blank collected and analyzed?	X				
19. Were target analytes detected in the field blank analyses <1/2 the MRL?		X			<5x=B
20. Was a field duplicate analyzed? Were the RPDs ≤30%?	X			ADR checked section.	QAPP Table 3-2 RPD > 30% = J
21. Was an LCS prepared and analyzed with each batch? Was the LCS recovery within lab's in-house limits% (26-144%)?	X				>UL%=J; 50-LL%=J/UJ; <50%=J/R
22. Was a MS/MSD pair prepared with each batch?	X				
23. Was the MS/MSD parent a Ravenna sample?	X				
24. Were MS/MSD recoveries 26-144% and RPD ≤20?	X			ADR checked section.	Method EPA 353.2 Section 9.4.2 >UL%=J; <LL%=J/UJ; RPD>20%=J/UJ

References:

STL SOP SAC-WC-0050 "Preparation and Analysis of Nitrocellulose in Aqueous and Soil/Sediment Samples by Colorimetric Autoanalyzer", Jan 2007, rev. 2.0

DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Appendix II

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
6010B	FWGEQUIPRINSE1-0212-GW	AQ	EB							
				VANADIUM	4.0	1.6J		U	ug/L	Cb
6010B	FWGFWGmw-002-0165-GF	AQ	N							
				VANADIUM	4.0	2.7J		UB	ug/L	Eb, Cb
6010B	FWGFWGmw-004-0167-GF	AQ	N							
				COBALT	4.0	1.7J		J	ug/L	RI
				LEAD	5.0	1.7J		J	ug/L	RI
				NICKEL	5.0	2.9J		J	ug/L	RI
				VANADIUM	4.0	7.0		UB	ug/L	Eb, Cb
6010B	FWGFWGmw-011-0174-GF	AQ	N							
				ARSENIC	10	4.4J		J	ug/L	RI
6010B	FWGFWGmw-012-0175-GF	AQ	N							
				COBALT	4.0	1.5J		J	ug/L	RI
				POTASSIUM	900	890J		J	ug/L	RI
				VANADIUM	4.0	1.4J		UB	ug/L	Eb, Cb
6010B	FWGLL3mw-245-0184-GF	AQ	N							
				VANADIUM	4.0	1.8J		UB	ug/L	Eb, Cb
6010B	FWGLL3mw-DUP5-0202-GF	AQ	FD							
				VANADIUM	4.0	1.5J		UB	ug/L	Eb, Cb
6020	FWGEBGmw-131-0163-GF	AQ	N							
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld
6020	FWGEQUIPRINSE1-0212-GW	AQ	EB							
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
6020	FWGFWGmw-001-0164-GF	AQ	N							
				BERYLLIUM	0.10	0.039J		UJB	ug/L	Mb, Ld, Cb
				CADMIUM	0.070	0.032J		UJB	ug/L	Mb, Ld, Cb
6020	FWGFWGmw-002-0165-GF	AQ	N							
				ANTIMONY	0.50	0.21J		J	ug/L	RI
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld
6020	FWGFWGmw-004-0167-GF	AQ	N							
				BERYLLIUM	0.10	0.16J		UJB	ug/L	Mb, Ld, Cb
				CADMIUM	0.070	0.10J		UJB	ug/L	Mb, Ld, Cb
				ZINC	20	17J		B	ug/L	Mb
6020	FWGFWGmw-010-0173-GF	AQ	N							
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld
6020	FWGFWGmw-011-0174-GF	AQ	N							
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld
6020	FWGFWGmw-012-0175-GF	AQ	N							
				ANTIMONY	0.50	0.27J		J	ug/L	RI
				BERYLLIUM	0.10	0.16J		UJB	ug/L	Mb, Ld, Cb
				CADMIUM	0.070	0.22J		UJB	ug/L	Mb, Ld, Cb
				THALLIUM	1.0	0.98J		U	ug/L	Cb
6020	FWGLL3mw-245-0184-GF	AQ	N							
				ANTIMONY	0.50	0.58J		J	ug/L	Fd
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld
				THALLIUM	1.0	0.58J		UJ	ug/L	Fd, Cb

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
6020	FWGLL3mw-DUP5-0202-GF	AQ	FD							
				ANTIMONY	0.50	0.23J		J	ug/L	RI
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld
8081A	FWGFWGmw-004-0167-GW	AQ	N							
				4,4'-DDD	0.0096	0.0096U		UJ	ug/L	Surr
				4,4'-DDE	0.0096	0.0096U		UJ	ug/L	Surr
				4,4'-DDT	0.029	0.029U		UJ	ug/L	Surr
				ALDRIN	0.0096	0.0096U		UJ	ug/L	Surr
				ALPHA-BHC	0.0096	0.0096U		UJ	ug/L	Surr
				ALPHA-CHLORDANE	0.013	0.013U		UJ	ug/L	Surr
				BETA-BHC	0.0096	0.0096U		UJ	ug/L	Surr
				DELTA-BHC	0.0096	0.0096U		UJ	ug/L	Surr
				DIELDRIN	0.0096	0.0096U		UJ	ug/L	Surr
				ENDOSULFAN I	0.013	0.013U		UJ	ug/L	Surr
				ENDOSULFAN II	0.012	0.012U		UJ	ug/L	Surr
				ENDOSULFAN SULFATE	0.011	0.011U		UJ	ug/L	Surr
				ENDRIN	0.011	0.011U		UJ	ug/L	Surr
				ENDRIN ALDEHYDE	0.011	0.011U		UJ	ug/L	Surr
				ENDRIN KETONE	0.0096	0.0096U		UJ	ug/L	Surr
				gamma-BHC (Lindane)	0.0096	0.0096U		UJ	ug/L	Surr
				GAMMA-CHLORDANE	0.012	0.012U		UJ	ug/L	Surr
				HEPTACHLOR	0.0096	0.0096U		UJ	ug/L	Surr
				HEPTACHLOR EPOXIDE	0.0096	0.0096U		UJ	ug/L	Surr
				METHOXYCHLOR	0.031	0.031U		UJ	ug/L	Surr
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Surr
8081A	FWGFWGmw-012-0175-GW	AQ	N							
				4,4'-DDE	0.0095	0.0095U J		UJ	ug/L	Ms
				4,4'-DDT	0.029	0.029U J		UJ	ug/L	Ms
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Ms

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8082	FWGEBGmw-131-0163-GW	AQ	N							
				AROCLOR 1016	0.20	0.20U H		UJ	ug/L	StoE
				AROCLOR 1221	0.20	0.20U H		UJ	ug/L	StoE
				AROCLOR 1232	0.20	0.20U H		UJ	ug/L	StoE
				AROCLOR 1242	0.40	0.40U H		UJ	ug/L	StoE
				AROCLOR 1248	0.20	0.20U H		UJ	ug/L	StoE
				AROCLOR 1254	0.20	0.20U H		UJ	ug/L	StoE
				AROCLOR 1260	0.20	0.20U H		UJ	ug/L	StoE
8082	FWGFWGmw-001-0164-GW	AQ	N							
				AROCLOR 1016	0.21	0.21U H		UJ	ug/L	StoE
				AROCLOR 1221	0.21	0.21U H		UJ	ug/L	StoE
				AROCLOR 1232	0.21	0.21U H		UJ	ug/L	StoE
				AROCLOR 1242	0.42	0.42U H		UJ	ug/L	StoE
				AROCLOR 1248	0.21	0.21U H		UJ	ug/L	StoE
				AROCLOR 1254	0.21	0.21U H		UJ	ug/L	StoE
				AROCLOR 1260	0.21	0.21U H		UJ	ug/L	StoE
8082	FWGFWGmw-002-0165-GW	AQ	N							
				AROCLOR 1016	0.21	0.21U		UJ	ug/L	Surr
				AROCLOR 1221	0.21	0.21U		UJ	ug/L	Surr
				AROCLOR 1232	0.21	0.21U		UJ	ug/L	Surr
				AROCLOR 1242	0.43	0.43U		UJ	ug/L	Surr
				AROCLOR 1248	0.21	0.21U		UJ	ug/L	Surr
				AROCLOR 1254	0.21	0.21U		UJ	ug/L	Surr
				AROCLOR 1260	0.21	0.21U		UJ	ug/L	Surr

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8082	FWGFWGmw-004-0167-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U		R	ug/L	Surr
				AROCLOR 1221	0.19	0.19U		R	ug/L	Surr
				AROCLOR 1232	0.19	0.19U		R	ug/L	Surr
				AROCLOR 1242	0.38	0.38U		R	ug/L	Surr
				AROCLOR 1248	0.19	0.19U		R	ug/L	Surr
				AROCLOR 1254	0.19	0.19U		R	ug/L	Surr
				AROCLOR 1260	0.19	0.19U		R	ug/L	Surr
8082	FWGFWGmw-010-0173-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1221	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1232	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1242	0.38	0.38U		UJ	ug/L	Surr
				AROCLOR 1248	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1254	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1260	0.19	0.19U		UJ	ug/L	Surr
8082	FWGFWGmw-012-0175-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H J		UJ	ug/L	StoE, Surr,
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE, Surr
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE, Surr
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE, Surr
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE, Surr
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE, Surr
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE, Surr
8260B	FWG TEAM #1 TRIP	AQ	TB							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8260B	FWG TEAM 2-TRIP	AQ	TB							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWG TEAM3-TRIP	AQ	TB							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGEBGmw-131-0163-GW	AQ	N							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGEQUIPRINSE1-0212-GW	AQ	EB							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-001-0164-GW	AQ	N							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-002-0165-GW	AQ	N							
				ACETONE	1.1	2.5J		B	ug/L	Tb, Eb
				CHLOROETHANE	0.50	0.33J		J	ug/L	RI
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8260B	FWGFWGmw-004-0167-GW	AQ	N							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-010-0173-GW	AQ	N							
				ACETONE	1.1	2.3J		B	ug/L	Tb, Eb
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-011-0174-GW	AQ	N							
				ACETONE	1.1	1.2J		B	ug/L	Tb, Eb
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-012-0175-GW	AQ	N							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGLL3mw-245-0184-GW	AQ	N							
				ACETONE	1.1	1.2J		JB	ug/L	Tb, Eb, Fd
				CARBON DISULFIDE	0.25	0.20J		J	ug/L	RI
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8260B	FWGLL3mw-DUP5-0202-GW	AQ	FD							
				CARBON DISULFIDE	0.25	0.17J		J	ug/L	RI
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8270C-SVOC4	FWGFWGmw-002-0165-GWRE	AQ	N							
				1,2,4-TRICHLOROBENZENE	0.82	0.82U H		UJ	ug/L	StoE
				1,2-DICHLOROBENZENE	0.82	0.82U H		UJ	ug/L	StoE
				1,3-DICHLOROBENZENE	0.82	0.82U H		UJ	ug/L	StoE
				1,4-DICHLOROBENZENE	0.82	0.82U H		UJ	ug/L	StoE
				2,2'-OXYBIS (1-CHLOROPROPANE)	0.82	0.82U H		UJ	ug/L	StoE
				2,4,5-TRICHLOROPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				2,4,6-TRICHLOROPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				2,4-DICHLOROPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				2,4-DIMETHYLPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				2,4-DINITROPHENOL	2.4	2.4U H		UJ	ug/L	StoE
				2-CHLORONAPHTHALENE	0.10	0.10U H		UJ	ug/L	StoE
				2-CHLOROPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				2-METHYLNAPHTHALENE	0.10	0.10U H		UJ	ug/L	StoE
				2-METHYLPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				2-NITROANILINE	0.82	0.82U H		UJ	ug/L	StoE
				2-NITROPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				3,3'-DICHLOROBENZIDINE	0.82	0.82U H		UJ	ug/L	StoE, lcv
				3-methylphenol/4-methylphenol	0.82	0.82U H		UJ	ug/L	StoE
				3-NITROANILINE	0.82	0.82U H		UJ	ug/L	StoE
				4,6-DINITRO-2-METHYLPHENOL	2.4	2.4U H		UJ	ug/L	StoE
				4-BROMOPHENYL-PHENYLETHER	0.82	0.82U H		UJ	ug/L	StoE
				4-CHLORO-3-METHYLPHENOL	0.82	0.82U H		UJ	ug/L	StoE
				4-CHLOROANILINE	0.82	0.82U H		UJ	ug/L	StoE
				4-CHLOROPHENYL-PHENYLETHER	0.82	0.82U H		UJ	ug/L	StoE
				4-NITROANILINE	0.82	0.82U H		UJ	ug/L	StoE
				4-NITROPHENOL	2.4	2.4U H		UJ	ug/L	StoE
				ACENAPHTHENE	0.10	0.10U H		UJ	ug/L	StoE
				ACENAPHTHYLENE	0.10	0.10U H		UJ	ug/L	StoE
				ANTHRACENE	0.10	0.10U H		UJ	ug/L	StoE
				BENZO(A)ANTHRACENE	0.10	0.10U H		UJ	ug/L	StoE
				BENZO(A)PYRENE	0.10	0.10U H		UJ	ug/L	StoE

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
				BENZO(B)FLUORANTHENE	0.10	0.10U H		UJ	ug/L	StoE
				BENZO(G,H,I)PERYLENE	0.10	0.10U H		UJ	ug/L	StoE
				BENZO(K)FLUORANTHENE	0.10	0.10U H		UJ	ug/L	StoE
				BENZOIC ACID	10	10U H		UJ	ug/L	StoE
				BENZYL ALCOHOL	0.82	0.82U H		UJ	ug/L	StoE
				BIS(2-CHLOROETHOXY)METHANE	0.82	0.82U H		UJ	ug/L	StoE
				Bis(2-chloroethyl)ether	0.10	0.10U H		UJ	ug/L	StoE
				BIS(2-ETHYLHEXYL)PHTHALATE	0.82	2.5H B		JB	ug/L	StoE, Mb,
				Butylbenzylphthalate	0.82	0.82U H		UJ	ug/L	StoE
				CARBAZOLE	0.82	0.82U H		UJ	ug/L	StoE
				CHRYSENE	0.10	0.10U H		UJ	ug/L	StoE
				DIBENZ(A,H)ANTHRACENE	0.10	0.10U H		UJ	ug/L	StoE
				DIBENZOFURAN	0.10	0.10U H		UJ	ug/L	StoE
				Diethylphthalate	0.82	0.82U H		UJ	ug/L	StoE
				Dimethylphthalate	0.82	0.82U H		UJ	ug/L	StoE
				DI-N-BUTYL PHTHALATE	0.82	0.82U H		UJ	ug/L	StoE
				DI-N-OCTYL PHTHALATE	0.82	0.82U H		UJ	ug/L	StoE
				FLUORANTHENE	0.10	0.10U H		UJ	ug/L	StoE
				FLUORENE	0.10	0.10U H		UJ	ug/L	StoE
				HEXACHLOROBENZENE	0.10	0.10U H		UJ	ug/L	StoE
				HEXACHLOROBUTADIENE	0.82	0.82U H		UJ	ug/L	StoE
				HEXACHLOROCYCLOPENTADIENE	0.82	0.82U H		UJ	ug/L	StoE
				HEXACHLOROETHANE	0.82	0.82U H		UJ	ug/L	StoE
				INDENO(1,2,3-CD)PYRENE	0.10	0.10U H		UJ	ug/L	StoE
				ISOPHORONE	0.82	0.82U H		UJ	ug/L	StoE
				NAPHTHALENE	0.10	0.10U H		UJ	ug/L	StoE
				N-NITROSO-DI-N-PROPYLAMINE	0.82	0.82U H		UJ	ug/L	StoE
				N-NITROSODIPHENYLAMINE	0.82	0.82U H		UJ	ug/L	StoE
				PENTACHLOROPHENOL	2.4	2.4U H		UJ	ug/L	StoE
				PHENANTHRENE	0.10	0.10U H		UJ	ug/L	StoE
				PHENOL	0.82	0.82U H		UJ	ug/L	StoE
				PYRENE	0.10	0.10U H		UJ	ug/L	StoE

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8270C-SVOC4	FWGFWGmw-004-0167-GW	AQ	N							
				BIS(2-ETHYLHEXYL)PHTHALATE	0.76	1.2J		B	ug/L	Eb
8270C-SVOC4	FWGFWGmw-011-0174-GW	AQ	N							
				BIS(2-ETHYLHEXYL)PHTHALATE	0.80	1.1J		B	ug/L	Eb

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
8270C-SVOC4	FWGFWGmw-012-0175-GWRE	AQ	N							
				1,2,4-TRICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				1,2-DICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				1,3-DICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				1,4-DICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				2,2'-OXYBIS (1-CHLOROPROPANE)	0.76	0.76U H		UJ	ug/L	StoE
				2,4,5-TRICHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4,6-TRICHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4-DICHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4-DIMETHYLPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4-DINITROPHENOL	2.3	2.3U H		UJ	ug/L	StoE
				2-CHLORONAPHTHALENE	0.095	0.095U H		UJ	ug/L	StoE
				2-CHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2-METHYLNAPHTHALENE	0.095	0.095U H		UJ	ug/L	StoE
				2-METHYLPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2-NITROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				2-NITROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				3,3'-DICHLOROBENZIDINE	0.76	0.76U H J		JB	ug/L	StoE, Ms, I
				3-methylphenol/4-methylphenol	0.76	0.76U H		UJ	ug/L	StoE
				3-NITROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				4,6-DINITRO-2-METHYLPHENOL	2.3	2.3U H		UJ	ug/L	StoE
				4-BROMOPHENYL-PHENYLETHER	0.76	0.76U H		UJ	ug/L	StoE
				4-CHLORO-3-METHYLPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				4-CHLOROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				4-CHLOROPHENYL-PHENYLETHER	0.76	0.76U H		UJ	ug/L	StoE
				4-NITROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				4-NITROPHENOL	2.3	2.3U H		UJ	ug/L	StoE
				ACENAPHTHENE	0.095	0.095U H		UJ	ug/L	StoE
				ACENAPHTHYLENE	0.095	0.095U H		UJ	ug/L	StoE
				ANTHRACENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZO(A)ANTHRACENE	0.095	0.095U H		UJ	ug/L	StoE

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
				BENZO(A)PYRENE	0.095	0.095U H J		UJ	ug/L	StoE, Ms
				BENZO(B)FLUORANTHENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZO(G,H,I)PERYLENE	0.095	0.095U H J		UJ	ug/L	StoE, Ms
				BENZO(K)FLUORANTHENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZOIC ACID	9.5	9.5U H		UJ	ug/L	StoE
				BENZYL ALCOHOL	0.76	0.76U H		UJ	ug/L	StoE
				BIS(2-CHLOROETHOXY)METHANE	0.76	0.76U H		UJ	ug/L	StoE
				Bis(2-chloroethyl)ether	0.095	0.095U H		UJ	ug/L	StoE
				BIS(2-ETHYLHEXYL)PHTHALATE	0.76	2.8H B J		JB	ug/L	StoE, Mb,
				Butylbenzylphthalate	0.76	0.76U H		UJ	ug/L	StoE
				CARBAZOLE	0.76	0.76U H		UJ	ug/L	StoE
				CHRYSENE	0.095	0.095U H		UJ	ug/L	StoE
				DIBENZ(A,H)ANTHRACENE	0.095	0.095U H		UJ	ug/L	StoE
				DIBENZOFURAN	0.095	0.095U H		UJ	ug/L	StoE
				Diethylphthalate	0.76	0.76U H		UJ	ug/L	StoE
				Dimethylphthalate	0.76	0.76U H		UJ	ug/L	StoE
				DI-N-BUTYL PHTHALATE	0.76	0.76U H		UJ	ug/L	StoE
				DI-N-OCTYL PHTHALATE	0.76	0.76U H J		UJ	ug/L	StoE, Ms
				FLUORANTHENE	0.095	0.095U H		UJ	ug/L	StoE
				FLUORENE	0.095	0.095U H		UJ	ug/L	StoE
				HEXACHLOROBENZENE	0.095	0.095U H		UJ	ug/L	StoE
				HEXACHLOROBUTADIENE	0.76	0.76U H		UJ	ug/L	StoE
				HEXACHLOROCYCLOPENTADIENE	0.76	0.76U H		UJ	ug/L	StoE
				HEXACHLOROETHANE	0.76	0.76U H		UJ	ug/L	StoE
				INDENO(1,2,3-CD)PYRENE	0.095	0.095U H		UJ	ug/L	StoE
				ISOPHORONE	0.76	0.76U H		UJ	ug/L	StoE
				NAPHTHALENE	0.095	0.095U H		UJ	ug/L	StoE
				N-NITROSO-DI-N-PROPYLAMINE	0.76	0.76U H		UJ	ug/L	StoE
				N-NITROSODIPHENYLAMINE	0.76	0.76U H J		UJ	ug/L	StoE, Ms
				PENTACHLOROPHENOL	2.3	2.3U H		UJ	ug/L	StoE

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16425-1										
				PHENANTHRENE	0.095	0.095U H		UJ	ug/L	StoE
				PHENOL	0.76	0.76U H		UJ	ug/L	StoE
				PYRENE	0.095	0.095U H		UJ	ug/L	StoE
8330	FWGFWGmw-002-0165-GW	AQ	N							
				1,3,5-TRINITROBENZENE	0.052	0.040J		J	ug/L	RI
9012A	FWGFWGmw-004-0167-GW	AQ	N							
				CYANIDE	0.010	0.0064J		J	mg/L	RI

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: GENCHEM

Method: 9012A **Matrix: AQ**

Sample ID: FWGFWGmw-004-0167-GW **Collected:** 10/15/2012 4:39:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CYANIDE	0.0064	J	0.0050	MDL	0.010	LOD	mg/L	J	RI

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: FWGEQUIPRINSE1-0212-GW **Collected:** 10/15/2012 5:18:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.6	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: FWGFWGmw-002-0165-GF **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	2.7	J	1.3	MDL	4.0	LOD	ug/L	U	Eb, Cb

Sample ID: FWGFWGmw-004-0167-GF **Collected:** 10/15/2012 4:39:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	1.7	J	1.5	MDL	4.0	LOD	ug/L	J	RI
LEAD	1.7	J	1.7	MDL	5.0	LOD	ug/L	J	RI
NICKEL	2.9	J	2.2	MDL	5.0	LOD	ug/L	J	RI
VANADIUM	7.0		1.3	MDL	4.0	LOD	ug/L	U	Eb, Cb

Sample ID: FWGFWGmw-011-0174-GF **Collected:** 10/15/2012 2:53:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.4	J	3.3	MDL	10	LOD	ug/L	J	RI

Sample ID: FWGFWGmw-012-0176-GF **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	1.5	J	1.5	MDL	4.0	LOD	ug/L	J	RI
POTASSIUM	890	J	300	MDL	900	LOD	ug/L	J	RI
VANADIUM	1.4	J	1.3	MDL	4.0	LOD	ug/L	U	Eb, Cb

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: FWGLL3mw-245-0184-GF **Collected:** 10/15/2012 12:52:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.8	J	1.3	MDL	4.0	LOD	ug/L	U	Eb, Cb

Sample ID: FWGLL3mw-DUP5-0202-GF **Collected:** 10/15/2012 1:32:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.5	J	1.3	MDL	4.0	LOD	ug/L	U	Eb, Cb

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGEBGmw-131-0163-GF **Collected:** 10/15/2012 1:00:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld

Sample ID: FWGEQUIPRINSE1-0212-GW **Collected:** 10/15/2012 5:18:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld

Sample ID: FWGFWGmw-001-0164-GF **Collected:** 10/15/2012 4:38:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.039	J	0.033	MDL	0.10	LOD	ug/L	UJ	Mb, Ld, Cb
CADMIUM	0.032	J	0.023	MDL	0.070	LOD	ug/L	UJ	Mb, Ld, Cb

Sample ID: FWGFWGmw-002-0165-GF **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.21	J	0.21	MDL	0.50	LOD	ug/L	J	RI
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGFWGmw-004-0167-GF **Collected:** 10/15/2012 4:39:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	17	J	8.8	MDL	20	LOD	ug/L	U	Mb

Sample ID: FWGFWGmw-004-0167-GF **Collected:** 10/15/2012 4:39:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.16	J	0.033	MDL	0.10	LOD	ug/L	UJ	Mb, Ld, Cb
CADMIUM	0.10	J	0.023	MDL	0.070	LOD	ug/L	UJ	Mb, Ld, Cb

Sample ID: FWGFWGmw-010-0173-GF **Collected:** 10/15/2012 2:55:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld

Sample ID: FWGFWGmw-011-0174-GF **Collected:** 10/15/2012 2:53:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld

Sample ID: FWGFWGmw-012-0175-GF **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.27	J	0.21	MDL	0.50	LOD	ug/L	J	RI
BERYLLIUM	0.16	J	0.033	MDL	0.10	LOD	ug/L	UJ	Mb, Ld, Cb
CADMIUM	0.22	J	0.023	MDL	0.070	LOD	ug/L	UJ	Mb, Ld, Cb
THALLIUM	0.98	J	0.32	MDL	1.0	LOD	ug/L	U	Cb

Sample ID: FWGLL3mw-245-0184-GF **Collected:** 10/15/2012 12:52:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.58	J	0.21	MDL	0.50	LOD	ug/L	J	Fd
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld
THALLIUM	0.58	J	0.32	MDL	1.0	LOD	ug/L	UJ	Cb, Fd

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGLL3mw-DUP5-0202-GF **Collected:** 10/15/2012 1:32:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.23	J	0.21	MDL	0.50	LOD	ug/L	J	RI
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld

Method Category: SVOA

Method: 8081A **Matrix: AQ**

Sample ID: FWGFWGmw-004-0167-GW **Collected:** 10/16/2012 4:39:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDD	0.0096	U	0.0092	MDL	0.0096	LOD	ug/L	UJ	Surr
4,4'-DDE	0.0096	U	0.0093	MDL	0.0096	LOD	ug/L	UJ	Surr
4,4'-DDT	0.029	U	0.015	MDL	0.029	LOD	ug/L	UJ	Surr
ALDRIN	0.0096	U	0.0079	MDL	0.0096	LOD	ug/L	UJ	Surr
ALPHA-BHC	0.0096	U	0.0067	MDL	0.0096	LOD	ug/L	UJ	Surr
ALPHA-CHLORDANE	0.013	U	0.013	MDL	0.013	LOD	ug/L	UJ	Surr
BETA-BHC	0.0096	U	0.0081	MDL	0.0096	LOD	ug/L	UJ	Surr
DELTA-BHC	0.0096	U	0.0084	MDL	0.0096	LOD	ug/L	UJ	Surr
DIELDRIN	0.0096	U	0.0072	MDL	0.0096	LOD	ug/L	UJ	Surr
ENDOSULFAN I	0.013	U	0.013	MDL	0.013	LOD	ug/L	UJ	Surr
ENDOSULFAN II	0.012	U	0.012	MDL	0.012	LOD	ug/L	UJ	Surr
ENDOSULFAN SULFATE	0.011	U	0.011	MDL	0.011	LOD	ug/L	UJ	Surr
ENDRIN	0.011	U	0.011	MDL	0.011	LOD	ug/L	UJ	Surr
ENDRIN ALDEHYDE	0.011	U	0.011	MDL	0.011	LOD	ug/L	UJ	Surr
ENDRIN KETONE	0.0096	U	0.0075	MDL	0.0096	LOD	ug/L	UJ	Surr
gamma-BHC (Lindane)	0.0096	U	0.0062	MDL	0.0096	LOD	ug/L	UJ	Surr
GAMMA-CHLORDANE	0.012	U	0.012	MDL	0.012	LOD	ug/L	UJ	Surr
HEPTACHLOR	0.0096	U	0.0077	MDL	0.0096	LOD	ug/L	UJ	Surr
HEPTACHLOR EPOXIDE	0.0096	U	0.0068	MDL	0.0096	LOD	ug/L	UJ	Surr
METHOXYCHLOR	0.031	U	0.031	MDL	0.031	LOD	ug/L	UJ	Surr
TOXAPHENE	0.48	U	0.31	MDL	0.48	LOD	ug/L	UJ	Surr

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8081A **Matrix: AQ**

Sample ID: FWGFWGmw-012-0176-GW **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4,4'-DDE	0.0095	U J	0.0092	MDL	0.0095	LOD	ug/L	UJ	Ms
4,4'-DDT	0.029	U J	0.015	MDL	0.029	LOD	ug/L	UJ	Ms
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Ms

Method Category: SVOA

Method: 8082 **Matrix: AQ**

Sample ID: FWGEBGmw-131-0163-GW **Collected:** 10/15/2012 1:00:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.20	U H	0.17	MDL	0.20	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.20	U H	0.13	MDL	0.20	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.20	U H	0.16	MDL	0.20	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.40	U H	0.22	MDL	0.40	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.20	U H	0.10	MDL	0.20	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.20	U H	0.16	MDL	0.20	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.20	U H	0.17	MDL	0.20	LOD	ug/L	UJ	StoE

Sample ID: FWGFWGmw-001-0164-GW **Collected:** 10/15/2012 4:38:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.21	U H	0.18	MDL	0.21	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.21	U H	0.14	MDL	0.21	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.21	U H	0.17	MDL	0.21	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.42	U H	0.23	MDL	0.42	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.21	U H	0.11	MDL	0.21	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.21	U H	0.17	MDL	0.21	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.21	U H	0.18	MDL	0.21	LOD	ug/L	UJ	StoE

Sample ID: FWGFWGmw-002-0165-GW **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.21	U	0.18	MDL	0.21	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.21	U	0.14	MDL	0.21	LOD	ug/L	UJ	Surr
AROCLOR 1232	0.21	U	0.17	MDL	0.21	LOD	ug/L	UJ	Surr

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8082 **Matrix:** AQ

Sample ID: FWGFWGmw-002-0165-GW **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1242	0.43	U	0.23	MDL	0.43	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.21	U	0.11	MDL	0.21	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.21	U	0.17	MDL	0.21	LOD	ug/L	UJ	Surr
AROCLOR 1260	0.21	U	0.18	MDL	0.21	LOD	ug/L	UJ	Surr

Sample ID: FWGFWGmw-004-0167-GW **Collected:** 10/15/2012 4:39:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U	0.16	MDL	0.19	LOD	ug/L	R	Surr
AROCLOR 1221	0.19	U	0.13	MDL	0.19	LOD	ug/L	R	Surr
AROCLOR 1232	0.19	U	0.15	MDL	0.19	LOD	ug/L	R	Surr
AROCLOR 1242	0.38	U	0.21	MDL	0.38	LOD	ug/L	R	Surr
AROCLOR 1248	0.19	U	0.096	MDL	0.19	LOD	ug/L	R	Surr
AROCLOR 1254	0.19	U	0.15	MDL	0.19	LOD	ug/L	R	Surr
AROCLOR 1260	0.19	U	0.16	MDL	0.19	LOD	ug/L	R	Surr

Sample ID: FWGFWGmw-010-0173-GW **Collected:** 10/15/2012 2:55:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.19	U	0.12	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1232	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1242	0.38	U	0.21	MDL	0.38	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.19	U	0.095	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1260	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr

Sample ID: FWGFWGmw-012-0175-GW **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H J	0.16	MDL	0.19	LOD	ug/L	UJ	Ms, StoE, Surr
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE, Surr
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE, Surr
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE, Surr
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE, Surr

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8082 **Matrix:** AQ

Sample ID: FWGFWGmw-012-0176-GW **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE, Surr
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE, Surr

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGFWGmw-002-0165-GWRE **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RE-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	0.82	U H	0.29	MDL	0.82	LOD	ug/L	UJ	StoE
1,2-DICHLOROBENZENE	0.82	U H	0.30	MDL	0.82	LOD	ug/L	UJ	StoE
1,3-DICHLOROBENZENE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
1,4-DICHLOROBENZENE	0.82	U H	0.35	MDL	0.82	LOD	ug/L	UJ	StoE
2,2'-OXYBIS (1-CHLOROPROPANE)	0.82	U H	0.41	MDL	0.82	LOD	ug/L	UJ	StoE
2,4,5-TRICHLOROPHENOL	0.82	U H	0.31	MDL	0.82	LOD	ug/L	UJ	StoE
2,4,6-TRICHLOROPHENOL	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
2,4-DICHLOROPHENOL	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
2,4-DIMETHYLPHENOL	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
2,4-DINITROPHENOL	2.4	U H	2.4	MDL	2.4	LOD	ug/L	UJ	StoE
2-CHLORONAPHTHALENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
2-CHLOROPHENOL	0.82	U H	0.30	MDL	0.82	LOD	ug/L	UJ	StoE
2-METHYLNAPHTHALENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
2-METHYLPHENOL	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
2-NITROANILINE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
2-NITROPHENOL	0.82	U H	0.29	MDL	0.82	LOD	ug/L	UJ	StoE
3,3'-DICHLOROBENZIDINE	0.82	U H	0.38	MDL	0.82	LOD	ug/L	UJ	StoE, Icv
3-methylphenol/4-methylphenol	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
3-NITROANILINE	0.82	U H	0.29	MDL	0.82	LOD	ug/L	UJ	StoE
4,6-DINITRO-2-METHYLPHENOL	2.4	U H	2.4	MDL	2.4	LOD	ug/L	UJ	StoE
4-BROMOPHENYL-PHENYLETHER	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
4-CHLORO-3-METHYLPHENOL	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
4-CHLOROANILINE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
4-CHLOROPHENYL-PHENYLETHER	0.82	U H	0.31	MDL	0.82	LOD	ug/L	UJ	StoE
4-NITROANILINE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGFWGmw-002-0165-GWRE **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RE-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-NITROPHENOL	2.4	U H	2.4	MDL	2.4	LOD	ug/L	UJ	StoE
ACENAPHTHENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
ACENAPHTHYLENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
ANTHRACENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
BENZO(A)ANTHRACENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
BENZO(A)PYRENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
BENZO(B)FLUORANTHENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
BENZO(G,H,I)PERYLENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
BENZO(K)FLUORANTHENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
BENZOIC ACID	10	U H	10	MDL	10	LOD	ug/L	UJ	StoE
BENZYL ALCOHOL	0.82	U H	0.39	MDL	0.82	LOD	ug/L	UJ	StoE
BIS(2-CHLOROETHOXY)METHANE	0.82	U H	0.33	MDL	0.82	LOD	ug/L	UJ	StoE
Bis(2-chloroethyl)ether	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
BIS(2-ETHYLHEXYL)PHTHALATE	2.5	H B	0.82	MDL	0.82	LOD	ug/L	UJ	Mb, StoE, Eb
Butylbenzylphthalate	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
CARBAZOLE	0.82	U H	0.29	MDL	0.82	LOD	ug/L	UJ	StoE
CHRYSENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
DIBENZ(A,H)ANTHRACENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
DIBENZOFURAN	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
Diethylphthalate	0.82	U H	0.61	MDL	0.82	LOD	ug/L	UJ	StoE
Dimethylphthalate	0.82	U H	0.30	MDL	0.82	LOD	ug/L	UJ	StoE
DI-N-BUTYL PHTHALATE	0.82	U H	0.68	MDL	0.82	LOD	ug/L	UJ	StoE
DI-N-OCTYL PHTHALATE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
FLUORANTHENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
FLUORENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
HEXACHLOROBENZENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
HEXACHLOROBUTADIENE	0.82	U H	0.28	MDL	0.82	LOD	ug/L	UJ	StoE
HEXACHLOROCYCLOPENTADIENE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
HEXACHLOROETHANE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
INDENO(1,2,3-CD)PYRENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
ISOPHORONE	0.82	U H	0.28	MDL	0.82	LOD	ug/L	UJ	StoE
NAPHTHALENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
N-NITROSO-DI-N-PROPYLAMINE	0.82	U H	0.82	MDL	0.82	LOD	ug/L	UJ	StoE
N-NITROSODIPHENYLAMINE	0.82	U H	0.32	MDL	0.82	LOD	ug/L	UJ	StoE

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGFWGmw-002-0165-GWRE **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RE-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
PENTACHLOROPHENOL	2.4	U H	2.4	MDL	2.4	LOD	ug/L	UJ	StoE
PHENANTHRENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE
PHENOL	0.82	U H	0.61	MDL	0.82	LOD	ug/L	UJ	StoE
PYRENE	0.10	U H	0.10	MDL	0.10	LOD	ug/L	UJ	StoE

Sample ID: FWGFWGmw-004-0167-GW **Collected:** 10/15/2012 4:39:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	1.2	J	0.76	MDL	0.76	LOD	ug/L	U	Eb

Sample ID: FWGFWGmw-011-0174-GW **Collected:** 10/15/2012 2:53:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	1.1	J	0.80	MDL	0.80	LOD	ug/L	U	Eb

Sample ID: FWGFWGmw-012-0175-GWRE **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RE-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
1,2-DICHLOROBENZENE	0.76	U H	0.28	MDL	0.76	LOD	ug/L	UJ	StoE
1,3-DICHLOROBENZENE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
1,4-DICHLOROBENZENE	0.76	U H	0.32	MDL	0.76	LOD	ug/L	UJ	StoE
2,2'-OXYBIS (1-CHLOROPROPANE)	0.76	U H	0.38	MDL	0.76	LOD	ug/L	UJ	StoE
2,4,5-TRICHLOROPHENOL	0.76	U H	0.29	MDL	0.76	LOD	ug/L	UJ	StoE
2,4,6-TRICHLOROPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2,4-DICHLOROPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2,4-DIMETHYLPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2,4-DINITROPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
2-CHLORONAPHTHALENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
2-CHLOROPHENOL	0.76	U H	0.28	MDL	0.76	LOD	ug/L	UJ	StoE
2-METHYLNAPHTHALENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
2-METHYLPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2-NITROANILINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2-NITROPHENOL	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
3,3'-DICHLOROBENZIDINE	0.76	U H J	0.35	MDL	0.76	LOD	ug/L	UJ	Ms, Ms, StoE, Icv

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGFWGmw-012-0176-GWRE **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RE-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3-methylphenol/4-methylphenol	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
3-NITROANILINE	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
4,6-DINITRO-2-METHYLPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
4-BROMOPHENYL-PHENYLETHER	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-CHLORO-3-METHYLPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-CHLOROANILINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-CHLOROPHENYL-PHENYLETHER	0.76	U H	0.29	MDL	0.76	LOD	ug/L	UJ	StoE
4-NITROANILINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-NITROPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
ACENAPHTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
ACENAPHTHYLENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
ANTHRACENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(A)ANTHRACENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(A)PYRENE	0.095	U H J	0.095	MDL	0.095	LOD	ug/L	UJ	Ms, Ms, StoE
BENZO(B)FLUORANTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(G,H,I)PERYLENE	0.095	U H J	0.095	MDL	0.095	LOD	ug/L	UJ	Ms, StoE
BENZO(K)FLUORANTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZOIC ACID	9.5	U H	9.5	MDL	9.5	LOD	ug/L	UJ	StoE
BENZYL ALCOHOL	0.76	U H	0.36	MDL	0.76	LOD	ug/L	UJ	StoE
BIS(2-CHLOROETHOXY)METHANE	0.76	U H	0.30	MDL	0.76	LOD	ug/L	UJ	StoE
Bis(2-chloroethyl)ether	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BIS(2-ETHYLHEXYL)PHTHALATE	2.8	H B J	0.76	MDL	0.76	LOD	ug/L	UJ	Ms, Mb, StoE, Eb
Butylbenzylphthalate	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
CARBAZOLE	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
CHRYSENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
DIBENZ(A,H)ANTHRACENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
DIBENZOFURAN	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
Diethylphthalate	0.76	U H	0.57	MDL	0.76	LOD	ug/L	UJ	StoE
Dimethylphthalate	0.76	U H	0.28	MDL	0.76	LOD	ug/L	UJ	StoE
DI-N-BUTYL PHTHALATE	0.76	U H	0.64	MDL	0.76	LOD	ug/L	UJ	StoE
DI-N-OCTYL PHTHALATE	0.76	U H J	0.76	MDL	0.76	LOD	ug/L	UJ	Ms, StoE
FLUORANTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
FLUORENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
HEXACHLOROBENZENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix: AQ**

Sample ID: FWGFWGmw-012-0176-GWRE **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RE-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXACHLOROBUTADIENE	0.76	U H	0.26	MDL	0.76	LOD	ug/L	UJ	StoE
HEXACHLOROCYCLOPENTADIENE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
HEXACHLOROETHANE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
INDENO(1,2,3-CD)PYRENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
ISOPHORONE	0.76	U H	0.26	MDL	0.76	LOD	ug/L	UJ	StoE
NAPHTHALENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
N-NITROSO-DI-N-PROPYLAMINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
N-NITROSODIPHENYLAMINE	0.76	U H J	0.30	MDL	0.76	LOD	ug/L	UJ	Ms, StoE
PENTACHLOROPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
PHENANTHRENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
PHENOL	0.76	U H	0.57	MDL	0.76	LOD	ug/L	UJ	StoE
PYRENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE

Method Category: SVOA

Method: 8330 **Matrix: AQ**

Sample ID: FWGFWGmw-002-0165-GW **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RE2-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,3,5-TRINITROBENZENE	0.040	J	0.032	MDL	0.052	LOD	ug/L	J	RI

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: FWG TEAM #1 TRIP **Collected:** 10/15/2012 12:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWG TEAM 2-TRIP **Collected:** 10/15/2012 10:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWG TEAM3-TRIP **Collected:** 10/15/2012 10:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGEBGmw-131-0163-GW **Collected:** 10/15/2012 1:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGEQUIPRINSE1-0212-GW **Collected:** 10/15/2012 5:18:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-001-0164-GW **Collected:** 10/15/2012 4:38:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWGFWGmw-002-0165-GW **Collected:** 10/15/2012 3:18:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.5	J	1.1	MDL	1.1	LOD	ug/L	U	Tb, Eb
CHLOROETHANE	0.33	J	0.29	MDL	0.50	LOD	ug/L	J	RI
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-004-0167-GW **Collected:** 10/15/2012 4:39:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-010-0173-GW **Collected:** 10/15/2012 2:55:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.3	J	1.1	MDL	1.1	LOD	ug/L	U	Tb, Eb
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-011-0174-GW **Collected:** 10/15/2012 2:53:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.2	J	1.1	MDL	1.1	LOD	ug/L	U	Tb, Eb
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-012-0175-GW **Collected:** 10/15/2012 1:03:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWGFWGmw-012-0176-GW **Collected:** 10/16/2012 1:03:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGLL3mw-245-0184-GW **Collected:** 10/16/2012 12:52:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.2	J	1.1	MDL	1.1	LOD	ug/L	UJ	Tb, Eb, Fd
CARBON DISULFIDE	0.20	J	0.13	MDL	0.25	LOD	ug/L	J	RI
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGLL3mw-DUP5-0202-GW **Collected:** 10/16/2012 1:32:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBON DISULFIDE	0.17	J	0.13	MDL	0.25	LOD	ug/L	J	RI
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16425-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16425-1 **eQAPP Name: RVAAP 66-rev July 2012**

Reason Code Legend

Reason Code	*Description*
Cb	Calibration Blank Contamination
Eb	Equipment Blank Contamination
Fd	Field Duplicate Precision
Icv	Initial Calibration Verification Percent Recovery Lower Estimation
Ld	Laboratory Duplicate Precision
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Precision
ProfJudg	Professional Judgment
RI	Reporting Limit Trace Value
StoE	Sampling to Extraction Estimation
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Lower Rejection
Tb	Trip Blank Contamination

* denotes a non-reportable result

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012
Sample Delivery Group: 240-16465

Date: February 11, 2013
Revision: 2

Data Reviewer: Angye Dragotta /Environmental Quality Management, Inc. (EQM, Inc.)

QA/QC Summary

On October 16, 2012 the following samples were collected from groundwater-monitoring wells at Ravenna Army Ammunition Plant and analyzed as part of SDG 240-16465. Sample analysis was performed by Test America, North Canton with the exception of the analytical for methods 8330, M8330, 353.2 and TALSOPWS-WC-0050. Methods 8330, M8330, 353.2 and TALSOPWS-WC-0050 were analyzed by Test America, West Sacramento.

Sample ID	VOC by EPA8260	SVOC 4 by EPA 8270	Pesticides by EPA 8081	PCBs/ EPA 8082	Explo/Prop by EPA 8330, Mod. 8330 and TALSOPWS-WC-0050	Cyanide EPA 9012	NO2/NO3, 353.2	Metals [4]		
								EPA 6010B	EPA 6020	Mercury by EPA 7470A
FWGB12mw-013-0158-GW	x	x	x	x	x	x		x	x	x
FWGCBLmw-005-0159-GW	x	x	x	x	x	x		x	x	x
FWGFWGEquipRinse2-0213-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-003-0166-GW	x	x	x	x	x	x	x	x	x	x
FWGFWGmw-005-0168-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-006-0169-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-007-0170-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-008-0171-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-009-0172-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-014-0178-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-015-0179-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-016-0180-GW	x	x	x	x	x	x		x	x	x
FWGFWGmw-DUP2-0200-GW	x	x	x	x	x	x		x	x	x
FWGLL11mw-012-0189-GW	x	x	x	x	x	x		x	x	x
FWGLL12mw-247-0192-GW	x	x	x	x	x	x	x	x	x	x
FWGLL12mw-DUP6-0203-GW							x			
FWGLL3mw-244-0183-GW	x	x	x	x	x	x		x	x	x
FWGNTAmw-119-0193-GW	x	x	x	x	x	x		x	x	x

Notes:

1) All metals samples with the exception of FWGFWGEQUIPRinse2-0213-GW were field filtered.
2) FWG TEAM 1TRIP, FWG TEAM 2 TRIP and FWG TEAM 3TRIP were collected and analyzed for VOC by EPA 8260B.
3) SVOC4= Full SVOC List
4) EPA 6020 metals include aluminum, antimony, beryllium, cadmium, iron, sodium, thallium and zinc. EPA 6010B metals include arsenic, chromium, cobalt, lead, selenium, silver, vanadium, barium, calcium, copper, magnesium, manganese, nickel and potassium.

The data presented in this report were evaluated according to the *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January, 2012.* The

following documents were used as needed to supplement the project documentation: The United States Department of Defense (DoD) Quality Services Manual (QSM) for Environmental Laboratories, Version 4.1, and the United States Army Corps of Engineers (USACE), Louisville District Quality Systems Manual Supplement (LS), *EPA National Functional Guidelines (NFG) for Organic Data Review, EPA-540/R-08-01, June 2008, NFG for Inorganic Data Review, EPA-540/R-04-004, October 2004*, Analytical Methods, and Laboratory Standard Operating Procedures. The QC criteria provided in the reference documents represent accuracy and precision performance goals for each analytical method. QC criteria reviewed for each method are listed below, along with any outliers.

All analytical results have been verified against compliance requirements specified in the project QAP, QSM, LS, associated analytical methods and/or SOPs, as appropriate, and reported by the laboratory as directed by the DoD QSM.

Per the DoD QSM, the laboratory data was reported as follows: Non detected results (< DL) were reported at the LOD with a "U" flag. Detected results between the DL and LOQ were reported as estimated, qualified with a "J" flag.

LOD - An estimate of the minimum amount of a substance that an analytical process can reliably detect.

LOQ - The lowest concentration that produces a quantitative result within specified limits of precision and bias.

DL- The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence.

Checklists used in review of the data have been presented in Appendix 1. Outliers have been noted below and results requiring qualification, as a result of this verification process, have been summarized in Appendix 2.

The completeness objective for the project was 90%. The completeness objective was met for this SDG, 99.6%. Limitations, if any, on the data are indicated with qualifiers detailed below.

The cooler temperatures were documented as being acceptable upon receipt at the North Canton Laboratory. With the exception of nitrate/nitrite, no field samples were designated for matrix spike analysis.

The Equipment Rinse was incorrectly listed on the COC as FWGFWGEQUIPRINSE2-0213-GW. The equipment Rinse should have been listed as FWGEQUIPRINSE2-0213-GW. The laboratory logged and reported the equipment rinse as listed on the COC.

VOAs - 8260B

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV/CCV criteria
- Internal standard area counts and retention times
- LOD and MRL verification criteria
- Method/Field/Trip blank Criteria
- Surrogate recoveries
- Field duplicate RPD criteria
- Laboratory Control Sample criteria
- Matrix Spike Recovery Criteria and RPD

MRL Recovery

10/23/12- Opening MRL analyzed @ 1046 recovered above control limits of 70-130% for bromomethane at 131%, chloroethane at 177%, methylene chloride at 142% and vinyl chloride at 138%. The closing MRL analyzed at 2043 recovered above control limits of 70-130% for methylene chloride at 232% and below limits for ethylbenzene at 69%, m,p-xylene at 67%, styrene at 63% and total xylenes at 66%. The ethylbenzene, m,p-xylene, styrene and total xylenes results for samples FWG TEAM 1-TRIP, FWGB12mw-013-0158-GW, FWGFWGmw-DUP2-0200-GW, FWGFWGmw-009-0172-GW and FWGFWGmw-016-0180-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride, bromomethane, chloroethane and vinyl chloride as there were no detected methylene chloride, bromomethane, chloroethane or vinyl chloride concentrations reported for the bracketed field samples.

10/24/12- Opening MRL analyzed @ 1105 recovered above control limits of 70-130% for methylene chloride at 322%, chloroethane at 134%, vinyl chloride at 133% and at 144% for chloromethane. The closing MRL analyzed at 2028 recovered above control limits of 70-130% for methylene chloride at 318% and below limits at 68% for o-xylene. The chloroethane result for sample FWGLL11mw-012-0189-GW was qualified as estimated, "J". The o-xylene results for FWG TEAM 2 TRIP, FWG TEAM 3 TRIP, FWGFWGmw-015-0179-GW , FWGFWGmw-005-0168-GW and FWGFWGmw-008-0171-GW, FWGNTAmw-119-0193-GW, FWGLL11mw-012-0189-GW, FWGFWGmw-006-0169-GW, FWGLL12mw-247-0192-GW and FWGFWGEquipRinse2-0213-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride as there were no detected methylene chloride concentrations reported for the bracketed field samples.

10/25/12- Opening MRL analyzed @ 0942 recovered above control limits of 70-130% for methylene chloride at 207% and below limits for 2-hexanone at 64%, 2-butanone at 55% and 4-methyl-2-pentanone at 56%. A closing MRL from the same analytical run was not reported due to instrument malfunction, however the opening MRL analyzed 10/26/12 at 1048 recovered above control limits of 70-130% for methylene chloride at 142%, bromomethane at 144% and chloroethane at 144%. The sample results for FWGLL3mw-244-0183-GW, FWGFWGmw-014-0178-GW, FWGFWGmw-007-0170-GW, FWGCBLmw-005-0159-GW and FWGFWGmw-003-0166-GW were qualified as estimated, "J/UJ" for all targets with the exception of 2-butanone and 4-methyl-2-pentanone, which were qualified as unusable, "R".

CCV

10/24/12 @ 0957- The %D for methylene chloride was above control limits of 20% D at 23.7%. No qualifications were required as there were no detected methylene chloride concentrations reported for the bracketed field samples.

10/25/12 @ 0834- The %D for methylene chloride was above control limits of 20% D at 28.9%. No qualifications were required as there were no detected methylene chloride concentrations reported for the bracketed field samples.

Blanks

Methylene chloride was detected in the method blank from batch 240-62557 at 1.94ug/L and in batch 240-62676 at 1.13ug/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.

Acetone was detected in FWG TEAM 1 TRIP at 1.8ug/L, FWG TEAM 2-TRIP at 1.6ug/L and in FWG TEAM 3TRIP at 1.5ug/L.. FWGEQUIPRINSE1-0213-GW had acetone detected at 9.4ug/L and 2-butanone at 0.72ug/L . The acetone results for samples FWGFWGmw-005-0168-GW, FWGFWGmw-014-0178-GW, FWGFWGmw-003-0166-GW, FWGNTAmw-119-0193-GW, FWGLL11mw-012-0189-GW, FWGCBLmw-005-0159-GW, FWGFWGEquipRinse2-0213-GW and FWGLL3mw-244-0183-GW were qualified, "B". As there were no detected 2-butanone results reported for the associated field samples, no qualification was made for the 2-butanone contamination.

Surrogate Recovery

The surrogate, 1,2-dichloroethane-d4 recovered above control limits of 70-120% at 121% in sample FWGCBLmw-005-0159-GW. The acetone result for sample FWGCBLmw-005-0159-GW, was qualified as estimated, "J".

SVOCs- 8270C

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV/CCV criteria
- Internal standard area counts and retention times
- LOD and MRL verification criteria
- Method/Field blank Criteria
- Surrogate recoveries
- Field duplicate RPD criteria
- Laboratory Control Sample criteria
- Matrix Spike Recovery Criteria and RPD

ICV

10/23/12 @ 0937, The ICV recovered above limits of 20% for 2-nitrophenol with a %D of 25.5%, hexachlorocyclopentadiene with a %D of 21.3%, 2-nitroaniline at 26.4% and 2,4-dinitrotoluene at 26.0%. No qualifications were made for the listed ICV outliers as there were no detected 2-nitrophenol, hexachlorocyclopentadiene, 2-nitroaniline or 2,4-dinitrotoluene concentrations reported for the associated field samples.

10/25/12 @ 1715, The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 26.2%. The 3,3'-dichlorobenzidine results for samples FWGFWGmw-005-0168-GW, FWGFWGmw-008-0171-GW, FWGFWGmw-009-0172-GW, FWGFWGmw-015-0179-GW, FWGFWGmw-DUP2-0200-GW and FWGFWGmw-016-0180-GW were qualified as estimated, "UJ".

Blanks

Diethyl phthalate was detected in FWGFWGEQUIPRINSE2-0213-GW at 0.64ug/L. No qualifications were made as there were no detected diethyl phthalate concentrations reported in the associated field samples.

Pesticides- 8081A

The following QC criteria were reviewed with acceptable results, except as noted below:

- Preservation, holding time and sample handling
- Initial Calibration criteria
- DDT and Endrin breakdown criteria
- Retention time criteria
- ICV criteria
- CCV Criteria
- Method/Field blank Criteria
- LCS Recoveries
- Field Duplicate Criteria
- LOD and MRL verification criteria
- Matrix Spike Recovery Criteria and RPD
- Surrogate Recoveries
- Second Column confirmation criteria

Breakdown Criteria

The 4,4'-DDT % breakdown analyzed 10/25/12 at 0810 on CLP-2 was above control limits at 21.3%. No qualification was made as the CLP-2 was used for confirmation purposes.

MRL Recovery

- The opening MRL analyzed 10/25/12 @1605 recovered above control limits of 70-130% for 4,4-DDD at 172% on CLP-1 and on CLP-2 above control limits for 4,4'-DDE at 185%, 4,4'-DDT at 135%, delta-BHC at 208%, dieldrin at 143% and endrin ketone at 160%.
- The closing MRL analyzed 10/26/12 @ 0540 recovered above control limits of 70-130% for 4,4-DDD at 267%, endosulfan sulfate at 142% and methoxychlor at 161% on CLP-1. On CLP-2 the closing MRL recovered above control limits of 70-130% for 4,4'-DDT at 160%, delta-BHC at 228%, endosulfan sulfate at 141% and endrin ketone at 181%.

No qualifications were made for the MRL outliers as the detected concentrations for endrin ketone and delta-BHC were reported from CLP-1. CLP-2 was used for confirmation.

The closing MRL analyzed on 10/31/12 did not recover for methoxychlor on either the front or back columns. The methoxychlor result for sample FWGNTAmw-119-0193-GW was qualified as unusable, "R".

ICV Criteria

The ICV analyzed 10/25/12 @ 1107 recovered above control limits of 20% D for endrin ketone at 34.4% on CLP-2. No qualifications were made as CLP-2 was used for confirmation.

The toxaphene ICV analyzed 10/27/12 1934 recovered below control limits of 20% D for endrin ketone at 22.5% on CLP-2. No qualifications were made as CLP-2 was used for confirmation.

CCV Criteria

- The CCV analyzed 10/25/12 @ 2059 on CLP-1 had %D above control limits of 20% for alpha-BHC at 26.2%, gamma-BHC at 21.6%, beta-BHC at 27.3%, delta-BHC at 25.6%, heptachlor at 28.0%, aldrin at 24.8%, heptachlor epoxide at 34.1%, gamma-chlordane at 24.9%, alpha-chlordane at 28.9%, endosulfan I at 40.2%, 4,4'-DDE at 30.5%, dieldrin at 34.0%, endrin at 41.8%, 4,4'-DDD at 69.0%, 4,4'-DDT at 31.1%, endrin aldehyde at 30.0%, methoxychlor at 66.1%, endosulfan sulfate at 53.6% and endrin ketone at 29.7%.
- The CCV analyzed 10/25/12 @ 2059 on CLP-2 had %D above control limits of 20% for alpha-BHC at 22.2%, beta-BHC at 29.7%, delta-BHC at 30.1%, aldrin at 24.4%, heptachlor epoxide at 30.7%, gamma-chlordane at 22.4%, alpha-chlordane at 28.3%, endosulfan I at 25.7%, 4,4'-DDE at 24.8%, dieldrin at 23.9%, endrin at 32.3%, 4,4'-DDD and endosulfan II at 34.0%, 4,4'-DDT at 20.7%, endrin aldehyde at 28.0%, methoxychlor at 50.9%, endosulfan sulfate at 44.8% and endrin ketone at 54.0%.
- The CCV analyzed 10/26/12 @ 0119 on CLP-1 had %D above control limits of 20% for endosulfan I at 25.2%, endrin at 25.7%, 4,4'-DDD at 48.8%, 4,4'-DDT at 25.1 %, endrin aldehyde at 24.9%, methoxychlor at 50.4% and endosulfan sulfate at 44.9%.
- The CCV analyzed 10/26/12 @0119 on CLP-2 had a %D above control limits of 20% for endrin at 21.6%, endosulfan sulfate at 33.7%, methoxychlor at 30.9% and endrin ketone at 35.6%.
- The CCV analyzed 10/26/12 @ 0516 on CLP-1 had %D above control limits of 20% for beta-BHC at 20.5%, endosulfan I at 21.8%, 4,4'-DDE at 22.2%, endrin at 24.3%, 4,4'-DDD at 51.5 %, 4,4'-DDT at 22.0 %, endrin aldehyde at 24.1%, methoxychlor at 49.9% , endosulfan sulfate at 37.8% and endrin ketone at 21.6%.
- The CCV analyzed 10/26/12 @0516 on CLP-2 had a %D above control limits of 20% for endosulfan sulfate at 30.4%, methoxychlor at 23.8% and endrin ketone at 38.2%. Alpha-BHC had a %D below control limits at 32.1%.

The detected endrin ketone results for FWGFWGmw-008-0171-GW and FWGLL11mw-012-0189 and the delta-BHC result for sample FWGFWGmw-015-0179-GW were qualified as estimated, "J. No qualification was made for the alpha-BHC outlier as CLP-2 was used for confirmation and there were no alpha-BHC concentrations reported for the bracketed field samples.

- The CCV analyzed 10/29/12 @ 1956 had %D above control limits of 20% for 4,4'-DDE at 24.3% on CLP-1 and at 21.7% on CLP-2.
- The CCV analyzed 10/30/12 @ 0048 had %D above control limits of 20% for 4,4'-DDE at 22.6% on CLP-2.

No qualifications were made for CCV outliers as there were no detected concentrations reported for the bracketed field samples.

LCS Recovery
The toxaphene LCS recovered below control limits of 70-130% in batch 240-62004 at 65%. The toxaphene results for samples FWGFWGEquipRinse2-0213-GW, FWGFWGmw-003-0166-GW, FWGFWG-006-0169-GW, FWGFWGmw-007-0170-GW, FWGFWGmw-014-0178-GW and FWGLL3mw-244-0183-GW were qualified as estimated, "UJ".

Surrogate Recovery
The surrogate TCMX recovered above control limits of 25-140% on CLP-1 at 183% in sample FWGNTAmw-119-0193-GW. No qualifications were made as there were no detected concentrations reported for FWGNTAmw-119-0193-GW.

The surrogate DCB recovered below control limits of 30-135% on CLP-2 at 26% in sample FWGFWGmw-008-0171-GW. No qualification was made as CLP-2 was used for confirmation.

PCB- 8082
The following QC criteria were reviewed with acceptable results, except as noted below:

- Preservation, holding time and sample handling
- Initial Calibration criteria
- DDT and Endrin breakdown criteria
- Retention time criteria
- ICV criteria
- CCV Criteria
- Method/Field blank Criteria
- LCS Recoveries
- Field Duplicate Criteria
- LOD and MRL verification criteria
- Matrix Spike Recovery Criteria and RPD
- Surrogate Recoveries
- Second Column confirmation criteria

Hold Time
The following samples were re-prepared outside the holding time of seven days but were re extracted within 2x hold (13 days) because of low surrogates in the initial analysis. The results associated with the reanalysis were qualified as estimated, "UJ": FWGFWGmw-006-0169-GW, FWGFWGmw-007-0170-GW, FWGFWGmw-015-0179-GW, FWGLL12mw-247-0192-GW and FWGFWGmw-DUP2-0200-GW.

Surrogate Recovery
The surrogate, DCB, recovered below control limits of 40-135% for sample FWGB12mw-013-0158-GW at 27% on CLP2 and 26% on CLP-1, for sample FWGFWGmw-005-0168-GW at 29% on CLP2 and 26% on CLP-1, for sample FWGFWGmw-009-0172-GW at 33% on CLP2 and 32% on CLP-1, for sample FWGFWGmw-008-0171-GW at 22% on CLP2 and 21% on CLP-1, for sample FWGNTAmw-119-0193-GW at 33% on CLP2 and 32% on CLP-1, for sample FWGFWGmw-014-0178-GW at 39% on CLP2 and 36%. On CLP-1 DCB recovered below control at 35% for sample FWGFWGmw-015-0179-GW at 35% and for sample FWGLL12mw-247-0192-GW at 36%. TCMX recovered above control limits of 40-140% for sample FWGNTAmw-119-0193-GW at 174% on CLP1. The results for FWGB12mw-013-0158-GW, FWGFWGmw-005-0168-GW, FWGFWGmw-009-0172-GW, FWGFWGmw-008-0171-GW, FWGNTAmw-119-0193-GW and FWGFWGmw-014-0178-GW were qualified as estimated, "UJ". No qualifications were made to the results for samples FWGLL12mw-247-0192-GW and FWGFWGmw-015-0179-GW as there were no detected concentrations reported and the surrogate outlier was on the confirmation column.

Metals - 6010B

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Lab and Field duplicate RPD criteria

Blanks

The ICB analyzed 10/23/12 had vanadium detected at 2.68ug/L. The vanadium results for samples FWGB12mw-013-0158-GF, FWGFWGmw-003-166-GF, FWGFWGmw-005-168-GF, FWGFWGmw-006-169-GF, FWGFWGmw-007-170-GF, FWGFWGmw-008-171-GF, FWGFWGmw-009-172-GF, FWGFWGmw-014-178-GF, FWGFWGmw-016-180-GF, FWGLL11mw-012-0189-GF, FWGLL12mw-247-0192-GF and FWGCBLmw-005-0159-GW were qualified, "U".

The CCBs analyzed 10/23/12 had vanadium detected from 2.16ug/L to 3.0ug/L. The vanadium results for samples FWGB12mw-013-0158-GF, FWGFWGmw-003-166-GF, FWGFWGmw-005-168-GF, FWGFWGmw-006-169-GF, FWGFWGmw-007-170-GF, FWGFWGmw-008-171-GF, FWGFWGmw-009-172-GF, FWGFWGmw-014-178-GF, FWGFWGmw-016-180-GF, FWGLL11mw-012-0189-GF, FWGLL12mw-247-0192-GF and FWGCBLmw-005-0159-GW were qualified, "U".

The method blank from batch 240-62201 had vanadium detected at 1.31ug/L. The vanadium results for samples FWGFWGmw-003-166-GF, FWGFWGmw-006-169-GF, FWGFWGmw-014-178-GF and FWGCBLmw-005-0159-GW were qualified, "B".

Metals - 6020

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Matrix Spike and Spike Duplicate Recovery and RPD Criteria
- Lab and Field Duplicate RPD Criteria

Blanks

The ICB analyzed 10/26/12 had thallium detected at 0.491ug/L. The thallium result for sample FWGLL3mw-244-0183-GF was qualified, "U".

The CCBs analyzed 10/26/12 had thallium detected from 0.373 to 0.632ug/L, cadmium from 0.041ug/L to 0.09ug/L and beryllium from 0.059ug/L to 0.082ug/L. The thallium result for sample FWGLL3mw-244-0183-GF was qualified, "U". The beryllium results for samples FWGFWGmw-003-166-GF, FWGFWGmw-007-170-GF, FWGFWGmw-009-172-GF, FWGLL12mw-247-0192-GF and FWGCBLmw-005-0159-GW were qualified, "U". The cadmium results for samples FWGB12mw-013-0158-GF, FWGFWGmw-003-166-GF, FWGFWGmw-007-170-GF, FWGFWGmw-006-169-GF, FWGLL11mw-012-0189-GF, FWGFWGmw-014-0178-GF and FWGCBLmw-005-0159-GW were qualified, "U".

The method blank from batch 240-62240 had beryllium detected at 0.14ug/L, cadmium at 0.189ug/L and zinc at 9.35ug/L. The method blank from batch 240-62201 had zinc detected at 9.02ug/L. The zinc and beryllium results for samples FWGLL12mw-247-192-GF and FWGFWGmw-009-0172-GF were qualified "B". The zinc results for samples FWGFWGmw-003-166-GF, FWGFWGmw-007-170-GF, and FWGCBLmw-005-0159-GW were qualified "B". The cadmium results for samples FWGB12mw-013-0158-GF and FWGLL11mw-012-0189-GF were qualified, "B".

Mercury - 7470A

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Lab and Field duplicate RPD criteria

No QC outliers noted.

Cyanide - 9012

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- MRL and MDL verification criteria
- LCS percent recovery criteria
- MS percent recovery
- Matrix Duplicate RPD criteria
- Field duplicate RPD criteria

No QC outliers were noted.

Explosives- 8330

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV and CCV criteria
- Retention time criteria
- LOD and MRL verification criteria
- Surrogate recovery criteria
- Equipment and method blanks free from contamination
- LCS/LCD Recovery and RPD Criteria
-

MRL Recovery

10/31/12 @ 1444- The MRL recovered above control limits of 70-130% for 3-nitrotoluene at 131%. No qualifications were required as there were no detected concentrations of for 3-nitrotoluene reported for the associated field samples.

11/1/12 @ 1214- The MRL recovered above control limits of 70-130% for HMX at 133%, nitrobenzene at 134%, 4-amino- 2,6-dinitrotoluene at 135%, 2,6-dinitrotoluene at 146% and 4-nitrotoluene at 133%. The 4-amino- 2,6-dinitrotoluene result for sample FWGLL3mw-244-0183-GW was qualified as estimated, "J". No additional qualifications were required as there were no detected concentrations of HMX, nitrobenzene, 2,6-dinitrotoluene or 4-nitrotoluene reported for the bracketed field samples.

Closing MRL check data was not provided for LC12. No qualifications were made as LC12 was used for confirmation only.

Blanks
A filter blank was prepped and analyzed with 1,3,5-trinitrobenzene detected at 0.0543ug/L. No qualifications were made as there were no detected 1,3,5-trinitrobenzene results reported for the associated field samples.

Surrogate Recovery
The surrogate 3,4-dinitrotoluene recovered above control limits of 79-111% on LC12 for sample FWGFWGEQUIPRINSE2-0213-GW at 139%. No qualifications were required as there were no detected concentrations reported for FWGFWGEQUIPRINSE2-0213-GW.

Nitroguanidine- 8330M
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- Retention time criteria
- LOD and MRL verification criteria
- ICV and CCV criteria
- The method blank and equipment blanks were free from contamination
- LCS/LCSD percent recoveries and RPD value criteria
- Matrix spike recovery criteria

No QC outliers were noted.

Nitrocellulose – WS-WC-0050
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Sample preparation criteria
- Initial Calibration criteria
- ICV and CCV criteria
- The method and equipment blanks were free from contamination
- LOD and MRL verification criteria
- ICB and CCBs were free from contamination
- LCS/LCSD percent recoveries and RPD value criteria
- MS/MSD percent recoveries

No QC outliers were noted.

Nitrate/Nitrite – EPA 353.2
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Sample preparation criteria
- Initial Calibration criteria
- ICV and CCV criteria
- The method and equipment blanks were free from contamination

- LOD and MRL verification criteria
- ICB and CCBs were free from contamination
- LCS/LCSD percent recoveries and RPD value criteria
- MS/MSD percent recoveries

Matrix Spike Recovery
The MS and MSD analyzed on sample FWG*LL12*mw-*247*-0192-GW recovered below limits of 90-120% at 44% and 45%. The nitrate –nitrite results for samples FWGFWGEQUIPRinse2-0213-GW, FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified as estimated, "J".

Blanks
Nitrate-Nitrite was detected in the method blank at 0.013mg/L. The results for samples FWGFWGEQUIPRinse2-0213-GW, FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified, "B".

FWGFWGEQUIPRINSE2-0213-GW had nitrate-nitrite detected at 0.015mg/L. Samples FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified, "B".

Job ID: 240-16465-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Environmental Quality Mgt., Inc.

Project: RVAAP (66)

Report Number: 240-16465-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 353.2 Nitrate Nitrite as N, 353.2 Nitrocellulose, 8330 Nitroguanidine and 8330A analysis were performed at the TestAmerica West Sacramento Laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters for which TestAmerica North Canton has certification were evaluated to the limit of detection (LOD) and include qualified results where applicable. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

RECEIPT

The samples were received on 10/17/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.0° C, 1.2° C, 1.4° C, 1.4° C, 1.4° C, 1.6° C, 1.8° C, 1.8° C, 1.8° C, 1.8° C, 2.4° C, 4.7° C, 4.8° C, 4.9° C, 5.0° C, 5.2° C, 5.2° C, 5.3° C and 5.5° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWG TEAM 1 TRIP (240-16465-1), FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWG TEAM 2 TRIP (240-16465-16), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21),

Job ID: 240-16465-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

FWGLL3mw-244-0183-GW (240-16465-24), FWG TEAM 3 TRIP (240-16465-26), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B DoD. The samples were analyzed on 10/23/2012, 10/24/2012 and 10/25/2012.

Methylene Chloride was detected in method blanks MB 240-62557/6 and MB 240-62676/6 at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. None of the samples associated with these method blanks contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria high for FWGCBLmw-005-0159-GW (240-16465-35). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Ethylbenzene, m-Xylene & p-Xylene, o-Xylene, Styrene and Xylenes, Total failed the recovery criteria low for MRL 240-62416/30. Methylene Chloride failed the recovery criteria high. Bromomethane, Chloroethane, Methylene Chloride and Vinyl chloride failed the recovery criteria high for MRL 240-62416/5. o-Xylene failed the recovery criteria low for MRL 240-62557/29. Methylene Chloride failed the recovery criteria high. Chloroethane, Chloromethane, Methylene Chloride and Vinyl chloride failed the recovery criteria high for MRL 240-62557/5. Bromomethane, Chloroethane and Methylene Chloride failed the recovery criteria high for MRL 240-62676/29. 2-Butanone (MEK), 2-Hexanone and 4-Methyl-2-pentanone (MIBK) failed the recovery criteria low for MRL 240-62676/5. Methylene Chloride failed the recovery criteria high. Refer to the QC report for details.

The continuing calibration verification (CCV) for Methylene Chloride associated with batch 62557 and batch 62676 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The closing MRL for batch 62676 was out of tune by 14 hours due to an instrument malfunction. The instrument was fixed and proceeded with the closing MRL analysis. The PM was notified and confirmed with client as acceptable data.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21), FWGLL3mw-244-0183-GW (240-16465-24), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 10/18/2012 and 10/20/2012 and analyzed on 10/24/2012 and 10/25/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 61821, 3520C

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 62110, 8270.

No other difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

NITROGUANIDINE (HPLC)

Samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21), FWGLL3mw-244-0183-GW (240-16465-24), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32),

Job ID: 240-16465-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for nitroguanidine (HPLC) in accordance with EPA SW-846 Method 8330_Ngu. The samples were prepared on 10/22/2012 and analyzed on 11/03/2012.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 4789.

Method(s) 8330-Prep: The samples listed below contained excessive sediment/particulates. Samples were filtered prior to extraction.

240-16465-4,6,8,33

No other difficulties were encountered during the explosives analyses. All quality control parameters were within the acceptance limits.

CHLORINATED PESTICIDES

Samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21), FWGLL3mw-244-0183-GW (240-16465-24), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A DoD. The samples were prepared on 10/19/2012 and analyzed on 10/25/2012, 10/26/2012, 10/29/2012 and 10/31/2012.

Tetrachloro-m-xylene failed the surrogate recovery criteria high for FWGNTAmw-119-0193-GW (240-16465-17). Refer to the QC report for details.

Sample FWGNTAmw-119-0193-GW (240-16465-17)[20X] required dilution prior to analysis due to the nature of the sample matrix. Elevated reporting limits (RLs) are provided.

The opening Pesticide Performance Evaluation Mix (PEM) did not meet breakdown criteria for the initial calibration (ICAL) for the confirmation column; therefore all data is reported from the primary column. All associated samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-015-0179-GW (240-16465-14), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21) were opened with a passing PEM on both columns.

The initial calibration verification (ICV) for analytical batch 62662 exceeded control criteria for Endrin Ketone on the confirmation column. The data for the associated samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-015-0179-GW (240-16465-14), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21) have been reported from the primary column.

Some of the analytes in the opening and closing Minimum Report Limits (MRL) associated with batch 62662 were biased high. The associated samplesFWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-015-0179-GW (240-16465-14), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21) were non-detect for the affected analytes; therefore the data have been reported.

The opening and closing continuing calibration verification (CCV) standards associated with batch 62662 recovered above the upper control limit. The samples associated with these CCVS FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-015-0179-GW (240-16465-14), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21) were non-detects for the affected analytes; therefore the data have been reported.

The opening continuing calibration verification (CCV) for DDE associated with batch 63133 recovered above the upper control limit. The

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Laboratory: TestAmerica Canton (Continued)

samples associated with this CCVFWGCBLmw-005-0159-GW (240-16465-35), FWGFWGmw-003-0166-GW (240-16465-37), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-007-0170-GW (240-16465-33), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGLL3mw-244-0183-GW (240-16465-24) were non-detects for the affected analyte; therefore the data have been reported.

The data for Endrin Ketone have been reported from the confirmation column for the associated sample (LCS 240-62004/26-A).

The initial calibration verification (ICV) for analytical batch 63323 exceeded control criteria for Toxaphene on the confirmation column. The data for the associated samples FWGNTAmw-119-0193-GW (240-16465-17) was reported from the primary column.

No other difficulties were encountered during the pesticides analyses. All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21), FWGLL3mw-244-0183-GW (240-16465-24), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082 DOD. The samples were prepared on 10/19/2012 and 10/29/2012 and analyzed on 10/23/2012 and 11/05/2012.

DCB Decachlorobiphenyl failed the surrogate recovery criteria low for samples FWGFWGmw-008-0171-GW (240-16465-10), FWGNTAmw-119-0193-GW (240-16465-17), FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmw-005-0168-GW (240-16465-4) and FWGFWGmw-009-0172-GW (240-16465-8).

Surrogate recovery for the following samples was outside control limits: FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-007-0170-GW (240-16465-33), FWGFWGmw-015-0179-GW (240-16465-14), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGLL12mw-247-0192-GW (240-16465-21). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Only the re-extract data is reported.

Surrogate recovery for the following samples was outside control limits: FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-014-0178-GW (240-16465-29), FWGNTAmw-119-0193-GW (240-16465-17). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

No other difficulties were encountered during the PCBs analyses. All other quality control parameters were within the acceptance limits.

EXPLOSIVES

Samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21), FWGLL3mw-244-0183-GW (240-16465-24), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for explosives in accordance with EPA SW-846 Method 8330A. The samples were prepared on 10/22/2012 and analyzed on 10/31/2012, 11/01/2012 and 11/02/2012.

1,3,5-Trinitrobenzene was detected in method blank PB 320-4789/2-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The continuing calibration verification (CCV) for analytical batch 4789 exceeded control criteria for Nitrobenzene, p-Nitrotoluene, RDX, HMX, 4-Amino-2,6-Dinitrotoluene, and 2,6-Dinitrotoluene. The corrective action for this deficiency is an analysis of a standard at apporximately

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Laboratory: TestAmerica Canton (Continued)

2x the MDL. The acceptance criterion for the 2x MDL standard is detection of the compound. As the compounds were detected, the data have been qualified and reported.

No other difficulties were encountered during the explosives analyses. All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Samples FWGB12mw-013-0158-GF (240-16465-3), FWGFWGmw-005-0168-GF (240-16465-5), FWGFWGmw-DUP2-0200-GF (240-16465-7), FWGFWGmw-009-0172-GF (240-16465-9), FWGFWGmw-008-0171-GF (240-16465-11), FWGFWGmw-016-0180-GF (240-16465-13), FWGFWGmw-015-0179-GF (240-16465-15), FWGNTAmw-119-0193-GF (240-16465-18), FWGLL11mw-012-0189-GF (240-16465-20), FWGLL12mw-247-0192-GF (240-16465-22), FWGLL3mw-244-0183-GF (240-16465-25), FWGFWGmw-006-0169-GF (240-16465-28), FWGFWGmw-014-0178-GF (240-16465-30), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GF (240-16465-34), FWGCBLmw-005-0159-GF (240-16465-36) and FWGFWGmw-003-0166-GF (240-16465-38) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B DoD. The samples were prepared on 10/22/2012 and analyzed on 10/23/2012.

ICB, CCB, and ICSA samples are evaluated using the lowest LOD and DL criteria in LIMS. Using this criteria, an individual element may occasionally be flagged as out of control. If the element has a higher LOD or DL, the data is evaluated to the higher limit and determined to be acceptable.

Vanadium was detected in method blank MB 240-62201/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples FWGB12mw-013-0158-GF (240-16465-3), FWGFWGmw-005-0168-GF (240-16465-5), FWGFWGmw-DUP2-0200-GF (240-16465-7), FWGFWGmw-009-0172-GF (240-16465-9), FWGFWGmw-008-0171-GF (240-16465-11), FWGFWGmw-016-0180-GF (240-16465-13), FWGFWGmw-015-0179-GF (240-16465-15), FWGNTAmw-119-0193-GF (240-16465-18), FWGLL11mw-012-0189-GF (240-16465-20), FWGLL12mw-247-0192-GF (240-16465-22), FWGLL3mw-244-0183-GF (240-16465-25), FWGFWGmw-006-0169-GF (240-16465-28), FWGFWGmw-014-0178-GF (240-16465-30), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GF (240-16465-34), FWGCBLmw-005-0159-GF (240-16465-36) and FWGFWGmw-003-0166-GF (240-16465-38) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020 DoD. The samples were prepared on 10/22/2012 and analyzed on 10/26/2012 and 10/29/2012.

ICB, CCB, and ICSA samples are evaluated using the lowest LOD and DL criteria in LIMS. Using this criteria, an individual element may occasionally be flagged as out of control. If the element has a higher LOD or DL, the data is evaluated to the higher limit and determined to be acceptable.

Zinc was detected in method blank MB 240-62201/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Beryllium, Cadmium and Zinc were detected in method blank MB 240-62240/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

TOTAL MERCURY - DOD

Samples FWGB12mw-013-0158-GF (240-16465-3), FWGFWGmw-005-0168-GF (240-16465-5), FWGFWGmw-DUP2-0200-GF (240-16465-7), FWGFWGmw-009-0172-GF (240-16465-9), FWGFWGmw-008-0171-GF (240-16465-11), FWGFWGmw-016-0180-GF (240-16465-13), FWGFWGmw-015-0179-GF (240-16465-15), FWGNTAmw-119-0193-GF (240-16465-18), FWGLL11mw-012-0189-GF (240-16465-20), FWGLL12mw-247-0192-GF (240-16465-22), FWGLL3mw-244-0183-GF (240-16465-25), FWGFWGmw-006-0169-GF (240-16465-28), FWGFWGmw-014-0178-GF (240-16465-30), FWGFWGmwEquipRinse2-0213-GW (240-16465-32),

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Laboratory: TestAmerica Canton (Continued)

FWGFWGmw-007-0170-GF (240-16465-34), FWGCBLmw-005-0159-GF (240-16465-36) and FWGFWGmw-003-0166-GF (240-16465-38) were analyzed for Total Mercury - DOD in accordance with EPA SW-846 Method 7470A. The samples were prepared on 10/22/2012 and analyzed on 10/23/2012 and 10/24/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

NITRATE-NITRITE AS NITROGEN

Samples FWGLL12mw-247-0192-GW (240-16465-21), FWGLL12mw-DUP6-0203-GW (240-16465-23) and FWGFWGmwEquipRinse2-0213-GW (240-16465-32) were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 11/02/2012.

Nitrate Nitrite as N was detected in method blank MB 320-5354/15 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 5354 (240-16465MS, 240-16465MSD) were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other difficulties were encountered during the nitrate-nitrite analyses. All other quality control parameters were within the acceptance limits.

NITROCELLULOSE

Samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21), FWGLL3mw-244-0183-GW (240-16465-24), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for Nitrocellulose in accordance with EPA Method 353.2. The samples were prepared and analyzed on 10/23/2012 and 10/25/2012.

No other difficulties were encountered during the Nitrocellulose analyses. All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples FWGB12mw-013-0158-GW (240-16465-2), FWGFWGmw-005-0168-GW (240-16465-4), FWGFWGmw-DUP2-0200-GW (240-16465-6), FWGFWGmw-009-0172-GW (240-16465-8), FWGFWGmw-008-0171-GW (240-16465-10), FWGFWGmw-016-0180-GW (240-16465-12), FWGFWGmw-015-0179-GW (240-16465-14), FWGNTAmw-119-0193-GW (240-16465-17), FWGLL11mw-012-0189-GW (240-16465-19), FWGLL12mw-247-0192-GW (240-16465-21), FWGLL3mw-244-0183-GW (240-16465-24), FWGFWGmw-006-0169-GW (240-16465-27), FWGFWGmw-014-0178-GW (240-16465-29), FWGFWGmwEquipRinse2-0213-GW (240-16465-32), FWGFWGmw-007-0170-GW (240-16465-33), FWGCBLmw-005-0159-GW (240-16465-35) and FWGFWGmw-003-0166-GW (240-16465-37) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 10/25/2012.

No difficulties were encountered during the cyanide analyses. All quality control parameters were within the acceptance limits.

Method Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Method	Method Description	Protocol	Laboratory
8260B/DoD	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
8270C/DoD	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NC
8081/DOD	Organochlorine Pesticides (GC)	SW846	TAL NC
8082/DOD	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL NC
8330 Modified	Nitroguanidine (HPLC)	SW846	TAL WSC
8330A	Nitroaromatics and Nitramines	SW846	TAL WSC
6010B/DOD	Metals (ICP)	SW846	TAL NC
6020/DOD	Metals (ICP/MS)	SW846	TAL NC
7470A/DOD	Mercury (CVAA)	SW846	TAL NC
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL WSC
9012A	Cyanide, Total and/or Amenable	SW846	TAL NC
WS-WC-0050	Nitrocellulose	TAL-SAC	TAL WSC

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-SAC = TestAmerica Laboratories, West Sacramento, Facility Standard Operating Procedure.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-16465-1	FWG TEAM 1 TRIP	Water	10/15/12 08:00	10/17/12 06:15
240-16465-2	FWGB12mw-013-0158-GW	Water	10/15/12 16:50	10/17/12 06:15
240-16465-3	FWGB12mw-013-0158-GF	Water	10/15/12 16:50	10/17/12 06:15
240-16465-4	FWGFWGmw-005-0168-GW	Water	10/16/12 09:45	10/17/12 06:15
240-16465-5	FWGFWGmw-005-0168-GF	Water	10/16/12 09:45	10/17/12 06:15
240-16465-6	FWGFWGmw-DUP2-0200-GW	Water	10/16/12 10:45	10/17/12 06:15
240-16465-7	FWGFWGmw-DUP2-0200-GF	Water	10/16/12 10:45	10/17/12 06:15
240-16465-8	FWGFWGmw-009-0172-GW	Water	10/16/12 12:05	10/17/12 06:15
240-16465-9	FWGFWGmw-009-0172-GF	Water	10/16/12 12:05	10/17/12 06:15
240-16465-10	FWGFWGmw-008-0171-GW	Water	10/16/12 13:55	10/17/12 06:15
240-16465-11	FWGFWGmw-008-0171-GF	Water	10/16/12 13:55	10/17/12 06:15
240-16465-12	FWGFWGmw-016-0180-GW	Water	10/16/12 15:40	10/17/12 06:15
240-16465-13	FWGFWGmw-016-0180-GF	Water	10/16/12 15:40	10/17/12 06:15
240-16465-14	FWGFWGmw-015-0179-GW	Water	10/16/12 16:50	10/17/12 06:15
240-16465-15	FWGFWGmw-015-0179-GF	Water	10/16/12 16:50	10/17/12 06:15
240-16465-16	FWG TEAM 2 TRIP	Water	10/16/12 08:00	10/17/12 06:15
240-16465-17	FWGNTAmw-119-0193-GW	Water	10/16/12 09:42	10/17/12 06:15
240-16465-18	FWGNTAmw-119-0193-GF	Water	10/16/12 09:42	10/17/12 06:15
240-16465-19	FWGLL11mw-012-0189-GW	Water	10/16/12 11:32	10/17/12 06:15
240-16465-20	FWGLL11mw-012-0189-GF	Water	10/16/12 11:32	10/17/12 06:15
240-16465-21	FWGLL12mw-247-0192-GW	Water	10/16/12 14:14	10/17/12 06:15
240-16465-22	FWGLL12mw-247-0192-GF	Water	10/16/12 14:14	10/17/12 06:15
240-16465-23	FWGLL12mw-DUP6-0203-GW	Water	10/16/12 14:32	10/17/12 06:15
240-16465-24	FWGLL3mw-244-0183-GW	Water	10/16/12 16:24	10/17/12 06:15
240-16465-25	FWGLL3mw-244-0183-GF	Water	10/16/12 16:24	10/17/12 06:15
240-16465-26	FWG TEAM 3 TRIP	Water	10/16/12 08:00	10/17/12 06:15
240-16465-27	FWGFWGmw-006-0169-GW	Water	10/16/12 09:43	10/17/12 06:15
240-16465-28	FWGFWGmw-006-0169-GF	Water	10/16/12 09:43	10/17/12 06:15
240-16465-29	FWGFWGmw-014-0178-GW	Water	10/16/12 11:13	10/17/12 06:15
240-16465-30	FWGFWGmw-014-0178-GF	Water	10/16/12 11:13	10/17/12 06:15
240-16465-32	FWGFWGEquipRinse2-0213-GW	Water	10/16/12 12:46	10/17/12 06:15
240-16465-33	FWGFWGmw-007-0170-GW	Water	10/16/12 13:03	10/17/12 06:15
240-16465-34	FWGFWGmw-007-0170-GF	Water	10/16/12 13:03	10/17/12 06:15
240-16465-35	FWGCBLmw-005-0159-GW	Water	10/16/12 14:33	10/17/12 06:15
240-16465-36	FWGCBLmw-005-0159-GF	Water	10/16/12 14:33	10/17/12 06:15
240-16465-37	FWGFWGmw-003-0166-GW	Water	10/16/12 16:03	10/17/12 06:15
240-16465-38	FWGFWGmw-003-0166-GF	Water	10/16/12 16:03	10/17/12 06:15

Client Sample ID: FWG TEAM 1 TRIP
Date Collected: 10/15/12 08:00
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-1
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 17:00	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 17:00	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 17:00	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 17:00	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 17:00	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 17:00	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 17:00	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 17:00	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 17:00	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 17:00	1
Acetone	**1.8**	**J**	10	1.1	1.1	ug/L		10/23/12 17:00	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:00	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 17:00	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 17:00	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:00	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:00	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 17:00	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 17:00	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 17:00	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 17:00	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 17:00	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 17:00	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 17:00	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 17:00	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 17:00	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 17:00	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 17:00	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 17:00	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 17:00	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 17:00	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 17:00	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 17:00	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:00	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 17:00	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 17:00	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 17:00	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 17:00	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 17:00	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*70 - 120*		*10/23/12 17:00*	*1*
4-Bromofluorobenzene (Surr)	*81*		*75 - 120*		*10/23/12 17:00*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/23/12 17:00*	*1*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*10/23/12 17:00*	*1*

Client Sample ID: FWGB12mw-013-0158-GW
Date Collected: 10/15/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-2
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 17:23	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 17:23	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 17:23	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 17:23	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 17:23	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 17:23	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 17:23	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 17:23	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 17:23	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 17:23	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 17:23	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:23	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 17:23	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 17:23	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:23	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:23	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 17:23	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 17:23	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 17:23	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 17:23	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 17:23	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 17:23	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 17:23	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 17:23	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 17:23	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 17:23	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 17:23	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 17:23	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 17:23	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 17:23	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 17:23	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 17:23	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 17:23	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 17:23	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 17:23	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 17:23	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 17:23	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 17:23	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*70 - 120*		*10/23/12 17:23*	*1*
4-Bromofluorobenzene (Surr)	*85*		*75 - 120*		*10/23/12 17:23*	*1*
Toluene-d8 (Surr)	*90*		*85 - 120*		*10/23/12 17:23*	*1*
Dibromofluoromethane (Surr)	*110*		*85 - 115*		*10/23/12 17:23*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Acenaphthylene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1

Client Sample ID: FWGB12mw-013-0158-GW
Date Collected: 10/15/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-2
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Benzo[a]anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Benzo[a]pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Benzo[b]fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Benzo[g,h,i]perylene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Benzoic acid	9.9	U	25	9.9	9.9	ug/L		10/24/12 13:31	1
Benzo[k]fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Benzyl alcohol	0.79	U	5.0	0.79	0.38	ug/L		10/24/12 13:31	1
Bis(2-chloroethoxy)methane	0.79	U	0.99	0.79	0.32	ug/L		10/24/12 13:31	1
Bis(2-chloroethyl)ether	0.099	U	0.99	0.099	0.099	ug/L		10/24/12 13:31	1
Bis(2-ethylhexyl) phthalate	**2.9**		2.0	0.79	0.79	ug/L		10/24/12 13:31	1
4-Bromophenyl phenyl ether	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1
Butyl benzyl phthalate	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 13:31	1
Carbazole	0.79	U	0.99	0.79	0.28	ug/L		10/24/12 13:31	1
4-Chloroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1
4-Chloro-3-methylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1
2-Chloronaphthalene	0.099	U	0.99	0.099	0.099	ug/L		10/24/12 13:31	1
2-Chlorophenol	0.79	U	0.99	0.79	0.29	ug/L		10/24/12 13:31	1
4-Chlorophenyl phenyl ether	0.79	U	2.0	0.79	0.30	ug/L		10/24/12 13:31	1
Chrysene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Dibenz(a,h)anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Dibenzofuran	0.099	U	0.99	0.099	0.099	ug/L		10/24/12 13:31	1
1,2-Dichlorobenzene	0.79	U	0.99	0.79	0.29	ug/L		10/24/12 13:31	1
1,3-Dichlorobenzene	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 13:31	1
1,4-Dichlorobenzene	0.79	U	0.99	0.79	0.34	ug/L		10/24/12 13:31	1
3,3'-Dichlorobenzidine	0.79	U	5.0	0.79	0.37	ug/L		10/24/12 13:31	1
2,4-Dichlorophenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1
Diethyl phthalate	0.79	U	0.99	0.79	0.59	ug/L		10/24/12 13:31	1
2,4-Dimethylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1
Dimethyl phthalate	**1.3**		0.99	0.79	0.29	ug/L		10/24/12 13:31	1
Di-n-butyl phthalate	0.79	U	0.99	0.79	0.66	ug/L		10/24/12 13:31	1
4,6-Dinitro-2-methylphenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 13:31	1
2,4-Dinitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 13:31	1
Di-n-octyl phthalate	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 13:31	1
Fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Fluorene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Hexachlorobenzene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Hexachlorobutadiene	0.79	U	0.99	0.79	0.27	ug/L		10/24/12 13:31	1
Hexachlorocyclopentadiene	0.79	U	9.9	0.79	0.79	ug/L		10/24/12 13:31	1
Hexachloroethane	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 13:31	1
Indeno[1,2,3-cd]pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Isophorone	0.79	U	0.99	0.79	0.27	ug/L		10/24/12 13:31	1
2-Methylnaphthalene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
2-Methylphenol	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 13:31	1
3 & 4 Methylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1
Naphthalene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
2-Nitroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1
3-Nitroaniline	0.79	U	2.0	0.79	0.28	ug/L		10/24/12 13:31	1
4-Nitroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 13:31	1

Client Sample ID: FWGB12mw-013-0158-GW
Date Collected: 10/15/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-2
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.79	U	2.0	0.79	0.28	ug/L		10/24/12 13:31	1
4-Nitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 13:31	1
N-Nitrosodi-n-propylamine	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 13:31	1
N-Nitrosodiphenylamine	0.79	U	0.99	0.79	0.31	ug/L		10/24/12 13:31	1
2,2'-oxybis[1-chloropropane]	0.79	U	0.99	0.79	0.40	ug/L		10/24/12 13:31	1
Pentachlorophenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 13:31	1
Phenanthrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
Phenol	0.79	U	0.99	0.79	0.59	ug/L		10/24/12 13:31	1
Pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 13:31	1
1,2,4-Trichlorobenzene	0.79	U	0.99	0.79	0.28	ug/L		10/24/12 13:31	1
2,4,5-Trichlorophenol	0.79	U	5.0	0.79	0.30	ug/L		10/24/12 13:31	1
2,4,6-Trichlorophenol	0.79	U	5.0	0.79	0.79	ug/L		10/24/12 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*50 - 110*	*10/18/12 10:24*	*10/24/12 13:31*	*1*
2-Fluorophenol (Surr)	*82*		*20 - 110*	*10/18/12 10:24*	*10/24/12 13:31*	*1*
Nitrobenzene-d5 (Surr)	*79*		*40 - 110*	*10/18/12 10:24*	*10/24/12 13:31*	*1*
Phenol-d5 (Surr)	*82*		*10 - 115*	*10/18/12 10:24*	*10/24/12 13:31*	*1*
Terphenyl-d14 (Surr)	*60*		*50 - 135*	*10/18/12 10:24*	*10/24/12 13:31*	*1*
2,4,6-Tribromophenol (Surr)	*83*		*40 - 125*	*10/18/12 10:24*	*10/24/12 13:31*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.011	U	0.055	0.011	0.011	ug/L		10/25/12 23:21	1
4,4'-DDE	0.011	U	0.055	0.011	0.011	ug/L		10/25/12 23:21	1
4,4'-DDT	0.033	U	0.055	0.033	0.018	ug/L		10/25/12 23:21	1
Aldrin	0.011	U	0.033	0.011	0.0090	ug/L		10/25/12 23:21	1
alpha-BHC	0.011	U	0.033	0.011	0.0077	ug/L		10/25/12 23:21	1
alpha-Chlordane	0.015	U	0.055	0.015	0.015	ug/L		10/25/12 23:21	1
beta-BHC	0.011	U	0.055	0.011	0.0092	ug/L		10/25/12 23:21	1
delta-BHC	0.011	U	0.055	0.011	0.0096	ug/L		10/25/12 23:21	1
Dieldrin	0.011	U	0.033	0.011	0.0082	ug/L		10/25/12 23:21	1
Endosulfan I	0.014	U	0.055	0.014	0.014	ug/L		10/25/12 23:21	1
Endosulfan II	0.013	U	0.055	0.013	0.013	ug/L		10/25/12 23:21	1
Endosulfan sulfate	0.012	U	0.055	0.012	0.012	ug/L		10/25/12 23:21	1
Endrin	0.012	U	0.055	0.012	0.012	ug/L		10/25/12 23:21	1
Endrin aldehyde	0.012	U	0.055	0.012	0.012	ug/L		10/25/12 23:21	1
Endrin ketone	0.011	U	0.055	0.011	0.0086	ug/L		10/25/12 23:21	1
gamma-BHC (Lindane)	0.011	U	0.055	0.011	0.0070	ug/L		10/25/12 23:21	1
gamma-Chlordane	0.013	U	0.055	0.013	0.013	ug/L		10/25/12 23:21	1
Heptachlor	0.011	U	0.033	0.011	0.0088	ug/L		10/25/12 23:21	1
Heptachlor epoxide	0.011	U	0.033	0.011	0.0078	ug/L		10/25/12 23:21	1
Methoxychlor	0.035	U	0.11	0.035	0.035	ug/L		10/25/12 23:21	1
Toxaphene	0.55	U	2.2	0.55	0.35	ug/L		10/25/12 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*34*	*M*	*30 - 135*	*10/19/12 10:13*	*10/25/12 23:21*	*1*
DCB Decachlorobiphenyl	*31*		*30 - 135*	*10/19/12 10:13*	*10/25/12 23:21*	*1*
Tetrachloro-m-xylene	*78*		*25 - 140*	*10/19/12 10:13*	*10/25/12 23:21*	*1*
Tetrachloro-m-xylene	*71*		*25 - 140*	*10/19/12 10:13*	*10/25/12 23:21*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGB12mw-013-0158-GW
Date Collected: 10/15/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-2
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.22	U	0.55	0.22	0.19	ug/L		10/23/12 16:57	1
Aroclor-1221	0.22	U	0.55	0.22	0.14	ug/L		10/23/12 16:57	1
Aroclor-1232	0.22	U	0.55	0.22	0.18	ug/L		10/23/12 16:57	1
Aroclor-1242	0.44	U	0.55	0.44	0.24	ug/L		10/23/12 16:57	1
Aroclor-1248	0.22	U	0.55	0.22	0.11	ug/L		10/23/12 16:57	1
Aroclor-1254	0.22	U	0.55	0.22	0.18	ug/L		10/23/12 16:57	1
Aroclor-1260	0.22	U	0.55	0.22	0.19	ug/L		10/23/12 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*40 - 140*	*10/19/12 10:23*	*10/23/12 16:57*	*1*
Tetrachloro-m-xylene	*69*		*40 - 140*	*10/19/12 10:23*	*10/23/12 16:57*	*1*
DCB Decachlorobiphenyl	*26*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 16:57*	*1*
DCB Decachlorobiphenyl	*27*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 16:57*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 04:25	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.054	U	0.16	0.054	0.034	ug/L		10/31/12 23:26	1
1,3-Dinitrobenzene	0.11	U	0.16	0.11	0.054	ug/L		10/31/12 23:26	1
2,4,6-Trinitrotoluene	0.11	U	0.16	0.11	0.054	ug/L		10/31/12 23:26	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.054	ug/L		10/31/12 23:26	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.054	ug/L		10/31/12 23:26	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.16	0.11	0.016	ug/L		10/31/12 23:26	1
2-Nitrotoluene	0.11	U	0.54	0.11	0.095	ug/L		10/31/12 23:26	1
3-Nitrotoluene	0.11	U	0.54	0.11	0.062	ug/L		10/31/12 23:26	1
4-Nitrotoluene	0.11	U	0.54	0.11	0.095	ug/L		10/31/12 23:26	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.16	0.11	0.054	ug/L		10/31/12 23:26	1
HMX	0.054	U	0.16	0.054	0.039	ug/L		10/31/12 23:26	1
RDX	0.054	U	0.16	0.054	0.039	ug/L		10/31/12 23:26	1
Nitrobenzene	0.11	U	0.16	0.11	0.054	ug/L		10/31/12 23:26	1
Tetryl	0.11	U	0.16	0.11	0.054	ug/L		10/31/12 23:26	1
Nitroglycerin	0.54	U	0.70	0.54	0.36	ug/L		10/31/12 23:26	1
PETN	0.54	U	0.70	0.54	0.32	ug/L		10/31/12 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/22/12 06:51*	*10/31/12 23:26*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:33	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGB12mw-013-0158-GF
Date Collected: 10/15/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-3
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 13:59	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 13:59	1
Cobalt	**1.9**	**J**	7.0	4.0	1.5	ug/L		10/23/12 13:59	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 13:59	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 13:59	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 13:59	1
Vanadium	**2.9**	**J**	7.0	4.0	1.3	ug/L		10/23/12 13:59	1
Barium	**6.3**	**J**	200	5.0	2.8	ug/L		10/23/12 13:59	1
Calcium	**34000**		5000	1000	630	ug/L		10/23/12 13:59	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 13:59	1
Magnesium	**25000**		5000	300	120	ug/L		10/23/12 13:59	1
Manganese	**780**		15	5.0	1.8	ug/L		10/23/12 13:59	1
Nickel	**7.1**	**J**	40	5.0	2.2	ug/L		10/23/12 13:59	1
Potassium	**2500**	**J**	5000	900	300	ug/L		10/23/12 13:59	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 13:39	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:41	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 18:41	1
Cadmium	**0.12**	**J**	2.0	0.070	0.023	ug/L		10/26/12 18:41	1
Iron	100	U	150	100	44	ug/L		10/26/12 18:41	1
Sodium	**7900**		1000	400	160	ug/L		10/26/12 18:41	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:41	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:39	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:16	1

Client Sample ID: FWGFWGmw-005-0168-GW
Date Collected: 10/16/12 09:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-4
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:24	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:24	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 13:24	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:24	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:24	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:24	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 13:24	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:24	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 13:24	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:24	1
Acetone	**1.1**	**J**	10	1.1	1.1	ug/L		10/24/12 13:24	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:24	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 13:24	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 13:24	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:24	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:24	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:24	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:24	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 13:24	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 13:24	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:24	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 13:24	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:24	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:24	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 13:24	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 13:24	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 13:24	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 13:24	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 13:24	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 13:24	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 13:24	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:24	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:24	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:24	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:24	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:24	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:24	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 13:24	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 120*		*10/24/12 13:24*	*1*
4-Bromofluorobenzene (Surr)	*89*		*75 - 120*		*10/24/12 13:24*	*1*
Toluene-d8 (Surr)	*88*		*85 - 120*		*10/24/12 13:24*	*1*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*10/24/12 13:24*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-005-0168-GW
Date Collected: 10/16/12 09:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-4
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/25/12 19:12	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/25/12 19:12	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 19:12	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:12	1
Bis(2-ethylhexyl) phthalate	**0.84**	**J**	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:12	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 19:12	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:12	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:12	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/25/12 19:12	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:12	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:12	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:12	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/25/12 19:12	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/25/12 19:12	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 19:12	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:12	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/25/12 19:12	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:12	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:12	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:12	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 19:12	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/25/12 19:12	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:12	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 19:12	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:12	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 19:12	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:12	1

Client Sample ID: FWGFWGmw-005-0168-GW
Date Collected: 10/16/12 09:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-4
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 19:12	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:12	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:12	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 19:12	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/25/12 19:12	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:12	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 19:12	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:12	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 19:12	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/25/12 19:12	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/25/12 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*50 - 110*	*10/18/12 10:20*	*10/25/12 19:12*	*1*
2-Fluorophenol (Surr)	*66*		*20 - 110*	*10/18/12 10:20*	*10/25/12 19:12*	*1*
Nitrobenzene-d5 (Surr)	*66*		*40 - 110*	*10/18/12 10:20*	*10/25/12 19:12*	*1*
Phenol-d5 (Surr)	*69*		*10 - 115*	*10/18/12 10:20*	*10/25/12 19:12*	*1*
Terphenyl-d14 (Surr)	*66*		*50 - 135*	*10/18/12 10:20*	*10/25/12 19:12*	*1*
2,4,6-Tribromophenol (Surr)	*68*		*40 - 125*	*10/18/12 10:20*	*10/25/12 19:12*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/25/12 23:45	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/25/12 23:45	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/25/12 23:45	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/25/12 23:45	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/25/12 23:45	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/25/12 23:45	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/25/12 23:45	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/25/12 23:45	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/25/12 23:45	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/25/12 23:45	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 23:45	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 23:45	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 23:45	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/25/12 23:45	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/25/12 23:45	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/25/12 23:45	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/25/12 23:45	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/25/12 23:45	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/25/12 23:45	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/25/12 23:45	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/25/12 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*38*		*30 - 135*	*10/19/12 10:13*	*10/25/12 23:45*	*1*
DCB Decachlorobiphenyl	*33*	*M*	*30 - 135*	*10/19/12 10:13*	*10/25/12 23:45*	*1*
Tetrachloro-m-xylene	*90*		*25 - 140*	*10/19/12 10:13*	*10/25/12 23:45*	*1*
Tetrachloro-m-xylene	*87*	*M*	*25 - 140*	*10/19/12 10:13*	*10/25/12 23:45*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-005-0168-GW
Date Collected: 10/16/12 09:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-4
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 17:12	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 17:12	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 17:12	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 17:12	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 17:12	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 17:12	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*40 - 140*	*10/19/12 10:23*	*10/23/12 17:12*	*1*
Tetrachloro-m-xylene	*86*		*40 - 140*	*10/19/12 10:23*	*10/23/12 17:12*	*1*
DCB Decachlorobiphenyl	*26*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 17:12*	*1*
DCB Decachlorobiphenyl	*29*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 17:12*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 04:40	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		11/01/12 00:06	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:06	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:06	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 00:06	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 00:06	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 00:06	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 00:06	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/01/12 00:06	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 00:06	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:06	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 00:06	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 00:06	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:06	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:06	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		11/01/12 00:06	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		11/01/12 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*90*		*79 - 111*	*10/22/12 06:51*	*11/01/12 00:06*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:43	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-005-0168-GF
Date Collected: 10/16/12 09:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-5
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 14:03	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 14:03	1
Cobalt	**2.0**	**J**	7.0	4.0	1.5	ug/L		10/23/12 14:03	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:03	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:03	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:03	1
Vanadium	**1.8**	**J**	7.0	4.0	1.3	ug/L		10/23/12 14:03	1
Barium	**55**	**J**	200	5.0	2.8	ug/L		10/23/12 14:03	1
Calcium	**46000**		5000	1000	630	ug/L		10/23/12 14:03	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:03	1
Magnesium	**15000**		5000	300	120	ug/L		10/23/12 14:03	1
Manganese	**350**		15	5.0	1.8	ug/L		10/23/12 14:03	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 14:03	1
Potassium	**1600**	**J**	5000	900	300	ug/L		10/23/12 14:03	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 13:45	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:47	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 18:47	1
Cadmium	**1.0**	**J**	2.0	0.070	0.023	ug/L		10/26/12 18:47	1
Iron	**3600**		150	100	44	ug/L		10/26/12 18:47	1
Sodium	**6100**		1000	400	160	ug/L		10/26/12 18:47	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:47	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:45	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:01	1

Client Sample ID: FWGFWGmw-DUP2-0200-GW
Date Collected: 10/16/12 10:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-6
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 18:07	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 18:07	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 18:07	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 18:07	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 18:07	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 18:07	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 18:07	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 18:07	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 18:07	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 18:07	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 18:07	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 18:07	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 18:07	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 18:07	1
Carbon disulfide	**0.17**	**J**	1.0	0.25	0.13	ug/L		10/23/12 18:07	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 18:07	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 18:07	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 18:07	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 18:07	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 18:07	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 18:07	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 18:07	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 18:07	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 18:07	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 18:07	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 18:07	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 18:07	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 18:07	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 18:07	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 18:07	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 18:07	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 18:07	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 18:07	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 18:07	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 18:07	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 18:07	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 18:07	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 18:07	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 120*		*10/23/12 18:07*	*1*
4-Bromofluorobenzene (Surr)	*81*		*75 - 120*		*10/23/12 18:07*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/23/12 18:07*	*1*
Dibromofluoromethane (Surr)	*107*		*85 - 115*		*10/23/12 18:07*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-DUP2-0200-GW
Date Collected: 10/16/12 10:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-6
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/25/12 19:32	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/25/12 19:32	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 19:32	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:32	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:32	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 19:32	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:32	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:32	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/25/12 19:32	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:32	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:32	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:32	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/25/12 19:32	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/25/12 19:32	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 19:32	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:32	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/25/12 19:32	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:32	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:32	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:32	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 19:32	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/25/12 19:32	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:32	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 19:32	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:32	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 19:32	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:32	1

Client Sample ID: FWGFWGmw-DUP2-0200-GW
Date Collected: 10/16/12 10:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-6
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 19:32	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:32	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:32	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 19:32	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/25/12 19:32	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:32	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 19:32	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:32	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 19:32	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/25/12 19:32	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/25/12 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*69*		*50 - 110*	*10/18/12 10:20*	*10/25/12 19:32*	*1*
2-Fluorophenol (Surr)	*77*		*20 - 110*	*10/18/12 10:20*	*10/25/12 19:32*	*1*
Nitrobenzene-d5 (Surr)	*73*		*40 - 110*	*10/18/12 10:20*	*10/25/12 19:32*	*1*
Phenol-d5 (Surr)	*80*		*10 - 115*	*10/18/12 10:20*	*10/25/12 19:32*	*1*
Terphenyl-d14 (Surr)	*79*		*50 - 135*	*10/18/12 10:20*	*10/25/12 19:32*	*1*
2,4,6-Tribromophenol (Surr)	*71*		*40 - 125*	*10/18/12 10:20*	*10/25/12 19:32*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/26/12 00:09	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/26/12 00:09	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/26/12 00:09	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/26/12 00:09	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/26/12 00:09	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/26/12 00:09	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/26/12 00:09	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/26/12 00:09	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/26/12 00:09	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/26/12 00:09	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 00:09	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 00:09	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 00:09	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 00:09	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/26/12 00:09	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/26/12 00:09	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 00:09	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/26/12 00:09	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/26/12 00:09	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/26/12 00:09	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/26/12 00:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*38*		*30 - 135*	*10/19/12 10:13*	*10/26/12 00:09*	*1*
DCB Decachlorobiphenyl	*37*		*30 - 135*	*10/19/12 10:13*	*10/26/12 00:09*	*1*
Tetrachloro-m-xylene	*85*		*25 - 140*	*10/19/12 10:13*	*10/26/12 00:09*	*1*
Tetrachloro-m-xylene	*83*		*25 - 140*	*10/19/12 10:13*	*10/26/12 00:09*	*1*

Client Sample ID: FWGFWGmw-DUP2-0200-GW
Date Collected: 10/16/12 10:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-6
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 14:27	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/05/12 14:27	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 14:27	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/05/12 14:27	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/05/12 14:27	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 14:27	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*40 - 140*	*10/29/12 10:19*	*11/05/12 14:27*	*1*
Tetrachloro-m-xylene	*96*		*40 - 140*	*10/29/12 10:19*	*11/05/12 14:27*	*1*
DCB Decachlorobiphenyl	*40*		*40 - 135*	*10/29/12 10:19*	*11/05/12 14:27*	*1*
DCB Decachlorobiphenyl	*42*		*40 - 135*	*10/29/12 10:19*	*11/05/12 14:27*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 04:54	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		11/01/12 00:46	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:46	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:46	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 00:46	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 00:46	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 00:46	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 00:46	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/01/12 00:46	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 00:46	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:46	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 00:46	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 00:46	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 00:46	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 04:40	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		11/01/12 00:46	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		11/01/12 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/22/12 06:51*	*11/01/12 00:46*	*1*
3,4-Dinitrotoluene	*86*		*79 - 111*	*10/22/12 06:51*	*11/02/12 04:40*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:45	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-DUP2-0200-GF
Date Collected: 10/16/12 10:45
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-7
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 14:15	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 14:15	1
Cobalt	**2.0**	**J**	7.0	4.0	1.5	ug/L		10/23/12 14:15	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:15	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:15	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:15	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 14:15	1
Barium	**56**	**J**	200	5.0	2.8	ug/L		10/23/12 14:15	1
Calcium	**48000**		5000	1000	630	ug/L		10/23/12 14:15	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:15	1
Magnesium	**16000**		5000	300	120	ug/L		10/23/12 14:15	1
Manganese	**360**		15	5.0	1.8	ug/L		10/23/12 14:15	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 14:15	1
Potassium	**1600**	**J**	5000	900	300	ug/L		10/23/12 14:15	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 13:50	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:52	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 18:52	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 18:52	1
Iron	**3600**		150	100	44	ug/L		10/26/12 18:52	1
Sodium	**6400**		1000	400	160	ug/L		10/26/12 18:52	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:52	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 13:50	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:11	1

Client Sample ID: FWGFWGmw-009-0172-GW
Date Collected: 10/16/12 12:05
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-8
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 18:29	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 18:29	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 18:29	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 18:29	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 18:29	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 18:29	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 18:29	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 18:29	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 18:29	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 18:29	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 18:29	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 18:29	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 18:29	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 18:29	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 18:29	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 18:29	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 18:29	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 18:29	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 18:29	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 18:29	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 18:29	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 18:29	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 18:29	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 18:29	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 18:29	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 18:29	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 18:29	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 18:29	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 18:29	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 18:29	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 18:29	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 18:29	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 18:29	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 18:29	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 18:29	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 18:29	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 18:29	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 18:29	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 120*		*10/23/12 18:29*	*1*
4-Bromofluorobenzene (Surr)	*78*		*75 - 120*		*10/23/12 18:29*	*1*
Toluene-d8 (Surr)	*85*		*85 - 120*		*10/23/12 18:29*	*1*
Dibromofluoromethane (Surr)	*103*		*85 - 115*		*10/23/12 18:29*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1

Client Sample ID: FWGFWGmw-009-0172-GW
Lab Sample ID: 240-16465-8
Date Collected: 10/16/12 12:05
Matrix: Water
Date Received: 10/17/12 06:15

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/25/12 19:51	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/25/12 19:51	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 19:51	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:51	1
Bis(2-ethylhexyl) phthalate	**1.1**	**J**	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:51	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 19:51	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:51	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:51	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/25/12 19:51	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 19:51	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:51	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:51	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/25/12 19:51	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/25/12 19:51	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 19:51	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 19:51	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/25/12 19:51	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:51	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:51	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:51	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 19:51	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/25/12 19:51	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:51	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 19:51	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:51	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 19:51	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 19:51	1

Client Sample ID: FWGFWGmw-009-0172-GW
Date Collected: 10/16/12 12:05
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-8
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 19:51	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:51	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 19:51	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 19:51	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/25/12 19:51	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 19:51	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 19:51	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 19:51	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 19:51	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/25/12 19:51	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/25/12 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*50 - 110*	*10/18/12 10:20*	*10/25/12 19:51*	*1*
2-Fluorophenol (Surr)	*82*		*20 - 110*	*10/18/12 10:20*	*10/25/12 19:51*	*1*
Nitrobenzene-d5 (Surr)	*78*		*40 - 110*	*10/18/12 10:20*	*10/25/12 19:51*	*1*
Phenol-d5 (Surr)	*84*		*10 - 115*	*10/18/12 10:20*	*10/25/12 19:51*	*1*
Terphenyl-d14 (Surr)	*79*		*50 - 135*	*10/18/12 10:20*	*10/25/12 19:51*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*40 - 125*	*10/18/12 10:20*	*10/25/12 19:51*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/26/12 00:32	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/26/12 00:32	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/26/12 00:32	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/26/12 00:32	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/26/12 00:32	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/26/12 00:32	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/26/12 00:32	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/26/12 00:32	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/26/12 00:32	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/26/12 00:32	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 00:32	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 00:32	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 00:32	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 00:32	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/26/12 00:32	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/26/12 00:32	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 00:32	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/26/12 00:32	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/26/12 00:32	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/26/12 00:32	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/26/12 00:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*		*30 - 135*	*10/19/12 10:13*	*10/26/12 00:32*	*1*
DCB Decachlorobiphenyl	*39*		*30 - 135*	*10/19/12 10:13*	*10/26/12 00:32*	*1*
Tetrachloro-m-xylene	*89*		*25 - 140*	*10/19/12 10:13*	*10/26/12 00:32*	*1*
Tetrachloro-m-xylene	*87*		*25 - 140*	*10/19/12 10:13*	*10/26/12 00:32*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-009-0172-GW
Date Collected: 10/16/12 12:05
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-8
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 17:42	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 17:42	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 17:42	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 17:42	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 17:42	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 17:42	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*40 - 140*	*10/19/12 10:23*	*10/23/12 17:42*	*1*
Tetrachloro-m-xylene	*81*		*40 - 140*	*10/19/12 10:23*	*10/23/12 17:42*	*1*
DCB Decachlorobiphenyl	*32*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 17:42*	*1*
DCB Decachlorobiphenyl	*33*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 17:42*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 05:08	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		11/01/12 01:27	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 01:27	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 01:27	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 01:27	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 01:27	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 01:27	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/01/12 01:27	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/01/12 01:27	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/01/12 01:27	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 01:27	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 01:27	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 01:27	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 01:27	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 01:27	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		11/01/12 01:27	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		11/01/12 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*89*	*M*	*79 - 111*	*10/22/12 06:51*	*11/01/12 01:27*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:46	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/23/12 12:47	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-009-0172-GF
Date Collected: 10/16/12 12:05
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-9
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**11**		10	10	3.3	ug/L		10/23/12 14:18	1
Chromium	**2.1**	**J**	7.0	4.0	1.4	ug/L		10/23/12 14:18	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 14:18	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:18	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:18	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:18	1
Vanadium	**2.2**	**J**	7.0	4.0	1.3	ug/L		10/23/12 14:18	1
Barium	**59**	**J**	200	5.0	2.8	ug/L		10/23/12 14:18	1
Calcium	**92000**		5000	1000	630	ug/L		10/23/12 14:18	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:18	1
Magnesium	**25000**		5000	300	120	ug/L		10/23/12 14:18	1
Manganese	**200**		15	5.0	1.8	ug/L		10/23/12 14:18	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 14:18	1
Potassium	**1600**	**J**	5000	900	300	ug/L		10/23/12 14:18	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**980**		60	60	20	ug/L		10/29/12 13:55	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 18:58	1
Beryllium	**0.051**	**J**	1.0	0.10	0.033	ug/L		10/26/12 18:58	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 18:58	1
Iron	**2700**		150	100	44	ug/L		10/26/12 18:58	1
Sodium	**7600**		1000	400	160	ug/L		10/26/12 18:58	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 18:58	1
Zinc	**12**	**J**	40	20	8.8	ug/L		10/29/12 13:55	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:39	1

Client Sample ID: FWGFWGmw-008-0171-GW
Date Collected: 10/16/12 13:55
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-10
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:46	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:46	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 13:46	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:46	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:46	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:46	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 13:46	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:46	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 13:46	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:46	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/24/12 13:46	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:46	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 13:46	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 13:46	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:46	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:46	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:46	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:46	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 13:46	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 13:46	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:46	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 13:46	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 13:46	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:46	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 13:46	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 13:46	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 13:46	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 13:46	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 13:46	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 13:46	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 13:46	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 13:46	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 13:46	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:46	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 13:46	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 13:46	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 13:46	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 13:46	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 120*		*10/24/12 13:46*	*1*
4-Bromofluorobenzene (Surr)	*84*		*75 - 120*		*10/24/12 13:46*	*1*
Toluene-d8 (Surr)	*86*		*85 - 120*		*10/24/12 13:46*	*1*
Dibromofluoromethane (Surr)	*110*		*85 - 115*		*10/24/12 13:46*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-008-0171-GW
Date Collected: 10/16/12 13:55
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-10
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/25/12 20:11	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/25/12 20:11	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 20:11	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:11	1
Bis(2-ethylhexyl) phthalate	**0.95**	**J**	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:11	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 20:11	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:11	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:11	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/25/12 20:11	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:11	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:11	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:11	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/25/12 20:11	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/25/12 20:11	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 20:11	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:11	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/25/12 20:11	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:11	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:11	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:11	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 20:11	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/25/12 20:11	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:11	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 20:11	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:11	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 20:11	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:11	1

Client Sample ID: FWGFWGmw-008-0171-GW
Date Collected: 10/16/12 13:55
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-10
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 20:11	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:11	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:11	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 20:11	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/25/12 20:11	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:11	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 20:11	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:11	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 20:11	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/25/12 20:11	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/25/12 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*50 - 110*	*10/18/12 10:20*	*10/25/12 20:11*	*1*
2-Fluorophenol (Surr)	*71*		*20 - 110*	*10/18/12 10:20*	*10/25/12 20:11*	*1*
Nitrobenzene-d5 (Surr)	*69*		*40 - 110*	*10/18/12 10:20*	*10/25/12 20:11*	*1*
Phenol-d5 (Surr)	*75*		*10 - 115*	*10/18/12 10:20*	*10/25/12 20:11*	*1*
Terphenyl-d14 (Surr)	*73*		*50 - 135*	*10/18/12 10:20*	*10/25/12 20:11*	*1*
2,4,6-Tribromophenol (Surr)	*80*		*40 - 125*	*10/18/12 10:20*	*10/25/12 20:11*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/26/12 01:43	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/26/12 01:43	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/26/12 01:43	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/26/12 01:43	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/26/12 01:43	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/26/12 01:43	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/26/12 01:43	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/26/12 01:43	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/26/12 01:43	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/26/12 01:43	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 01:43	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 01:43	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 01:43	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 01:43	1
Endrin ketone	**0.0075**	**J**	0.048	0.0095	0.0074	ug/L		10/26/12 01:43	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/26/12 01:43	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 01:43	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/26/12 01:43	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/26/12 01:43	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/26/12 01:43	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/26/12 01:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*31*	*M*	*30 - 135*	*10/19/12 10:13*	*10/26/12 01:43*	*1*
DCB Decachlorobiphenyl	*26*	*Q*	*30 - 135*	*10/19/12 10:13*	*10/26/12 01:43*	*1*
Tetrachloro-m-xylene	*83*		*25 - 140*	*10/19/12 10:13*	*10/26/12 01:43*	*1*
Tetrachloro-m-xylene	*81*		*25 - 140*	*10/19/12 10:13*	*10/26/12 01:43*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-008-0171-GW
Date Collected: 10/16/12 13:55
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-10
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 17:56	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 17:56	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 17:56	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 17:56	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 17:56	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 17:56	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*40 - 140*	*10/19/12 10:23*	*10/23/12 17:56*	*1*
Tetrachloro-m-xylene	*80*		*40 - 140*	*10/19/12 10:23*	*10/23/12 17:56*	*1*
DCB Decachlorobiphenyl	*21*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 17:56*	*1*
DCB Decachlorobiphenyl	*22*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 17:56*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 05:37	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		11/01/12 02:07	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:07	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:07	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 02:07	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 02:07	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 02:07	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.091	ug/L		11/01/12 02:07	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.059	ug/L		11/01/12 02:07	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.091	ug/L		11/01/12 02:07	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:07	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 02:07	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 02:07	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:07	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:07	1
Nitroglycerin	0.51	U	0.67	0.51	0.34	ug/L		11/01/12 02:07	1
PETN	0.51	U	0.67	0.51	0.31	ug/L		11/01/12 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/22/12 06:51*	*11/01/12 02:07*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:51	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:11	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-008-0171-GF
Date Collected: 10/16/12 13:55
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-11
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**7.5**	**J**	10	10	3.3	ug/L		10/23/12 14:22	1
Chromium	**1.9**	**J**	7.0	4.0	1.4	ug/L		10/23/12 14:22	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 14:22	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:22	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:22	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:22	1
Vanadium	**2.0**	**J**	7.0	4.0	1.3	ug/L		10/23/12 14:22	1
Barium	**40**	**J**	200	5.0	2.8	ug/L		10/23/12 14:22	1
Calcium	**110000**		5000	1000	630	ug/L		10/23/12 14:22	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:22	1
Magnesium	**27000**		5000	300	120	ug/L		10/23/12 14:22	1
Manganese	**690**		15	5.0	1.8	ug/L		10/23/12 14:22	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 14:22	1
Potassium	**2000**	**J**	5000	900	300	ug/L		10/23/12 14:22	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**290**		60	60	20	ug/L		10/29/12 14:14	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 19:16	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 19:16	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 19:16	1
Iron	**1100**		150	100	44	ug/L		10/26/12 19:16	1
Sodium	**6500**		1000	400	160	ug/L		10/26/12 19:16	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 19:16	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 14:14	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:09	1

Client Sample ID: FWGFWGmw-016-0180-GW
Date Collected: 10/16/12 15:40
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-12
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 19:14	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 19:14	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/23/12 19:14	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 19:14	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 19:14	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 19:14	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/23/12 19:14	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 19:14	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/23/12 19:14	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 19:14	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/23/12 19:14	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 19:14	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/23/12 19:14	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/23/12 19:14	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 19:14	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 19:14	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 19:14	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 19:14	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/23/12 19:14	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/23/12 19:14	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 19:14	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 19:14	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/23/12 19:14	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 19:14	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/23/12 19:14	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/23/12 19:14	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/23/12 19:14	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/23/12 19:14	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/23/12 19:14	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/23/12 19:14	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/23/12 19:14	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/23/12 19:14	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/23/12 19:14	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 19:14	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/23/12 19:14	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/23/12 19:14	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/23/12 19:14	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/23/12 19:14	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/23/12 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 120*		*10/23/12 19:14*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/23/12 19:14*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/23/12 19:14*	*1*
Dibromofluoromethane (Surr)	*113*		*85 - 115*		*10/23/12 19:14*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-016-0180-GW
Date Collected: 10/16/12 15:40
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-12
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/25/12 20:30	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/25/12 20:30	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 20:30	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:30	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:30	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 20:30	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:30	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:30	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/25/12 20:30	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:30	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:30	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:30	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/25/12 20:30	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/25/12 20:30	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 20:30	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:30	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/25/12 20:30	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:30	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:30	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:30	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 20:30	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/25/12 20:30	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:30	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 20:30	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:30	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 20:30	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:30	1

Client Sample ID: FWGFWGmw-016-0180-GW
Date Collected: 10/16/12 15:40
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-12
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 20:30	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:30	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:30	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 20:30	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/25/12 20:30	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:30	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 20:30	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:30	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 20:30	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/25/12 20:30	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/25/12 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*50 - 110*	*10/18/12 10:20*	*10/25/12 20:30*	*1*
2-Fluorophenol (Surr)	*77*		*20 - 110*	*10/18/12 10:20*	*10/25/12 20:30*	*1*
Nitrobenzene-d5 (Surr)	*74*		*40 - 110*	*10/18/12 10:20*	*10/25/12 20:30*	*1*
Phenol-d5 (Surr)	*78*		*10 - 115*	*10/18/12 10:20*	*10/25/12 20:30*	*1*
Terphenyl-d14 (Surr)	*86*		*50 - 135*	*10/18/12 10:20*	*10/25/12 20:30*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*40 - 125*	*10/18/12 10:20*	*10/25/12 20:30*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/26/12 02:06	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/26/12 02:06	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/26/12 02:06	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/26/12 02:06	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/26/12 02:06	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/26/12 02:06	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/26/12 02:06	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/26/12 02:06	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/26/12 02:06	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/26/12 02:06	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 02:06	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 02:06	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 02:06	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 02:06	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/26/12 02:06	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/26/12 02:06	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 02:06	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/26/12 02:06	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/26/12 02:06	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/26/12 02:06	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/26/12 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*	*M*	*30 - 135*	*10/19/12 10:13*	*10/26/12 02:06*	*1*
DCB Decachlorobiphenyl	*70*	*M*	*30 - 135*	*10/19/12 10:13*	*10/26/12 02:06*	*1*
Tetrachloro-m-xylene	*87*		*25 - 140*	*10/19/12 10:13*	*10/26/12 02:06*	*1*
Tetrachloro-m-xylene	*83*		*25 - 140*	*10/19/12 10:13*	*10/26/12 02:06*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-016-0180-GW
Date Collected: 10/16/12 15:40
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-12
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 18:11	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 18:11	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 18:11	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 18:11	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 18:11	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 18:11	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*40 - 140*	*10/19/12 10:23*	*10/23/12 18:11*	*1*
Tetrachloro-m-xylene	*77*		*40 - 140*	*10/19/12 10:23*	*10/23/12 18:11*	*1*
DCB Decachlorobiphenyl	*54*		*40 - 135*	*10/19/12 10:23*	*10/23/12 18:11*	*1*
DCB Decachlorobiphenyl	*55*		*40 - 135*	*10/19/12 10:23*	*10/23/12 18:11*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 05:51	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		11/01/12 02:47	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:47	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:47	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 02:47	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 02:47	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 02:47	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 02:47	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/01/12 02:47	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 02:47	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:47	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 02:47	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 02:47	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:47	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 02:47	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		11/01/12 02:47	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		11/01/12 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/22/12 06:51*	*11/01/12 02:47*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:51	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:25	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-016-0180-GF
Date Collected: 10/16/12 15:40
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-13
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**6.2**	**J**	10	10	3.3	ug/L		10/23/12 14:26	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 14:26	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 14:26	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:26	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:26	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:26	1
Vanadium	**1.5**	**J**	7.0	4.0	1.3	ug/L		10/23/12 14:26	1
Barium	**54**	**J**	200	5.0	2.8	ug/L		10/23/12 14:26	1
Calcium	**100000**		5000	1000	630	ug/L		10/23/12 14:26	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:26	1
Magnesium	**28000**		5000	300	120	ug/L		10/23/12 14:26	1
Manganese	**200**		15	5.0	1.8	ug/L		10/23/12 14:26	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 14:26	1
Potassium	**2000**	**J**	5000	900	300	ug/L		10/23/12 14:26	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 14:19	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 19:21	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 19:21	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 19:21	1
Iron	**590**		150	100	44	ug/L		10/26/12 19:21	1
Sodium	**11000**		1000	400	160	ug/L		10/26/12 19:21	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 19:21	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 14:19	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:43	1

Client Sample ID: FWGFWGmw-015-0179-GW — **Lab Sample ID: 240-16465-14**

Date Collected: 10/16/12 16:50 — **Matrix: Water**

Date Received: 10/17/12 06:15

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 12:16	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 12:16	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 12:16	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 12:16	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 12:16	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 12:16	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 12:16	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 12:16	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 12:16	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 12:16	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/24/12 12:16	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:16	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 12:16	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 12:16	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:16	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:16	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 12:16	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 12:16	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 12:16	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 12:16	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 12:16	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 12:16	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 12:16	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 12:16	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 12:16	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 12:16	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 12:16	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 12:16	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 12:16	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 12:16	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 12:16	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 12:16	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 12:16	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 12:16	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 12:16	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 12:16	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 12:16	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 12:16	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 12:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*117*		*70 - 120*		*10/24/12 12:16*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/24/12 12:16*	*1*
Toluene-d8 (Surr)	*86*		*85 - 120*		*10/24/12 12:16*	*1*
Dibromofluoromethane (Surr)	*107*		*85 - 115*		*10/24/12 12:16*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1

Client Sample ID: FWGFWGmw-015-0179-GW
Date Collected: 10/16/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-14
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/25/12 20:50	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/25/12 20:50	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 20:50	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:50	1
Bis(2-ethylhexyl) phthalate	**1.2**	**J**	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:50	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 20:50	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:50	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:50	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/25/12 20:50	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/25/12 20:50	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/25/12 20:50	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:50	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/25/12 20:50	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/25/12 20:50	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 20:50	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
Dimethyl phthalate	**2.6**		0.95	0.76	0.28	ug/L		10/25/12 20:50	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/25/12 20:50	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:50	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:50	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:50	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 20:50	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/25/12 20:50	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:50	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/25/12 20:50	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:50	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 20:50	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/25/12 20:50	1

Client Sample ID: FWGFWGmw-015-0179-GW
Date Collected: 10/16/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-14
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/25/12 20:50	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:50	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/25/12 20:50	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/25/12 20:50	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/25/12 20:50	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/25/12 20:50	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/25/12 20:50	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/25/12 20:50	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/25/12 20:50	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/25/12 20:50	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/25/12 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*		*50 - 110*	*10/18/12 10:20*	*10/25/12 20:50*	*1*
2-Fluorophenol (Surr)	*84*		*20 - 110*	*10/18/12 10:20*	*10/25/12 20:50*	*1*
Nitrobenzene-d5 (Surr)	*76*		*40 - 110*	*10/18/12 10:20*	*10/25/12 20:50*	*1*
Phenol-d5 (Surr)	*90*		*10 - 115*	*10/18/12 10:20*	*10/25/12 20:50*	*1*
Terphenyl-d14 (Surr)	*86*		*50 - 135*	*10/18/12 10:20*	*10/25/12 20:50*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*40 - 125*	*10/18/12 10:20*	*10/25/12 20:50*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/26/12 02:30	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/26/12 02:30	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/26/12 02:30	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/26/12 02:30	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/26/12 02:30	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/26/12 02:30	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/26/12 02:30	1
delta-BHC	**0.013**	**J**	0.048	0.0095	0.0083	ug/L		10/26/12 02:30	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/26/12 02:30	1
Endosulfan I	0.012	U M	0.048	0.012	0.012	ug/L		10/26/12 02:30	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 02:30	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 02:30	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 02:30	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/26/12 02:30	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/26/12 02:30	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/26/12 02:30	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/26/12 02:30	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/26/12 02:30	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/26/12 02:30	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/26/12 02:30	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/26/12 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*	*M*	*30 - 135*	*10/19/12 10:13*	*10/26/12 02:30*	*1*
DCB Decachlorobiphenyl	*38*	*M*	*30 - 135*	*10/19/12 10:13*	*10/26/12 02:30*	*1*
Tetrachloro-m-xylene	*69*		*25 - 140*	*10/19/12 10:13*	*10/26/12 02:30*	*1*
Tetrachloro-m-xylene	*69*	*M*	*25 - 140*	*10/19/12 10:13*	*10/26/12 02:30*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-015-0179-GW
Date Collected: 10/16/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-14
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 15:12	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/05/12 15:12	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 15:12	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/05/12 15:12	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/05/12 15:12	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 15:12	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*60*		*40 - 140*	*10/29/12 10:19*	*11/05/12 15:12*	*1*
Tetrachloro-m-xylene	*85*		*40 - 140*	*10/29/12 10:19*	*11/05/12 15:12*	*1*
DCB Decachlorobiphenyl	*35*	*Q*	*40 - 135*	*10/29/12 10:19*	*11/05/12 15:12*	*1*
DCB Decachlorobiphenyl	*42*		*40 - 135*	*10/29/12 10:19*	*11/05/12 15:12*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 06:05	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.052	U	0.16	0.052	0.032	ug/L		11/01/12 03:28	1
1,3-Dinitrobenzene	0.10	U	0.16	0.10	0.052	ug/L		11/01/12 03:28	1
2,4,6-Trinitrotoluene	0.10	U	0.16	0.10	0.052	ug/L		11/01/12 03:28	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		11/01/12 03:28	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		11/01/12 03:28	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.16	0.10	0.016	ug/L		11/01/12 03:28	1
2-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		11/01/12 03:28	1
3-Nitrotoluene	0.10	U	0.52	0.10	0.059	ug/L		11/01/12 03:28	1
4-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		11/01/12 03:28	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.16	0.10	0.052	ug/L		11/01/12 03:28	1
HMX	0.052	U	0.16	0.052	0.037	ug/L		11/01/12 03:28	1
RDX	0.052	U	0.16	0.052	0.037	ug/L		11/01/12 03:28	1
Nitrobenzene	0.10	U	0.16	0.10	0.052	ug/L		11/01/12 03:28	1
Tetryl	0.10	U	0.16	0.10	0.052	ug/L		11/01/12 03:28	1
Nitroglycerin	0.52	U	0.67	0.52	0.34	ug/L		11/01/12 03:28	1
PETN	0.52	U	0.67	0.52	0.31	ug/L		11/02/12 05:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/22/12 06:51*	*11/01/12 03:28*	*1*
3,4-Dinitrotoluene	*88*		*79 - 111*	*10/22/12 06:51*	*11/02/12 05:46*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:51	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:27	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-015-0179-GF
Date Collected: 10/16/12 16:50
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-15
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**6.4**	**J**	10	10	3.3	ug/L		10/23/12 14:30	1
Chromium	**1.4**	**J**	7.0	4.0	1.4	ug/L		10/23/12 14:30	1
Cobalt	**2.2**	**J**	7.0	4.0	1.5	ug/L		10/23/12 14:30	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:30	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:30	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:30	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 14:30	1
Barium	**19**	**J**	200	5.0	2.8	ug/L		10/23/12 14:30	1
Calcium	**250000**		5000	1000	630	ug/L		10/23/12 14:30	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:30	1
Magnesium	**170000**		5000	300	120	ug/L		10/23/12 14:30	1
Manganese	**860**		15	5.0	1.8	ug/L		10/23/12 14:30	1
Nickel	**3.0**	**J**	40	5.0	2.2	ug/L		10/23/12 14:30	1
Potassium	**3900**	**J**	5000	900	300	ug/L		10/23/12 14:30	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**70**		60	60	20	ug/L		10/29/12 14:25	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 19:27	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 19:27	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 19:27	1
Iron	**240**		150	100	44	ug/L		10/26/12 19:27	1
Sodium	**33000**		1000	400	160	ug/L		10/26/12 19:27	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 19:27	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 14:25	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:40	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWG TEAM 2 TRIP
Date Collected: 10/16/12 08:00
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-16
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:09	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:09	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 14:09	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:09	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:09	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:09	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 14:09	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:09	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 14:09	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:09	1
Acetone	**1.6**	**J**	10	1.1	1.1	ug/L		10/24/12 14:09	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:09	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 14:09	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 14:09	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:09	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:09	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:09	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:09	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 14:09	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 14:09	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:09	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 14:09	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:09	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:09	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 14:09	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 14:09	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 14:09	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 14:09	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 14:09	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 14:09	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 14:09	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:09	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:09	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:09	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:09	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:09	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:09	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 14:09	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 120*		*10/24/12 14:09*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/24/12 14:09*	*1*
Toluene-d8 (Surr)	*90*		*85 - 120*		*10/24/12 14:09*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*10/24/12 14:09*	*1*

Client Sample ID: FWGNTAmw-119-0193-GW — **Lab Sample ID: 240-16465-17**
Date Collected: 10/16/12 09:42 — **Matrix: Water**
Date Received: 10/17/12 06:15

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:31	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:31	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 14:31	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:31	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:31	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:31	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 14:31	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:31	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 14:31	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:31	1
Acetone	**2.2**	**J**	10	1.1	1.1	ug/L		10/24/12 14:31	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:31	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 14:31	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 14:31	1
Carbon disulfide	**1.2**		1.0	0.25	0.13	ug/L		10/24/12 14:31	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:31	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:31	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:31	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 14:31	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 14:31	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:31	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 14:31	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:31	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:31	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 14:31	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 14:31	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 14:31	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 14:31	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 14:31	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 14:31	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 14:31	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:31	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:31	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:31	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:31	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:31	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:31	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 14:31	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*70 - 120*		*10/24/12 14:31*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/24/12 14:31*	*1*
Toluene-d8 (Surr)	*86*		*85 - 120*		*10/24/12 14:31*	*1*
Dibromofluoromethane (Surr)	*112*		*85 - 115*		*10/24/12 14:31*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1

Client Sample ID: FWGNTAmw-119-0193-GW
Date Collected: 10/16/12 09:42
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-17
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 10:18	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 10:18	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 10:18	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 10:18	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:18	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 10:18	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 10:18	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 10:18	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 10:18	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 10:18	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 10:18	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:18	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 10:18	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 10:18	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 10:18	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 10:18	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 10:18	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:18	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:18	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:18	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 10:18	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 10:18	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:18	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 10:18	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:18	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
Naphthalene	**0.26**		0.19	0.095	0.095	ug/L		10/24/12 10:18	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 10:18	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:18	1

Client Sample ID: FWGNTAmw-119-0193-GW
Date Collected: 10/16/12 09:42
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-17
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 10:18	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:18	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:18	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 10:18	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 10:18	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:18	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 10:18	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:18	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 10:18	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 10:18	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 10:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*66*		*50 - 110*	*10/20/12 09:33*	*10/24/12 10:18*	*1*
2-Fluorophenol (Surr)	*74*		*20 - 110*	*10/20/12 09:33*	*10/24/12 10:18*	*1*
Nitrobenzene-d5 (Surr)	*74*		*40 - 110*	*10/20/12 09:33*	*10/24/12 10:18*	*1*
Phenol-d5 (Surr)	*75*		*10 - 115*	*10/20/12 09:33*	*10/24/12 10:18*	*1*
Terphenyl-d14 (Surr)	*63*		*50 - 135*	*10/20/12 09:33*	*10/24/12 10:18*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*40 - 125*	*10/20/12 09:33*	*10/24/12 10:18*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.19	U	0.96	0.19	0.18	ug/L		10/31/12 13:51	20
4,4'-DDE	0.19	U	0.96	0.19	0.19	ug/L		10/31/12 13:51	20
4,4'-DDT	0.58	U	0.96	0.58	0.31	ug/L		10/31/12 13:51	20
Aldrin	0.19	U	0.58	0.19	0.16	ug/L		10/31/12 13:51	20
alpha-BHC	0.19	U	0.58	0.19	0.13	ug/L		10/31/12 13:51	20
alpha-Chlordane	0.27	U	0.96	0.27	0.27	ug/L		10/31/12 13:51	20
beta-BHC	0.19	U M	0.96	0.19	0.16	ug/L		10/31/12 13:51	20
delta-BHC	0.19	U	0.96	0.19	0.17	ug/L		10/31/12 13:51	20
Dieldrin	0.19	U	0.58	0.19	0.14	ug/L		10/31/12 13:51	20
Endosulfan I	0.25	U	0.96	0.25	0.25	ug/L		10/31/12 13:51	20
Endosulfan II	0.23	U	0.96	0.23	0.23	ug/L		10/31/12 13:51	20
Endosulfan sulfate	0.21	U	0.96	0.21	0.21	ug/L		10/31/12 13:51	20
Endrin	0.21	U	0.96	0.21	0.21	ug/L		10/31/12 13:51	20
Endrin aldehyde	0.21	U	0.96	0.21	0.21	ug/L		10/31/12 13:51	20
Endrin ketone	0.19	U	0.96	0.19	0.15	ug/L		10/31/12 13:51	20
gamma-BHC (Lindane)	0.19	U	0.96	0.19	0.12	ug/L		10/31/12 13:51	20
gamma-Chlordane	0.23	U	0.96	0.23	0.23	ug/L		10/31/12 13:51	20
Heptachlor	0.19	U	0.58	0.19	0.15	ug/L		10/31/12 13:51	20
Heptachlor epoxide	0.19	U	0.58	0.19	0.14	ug/L		10/31/12 13:51	20
Methoxychlor	0.62	U	1.9	0.62	0.62	ug/L		10/31/12 13:51	20
Toxaphene	9.6	U	38	9.6	6.2	ug/L		10/31/12 13:51	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*34*		*30 - 135*	*10/19/12 10:13*	*10/31/12 13:51*	*20*
DCB Decachlorobiphenyl	*39*		*30 - 135*	*10/19/12 10:13*	*10/31/12 13:51*	*20*
Tetrachloro-m-xylene	*183*	*Q*	*25 - 140*	*10/19/12 10:13*	*10/31/12 13:51*	*20*
Tetrachloro-m-xylene	*89*		*25 - 140*	*10/19/12 10:13*	*10/31/12 13:51*	*20*

Client Sample ID: FWGNTAmw-119-0193-GW
Date Collected: 10/16/12 09:42
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-17
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 19:11	1
Aroclor-1221	0.19	U	0.48	0.19	0.13	ug/L		10/23/12 19:11	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 19:11	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 19:11	1
Aroclor-1248	0.19	U	0.48	0.19	0.096	ug/L		10/23/12 19:11	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 19:11	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*174*	*Q*	*40 - 140*	*10/19/12 10:23*	*10/23/12 19:11*	*1*
Tetrachloro-m-xylene	*80*		*40 - 140*	*10/19/12 10:23*	*10/23/12 19:11*	*1*
DCB Decachlorobiphenyl	*32*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 19:11*	*1*
DCB Decachlorobiphenyl	*33*	*Q*	*40 - 135*	*10/19/12 10:23*	*10/23/12 19:11*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 06:20	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.053	U	0.16	0.053	0.033	ug/L		11/01/12 04:08	1
1,3-Dinitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 04:08	1
2,4,6-Trinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 04:08	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		11/01/12 04:08	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		11/01/12 04:08	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.16	0.11	0.016	ug/L		11/01/12 04:08	1
2-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		11/01/12 04:08	1
3-Nitrotoluene	0.11	U	0.53	0.11	0.060	ug/L		11/01/12 04:08	1
4-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		11/01/12 04:08	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 04:08	1
HMX	0.053	U	0.16	0.053	0.038	ug/L		11/01/12 04:08	1
RDX	0.053	U	0.16	0.053	0.038	ug/L		11/01/12 04:08	1
Nitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 04:08	1
Tetryl	0.11	U	0.16	0.11	0.053	ug/L		11/02/12 06:52	1
Nitroglycerin	0.53	U	0.69	0.53	0.35	ug/L		11/01/12 04:08	1
PETN	0.53	U	0.69	0.53	0.32	ug/L		11/01/12 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*90*		*79 - 111*	*10/22/12 06:51*	*11/01/12 04:08*	*1*
3,4-Dinitrotoluene	*86*		*79 - 111*	*10/22/12 06:51*	*11/02/12 06:52*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:51	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:29	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGNTAmw-119-0193-GF
Date Collected: 10/16/12 09:42
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-18
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 14:34	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 14:34	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 14:34	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:34	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:34	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:34	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 14:34	1
Barium	**76**	**J**	200	5.0	2.8	ug/L		10/23/12 14:34	1
Calcium	**82000**		5000	1000	630	ug/L		10/23/12 14:34	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:34	1
Magnesium	**21000**		5000	300	120	ug/L		10/23/12 14:34	1
Manganese	**310**		15	5.0	1.8	ug/L		10/23/12 14:34	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 14:34	1
Potassium	**1700**	**J**	5000	900	300	ug/L		10/23/12 14:34	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 14:30	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 19:32	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 19:32	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 19:32	1
Iron	**2300**		150	100	44	ug/L		10/26/12 19:32	1
Sodium	**7000**		1000	400	160	ug/L		10/26/12 19:32	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 19:32	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 14:30	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:18	1

Client Sample ID: FWGLL11mw-012-0189-GW
Date Collected: 10/16/12 11:32
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-19
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:54	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:54	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 14:54	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:54	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:54	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:54	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 14:54	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:54	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 14:54	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:54	1
Acetone	**1.1**	**J**	10	1.1	1.1	ug/L		10/24/12 14:54	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:54	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 14:54	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 14:54	1
Carbon disulfide	**0.63**	**J**	1.0	0.25	0.13	ug/L		10/24/12 14:54	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:54	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:54	1
Chloroethane	**0.48**	**J**	1.0	0.50	0.29	ug/L		10/24/12 14:54	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 14:54	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 14:54	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:54	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 14:54	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 14:54	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:54	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 14:54	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 14:54	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 14:54	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 14:54	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 14:54	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 14:54	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 14:54	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 14:54	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 14:54	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:54	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 14:54	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 14:54	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 14:54	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 14:54	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 120*		*10/24/12 14:54*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 120*		*10/24/12 14:54*	*1*
Toluene-d8 (Surr)	*88*		*85 - 120*		*10/24/12 14:54*	*1*
Dibromofluoromethane (Surr)	*105*		*85 - 115*		*10/24/12 14:54*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1

Client Sample ID: FWGLL11mw-012-0189-GW
Lab Sample ID: 240-16465-19
Date Collected: 10/16/12 11:32
Matrix: Water
Date Received: 10/17/12 06:15

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 10:37	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 10:37	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 10:37	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 10:37	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:37	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 10:37	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 10:37	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 10:37	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 10:37	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 10:37	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 10:37	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:37	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 10:37	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 10:37	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 10:37	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 10:37	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 10:37	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:37	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:37	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:37	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 10:37	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 10:37	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:37	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 10:37	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:37	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 10:37	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 10:37	1

Client Sample ID: FWGLL11mw-012-0189-GW
Date Collected: 10/16/12 11:32
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-19
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 10:37	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:37	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 10:37	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 10:37	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 10:37	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 10:37	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 10:37	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 10:37	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 10:37	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 10:37	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 10:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*59*		*50 - 110*	*10/20/12 09:33*	*10/24/12 10:37*	*1*
2-Fluorophenol (Surr)	*63*		*20 - 110*	*10/20/12 09:33*	*10/24/12 10:37*	*1*
Nitrobenzene-d5 (Surr)	*64*		*40 - 110*	*10/20/12 09:33*	*10/24/12 10:37*	*1*
Phenol-d5 (Surr)	*65*		*10 - 115*	*10/20/12 09:33*	*10/24/12 10:37*	*1*
Terphenyl-d14 (Surr)	*69*		*50 - 135*	*10/20/12 09:33*	*10/24/12 10:37*	*1*
2,4,6-Tribromophenol (Surr)	*51*		*40 - 125*	*10/20/12 09:33*	*10/24/12 10:37*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0097	U	0.049	0.0097	0.0093	ug/L		10/26/12 03:18	1
4,4'-DDE	0.0097	U	0.049	0.0097	0.0094	ug/L		10/26/12 03:18	1
4,4'-DDT	0.029	U	0.049	0.029	0.016	ug/L		10/26/12 03:18	1
Aldrin	0.0097	U	0.029	0.0097	0.0080	ug/L		10/26/12 03:18	1
alpha-BHC	0.0097	U	0.029	0.0097	0.0068	ug/L		10/26/12 03:18	1
alpha-Chlordane	0.014	U	0.049	0.014	0.014	ug/L		10/26/12 03:18	1
beta-BHC	0.0097	U	0.049	0.0097	0.0082	ug/L		10/26/12 03:18	1
delta-BHC	0.0097	U	0.049	0.0097	0.0084	ug/L		10/26/12 03:18	1
Dieldrin	0.0097	U	0.029	0.0097	0.0073	ug/L		10/26/12 03:18	1
Endosulfan I	0.013	U	0.049	0.013	0.013	ug/L		10/26/12 03:18	1
Endosulfan II	0.012	U	0.049	0.012	0.012	ug/L		10/26/12 03:18	1
Endosulfan sulfate	0.011	U	0.049	0.011	0.011	ug/L		10/26/12 03:18	1
Endrin	0.011	U	0.049	0.011	0.011	ug/L		10/26/12 03:18	1
Endrin aldehyde	0.011	U	0.049	0.011	0.011	ug/L		10/26/12 03:18	1
Endrin ketone	**0.014**	**J**	0.049	0.0097	0.0076	ug/L		10/26/12 03:18	1
gamma-BHC (Lindane)	0.0097	U	0.049	0.0097	0.0062	ug/L		10/26/12 03:18	1
gamma-Chlordane	0.012	U	0.049	0.012	0.012	ug/L		10/26/12 03:18	1
Heptachlor	0.0097	U	0.029	0.0097	0.0078	ug/L		10/26/12 03:18	1
Heptachlor epoxide	0.0097	U	0.029	0.0097	0.0069	ug/L		10/26/12 03:18	1
Methoxychlor	0.031	U	0.097	0.031	0.031	ug/L		10/26/12 03:18	1
Toxaphene	0.49	U	1.9	0.49	0.31	ug/L		10/26/12 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*30 - 135*	*10/19/12 10:13*	*10/26/12 03:18*	*1*
DCB Decachlorobiphenyl	*87*		*30 - 135*	*10/19/12 10:13*	*10/26/12 03:18*	*1*
Tetrachloro-m-xylene	*92*		*25 - 140*	*10/19/12 10:13*	*10/26/12 03:18*	*1*
Tetrachloro-m-xylene	*83*		*25 - 140*	*10/19/12 10:13*	*10/26/12 03:18*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGLL11mw-012-0189-GW
Date Collected: 10/16/12 11:32
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-19
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.49	0.19	0.17	ug/L		10/23/12 19:26	1
Aroclor-1221	0.19	U	0.49	0.19	0.13	ug/L		10/23/12 19:26	1
Aroclor-1232	0.19	U	0.49	0.19	0.16	ug/L		10/23/12 19:26	1
Aroclor-1242	0.39	U	0.49	0.39	0.21	ug/L		10/23/12 19:26	1
Aroclor-1248	0.19	U	0.49	0.19	0.097	ug/L		10/23/12 19:26	1
Aroclor-1254	0.19	U	0.49	0.19	0.16	ug/L		10/23/12 19:26	1
Aroclor-1260	0.19	U	0.49	0.19	0.17	ug/L		10/23/12 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*40 - 140*	*10/19/12 10:23*	*10/23/12 19:26*	*1*
Tetrachloro-m-xylene	*75*		*40 - 140*	*10/19/12 10:23*	*10/23/12 19:26*	*1*
DCB Decachlorobiphenyl	*68*		*40 - 135*	*10/19/12 10:23*	*10/23/12 19:26*	*1*
DCB Decachlorobiphenyl	*70*		*40 - 135*	*10/19/12 10:23*	*10/23/12 19:26*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 06:34	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.056	U	0.17	0.056	0.034	ug/L		11/01/12 04:48	1
1,3-Dinitrobenzene	0.11	U	0.17	0.11	0.056	ug/L		11/01/12 04:48	1
2,4,6-Trinitrotoluene	0.11	U	0.17	0.11	0.056	ug/L		11/01/12 04:48	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.056	ug/L		11/01/12 04:48	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.056	ug/L		11/01/12 04:48	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.17	0.11	0.017	ug/L		11/01/12 04:48	1
2-Nitrotoluene	0.11	U	0.56	0.11	0.098	ug/L		11/01/12 04:48	1
3-Nitrotoluene	0.11	U	0.56	0.11	0.063	ug/L		11/01/12 04:48	1
4-Nitrotoluene	0.11	U	0.56	0.11	0.098	ug/L		11/01/12 04:48	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.17	0.11	0.056	ug/L		11/01/12 04:48	1
HMX	0.056	U	0.17	0.056	0.040	ug/L		11/01/12 04:48	1
RDX	0.056	U	0.17	0.056	0.040	ug/L		11/01/12 04:48	1
Nitrobenzene	0.11	U	0.17	0.11	0.056	ug/L		11/01/12 04:48	1
Tetryl	0.11	U	0.17	0.11	0.056	ug/L		11/01/12 04:48	1
Nitroglycerin	0.56	U	0.72	0.56	0.37	ug/L		11/01/12 04:48	1
PETN	0.56	U	0.72	0.56	0.33	ug/L		11/01/12 04:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/22/12 06:51*	*11/01/12 04:48*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:51	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:31	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGLL11mw-012-0189-GF
Date Collected: 10/16/12 11:32
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-20
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 14:38	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 14:38	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 14:38	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:38	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:38	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:38	1
Vanadium	**1.9**	**J**	7.0	4.0	1.3	ug/L		10/23/12 14:38	1
Barium	**46**	**J**	200	5.0	2.8	ug/L		10/23/12 14:38	1
Calcium	**87000**		5000	1000	630	ug/L		10/23/12 14:38	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:38	1
Magnesium	**21000**		5000	300	120	ug/L		10/23/12 14:38	1
Manganese	**79**		15	5.0	1.8	ug/L		10/23/12 14:38	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 14:38	1
Potassium	**3100**	**J**	5000	900	300	ug/L		10/23/12 14:38	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 14:35	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 19:38	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 19:38	1
Cadmium	**0.25**	**J**	2.0	0.070	0.023	ug/L		10/26/12 19:38	1
Iron	**280**		150	100	44	ug/L		10/26/12 19:38	1
Sodium	**13000**		1000	400	160	ug/L		10/26/12 19:38	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 19:38	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 14:35	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:34	1

Client Sample ID: FWGLL12mw-247-0192-GW
Date Collected: 10/16/12 14:14
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-21
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 15:16	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 15:16	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 15:16	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 15:16	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 15:16	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 15:16	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 15:16	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 15:16	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 15:16	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 15:16	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/24/12 15:16	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 15:16	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 15:16	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 15:16	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 15:16	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 15:16	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 15:16	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 15:16	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 15:16	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 15:16	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 15:16	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 15:16	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 15:16	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 15:16	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 15:16	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 15:16	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 15:16	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 15:16	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 15:16	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 15:16	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 15:16	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 15:16	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 15:16	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 15:16	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 15:16	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 15:16	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 15:16	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 15:16	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 120*		*10/24/12 15:16*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 120*		*10/24/12 15:16*	*1*
Toluene-d8 (Surr)	*88*		*85 - 120*		*10/24/12 15:16*	*1*
Dibromofluoromethane (Surr)	*103*		*85 - 115*		*10/24/12 15:16*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Acenaphthylene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1

Client Sample ID: FWGLL12mw-247-0192-GW
Date Collected: 10/16/12 14:14
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-21
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Benzo[a]anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Benzo[a]pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Benzo[b]fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Benzo[g,h,i]perylene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Benzoic acid	11	U	27	11	11	ug/L		10/24/12 10:57	1
Benzo[k]fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Benzyl alcohol	0.87	U	5.4	0.87	0.41	ug/L		10/24/12 10:57	1
Bis(2-chloroethoxy)methane	0.87	U	1.1	0.87	0.35	ug/L		10/24/12 10:57	1
Bis(2-chloroethyl)ether	0.11	U	1.1	0.11	0.11	ug/L		10/24/12 10:57	1
Bis(2-ethylhexyl) phthalate	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
4-Bromophenyl phenyl ether	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
Butyl benzyl phthalate	0.87	U	1.1	0.87	0.87	ug/L		10/24/12 10:57	1
Carbazole	0.87	U	1.1	0.87	0.30	ug/L		10/24/12 10:57	1
4-Chloroaniline	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
4-Chloro-3-methylphenol	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
2-Chloronaphthalene	0.11	U	1.1	0.11	0.11	ug/L		10/24/12 10:57	1
2-Chlorophenol	0.87	U	1.1	0.87	0.32	ug/L		10/24/12 10:57	1
4-Chlorophenyl phenyl ether	0.87	U	2.2	0.87	0.33	ug/L		10/24/12 10:57	1
Chrysene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Dibenz(a,h)anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Dibenzofuran	0.11	U	1.1	0.11	0.11	ug/L		10/24/12 10:57	1
1,2-Dichlorobenzene	0.87	U	1.1	0.87	0.32	ug/L		10/24/12 10:57	1
1,3-Dichlorobenzene	0.87	U	1.1	0.87	0.87	ug/L		10/24/12 10:57	1
1,4-Dichlorobenzene	0.87	U	1.1	0.87	0.37	ug/L		10/24/12 10:57	1
3,3'-Dichlorobenzidine	0.87	U	5.4	0.87	0.40	ug/L		10/24/12 10:57	1
2,4-Dichlorophenol	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
Diethyl phthalate	0.87	U	1.1	0.87	0.65	ug/L		10/24/12 10:57	1
2,4-Dimethylphenol	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
Dimethyl phthalate	0.87	U	1.1	0.87	0.32	ug/L		10/24/12 10:57	1
Di-n-butyl phthalate	0.87	U	1.1	0.87	0.73	ug/L		10/24/12 10:57	1
4,6-Dinitro-2-methylphenol	2.6	U	5.4	2.6	2.6	ug/L		10/24/12 10:57	1
2,4-Dinitrophenol	2.6	U	5.4	2.6	2.6	ug/L		10/24/12 10:57	1
Di-n-octyl phthalate	0.87	U	1.1	0.87	0.87	ug/L		10/24/12 10:57	1
Fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Fluorene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Hexachlorobenzene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Hexachlorobutadiene	0.87	U	1.1	0.87	0.29	ug/L		10/24/12 10:57	1
Hexachlorocyclopentadiene	0.87	U	11	0.87	0.87	ug/L		10/24/12 10:57	1
Hexachloroethane	0.87	U	1.1	0.87	0.87	ug/L		10/24/12 10:57	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Isophorone	0.87	U	1.1	0.87	0.29	ug/L		10/24/12 10:57	1
2-Methylnaphthalene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
2-Methylphenol	0.87	U	1.1	0.87	0.87	ug/L		10/24/12 10:57	1
3 & 4 Methylphenol	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
Naphthalene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
2-Nitroaniline	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1
3-Nitroaniline	0.87	U	2.2	0.87	0.30	ug/L		10/24/12 10:57	1
4-Nitroaniline	0.87	U	2.2	0.87	0.87	ug/L		10/24/12 10:57	1

Client Sample ID: FWGLL12mw-247-0192-GW
Date Collected: 10/16/12 14:14
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-21
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.87	U	2.2	0.87	0.30	ug/L		10/24/12 10:57	1
4-Nitrophenol	2.6	U	5.4	2.6	2.6	ug/L		10/24/12 10:57	1
N-Nitrosodi-n-propylamine	0.87	U	1.1	0.87	0.87	ug/L		10/24/12 10:57	1
N-Nitrosodiphenylamine	0.87	U	1.1	0.87	0.34	ug/L		10/24/12 10:57	1
2,2'-oxybis[1-chloropropane]	0.87	U	1.1	0.87	0.43	ug/L		10/24/12 10:57	1
Pentachlorophenol	2.6	U	5.4	2.6	2.6	ug/L		10/24/12 10:57	1
Phenanthrene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
Phenol	0.87	U	1.1	0.87	0.65	ug/L		10/24/12 10:57	1
Pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/24/12 10:57	1
1,2,4-Trichlorobenzene	0.87	U	1.1	0.87	0.30	ug/L		10/24/12 10:57	1
2,4,5-Trichlorophenol	0.87	U	5.4	0.87	0.33	ug/L		10/24/12 10:57	1
2,4,6-Trichlorophenol	0.87	U	5.4	0.87	0.87	ug/L		10/24/12 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*61*		*50 - 110*	*10/20/12 09:33*	*10/24/12 10:57*	*1*
2-Fluorophenol (Surr)	*68*		*20 - 110*	*10/20/12 09:33*	*10/24/12 10:57*	*1*
Nitrobenzene-d5 (Surr)	*68*		*40 - 110*	*10/20/12 09:33*	*10/24/12 10:57*	*1*
Phenol-d5 (Surr)	*69*		*10 - 115*	*10/20/12 09:33*	*10/24/12 10:57*	*1*
Terphenyl-d14 (Surr)	*60*		*50 - 135*	*10/20/12 09:33*	*10/24/12 10:57*	*1*
2,4,6-Tribromophenol (Surr)	*68*		*40 - 125*	*10/20/12 09:33*	*10/24/12 10:57*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.011	U	0.053	0.011	0.010	ug/L		10/26/12 03:41	1
4,4'-DDE	0.011	U M	0.053	0.011	0.010	ug/L		10/26/12 03:41	1
4,4'-DDT	0.032	U	0.053	0.032	0.017	ug/L		10/26/12 03:41	1
Aldrin	0.011	U	0.032	0.011	0.0086	ug/L		10/26/12 03:41	1
alpha-BHC	0.011	U	0.032	0.011	0.0074	ug/L		10/26/12 03:41	1
alpha-Chlordane	0.015	U	0.053	0.015	0.015	ug/L		10/26/12 03:41	1
beta-BHC	0.011	U	0.053	0.011	0.0088	ug/L		10/26/12 03:41	1
delta-BHC	0.011	U	0.053	0.011	0.0092	ug/L		10/26/12 03:41	1
Dieldrin	0.011	U	0.032	0.011	0.0079	ug/L		10/26/12 03:41	1
Endosulfan I	0.014	U	0.053	0.014	0.014	ug/L		10/26/12 03:41	1
Endosulfan II	0.013	U	0.053	0.013	0.013	ug/L		10/26/12 03:41	1
Endosulfan sulfate	0.012	U	0.053	0.012	0.012	ug/L		10/26/12 03:41	1
Endrin	0.012	U	0.053	0.012	0.012	ug/L		10/26/12 03:41	1
Endrin aldehyde	0.012	U	0.053	0.012	0.012	ug/L		10/26/12 03:41	1
Endrin ketone	0.011	U	0.053	0.011	0.0082	ug/L		10/26/12 03:41	1
gamma-BHC (Lindane)	0.011	U	0.053	0.011	0.0067	ug/L		10/26/12 03:41	1
gamma-Chlordane	0.013	U	0.053	0.013	0.013	ug/L		10/26/12 03:41	1
Heptachlor	0.011	U	0.032	0.011	0.0084	ug/L		10/26/12 03:41	1
Heptachlor epoxide	0.011	U	0.032	0.011	0.0075	ug/L		10/26/12 03:41	1
Methoxychlor	0.034	U	0.11	0.034	0.034	ug/L		10/26/12 03:41	1
Toxaphene	0.53	U	2.1	0.53	0.34	ug/L		10/26/12 03:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*44*		*30 - 135*	*10/19/12 10:13*	*10/26/12 03:41*	*1*
DCB Decachlorobiphenyl	*45*		*30 - 135*	*10/19/12 10:13*	*10/26/12 03:41*	*1*
Tetrachloro-m-xylene	*79*		*25 - 140*	*10/19/12 10:13*	*10/26/12 03:41*	*1*
Tetrachloro-m-xylene	*74*		*25 - 140*	*10/19/12 10:13*	*10/26/12 03:41*	*1*

Client Sample ID: FWGLL12mw-247-0192-GW
Date Collected: 10/16/12 14:14
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-21
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 15:41	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/05/12 15:41	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 15:41	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/05/12 15:41	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/05/12 15:41	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 15:41	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*40 - 140*	*10/29/12 10:19*	*11/05/12 15:41*	*1*
Tetrachloro-m-xylene	*90*		*40 - 140*	*10/29/12 10:19*	*11/05/12 15:41*	*1*
DCB Decachlorobiphenyl	*36*	*Q*	*40 - 135*	*10/29/12 10:19*	*11/05/12 15:41*	*1*
DCB Decachlorobiphenyl	*41*		*40 - 135*	*10/29/12 10:19*	*11/05/12 15:41*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 06:48	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.052	U	0.15	0.052	0.032	ug/L		11/01/12 06:09	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 06:09	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 06:09	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		11/01/12 06:09	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		11/01/12 06:09	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 06:09	1
2-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		11/01/12 06:09	1
3-Nitrotoluene	0.10	U	0.52	0.10	0.059	ug/L		11/01/12 06:09	1
4-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		11/01/12 06:09	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 06:09	1
HMX	0.052	U	0.15	0.052	0.037	ug/L		11/01/12 06:09	1
RDX	0.052	U	0.15	0.052	0.037	ug/L		11/01/12 06:09	1
Nitrobenzene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 06:09	1
Tetryl	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 06:09	1
Nitroglycerin	0.52	U	0.67	0.52	0.34	ug/L		11/01/12 06:09	1
PETN	0.52	U	0.67	0.52	0.31	ug/L		11/01/12 06:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*89*		*79 - 111*	*10/22/12 06:51*	*11/01/12 06:09*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	**0.033**	**J**	0.050	0.012	0.0053	mg/L		11/02/12 17:42	1
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 11:51	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:33	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGLL12mw-247-0192-GF
Date Collected: 10/16/12 14:14
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-22
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**11**		10	10	3.3	ug/L		10/23/12 14:41	1
Chromium	**4.9**	**J**	7.0	4.0	1.4	ug/L		10/23/12 14:41	1
Cobalt	**2.7**	**J**	7.0	4.0	1.5	ug/L		10/23/12 14:41	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 14:41	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 14:41	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 14:41	1
Vanadium	**6.3**	**J**	7.0	4.0	1.3	ug/L		10/23/12 14:41	1
Barium	**45**	**J**	200	5.0	2.8	ug/L		10/23/12 14:41	1
Calcium	**100000**		5000	1000	630	ug/L		10/23/12 14:41	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 14:41	1
Magnesium	**53000**		5000	300	120	ug/L		10/23/12 14:41	1
Manganese	**260**		15	5.0	1.8	ug/L		10/23/12 14:41	1
Nickel	**5.6**	**J**	40	5.0	2.2	ug/L		10/23/12 14:41	1
Potassium	**4300**	**J**	5000	900	300	ug/L		10/23/12 14:41	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**3100**		60	60	20	ug/L		10/29/12 14:41	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 19:43	1
Beryllium	**0.15**	**J**	1.0	0.10	0.033	ug/L		10/26/12 19:43	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 19:43	1
Iron	**6200**		150	100	44	ug/L		10/26/12 19:43	1
Sodium	**22000**		1000	400	160	ug/L		10/26/12 19:43	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 19:43	1
Zinc	**24**	**J**	40	20	8.8	ug/L		10/29/12 14:41	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:13	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGLL12mw-DUP6-0203-GW
Date Collected: 10/16/12 14:32
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-23
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	0.030	J	0.050	0.012	0.0053	mg/L		11/02/12 17:48	1

Client Sample ID: FWGLL3mw-244-0183-GW
Date Collected: 10/16/12 16:24
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-24
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 10:56	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 10:56	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 10:56	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 10:56	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 10:56	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 10:56	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 10:56	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 10:56	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 10:56	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 10:56	1
Acetone	**2.0**	**J**	10	1.1	1.1	ug/L		10/25/12 10:56	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 10:56	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 10:56	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 10:56	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 10:56	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 10:56	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 10:56	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 10:56	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 10:56	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 10:56	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 10:56	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 10:56	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 10:56	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 10:56	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 10:56	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 10:56	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 10:56	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 10:56	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 10:56	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 10:56	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 10:56	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 10:56	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 10:56	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 10:56	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 10:56	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 10:56	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 10:56	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 10:56	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 10:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/25/12 10:56*	*1*
4-Bromofluorobenzene (Surr)	*88*		*75 - 120*		*10/25/12 10:56*	*1*
Toluene-d8 (Surr)	*91*		*85 - 120*		*10/25/12 10:56*	*1*
Dibromofluoromethane (Surr)	*110*		*85 - 115*		*10/25/12 10:56*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGLL3mw-244-0183-GW
Date Collected: 10/16/12 16:24
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-24
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 11:16	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 11:16	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 11:16	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:16	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:16	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 11:16	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:16	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:16	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 11:16	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:16	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:16	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:16	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 11:16	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 11:16	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 11:16	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:16	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 11:16	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:16	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:16	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:16	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 11:16	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 11:16	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:16	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 11:16	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:16	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 11:16	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:16	1

Client Sample ID: FWGLL3mw-244-0183-GW
Date Collected: 10/16/12 16:24
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-24
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 11:16	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:16	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:16	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 11:16	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 11:16	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:16	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 11:16	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:16	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 11:16	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 11:16	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 11:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*50 - 110*	*10/20/12 09:33*	*10/24/12 11:16*	*1*
2-Fluorophenol (Surr)	*68*		*20 - 110*	*10/20/12 09:33*	*10/24/12 11:16*	*1*
Nitrobenzene-d5 (Surr)	*69*		*40 - 110*	*10/20/12 09:33*	*10/24/12 11:16*	*1*
Phenol-d5 (Surr)	*67*		*10 - 115*	*10/20/12 09:33*	*10/24/12 11:16*	*1*
Terphenyl-d14 (Surr)	*71*		*50 - 135*	*10/20/12 09:33*	*10/24/12 11:16*	*1*
2,4,6-Tribromophenol (Surr)	*59*		*40 - 125*	*10/20/12 09:33*	*10/24/12 11:16*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/29/12 21:09	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/29/12 21:09	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/29/12 21:09	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/29/12 21:09	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/29/12 21:09	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/29/12 21:09	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/29/12 21:09	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/29/12 21:09	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/29/12 21:09	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/29/12 21:09	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 21:09	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:09	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:09	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:09	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/29/12 21:09	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/29/12 21:09	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 21:09	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/29/12 21:09	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/29/12 21:09	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/29/12 21:09	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/29/12 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*30 - 135*	*10/19/12 10:34*	*10/29/12 21:09*	*1*
DCB Decachlorobiphenyl	*66*		*30 - 135*	*10/19/12 10:34*	*10/29/12 21:09*	*1*
Tetrachloro-m-xylene	*80*	*M*	*25 - 140*	*10/19/12 10:34*	*10/29/12 21:09*	*1*
Tetrachloro-m-xylene	*82*		*25 - 140*	*10/19/12 10:34*	*10/29/12 21:09*	*1*

Client Sample ID: FWGLL3mw-244-0183-GW
Date Collected: 10/16/12 16:24
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-24
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 19:56	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 19:56	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 19:56	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 19:56	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 19:56	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 19:56	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*40 - 140*	*10/19/12 10:39*	*10/23/12 19:56*	*1*
Tetrachloro-m-xylene	*75*		*40 - 140*	*10/19/12 10:39*	*10/23/12 19:56*	*1*
DCB Decachlorobiphenyl	*59*		*40 - 135*	*10/19/12 10:39*	*10/23/12 19:56*	*1*
DCB Decachlorobiphenyl	*61*		*40 - 135*	*10/19/12 10:39*	*10/23/12 19:56*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 07:03	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		11/01/12 06:49	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 06:49	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 06:49	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 06:49	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 06:49	1
2-Amino-4,6-dinitrotoluene	**0.55**		0.15	0.10	0.015	ug/L		11/01/12 06:49	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 06:49	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/01/12 06:49	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 06:49	1
4-Amino-2,6-dinitrotoluene	**0.53**		0.15	0.10	0.051	ug/L		11/01/12 06:49	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 06:49	1
RDX	**0.33**		0.15	0.051	0.037	ug/L		11/01/12 06:49	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 06:49	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 06:49	1
Nitroglycerin	0.51	U	0.67	0.51	0.34	ug/L		11/01/12 06:49	1
PETN	0.51	U	0.67	0.51	0.31	ug/L		11/01/12 06:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*89*		*79 - 111*	*10/22/12 06:51*	*11/01/12 06:49*	*1*
3,4-Dinitrotoluene	*88*		*79 - 111*	*10/22/12 06:51*	*11/02/12 07:57*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:38	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:35	1

Client Sample ID: FWGLL3mw-244-0183-GF
Date Collected: 10/16/12 16:24
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-25
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 15:23	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 15:23	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 15:23	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:23	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:23	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:23	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 15:23	1
Barium	**17**	**J**	200	5.0	2.8	ug/L		10/23/12 15:23	1
Calcium	**23000**		5000	1000	630	ug/L		10/23/12 15:23	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:23	1
Magnesium	**8100**		5000	300	120	ug/L		10/23/12 15:23	1
Manganese	**1.9**	**J**	15	5.0	1.8	ug/L		10/23/12 15:23	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 15:23	1
Potassium	**1300**	**J**	5000	900	300	ug/L		10/23/12 15:23	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 15:42	1
Antimony	**1.2**	**J**	2.0	0.50	0.21	ug/L		10/26/12 20:46	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 20:46	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 20:46	1
Iron	100	U	150	100	44	ug/L		10/26/12 20:46	1
Sodium	**3700**		1000	400	160	ug/L		10/26/12 20:46	1
Thallium	**0.32**	**J**	2.0	1.0	0.32	ug/L		10/26/12 20:46	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 15:42	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 13:59	1

Client Sample ID: FWG TEAM 3 TRIP
Date Collected: 10/16/12 08:00
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-26
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 16:01	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 16:01	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 16:01	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 16:01	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 16:01	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 16:01	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 16:01	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 16:01	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 16:01	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 16:01	1
Acetone	**1.5**	**J**	10	1.1	1.1	ug/L		10/24/12 16:01	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 16:01	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 16:01	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 16:01	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 16:01	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 16:01	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 16:01	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 16:01	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 16:01	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 16:01	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 16:01	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 16:01	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 16:01	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 16:01	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 16:01	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 16:01	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 16:01	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 16:01	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 16:01	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 16:01	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 16:01	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 16:01	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 16:01	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 16:01	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 16:01	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 16:01	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 16:01	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 16:01	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/24/12 16:01*	*1*
4-Bromofluorobenzene (Surr)	*77*		*75 - 120*		*10/24/12 16:01*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/24/12 16:01*	*1*
Dibromofluoromethane (Surr)	*103*		*85 - 115*		*10/24/12 16:01*	*1*

Client Sample ID: FWGFWGmw-006-0169-GW — **Lab Sample ID: 240-16465-27**

Date Collected: 10/16/12 09:43 — **Matrix: Water**

Date Received: 10/17/12 06:15

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 16:23	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 16:23	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 16:23	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 16:23	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 16:23	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 16:23	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 16:23	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 16:23	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 16:23	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 16:23	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/24/12 16:23	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 16:23	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 16:23	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 16:23	1
Carbon disulfide	**0.16**	**J**	1.0	0.25	0.13	ug/L		10/24/12 16:23	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 16:23	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 16:23	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 16:23	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 16:23	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 16:23	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 16:23	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 16:23	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 16:23	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 16:23	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 16:23	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 16:23	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 16:23	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 16:23	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 16:23	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 16:23	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 16:23	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 16:23	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 16:23	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 16:23	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 16:23	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 16:23	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 16:23	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 16:23	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*70 - 120*		*10/24/12 16:23*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/24/12 16:23*	*1*
Toluene-d8 (Surr)	*89*		*85 - 120*		*10/24/12 16:23*	*1*
Dibromofluoromethane (Surr)	*113*		*85 - 115*		*10/24/12 16:23*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1

Client Sample ID: FWGFWGmw-006-0169-GW
Date Collected: 10/16/12 09:43
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-27
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 11:35	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 11:35	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 11:35	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:35	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:35	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 11:35	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:35	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:35	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 11:35	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:35	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:35	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:35	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 11:35	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 11:35	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 11:35	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:35	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 11:35	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:35	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:35	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:35	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 11:35	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 11:35	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:35	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 11:35	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:35	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 11:35	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:35	1

Client Sample ID: FWGFWGmw-006-0169-GW
Date Collected: 10/16/12 09:43
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-27
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 11:35	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:35	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:35	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 11:35	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 11:35	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:35	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 11:35	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:35	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 11:35	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 11:35	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*63*		*50 - 110*	*10/20/12 09:33*	*10/24/12 11:35*	*1*
2-Fluorophenol (Surr)	*70*		*20 - 110*	*10/20/12 09:33*	*10/24/12 11:35*	*1*
Nitrobenzene-d5 (Surr)	*67*		*40 - 110*	*10/20/12 09:33*	*10/24/12 11:35*	*1*
Phenol-d5 (Surr)	*71*		*10 - 115*	*10/20/12 09:33*	*10/24/12 11:35*	*1*
Terphenyl-d14 (Surr)	*67*		*50 - 135*	*10/20/12 09:33*	*10/24/12 11:35*	*1*
2,4,6-Tribromophenol (Surr)	*65*		*40 - 125*	*10/20/12 09:33*	*10/24/12 11:35*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/29/12 21:33	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/29/12 21:33	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/29/12 21:33	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/29/12 21:33	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/29/12 21:33	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/29/12 21:33	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/29/12 21:33	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/29/12 21:33	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/29/12 21:33	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/29/12 21:33	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 21:33	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:33	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:33	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:33	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/29/12 21:33	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/29/12 21:33	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 21:33	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/29/12 21:33	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/29/12 21:33	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/29/12 21:33	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/29/12 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*37*		*30 - 135*	*10/19/12 10:34*	*10/29/12 21:33*	*1*
DCB Decachlorobiphenyl	*34*		*30 - 135*	*10/19/12 10:34*	*10/29/12 21:33*	*1*
Tetrachloro-m-xylene	*79*		*25 - 140*	*10/19/12 10:34*	*10/29/12 21:33*	*1*
Tetrachloro-m-xylene	*81*		*25 - 140*	*10/19/12 10:34*	*10/29/12 21:33*	*1*

Client Sample ID: FWGFWGmw-006-0169-GW
Date Collected: 10/16/12 09:43
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-27
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 15:56	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/05/12 15:56	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 15:56	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/05/12 15:56	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/05/12 15:56	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 15:56	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*40 - 140*	*10/29/12 10:19*	*11/05/12 15:56*	*1*
Tetrachloro-m-xylene	*83*		*40 - 140*	*10/29/12 10:19*	*11/05/12 15:56*	*1*
DCB Decachlorobiphenyl	*43*		*40 - 135*	*10/29/12 10:19*	*11/05/12 15:56*	*1*
DCB Decachlorobiphenyl	*47*		*40 - 135*	*10/29/12 10:19*	*11/05/12 15:56*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 07:17	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		11/01/12 07:30	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 07:30	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 07:30	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 07:30	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 07:30	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 07:30	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 07:30	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/01/12 07:30	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		11/01/12 07:30	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 07:30	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 07:30	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 07:30	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 07:30	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 07:30	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		11/01/12 07:30	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		11/01/12 07:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/22/12 06:51*	*11/01/12 07:30*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:38	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:37	1

Client Sample ID: FWGFWGmw-006-0169-GF
Lab Sample ID: 240-16465-28
Date Collected: 10/16/12 09:43
Matrix: Water
Date Received: 10/17/12 06:15

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**5.1**	**J**	10	10	3.3	ug/L		10/23/12 15:26	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 15:26	1
Cobalt	**1.6**	**J**	7.0	4.0	1.5	ug/L		10/23/12 15:26	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:26	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:26	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:26	1
Vanadium	**1.5**	**J**	7.0	4.0	1.3	ug/L		10/23/12 15:26	1
Barium	**33**	**J**	200	5.0	2.8	ug/L		10/23/12 15:26	1
Calcium	**41000**		5000	1000	630	ug/L		10/23/12 15:26	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:26	1
Magnesium	**21000**		5000	300	120	ug/L		10/23/12 15:26	1
Manganese	**2000**		15	5.0	1.8	ug/L		10/23/12 15:26	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 15:26	1
Potassium	**1300**	**J**	5000	900	300	ug/L		10/23/12 15:26	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 15:48	1
Antimony	**0.31**	**J**	2.0	0.50	0.21	ug/L		10/26/12 20:52	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 20:52	1
Cadmium	**0.25**	**J**	2.0	0.070	0.023	ug/L		10/26/12 20:52	1
Iron	**18000**		150	100	44	ug/L		10/26/12 20:52	1
Sodium	**7400**		1000	400	160	ug/L		10/26/12 20:52	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 20:52	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 15:48	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:05	1

Client Sample ID: FWGFWGmw-014-0178-GW
Date Collected: 10/16/12 11:13
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-29
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 11:18	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 11:18	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 11:18	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 11:18	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 11:18	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 11:18	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 11:18	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 11:18	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 11:18	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 11:18	1
Acetone	**1.3**	**J**	10	1.1	1.1	ug/L		10/25/12 11:18	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:18	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 11:18	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 11:18	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:18	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:18	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 11:18	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 11:18	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 11:18	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 11:18	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 11:18	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 11:18	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 11:18	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 11:18	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 11:18	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 11:18	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 11:18	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 11:18	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 11:18	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 11:18	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 11:18	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 11:18	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:18	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 11:18	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 11:18	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 11:18	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 11:18	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 11:18	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 11:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 120*		*10/25/12 11:18*	*1*
4-Bromofluorobenzene (Surr)	*79*		*75 - 120*		*10/25/12 11:18*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/25/12 11:18*	*1*
Dibromofluoromethane (Surr)	*100*		*85 - 115*		*10/25/12 11:18*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1

Client Sample ID: FWGFWGmw-014-0178-GW
Date Collected: 10/16/12 11:13
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-29
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 11:54	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 11:54	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 11:54	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:54	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:54	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 11:54	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:54	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:54	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 11:54	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 11:54	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:54	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:54	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 11:54	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 11:54	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 11:54	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 11:54	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 11:54	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:54	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:54	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:54	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 11:54	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 11:54	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:54	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 11:54	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:54	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 11:54	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 11:54	1

Client Sample ID: FWGFWGmw-014-0178-GW
Date Collected: 10/16/12 11:13
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-29
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 11:54	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:54	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 11:54	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 11:54	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 11:54	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 11:54	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 11:54	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 11:54	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 11:54	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 11:54	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 11:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*62*		*50 - 110*	*10/20/12 09:33*	*10/24/12 11:54*	*1*
2-Fluorophenol (Surr)	*64*		*20 - 110*	*10/20/12 09:33*	*10/24/12 11:54*	*1*
Nitrobenzene-d5 (Surr)	*66*		*40 - 110*	*10/20/12 09:33*	*10/24/12 11:54*	*1*
Phenol-d5 (Surr)	*66*		*10 - 115*	*10/20/12 09:33*	*10/24/12 11:54*	*1*
Terphenyl-d14 (Surr)	*64*		*50 - 135*	*10/20/12 09:33*	*10/24/12 11:54*	*1*
2,4,6-Tribromophenol (Surr)	*68*		*40 - 125*	*10/20/12 09:33*	*10/24/12 11:54*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/29/12 21:58	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/29/12 21:58	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/29/12 21:58	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/29/12 21:58	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/29/12 21:58	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/29/12 21:58	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/29/12 21:58	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/29/12 21:58	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/29/12 21:58	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/29/12 21:58	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 21:58	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:58	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:58	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 21:58	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/29/12 21:58	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/29/12 21:58	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 21:58	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/29/12 21:58	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/29/12 21:58	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/29/12 21:58	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/29/12 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*44*		*30 - 135*	*10/19/12 10:34*	*10/29/12 21:58*	*1*
DCB Decachlorobiphenyl	*42*		*30 - 135*	*10/19/12 10:34*	*10/29/12 21:58*	*1*
Tetrachloro-m-xylene	*75*		*25 - 140*	*10/19/12 10:34*	*10/29/12 21:58*	*1*
Tetrachloro-m-xylene	*77*		*25 - 140*	*10/19/12 10:34*	*10/29/12 21:58*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-014-0178-GW
Date Collected: 10/16/12 11:13
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-29
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 20:26	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 20:26	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 20:26	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 20:26	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 20:26	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 20:26	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*40 - 140*	*10/19/12 10:39*	*10/23/12 20:26*	*1*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/19/12 10:39*	*10/23/12 20:26*	*1*
DCB Decachlorobiphenyl	*36*	*Q*	*40 - 135*	*10/19/12 10:39*	*10/23/12 20:26*	*1*
DCB Decachlorobiphenyl	*39*	*Q*	*40 - 135*	*10/19/12 10:39*	*10/23/12 20:26*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 07:31	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		11/01/12 08:10	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 08:10	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 08:10	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 08:10	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/01/12 08:10	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 08:10	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/01/12 08:10	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/01/12 08:10	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/01/12 08:10	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 08:10	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 08:10	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/01/12 08:10	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 08:10	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/01/12 08:10	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		11/01/12 08:10	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		11/01/12 08:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/22/12 06:51*	*11/01/12 08:10*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:38	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:39	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-014-0178-GF
Date Collected: 10/16/12 11:13
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-30
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 15:30	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 15:30	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 15:30	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:30	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:30	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:30	1
Vanadium	**1.8**	**J**	7.0	4.0	1.3	ug/L		10/23/12 15:30	1
Barium	**34**	**J**	200	5.0	2.8	ug/L		10/23/12 15:30	1
Calcium	**85000**		5000	1000	630	ug/L		10/23/12 15:30	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:30	1
Magnesium	**21000**		5000	300	120	ug/L		10/23/12 15:30	1
Manganese	**210**		15	5.0	1.8	ug/L		10/23/12 15:30	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 15:30	1
Potassium	**1800**	**J**	5000	900	300	ug/L		10/23/12 15:30	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 15:53	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 20:57	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 20:57	1
Cadmium	**0.046**	**J**	2.0	0.070	0.023	ug/L		10/26/12 20:57	1
Iron	100	U	150	100	44	ug/L		10/26/12 20:57	1
Sodium	**5300**		1000	400	160	ug/L		10/26/12 20:57	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 20:57	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 15:53	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:29	1

Client Sample ID: FWGFWGEquipRinse2-0213-GW
Lab Sample ID: 240-16465-32
Date Collected: 10/16/12 12:46
Matrix: Water
Date Received: 10/17/12 06:15

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 17:08	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 17:08	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 17:08	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 17:08	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 17:08	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 17:08	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 17:08	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 17:08	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 17:08	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 17:08	1
Acetone	**9.4**	**J**	10	1.1	1.1	ug/L		10/24/12 17:08	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 17:08	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 17:08	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 17:08	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 17:08	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 17:08	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 17:08	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 17:08	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 17:08	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 17:08	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 17:08	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 17:08	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 17:08	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 17:08	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 17:08	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 17:08	1
2-Butanone (MEK)	**0.72**	**J**	10	0.57	0.57	ug/L		10/24/12 17:08	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 17:08	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 17:08	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 17:08	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 17:08	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 17:08	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 17:08	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 17:08	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 17:08	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 17:08	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 17:08	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 17:08	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/24/12 17:08*	*1*
4-Bromofluorobenzene (Surr)	*77*		*75 - 120*		*10/24/12 17:08*	*1*
Toluene-d8 (Surr)	*85*		*85 - 120*		*10/24/12 17:08*	*1*
Dibromofluoromethane (Surr)	*101*		*85 - 115*		*10/24/12 17:08*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Acenaphthylene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1

Client Sample ID: FWGFWGEquipRinse2-0213-GW
Lab Sample ID: 240-16465-32
Date Collected: 10/16/12 12:46
Matrix: Water
Date Received: 10/17/12 06:15

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Benzo[a]anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Benzo[a]pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Benzo[b]fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Benzo[g,h,i]perylene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Benzoic acid	9.9	U	25	9.9	9.9	ug/L		10/24/12 12:14	1
Benzo[k]fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Benzyl alcohol	0.79	U	5.0	0.79	0.38	ug/L		10/24/12 12:14	1
Bis(2-chloroethoxy)methane	0.79	U	0.99	0.79	0.32	ug/L		10/24/12 12:14	1
Bis(2-chloroethyl)ether	0.099	U	0.99	0.099	0.099	ug/L		10/24/12 12:14	1
Bis(2-ethylhexyl) phthalate	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
4-Bromophenyl phenyl ether	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
Butyl benzyl phthalate	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 12:14	1
Carbazole	0.79	U	0.99	0.79	0.28	ug/L		10/24/12 12:14	1
4-Chloroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
4-Chloro-3-methylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
2-Chloronaphthalene	0.099	U	0.99	0.099	0.099	ug/L		10/24/12 12:14	1
2-Chlorophenol	0.79	U	0.99	0.79	0.29	ug/L		10/24/12 12:14	1
4-Chlorophenyl phenyl ether	0.79	U	2.0	0.79	0.30	ug/L		10/24/12 12:14	1
Chrysene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Dibenz(a,h)anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Dibenzofuran	0.099	U	0.99	0.099	0.099	ug/L		10/24/12 12:14	1
1,2-Dichlorobenzene	0.79	U	0.99	0.79	0.29	ug/L		10/24/12 12:14	1
1,3-Dichlorobenzene	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 12:14	1
1,4-Dichlorobenzene	0.79	U	0.99	0.79	0.34	ug/L		10/24/12 12:14	1
3,3'-Dichlorobenzidine	0.79	U	5.0	0.79	0.37	ug/L		10/24/12 12:14	1
2,4-Dichlorophenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
Diethyl phthalate	**0.64**	**J**	0.99	0.79	0.59	ug/L		10/24/12 12:14	1
2,4-Dimethylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
Dimethyl phthalate	0.79	U	0.99	0.79	0.29	ug/L		10/24/12 12:14	1
Di-n-butyl phthalate	0.79	U	0.99	0.79	0.66	ug/L		10/24/12 12:14	1
4,6-Dinitro-2-methylphenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 12:14	1
2,4-Dinitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 12:14	1
Di-n-octyl phthalate	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 12:14	1
Fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Fluorene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Hexachlorobenzene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Hexachlorobutadiene	0.79	U	0.99	0.79	0.27	ug/L		10/24/12 12:14	1
Hexachlorocyclopentadiene	0.79	U	9.9	0.79	0.79	ug/L		10/24/12 12:14	1
Hexachloroethane	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 12:14	1
Indeno[1,2,3-cd]pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Isophorone	0.79	U	0.99	0.79	0.27	ug/L		10/24/12 12:14	1
2-Methylnaphthalene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
2-Methylphenol	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 12:14	1
3 & 4 Methylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
Naphthalene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
2-Nitroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1
3-Nitroaniline	0.79	U	2.0	0.79	0.28	ug/L		10/24/12 12:14	1
4-Nitroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/24/12 12:14	1

Client Sample ID: FWGFWGEquipRinse2-0213-GW
Date Collected: 10/16/12 12:46
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-32
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.79	U	2.0	0.79	0.28	ug/L		10/24/12 12:14	1
4-Nitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 12:14	1
N-Nitrosodi-n-propylamine	0.79	U	0.99	0.79	0.79	ug/L		10/24/12 12:14	1
N-Nitrosodiphenylamine	0.79	U	0.99	0.79	0.31	ug/L		10/24/12 12:14	1
2,2'-oxybis[1-chloropropane]	0.79	U	0.99	0.79	0.40	ug/L		10/24/12 12:14	1
Pentachlorophenol	2.4	U	5.0	2.4	2.4	ug/L		10/24/12 12:14	1
Phenanthrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
Phenol	0.79	U	0.99	0.79	0.59	ug/L		10/24/12 12:14	1
Pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/24/12 12:14	1
1,2,4-Trichlorobenzene	0.79	U	0.99	0.79	0.28	ug/L		10/24/12 12:14	1
2,4,5-Trichlorophenol	0.79	U	5.0	0.79	0.30	ug/L		10/24/12 12:14	1
2,4,6-Trichlorophenol	0.79	U	5.0	0.79	0.79	ug/L		10/24/12 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*50 - 110*	*10/20/12 09:33*	*10/24/12 12:14*	*1*
2-Fluorophenol (Surr)	*75*		*20 - 110*	*10/20/12 09:33*	*10/24/12 12:14*	*1*
Nitrobenzene-d5 (Surr)	*77*		*40 - 110*	*10/20/12 09:33*	*10/24/12 12:14*	*1*
Phenol-d5 (Surr)	*74*		*10 - 115*	*10/20/12 09:33*	*10/24/12 12:14*	*1*
Terphenyl-d14 (Surr)	*78*		*50 - 135*	*10/20/12 09:33*	*10/24/12 12:14*	*1*
2,4,6-Tribromophenol (Surr)	*70*		*40 - 125*	*10/20/12 09:33*	*10/24/12 12:14*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/29/12 22:22	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/29/12 22:22	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/29/12 22:22	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/29/12 22:22	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/29/12 22:22	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/29/12 22:22	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/29/12 22:22	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/29/12 22:22	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/29/12 22:22	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/29/12 22:22	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 22:22	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 22:22	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 22:22	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 22:22	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/29/12 22:22	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/29/12 22:22	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 22:22	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/29/12 22:22	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/29/12 22:22	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/29/12 22:22	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/29/12 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*81*		*30 - 135*	*10/19/12 10:34*	*10/29/12 22:22*	*1*
DCB Decachlorobiphenyl	*74*		*30 - 135*	*10/19/12 10:34*	*10/29/12 22:22*	*1*
Tetrachloro-m-xylene	*71*		*25 - 140*	*10/19/12 10:34*	*10/29/12 22:22*	*1*
Tetrachloro-m-xylene	*72*		*25 - 140*	*10/19/12 10:34*	*10/29/12 22:22*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGEquipRinse2-0213-GW
Date Collected: 10/16/12 12:46
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-32
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 20:41	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 20:41	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 20:41	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 20:41	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 20:41	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 20:41	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*40 - 140*	*10/19/12 10:39*	*10/23/12 20:41*	*1*
Tetrachloro-m-xylene	*83*		*40 - 140*	*10/19/12 10:39*	*10/23/12 20:41*	*1*
DCB Decachlorobiphenyl	*71*		*40 - 135*	*10/19/12 10:39*	*10/23/12 20:41*	*1*
DCB Decachlorobiphenyl	*73*		*40 - 135*	*10/19/12 10:39*	*10/23/12 20:41*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 07:46	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		11/02/12 09:03	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 09:03	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 09:03	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/02/12 09:03	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/02/12 09:03	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/02/12 09:03	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/02/12 09:03	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/02/12 09:03	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/02/12 09:03	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 09:03	1
HMX	0.051	U	0.15	0.051	0.036	ug/L		11/02/12 09:03	1
RDX	0.051	U	0.15	0.051	0.036	ug/L		11/01/12 08:50	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 09:03	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 09:03	1
Nitroglycerin	0.51	U	0.66	0.51	0.33	ug/L		11/02/12 09:03	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		11/02/12 09:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*90*	*J*	*79 - 111*	*10/22/12 06:51*	*11/01/12 08:50*	*1*
3,4-Dinitrotoluene	*139*	*Q*	*79 - 111*	*10/22/12 06:51*	*11/02/12 09:03*	*1*

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 15:34	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 15:34	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 15:34	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:34	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:34	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:34	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 15:34	1
Barium	5.0	U	200	5.0	2.8	ug/L		10/23/12 15:34	1

Client Sample ID: FWGFWGEquipRinse2-0213-GW
Lab Sample ID: 240-16465-32
Date Collected: 10/16/12 12:46
Matrix: Water
Date Received: 10/17/12 06:15

Method: 6010B/DOD - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Calcium	1000	U	5000	1000	630	ug/L		10/23/12 15:34	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:34	1
Magnesium	300	U	5000	300	120	ug/L		10/23/12 15:34	1
Manganese	5.0	U	15	5.0	1.8	ug/L		10/23/12 15:34	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 15:34	1
Potassium	900	U	5000	900	300	ug/L		10/23/12 15:34	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 15:59	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:03	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 21:03	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 21:03	1
Iron	100	U	150	100	44	ug/L		10/26/12 21:03	1
Sodium	400	U	1000	400	160	ug/L		10/26/12 21:03	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:03	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 15:59	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:27	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate Nitrite as N	**0.015**	**J**	0.050	0.012	0.0053	mg/L		11/02/12 17:50	1
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:38	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:41	1

Client Sample ID: FWGFWGmw-007-0170-GW — **Lab Sample ID: 240-16465-33**

Date Collected: 10/16/12 13:03 — **Matrix: Water**

Date Received: 10/17/12 06:15

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 11:41	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 11:41	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 11:41	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 11:41	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 11:41	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 11:41	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 11:41	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 11:41	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 11:41	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 11:41	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/25/12 11:41	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:41	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 11:41	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 11:41	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:41	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:41	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 11:41	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 11:41	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 11:41	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 11:41	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 11:41	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 11:41	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 11:41	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 11:41	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 11:41	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 11:41	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 11:41	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 11:41	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 11:41	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 11:41	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 11:41	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 11:41	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 11:41	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 11:41	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 11:41	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 11:41	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 11:41	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 11:41	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 120*		*10/25/12 11:41*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 120*		*10/25/12 11:41*	*1*
Toluene-d8 (Surr)	*89*		*85 - 120*		*10/25/12 11:41*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*10/25/12 11:41*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-007-0170-GW
Date Collected: 10/16/12 13:03
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-33
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 12:33	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 12:33	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 12:33	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 12:33	1
Bis(2-ethylhexyl) phthalate	**1.5**	**J**	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:33	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 12:33	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 12:33	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 12:33	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 12:33	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 12:33	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 12:33	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:33	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 12:33	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 12:33	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 12:33	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 12:33	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 12:33	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:33	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:33	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:33	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 12:33	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 12:33	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:33	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 12:33	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:33	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 12:33	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:33	1

Client Sample ID: FWGFWGmw-007-0170-GW
Date Collected: 10/16/12 13:03
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-33
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 12:33	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:33	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:33	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 12:33	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 12:33	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:33	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 12:33	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:33	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 12:33	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 12:33	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*50 - 110*	*10/20/12 09:33*	*10/24/12 12:33*	*1*
2-Fluorophenol (Surr)	*76*		*20 - 110*	*10/20/12 09:33*	*10/24/12 12:33*	*1*
Nitrobenzene-d5 (Surr)	*76*		*40 - 110*	*10/20/12 09:33*	*10/24/12 12:33*	*1*
Phenol-d5 (Surr)	*77*		*10 - 115*	*10/20/12 09:33*	*10/24/12 12:33*	*1*
Terphenyl-d14 (Surr)	*75*		*50 - 135*	*10/20/12 09:33*	*10/24/12 12:33*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*40 - 125*	*10/20/12 09:33*	*10/24/12 12:33*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0097	U	0.049	0.0097	0.0093	ug/L		10/29/12 22:46	1
4,4'-DDE	0.0097	U	0.049	0.0097	0.0094	ug/L		10/29/12 22:46	1
4,4'-DDT	0.029	U	0.049	0.029	0.016	ug/L		10/29/12 22:46	1
Aldrin	0.0097	U	0.029	0.0097	0.0080	ug/L		10/29/12 22:46	1
alpha-BHC	0.0097	U	0.029	0.0097	0.0068	ug/L		10/29/12 22:46	1
alpha-Chlordane	0.014	U	0.049	0.014	0.014	ug/L		10/29/12 22:46	1
beta-BHC	0.0097	U	0.049	0.0097	0.0082	ug/L		10/29/12 22:46	1
delta-BHC	0.0097	U	0.049	0.0097	0.0084	ug/L		10/29/12 22:46	1
Dieldrin	0.0097	U	0.029	0.0097	0.0073	ug/L		10/29/12 22:46	1
Endosulfan I	0.013	U	0.049	0.013	0.013	ug/L		10/29/12 22:46	1
Endosulfan II	0.012	U	0.049	0.012	0.012	ug/L		10/29/12 22:46	1
Endosulfan sulfate	0.011	U	0.049	0.011	0.011	ug/L		10/29/12 22:46	1
Endrin	0.011	U	0.049	0.011	0.011	ug/L		10/29/12 22:46	1
Endrin aldehyde	0.011	U	0.049	0.011	0.011	ug/L		10/29/12 22:46	1
Endrin ketone	0.0097	U Q	0.049	0.0097	0.0076	ug/L		10/29/12 22:46	1
gamma-BHC (Lindane)	0.0097	U	0.049	0.0097	0.0062	ug/L		10/29/12 22:46	1
gamma-Chlordane	0.012	U	0.049	0.012	0.012	ug/L		10/29/12 22:46	1
Heptachlor	0.0097	U	0.029	0.0097	0.0078	ug/L		10/29/12 22:46	1
Heptachlor epoxide	0.0097	U	0.029	0.0097	0.0069	ug/L		10/29/12 22:46	1
Methoxychlor	0.031	U	0.097	0.031	0.031	ug/L		10/29/12 22:46	1
Toxaphene	0.49	U	1.9	0.49	0.31	ug/L		10/29/12 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*43*		*30 - 135*	*10/19/12 10:34*	*10/29/12 22:46*	*1*
DCB Decachlorobiphenyl	*40*		*30 - 135*	*10/19/12 10:34*	*10/29/12 22:46*	*1*
Tetrachloro-m-xylene	*86*		*25 - 140*	*10/19/12 10:34*	*10/29/12 22:46*	*1*
Tetrachloro-m-xylene	*90*		*25 - 140*	*10/19/12 10:34*	*10/29/12 22:46*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-007-0170-GW
Date Collected: 10/16/12 13:03
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-33
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 16:56	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/05/12 16:56	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 16:56	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/05/12 16:56	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/05/12 16:56	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/05/12 16:56	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/05/12 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*40 - 140*	*10/29/12 10:19*	*11/05/12 16:56*	*1*
Tetrachloro-m-xylene	*97*		*40 - 140*	*10/29/12 10:19*	*11/05/12 16:56*	*1*
DCB Decachlorobiphenyl	*40*		*40 - 135*	*10/29/12 10:19*	*11/05/12 16:56*	*1*
DCB Decachlorobiphenyl	*41*		*40 - 135*	*10/29/12 10:19*	*11/05/12 16:56*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 08:14	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		11/01/12 09:31	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		11/01/12 09:31	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		11/01/12 09:31	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		11/01/12 09:31	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		11/01/12 09:31	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 09:31	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		11/01/12 09:31	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		11/01/12 09:31	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		11/01/12 09:31	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		11/01/12 09:31	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		11/01/12 09:31	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		11/01/12 09:31	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		11/01/12 09:31	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		11/01/12 09:31	1
Nitroglycerin	0.50	U	0.65	0.50	0.33	ug/L		11/01/12 09:31	1
PETN	0.50	U	0.65	0.50	0.30	ug/L		11/01/12 09:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*88*		*79 - 111*	*10/22/12 06:51*	*11/01/12 09:31*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:38	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:43	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-007-0170-GF
Date Collected: 10/16/12 13:03
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-34
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	6.9	J	10	10	3.3	ug/L		10/23/12 15:45	1
Chromium	8.8		7.0	4.0	1.4	ug/L		10/23/12 15:45	1
Cobalt	4.2	J	7.0	4.0	1.5	ug/L		10/23/12 15:45	1
Lead	3.2	J	10	5.0	1.7	ug/L		10/23/12 15:45	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:45	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:45	1
Vanadium	10		7.0	4.0	1.3	ug/L		10/23/12 15:45	1
Barium	56	J	200	5.0	2.8	ug/L		10/23/12 15:45	1
Calcium	200000		5000	1000	630	ug/L		10/23/12 15:45	1
Copper	5.8	J	25	10	4.4	ug/L		10/23/12 15:45	1
Magnesium	140000		5000	300	120	ug/L		10/23/12 15:45	1
Manganese	310		15	5.0	1.8	ug/L		10/23/12 15:45	1
Nickel	9.3	J	40	5.0	2.2	ug/L		10/23/12 15:45	1
Potassium	4300	J	5000	900	300	ug/L		10/23/12 15:45	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	4600		60	60	20	ug/L		10/29/12 16:04	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:09	1
Beryllium	0.23	J	1.0	0.10	0.033	ug/L		10/26/12 21:09	1
Cadmium	0.23	J	2.0	0.070	0.023	ug/L		10/26/12 21:09	1
Iron	8100		150	100	44	ug/L		10/26/12 21:09	1
Sodium	18000		1000	400	160	ug/L		10/26/12 21:09	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:09	1
Zinc	38	J	40	20	8.8	ug/L		10/29/12 16:04	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:23	1

Client Sample ID: FWGCBLmw-005-0159-GW
Date Collected: 10/16/12 14:33
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-35
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:04	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:04	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 12:04	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:04	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:04	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:04	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 12:04	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:04	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 12:04	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:04	1
Acetone	**1.1**	**J**	10	1.1	1.1	ug/L		10/25/12 12:04	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:04	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 12:04	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 12:04	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:04	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:04	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:04	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:04	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 12:04	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 12:04	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:04	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 12:04	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:04	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:04	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 12:04	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 12:04	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 12:04	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 12:04	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 12:04	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 12:04	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 12:04	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:04	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:04	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:04	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:04	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:04	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:04	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 12:04	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*	*Q*	*70 - 120*		*10/25/12 12:04*	*1*
4-Bromofluorobenzene (Surr)	*88*		*75 - 120*		*10/25/12 12:04*	*1*
Toluene-d8 (Surr)	*93*		*85 - 120*		*10/25/12 12:04*	*1*
Dibromofluoromethane (Surr)	*112*		*85 - 115*		*10/25/12 12:04*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGCBLmw-005-0159-GW
Date Collected: 10/16/12 14:33
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-35
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 12:52	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 12:52	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 12:52	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 12:52	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:52	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 12:52	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 12:52	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 12:52	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 12:52	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 12:52	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 12:52	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:52	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 12:52	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 12:52	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 12:52	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 12:52	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 12:52	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:52	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:52	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:52	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 12:52	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 12:52	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:52	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 12:52	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:52	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 12:52	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 12:52	1

Client Sample ID: FWGCBLmw-005-0159-GW
Date Collected: 10/16/12 14:33
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-35
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 12:52	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:52	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 12:52	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 12:52	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 12:52	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 12:52	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 12:52	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 12:52	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 12:52	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 12:52	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*65*		*50 - 110*	*10/20/12 09:33*	*10/24/12 12:52*	*1*
2-Fluorophenol (Surr)	*73*		*20 - 110*	*10/20/12 09:33*	*10/24/12 12:52*	*1*
Nitrobenzene-d5 (Surr)	*73*		*40 - 110*	*10/20/12 09:33*	*10/24/12 12:52*	*1*
Phenol-d5 (Surr)	*75*		*10 - 115*	*10/20/12 09:33*	*10/24/12 12:52*	*1*
Terphenyl-d14 (Surr)	*73*		*50 - 135*	*10/20/12 09:33*	*10/24/12 12:52*	*1*
2,4,6-Tribromophenol (Surr)	*67*		*40 - 125*	*10/20/12 09:33*	*10/24/12 12:52*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/29/12 23:10	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/29/12 23:10	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/29/12 23:10	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/29/12 23:10	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/29/12 23:10	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/29/12 23:10	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/29/12 23:10	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/29/12 23:10	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/29/12 23:10	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/29/12 23:10	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 23:10	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 23:10	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 23:10	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 23:10	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/29/12 23:10	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/29/12 23:10	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 23:10	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/29/12 23:10	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/29/12 23:10	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/29/12 23:10	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/29/12 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*52*		*30 - 135*	*10/19/12 10:34*	*10/29/12 23:10*	*1*
DCB Decachlorobiphenyl	*49*		*30 - 135*	*10/19/12 10:34*	*10/29/12 23:10*	*1*
Tetrachloro-m-xylene	*85*		*25 - 140*	*10/19/12 10:34*	*10/29/12 23:10*	*1*
Tetrachloro-m-xylene	*89*		*25 - 140*	*10/19/12 10:34*	*10/29/12 23:10*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGCBLmw-005-0159-GW
Date Collected: 10/16/12 14:33
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-35
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 21:41	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 21:41	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 21:41	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 21:41	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 21:41	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 21:41	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/19/12 10:39*	*10/23/12 21:41*	*1*
Tetrachloro-m-xylene	*85*		*40 - 140*	*10/19/12 10:39*	*10/23/12 21:41*	*1*
DCB Decachlorobiphenyl	*47*		*40 - 135*	*10/19/12 10:39*	*10/23/12 21:41*	*1*
DCB Decachlorobiphenyl	*48*		*40 - 135*	*10/19/12 10:39*	*10/23/12 21:41*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 08:29	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.052	U	0.15	0.052	0.032	ug/L		11/01/12 10:12	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 10:12	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 10:12	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		11/01/12 10:12	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.052	ug/L		11/01/12 10:12	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/01/12 10:12	1
2-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		11/01/12 10:12	1
3-Nitrotoluene	0.10	U	0.52	0.10	0.059	ug/L		11/01/12 10:12	1
4-Nitrotoluene	0.10	U	0.52	0.10	0.091	ug/L		11/01/12 10:12	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 10:12	1
HMX	0.052	U	0.15	0.052	0.037	ug/L		11/01/12 10:12	1
RDX	0.052	U	0.15	0.052	0.037	ug/L		11/01/12 10:12	1
Nitrobenzene	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 10:12	1
Tetryl	0.10	U	0.15	0.10	0.052	ug/L		11/01/12 10:12	1
Nitroglycerin	0.52	U	0.67	0.52	0.34	ug/L		11/01/12 10:12	1
PETN	0.52	U	0.67	0.52	0.31	ug/L		11/01/12 10:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*90*		*79 - 111*	*10/22/12 06:51*	*11/01/12 10:12*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:38	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:53	1

Client Sample ID: FWGCBLmw-005-0159-GF
Lab Sample ID: 240-16465-36
Date Collected: 10/16/12 14:33
Matrix: Water
Date Received: 10/17/12 06:15

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 15:49	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 15:49	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 15:49	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:49	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:49	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:49	1
Vanadium	**4.0**	**J**	7.0	4.0	1.3	ug/L		10/23/12 15:49	1
Barium	**48**	**J**	200	5.0	2.8	ug/L		10/23/12 15:49	1
Calcium	**10000**		5000	1000	630	ug/L		10/23/12 15:49	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:49	1
Magnesium	**4700**	**J**	5000	300	120	ug/L		10/23/12 15:49	1
Manganese	**10**	**J**	15	5.0	1.8	ug/L		10/23/12 15:49	1
Nickel	**7.2**	**J**	40	5.0	2.2	ug/L		10/23/12 15:49	1
Potassium	**940**	**J**	5000	900	300	ug/L		10/23/12 15:49	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**85**		60	60	20	ug/L		10/29/12 16:10	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:14	1
Beryllium	**0.071**	**J**	1.0	0.10	0.033	ug/L		10/26/12 21:14	1
Cadmium	**0.16**	**J**	2.0	0.070	0.023	ug/L		10/26/12 21:14	1
Iron	100	U	150	100	44	ug/L		10/26/12 21:14	1
Sodium	**2800**		1000	400	160	ug/L		10/26/12 21:14	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:14	1
Zinc	**9.1**	**J**	40	20	8.8	ug/L		10/29/12 16:10	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 13:51	1

Client Sample ID: FWGFWGmw-003-0166-GW — **Lab Sample ID: 240-16465-37**

Date Collected: 10/16/12 16:03 — **Matrix: Water**

Date Received: 10/17/12 06:15

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:26	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:26	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 12:26	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:26	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:26	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:26	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 12:26	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:26	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 12:26	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:26	1
Acetone	**1.6**	**J**	10	1.1	1.1	ug/L		10/25/12 12:26	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:26	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 12:26	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 12:26	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:26	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:26	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:26	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:26	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 12:26	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 12:26	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:26	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 12:26	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:26	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:26	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 12:26	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 12:26	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 12:26	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 12:26	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 12:26	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 12:26	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 12:26	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:26	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:26	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:26	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:26	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:26	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:26	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 12:26	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*70 - 120*		*10/25/12 12:26*	*1*
4-Bromofluorobenzene (Surr)	*84*		*75 - 120*		*10/25/12 12:26*	*1*
Toluene-d8 (Surr)	*92*		*85 - 120*		*10/25/12 12:26*	*1*
Dibromofluoromethane (Surr)	*110*		*85 - 115*		*10/25/12 12:26*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1

Client Sample ID: FWGFWGmw-003-0166-GW
Lab Sample ID: 240-16465-37
Date Collected: 10/16/12 16:03
Matrix: Water
Date Received: 10/17/12 06:15

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/24/12 13:11	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/24/12 13:11	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 13:11	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 13:11	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 13:11	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 13:11	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 13:11	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 13:11	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/24/12 13:11	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/24/12 13:11	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 13:11	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 13:11	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/24/12 13:11	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/24/12 13:11	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 13:11	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/24/12 13:11	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/24/12 13:11	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 13:11	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 13:11	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 13:11	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 13:11	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/24/12 13:11	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 13:11	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/24/12 13:11	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 13:11	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 13:11	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/24/12 13:11	1

Client Sample ID: FWGFWGmw-003-0166-GW
Date Collected: 10/16/12 16:03
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-37
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/24/12 13:11	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 13:11	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/24/12 13:11	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/24/12 13:11	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/24/12 13:11	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/24/12 13:11	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/24/12 13:11	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/24/12 13:11	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/24/12 13:11	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/24/12 13:11	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/24/12 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*72*		*50 - 110*	*10/20/12 09:33*	*10/24/12 13:11*	*1*
2-Fluorophenol (Surr)	*76*		*20 - 110*	*10/20/12 09:33*	*10/24/12 13:11*	*1*
Nitrobenzene-d5 (Surr)	*78*		*40 - 110*	*10/20/12 09:33*	*10/24/12 13:11*	*1*
Phenol-d5 (Surr)	*79*		*10 - 115*	*10/20/12 09:33*	*10/24/12 13:11*	*1*
Terphenyl-d14 (Surr)	*62*		*50 - 135*	*10/20/12 09:33*	*10/24/12 13:11*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*40 - 125*	*10/20/12 09:33*	*10/24/12 13:11*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/29/12 23:35	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/29/12 23:35	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/29/12 23:35	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/29/12 23:35	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/29/12 23:35	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/29/12 23:35	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/29/12 23:35	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/29/12 23:35	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/29/12 23:35	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/29/12 23:35	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 23:35	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 23:35	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 23:35	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/29/12 23:35	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/29/12 23:35	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/29/12 23:35	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/29/12 23:35	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/29/12 23:35	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/29/12 23:35	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/29/12 23:35	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/29/12 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*		*30 - 135*	*10/19/12 10:34*	*10/29/12 23:35*	*1*
DCB Decachlorobiphenyl	*53*		*30 - 135*	*10/19/12 10:34*	*10/29/12 23:35*	*1*
Tetrachloro-m-xylene	*91*		*25 - 140*	*10/19/12 10:34*	*10/29/12 23:35*	*1*
Tetrachloro-m-xylene	*87*		*25 - 140*	*10/19/12 10:34*	*10/29/12 23:35*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-003-0166-GW
Date Collected: 10/16/12 16:03
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-37
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 21:55	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 21:55	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 21:55	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 21:55	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 21:55	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 21:55	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*40 - 140*	*10/19/12 10:39*	*10/23/12 21:55*	*1*
Tetrachloro-m-xylene	*78*		*40 - 140*	*10/19/12 10:39*	*10/23/12 21:55*	*1*
DCB Decachlorobiphenyl	*49*		*40 - 135*	*10/19/12 10:39*	*10/23/12 21:55*	*1*
DCB Decachlorobiphenyl	*49*		*40 - 135*	*10/19/12 10:39*	*10/23/12 21:55*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/03/12 08:43	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.053	U	0.16	0.053	0.033	ug/L		11/01/12 10:53	1
1,3-Dinitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 10:53	1
2,4,6-Trinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 10:53	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		11/01/12 10:53	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		11/01/12 10:53	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.16	0.11	0.016	ug/L		11/01/12 10:53	1
2-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		11/01/12 10:53	1
3-Nitrotoluene	0.11	U	0.53	0.11	0.060	ug/L		11/01/12 10:53	1
4-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		11/01/12 10:53	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 10:53	1
HMX	0.053	U	0.16	0.053	0.038	ug/L		11/01/12 10:53	1
RDX	0.053	U	0.16	0.053	0.038	ug/L		11/01/12 10:53	1
Nitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		11/01/12 10:53	1
Tetryl	0.11	U	0.16	0.11	0.053	ug/L		11/02/12 10:08	1
Nitroglycerin	0.53	U	0.68	0.53	0.35	ug/L		11/01/12 10:53	1
PETN	0.53	U	0.68	0.53	0.32	ug/L		11/01/12 10:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/22/12 06:52*	*11/01/12 10:53*	*1*
3,4-Dinitrotoluene	*88*		*79 - 111*	*10/22/12 06:52*	*11/02/12 10:08*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:38	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		10/25/12 15:55	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16465-1

Client Sample ID: FWGFWGmw-003-0166-GF
Date Collected: 10/16/12 16:03
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16465-38
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**5.3**	**J**	10	10	3.3	ug/L		10/23/12 15:53	1
Chromium	**2.8**	**J**	7.0	4.0	1.4	ug/L		10/23/12 15:53	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 15:53	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:53	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:53	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:53	1
Vanadium	**3.4**	**J**	7.0	4.0	1.3	ug/L		10/23/12 15:53	1
Barium	**72**	**J**	200	5.0	2.8	ug/L		10/23/12 15:53	1
Calcium	**79000**		5000	1000	630	ug/L		10/23/12 15:53	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:53	1
Magnesium	**20000**		5000	300	120	ug/L		10/23/12 15:53	1
Manganese	**600**		15	5.0	1.8	ug/L		10/23/12 15:53	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 15:53	1
Potassium	**2500**	**J**	5000	900	300	ug/L		10/23/12 15:53	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**1600**		60	60	20	ug/L		10/29/12 16:15	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:19	1
Beryllium	**0.069**	**J**	1.0	0.10	0.033	ug/L		10/26/12 21:19	1
Cadmium	**0.029**	**J**	2.0	0.070	0.023	ug/L		10/26/12 21:19	1
Iron	**2300**		150	100	44	ug/L		10/26/12 21:19	1
Sodium	**4600**		1000	400	160	ug/L		10/26/12 21:19	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:19	1
Zinc	**16**	**J**	40	20	8.8	ug/L		10/29/12 16:15	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:10	1

Chain of Custody Record

TestAmerica Laboratory location: CANTON 017

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: JOHN MILLER	Site Contact: ERIK CARBIN	Lab Contact: MARK LOEB	COC No: 043226
Address: 1800 CARILLON BLVD	Telephone: (513) 825-7500	Telephone: (513) 825-7500	Telephone: (330) 497-9396	1 of 2 COCs
City/State/Zip: CINCINNATI, OH 45240	Email: ECARBIN@EQM.COM	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: (513) 825-7500		TAT if different from below: PER SOW ☑ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐ Job/SDG No.:
Project Name: RVAA17(60#)	Method of Shipment/Carrier: LAB PICKUP			
Project Number: 030174.0016.001.09.01	Shipping/Tracking No: N/A			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260	SVOC - 4	PEST 8081	PCB 8082	EXPLO 8330	PROPELLANTS	CYANIDE 9012	METALS 6010/6020 TAL			Sample Specific Notes / Special Instructions: Cooler ID
FWG TEAM 1 TRIP	10/15/12	0900		X				1		2			6 PK		N	G	X										QR-3
FWGBI2mw-013-0158-GW	10/15/12	1650		X				1		3	1		9		N	G	X	X	X	X	X	X	X				QR-3 (MIN VOL)
FWGBI2mw-013-0158-GF	10/15/12	1650		X					1						Y	G								X			QR-3
FWGFWGmw-005-0168-GW	10/16/12	0945		X				1		3	1		9		N	G	X	X	X	X	X	X	X				C-10
FWGFWGmw-005-0168-GF	10/16/12	0945		X					1						Y	G								X			C-10
FWGFWGmw-DUP2-0200-GW	10/16/12	1045		X				1		3	1		9		N	G	X	X	X	X	X	X	X				M-12
FWGFWGmw-DUP2-0200-GF	10/16/12	1045		X					1						Y	G								X			M-12
FWGFWGmw-009-0172-GW	10/16/12	1205		X				1		3	1		9		N	G	X	X	X	X	X	X	X				BO-2
FWGFWGmw-009-0172-GF	10/16/12	1205		X					1						Y	G								X			BO-2
FWGFWGmw-008-0171-GW	10/16/12	1355		X				1		3	1		9		N	G	X	X	X	X	X	X	X				BO-1

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:
ALL METALS WERE FIELD FILTERED
TEMPS MAY NOT MEET REQUIREMENTS IF SAMPLE COLLECTION IS CLOSE TO LAB PICKUP TIME
ALL WAS IN COOLER - QR-3

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQM	10/16/12 - 1900	[signature]	TAL-NC	10-16-12-1900
[signature]	TAL-NC	10-16-12-1920			
			Received in Laboratory by: [signature]	TAL	10/17/12 6:15AM

TAL 0018-1 (04/10)

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: CANTON, OH
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: JOHN MILLER	Site Contact: ERIK CORBIN	Lab Contact: MARK LOEB	COC No: 043227
Address: 1800 CARILLON BLVD	Telephone: (513) 825-7500	Telephone: (513) 825-7500	Telephone: (330) 497-9396	2 of 2 COCs
City/State/Zip: CINCINNATI, OH	Email: ECORBIN@EQM.COM			
Phone: (513) 825-7500				
Project Name: RVAAP66 (OH)	Method of Shipment/Carrier: LAB PICKUP			
Project Number: 030174.0016.001.09.01	Shipping/Tracking No: N/A			
PO #				

Analysis Turnaround Time (in BUS days)
TAT if different from below ____
PER SOW
☒ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

For lab use only
Walk-in client ☐
Lab pickup ☐
Lab sampling ☐
Job/SDG No:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Matrix: Aqueous	Matrix: Sediment	Matrix: Solid	Matrix: Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y / N)	Composite=C / Grab=G	Analyses: VOC 8260	SVOC-4	PEST 8081	PCB 8082	EXPLO 8330	PROPELLANTS	OXANIDE 9012	METALS 6010/6020 7470			Sample Specific Notes / Special Instructions: COOLER ID
FWGFWG mw-008-0171-GF	10/16/12	1355		X					1						Y	G								X			BO-1
FWGFWG mw-016-0180-GW	10/16/12	1540		X				1		3	1		9		N	G	X	X	X	X	X	X	X				313
FWGFWG mw-016-0180-GF	10/16/12	1540		X					1						Y	G								X			313
FWGFWG mw-015-0179-GW	10/16/12	1650		X				1		3	1		9		N	G	X	X	X	X	X	X	X				CLETUS
FWGFWG mw-015-0177-GF	10/16/12	1650		X					1						Y	G								X			CLETUS

PGH 10/16/12

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:
ALL METALS ARE FIELD FILTERED
ALL VOAs IN COOLER QR-3
TEMPS MAY NOT MEET REQUIREMENTS IF SAMPLE COLLECTION IS CLOSE TO LAB PICKUP TIME

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQM	10/16/12-1800	[signature]	TAL-NC	10-16-12-1800
[signature]	TAL-NC	10-16-12-1920			
			Received in Laboratory by: [signature]	TAL	10/17/12 6:15am

TAL 0018-1 (04/10)

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: N. Canton
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: E. Corbin	Lab Contact: M. Loeb	COC No: 043247
Address: 1800 CARILLON BLVD	Telephone: SAME	Telephone: Same	Telephone:	1 of 1 COCs
City/State/Zip: CINCINNATI OH 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days) TAT if different from below: ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		For lab use only: Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No:
Phone: 5138257500 FAX 7495				
Project Name: RVAAP Ohio	Method of Shipment/Carrier: Lab Pickup			
Project Number: 30174.0016.001.03	Shipping/Tracking No: N/A			
PO #				

Analyses: VOC 8260, SVOCH 8270, Pest 8081, PCB 8082, EXPIO 8330, Propellants, Cyanide 9012, EXTRA VOLUME per M. Loeb, NO_2NO_3, Metals 6010 6020 7470

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260	SVOCH 8270	Pest 8081	PCB 8082	EXPIO 8330	Propellants	Cyanide 9012	EXTRA VOLUME per M. Loeb	NO_2NO_3	Metals 6010 6020 7470	Sample Specific Notes / Special Instructions:
FWG Team2-Trip	10-16-12	0800		X										2	N		X										TA737
FWGNTAmw-119-0193-GW	↓	0942		X						3	1		12				X	X	X	X	X	X	X	X			H113
FWGNTAmw-119-0193-GF	↓	↓		X					1																	X	H113
FWGLL11mw-012-0189-GW	↓	1132		X						3	1		12				X	X	X	X	X	X	X	X			A-1
FWGLL11mw-012-0189-GF	↓	↓		X					1																	X	A-1
FWGLL12mw-247-0192-GW	↓	1414		X				3		3	1		12				X	X	X	X	X	X	X	X	X		14015
FWGLL12mw-247-0192-GF	↓	↓		X					1																	X	14015
FWGLL12mw-DUP6-0203-GW	↓	1432		X				1																	X		14015
FWGLL3mw-244-0183-GW	↓	1624		X						3	1		12				X	X	X	X	X	X	X	X	X		TA741+TA737
FWGLL3mw-244-0183-GF	↓	↓		X					1																	X	TA741 ~~TA737~~

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:
Metals are field filtered.
Temps may not meet requirements if sample collection is close to lab pickup time.
All VOAs in cooler TA737.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQ	10/16/12 1800	[signature]	TAL NC	10-16-12-1800
[signature]	TAL NC	10-16-12-1920			
			Received in Laboratory by: [signature]	TAL	10/17/12 615AM

TAL 0018-1 (04/10)

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Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Pkg 2 COC # 043259

TestAmerica Laboratories, Inc.

Client Contact					
Company Name: EQM	Client Project Manager: John Miller	Site Contact: Erik Corbin	Lab Contact: Mark Loeb	COC No: 043258	
Address: 1800 Carillon Blvd	Telephone: (513)825-7500	Telephone: 825-7500	Telephone: (330)-497-9396	1 of 2 COCs	
City/State/Zip: Cincinnati OH 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only	
Phone:		TAT if different from below: PW SOW ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐	
Project Name: RVAAP (60)	Method of Shipment/Carrier: Lab Pickup			Job/SDG No.: CORRECTED	
Project Number: 030174.0016.001.09.1	Shipping/Tracking No: N/A				
PO#		Matrix / Containers & Preservatives	Filtered Sample (Y/N) / Composite=C / Grab=G		

Sample Identification	Sample Date	Sample Time	Air	Aqueous	Sediment	Solid	Other	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other	Filtered	Comp/Grab	VOC 8260	SVOC 8270-full list	PEST 8081	PCB 8082	EXPLO 8330/PROP	CYANIDE 9012	Metals 6010/6020 7470	Gamma Spec 901.1	Total Radium 903.0	Alpha/Beta 900.0	Alk. 310.2	Sample Specific Notes / Special Instructions:
FWGTeam 3-TRIP	10/16/12	0800		X						2					N	G	X											EC-1
FWGFWGmw-006-0169-GW	10/16/12	09:43		X						3	1		9		N	G	X	X	X	X	X	X						UC
FWGFWGmw-006-0169-GF	10/16/12	09:43		X				KA	1						Y	G							X					UC
FWGFWGmw-014-0178-GW	10/16/12	11:13		X				9	~~10~~	3	1		9		N	G	X	X	X	X	X	X	X	X	X	X		B7, EC-1 **
FWGFWGmw-014-0178-GF	10/16/12	11:13		X					1						Y	G							X					757, EC-1
FWGFWGmw-014-Dup4-0201	10/16/12	12:13		X					4						N	G							X	X	X	X		757, EC-1
FWGFWGEquipRinse2-0213-GW	10/16/12	12:46		X				1	5	3	1		9		N	G	X	X	X	X	X	X	X	X	X	X	X	JOKER
FWGFWGmw-007-0170-GW	10/16/12	13:03		X						3	1		9		N	G	X	X	X	X	X	X						EC-9
FWGFWGmw-007-0170-GF	10/16/12	13:03		X					1						Y	G							X					EC-9
																												AD 10/16/12

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Sample collected close to pick up may not meet requirements

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQM	10/16/12-1800	[signature]	TAL-NC	10-16-12-1800
[signature]	TAL-NC	10-16-12-1928			
			Received in Laboratory by: [signature]	TAL	10/17/12 6:15am

** MS/MSD Rad only

*** (3) additional 1-liter containers collected for test sample. Coolers ID 0411

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

page 1 COC# 043258

TestAmerica Laboratories, Inc.

TestAmerica Laboratory location: North Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: Erik Corbin	Lab Contact: Mark Loeb	COC No: 043259
Address: 1800 Carillon Blvd	Telephone: (513) 825-7500	Telephone: 825-7500	Telephone: (330) 497-9396	2 of 2 COCs
City/State/Zip: Cincinnati OH 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days)		For lab use only
Phone:		TAT if different from below		Walk-in client ☐
Project Name: RVAAP (66)	Method of Shipment/Carrier: Lab Pickup	Per SOW ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Lab pickup ☐ Lab sampling ☐
Project Number: 030174.0016.001.09-1	Shipping/Tracking No: N/A			Job/SDG No:
PO #				

Analyses: VOC 8260; SVOC 8270 full list; PEST 8081; PCB 8082; EXPLO 8330/PR08; CYANIDE 9012; METALS 6010/6020 7420; Gamma Spec 901.1; Total Radium 903.0; Alpha/Beta 900.0

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260	SVOC 8270 full list	PEST 8081	PCB 8082	EXPLO 8330/PR08	CYANIDE 9012	METALS 6010/6020 7420	Gamma Spec 901.1	Total Radium 903.0	Alpha/Beta 900.0	Sample Specific Notes / Special Instructions:
✱✱✱ FWGCBLmw-005-0159-GW	10/16/12	14:33		X						3	1		9		N	G	X	X	X	X	X	X					ID27
FWGCBLmw-005-0159-GF	10/16/12	14:33		X					1						Y	G	~~X~~	~~X~~	~~X~~	N/A			X				ID27
✱✱✱ FWGFWGmw-003-0166-GW	10/16/12	16:03		X						3	1		9		N	G	X	X	X	X	X	X					TA10
FWGFWGMW-003-0166-GF	10/16/12	16:03		X					1						Y	G							X				TA10

AD 10/16/12

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Sample collected close to pickup may not meet requirements

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQM	10/16/12-1800	[signature]	TAL-NC	10-16-12-1800
[signature]	TAL-NC	10-16-12-1920			
			Received in Laboratory by: [signature]	TAL	10/17/12 6:15am

✱✱✱ (3) additional 1-liter ambers collected for test sample cooler ID 0411

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TAL 0018-1 (04/10)

11/12/2012

TestAmerica Canton Sample Receipt Form/Narrative Login # : 16465

Client EQM Site Name _____ By: _____ (Signature)

Cooler Received on 10/17/12 Opened on 10/17/12

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off ~~TestAmerica Courier~~ Other _____

TestAmerica Cooler # 0411 Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	
IR GUN# 4G	(CF –1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	Multiple
IR GUN# 5G	(CF –1°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	on Back
IR GUN# 8	(CF 0°C)	Observed Sample Temp._____°C	Corrected Sample Temp._____°C	

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 19	(Yes) No
-Were custody seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
-Were custody seals on the bottle(s)?	Yes (No)
3. Shippers' packing slip attached to the cooler(s)?	(Yes) No
4. Did custody papers accompany the sample(s)?	(Yes) No
5. Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6. Did all bottles arrive in good condition (Unbroken)?	(Yes) No
7. Could all bottle labels be reconciled with the COC?	(Yes) No
8. Were correct bottle(s) used for the test(s) indicated?	(Yes) No
9. Sufficient quantity received to perform indicated analyses?	(Yes) No
10. Were sample(s) at the correct pH upon receipt?	(Yes) No NA
11. Were VOAs on the COC?	(Yes) No
12. Were air bubbles >6 mm in any VOA vials?	Yes (No) NA
13. Was a trip blank present in the cooler(s)?	(Yes) No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

No 2 No 3 MSMSD volume for sample FWGLL12mw-247-0192-GW will log for MSMSD.

Sample ID FWGFWGmw-015-0177-GF should be 0179 per bottle will log per bottle.

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
0158 GW	>12	10/17/12	CSW
0158 GF	<2		
0168 GW	>12		
0168 GF	<2		
Dup2 GW	>12		
Dup2 GF	<2		
0172 GW	>12		
0172 GF	<2		
0171-GW	>12		
0171-GF	<2		
0180 GW	>12		
0180 GF	<2		
0179 GW	>12		
0179 GF	<2		
0193 GW	>12		
0193 GF	<2		
0189 GW	>12		
0189 GF	<2		
0172 GW	<2<2<2>12		
0192 GF	<2		
Dup6	<2		
0183 GW	>12		
0183 GF	<2		
0169 GW	>12		
0169 GF	<2		
0178 GW	>12		
0178 GF	<2		
EBNG0	<2<2>12		
0170 GW	>12		
0170 GF	<2		
0159 GW	>12		
0159 GF	<2		
0166 GW	>12		
0166 GF	<2		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant

TestAmerica Multiple Cooler Receipt Form/Narrative Lot Number: 164665
North Canton Facility

Cooler #	Temp °C	Method	Coolant	Comments
QR-3	5.0/5.0	IR 8	Ice	
C-10	4.8/4.8			
M12	5.2/5.2			
BO-2	5.5/5.5			
313	5.2/5.2			
BO-1	4.9/4.9			
Cedus	5.3/5.3			
H113	4.7/4.7			
A1	2.4/2.4			
14015	2.8/1.8			
TA737	2.0/1.0			
TA741	2.8/1.8			
VC	2.8/1.8	IR 5G		
757	2.4/1.4			
EG1	2.8/1.8			
Jober	2.2/1.2			
EC-9	2.4/1.4			
ID27	2.4/1.4			
TA10	2.6/1.6			

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16465-1

Login Number: 16465
List Number: 1
Creator: Livengood, Chris

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16465-1

Login Number: 16465
List Number: 1
Creator: Sadler, Jeremy

List Source: TestAmerica West Sacramento
List Creation: 10/18/12 12:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4,0.6,0,0.2,0.1,0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	missing a cooler
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16465-1

Login Number: 16465
List Number: 2
Creator: Nelson, Kym D

List Source: TestAmerica West Sacramento
List Creation: 11/08/12 04:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Appendix I

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 16, 2012

SDG: 240-16465-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1,
3. Were holding times met?	X				QAPP Table 5-1, J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1,
5. Were all QAPP addendum-specified target analytes reported?	X				QAPP Table 4-5
6. Was the GC/MS system tuned with bromofluorobenzene (BFB) during each 12 hour shift (prior to ICAL and Cal Ver.)?	X				QSM Table F-4
7. Calibration					
7a. Did the initial calibration curve consist of 5 concentration levels?	X			Instrument A3UX15–10/10/12	QSM Table F-4 R
7b. Did the Calibration Check Compounds (CCCs) (see Table 1 below) relative standard deviations (%RSD) ≤ 30%?	X				QSM Table F-4 R
7c. Were the minimum response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) met?	X				QSM Table F-4
7d. Did target analytes with an average calibration type have an RSD ≤ 15%?	X				QSM Table F-4 15% <RSD< 20% = J/UJ
7e. IF the RSD was >15% was a different calibration option used?	X				
7f. If a linear regression curve was used, was the correlation coefficient r>0.995?	X			Methylene chloride used a linear fit with r>0.995.	QSM Table F-4 R<0.99=-J/R
7g. If a non-linear regression was used, was the COD r≥0.99, with a minimum of 6 points for second order and 7 points for third order?			X	cis-1,3-Dichloropropene, trans-1,3-dichloropropene, bromoform and dibromochloromethane used a quadratic fit.	QSM Table F-4 R<0.99=-J/R
8. Was a LOD Level Verification performed quarterly for each reported analyte with detected results?	X			7/31/12 @ 1236, 1258 and 1320	QSM Table F-4 and section D.1.2.1
9. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours?	X				

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 16, 2012

SDG: 240-16465-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
10. Were the QC/MRL recoveries 70-130%		X		10/23/12- Opening MRL analyzed @ 1046 recovered above control limits of 70-130% for bromomethane at 131%, chloroethane at 177%, methylene chloride at 142% and vinyl chloride at 138%. The closing MRL analyzed at 2043 recovered above control limits of 70-130% for methylene chloride at 232% and below limits for ethylbenzene at 69%, m,p-xylene at 67%, styrene at 63% and total xylenes at 66%. The ethylbenzene, m,p-xylene, styrene and total xylenes results for samples FWG TEAM 1-TRIP, FWGB12mw-013-0158-GW, FWGFWGmw-DUP2-0200-GW, FWGFWGmw-009-0172-GW and FWGFWGmw-016-0180-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride as there were no detected methylene chloride concentrations reported for the bracketed field samples. 10/24/12- Opening MRL analyzed @ 1105 recovered above control limits of 70-130% for methylene chloride at 322%, chloroethane at 134%, vinyl chloride at 133% and at 144% for chloromethane. The closing MRL analyzed at 2028 recovered above control limits of 70-130% for methylene chloride at 318% and below limits at 68% for o-xylene. The chloroethane result for sample FWGLL11mw-012-0189-GW was qualified as estimated, "J". The o-xylene results for FWG TEAM 2 TRIP, FWG TEAM 3 TRIP, FWGFWGmw-015-0179-GW , FWGFWGmw-005-0168-GW and FWGFWGmw-008-0171-GW, FWGNTAmw-119-0193-GW, FWGLL11mw-012-0189-GW, FWGFWGmw-006-0169-GW, FWGLL12mw-247-0192-GW and FWGEquipRinse2-0213-GW were qualified as estimated, "UJ". No qualifications were required for methylene chloride as there were no detected methylene chloride concentrations reported for the bracketed field samples. 10/25/12- Opening MRL analyzed @ 0942 recovered above control limits of 70-130% for methylene chloride at 207% and below limits for 2-hexanone at 64%, 2-butanone at 55% and 4-methyl-2-pentanone at 56%. A closing MRL from the same analytical run was not reported due to instrument malfunction, however the opening MRL analyzed 10/26/12 at 1048 recovered above control limits of 70-130% for methylene chloride at 142%, bromomethane at 144% and chloroethane	Louisville Supplement to the DOD QSM

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 16, 2012

SDG: 240-16465-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				at 144%. The sample results for FWGLL3mw-244-0183-GW, FWGFWGmw-014-0178-GW, FWGFWGmw-007-0170-GW, FWGCBLmw-005-0159-GW and FWGFWGmw-003-0166-GW were qualified as estimated, "J/UJ" for all targets with the exception of 2-butanone and 4-methyl-2-pentanone, which were qualified as unusable, "R".	
11. Was a second source verification (ICV) analyzed? Were results 80-120%?	X			10/10/12 @ 1344	QSM Table F-4 J=<80% and >120%
12. Was a CCV run daily prior to analysis and every 12 hours of analysis time?	X			10/23/12 @ 0938 and 10/24/12 @ 0957, 10/25/12 @ 0834	QSM Table F-4
12a. Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) met?	X				QSM Table F-4
12b. Were all target analytes ≤ 20%D?		X		10/24/12 @ 0957- The %D for methylene chloride was above control limits of 20% D at 23.7%. No qualifications were required as there were no detected methylene chloride concentrations reported for the bracketed field samples. 10/25/12 @ 0834- The %D for methylene chloride was above control limits of 20% D at 28.9%. No qualifications were required as there were no detected methylene chloride concentrations reported for the bracketed field samples.	QSM Table F-4 %D <20% = J/UJ
13. Were the internal standards added to every sample?	X				QSM Table F-4
13a. Was the EICP area between -50% and +100% of the ICAL mid-point standard?	X				QSM Table F-4 R
13b. Were the retention times for all IS compounds within ±30 seconds from the RT of the mid-point standard in the ICAL?	X				QSM Table F-4 J/UJ
14. Were the retention times for target analytes within ±0.06 RRT units from the RT of the mid-point standard in the ICAL or the most recently updated RRT for all samples?	X				QSM Table F-4 J
15. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-4

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 16, 2012

SDG: 240-16465-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
15a. Were target analytes detected in the method blank >1/2 the MRL >RL for common contaminants?	X			Checked by ADR. Methylene chloride was detected in the method blank from batch 240-62557 at 1.94ug/L and in batch 240-62676 at 1.13ug/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.	QSM Table F-4 <5/10X =B
16. Was a field blank (equipment and/or trip) collected and analyzed?	X				
16a. Were target analytes detected in the field blank?	X			Checked by ADR. Acetone was detected in FWG TEAM 1 TRIP at 1.8ug/L, FWG TEAM 2-TRIP at 1.6ug/L and in FWG TEAM 3TRIP at 1.5ug/L.. FWGEQUIPRINSE1-0213-GW had acetone detected at 9.4ug/L and 2-butanone at 0.72ug/L . The acetone results for samples FWGFWGmw-005-0168-GW, FWGFWGmw-014-0178-GW, FWGFWGmw-003-0166-GW, FWGNTAmw-119-0193-GW, FWGLL11mw-012-0189-GW, FWGCBLmw-005-0159-GW, FWGEquipRinse2-0213-GW and FWGLL3mw-244-0183-GW were qualified, "B". As there were no detected 2-butanone results reported for the associated field samples, no qualification was made for the 2-butanone contamination.	QSM Table F-4 <5/10X =B
17. Was a LCS prepared and analyzed with each batch?	X				QSM Table F-4
17a. Were the LCS recoveries within limits specified in Table G-5 of the DoD QSM?	X			ADR checked section;	QSM Table F-4, Table G-5, J/UJ
18. Was a MS/MSD prepared with each batch?			X	No MS/MSD was requested with this set of samples.	QSM Table F-4
18a. Were the MS/MSD recoveries within limits specified in Table G-4 of the DoD QSM with an RPD <30%?			X		QSM Table F-4, Table G-5 J/UJ Parent sample only
19. Was a field duplicate analyzed?	X			Field duplicate analyzed on sample FWGFWGmw-005-0168-GW	QSM Table F-4,
19a. Were the field duplicates RPDs within ±30%?	X			Checked by ADR.	QSM Table F-4, RPD >30=J Parent sample only
20. Were surrogate recoveries within control limits specified in the DOD QSM?		X		The surrogate, 1,2-dichloroethane-d4 recovered above control limits of 70-120% at 121% in sample FWGCBLmw-005-0159-GW. The acetone result for sample FWGCBLmw-005-0159-GW, was qualified as estimated, "J".	QSM Tables F-4 & G-3 >150%=J; 10% - 50%=J/UJ; <10%=J/R
21. Were reported sample concentrations within calibration range?	X				

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 16, 2012

SDG: 240-16465-1 Rev0
Analysis: SW846 8260B

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010
Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007
Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012
Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Table1- CCCs

Analyte
1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

Table 2- SPCCs

Analyte	Minimum RF
Chloromethane	0.10
1,1-Dichlorethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 19, 2012

SDG: 240-16465-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1,
3.Were holding times met?	X				QAPP Table 5-1, J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1,
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-6
6. Was the GC/MS system tuned each 12 hour shift (prior to ICAL and Cal Ver.)?	X				QSM Table F-4
7. Initial Calibration					
7a. Did the initial calibration curve consist of 5 concentration levels?	X			Instrument A4HP9–10/22/12, 10/25/12	QSM Table F-4 R
7b. Did the Calibration Check Compounds (CCCs) (see Table 1 below) relative standard deviations (%RSD) ≤ 30%?	X				QSM Table F-4 R
7c. Were the minimum response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) ≤0.050?	X				QSM Table F-4
7d. Were all other target analytes reported with an avg response have an RSD ≤ 15%?	X				QSM Table F-4 15% <RSD< 20% = J/UJ
7e. IF the RSD was >15% was a different calibration option used?	X				
7f. If a linear regression curve was used, was the correlation coefficient r>0.995?	X				QSM Table F-4 R<0.99=-J/R
7g. If a non-linear regression was used, was the COD r≥0.99, with a minimum of 6 points for second order and 7 points for third order?	X			10/22/12 Benzoic acid, 4,6-dinitro-2-methylphenol, 2,6-dintrotoluene, 4-nitroaniline and 2,4-dinitrophenol used a quadratic fit. 10/22/12 Benzoic acid and 2,4-dinitrophenol used a quadratic fit.	QSM Table F-4 R<0.99=-J/R
8. Was a LOD Level Verification performed quarterly for each reported analyte?	X			9/29/12 @1247, 9/21/12 @1338, 1357 and 1416	QSM Table F-4 and section D.1.2.1
9 Was a breakdown check run at the beginning of every 12 hours with DDT degradation <20% and tailing factors of benzidine and pentachlorophenol ≤2?	X				QSM Table F-4 R

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 19, 2012

SDG: 240-16465-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
10. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours with recoveries within 70-130%?	X				Louisville Supplement to the DOD QSM
11. Was a second source verification (ICV) analyzed? Were results 80-120%?		X		10/23/12 @ 0937, The ICV recovered above limits of 20% for 2-nitrophenol with a %D of 25.5%, hexachlorocyclopentadiene with a %D of 21.3%, 2-nitroaniline at 26.4% and 2,4-dinitrotoluene at 26.0%. No qualifications were made for the listed ICV outliers as there were no detected 2-nitrophenol, hexachlorocyclopentadiene, 2-nitroaniline or 2,4-dinitrotoluene concentrations reported for the associated field samples. 10/25/12 @ 1715, The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 26.2%. The 3,3'-dichlorobenzidine results for samples FWGFWGmw-005-0168-GW, FWGFWGmw-008-0171-GW, FWGFWGmw-009-0172-GW, FWGFWGmw-015-0179-GW, FWGFWGmw-DUP2-0200-GW and FWGFWGmw-016-0180-GW were qualified as estimated, "UJ".	QSM Table F-4 J=<80% and >120%
12. Was a CCV run daily prior to analysis and every 12 hours of analysis time?	X			10/23/12 @ 0918, 10/24/12 @0832	QSM Table F-4
12a. Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) ≥0.050?	X				QSM Table F-4
12b. Were all target analytes ≤ 20%D?	X				QSM Table F-4 %D <20% = J/UJ
13. Were the internal standards added to every sample?	X				QSM Table F-4
13a. Was the EICP area between -50% and +100% of the ICAL mid-point standard?	X				QSM Table F-4 R
13b. Were the retention times for all IS compounds within ±30 seconds from the RT of the mid-point standard in the ICAL?	X				QSM Table F-4 J/UJ
14. Were the retention times for target analytes within ±0.06 RRT units from the RT of the mid-point standard in the ICAL or the most recently updated RRT for all samples?	X				QSM Table F-4 J

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 19, 2012

SDG: 240-16465-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
15. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-4
15a. Were target analytes detected in the method blank >1/2 the MRL, >RL for common contaminants?		X		Checked by ADR	QSM Table F-4 <5/10X =B
16. Was a field blank (equipment and/or trip) collected and analyzed?	X			FWGEQUIPRINSE2-0213-GW	
16a. Were target analytes detected in the field blank?	X			Checked by ADR. Diethyl phthalate was detected in FWGEQUIPRINSE2-0213-GW at 0.64ug/L. No qualifications were made as there were no detected diethyl phthalate concentrations reported in the associated field samples.	QSM Table F-4 <5/10X =B
17. Was a LCS prepared and analyzed with each batch?	X				QSM Table F-4
17a. Were the LCS recoveries within limits specified in Table G-6 of the DoD QSM?	X			ADR checked section;	QSM Table F-4, Table G-6 J/UJ
18. Was a MS/MSD prepared with each batch?	X			Not enough sample volume for spike analysis from this set of samples.	
18a. Were the MS/MSD recoveries within limits specified in Table G-6 of the DoD QSM with an RPD <30%?			X		QSM Table F-4, Table G-6 J/UJ Parent sample only
19. Was a field duplicate analyzed?	X			Checked by ADR	
19a. Were the field duplicates RPDs within ±50%?	X			Checked by ADR.	QSM Table F-4, RPD >50=J Parent sample only
20. Were surrogate recoveries within control limits specified in the DOD QSM?	X				QSM Tables F-4 & G-3 >150%=J; 10% - 50%=J/UJ; <10%=J/R
21. Were reported sample concentrations within calibration range?	X				

References:

- *DoD Quality Systems Manual (QSM), version 4.1, October 2010*
- *Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007*
- *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012*

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 19, 2012

SDG: 240-16465-1 R0
Analysis: SW846 8270

- *Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011*

Additional Comments:

Table 1: CCCs *(All analytes if CCCs not included in standard)*

Base / Neutral Compounds	Acid Compounds
Acenaphthalene	4-Chloro-3-methylphenol
1,4-Dichlorobenzene	2,4-Dichlorophenol
Hexachlorobutadiene	2-Nitrophenol
N-Nitrosodiphehylamine	Phenol
Di-n-octylphthalate	Pentachlorophenol
Fluoroanthene	2,4,6-Trichlorophenol
Benzo(a)pyrene	

Table 2: SPCCs -

N-Nitroso-di-n-propylamine	0.050
Hexachlorocyclopentadiene	0.050
2,4-Dinitrophenol	0.050
4-Nitrophenol	0.050

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta / November 19, 2012

SDG: 240-16465 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X			Checked by ADR	QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a DDT standard analyzed every 12 hours? Was the DDT %breakdown < 15%?	X			The 4,4'-DDT % breakdown analyzed 10/25/12 at 0810 on CLP-2 was above control limits at 21.3%. No qualification was made as the CLP-2 was used for confirmation purposes .	QSM Table F-2 >15%=J/R
7. Was an endrin standard analyzed every 12 hours? Was the endrin %breakdown <15%?	X				QSM Table F-2 >15%=J/R
8. Initial Calibration					
8a. Does the initial calibration curve consist of 5 concentration levels?	X			Instrument A2HP9 10/25/12 , 10/27/12, 10/31/12	QSM Table F-2 R
8a. Were the %RSDs for each analyte ≤ 20%? OR was the average %RSD ≥20% with the r >0.990?	X			10/25/12 CLP-1 used a linear fit for 4,4'-DDD. CLP-2 used a linear fit for delta-BHC, 4,4'-DDT and a quadratic fir for endrin ketone. 10/27/12 CLP-2 used a quadratic fit for endrin ketone, endrin aldehyde, endosulfan sulfate, methoxychlor and DCB CLP-2 used a linear fit for delta-BHC, 4,4'-DDT and a quadratic fir for endrin ketone..	QSM Table F-2 RSD>20% or r<0.99=J/R
9. Was a LOD Level Verification performed once per quarter with all target analytes detected?	X			9/18/12 @2208, 2231, 2255, 2319	QSM Table F-2 R
10. Was a MRL Verification performed at the beginning and end of the sequence or every 12 hours with results within limits of 70-130%?	X			• The opening MRL analyzed 10/25/12 @1605 recovered above control limits of 70-130% for 4,4-DDD at 172% on CLP-1 and on CLP-2 above control limits for 4,4'-DDE at 185%, 4,4'-DDT at 135%, delta-BHC at 208%, dieldrin at 143% and endrin ketone at 160%. • The closing MRL analyzed 10/26/12 @ 0540 recovered above control limits of 70-130% for 4,4-DDD at 267%, endosulfan sulfate at 142% and methoxychlor at 161% on CLP-1. On CLP-2 the	QSM Table F-2, G-14 >UL=J; <LL=J/UJ/R

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				closing MRL recovered above control limits of 70-130% for 4,4'-DDT at 160%, delta-BHC at 228%, endosulfan sulfate at 141% and endrin ketone at 181%. No qualifications were made for the MRL outliers as the detected concentrations for endrin ketone and delta-BHC were reported from CLP-1. CLP-2 was used for confirmation. The closing MRL analyzed on 10/31/12 did not recover for methoxychlor on either the front or back columns. The methoxychlor result for sample FWGNTAmw-119-0193-GW was qualified as unusable, "R".	
11. Was a second source (ICV) verification analyzed after the ICAL? Were results 80-120%?	X			10/25/12 @1107, 1438 (tox), 10/27/12 @ 1707, 1934 and 10/31/12 @ 1237 The ICV analyzed 10/25/12 @ 1107 recovered above control limits of 20% D for endrin ketone at 34.4% on CLP-2. No qualifications were made as CLP-2 was used for confirmation. The toxaphene ICV analyzed 10/27/12 1934 recovered below control limits of 20% D for endrin ketone at 22.5% on CLP-2. No qualifications were made as CLP-2 was used for confirmation.	QSM Table F-2 >120%=J; <80%=J/UJ
12. Was a CCV run every 12 hours or at the beginning and end of the analytical run with the %D for all target analytes ≤20%?		X		• The CCV analyzed 10/25/12 @ 2059 on CLP-1 had %D above control limits of 20% for alpha-BHC at 26.2%, gamma-BHC at 21.6%, beta-BHC at 27.3%, delta-BHC at 25.6%, heptachlor at 28.0%, aldrin at 24.8%, heptachlor epoxide at 34.1%, gamma-chlordane at 24.9%, alpha-chlordane at 28.9%, endosulfan I at 40.2%, 4,4'-DDE at 30.5%, dieldrin at 34.0%, endrin at 41.8%, 4,4'-DDD at 69.0%, 4,4'-DDT at 31.1%, endrin aldehyde at 30.0%, methoxychlor at 66.1%, endosulfan sulfate at 53.6% and endrin ketone at 29.7%. • The CCV analyzed 10/25/12 @ 2059 on CLP-2 had %D above control limits of 20% for alpha-BHC at 22.2%, beta-BHC at 29.7%, delta-BHC at 30.1%, aldrin at 24.4%, heptachlor epoxide at 30.7%, gamma-chlordane at 22.4%, alpha-chlordane at 28.3%, endosulfan I at 25.7%, 4,4'-DDE at 24.8%, dieldrin at 23.9%, endrin at 32.3%, 4,4'-DDD and endosulfan II at 34.0%, 4,4'-DDT at 20.7%, endrin aldehyde at 28.0%, methoxychlor at 50.9%, endosulfan sulfate at 44.8% and endrin ketone at 54.0%. • The CCV analyzed 10/26/12 @ 0119 on CLP-1 had %D above control limits of 20% for endosulfan I at 25.2%, endrin at 25.7%, 4,4'-DDD at 48.8%, 4,4'-DDT at 25.1 %, endrin aldehyde at 24.9%,	QSM Table F-2 >120%=J; <80%=J/UJ

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta / November 19, 2012

SDG: 240-16465 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				methoxychlor at 50.4% and endosulfan sulfate at 44.9%. • The CCV analyzed 10/26/12 @0119 on CLP-2 had a %D above control limits of 20% for endrin at 21.6%, endosulfan sulfate at 33.7%, methoxychlor at 30.9% and endrin ketone at 35.6%. • The CCV analyzed 10/26/12 @ 0516 on CLP-1 had %D above control limits of 20% for beta-BHC at 20.5%, endosulfan I at 21.8%, 4,4'-DDE at 22.2%, endrin at 24.3%, 4,4'-DDD at 51.5 %, 4,4'-DDT at 22.0 %, endrin aldehyde at 24.1%, methoxychlor at 49.9% , endosulfan sulfate at 37.8% and endrin ketone at 21.6%. • The CCV analyzed 10/26/12 @0516 on CLP-2 had a %D above control limits of 20% for endosulfan sulfate at 30.4%, methoxychlor at 23.8% and endrin ketone at 38.2%. Alpha-BHC had a %D below control limits at 32.1%. The detected endrin ketone results for FWGFWGmw-008-0171-GW and FWGLL11mw-012-0189 and the delta-BHC result for sample FWGFWGmw-015-0179-GW were qualified as estimated, "J. No qualification was made for the alpha-BHC outlier as CLP-2 was used for confirmation and there were no alpha-BHC concentrations reported for the bracketed field samples. • The CCV analyzed 10/29/12 @ 1956 had %D above control limits of 20% for 4,4'-DDE at 24.3% on CLP-1 and at 21.7% on CLP-2. • The CCV analyzed 10/30/12 @ 0048 had %D above control limits of 20% for 4,4'-DDE at 22.6% on CLP-2. No qualifications were made for CCV outliers as there were no detected concentrations reported for the bracketed field samples.	
13. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-2
14. Were target analytes detected> ½ the RL?		X			QSM Table F-2 <5x=B
15. Was a field blank collected and analyzed?	X				
16. Were target analytes detected in the field blank analyses >1/2 the MRL?		X			QSM Table F-2 <5x=B
17. Was an LCS prepared and analyzed with each batch?	X				QSM Table F-2
18. Were the LCS recoveries within limits specified in QSM Table G-14?		X		Checked by ADR. The toxaphene LCS recovered below control limits of 70-130% in batch 240-62004 at 65%. The toxaphene results for samples	QSM Table G-14 >UL=J; <LL=J/UJ/R

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Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta / November 19, 2012

SDG: 240-16465 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				FWGEQUIPRinse2-0213-GW, FWGFWGmw-003-0166-GW, FWGFWG-006-0169-GW, FWGFWGmw-007-0170-GW, FWGFWGmw-014-0178-GW and FWGLL3mw-244-0183-GW were qualified as estimated, "UJ".	
19. Was a MS/MSD pair prepared with each batch?			X	Not enough sample for matrix spike analysis from the set of samples.	QSM Table F-2
20. Was the MS/MSD parent a Ravenna sample?		X			
21. Were MS/MSD recoveries and RPD within limits specified in QSM Table G-14?			X		QSM Table F-2 Pj with >UL=J; <LL=J/UJ/R
22. Were surrogate recoveries as specified in QSM table G-3?		X		The surrogate TCMX recovered above control limits of 25-140% on CLP-1 at 183% in sample FWGNTAmw-119-0193-GW. No qualifications were made as there were no detected concentrations reported for FWGNTAmw-119-0193-GW. The surrogate DCB recovered below control limits of 30-135% on CLP-2 at 26% in sample FWGFWGmw-008-0171-GW. No qualification was made as CLP-2 was used for confirmation.	QSM Table F-2 >LL=J; <LL=UJ/J/R
23. Was a field duplicate analyzed? Were the RPDs ≤50%?	X			Checked by ADR.	RPD >50=J parent sample only
24. Were all positive results verified by a second column confirmation? Were the RPD's ≤ 40?			X	There were no detected concentrations greater than the LOD, so no evaluation was made.	QSM Table F-2 >40 RPD=J

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 19, 2012

SDG: 240-16465-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	**X**				QAPP Table 5-1
3. Were holding times met?		**X**		The following samples were re-prepared outside the holding time of seven days but were re extracted within 2x hold (13 days) because of low surrogates in the initial analysis. The results associated with the reanalysis were qualified as estimated, "UJ": FWGFWGmw-006-0169-GW, FWGFWGmw-007-0170-GW, FWGFWGmw-015-0179-GW, FWGLL12mw-247-0192-GW and FWGFWGmw-DUP2-0200-GW.	QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	**X**				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	**X**				QAPP Table 4-3
6. Calibration					
6a. Does the initial calibration curve consist of 5 concentration levels of Aroclors 1016 and 1260?	**X**			Instrument A2HP13 10/21/12 Stds = 0.05, 0.1, 0.2, 0.5, 1.0, 2.0	QSM Table F-2 R
6b. Was the % RSD ≤ 20%? or Were the r^2s >0.990?	**X**				QSM Table F-2 RSD>20% or r<0.99= J/R
7. Was a LOD Verification performed once per quarter? Were all target analytes detected?	**X**			8/31/12	QSM Table F-2 R
8. Was an MRL Level Verification performed at the beginning and end of the sequence or every 12 hours? Were recoveries 70-130%?	**X**				LCG Table 3 >UCL=J; <LCL=J/UJ/R;
9. Was a second source (ICV) verification performed after the ICAL? Were the avg of all peaks for each aroclor 80-120%?	X				QSM Table F-2 >120%=J; <80%=J/ UJ/R
10. Were single standards of the other five Aroclors run to aid in pattern recognition and to determine a single point calibration factor?			**X**	All other aroclors calibrated.	Method 8082 Section 5.6.2
11. Was a CCV run every 12 hours?	**X**				QSM Table F-2

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Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 19, 2012

SDG: 240-16465-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
12. Was the % D ≤ 20 % for each analyte?	X				QSM Table F-2 D>20%(neg)=J/R D>20% (pos) =J
13. Was a method blank prepared and analyzed with each batch?	X			Section checked by ADR	QSM Table F-2
14. Were target analytes <1/2 the MRL?	X				QSM Table F-2 <5x = B
15. Was an equipment blank collected and analyzed?	X				
16. Were target analytes in the field blank analyses (equipment) <1/2 the MRL?	X			Section checked by ADR	QSM Table F-2 <5x = B
17. Was an LCS prepared and analyzed with each batch?	X				QSM Table F-2
18. Were the LCS recoveries within limits specified in LCG Appendix C?	X			Section checked by ADR	QSM Table F-2, Table G-16 >UL=J; <LCL%=J/R/UJ;
19. Was a MS/MSD pair prepared with each batch?			X		LCG Table 3
20. Was the MS/MSD parent a Ravenna sample?			X	Not enough sample volume for spike analysis.	
21. Were MS/MSD recoveries and RPD within limits specified in the DOD QSM Table G-16?			X		QSM Table F-2, Table G-16 >UL=J; <LCL%=J/R/UJ;
22. Was the surrogate spiked into all samples?	X				
23. Were surrogate recoveries As specified in table G-3 of the DoD QSM?		X		Checked by ADR. The surrogate, DCB, recovered below control limits of 40-135% for sample FWGB12mw-013-0158-GW at 27% on CLP2 and 26% on CLP-1, for sample FWGFWGmw-005-0168-GW at 29% on CLP2 and 26% on CLP-1, for sample FWGFWGmw-009-0172-GW at 33% on CLP2 and 32% on CLP-1, for sample FWGFWGmw-008-0171-GW at 22% on CLP2 and 21% on CLP-1, for sample FWGNTAmw-119-0172-GW at 33% on CLP2 and 32% on CLP-1, for sample FWGFWGmw-014-0172-GW at 39% on CLP2 and 36%. On CLP-1 DCB recovered below control at 35% for sample FWGFWGmw-015-0179-GW at 35% and	QSM Table F-2, Table G-3 >UCL=J; <LCL=J/UJ/R

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 19, 2012

SDG: 240-16465-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				for sample FWGLL12mw-247-0192-GW at 36%. TCMX recovered above control limits of 40-140% for sample FWGNTAmw-119-0172-GW at 174% on CLP1. The results for FWGB12mw-013-0158-GW, FWGFWGmw-005-0168-GW, FWGFWGmw-009-0172-GW, FWGFWGmw-008-0171-GW, FWGNTAmw-119-0172-GW and FWGFWGmw-014-0172-GW were qualified as estimated, "UJ". No qualifications were made to the results for samples FWGLL12mw-247-0192-GW and FWGFWGmw-015-0179-GW as there were no detected concentrations reported and the surrogate outlier was on the confirmation column.	
24. Was a field duplicate analyzed? Were the RPDs <50%?			X	Checked by ADR. No detected concentrations were reported.	QSM Table F-2, RPD >50=J
25. Were all positive results verified by a second dissimilar column confirmation? Was the RPD ≤ 40?			X	No detected concentrations were reported.	QSM Table F-2, RPD>40=J

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 27, 2012

SDG: 240-16465-1
Analysis: SW846 9012

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Does the initial calibration curve consist of at least 6 standards and one blank, with the correlation coefficient R $\geq$ 0.995? ?	X				*DoD QSM Table F-10* R
7. Were a high and low standard distilled and analyzed with results within $\pm$ 15%?	X				*DoD QSM Table F-10* R
8. Was an LOD Verification performed at least once per quarter with all target analytes detected?	X			8/7/12	LCG Table 10 R
9. Was a MRL Level Verification performed at the beginning of every and end of the daily sequence? Were results within 70-130%?	X			10/25/12 @ 1105, 1217, 1438 and 1512	LCG Table 10, LS >130%=J; 65-70%=J/UJ; <65%=J/R
10. Was a second source verification (ICV) analyzed after the ICAL and all analytes 85-115%?	X				*DoD QSM Table F-10* >115%=J; 80-85%=J/UJ; <80%=J/R
11. Was a method blank prepared and analyzed with each batch?	X				*DoD QSM Table F-10*
12. Were target analytes detected in the method blank >1/2 the MRL?		X		Checked by ADR.	*DoD QSM Table F-10* <5x=B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes in the field blank analyses <1/2 the MRL?	X				*DoD QSM Table F-10* <5x=B
15. Was a field duplicate analyzed? Were the RPDs $\leq$20%?	X			Checked by ADR.	>30% = J
16. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-10

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Data Reviewer/Date: Angela Dragotta/ November 27, 2012

SDG: 240-16465-1
Analysis: SW846 9012

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
17. Were the LCS recoveries 80-118%?	X			Checked by ADR.	*DoD QSM Table F-10* Lab Limits >118%=J; 50-79%=J/UJ; <50%=R
18. Was a MS and duplicate (sample or matrix) prepared once per every 10 samples?	X				DoD QSM Table F-10
19. Was the MS parent a Ravenna sample?	X				
20. Were matrix spike recoveries 42-140%?	X			Checked by ADR.	DoD QSM Table F-10 >140%=J; <42%=J/UJ/R

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011
Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 27, 2012

SDG: 240-16465-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Was a LOD Verification performed once per quarter with all target analytes detected?	X			ICP 7/10/12, ICPMS 7/12/12 and mercury, 7/13/12	DoD QSM Table F-8
7. Tuning (ICP MS Only)					
7a. Was a tune performed daily prior to calibration	X				DoD QSM Table F-8 R
7b. Mass Calibration <0.1 amu from true value	X				
7c. Resolution <0.9 amu full width at 10 % peak height	X				
7d. RSD <%5 for a minimum of four replicate analyses	X				
8.Calibration	X				
8a. Was the ICAL performed daily with at least	X				DoD QSM Tables F-8 and F-7
3 standards and a blank for ICP	X				
2 standards and a blank for ICP MS	X				
5 standards and a blank for Hg	X				
8b. Was the correlation coefficient r≥0.995 for each analyte?	X				DoD QSM Tables F-8 and F-7 r<0.995=J/R
8c. Was the ICV (second source verification) analyzed after the ICAL with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7
8d. Was the ICB analyzed after the ICV with detected results <1/2 the MRL?	X			ICP The ICB analyzed 10/23/12 had vanadium detected at 2.68ug/L. The vanadium results	DoD QSM Tables F-8 and F-7

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Project Number: 030174.0016
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Data Reviewer/Date: Angela Dragotta/ November 27, 2012

SDG: 240-16465-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				for samples FWGB12mw-013-0158-GF, FWGFWGmw-003-166-GF, FWGFWGmw-005-168-GF, FWGFWGmw-006-169-GF, FWGFWGmw-007-170-GF, FWGFWGmw-008-171-GF, FWGFWGmw-009-172-GF, FWGFWGmw-014-178-GF, FWGFWGmw-016-180-GF, FWGLL11mw-012-0189-GF, FWGLL12mw-247-0192-GF and FWGCBLmw-005-0159-GW were qualified, "U". ICPMS The ICB analyzed 10/26/12 had thallium detected at 0.491ug/L. The thallium result for sample FWGLL3mw-244-0183-GF was qualified, "U".	< 5x = U
Sample Analysis					
9. Was a MRL Level Verification performed at the beginning of the daily sequence and end of the analytical sequence bracketing samples? Were results 70-130%?	X				LS to the DoD QSM DoD QSM Table G-18 >130%=J; 70-80%=J/UJ; <70%=J/UJ <65%=R, unless DL check with detected results
10. Were CCVs analyzed every 10 samples and at the end of the analytical sequence with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7 >110%=J, <85%=J/R 90-85%=J/UJ;
11. Were the CCBs run every 10 samples and at the end of the analytical sequence? Were results <1/2 the MRL?		**X**		ICP The CCBs analyzed 10/23/12 had vanadium detected from 2.16ug/L to 3.0ug/L. The vanadium results for samples FWGB12mw-013-0158-GF, FWGFWGmw-003-166-GF, FWGFWGmw-005-168-GF, FWGFWGmw-006-169-GF, FWGFWGmw-007-170-GF, FWGFWGmw-008-171-GF, FWGFWGmw-009-172-GF, FWGFWGmw-014-178-GF, FWGFWGmw-016-180-GF, FWGLL11mw-012-0189-GF, FWGLL12mw-247-0192-GF and FWGCBLmw-005-0159-GW were qualified, "U". ICPMS The CCBs analyzed 10/26/12 had thallium detected from 0.373 to 0.632ug/L, cadmium from 0.041ug/L to 0.09ug/L and beryllium from 0.059ug/L to 0.082ug/L. The thallium result for sample FWGLL3mw-244-0183-GF was qualified, "U". The beryllium results for samples FWGFWGmw-003-166-GF, FWGFWGmw-007-170-GF, FWGFWGmw-009-172-GF, FWGLL12mw-247-0192-GF and FWGCBLmw-005-0159-GW were qualified, "U". The cadmium results for samples FWGB12mw-013-0158-GF, FWGFWGmw-003-166-GF, FWGFWGmw-007-170-GF, FWGFWGmw-006-169-GF, FWGLL11mw-012-0189-GF, FWGFWGmw-014-0178-	DoD QSM Tables F-8 and F-7 <5x = U

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 27, 2012

SDG: 240-16465-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				GF and FWGCBLmw-005-0159-GW were qualified, "U".	
12. Was an Interelement Check Standard run at the beginning of the analytical sequence and every 12 hours with the ICS recovery within 80 to 120% of true value for each element of interest (ICP and ICPMS only)?	X				DoD QSM Tables F-8 and F-7 >120%=J; 50-79%=J/UJ; <50%=Pj/R
13. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
14. Were target analytes <1/2 the MRL in the method blank?		X		Checked by ADR. ICP-The method blank from batch 240-62201 had vanadium detected at 1.31ug/L. The vanadium results for samples FWGFWGmw-003-166-GF, FWGFWGmw-006-169-GF, FWGFWGmw-014-178-GF and FWGCBLmw-005-0159-GW were qualified, "B". ICPMS-The method blank from batch 240-62240 had beryllium detected at 0.14ug/L, cadmium at 0.189ug/L and zinc at 9.35ug/L. The method blank from batch 240-62201 had zinc detected at 9.02ug/L. The zinc and beryllium results for samples FWGLL12mw-247-192-GF and FWGFWGmw-009-0172-GF were qualified "B". The zinc results for samples FWGFWGmw-003-166-GF, FWGFWGmw-007-170-GF, and FWGCBLmw-005-0159-GW were qualified "B". The cadmium results for samples FWGB12mw-013-0158-GF and FWGLL11mw-012-0189-GF were qualified, "B".	DoD QSM Tables F-8 and F-7 <5x = B
15. Was a field blank collected and analyzed?	X				
16. Were target analytes reported in the field blank analyses >1/2 the MRL?		X		ADR checked section.	DoD QSM Tables F-8 and F-7
17. Was a LCS prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
18. Were the LCS recoveries within limits specified in LCG Appendix C?	X			Checked by ADR.	DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R
19. Was a matrix spike (MS) and lab duplicate sample prepared with each batch?			X	No evaluation was made as the matrix spike was from another workorder.	DoD QSM Tables F-8 and F-7
20. Was the MS and Lab Duplicate parent a Ravenna sample?			X		

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 27, 2012

SDG: 240-16465-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
21. Were the MS recoveries within 80-120%?			X		DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R All samples in batch
22. Was the lab sample duplicate RPD ≤ 20%?			X	Analyzed on a sample from another work order.	DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
23. Was a serial dilution performed, with the five fold dilution within ± 10% of the original result?			X	No data provided for evaluation.	DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
24. Was a Post Digestion Spike analyzed as needed? Were results within 75-125%?			X	No data provided for evaluation.	LCG Table 7 >125%=J; 30-75%=J/UJ; <30%=R
25. Was a field duplicate analyzed? Were the RPDs ± 50% for sample results detected above the LOD?			X	Checked by ADR. No field duplicate collected or analyzed with this work order.	QAPP Table 3-2 >30% = J parent sample only
26. Were internal standards added to all ICPMS samples with intensity within 30-120% of the intensity of the ICAL internal standard?	X				DoD QSM Table F-8 >120%=J/R <20%=J

References:

- *DoD Quality Systems Manual (QSM), version 4.1, October 2010*
- *Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007*
- *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012*
- *Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011*

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 28, 2012

SDG: 240-16465 R0
Analysis: SW846 8330 Explosives

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a LOD Verification analyzed once per quarter with all target analytes detected?	X			LC10 9/1/12 @ 1911 LC12 10/1/12 @ 0029	DoD QSM Table F-3, R
7.Calibration					
7a. Does the initial calibration curve consist of 5 concentration levels? (6 stds for quadratic curves)	X			LC10 9/1/12 LC12 10/1/12, 2-nitrotoluene coelutes with 4-nitrotoluene, LC12 not used as primary reporting column of 2-nitrotoluene and 4-nitrotoluene	DoD QSM Table F-3 R
7b. Did all target analytes using avg response have an RSD $\leq$ 15%?	X				
7c. If a linear regression curve was used, was the correlation coefficient r≥0.995? (0.990 for Quadratic curve).			X		
8. Was a second source verification (ICV) analyzed after the ICAL and all analytes 80-120%?	X			LC10 9/1/12 1751 LC12 10/1/12 @2324	DoD QSM Table F-3 >120%=J; <80%= J/UJ;
Sample Analysis					
9. Was a CCV run at the beginning of the analytical sequence, every 10 samples and at the end of the analytical run with targets and surrogates recovering 80-120% of the true value?	X				DoD QSM Table F-3 J/UJ
10. Was a MRL Level verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D < 30%?		X		10/31/12 @ 1444- The MRL recovered above control limits of 70-130% for 3-nitrotoluene at 131%. No qualifications were required as there were no detected concentrations of for 3-nitrotoluene reported for the associated field samples. 11/1/12 @ 1214- The MRL recovered above control limits of 70-130% for HMX at 133%, nitrobenzene at 134%, 4-amino- 2,6-dinitrotoluene at 135%, 2,6-dinitrotoluene at 146% and 4-nitrotoluene at 133%. The 4-	LCG Table 5 >30%=J

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 28, 2012

SDG: 240-16465 R0
Analysis: SW846 8330 Explosives

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
				amino- 2,6-dinitrotoluene result for sample FWGLL3mw-244-0183-GW was qualified as estimated, "J". No additional qualifications were required as there were no detected concentrations of HMX, nitrobenzene, 2,6-dinitrotoluene or 4-nitrotoluene reported for the bracketed field samples. Closing MRL check data was not provided for LC12. No qualifications were made as LC12 was used for confirmation only.	
11. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Table F-3
12. Were target analytes detected in the method blank <1/2 the MRL?	X			Checked by ADR. A filter blank was prepped and analyzed with 1,3,5-trinitrobenzene detected at 0.0543ug/L. No qualifications were made as there were no detected 1,3,5-trinitrobenzene results reported for the associated field samples.	DoD QSM Table F-3 <5x = B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes detected in the field blank analyses > ½ the MRL?		X		Checked by ADR	DoD QSM Table F-3 <5x=B
15. Was a field duplicate analyzed? Were the RPDs ≤30%?	X				RPD >30=J
16. Were all positive results confirmed with a second column confirmation? Were the RPDs ≤ 40%?	X			No detected concentrations were reported.	DoD QSM Table F-3 RPD>40%=J
17. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-3
18. Were the LCS recoveries within limits specified in table G-12 of the DoD QSM?	X			Checked by ADR.	DoD QSM Table F-3 <UL=J; 30-LL=J/UJ; <30%=J/R
19.Was a MS/MSD or MS and sample duplicate prepared with each batch?			X	No sample specified from this work order for matrix spike analysis.	DoD QSM Table F-3
20. Were MS/MSD recoveries within limits specified in table G-12 of the DoD QSM with an RPD ≤20%?			X		DoD QSM Table F-3 Pj
21. Were surrogate recoveries within laboratory limits (79-111%)?		X		The surrogate 3,4-dinitrotoluene recovered above control limits of 79-111% on LC12 for sample FWGEQUIPRINSE2-0213-GW at 139%. No qualifications were required as there were no detected concentrations reported for FWGEQUIPRINSE2-0213-GW.	QSM Tables F-2 >UL=J; <LL =J/UJ

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 28, 2012

SDG: 240-16465 R0
Analysis: SW846 8330 Explosives

References: DoD Quality Systems Manual (QSM), version 4.1, October 2010
Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007
Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012
Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 28, 2012

SDG: 240-16465-1
Analysis: SW846 8330M Nitroguanidine

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a LOD Verification analyzed once per quarter with all target analytes detected?	X			10/17/12 @1124	DoD QSM Table F-3 R
7.Calibration					
7a. Does the initial calibration curve consist of 5 concentration levels? (6 stds for quadratic curves)	X			PDA-1 10/17/12	DoD QSM Table F-3 R
7b. Did all target analytes using avg response have an RSD $\leq$ 15% ?	X				
7c. If a linear regression curve was used, was the correlation coefficient r$\geq$0.995? (0.990 for Quadratic curve).			X		
7d. Did reanalysis of the low level standard after calibration, recover within 15%?	X			10/17/12 @1138	
8. Was a second source verification (ICV) analyzed after the ICAL and all analytes 80-120%?	X			10/17/12 @ 1110	DoD QSM Table F-3 >120%=J; <80%= J/UJ;
Sample Analysis					
9. Was a CCV run at the beginning of the analytical sequence, every 10 samples and at the end of the analytical run with targets and surrogates recovering 80-120% of the true value?	X			11/3/12 @ 0245, 0523, 0800, 0926,	DoD QSM Table F-3 J/UJ
10. Was a MRL Level verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D < 30%?	X			11/3/12 @ 0008, 0940	LCG Table 5 >30%=J
11. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Table F-3

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/November 28, 2012

SDG: 240-16465-1
Analysis: SW846 8330M Nitroguanidine

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
12. Were target analytes detected in the method blank <1/2 the MRL?		X		Checked by ADR.	DoD QSM Table F-3 <5x = B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes detected in the field blank analyses < ½ the MRL?		X		Checked by ADR.	DoD QSM Table F-3 <5x=B
15. Was a field duplicate analyzed? Were the RPDs ≤30%?	X				RPD >30=J
16. Were all positive results confirmed with a second column confirmation? Were the RPDs ≤ 40%?			X	No detected concentrations were reported.	DoD QSM Table F-3 RPD>40%=J
17. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-3
18. Were the LCS recoveries within laboratory limits of 79%-119%?	X			Checked by ADR.	DoD QSM Table F-3 <UL=J; 30-LL=J/UJ; <30%=J/R
19. Was a MS/MSD or MS and sample duplicate prepared with each batch?	X			FWGFWGmw-003-0166-GW	DoD QSM Table F-3
20. Were MS/MSD recoveries within laboratory limits of 40%-150% with an RPD ≤20%?	X				DoD QSM Table F-3 Pj

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 28, 2012

SDG: 240-16465-1
Analysis: TAL SOP WS-WC-0050

Review Questions:	Yes	No	N/A	Comments	Qualifier
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Does the initial calibration curve consist of 5 concentration levels with the low standard near but > MDL?	X				STL SOP Section 10.2 R
7. Was the correlation coefficient >0.995?	X				STL SOP Section 10.2
8. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D <30%?	X			10/23/12 @ 1146, 1206, and 1235 10/25/12 @ 1457, 1517, 1545 and 1557	LCG Table 5 >30%=J
9. Was a second source verification (ICV) analyzed after the ICAL? Were all analytes 90-110%?	X				STL SOP Section 9.8, 10.3, LCG >110%=J; 90-85%=J/UJ; <85%=J/R
10. Was the ICB analyzed after the ICV with results <1/2 the MRL?	X				STL SOP Section 9.8, LCG ,< 5x = U
11. Was a CCV run every 10 samples and at the end of the analytical run?	X			10/23/12 @ 1208, 1237, and 1251 10/25/12 @ 1519, 1547 and 1559	STL SOP Section 10.4
12. Was the ICV and CCV a mid-level standard from the initial calibration curve?	X				STL SOP Section 10.3.1
13. Were all CCV calibration analytes within 90-110%?	X				STL SOP Section 10.4, >110%=J; 85-90%=J/UJ; <85%=J/R
14. Was the ICB analyzed after the ICV with results <1/2 the MRL?	X				STL SOP Section 10.4, QSM, < 5x = U

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 28, 2012

SDG: 240-16465-1
Analysis: TAL SOP WS-WC-0050

Review Questions:	Yes	No	N/A	Comments	Qualifier
15. Was the Nitrocellulose assay available and/or analyzed to be within 10%?	X				STL SOP Section 7.14.1, R
16. Was a method blank prepared and analyzed with each batch?	X				
17. Were target analytes detected in the method blank <1/2 the MRL?		X		ADR checked section.	STL SOP Section 9.4, LCG, *<5x=B*
18. Was a field blank collected and analyzed?	X				
19. Were target analytes detected in the field blank analyses <1/2 the MRL?		X			<5x=B
20. Was a field duplicate analyzed? Were the RPDs ≤30%?	X			ADR checked section.	QAPP Table 3-2 RPD > 30% = J
21. Was an LCS prepared and analyzed with each batch? Was the LCS recovery within lab's in-house limits% (26-144%)?	X				>UL%=J; 50-LL%=J/UJ; <50%=J/R
22. Was a MS/MSD pair prepared with each batch?	X				
23. Was the MS/MSD parent a Ravenna sample?	X			FWGFWGmw-008-0171-GW	
24. Were MS/MSD recoveries 26-144% and RPD ≤20?	X			ADR checked section.	Method EPA 353.2 Section 9.4.2 >UL%=J; <LL%=J/UJ; RPD>20%=J/UJ

References:

STL SOP SAC-WC-0050 "Preparation and Analysis of Nitrocellulose in Aqueous and Soil/Sediment Samples by Colorimetric Autoanalyzer", Jan 2007, rev. 2.0

DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 28, 2012

SDG: 240-16465-1
Analysis: EPA 353.2

Review Questions:	Yes	No	N/A	Comments	Qual/Crtieria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				*QAPP Table 5-1, NELAC*
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Was the Linear Calibration Range verified using 3 standards and 1 blank?	X				Method EPA 353.2 Section 9.2.2, *J*
7. Were the calibration standards verified by preparation and analysis of a Quality Control Sample? Were results within 10% of the stated values?	X				Method EPA 353.2 Section 9.2.3 Pj
8. Was an Instrument Performance Check Solution (CCV) analyzed immediately following daily calibration, after every 10th sample, and at the end of the analytical sequence?	X				Method EPA 353.2 Section 9.3.4
9. Was the CCV a mid-level standard from the initial calibration curve, with recovery 90-110%?	X				Method EPA 353.2 Section 9.3.4 >110%=J; <85%=J/R 85-90%=J/UJ;
10. Was an MRL check standard analyzed at the beginning and end of each analytical run, with recoveries 70-130%	X				LCG >130%=J; <70%=J/UJ;
11.Was a method blank and a calibration blank prepared and analyzed with each batch?	X				Method EPA 353.2 Section 9.3.1, 9.3.4
12. Were target analytes detected in the method blank or calibration blank >1/2 the MRL?		X		ADR checked section; Nitrate-Nitrite was detected in the method blank at 0.013mg/L. The results for samples FWGFWGEQUIPRinse2-0213-GW, FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified, "B".	<5x = B
13. Was a field blank (trip or equipment) collected and analyzed?	X				

Ravenna, OH Data Review Checklist

Project Number: 030174.0016 **SDG:** 240-16465-1
Sample Event: October 2012 **Analysis:** EPA 353.2
Data Reviewer/Date: Angela Dragotta/ November 28, 2012

Review Questions:	Yes	No	N/A	Comments	Qual/Crtieria
14. Were target analytes detected in the field blank analyses (trip or equipment) >1/2 the MRL?	X			ADR checked section; FWGFWGEQUIPRINSE2-0213-GW had nitrate-nitrite detected at 0.015mg/L. Samples FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified, "B".	<5x=B
15. Was a field duplicate analyzed? Were the RPDs acceptable?	X				
16. Was an LCS prepared and analyzed with each batch? Was the LCS recovery within 90-110%?	X				Method EPA 353.2 Section 9.3.3 J/UJ; <50%= R
17. Was a MS/MSD pair prepared with each batch?	X				*Method EPA 353.2 Section 9.4.1*
18. Was the MS/MSD parent sample a Ravenna sample?	X			Sample FWGLL12mw-247-0192-GW was the parent sample used for matrix spike analysis.	
19. Were MS/MSD recoveries and RPD within acceptance criteria?		X		ADR checked section; The MS and MSD analyzed on sample FWG*LL12*mw-*247*-0192-GW recovered below limits of 90-120% at 44% and 45%. The nitrate –nitrite results for samples FWGFWGEQUIPRinse2-0213-GW, FWGLL12mw-247-0192-GW and FWGLL12mw-DUP6-0203-GW were qualified as estimated, "J".	*Method EPA 353.2 Section 9.4.2* *Pj*

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011
Additional Comments:

Appendix II

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
353.2	FWGFWGEquipRinse2-0213-GW	AQ	EB							
				Nitrate-Nitrite	0.012	0.015J		JB	mg/L	Mb, Ms
353.2	FWGLL12mw-247-0192-GW	AQ	N							
				Nitrate-Nitrite	0.012	0.033J		JB	mg/L	Mb, Eb, M
353.2	FWGLL12mw-DUP6-0203-GW	AQ	FD							
				Nitrate-Nitrite	0.012	0.030J		JB	mg/L	Mb, Eb, M
6010B	FWGB12mw-013-0158-GF	AQ	N							
				COBALT	4.0	1.9J		J	ug/L	RI
				VANADIUM	4.0	2.9J		U	ug/L	Cb
6010B	FWGCBLmw-005-0159-GF	AQ	N							
				VANADIUM	4.0	4.0J		UB	ug/L	Mb, Cb
6010B	FWGFWGmw-003-0166-GF	AQ	N							
				ARSENIC	10	5.3J		J	ug/L	RI
				CHROMIUM	4.0	2.8J		J	ug/L	RI
				VANADIUM	4.0	3.4J		UB	ug/L	Mb, Cb
6010B	FWGFWGmw-005-0168-GF	AQ	N							
				COBALT	4.0	2.0J		J	ug/L	RI
				VANADIUM	4.0	1.8J		U	ug/L	RI
6010B	FWGFWGmw-006-0169-GF	AQ	N							
				ARSENIC	10	5.1J		J	ug/L	RI
				COBALT	4.0	1.6J		J	ug/L	RI
				VANADIUM	4.0	1.5J		UB	ug/L	Mb, Cb

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
6010B	FWGFWGmw-007-0170-GF	AQ	N							
				ARSENIC	10	6.9J		J	ug/L	RI
				COPPER	10	5.8J		J	ug/L	RI
				LEAD	5.0	3.2J		J	ug/L	RI
				VANADIUM	4.0	10		U	ug/L	Cb
6010B	FWGFWGmw-008-0171-GF	AQ	N							
				ARSENIC	10	7.5J		J	ug/L	RI
				CHROMIUM	4.0	1.9J		J	ug/L	RI
				VANADIUM	4.0	2.0J		U	ug/L	Cb
6010B	FWGFWGmw-009-0172-GF	AQ	N							
				CHROMIUM	4.0	2.1J		J	ug/L	RI
				VANADIUM	4.0	2.2J		U	ug/L	Cb
6010B	FWGFWGmw-014-0178-GF	AQ	N							
				VANADIUM	4.0	1.8J		UB	ug/L	Mb, Cb
6010B	FWGFWGmw-015-0179-GF	AQ	N							
				ARSENIC	10	6.4J		J	ug/L	RI
				CHROMIUM	4.0	1.4J		J	ug/L	RI
				COBALT	4.0	2.2J		J	ug/L	RI
				NICKEL	5.0	3.0J		J	ug/L	RI
6010B	FWGFWGmw-016-0180-GF	AQ	N							
				ARSENIC	10	6.2J		J	ug/L	RI
				VANADIUM	4.0	1.5J		U	ug/L	Cb
6010B	FWGFWGmw-DUP2-0200-GF	AQ	FD							
				COBALT	4.0	2.0J		J	ug/L	RI
6010B	FWGLL11mw-012-0189-GF	AQ	N							
				VANADIUM	4.0	1.9J		U	ug/L	Cb

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
6010B	FWGLL12mw-247-0192-GF	AQ	N							
				COBALT	4.0	2.7J		J	ug/L	RI
				VANADIUM	4.0	6.3J		U	ug/L	Cb
6010B	FWGLL3mw-244-0183-GF	AQ	N							
				MANGANESE	5.0	1.9J		J	ug/L	RI
6020	FWGB12mw-013-0158-GF	AQ	N							
				CADMIUM	0.070	0.12J		UB	ug/L	Mb, Cb
6020	FWGCBLmw-005-0159-GF	AQ	N							
				BERYLLIUM	0.10	0.071J		U	ug/L	Cb
				CADMIUM	0.070	0.16J		U	ug/L	Cb
				ZINC	20	9.1J		B	ug/L	Mb
6020	FWGFWGmw-003-0166-GF	AQ	N							
				BERYLLIUM	0.10	0.069J		U	ug/L	Cb
				CADMIUM	0.070	0.029J		U	ug/L	Cb
				ZINC	20	16J		UB	ug/L	Mb
6020	FWGFWGmw-006-0169-GF	AQ	N							
				ANTIMONY	0.50	0.31J		J	ug/L	RI
				CADMIUM	0.070	0.25J		U	ug/L	Cb
6020	FWGFWGmw-007-0170-GF	AQ	N							
				BERYLLIUM	0.10	0.23J		U	ug/L	Cb
				CADMIUM	0.070	0.23J		U	ug/L	Cb
				ZINC	20	38J		B	ug/L	Mb
6020	FWGFWGmw-009-0172-GF	AQ	N							
				BERYLLIUM	0.10	0.051J		UB	ug/L	Mb, Cb
				ZINC	20	12J		B	ug/L	Mb

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
6020	FWGFWGmw-014-0178-GF	AQ	N							
				CADMIUM	0.070	0.046J		U	ug/L	Cb
6020	FWGLL11mw-012-0189-GF	AQ	N							
				CADMIUM	0.070	0.25J		UB	ug/L	Mb, Cb
6020	FWGLL12mw-247-0192-GF	AQ	N							
				BERYLLIUM	0.10	0.15J		UB	ug/L	Mb, Cb
				ZINC	20	24J		B	ug/L	Mb
6020	FWGLL3mw-244-0183-GF	AQ	N							
				THALLIUM	1.0	0.32J		U	ug/L	Cb
8081A	FWGCBLmw-005-0159-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGFWGEquipRinse2-0213-GW	AQ	EB							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGFWGmw-003-0166-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGFWGmw-006-0169-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGFWGmw-007-0170-GW	AQ	N							
				TOXAPHENE	0.49	0.49U		UJ	ug/L	Lcs
8081A	FWGFWGmw-008-0171-GW	AQ	N							
				ENDRIN KETONE	0.0095	0.0075J		J	ug/L	RI, Ccv
8081A	FWGFWGmw-014-0178-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8081A	FWGFWGmw-015-0179-GW	AQ	N							
				DELTA-BHC	0.0095	0.013J		J	ug/L	Ccv
8081A	FWGLL11mw-012-0189-GW	AQ	N							
				ENDRIN KETONE	0.0097	0.014J		J	ug/L	Ccv
8081A	FWGLL3mw-244-0183-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGNTAmw-119-0193-GW	AQ	N							
				METHOXYCHLOR	0.62	0.62U		R	ug/L	ProfJudg
8082	FWGB12mw-013-0158-GW	AQ	N							
				AROCLOR 1016	0.22	0.22U		UJ	ug/L	Surr
				AROCLOR 1221	0.22	0.22U		UJ	ug/L	Surr
				AROCLOR 1232	0.22	0.22U		UJ	ug/L	Surr
				AROCLOR 1242	0.44	0.44U		UJ	ug/L	Surr
				AROCLOR 1248	0.22	0.22U		UJ	ug/L	Surr
				AROCLOR 1254	0.22	0.22U		UJ	ug/L	Surr
				AROCLOR 1260	0.22	0.22U		UJ	ug/L	Surr
8082	FWGFWGmw-005-0168-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1221	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1232	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1242	0.38	0.38U		UJ	ug/L	Surr
				AROCLOR 1248	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1254	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1260	0.19	0.19U		UJ	ug/L	Surr

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8082	FWGFWGmw-006-0169-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE
8082	FWGFWGmw-007-0170-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE
8082	FWGFWGmw-008-0171-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1221	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1232	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1242	0.38	0.38U		UJ	ug/L	Surr
				AROCLOR 1248	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1254	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1260	0.19	0.19U		UJ	ug/L	Surr

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8082	FWGFWGmw-009-0172-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1221	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1232	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1242	0.38	0.38U		UJ	ug/L	Surr
				AROCLOR 1248	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1254	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1260	0.19	0.19U		UJ	ug/L	Surr
8082	FWGFWGmw-014-0178-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1221	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1232	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1242	0.38	0.38U		UJ	ug/L	Surr
				AROCLOR 1248	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1254	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1260	0.19	0.19U		UJ	ug/L	Surr
8082	FWGFWGmw-015-0179-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8082	FWGFWGmw-DUP2-0200-GW	AQ	FD							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE
8082	FWGLL12mw-247-0192-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE
8082	FWGNTAmw-119-0193-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1221	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1232	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1242	0.38	0.38U		UJ	ug/L	Surr
				AROCLOR 1248	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1254	0.19	0.19U		UJ	ug/L	Surr
				AROCLOR 1260	0.19	0.19U		UJ	ug/L	Surr
8260B	FWG TEAM 1 TRIP	AQ	TB							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8260B	FWG TEAM 2 TRIP	AQ	TB							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWG TEAM 3 TRIP	AQ	TB							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGB12mw-013-0158-GW	AQ	N							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8260B	FWGCBLmw-005-0159-GW	AQ	N							
				1,1,1-TRICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2,2-TETRACHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2-TRICHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DIBROMOETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHENE (TOTAL)	0.50	0.50U		UJ	ug/L	ProfJudg
				1,2-DICHLOROPROPANE	0.25	0.25U		UJ	ug/L	ProfJudg
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	1.1J		JB	ug/L	Tb, Eb, Su
				BENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOCHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				BROMODICHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOFORM	0.64	0.64U		UJ	ug/L	ProfJudg
				BROMOMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CARBON DISULFIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CHLOROFORM	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CIS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CIS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				DIBROMOCHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				METHYLENE CHLORIDE	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TETRACHLOROETHENE	0.50	0.50U		UJ	ug/L	ProfJudg
				TOLUENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				VINYL CHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGEquipRinse2-0213-GW	AQ	EB							
				ACETONE	1.1	9.4J		B	ug/L	Tb
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8260B	FWGFWGmw-003-0166-GW	AQ	N							
				1,1,1-TRICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2,2-TETRACHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2-TRICHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DIBROMOETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHENE (TOTAL)	0.50	0.50U		UJ	ug/L	ProfJudg
				1,2-DICHLOROPROPANE	0.25	0.25U		UJ	ug/L	ProfJudg
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	1.6J		JB	ug/L	Tb, Eb, Pr
				BENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOCHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				BROMODICHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOFORM	0.64	0.64U		UJ	ug/L	ProfJudg
				BROMOMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CARBON DISULFIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CHLOROFORM	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CIS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CIS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				DIBROMOCHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				METHYLENE CHLORIDE	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TETRACHLOROETHENE	0.50	0.50U		UJ	ug/L	ProfJudg
				TOLUENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				VINYL CHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-005-0168-GW	AQ	N							
				ACETONE	1.1	1.1J		B	ug/L	Tb, Eb
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-006-0169-GW	AQ	N							
				CARBON DISULFIDE	0.25	0.16J		J	ug/L	RI
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8260B	FWGFWGmw-007-0170-GW	AQ	N							
				1,1,1-TRICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2,2-TETRACHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2-TRICHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DIBROMOETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHENE (TOTAL)	0.50	0.50U		UJ	ug/L	ProfJudg
				1,2-DICHLOROPROPANE	0.25	0.25U		UJ	ug/L	ProfJudg
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	1.1U		UJ	ug/L	ProfJudg
				BENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOCHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				BROMODICHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOFORM	0.64	0.64U		UJ	ug/L	ProfJudg
				BROMOMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CARBON DISULFIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CHLOROFORM	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CIS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CIS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				DIBROMOCHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				METHYLENE CHLORIDE	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TETRACHLOROETHENE	0.50	0.50U		UJ	ug/L	ProfJudg
				TOLUENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				VINYL CHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-008-0171-GW	AQ	N							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-009-0172-GW	AQ	N							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8260B	FWGFWGmw-014-0178-GW	AQ	N							
				1,1,1-TRICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2,2-TETRACHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2-TRICHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DIBROMOETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHENE (TOTAL)	0.50	0.50U		UJ	ug/L	ProfJudg
				1,2-DICHLOROPROPANE	0.25	0.25U		UJ	ug/L	ProfJudg
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	1.3J		JB	ug/L	Tb, Eb, Pr
				BENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOCHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				BROMODICHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOFORM	0.64	0.64U		UJ	ug/L	ProfJudg
				BROMOMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CARBON DISULFIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CHLOROFORM	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CIS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CIS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				DIBROMOCHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				METHYLENE CHLORIDE	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TETRACHLOROETHENE	0.50	0.50U		UJ	ug/L	ProfJudg
				TOLUENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				VINYL CHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-015-0179-GW	AQ	N							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-016-0180-GW	AQ	N							
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGFWGmw-DUP2-0200-GW	AQ	FD							
				CARBON DISULFIDE	0.25	0.17J		J	ug/L	RI
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGLL11mw-012-0189-GW	AQ	N							
				ACETONE	1.1	1.1J		B	ug/L	Tb, Eb
				CHLOROETHANE	0.50	0.48J		J	ug/L	RI, ProfJu
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8260B	FWGLL12mw-247-0192-GW	AQ	N							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8260B	FWGLL3mw-244-0183-GW	AQ	N							
				1,1,1-TRICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2,2-TETRACHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1,2-TRICHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,1-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DIBROMOETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				1,2-DICHLOROETHENE (TOTAL)	0.50	0.50U		UJ	ug/L	ProfJudg
				1,2-DICHLOROPROPANE	0.25	0.25U		UJ	ug/L	ProfJudg
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	2.0J		JB	ug/L	Tb, Eb, Pr
				BENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOCHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				BROMODICHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				BROMOFORM	0.64	0.64U		UJ	ug/L	ProfJudg
				BROMOMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CARBON DISULFIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CARBON TETRACHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CHLOROFORM	0.25	0.25U		UJ	ug/L	ProfJudg
				CHLOROMETHANE	0.50	0.50U		UJ	ug/L	ProfJudg
				CIS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				CIS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				DIBROMOCHLOROMETHANE	0.25	0.25U		UJ	ug/L	ProfJudg
				ETHYLBENZENE	0.25	0.25U		UJ	ug/L	ProfJudg
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				METHYLENE CHLORIDE	0.50	0.50U		UJ	ug/L	ProfJudg
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TETRACHLOROETHENE	0.50	0.50U		UJ	ug/L	ProfJudg
				TOLUENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,2-DICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRANS-1,3-DICHLOROPROPENE	0.25	0.25U		UJ	ug/L	ProfJudg
				TRICHLOROETHENE	0.25	0.25U		UJ	ug/L	ProfJudg
				VINYL CHLORIDE	0.25	0.25U		UJ	ug/L	ProfJudg
				Xylene (Total)	0.75	0.75U		UJ	ug/L	ProfJudg
8260B	FWGNTAmw-119-0193-GW	AQ	N							
				ACETONE	1.1	2.2J		B	ug/L	Tb, Eb
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8270C-SVOC4	FWGFWGEquipRinse2-0213-GW	AQ	EB							
				Diethylphthalate	0.79	0.64J		J	ug/L	RI
8270C-SVOC4	FWGFWGmw-005-0168-GW	AQ	N							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGFWGmw-008-0171-GW	AQ	N							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGFWGmw-009-0172-GW	AQ	N							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGFWGmw-015-0179-GW	AQ	N							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGFWGmw-016-0180-GW	AQ	N							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGFWGmw-DUP2-0200-GW	AQ	FD							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16465-1										
8330	FWGLL3mw-244-0183-GW	AQ	N							
				4-AMINO-2,6-DINITROTOLUENE	0.10	0.53		J	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: GENCHEM

Method: 353.2 **Matrix: AQ**

Sample ID: FWGFWGEquipRinse2-0213-GW **Collected:** 10/16/2012 12:46:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-Nitrite	0.015	J	0.0053	MDL	0.012	LOD	mg/L	UJ	Ms, Mb

Sample ID: FWGLL12mw-247-0192-GW **Collected:** 10/16/2012 2:14:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-Nitrite	0.033	J	0.0053	MDL	0.012	LOD	mg/L	UJ	Ms, Mb, Eb

Sample ID: FWGLL12mw-DUP6-0203-GW **Collected:** 10/16/2012 2:32:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Nitrate-Nitrite	0.030	J	0.0053	MDL	0.012	LOD	mg/L	UJ	Ms, Mb, Eb

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: FWGB12mw-013-0158-GF **Collected:** 10/15/2012 4:50:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	1.9	J	1.5	MDL	4.0	LOD	ug/L	J	RI
VANADIUM	2.9	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: FWGCBLmw-005-0159-GF **Collected:** 10/16/2012 2:33:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	4.0	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: FWGFWGmw-003-0166-GF **Collected:** 10/16/2012 4:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.3	J	3.3	MDL	10	LOD	ug/L	J	RI
CHROMIUM	2.8	J	1.4	MDL	4.0	LOD	ug/L	J	RI
VANADIUM	3.4	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **METALS**

Method: **6010B** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-005-0168-GF** ***Collected:*** **10/16/2012 9:45:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	2.0	J	1.5	MDL	4.0	LOD	ug/L	J	RI
VANADIUM	1.8	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: **FWGFWGmw-006-0169-GF** ***Collected:*** **10/16/2012 9:43:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	5.1	J	3.3	MDL	10	LOD	ug/L	J	RI
COBALT	1.6	J	1.5	MDL	4.0	LOD	ug/L	J	RI
VANADIUM	1.5	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: **FWGFWGmw-007-0170-GF** ***Collected:*** **10/16/2012 1:03:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.9	J	3.3	MDL	10	LOD	ug/L	J	RI
COPPER	5.8	J	4.4	MDL	10	LOD	ug/L	J	RI
LEAD	3.2	J	1.7	MDL	5.0	LOD	ug/L	J	RI
VANADIUM	10		1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: **FWGFWGmw-008-0171-GF** ***Collected:*** **10/16/2012 1:55:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	7.5	J	3.3	MDL	10	LOD	ug/L	J	RI
CHROMIUM	1.9	J	1.4	MDL	4.0	LOD	ug/L	J	RI
VANADIUM	2.0	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: **FWGFWGmw-009-0172-GF** ***Collected:*** **10/16/2012 12:05:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	2.1	J	1.4	MDL	4.0	LOD	ug/L	J	RI
VANADIUM	2.2	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: **FWGFWGmw-014-0178-GF** ***Collected:*** **10/16/2012 11:13:00** ***Analysis Type:*** **RES/TOT** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.8	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6010B **Matrix:** AQ

Sample ID: FWGFWGmw-015-0179-GF **Collected:** 10/16/2012 4:50:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.4	J	3.3	MDL	10	LOD	ug/L	J	RI
CHROMIUM	1.4	J	1.4	MDL	4.0	LOD	ug/L	J	RI
COBALT	2.2	J	1.5	MDL	4.0	LOD	ug/L	J	RI
NICKEL	3.0	J	2.2	MDL	5.0	LOD	ug/L	J	RI

Sample ID: FWGFWGmw-016-0180-GF **Collected:** 10/16/2012 3:40:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.2	J	3.3	MDL	10	LOD	ug/L	J	RI
VANADIUM	1.5	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: FWGFWGmw-DUP2-0200-GF **Collected:** 10/16/2012 10:45:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	2.0	J	1.5	MDL	4.0	LOD	ug/L	J	RI

Sample ID: FWGLL11mw-012-0189-GF **Collected:** 10/16/2012 11:32:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.9	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: FWGLL12mw-247-0192-GF **Collected:** 10/16/2012 2:14:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
COBALT	2.7	J	1.5	MDL	4.0	LOD	ug/L	J	RI
VANADIUM	6.3	J	1.3	MDL	4.0	LOD	ug/L	U	Cb

Sample ID: FWGLL3mw-244-0183-GF **Collected:** 10/16/2012 4:24:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
MANGANESE	1.9	J	1.8	MDL	5.0	LOD	ug/L	J	RI

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGB12mw-013-0158-GF **Collected:** 10/15/2012 4:50:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.12	J	0.023	MDL	0.070	LOD	ug/L	U	Mb, Cb

Sample ID: FWGCBLmw-005-0159-GF **Collected:** 10/16/2012 2:33:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	9.1	J	8.8	MDL	20	LOD	ug/L	U	Mb

Sample ID: FWGCBLmw-005-0159-GF **Collected:** 10/16/2012 2:33:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.071	J	0.033	MDL	0.10	LOD	ug/L	U	Cb
CADMIUM	0.16	J	0.023	MDL	0.070	LOD	ug/L	U	Cb

Sample ID: FWGFWGmw-003-0166-GF **Collected:** 10/16/2012 4:03:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	16	J	8.8	MDL	20	LOD	ug/L	U	Mb

Sample ID: FWGFWGmw-003-0166-GF **Collected:** 10/16/2012 4:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.069	J	0.033	MDL	0.10	LOD	ug/L	U	Cb
CADMIUM	0.029	J	0.023	MDL	0.070	LOD	ug/L	U	Cb

Sample ID: FWGFWGmw-006-0169-GF **Collected:** 10/16/2012 9:43:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.31	J	0.21	MDL	0.50	LOD	ug/L	J	RI
CADMIUM	0.25	J	0.023	MDL	0.070	LOD	ug/L	U	Cb

Sample ID: FWGFWGmw-007-0170-GF **Collected:** 10/16/2012 1:03:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	38	J	8.8	MDL	20	LOD	ug/L	U	Mb

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGFWGmw-007-0170-GF **Collected:** 10/16/2012 1:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.23	J	0.033	MDL	0.10	LOD	ug/L	U	Cb
CADMIUM	0.23	J	0.023	MDL	0.070	LOD	ug/L	U	Cb

Sample ID: FWGFWGmw-009-0172-GF **Collected:** 10/16/2012 12:05:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	12	J	8.8	MDL	20	LOD	ug/L	U	Mb

Sample ID: FWGFWGmw-009-0172-GF **Collected:** 10/16/2012 12:05:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.051	J	0.033	MDL	0.10	LOD	ug/L	U	Mb, Cb

Sample ID: FWGFWGmw-014-0178-GF **Collected:** 10/16/2012 11:13:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.046	J	0.023	MDL	0.070	LOD	ug/L	U	Cb

Sample ID: FWGLL11mw-012-0189-GF **Collected:** 10/16/2012 11:32:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.25	J	0.023	MDL	0.070	LOD	ug/L	U	Mb, Cb

Sample ID: FWGLL12mw-247-0192-GF **Collected:** 10/16/2012 2:14:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	24	J	8.8	MDL	20	LOD	ug/L	U	Mb

Sample ID: FWGLL12mw-247-0192-GF **Collected:** 10/16/2012 2:14:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.15	J	0.033	MDL	0.10	LOD	ug/L	U	Mb, Cb

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGLL3mw-244-0183-GF **Collected:** 10/16/2012 4:24:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THALLIUM	0.32	J	0.32	MDL	1.0	LOD	ug/L	U	Cb

Method Category: SVOA

Method: 8081A **Matrix: AQ**

Sample ID: FWGCBLmw-005-0159-GW **Collected:** 10/16/2012 2:33:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGFWGEquipRinse2-0213-GW **Collected:** 10/16/2012 12:46:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGFWGmw-003-0166-GW **Collected:** 10/16/2012 4:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGFWGmw-006-0169-GW **Collected:** 10/16/2012 9:43:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGFWGmw-007-0170-GW **Collected:** 10/16/2012 1:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.49	U	0.31	MDL	0.49	LOD	ug/L	UJ	Lcs

Sample ID: FWGFWGmw-008-0171-GW **Collected:** 10/16/2012 1:55:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.0075	J	0.0074	MDL	0.0095	LOD	ug/L	J	RI, Ccv

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8081A **Matrix: AQ**

Sample ID: FWGFWGmw-014-0178-GW **Collected:** 10/16/2012 11:13:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGFWGmw-015-0179-GW **Collected:** 10/16/2012 4:50:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
DELTA-BHC	0.013	J	0.0083	MDL	0.0095	LOD	ug/L	J	Ccv

Sample ID: FWGLL11mw-012-0189-GW **Collected:** 10/16/2012 11:32:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.014	J	0.0076	MDL	0.0097	LOD	ug/L	J	Ccv

Sample ID: FWGLL3mw-244-0183-GW **Collected:** 10/16/2012 4:24:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGNTAmw-119-0193-GW **Collected:** 10/16/2012 9:42:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 20

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHOXYCHLOR	0.62	U	0.62	MDL	0.62	LOD	ug/L	R	ProfJudg

Method Category: SVOA

Method: 8082 **Matrix: AQ**

Sample ID: FWGB12mw-013-0158-GW **Collected:** 10/15/2012 4:50:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.22	U	0.19	MDL	0.22	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.22	U	0.14	MDL	0.22	LOD	ug/L	UJ	Surr
AROCLOR 1232	0.22	U	0.18	MDL	0.22	LOD	ug/L	UJ	Surr
AROCLOR 1242	0.44	U	0.24	MDL	0.44	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.22	U	0.11	MDL	0.22	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.22	U	0.18	MDL	0.22	LOD	ug/L	UJ	Surr
AROCLOR 1260	0.22	U	0.19	MDL	0.22	LOD	ug/L	UJ	Surr

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **SVOA**

Method: **8082** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-005-0168-GW** ***Collected:*** **10/16/2012 9:45:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.19	U	0.12	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1232	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1242	0.38	U	0.21	MDL	0.38	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.19	U	0.095	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1260	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr

Sample ID: **FWGFWGmw-006-0169-GW** ***Collected:*** **10/16/2012 9:43:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

Sample ID: **FWGFWGmw-007-0170-GW** ***Collected:*** **10/16/2012 1:03:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

Sample ID: **FWGFWGmw-008-0171-GW** ***Collected:*** **10/16/2012 1:55:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.19	U	0.12	MDL	0.19	LOD	ug/L	UJ	Surr

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **SVOA**

Method: **8082** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-008-0171-GW** ***Collected:*** **10/16/2012 1:55:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1232	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1242	0.38	U	0.21	MDL	0.38	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.19	U	0.095	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1260	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr

Sample ID: **FWGFWGmw-009-0172-GW** ***Collected:*** **10/16/2012 12:05:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.19	U	0.12	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1232	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1242	0.38	U	0.21	MDL	0.38	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.19	U	0.095	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1260	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr

Sample ID: **FWGFWGmw-014-0178-GW** ***Collected:*** **10/16/2012 11:13:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.19	U	0.12	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1232	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1242	0.38	U	0.21	MDL	0.38	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.19	U	0.095	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1260	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr

Sample ID: **FWGFWGmw-015-0179-GW** ***Collected:*** **10/16/2012 4:50:00** ***Analysis Type:*** **RES-BASE/NEUTRAL** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8082 **Matrix:** AQ

Sample ID: FWGFWGmw-015-0179-GW **Collected:** 10/16/2012 4:50:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

Sample ID: FWGFWGmw-DUP2-0200-GW **Collected:** 10/16/2012 10:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

Sample ID: FWGLL12mw-247-0192-GW **Collected:** 10/16/2012 2:14:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

Sample ID: FWGNTAmw-119-0193-GW **Collected:** 10/16/2012 9:42:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1221	0.19	U	0.13	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1232	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1242	0.38	U	0.21	MDL	0.38	LOD	ug/L	UJ	Surr
AROCLOR 1248	0.19	U	0.096	MDL	0.19	LOD	ug/L	UJ	Surr
AROCLOR 1254	0.19	U	0.15	MDL	0.19	LOD	ug/L	UJ	Surr

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8082 **Matrix: AQ**

Sample ID: FWGNTAmw-119-0193-GW **Collected:** 10/16/2012 9:42:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1260	0.19	U	0.16	MDL	0.19	LOD	ug/L	UJ	Surr

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix: AQ**

Sample ID: FWGFWGEquipRinse2-0213-GW **Collected:** 10/16/2012 12:46:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Diethylphthalate	0.64	J	0.59	MDL	0.79	LOD	ug/L	J	RI

Sample ID: FWGFWGmw-005-0168-GW **Collected:** 10/16/2012 9:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

Sample ID: FWGFWGmw-008-0171-GW **Collected:** 10/16/2012 1:55:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

Sample ID: FWGFWGmw-009-0172-GW **Collected:** 10/16/2012 12:05:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

Sample ID: FWGFWGmw-015-0179-GW **Collected:** 10/16/2012 4:50:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

Sample ID: FWGFWGmw-016-0180-GW **Collected:** 10/16/2012 3:40:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix: AQ**

Sample ID: FWGFWGmw-DUP2-0200-GW **Collected:** 10/16/2012 10:45:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

Method Category: SVOA

Method: 8330 **Matrix: AQ**

Sample ID: FWGLL3mw-244-0183-GW **Collected:** 10/16/2012 4:24:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-AMINO-2,6-DINITROTOLUENE	0.53		0.051	MDL	0.10	LOD	ug/L	J	ProfJudg

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: FWG TEAM 1 TRIP **Collected:** 10/15/2012 8:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWG TEAM 2 TRIP **Collected:** 10/16/2012 8:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWG TEAM 3 TRIP **Collected:** 10/16/2012 8:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWGB12mw-013-0158-GW **Collected:** 10/15/2012 4:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGCBLmw-005-0159-GW **Collected:** 10/16/2012 2:33:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,1-TRICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2,2-TETRACHLOROETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2-TRICHLOROETHANE	0.50	U	0.27	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DIBROMOETHANE	0.25	U	0.24	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHENE (TOTAL)	0.50	U	0.34	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROPROPANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	1.1	J	1.1	MDL	1.1	LOD	ug/L	UJ	Surr, Eb, ProfJudg, Tb
BENZENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOCHLOROMETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
BROMODICHLOROMETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOFORM	0.64	U	0.64	MDL	0.64	LOD	ug/L	UJ	ProfJudg
BROMOMETHANE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CARBON DISULFIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROBENZENE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CHLOROFORM	0.25	U	0.16	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROMETHANE	0.50	U	0.30	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CIS-1,2-DICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FWGCBLmw-005-0159-GW** ***Collected:*** **10/16/2012 2:33:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CIS-1,3-DICHLOROPROPENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
DIBROMOCHLOROMETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
METHYLENE CHLORIDE	0.50	U	0.33	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TETRACHLOROETHENE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
TOLUENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,2-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,3-DICHLOROPROPENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
VINYL CHLORIDE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: **FWGFWGEquipRinse2-0213-GW** ***Collected:*** **10/16/2012 12:46:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.4	J	1.1	MDL	1.1	LOD	ug/L	U	Tb
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: **FWGFWGmw-003-0166-GW** ***Collected:*** **10/16/2012 4:03:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,1-TRICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2,2-TETRACHLOROETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2-TRICHLOROETHANE	0.50	U	0.27	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DIBROMOETHANE	0.25	U	0.24	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHENE (TOTAL)	0.50	U	0.34	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROPROPANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-003-0166-GW** ***Collected:*** **10/16/2012 4:03:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	1.6	J	1.1	MDL	1.1	LOD	ug/L	UJ	Eb, ProfJudg, Tb
BENZENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOCHLOROMETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
BROMODICHLOROMETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOFORM	0.64	U	0.64	MDL	0.64	LOD	ug/L	UJ	ProfJudg
BROMOMETHANE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CARBON DISULFIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROBENZENE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CHLOROFORM	0.25	U	0.16	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROMETHANE	0.50	U	0.30	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CIS-1,2-DICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CIS-1,3-DICHLOROPROPENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
DIBROMOCHLOROMETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
METHYLENE CHLORIDE	0.50	U	0.33	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TETRACHLOROETHENE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
TOLUENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,2-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,3-DICHLOROPROPENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
VINYL CHLORIDE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: **FWGFWGmw-005-0168-GW** ***Collected:*** **10/16/2012 9:45:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.1	J	1.1	MDL	1.1	LOD	ug/L	U	Tb, Eb
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWGFWGmw-006-0169-GW **Collected:** 10/16/2012 9:43:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBON DISULFIDE	0.16	J	0.13	MDL	0.25	LOD	ug/L	J	RI
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-007-0170-GW **Collected:** 10/16/2012 1:03:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,1-TRICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2,2-TETRACHLOROETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2-TRICHLOROETHANE	0.50	U	0.27	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DIBROMOETHANE	0.25	U	0.24	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHENE (TOTAL)	0.50	U	0.34	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROPROPANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	1.1	U	1.1	MDL	1.1	LOD	ug/L	UJ	ProfJudg
BENZENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOCHLOROMETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
BROMODICHLOROMETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOFORM	0.64	U	0.64	MDL	0.64	LOD	ug/L	UJ	ProfJudg
BROMOMETHANE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CARBON DISULFIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROBENZENE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CHLOROFORM	0.25	U	0.16	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROMETHANE	0.50	U	0.30	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CIS-1,2-DICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CIS-1,3-DICHLOROPROPENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
DIBROMOCHLOROMETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-007-0170-GW** ***Collected:*** **10/16/2012 1:03:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
METHYLENE CHLORIDE	0.50	U	0.33	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TETRACHLOROETHENE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
TOLUENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,2-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,3-DICHLOROPROPENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
VINYL CHLORIDE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: **FWGFWGmw-008-0171-GW** ***Collected:*** **10/16/2012 1:55:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: **FWGFWGmw-009-0172-GW** ***Collected:*** **10/16/2012 12:05:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: **FWGFWGmw-014-0178-GW** ***Collected:*** **10/16/2012 11:13:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,1-TRICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2,2-TETRACHLOROETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2-TRICHLOROETHANE	0.50	U	0.27	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DIBROMOETHANE	0.25	U	0.24	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-014-0178-GW** ***Collected:*** **10/16/2012 11:13:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2-DICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHENE (TOTAL)	0.50	U	0.34	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROPROPANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	1.3	J	1.1	MDL	1.1	LOD	ug/L	UJ	Tb, Eb, ProfJudg
BENZENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOCHLOROMETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
BROMODICHLOROMETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOFORM	0.64	U	0.64	MDL	0.64	LOD	ug/L	UJ	ProfJudg
BROMOMETHANE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CARBON DISULFIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROBENZENE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CHLOROFORM	0.25	U	0.16	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROMETHANE	0.50	U	0.30	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CIS-1,2-DICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CIS-1,3-DICHLOROPROPENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
DIBROMOCHLOROMETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
METHYLENE CHLORIDE	0.50	U	0.33	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TETRACHLOROETHENE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
TOLUENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,2-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,3-DICHLOROPROPENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
VINYL CHLORIDE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWGFWGmw-015-0179-GW **Collected:** 10/16/2012 4:50:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-016-0180-GW **Collected:** 10/16/2012 3:40:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGFWGmw-DUP2-0200-GW **Collected:** 10/16/2012 10:45:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBON DISULFIDE	0.17	J	0.13	MDL	0.25	LOD	ug/L	J	RI
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGLL11mw-012-0189-GW **Collected:** 10/16/2012 11:32:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.1	J	1.1	MDL	1.1	LOD	ug/L	U	Tb, Eb
CHLOROETHANE	0.48	J	0.29	MDL	0.50	LOD	ug/L	J	RI, ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGLL12mw-247-0192-GW **Collected:** 10/16/2012 2:14:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FWGLL3mw-244-0183-GW** ***Collected:*** **10/16/2012 4:24:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,1,1-TRICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2,2-TETRACHLOROETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1,2-TRICHLOROETHANE	0.50	U	0.27	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,1-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DIBROMOETHANE	0.25	U	0.24	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHANE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROETHENE (TOTAL)	0.50	U	0.34	MDL	0.50	LOD	ug/L	UJ	ProfJudg
1,2-DICHLOROPROPANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	2.0	J	1.1	MDL	1.1	LOD	ug/L	UJ	Tb, Eb, ProfJudg
BENZENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOCHLOROMETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
BROMODICHLOROMETHANE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
BROMOFORM	0.64	U	0.64	MDL	0.64	LOD	ug/L	UJ	ProfJudg
BROMOMETHANE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CARBON DISULFIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CARBON TETRACHLORIDE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROBENZENE	0.25	U	0.15	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROETHANE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CHLOROFORM	0.25	U	0.16	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CHLOROMETHANE	0.50	U	0.30	MDL	0.50	LOD	ug/L	UJ	ProfJudg
CIS-1,2-DICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
CIS-1,3-DICHLOROPROPENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
DIBROMOCHLOROMETHANE	0.25	U	0.18	MDL	0.25	LOD	ug/L	UJ	ProfJudg
ETHYLBENZENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
METHYLENE CHLORIDE	0.50	U	0.33	MDL	0.50	LOD	ug/L	UJ	ProfJudg
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TETRACHLOROETHENE	0.50	U	0.29	MDL	0.50	LOD	ug/L	UJ	ProfJudg
TOLUENE	0.25	U	0.13	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: **VOA**

Method: **8260B** ***Matrix:*** **AQ**

Sample ID: **FWGLL3mw-244-0183-GW** ***Collected:*** **10/16/2012 4:24:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TRANS-1,2-DICHLOROETHENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRANS-1,3-DICHLOROPROPENE	0.25	U	0.19	MDL	0.25	LOD	ug/L	UJ	ProfJudg
TRICHLOROETHENE	0.25	U	0.17	MDL	0.25	LOD	ug/L	UJ	ProfJudg
VINYL CHLORIDE	0.25	U	0.22	MDL	0.25	LOD	ug/L	UJ	ProfJudg
Xylene (Total)	0.75	U	0.28	MDL	0.75	LOD	ug/L	UJ	ProfJudg

Sample ID: **FWGNTAmw-119-0193-GW** ***Collected:*** **10/16/2012 9:42:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	2.2	J	1.1	MDL	1.1	LOD	ug/L	U	Tb, Eb
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 030174.0016.001.09.1 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16465-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16465-1 AD **eQAPP Name: RVAAP 66-rev July 2012**

Reason Code Legend

Reason Code	*Description*
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Eb	Equipment Blank Contamination
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Lcs	Laboratory Control Spike Lower Estimation
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
ProfJudg	Professional Judgment
RI	Reporting Limit Trace Value
StoE	Sampling to Extraction Estimation
Surr	Surrogate/Tracer Recovery Lower Estimation
Surr	Surrogate/Tracer Recovery Upper Estimation
Tb	Trip Blank Contamination

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16475 **Revision:** 2

Data Reviewer: Angye Dragotta /Environmental Quality Management, Inc. (EQM, Inc.)

QA/QC Summary

On October 16, 2012 the following samples were collected from groundwater-monitoring wells at Ravenna Army Ammunition Plant and analyzed as part of SDG 240-16475. Sample analysis was performed by Test America, St. Louis.

Field Sample ID	Method	Analytes
FWGFWGmw-014-0178-GW	EPA 901.1 Mod	Gamma Spec
FWGFWGmw –DUP4-0201-GW	EPA 900	Gross Alpha/Beta
FWGFWGEQUIPRINSE2-0213-GW	SW846 6020	Uranium and Thorium
	EPA 903.0 Mod	Total Alpha Radium

The data presented in this report were evaluated according to the *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January, 2012.* The following documents were used as needed to supplement the project documentation: The United States Department of Defense (DoD) Quality Services Manual (QSM) for Environmental Laboratories, Version 4.1, and the United States Army Corps of Engineers (USACE), Louisville District Quality Systems Manual Supplement (LS), *EPA National Functional Guidelines (NFG) for Organic Data Review, EPA-540/R-08-01, June 2008, NFG for Inorganic Data Review, EPA-540/R-04-004, October 2004*, Analytical Methods, and Laboratory Standard Operating Procedures. The QC criteria provided in the reference documents represent accuracy and precision performance goals for each analytical method. QC criteria reviewed for each method are listed below, along with any outliers.

All analytical results have been verified against compliance requirements specified in the project QAP, QSM, LS, associated analytical methods and/or SOPs, as appropriate, and reported by the laboratory as directed by the DoD QSM.

Per the DoD QSM, the laboratory data for total Uranium and Thorium was reported as follows: Non detected results (< DL) were reported at the LOD with a "U" flag. Detected results between the DL and LOQ were reported as estimated, qualified with a "J" flag.

> LOD - An estimate of the minimum amount of a substance that an analytical process can reliably detect.
>
> LOQ - The lowest concentration that produces a quantitative result within specified limits of precision and bias.
>
> DL- The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence.

Checklists used in review of the data have been presented in Appendix 1. Outliers have been noted below and results requiring qualification, as a result of this verification process, have been summarized in Appendix 2.

The completeness objective for the project was 90%. The completeness objective was met for this SDG, 100%. Limitations, if any, on the data are indicated with qualifiers detailed below.

The cooler temperatures were documented as being acceptable upon receipt at the North Canton Laboratory.

FWGFWGEQUIPRINSE-0213-GW logged by the lab per COC. Should have been logged as FWGEQUIPRINSE2-0213-GW.

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16475 **Revision:** 2

Metals - 6020
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD/ MRL verification criteria
- LCS percent recovery criteria
- Matrix Spike and Spike Duplicate Recovery and RPD Criteria
- Lab and Field Duplicate RPD Criteria

No outliers were noted.

Gamma Spectroscopy- EPA 901.1 Mod
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Daily QC checks
- The method and equipment blanks were free from contamination
- LCS percent recoveries and RPD value criteria
- Field and Lab duplicate RPD

Lab Duplicate RPD
The lab duplicate was analyzed on sample FWGFWGmw-014-0178-GW. The duplicate RPD was above control limits of 40% for actinium 227 at 295%, actinium 228 at 107%, bismuth 212 at 200%, cesium 137 at 200%,lead 210 at 72%, lead 212 at 1570%, lead 214 at 110%, potassium 40 at 121%, protactinium 231 at 902%, radium 228 at 107%, thorium 234 at 3570%, uranium 235 at 3570%% . The actinium 227, actinium 228, bismuth 212, cesium 137, lead 210, lead 212, lead 214, potassium 40,protactinium 231, radium 228, thorium 234 and uranium 238 results for FWGFWGEQUIPRinse2-0213-GW, FWGFWGmw-014-0094-GW and FWGFWGmw-014-Dup4-0201-GW were qualified as estimated, "J/UJ".

Field Duplicate RPD
The field duplicate analyzed on sample FWGFWGmw-014-0178-GW had an RPD above control limits of 40% at 200% for lead 214. The lead 214 result for sample FWGFWGmw-014-0178-GW was qualified as estimated, "J".

Gross Alpha/Beta- EPA 900
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- The method and equipment blanks were free from contamination
- LCS percent recoveries and RPD value criteria
- Field and Lab duplicate RPD
- Matrix spike and Matrix Spike Duplicate recovery and RPD

No QC outliers were noted.

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16475 **Revision:** 2

Total Alpha Radium- EPA 903.0

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- The method and equipment blanks were free from contamination
- LCS percent recoveries and RPD value criteria
- Field and Lab duplicate RPD
- Matrix spike and Matrix Spike Duplicate recovery and RPD

Matrix Spike Analysis

Matrix spike analysis performed on sample FWGFWGmw-014-0178-GW. The matrix spike and spike duplicate RPD recovered above control limits of 40% for gross alpha at 198% and gross beta at 201%. The gross alpha and gross beta results for samples FWGFWGEQUIPRinse2-0213-GW, FWGFWGmw-014-0094-GW and FWGFWGmw-014-Dup4-0201-GW were qualified as estimated, "J/UJ".

Field duplicate RPD

A field duplicate analyzed on sample FWGFWGmw-014-0178-GW had an RPD above control limits of 20% at 44%. The radium result for sample FWGFWGmw-014-0178-GW was qualified as estimated, "J

Job ID: 240-16475-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Environmental Quality Mgt., Inc.

Project: RVAAP (66)

Report Number: 240-16475-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 901.1 Gamma Radionuclides, 900.0 Gross Alpha/Beta, 903.0 Total Alpha Radium and 6020 Uranium and Thorium analysis were performed at the TestAmerica St. Louis Laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein . All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA /QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client .

All parameters for which TestAmerica North Canton has certification were evaluated to the limit of detection (LOD) and include qualified results where applicable. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

Receipt

The samples were received on 10/17/2012 6:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.2° C, 1.4° C and 1.8° C.

Gross Alpha/Beta (EPA 900.0 MOD)

The Gross Alpha and/or Beta reporting limit was not met due to a recuction of sample size attributed to the sample's high residual mass for samples FWGFWGMW-014-0178-GW (240-16475-1) and FWGFWGMW-014-DUP4-0201 (240-16475-2) . The analytical reults are reported.

Method Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16475-1

Method	Method Description	Protocol	Laboratory
6020A	Inductively Coupled Plasma Mass Spectrometry 6020A	SW846	TAL SL
900.0 MOD	Gross Alpha/Beta EPA 900	EPA	TAL SL
901.1 MOD	Gamma Cs-137 & Hits by EPA 901.1 MOD	EPA	TAL SL
903.0 MOD	Total Alpha Radium EPA 903.0 MOD	EPA	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16475-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-16475-1	FWGFWGmw-014-0178-GW	Water	10/16/12 11:13	10/17/12 06:15
240-16475-2	FWGFWGmw-014-DUP4-0201	Water	10/16/12 12:13	10/17/12 06:15
240-16475-3	FWGFWGEquipRinse2-0213-GW	Water	10/16/12 12:46	10/17/12 06:15

Client Sample ID: FWGFWGmw-014-0178-GW
Date Collected: 10/16/12 11:13
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16475-1
Matrix: Water

Method: 6020A - Inductively Coupled Plasma Mass Spectrometry 6020A

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Thorium	**0.56**	**J**	2	1.5	0.55	ug/L		11/06/12 21:45	1
Uranium	**0.54**	**J**	1	0.24	0.23	ug/L		11/06/12 21:45	1

Method: 900.0 MOD - Gross Alpha/Beta EPA 900

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	1.2	U		2.2	3.8	pCi/L	11/05/12 00:00	11/08/12 14:17	1
Gross Beta	**2.8**			1.3	1.9	pCi/L	11/05/12 00:00	11/08/12 14:17	1

Method: 901.1 MOD - Gamma Cs-137 & Hits by EPA 901.1 MOD

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Actinium 227 (assumes equilibrium w/ Th-227)	-2.5	U		6.2	72	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Actinium 228	7	U		14	33	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Bismuth 212	29	U		71	120	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Bismuth 214	10	U		12	19	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Cesium 137	0.0	U		1.8	9.3	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Lead 210	50	U		100	200	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Lead 212	-2	U		13	22	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Lead 214	**24**			11	11	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Potassium 40	-21	U		97	150	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Protactinium 231	-30	U		130	240	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Radium (226)	10	U		12	19	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Radium 228	7	U		14	33	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Thallium 208	1.8	U		7.9	13	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Thorium 234	-50	U		190	220	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Uranium 235	27	U		29	52	pCi/L	10/22/12 00:00	11/12/12 11:08	1
Uranium 238	-50	U		190	220	pCi/L	10/22/12 00:00	11/12/12 11:08	1

Method: 903.0 MOD - Total Alpha Radium EPA 903.0 MOD

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Radium (total)	**0.47**			0.20	0.22	pCi/L	10/19/12 00:00	10/24/12 14:02	1

Tracer	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*87*		*40 - 110*	*10/19/12 00:00*	*10/24/12 14:02*	*1*

Client Sample ID: FWGFWGmw-014-DUP4-0201
Date Collected: 10/16/12 12:13
Date Received: 10/17/12 06:15

Lab Sample ID: 240-16475-2
Matrix: Water

Method: 6020A - Inductively Coupled Plasma Mass Spectrometry 6020A

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Thorium	1.5 U		2	1.5	0.55	ug/L		11/06/12 22:19	1
Uranium	**0.50**	**J**	1	0.24	0.23	ug/L		11/06/12 22:19	1

Method: 900.0 MOD - Gross Alpha/Beta EPA 900

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	2.4	U		2.4	3.7	pCi/L	11/05/12 00:00	11/08/12 14:17	1
Gross Beta	**3.6**			1.6	2.1	pCi/L	11/05/12 00:00	11/08/12 14:17	1

Method: 901.1 MOD - Gamma Cs-137 & Hits by EPA 901.1 MOD

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Actinium 227 (assumes equilibrium w/ Th-227)	12	U		37	64	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Actinium 228	9	U		18	43	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Bismuth 212	17	U		72	130	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Bismuth 214	-4	U		28	32	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Cesium 137	-1.3	U		6.5	12	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Lead 210	90	U		140	210	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Lead 212	1	U		10	20	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Lead 214	4	U		11	29	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Potassium 40	-70	U		2900	100	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Protactinium 231	39	U		62	310	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Radium (226)	-4	U		28	32	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Radium 228	9	U		18	43	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Thallium 208	-0.2	U		6.2	12	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Thorium 234	67	U		77	200	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Uranium 235	27	U		34	51	pCi/L	10/22/12 00:00	11/12/12 11:11	1
Uranium 238	67	U		77	200	pCi/L	10/22/12 00:00	11/12/12 11:11	1

Method: 903.0 MOD - Total Alpha Radium EPA 903.0 MOD

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Radium (total)	**0.30**			0.18	0.23	pCi/L	10/19/12 00:00	10/24/12 14:03	1

Tracer	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*89*		*40 - 110*	*10/19/12 00:00*	*10/24/12 14:03*	*1*

Client Sample ID: FWGFWGEquipRinse2-0213-GW
Lab Sample ID: 240-16475-3
Date Collected: 10/16/12 12:46
Matrix: Water
Date Received: 10/17/12 06:15

Method: 6020A - Inductively Coupled Plasma Mass Spectrometry 6020A

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Thorium	1.5 U		2	1.5	0.55	ug/L		11/06/12 22:26	1
Uranium	0.24 U		1	0.24	0.23	ug/L		11/06/12 22:26	1

Method: 900.0 MOD - Gross Alpha/Beta EPA 900

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.03	U		0.61	1.2	pCi/L	11/05/12 00:00	11/08/12 14:17	1
Gross Beta	-0.21	U		0.47	0.88	pCi/L	11/05/12 00:00	11/08/12 14:17	1

Method: 901.1 MOD - Gamma Cs-137 & Hits by EPA 901.1 MOD

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Actinium 227 (assumes equilibrium w/ Th-227)	2.9	U		4.8	62	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Actinium 228	7	U		11	34	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Bismuth 212	25	U		76	130	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Bismuth 214	-9	U		41	26	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Cesium 137	-0.1	U		5.5	10	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Lead 210	-2	U		140	210	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Lead 212	1.1	U		9.7	19	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Lead 214	17	U		12	20	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Potassium 40	-100	U		1300	200	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Protactinium 231	-10	U		29	250	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Radium (226)	-9	U		41	26	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Radium 228	7	U		11	34	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Thallium 208	-8	U		310	10	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Thorium 234	11	U		53	170	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Uranium 235	21	U		32	53	pCi/L	10/22/12 00:00	11/12/12 11:12	1
Uranium 238	11	U		53	170	pCi/L	10/22/12 00:00	11/12/12 11:12	1

Method: 903.0 MOD - Total Alpha Radium EPA 903.0 MOD

Analyte	Result	Qualifier	Count Uncert. (2.000σ+/-)	Total Uncert. (2.000σ+/-)	DL	Unit	Prepared	Analyzed	Dil Fac
Radium (total)	0.07	U		0.11	0.18	pCi/L	10/19/12 00:00	10/24/12 14:22	1

Tracer	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Barium	*88*		*40 - 110*	*10/19/12 00:00*	*10/24/12 14:22*	*1*

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Pkg 2 COC # D4325

TestAmerica Laboratories, Inc.

Client Contact	Client Project Manager:	Site Contact:	Lab Contact:	COC No:
Company Name: EQM	John Miller	Erik Corbin	Mak Loeb	043258
Address: 1800 Carillon Blvd	Telephone: (513)825-7500	Telephone: 825-7500	Telephone: (330)-497-9396	1 of 2 COCs
City/State/Zip: Cincinnati OH 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone:		TAT if different from below: PLN SOW ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: RVAAP (60)	Method of Shipment/Carrier: Lab Pickup			Job/SDG No: COC CORRECTED
Project Number: 030174.0016.001.09.1	Shipping/Tracking No: N/A			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: HDPE	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite C/Grab G	VOC 8260	SVOC 8270-full list	PEST 8081	PCB 8082	EXPLO 8330/PROP	CYANIDE 9012	Metals 6010/6020 7470	Gamma Spec 901.1	Total Radium 903.0	Alpha/Beta 900.0	MS/MSD	Sample Specific Notes / Special Instructions:
FWGTeam 3-TRIP	10/16/12	0800		X						2					N	G	X											EC-1
FWGFWGmw-006-0169-GW	10/16/12	09:43		X						3	1		9		N	G	X	X	X	X	X	X						UC
FWGFWGmw-006-0169-GF	10/16/12	09:43		X					1						Y	G							X					UC
FWGFWGmw-014-0178-GW	10/16/12	11:13		X					~~9~~ 10	3	1		9		N	G	X	X	X	X	X	X	X	X	X	X		B7, EC-1 **
FWGFWGmw-014-0178-GF	10/16/12	11:13		X					1						Y	G							X					757, EC-1
FWGFWGmw-014-Dup4-0101	10/16/12	12:13		X					4						N	G							X	X	X	X		757, EC-1
FWGFWGEqmpRinse2-0213-GW	10/16/12	12:46		X					5	3	1		9		N	G	X	X	X	X	X	X	X	X	X	X	X	JOKER
FWGFWGmw-007-0170-GW	10/16/12	13:03		X						3	1		9		N	G	X	X	X	X	X	X						EC-9
FWGFWGmw-007-0170-GF	10/16/12	13:03		X					1						Y	G							X					EC-9
																												AD 10/16/12

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: Sample collected close to pick up may not meet requirements

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQM	10/16/12-1800	[signature]	TAL-NC	10-16-12-1800
[signature]	TAL-NC	10-16-12-1920			
			Received in Laboratory by: [signature]	TAL	10/17/12 6:15am

** MS/MSD Rad only

TAL 0018-1 (04/10)

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11/23/2012

TestAmerica Canton Sample Receipt Form/Narrative Login # : 16475

Client EQM Site Name _____ By: _____ (Signature)

Cooler Received on 10/17/12 Opened on 10/17/12

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1 (CF 0°C) Observed Sample Temp._____°C Corrected Sample Temp._____°C

IR GUN# 4G (CF –1°C) Observed Sample Temp._____°C Corrected Sample Temp._____°C

IR GUN# 5G (CF –1°C) Observed Sample Temp._____°C Corrected Sample Temp._____°C

IR GUN# 8 (CF 0°C) Observed Sample Temp._____°C Corrected Sample Temp._____°C

Multiple on Back

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 3	Yes No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes No NA
-Were custody seals on the bottle(s)?	Yes No
3. Shippers' packing slip attached to the cooler(s)?	Yes No
4. Did custody papers accompany the sample(s)?	Yes No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes No
6. Did all bottles arrive in good condition (Unbroken)?	Yes No
7. Could all bottle labels be reconciled with the COC?	Yes No
8. Were correct bottle(s) used for the test(s) indicated?	Yes No
9. Sufficient quantity received to perform indicated analyses?	Yes No
10. Were sample(s) at the correct pH upon receipt?	Yes No NA
11. Were VOAs on the COC?	Yes No
12. Were air bubbles >6 mm in any VOA vials?	Yes No NA
13. Was a trip blank present in the cooler(s)?	Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
0178GW	≤2 ≤2 ≤2 ≤2 ≤2 ≤2 ≤2 ≤2 ≤2 ≤2 ≤2	10/17/12	CSL
Dup 4	≤2 ≤2 ≤2 ≤2 ≤2 ≤2 ≤2	1	1
EqBlank	≤2 ≤2 ≤2 ≤2 ≤2 ≤2 ≤2		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant
757	2.4	1.4	5G	ICE
EC-1	2.8	1.8	1	1
JOKER	2.2	1.2		

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 240-16475-1

EQM Level IV

Lot #: F2J180439

Mark Loeb

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720

TESTAMERICA LABORATORIES, INC.



Lynn Fussner
Project Manager

November 14, 2012

13715 Rider Trail North Earth City, MO 63045 **tel** 314.298.8566 **fax** 314.298.8757 **www.testamericainc.com**

Case Narrative
LOT NUMBER: F2J180439

This report contains the analytical results for the three samples received under chain of custody by TestAmerica St. Louis on October 18, 2012. These samples are associated with your EQM Level IV project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Gross Alpha/Beta (EPA 900.0 MOD)
The Gross Alpha and/or Beta reporting limit was not met due to a reduction of sample size attributed to the sample's high residual mass. The analytical results are reported.

Affected Samples:
F2J180439 (1): FWGFWGMW-014-0178-GW (240-16475-1)
F2J180439 (2): FWGFWGMW-014-DUP4-0201 (240-16475-2)

There were no other nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

F2J180439

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
ICP-MS (6020A)	SW846 6020A	
Total Alpha Radium by GFPC	EPA 903.0 MOD	

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F2J180439

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MW1RX	001	FWGFWGMW-014-0178-GW (240-16475-1)	10/16/12	11:13
MW1TF	002	FWGFWGMW-014-DUP4-0201 (240-16475-2)	10/16/12	12:13
MW1TJ	003	FWGFWGEQUIPRINSE-0213-GW (240-16475-3)	10/16/12	12:46

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Canton

Client Sample ID: FWGFWGMW-014-0178-GW (240-16475-1)

TOTAL Metals

Lot-Sample #...: F2J180439-001 Matrix.....: WATER
Date Sampled...: 10/16/12 11:13 Date Received..: 10/18/12

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2307091						
Thorium	0.56 J	2	ug/L	SW846 6020A	11/02-11/06/12	MW1RX1AJ
		Dilution Factor: 1		Analysis Time..: 21:45		
Uranium	0.54 J	1	ug/L	SW846 6020A	11/02-11/06/12	MW1RX1AK
		Dilution Factor: 1		Analysis Time..: 21:45		

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica Canton

Client Sample ID: FWGFWGMW-014-DUP4-0201 (240-16475-2)

TOTAL Metals

Lot-Sample #...: F2J180439-002 Matrix.....: WATER
Date Sampled...: 10/16/12 12:13 Date Received..: 10/18/12

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2307091						
Thorium	1.5 U	2	ug/L	SW846 6020A	11/02-11/06/12	MW1TF1AE
		Dilution Factor: 1		Analysis Time..: 22:19		
Uranium	0.50 J	1	ug/L	SW846 6020A	11/02-11/06/12	MW1TF1AF
		Dilution Factor: 1		Analysis Time..: 22:19		

NOTE(S):

J Estimated result. Result is less than RL.

TestAmerica Canton

Client Sample ID: FWGFWGEQUIPRINSE-0213-GW (240-16475-3)

TOTAL Metals

Lot-Sample #...: F2J180439-003 Matrix.....: WATER
Date Sampled...: 10/16/12 12:46 Date Received..: 10/18/12

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2307091						
Thorium	1.5 U	2	ug/L	SW846 6020A	11/02-11/06/12	MW1TJ1AE
		Dilution Factor: 1		Analysis Time..: 22:26		
Uranium	0.24 U	1	ug/L	SW846 6020A	11/02-11/06/12	MW1TJ1AF
		Dilution Factor: 1		Analysis Time..: 22:26		

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F2J180439 Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F2K020000-091 Prep Batch #...: 2307091						
Thorium	1.5 U	2	ug/L	SW846 6020A	11/02-11/06/12	MW7TD1AA
		Dilution Factor: 1				
		Analysis Time..: 21:31				
Uranium	0.24 U	1	ug/L	SW846 6020A	11/02-11/06/12	MW7TD1AC
		Dilution Factor: 1				
		Analysis Time..: 21:31				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F2J180439 Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F2K020000-091 **Prep Batch #...:** 2307091					
Thorium	99	(80 - 120)	SW846 6020A	11/02-11/06/12	MW7TD1AD
		Dilution Factor: 1		Analysis Time..: 21:38	
Uranium	98	(80 - 120)	SW846 6020A	11/02-11/06/12	MW7TD1AE
		Dilution Factor: 1		Analysis Time..: 21:38	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F2J180439 Matrix.....: WATER
Date Sampled...: 10/16/12 11:13 Date Received..: 10/18/12

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F2J180439-001 **Prep Batch #...:** 2307091							
Thorium	104	(80 - 120)			SW846 6020A	11/02-11/06/12	MW1RX1AN
	103	(80 - 120)	0.79	(0-20)	SW846 6020A	11/02-11/06/12	MW1RX1AP
		Dilution Factor: 1					
		Analysis Time..: 21:58					
Uranium	103	(80 - 120)			SW846 6020A	11/02-11/06/12	MW1RX1AQ
	102	(80 - 120)	1.2	(0-20)	SW846 6020A	11/02-11/06/12	MW1RX1AR
		Dilution Factor: 1					
		Analysis Time..: 21:58					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

TestAmerica Canton

Client Sample ID: FWGFWGMW-014-0178-GW (240-16475-1)

Radiochemistry

Lab Sample ID: F2J180439-001
Work Order: MW1RX
Matrix: WATER

Date Collected: 10/16/12 1113
Date Received: 10/18/12 0945

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Total Alpha Radium EPA 903.0 MOD				pCi/L	Batch # 2293063		Yld % 87
Radium (total)	0.47		0.20	1.00	0.22	10/19/12	10/24/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 2297091		Yld %
Actinium 227 (assumes equilibrium w/ Th-227)	-2.5	U	6.2		72	10/22/12	11/12/12
Actinium 228	7	U	14		33	10/22/12	11/12/12
Bismuth 212	29	U	71		120	10/22/12	11/12/12
Bismuth 214	10	U	12		19	10/22/12	11/12/12
Cesium 137	0.0	U	1.8	20.0	9.3	10/22/12	11/12/12
Lead 210	50	U	100		200	10/22/12	11/12/12
Lead 212	-2	U	13		22	10/22/12	11/12/12
Lead 214	**24**		**11**		**11**	**10/22/12**	**11/12/12**
Potassium 40	-21	U	97		150	10/22/12	11/12/12
Protactinium 231	-30	U	130		240	10/22/12	11/12/12
Radium (226)	10	U	12		19	10/22/12	11/12/12
Radium 228	7	U	14		33	10/22/12	11/12/12
Thallium 208	1.8	U	7.9		13	10/22/12	11/12/12
Thorium 234	-50	U	190		220	10/22/12	11/12/12
Uranium 235	27	U	29		52	10/22/12	11/12/12
Uranium 238	-50	U	190		220	10/22/12	11/12/12
Gross Alpha/Beta EPA 900				pCi/L	Batch # 2310028		Yld %
Gross Alpha	1.2	U	2.2	3.0	3.8	11/05/12	11/08/12
Gross Beta	**2.8**		**1.3**	4.0	**1.9**	**11/05/12**	**11/08/12**

NOTE (S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

TestAmerica Canton

Client Sample ID: FWGFWGMW-014-0178-GW (240-16475-1) DUP

Radiochemistry

Lab Sample ID: F2J180439-001X
Work Order: MW1RX
Matrix: WATER

Date Collected: 10/16/12 1113
Date Received: 10/18/12 0945

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L		Batch # 2297091		Yld %
Actinium 227 (assumes equilibrium w/ Th-227)	13	U	22		35	10/22/12	11/12/12
Actinium 228	2	U	21		38	10/22/12	11/12/12
Bismuth 212	0.0	U	26		130	10/22/12	11/12/12
Bismuth 214	9	U	15		22	10/22/12	11/12/12
Cesium 137	-0.3	U	5.9	20.0	11	10/22/12	11/12/12
Lead 210	100	U	140		210	10/22/12	11/12/12
Lead 212	2	U	11		20	10/22/12	11/12/12
Lead 214	7.0	U	9.2		19	10/22/12	11/12/12
Potassium 40	-80	U	240		200	10/22/12	11/12/12
Protactinium 231	50	U	140		240	10/22/12	11/12/12
Radium (226)	9	U	15		22	10/22/12	11/12/12
Radium 228	2	U	21		38	10/22/12	11/12/12
Thallium 208	2.4	U	6.1		13	10/22/12	11/12/12
Thorium 234	50	U	150		210	10/22/12	11/12/12
Uranium 235	30	U	33		65	10/22/12	11/12/12
Uranium 238	50	U	150		210	10/22/12	11/12/12

NOTE (S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

TestAmerica Canton

Client Sample ID: FWGFWGMW-014-DUP4-0201 (240-16475-2)

Radiochemistry

Lab Sample ID: F2J180439-002
Work Order: MW1TF
Matrix: WATER

Date Collected: 10/16/12 1213
Date Received: 10/18/12 0945

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Total Alpha Radium EPA 903.0 MOD				pCi/L	Batch # 2293063		Yld % 89
Radium (total)	**0.30**		0.18	1.00	0.23	10/19/12	10/24/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 2297091		Yld %
Actinium 227 (assumes equilibrium w/ Th-227)	12	U	37		64	10/22/12	11/12/12
Actinium 228	9	U	18		43	10/22/12	11/12/12
Bismuth 212	17	U	72		130	10/22/12	11/12/12
Bismuth 214	-4	U	28		32	10/22/12	11/12/12
Cesium 137	-1.3	U	6.5	20.0	12	10/22/12	11/12/12
Lead 210	90	U	140		210	10/22/12	11/12/12
Lead 212	1	U	10		20	10/22/12	11/12/12
Lead 214	4	U	11		29	10/22/12	11/12/12
Potassium 40	-70	U	2900		100	10/22/12	11/12/12
Protactinium 231	39	U	62		310	10/22/12	11/12/12
Radium (226)	-4	U	28		32	10/22/12	11/12/12
Radium 228	9	U	18		43	10/22/12	11/12/12
Thallium 208	-0.2	U	6.2		12	10/22/12	11/12/12
Thorium 234	67	U	77		200	10/22/12	11/12/12
Uranium 235	27	U	34		51	10/22/12	11/12/12
Uranium 238	67	U	77		200	10/22/12	11/12/12
Gross Alpha/Beta EPA 900				pCi/L	Batch # 2310028		Yld %
Gross Alpha	2.4	U	2.4	3.0	3.7	11/05/12	11/08/12
Gross Beta	**3.6**		**1.6**	4.0	**2.1**	**11/05/12**	**11/08/12**

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

TestAmerica Canton

Client Sample ID: FWGFWGEQUIPRINSE-0213-GW (240-16475-3)

Radiochemistry

Lab Sample ID: F2J180439-003
Work Order: MW1TJ
Matrix: WATER

Date Collected: 10/16/12 1246
Date Received: 10/18/12 0945

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Total Alpha Radium EPA 903.0 MOD				**pCi/L**	**Batch # 2293063**		**Yld % 88**
Radium (total)	0.07	U	0.11	1.00	0.18	10/19/12	10/24/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**Batch # 2297091**		**Yld %**
Actinium 227 (assumes equilibrium w/ Th-227)	2.9	U	4.8		62	10/22/12	11/12/12
Actinium 228	7	U	11		34	10/22/12	11/12/12
Bismuth 212	25	U	76		130	10/22/12	11/12/12
Bismuth 214	-9	U	41		26	10/22/12	11/12/12
Cesium 137	-0.1	U	5.5	20.0	10	10/22/12	11/12/12
Lead 210	-2	U	140		210	10/22/12	11/12/12
Lead 212	1.1	U	9.7		19	10/22/12	11/12/12
Lead 214	17	U	12		20	10/22/12	11/12/12
Potassium 40	-100	U	1300		200	10/22/12	11/12/12
Protactinium 231	-10	U	29		250	10/22/12	11/12/12
Radium (226)	-9	U	41		26	10/22/12	11/12/12
Radium 228	7	U	11		34	10/22/12	11/12/12
Thallium 208	-8	U	310		10	10/22/12	11/12/12
Thorium 234	11	U	53		170	10/22/12	11/12/12
Uranium 235	21	U	32		53	10/22/12	11/12/12
Uranium 238	11	U	53		170	10/22/12	11/12/12
Gross Alpha/Beta EPA 900				**pCi/L**	**Batch # 2310028**		**Yld %**
Gross Alpha	-0.03	U	0.61	3.00	1.2	11/05/12	11/08/12
Gross Beta	-0.21	U	0.47	4.00	0.88	11/05/12	11/08/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F2J180439
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Lab Sample ID / Analysis Date
Total Alpha Radium EPA 903.0 MOD			pCi/L	Batch # 2293063	Yld % 89		F2J190000-063B
Radium (total)	0.03	U	0.12	1.00	0.22	10/19/12	10/24/12
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch # 2297091	Yld %		F2J230000-091B
Actinium 227 (assumes equilibrium w/ Th-227)	-3.2	U	7.0		68	10/22/12	11/12/12
Actinium 228	5.3	U	9.5		33	10/22/12	11/12/12
Bismuth 212	7	U	65		120	10/22/12	11/12/12
Bismuth 214	3	U	16		26	10/22/12	11/12/12
Cesium 137	-0.002	U	5.2	20.0	9.9	10/22/12	11/12/12
Lead 210	-20	U	140		230	10/22/12	11/12/12
Lead 212	7	U	10		18	10/22/12	11/12/12
Lead 214	-2.6	U	6.2		24	10/22/12	11/12/12
Potassium 40	-100	U	4200		200	10/22/12	11/12/12
Protactinium 231	-0.4	U	3.2		240	10/22/12	11/12/12
Radium (226)	3	U	16		26	10/22/12	11/12/12
Radium 228	5.3	U	9.5		33	10/22/12	11/12/12
Thallium 208	-5	U	180		10	10/22/12	11/12/12
Thorium 234	65	U	69		210	10/22/12	11/12/12
Uranium 235	19	U	33		55	10/22/12	11/12/12
Uranium 238	65	U	69		210	10/22/12	11/12/12
Gross Alpha/Beta EPA 900			pCi/L	Batch # 2310028	Yld %		F2K050000-028B
Gross Alpha	-0.1	U	0.50	3.00	1.0	11/05/12	11/08/12
Gross Beta	0.05	U	0.52	4.00	0.93	11/05/12	11/08/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only

Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F2J180439
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Total Alpha Radium EPA 903.0 MOD			**pCi/L**	**903.0 MOD**			**F2J190000-063C**
Radium (total)	11.3	10.7	1.2	0.2	92	95	(67 - 133)
	Batch #:	2293063		Analysis Date:	10/24/12		
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**	**901.1 MOD**			**F2J230000-091C**
Americium 241	141000	136000	16000	500		97	(90 - 111)
Cesium 137	53200	52700	5200	200		99	(90 - 111)
Cobalt 60	87800	85800	8500	200		98	(89 - 110)
	Batch #:	2297091		Analysis Date:	11/12/12		
Gross Alpha/Beta EPA 900			**pCi/L**	**900.0 MOD**			**F2K050000-028C**
Gross Alpha	54.0	61.7	8.4	1.3		114	(90 - 140)
Gross Beta	102	98	10	1		97	(90 - 123)
	Batch #:	2310028		Analysis Date:	11/08/12		

NOTE (S) F2J180439

MDC is determined by instrument performance only
Calculations are performed before rounding to avoid round-off error in calculated results

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F2J180439
Matrix: WATER

Date Sampled: 10/16/12 1113
Date Received: 10/18/12 0945

Parameter		Spike Amount	SPIKE Result	Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result		Total Uncert. (2σ +/-)	QC Sample ID % Yld	%Rec	QC Control Limits
Total Alpha Radium EPA 903.				**pCi/L**		**903.0 MOD**				**F2J180439-001**	
Radium (total)		11.6	11.2	1.3	86	0.47		0.20	87	93	(70 - 130)
	Spk2	11.6	10.4	1.2	86	0.47		0.20	87	85	(70 - 130)
									Precision:	7	%RPD
		Batch #:	2293063		**Analysis date:**	10/24/12					
Gross Alpha/Beta EPA 900				**pCi/L**		**900.0 MOD**				**F2J180439-001**	
Gross Alpha		95.6	109	16		1.2	U	2.2		113	(35 - 150)
	Spk2	95.6	114	16		1.2	U	2.2		118	(35 - 150)
									Precision:	198	%RPD
Gross Beta		167	188	20		2.8		1.3		111	(89 - 143)
	Spk2	167	184	19		2.8		1.3		108	(89 - 143)
									Precision:	201	%RPD
		Batch #:	2310028		**Analysis date:**	11/08/12					

NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F2J180439
Matrix: WATER

Date Sampled: 10/16/12
Date Received: 10/18/12

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2 σ +/-)	% Yld	QC Sample ID Precision	
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**		**901.1 MOD**				**F2J180439-001**	
Actinium 227 (assumes equilibrium w/ Th-227)	-2.5	U	6.2		13	U	22		295	%RPD
Actinium 228	7	U	14		2	U	21		107	%RPD
Bismuth 212	29	U	71		0.0	U	26		200	%RPD
Bismuth 214	10	U	12		9	U	15		16	%RPD
Cesium 137	0.0	U	1.8		-0.3	U	5.9		200	%RPD
Lead 210	50	U	100		100	U	140		72	%RPD
Lead 212	-2	U	13		2	U	11		1570	%RPD
Lead 214	24		11		7.0	U	9.2		110	%RPD
Potassium 40	-21	U	97		-80	U	240		121	%RPD
Protactinium 231	-30	U	130		50	U	140		902	%RPD
Radium (226)	10	U	12		9	U	15		16	%RPD
Radium 228	7	U	14		2	U	21		107	%RPD
Thallium 208	1.8	U	7.9		2.4	U	6.1		29	%RPD
Thorium 234	-50	U	190		50	U	150		3570	%RPD
Uranium 235	27	U	29		30	U	33		10	%RPD
Uranium 238	-50	U	190		50	U	150		3570	%RPD
	Batch #:		2297091 (Sample)		2297091 (Duplicate)					

NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

F2J180439 CLIENT ANALYSIS SUMMARY

Storage Loc: R230,31
Date Received: 2012-10-18
Analytical Due Date: 2012-11-13
Report Due Date: 2012-11-16
Report Type: D Expanded Deliverable
EDD Code: 00

Project Manager: LMF Quote #: 90434 SDG: 240-16475-

Project: 240-16475-1 EQM Level IV
PO#: SUB NC 240-1647 Report to: Mark Loeb
Client: 240 TestAmerica Canton #SMPS in LOT: 3

DOD QSM 4.2 Water GAMMA SPEC-put 21 day ingrowth comment in the sample comment. METALs: Open and close CRI. Ra226 contingent on TAR. TAR > 5pCi/L. Will need 21 days ingrowth

	SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	
	1	FWGFWGMW-014-0178-GW (240-			2012-10-16 / 1113	MW1RX	WATER
	SAMPLE COMMENTS:	21 DAY INGROWTH					

	UX	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
	TH	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
	XX	2Z	EPA	903.0 MOD	WATER, 903.0 MOD, TAR	LP	Precipitate, Separation	01	STANDARD TEST SET	PROT: A	WRK LOC	06
	XX	Y9	EPA	900.0 MOD	WATER, 900.0 MOD, Gross Alpha/Beta EPA 9	FR	Evaporative Preparation, Total	01	STANDARD TEST SET	PROT: A	WRK LOC	06
	XX	Z7	EPA	901.1 MOD	WATER, 901.1 MOD, Gamma Cs-137 21 days	G7	Direct Addition of Sample to Geometry	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	TH	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
D	UX	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
D	XX	2Z	EPA	903.0 MOD	WATER, 903.0 MOD, TAR	LP	Precipitate, Separation	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	Y9	EPA	900.0 MOD	WATER, 900.0 MOD, Gross Alpha/Beta EPA 9	FR	Evaporative Preparation, Total	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	Z7	EPA	901.1 MOD	WATER, 901.1 MOD, Gamma Cs-137 21 days	G7	Direct Addition of Sample to Geometry	01	STANDARD TEST SET	PROT: A	WRK LOC	06
S	UX	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
S	TH	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
S	XX	2Z	EPA	903.0 MOD	WATER, 903.0 MOD, TAR	LP	Precipitate, Separation	01	STANDARD TEST SET	PROT: A	WRK LOC	06
S	XX	Y9	EPA	900.0 MOD	WATER, 900.0 MOD, Gross Alpha/Beta EPA 9	FR	Evaporative Preparation, Total	01	STANDARD TEST SET	PROT: A	WRK LOC	06
S	XX	Z7	EPA	901.1 MOD	WATER, 901.1 MOD, Gamma Cs-137 21 days	G7	Direct Addition of Sample to Geometry	01	STANDARD TEST SET	PROT: A	WRK LOC	06

	SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	
	2	FWGFWGMW-014-DUP4-0201 (24			2012-10-16 / 1213	MW1TF	WATER
	SAMPLE COMMENTS:	21 DAY INGROWTH					

	TH	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
	UX	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
	XX	2Z	EPA	903.0 MOD	WATER, 903.0 MOD, TAR	LP	Precipitate, Separation	01	STANDARD TEST SET	PROT: A	WRK LOC	06
	XX	Y9	EPA	900.0 MOD	WATER, 900.0 MOD, Gross Alpha/Beta EPA 9	FR	Evaporative Preparation, Total	01	STANDARD TEST SET	PROT: A	WRK LOC	06
	XX	Z7	EPA	901.1 MOD	WATER, 901.1 MOD, Gamma Cs-137 21 days	G7	Direct Addition of Sample to Geometry	01	STANDARD TEST SET	PROT: A	WRK LOC	06

	SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	
	3	FWGFWGEQUIPRINSE-0213-GW			2012-10-16 / 1246	MW1TJ	WATER
	SAMPLE COMMENTS:	21 DAY INGROWTH					

	TH	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
	UX	I&	SW846	6020A	WATER, 6020 DOD 4.2 U and TH	GJ	METALS, TOTAL - 2% HCL	D4	DOD QSM V4.X	PROT: A	WRK LOC	06
	XX	2Z	EPA	903.0 MOD	WATER, 903.0 MOD, TAR	LP	Precipitate, Separation	01	STANDARD TEST SET	PROT: A	WRK LOC	06
	XX	Y9	EPA	900.0 MOD	WATER, 900.0 MOD, Gross Alpha/Beta EPA 9	FR	Evaporative Preparation, Total	01	STANDARD TEST SET	PROT: A	WRK LOC	06
	XX	Z7	EPA	901.1 MOD	WATER, 901.1 MOD, Gamma Cs-137 21 days	G7	Direct Addition of Sample to Geometry	01	STANDARD TEST SET	PROT: A	WRK LOC	06

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

cwl 184

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Loeb, Mark J	Carrier Tracking No(s):	COC No: 240-9178.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: mark.loeb@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 240-16475-1
Address: 13715 Rider Trail North,	Due Date Requested: 11/21/2012			Preservation Codes:
City: Earth City	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			Other:
Email:	WO #:			
Project Name: RVAAP (OH)	Project #: 24007510			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ Gross Alpha/Beta by Method 900.0	SUBCONTRACT/ Gamma Radionuclides by Method 901.1	SUBCONTRACT/ Uranium and Thorium by 6020	SUBCONTRACT/ Total Alpha Radium by 903.0	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
FWGFWGmw-014-0178-GW (240-16475-1)	10/16/12	11:13 Eastern		Water			X	X	X	X	9	} 9 total / LP
FWGFWGmw-014-0178-GW (240-16475-1MS)	10/16/12	11:13 Eastern	MS	Water			X	X	X	X	1	
FWGFWGmw-014-0178-GW (240-16475-1MSD)	10/16/12	11:13 Eastern	MSD	Water			X	X	X	X	1	
FWGFWGmw-014-DUP4-0201 (240-16475-2)	10/16/12	12:13 Eastern		Water			X	X	X	X	4	x LP
FWGFWGEquipRinse2-0213-GW (240-16475-3)	10/16/12	12:46 Eastern		Water			X	X	X	X	4	↓

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	10/17/12 1630	TAC	[signature]	10/18/12 0945	TASL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

11/23/2012

TestAmerica St. Louis

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F2J180439

CUR Form #: 184

CONDITION UPON RECEIPT FORM

Client: TA N. Canton

Quote No: 90434

COC/RFA No: 240-9178.1

Initiated By: SV Date: 10.18.12 Time: 0945

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: _____ Multiple Packages: Y (N)

Shipping # (s):*

1. 9784 4682 2148
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Sample Temperature (s):**

1. 2
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	Y N (N/A)	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	(Y) N	Sample received in proper containers?
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	(Y) N	Is sample volume sufficient for analysis?	14.	(Y) N N/A	Was Internal COC/Workshare received?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: _____ Date: 10/23/12

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16475-1

Login Number: 16475
List Number: 1
Creator: Livengood, Chris

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Appendix I

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/ December 11, 2012

SDG: 240-16475-1
Analysis: SW846 6020

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X			.	QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Was a LOD Verification performed once per quarter with all target analytes detected?	X				DoD QSM Table F-8
7. Tuning (ICP MS Only)					
7a. Was a tune performed daily prior to calibration	X				DoD QSM Table F-8 R
7b. Mass Calibration <0.1 amu from true value	X				
7c. Resolution <0.9 amu full width at 10 % peak height	X				
7d. RSD <%5 for a minimum of four replicate analyses	X				
8.Calibration	X				
8a. Was the ICAL performed daily with at least	X				DoD QSM Tables F-8 and F-7
2 standards and a blank for ICP MS	X				
8b. Was the correlation coefficient r≥0.995 for each analyte?	X				DoD QSM Tables F-8 and F-7 r<0.995=J/R
8c. Was the ICV (second source verification) analyzed after the ICAL with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7
8d. Was the ICB analyzed after the ICV with detected results <1/2 the MRL?	X				DoD QSM Tables F-8 and F-7, < 5x = U
Sample Analysis					
9. Was a MRL Level Verification performed at the beginning of the daily sequence and end of the analytical sequence bracketing samples? Were results 70-130%?	X				LS to the DoD QSM DoD QSM Table G-18 >130%=J; 70-80%=J/UJ; <70%=J/UJ <65%=R

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/ December 11, 2012

SDG: 240-16475-1
Analysis: SW846 6020

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
10. Were CCVs analyzed every 10 samples and at the end of the analytical sequence with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7 >110%=J, <85%=J/R 90-85%=J/UJ;
11. Were the CCBs run every 10 samples and at the end of the analytical sequence? Were results <1/2 the MRL?	X				DoD QSM Tables F-8 and F-7, <5x = U
12. Was an Interelement Check Standard run at the beginning of the analytical sequence and every 12 hours with the ICS recovery within 80 to 120% of true value for each element of interest (ICP and ICPMS only)?	X				DoD QSM Tables F-8 and F-7 >120%=J; 50-79%=J/UJ; <50%=Pj/R
13. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
14. Were target analytes <1/2 the MRL in the method blank?	X				DoD QSM Tables F-8 and F-7, <5x = B
15. Was a field blank collected and analyzed?	X				
16. Were target analytes reported in the field blank analyses >1/2 the MRL?		X		ADR checked section	DoD QSM Tables F-8 and F-7
17. Was a LCS prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
18. Were the LCS recoveries within limits specified in LCG Appendix C?	X			Checked by ADR.	DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R
19. Was a matrix spike (MS) and lab duplicate sample prepared with each batch?	X				DoD QSM Tables F-8 and F-7
20. Was the MS and MSD parent a Ravenna sample?	X				
21. Were the MS recoveries within 80-120%?	X				DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R All samples in batch

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/ December 11, 2012

SDG: 240-16475-1
Analysis: SW846 6020

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
22. Was the lab sample duplicate RPD ≤ 20%?			X	Only and MS/MSD duplicate was analyzed. RPD within acceptable limits.	DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
23. Was a serial dilution performed, with the five fold dilution within ± 10% of the original result?			X		DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
24. Was a Post Digestion Spike analyzed as needed? Were results within 75-125%?			X		LCG Table 7 >125%=J; 30-75%=J/UJ; <30%=R
25. Was a field duplicate analyzed? Were the RPDs ± 50% for sample results detected above the LOD?	X				QAPP Table 3-2 >30% = J parent sample only
26. Were internal standards added to all ICPMS samples with intensity within 30-120% of the intensity of the ICAL internal standard?	X				DoD QSM Table F-8 >120%=J/R <20%=J

References:

- *DoD Quality Systems Manual (QSM), version 4.1, October 2010*
- *Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007*
- *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012*
- *Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011*

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/December 10, 2012

SDG: 240-16475-1
Analysis: EPA 901.1 Mod

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				
3. Were holding times met?	X				
4. Were sample storage requirements met?	X				
Daily QC					
5 Was the peak energy checked to be within 2-3 σ at the beginning of the analytical sequence (low, mid and high energy)?	X				
6. Was the efficiency checked to be within 2-3 σ at the beginning of the analytical sequence (low, mid and high energy)?	X				
7. Was the FWHM for peak shape monitoring checked to be within 2-3 σ at the beginning of the analytical sequence (low, mid and high energy)?	X				
Sample Analysis					
8. Was a method blank prepared and analyzed with each batch?	X				
9. Were target analytes detected in the method blank >RL?		X			DoD QSM Table F-3 <5x = B
10. Was a field blank collected and analyzed?	X				
11. Were target analytes detected in the field blank analyses < RL?		X		Checked by ADR.	B

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/December 10, 2012

SDG: 240-16475-1
Analysis: EPA 901.1 Mod

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
12. Was a lab duplicate analyzed? Were the RPDs ≤40% ?		X		The lab duplicate was analyzed on sample FWGFWGmw-014-0178-GW. The duplicate RPD was above control limits of 40% for actinium 227 at 295%, actinium 228 at 107%, bismuth 212 at 200%, cesium 137 at 200%,lead 210 at 72%, lead 212 at 1570%, lead 214 at 110%, potassium 40 at 121%, protactinium 231 at 902%, radium 228 at 107%, thorium 234 at 3570%, uranium 235 at 3570%% . The actinium 227, actinium 228, bismuth 212, cesium 137, lead 210, lead 212, lead 214, potassium 40,protactinium 231, radium 228, thorium 234 and uranium 238 results for FWGFWGEQUIPRinse2-0213-GW, FWGFWGmw-014-0094-GW and FWGFWGmw-014-Dup4-0201-GW were qualified as estimated, "J/UJ".	J/UJ
13. Was a field duplicate analyzed? Were the RPDs <40%?	X			The field duplicate analyzed on sample FWGFWGmw-014-0178-GW had an RPD above control limits of 40% at 200% for lead 214. The lead 214 result for sample FWGFWGmw-014-0178-GW was qualified as estimated, "J".	J/UJ
14. Was an LCS prepared and analyzed with each batch?	X				
15. Were the LCS recoveries within laboratory limits?	X			Checked by ADR.	>UL=J; <LL=J/UJ

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/December 11, 2012

SDG: 240-13474
Analysis: EPA 900

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				
3. Were holding times met?	X				
4. Were sample storage requirements met?	X				
5.Calibration					
5a. Does the initial calibration curve consist of 7 mass attenuated calibration standards, with each point having at least 10,000 counts within 90 minutes?	X				R
5e. Was a second source verification (ICV) with individual points within 30% of the true value?	X				J/UJ
5f. Was the mean result of all masses across each detector <10%	X				J/UJ
Continuing Calibration					
6. Was a background check performed prior to daily analysis?	X				J/UJ
Sample Analysis					
7. Was a method blank prepared and analyzed with each batch?	X				
8. Were target analytes detected in the method blank >RL?		X			DoD QSM Table F-3 <5x = B
9. Was a field blank collected and analyzed?	X				
10. Were target analytes detected in the field blank analyses < RL?				Checked by ADR.	B
11. Was a field duplicate analyzed? Were the RPDs <40%?	X				J/UJ
12. Was an LCS prepared and analyzed with each batch?	X				
13. Were the LCS recoveries within laboratory limits?	X			Checked by ADR.	>UL=J; <LL=J/UJ
14. Was an matrix spike and matrix spike duplicate prepared and analyzed with each	X				

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/December 11, 2012

SDG: 240-13474
Analysis: EPA 900

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
batch?					
15. Were the MS/MSD recoveries within laboratory limits?	X			Checked by ADR.	>UL=J; <LL=J/UJ

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/December 10, 2012

SDG: 240-16475
Analysis: EPA 903.0 Mod

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				
3. Were holding times met?	X				
4. Were sample storage requirements met?	X				
5.Calibration					
5a. Does the initial calibration curve consist of 7 mass attenuated calibration standards, with each point having at least 10,000 counts within 90 minutes?	X				R
5e. Was a second source verification (ICV) with individual points within 30% of the true value?	X				J/UJ
5f. Was the mean result of all masses across each detector <10%	X				J/UJ
Continuing Calibration					
6. Was a background check performed prior to daily analysis?	X				J/UJ
Sample Analysis					
7. Was a method blank prepared and analyzed with each batch?	X				
8. Were target analytes detected in the method blank >RL?		X			DoD QSM Table F-3 <5x = B
9. Was a field blank collected and analyzed?	X				
10. Were target analytes detected in the field blank analyses < RL?				Checked by ADR.	B
11. Was a field duplicate analyzed? Were the RPDs <40%?	X				J/UJ
12. Was an LCS prepared and analyzed with each batch, with recoveries within laboratory limits?	X			Checked by ADR.	
13. Were the tracer recoveries within laboratory limits (40-110%)?	X			Checked by ADR.	>UL=J; <LL=J/UJ
14. Was an matrix spike and matrix spike duplicate prepared and analyzed with each	X			Matrix spike analysis performed on sample FWGFWGmw-014-0178-GW.	

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/December 10, 2012

SDG: 240-16475
Analysis: EPA 903.0 Mod

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
batch?					
15. Were the MS/MSD recoveries within laboratory limits?	X			The matrix spike and spike duplicate RPD recovered above control limits of 40% for gross alpha at 198% and gross beta at 201%. The gross alpha and gross beta results for samples FWGFWGEQUIPRinse2-0213-GW, FWGFWGmw-014-0094-GW and FWGFWGmw-014-Dup4-0201-GW were qualified as estimated, "J/UJ".	>UL=J; <LL=J/UJ

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Field duplicate analyzed on sample FWGFWGmw-014-0178-GW had an RPD above control limits of 20% at 44%. The radium result for sample FWGFWGmw-014-0178-GW was qualified as estimated, "J".

Appendix II

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16475-1										
6020	FWGFWGmw-014-0178-GW	AQ	N							
				Thorium	1.5	0.56J		J	ug/L	RI
900.0 MOD	FWGFWGEquipRinse2-0213-GW	AQ	EB							
				Gross Alpha		-0.03U	0.61	UJ	pCi/L	Ms
				Gross Beta		-0.21U	0.47	UJ	pCi/L	Ms
900.0 MOD	FWGFWGmw-014-0178-GW	AQ	N							
				Gross Alpha		1.2U	2.2	UJ	pCi/L	Ms
				Gross Beta		2.8	1.3	J	pCi/L	Ms
900.0 MOD	FWGFWGmw-014-DUP4-0201	AQ	FD							
				Gross Alpha		2.4U	2.4	UJ	pCi/L	Ms
				Gross Beta		3.6	1.6	J	pCi/L	Ms
901.1 MOD	FWGFWGEquipRinse2-0213-GW	AQ	EB							
				Actimium 227 (assumes equilibrium w/ Th-227)		2.9U	4.8	UJ	pCi/L	Ld
				Actinium 228		7U	11	UJ	pCi/L	Ld
				Bismuth 212		25U	76	UJ	pCi/L	Ld
				Cesium 137		-0.1U	5.5	UJ	pCi/L	Ld
				Lead 210		-2U	140	UJ	pCi/L	Ld
				Lead 212		1.1U	9.7	UJ	pCi/L	Ld
				Lead 214		17U	12	UJ	pCi/L	Ld
				Potassium 40		-100U	1300	UJ	pCi/L	Ld
				Protactinium 231		-10U	29	UJ	pCi/L	Ld
				Radium 228		7U	11	UJ	pCi/L	Ld
				Thorium 234		11U	53	UJ	pCi/L	Ld
				Uranium 238		11U	53	UJ	pCi/L	Ld

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16475-1										
901.1 MOD	FWGFWGmw-014-0178-GW	AQ	N							
				Actimium 227 (assumes equilibrium w/ Th-227)		-2.5U	6.2	UJ	pCi/L	Ld
				Actinium 228		7U	14	UJ	pCi/L	Ld
				Bismuth 212		29U	71	UJ	pCi/L	Ld
				Cesium 137		0.0U	1.8	UJ	pCi/L	Ld
				Lead 210		50U	100	UJ	pCi/L	Ld
				Lead 212		-2U	13	UJ	pCi/L	Ld
				Lead 214		24	11	J	pCi/L	Fd, Ld
				Potassium 40		-21U	97	UJ	pCi/L	Ld
				Protactinium 231		-30U	130	UJ	pCi/L	Ld
				Radium 228		7U	14	UJ	pCi/L	Ld
				Thorium 234		-50U	190	UJ	pCi/L	Ld
				Uranium 238		-50U	190	UJ	pCi/L	Ld
901.1 MOD	FWGFWGmw-014-DUP4-0201	AQ	FD							
				Actimium 227 (assumes equilibrium w/ Th-227)		12U	37	UJ	pCi/L	Ld
				Actinium 228		9U	18	UJ	pCi/L	Ld
				Bismuth 212		17U	72	UJ	pCi/L	Ld
				Cesium 137		-1.3U	6.5	UJ	pCi/L	Ld
				Lead 210		90U	140	UJ	pCi/L	Ld
				Lead 212		1U	10	UJ	pCi/L	Ld
				Lead 214		4U	11	UJ	pCi/L	Ld
				Potassium 40		-70U	2900	UJ	pCi/L	Ld
				Protactinium 231		39U	62	UJ	pCi/L	Ld
				Radium 228		9U	18	UJ	pCi/L	Ld
				Thorium 234		67U	77	UJ	pCi/L	Ld
				Uranium 238		67U	77	UJ	pCi/L	Ld
903.0 MOD	FWGFWGmw-014-0178-GW	AQ	N							
				Radium (total)		0.47	0.20	J	pCi/L	Fd

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Data Qualifier Summary

Lab Reporting Batch ID: 240-16475-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16475-1 **eQAPP Name: RVAAP Rad sept 25**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGFWGmw-014-0178-GW **Collected:** 10/16/2012 11:13:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
THORIUM	0.56	J	0.55	MDL	1.5	LOD	ug/L	J	RI

Method Category: RADCHEM

Method: 900.0 MOD **Matrix: AQ**

Sample ID: FWGFWGEquipRinse2-0213-GW **Collected:** 10/16/2012 12:46:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Gross Alpha	-0.03	U	1.2	MDL	_	LOD	pCi/L	UJ	Ms
Gross Beta	-0.21	U	0.88	MDL	_	LOD	pCi/L	UJ	Ms

Sample ID: FWGFWGmw-014-0178-GW **Collected:** 10/16/2012 11:13:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Gross Alpha	1.2	U	3.8	MDL	_	LOD	pCi/L	UJ	Ms
Gross Beta	2.8		1.9	MDL	_	LOD	pCi/L	J	Ms

Sample ID: FWGFWGmw-014-DUP4-0201 **Collected:** 10/16/2012 12:13:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Gross Alpha	2.4	U	3.7	MDL	_	LOD	pCi/L	UJ	Ms
Gross Beta	3.6		2.1	MDL	_	LOD	pCi/L	J	Ms

Method Category: RADCHEM

Method: 901.1 MOD **Matrix: AQ**

Sample ID: FWGFWGEquipRinse2-0213-GW **Collected:** 10/16/2012 12:46:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Actimium 227 (assumes equilibrium w/ Th-227)	2.9	U	62	MDL	_	LOD	pCi/L	UJ	Ld
Actinium 228	7	U	34	MDL	_	LOD	pCi/L	UJ	Ld
Bismuth 212	25	U	130	MDL	_	LOD	pCi/L	UJ	Ld
Cesium 137	-0.1	U	10	MDL	_	LOD	pCi/L	UJ	Ld
Lead 210	-2	U	210	MDL	_	LOD	pCi/L	UJ	Ld
Lead 212	1.1	U	19	MDL	_	LOD	pCi/L	UJ	Ld

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16475-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16475-1 **eQAPP Name: RVAAP Rad sept 25**

Method Category: RADCHEM

Method: 901.1 MOD **Matrix:** AQ

Sample ID: FWGFWGEquipRinse2-0213-GW **Collected:** 10/16/2012 12:46:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Lead 214	17	U	20	MDL	_	LOD	pCi/L	UJ	Ld
Potassium 40	-100	U	200	MDL	_	LOD	pCi/L	UJ	Ld
Protactinium 231	-10	U	250	MDL	_	LOD	pCi/L	UJ	Ld
Radium 228	7	U	34	MDL	_	LOD	pCi/L	UJ	Ld
Thorium 234	11	U	170	MDL	_	LOD	pCi/L	UJ	Ld
Uranium 238	11	U	170	MDL	_	LOD	pCi/L	UJ	Ld

Sample ID: FWGFWGmw-014-0178-GW **Collected:** 10/16/2012 11:13:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Actimium 227 (assumes equilibrium w/ Th-227)	-2.5	U	72	MDL	_	LOD	pCi/L	UJ	Ld
Actinium 228	7	U	33	MDL	_	LOD	pCi/L	UJ	Ld
Bismuth 212	29	U	120	MDL	_	LOD	pCi/L	UJ	Ld
Cesium 137	0.0	U	9.3	MDL	_	LOD	pCi/L	UJ	Ld
Lead 210	50	U	200	MDL	_	LOD	pCi/L	UJ	Ld
Lead 212	-2	U	22	MDL	_	LOD	pCi/L	UJ	Ld
Lead 214	24		11	MDL	_	LOD	pCi/L	J	Ld, Fd
Potassium 40	-21	U	150	MDL	_	LOD	pCi/L	UJ	Ld
Protactinium 231	-30	U	240	MDL	_	LOD	pCi/L	UJ	Ld
Radium 228	7	U	33	MDL	_	LOD	pCi/L	UJ	Ld
Thorium 234	-50	U	220	MDL	_	LOD	pCi/L	UJ	Ld
Uranium 238	-50	U	220	MDL	_	LOD	pCi/L	UJ	Ld

Sample ID: FWGFWGmw-014-DUP4-0201 **Collected:** 10/16/2012 12:13:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Actimium 227 (assumes equilibrium w/ Th-227)	12	U	64	MDL	_	LOD	pCi/L	UJ	Ld
Actinium 228	9	U	43	MDL	_	LOD	pCi/L	UJ	Ld
Bismuth 212	17	U	130	MDL	_	LOD	pCi/L	UJ	Ld
Cesium 137	-1.3	U	12	MDL	_	LOD	pCi/L	UJ	Ld
Lead 210	90	U	210	MDL	_	LOD	pCi/L	UJ	Ld
Lead 212	1	U	20	MDL	_	LOD	pCi/L	UJ	Ld
Lead 214	4	U	29	MDL	_	LOD	pCi/L	UJ	Ld
Potassium 40	-70	U	100	MDL	_	LOD	pCi/L	UJ	Ld
Protactinium 231	39	U	310	MDL	_	LOD	pCi/L	UJ	Ld

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16475-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16475-1 **eQAPP Name: RVAAP Rad sept 25**

Method Category: **RADCHEM**

Method: **901.1 MOD** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-014-DUP4-0201** ***Collected:*** **10/16/2012 12:13:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Radium 228	9	U	43	MDL	_	LOD	pCi/L	UJ	Ld
Thorium 234	67	U	200	MDL	_	LOD	pCi/L	UJ	Ld
Uranium 238	67	U	200	MDL	_	LOD	pCi/L	UJ	Ld

Method Category: **RADCHEM**

Method: **903.0 MOD** ***Matrix:*** **AQ**

Sample ID: **FWGFWGmw-014-0178-GW** ***Collected:*** **10/16/2012 11:13:00** ***Analysis Type:*** **RES** ***Dilution:*** **1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Radium (total)	0.47		0.22	MDL	_	LOD	pCi/L	J	Fd

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16475-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16475-1 **eQAPP Name: RVAAP Rad sept 25**

Reason Code Legend

Reason Code	*Description*
Fd	Field Duplicate Precision
Ld	Laboratory Duplicate Precision
Ms	Matrix Spike Precision
RI	Reporting Limit Trace Value
Surr	Surrogate/Tracer Recovery Upper Estimation

* denotes a non-reportable result

Project Name and Number: 030174.0016.009.01 - RVAAP (66)

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012
Sample Delivery Group: 240-16528

Date: February 11, 2013
Revision: 2

Data Reviewer: Angye Dragotta /Environmental Quality Management, Inc. (EQM, Inc.)

QA/QC Summary

On October 17, 2012 the following samples were collected from groundwater-monitoring wells at Ravenna Army Ammunition Plant and analyzed as part of SDG 240-16528. Sample analysis was performed by Test America, North Canton with the exception of the analytical for methods 8330, M8330, 353.2 and TALSOPWS-WC-0050. Methods 8330, M8330, 353.2 and TALSOPWS-WC-0050 were analyzed by Test America, West Sacramento.

Sample ID	VOC by EPA8260	EPA 8270		Pesticides by EPA 8081	PCBs/ EPA 8082	Explo/Prop by EPA 8330 Mod. 8330 and TALSOPWS-WC-0050	Cyanide EPA 9012	NO2/NO3, 353.2	Metals [4]		
		SVOC 4	Bis (2- ethylhexyl) phthalate						EPA 6010B	EPA 6020	Mercury by EPA 7470A
FWGCBPmw-009-0160-GW/GF	x	x		x	x	x	x		x	x	x
FWGDA2mw-114-0161- GW/GF	x	x		x	x	x	x		x	x	x
FWGDA2mw-115-0162- GW/GF	x	x		x	x	x	x		x	x	x
FWGDA2mw-DUP1-0199- GW/GF	x	x		x	x	x	x		x	x	x
FWGEQUIPRINSE3-0214-GW	x	x		x	x	x	x		x	x	x
FWGFWGmw-011-0188- GW/GF [5]	x	x		x	x	x	x		x	x	x
FWGFWGmw-013-0176- GW/GF	x	x		x	x	x	x		x	x	x
FWGLL12mw-182c-0190-GW			x								
FWGLL12mw-182ss-0191-GW			x								
FWGLL1mw-086-0181- GW/GF	x	x		x	x	x	x		x	x	x
FWGLL1mw-087-0182- GW/GF	x	x		x	x	x	x		x	x	x
FWGLL4mw-201-0185- GW/GF	x	x		x	x	x	x		x	x	x
FWGLL6mw-008-0186- GW/GF	x	x		x	x	x	x		x	x	x
FWGLL6mw-009-0187- GW/GF	x	x		x	x	x	x		x	x	x
FWGWBGmw-018-0195- GW/GF	x	x		x	x	x	x		x	x	x
FWGWBGmw-019-0196- GW/GF	x	x		x	x	x	x		x	x	x
FWGWBGmw-020-0197- GW/GF	x	x		x	x	x	x		x	x	x
FWGWBGmw-021-0198- GW/GF	x	x		x	x	x	x		x	x	x
FWGWBGMW-DUP8-0205-GW/GF	x	x		x	x	x	x		x	x	x

Notes:

1) All metals samples with the exception of FWGEQUIPRinse3-0214-GW were field filtered.
2) FWG TEAM 1TRIP, FWG TEAM 2 TRIP and FWG TEAM-3TRIP were collected and analyzed for VOC by EPA 8260B.
3) SVOC4= Full SVOC List
4) EPA 6020 metals include aluminum, antimony, beryllium, cadmium, iron, sodium, thallium and zinc. EPA 6010B metals include arsenic, chromium, cobalt, lead, selenium, silver, vanadium, barium, calcium, copper, magnesium, manganese, nickel and potassium.
5) Sample listed on COC and logged by the lab as FWGFWGmw-011-0188-GW- should be FWGLL11mw-011-0188-GW.

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16528 **Revision:** 2

The data presented in this report were evaluated according to the *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January, 2012.* The following documents were used as needed to supplement the project documentation: The United States Department of Defense (DoD) Quality Services Manual (QSM) for Environmental Laboratories, Version 4.1, and the United States Army Corps of Engineers (USACE), Louisville District Quality Systems Manual Supplement (LS), *EPA National Functional Guidelines (NFG) for Organic Data Review, EPA-540/R-08-01, June 2008, NFG for Inorganic Data Review, EPA-540/R-04-004, October 2004*, Analytical Methods, and Laboratory Standard Operating Procedures. The QC criteria provided in the reference documents represent accuracy and precision performance goals for each analytical method. QC criteria reviewed for each method are listed below, along with any outliers.

All analytical results have been verified against compliance requirements specified in the project QAP, QSM, LS, associated analytical methods and/or SOPs, as appropriate, and reported by the laboratory as directed by the DoD QSM.

Per the DoD QSM, the laboratory data was reported as follows: Non detected results (< DL) were reported at the LOD with a "U" flag. Detected results between the DL and LOQ were reported as estimated, qualified with a "J" flag.

LOD - An estimate of the minimum amount of a substance that an analytical process can reliably detect.

LOQ - The lowest concentration that produces a quantitative result within specified limits of precision and bias.

DL- The smallest analyte concentration that can be demonstrated to be different from zero or a blank concentration at the 99% level of confidence.

Checklists used in review of the data have been presented in Appendix 1. Outliers have been noted below and results requiring qualification, as a result of this verification process, have been summarized in Appendix 2.

The completeness objective for the project was 90%. The completeness objective was met for this SDG, at 99.3%. Limitations, if any, on the data are indicated with qualifiers detailed below.

The cooler temperatures were documented as being acceptable upon receipt at the North Canton Laboratory. With the exception of nitrate/nitrite, no field samples were designated for matrix spike analysis.

VOAs - 8260B

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV/CCV criteria
- Internal standard area counts and retention times
- LOD and MRL verification criteria
- Method/Field/Trip blank Criteria
- Surrogate recoveries
- Field duplicate RPD criteria
- Laboratory Control Sample criteria
- Matrix Spike Recovery Criteria and RPD

MRL Recovery

10/24/12- Opening MRL analyzed @ 1105 recovered above control limits of 70-130% for methylene chloride at 322%, chloroethane at 134%, vinyl chloride at 133% and at 144% for chloromethane. The closing MRL analyzed at 2028 recovered above control limits of 70-130% for methylene chloride at 318% and below limits at 68% for o-xylene. The o-xylene results for FWG TEAM 1 TRIP and FWGFWGmw-021-0198-GW were qualified as estimated, "UJ". No additional qualifications were required for the other outliers as there were no detected methylene chloride, chloroethane, vinyl chloride or chloromethane concentrations reported for the bracketed field samples.

10/25/12- Opening MRL analyzed @ 0942 recovered above control limits of 70-130% for methylene chloride at 207% and below limits for 2-hexanone at 64%, 2-butanone at 55% and 4-methyl-2-pentanone at 56%. A closing MRL from the same analytical run was not reported due to instrument malfunction, however the opening MRL analyzed 10/26/12 at 1048 recovered above control limits of 70-130% for methylene chloride at 142%, bromomethane at 144% and chloroethane at 144%. The 2-butanone and 4-methyl-2-pentanone results for samples FWGWBGmw-020-0197-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWG TEAM 2 Trip, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW and FWGDA2mw-DUP1-0199-GW were qualified as unusable, "R". The 2-hexanone results for samples FWGWBGmw-020-0197-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWG TEAM 2 Trip, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ". No additional qualifications were required for the other outliers as there were no detected methylene chloride, chloroethane or bromomethane concentrations reported for the bracketed field samples

10/26/12- The closing MRL analyzed at 10/26/12 @ 2005 recovered above control limits of 70-130% for methylene chloride at 161%, bromomethane at 136% and chloroethane at 145%. No qualifications were required as there were no detected methylene chloride, chloroethane or bromomethane concentrations reported for the bracketed field samples.

10/30/12- The opening MRL analyzed at 10/30/12 @ 1217 recovered above control limits of 70-130% for methylene chloride at 240%, chloromethane and vinyl chloride at 132% and chloroethane at 143%. The closing MRL analyzed at @ 2005 recovered above control limits of 70-130% for methylene chloride at 231% and below limits for styrene and m,p-xylene at 69%. The styrene and m,p-xylene results for samples FWGFWGmw-011-0118-GW, FWGWBGmw-18-0195-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGTEAM3-Trip were qualified as estimated, "UJ". No additional qualifications were required as there were no detected methylene chloride, chloromethane or vinyl chloride concentrations reported for the bracketed field samples.

CCV

10/24/12 @ 0957- The %D for methylene chloride was above control limits of 20% D at 23.7% for the CCV analyzed 10/24/12 @ 0957 and at 28.9% for the methylene chloride CCV analyzed 10/25/12 @ 0834. No qualifications were required as there were no detected methylene chloride concentrations reported for the bracketed field samples.

10/30/12 @ 1109- The %D for acetone was above control limits of 20% D at 23.1%. The acetone results for samples FWGFWGmw-011-0118-GW, FWGWBGmw-18-0195-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGTEAM3-Trip were qualified as estimated, "J".

Blanks

Methylene chloride was detected in the method blank from batch 240-62557 at 1.94ug/L, in batch 240-62676 at 1.13ug/L and in batch 240-63255 at 1.23ug/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.

Acetone was detected in FWG TEAM 1 TRIP at and FWG TEAM 2 TRIP at 1.6ug/L and in FWG TEAM3-TRIP at 1.8ug/L. FWGEQUIPRINSE3-0214-GW had acetone detected at 9ug/L. The acetone results for samples FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGDA2mw-115-0162-GW, FWGDA2mw-DUP1-

0199-GW, FWGWBGmw-018-0195-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGFWGmw-011-0188-GW were qualified, "B".

Surrogate Recovery
The surrogate, 1,2-dichloroethane-d4 recovered above control limits of 70-120% at 121% in samples FWGLL1mw-087-0182-GW and FWGLL6mw-008-0186-GW, at 126% in sample FWGCBPmw-009-0160-GW, at 122% in sample FWGDA2mw-114-0161-GW, at 123% in sample FWGDA2mw-DUP1-0199-GW, at 124% in sample FWGFWGmw-011-0188-GW, at 131% in FWG TEAM-3 Trip and at 130% in sample FWGFWGmw-019-0196-GW. The acetone results for samples FWGLL1mw-087-0182-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW, FWGFWGmw-011-0188-GW, FWGDA2mw-DUP1-0199-GW and FWG TEAM-3 Trip were qualified as estimated, "J". The carbon disulfide results for samples FWGCBPmw-009-0160-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "J".

Field Duplicate RPD
Field duplicates were analyzed on samples FWGWBGmw-018-0195-GW and FWGDA2mw-115-0162-GW. The field duplicate analyzed on sample FWGWBGmw-018-0195-GW had a duplicate RPD above control limits of 50% at 200% for acetone. The field duplicate analyzed on sample FWGDA2mw-115-0162-GW had a duplicate RPD above control limits of 50% at 70% for acetone. The acetone results for samples FWGWBGmw-018-0195-GW and FWGDA2mw-115-0162-GW were qualified as estimated, "J".

SVOCs- 8270C
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Tuning criteria
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV/CCV criteria
- Internal standard area counts and retention times
- LOD and MRL verification criteria
- Method/Field blank Criteria
- Surrogate recoveries
- Field duplicate RPD criteria
- Laboratory Control Sample criteria
- Matrix Spike Recovery Criteria and RPD

Hold Time
Surrogate(s) recovered below acceptance criteria in the initial analysis of sample FWGLL4mw-201-0185-GW. FWGLL4mw-201-0185-GW was reextracted outside hold time of 7 days at 13 days (<2x hold time). The re extracted and reanalyzed sample was reported with acceptable surrogate recoveries. The sample results for sample FWGLL4mw-201-0185-GW were qualified as estimated, "UJ".

MRL Recovery
The closing MRL analyzed 10/26/12 @2020 recovered below control limits of 70-130% at 57% for 2,4-dinitrophenol. An MDL check was analyzed with an acceptable result. The 2,4-dinitrophenol results for samples FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW, FWGLL12mw-182c-0190-GW, FWGLL12mw-0182ss-0191-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGFWGmw-019-0196-GW, FWGFWGmw-DUP8-0205-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ".

ICV
10/25/12 @ 1715, The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 26.2%. The 3,3'-dichlorobenzidine results for FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-

0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW, FWGLL12mw-182c-0190-GW, FWGLL12mw-0182ss-0191-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGFWGmw-019-0196-GW, FWGFWGmw-DUP8-0205-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW, FWGFWGmw-011-0188-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ".

11/1/12 @ 0935 The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 22.1%. The 3,3'-dichlorobenzidine result for sample FWGLL4mw-201-0185-GW was qualified as estimated, "UJ".

Blanks

The method blank associated with batch 240-62371 had bis(2-ethylhexyl)phthalate detected at 1.2ug/L and the method blank from batch 240-62510 had bis(2-ethylhexyl)phthalate detected at 0.804ug/L . The bis(2-ethylhexyl)phthalate results for samples FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGDA2mw-115-0162-GW, FWGLL12mw-182c-0190-GW, FWGLL12mw-0182ss-0191-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGLL6mw-009-0187-GW, FWGCBPmw-009-0160-GW and FWGFWGmw-011-0188-GW and were qualified, "B".

Benzyl alcohol was detected in FWGEQUIPRINSE3-0214-GW at 0.61ug/L. No qualifications were made as there were no detected benzyl alcohol concentrations reported in the associated field samples.

Matrix Spike Recovery

The matrix spike analysis performed on sample FWGLL1mw-086-0181-GW recovered below control limits of 55-110% with the MS recovering at 18% and the MSD at 16% for benzo(a)pyrene. The spike analysis recovered below control limits of 35-135% for di-n-octylphthalate at 19% in the MS and 20% in the MSD. The spike analysis recovered below control limits of 40-12% for benzo(g,h,i) perylene at 37% in the MS and for bis(2-ethyl hexyl)phthalate at 20% in the MS and 23% in the MSD. The spike analysis recovered below control limits of 45-125% for indeno (1,2,3-cd)pyrene at 39% in the MS. The MSD duplicate for 3,3-dichlorobenzidine recovered below control limits of 20-110% at 13% with a duplicate RPD of 69% (30% limit). The benzo(a)pyrene, di-n-octylphthalate, benzo(g,h,i) perylene, bis(2-ethyl hexyl)phthalate, indeno (1,2,3-cd)pyrene and 3,3-dichlorobenzidine results for sample FWGLL1mw-086-0181-GW were qualified as estimated, "J/UJ".

Field Duplicate RPD

The field duplicates analyzed on sample FWGWBGmw-018-0195-GW FWGDA2mw-115-0162-GW had duplicate RPDs above control limits of 50% at 200% for bis(2-ethylhexyl)phthalate. The bis(2-ethylhexyl)phthalate results for samples FWGWBGmw-018-0195-GW and FWGDA2mw-115-0162-GW were qualified as estimated, "J".

Pesticides- 8081A

The following QC criteria were reviewed with acceptable results, except as noted below:

- Preservation, holding time and sample handling
- Initial Calibration criteria
- DDT and Endrin breakdown criteria
- Retention time criteria
- ICV criteria
- CCV Criteria
- Method/Field blank Criteria
- LCS Recoveries
- Field Duplicate Criteria
- LOD and MRL verification criteria
- Matrix Spike Recovery Criteria and RPD
- Surrogate Recoveries
- Second Column confirmation criteria

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16528 **Revision:** 2

MRL Recovery
The closing MRL analyzed 11/1/12 @ 0023 recovered below control limits of 70-130% for methoxychlor at 0% on CLP-1 and CLP-2. The methoxychlor results for sample FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBP-009-0160-GW and FWGFWGmw-011-0188-GW were qualified as unusable, "R".

ICV Criteria
The ICV analyzed 10/27/12 1934 recovered below control limits of 20% D for endrin ketone at 22.5% on CLP-2. No qualifications were made as CLP-2 was used for confirmation and there were no detected concentrations of endrin ketone reported in the associated field samples.

CCV Criteria
- The CCV analyzed 10/29/12 @ 1956 had %D above control limits of 20% for 4,4'-DDE at 24.3% on CLP-1 and at 21.7% on CLP-2.
- The CCV analyzed 10/30/12 @0048 had %D above control limits of 20% for 4,4'-DDE at 22.6% on CLP-2.

No qualifications were made as there were no detected concentrations of 4,4'-DDE reported for the bracketed field samples.

- The CCV analyzed 10/30/12 @ 0515 had %D above control limits of 20% for 4,4'-DDE at 24.3% on CLP-1 and 25.8 on CLP-2.
- The CCV analyzed 10/30/12 @ 0855 had %D above control limits of 20% for alpha- BHC at 21.4% on CLP-1, delta BHC had a %D of 21.3% , aldrin at 22.6%, 4,4-DDE at 28.^% and DCB at 35.5%.

Only CLP-1 was evaluated and no qualifications were made for %D outliers as there were no detected concentrations reported for the bracketed field samples on CLP-1.

Blanks
Beta-BHC was detected in FWGEQUIPRinse3-0214-GWat 0.011ug/L. The beta-BHC result for sample FWGDA2mw-115-0162-GW was qualified, "B".

LCS Recovery
The toxaphene LCS recovered below control limits of 70-130% in batch 240-62004 at 65%. The toxaphene results for samples FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGFWGmw-019-0196-GW, FWGFWGmw-DUP8-0205-GW, FWGLL4mw-201-0185-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ".

Matrix Spike Recovery
The matrix spike analysis performed on sample FWGLL1mw-086-0181-GW recovered below control limits of 75-125% for endrin ketone at 71% in the MS and 66% in the MSD. The toxaphene matrix spike analysis recovered below control limits of 70-130% at 60% in the MS and 50% in the MSD. The endrin ketone and toxaphene results for sampleFWGLL1mw-086-0181-GW were qualified as estimated, "UJ".

Surrogate Recovery
The surrogate DCB recovered below control limits of 30-135% on CLP-2 at 28% in sample FWGLL1mw-087-0182-GW and for FWGFWGmw-011-0188-GW at 25%. No qualification was made as CLP-2 was used for confirmation and there were no detected results reported for FWGLL1mw-087-0182-GW or FWGFWGmw-011-0188-GW.

Field Duplicate RPD
The field duplicate analyzed on sample FWGDA2mw-115-0162-GW had an RPD above control limits of 50% at 200% for beta-BHC. The beta-BHC result for FWGDA2mw-115-0162-GW was qualified as estimated, "J".

PCB- 8082

The following QC criteria were reviewed with acceptable results, except as noted below:

- Preservation, holding time and sample handling
- Initial Calibration criteria
- DDT and Endrin breakdown criteria
- Retention time criteria
- ICV criteria
- CCV Criteria
- Method/Field blank Criteria
- LCS Recoveries
- Field Duplicate Criteria
- LOD and MRL verification criteria
- Matrix Spike Recovery Criteria and RPD
- Surrogate Recoveries
- Second Column confirmation criteria

Hold Time

The following samples were re-prepared outside the holding time of seven days but were re extracted within 2x hold (12 days) because of low surrogates in the initial analysis. The results associated with the reanalysis were qualified as estimated, "UJ": FWGFWGmw-021-0198-GW, FWGLL1mw-086-0181-GW, FWGLL1mw-087-0182-GW and FWGLL6mw-008-0186-GW.

MRL Recovery

The closing MRL analyzed 11/1/12 @ 2330 recovered above control limits of 70-130 for aroclor 1016 at 132%. No qualifications were made as there were no detected aroclor concentrations reported for the bracketed field samples.

Surrogate Recovery

The surrogate, DCB, recovered below control limits of 40-135% for sample FWGLL1mw-086-0181-GW at 39% on CLP2 and for sample FWGFWGmw-011-0188-GW at 23% on CLP2 and 24% on CLP-1. The results for FWGLL1mw-086-0181-GW and FWGFWGmw-011-0188-GW were qualified as estimated, "UJ".

Metals - 6010B

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Lab and Field duplicate RPD criteria

Blanks

The ICB analyzed 10/23/12 had vanadium detected at 2.68ug/L. The vanadium results for samples FWGWBGmw-020-0197-GF, FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGFWGmw-018-0195-GF, FWGFWGmw-DUP8-0205-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF and FWGDA2mw-DUP1-0199-GF were qualified, "U".

The CCBs analyzed 10/23/12 had vanadium detected from 1.24ug/L to 3.0ug/L. The vanadium results for samples FWGWBGmw-020-0197-GF, FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGFWGmw-018-0195-GF, FWGFWGmw-DUP8-0205-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF and FWGDA2mw-DUP1-0199-GF were qualified, "U".

The method blank from batch 240-62201 had vanadium detected at 1.31ug/L and from batch 240-622741, vanadium was detected at 1.57ug/L. The vanadium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGWBGmw-020-0197-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGWBGmw-018-0195-GF, FWGDA2mw-DUP1-0199-GF and FWGWBGmw-DUP8-0205-GF were qualified, "B".

Lab Duplicate RPD

The lab duplicate analyzed on sample FWGLL1mw-086-181-GF had an RPD above control limits of 20% for arsenic at 56%. The arsenic results for samples FWGLL1mw-086-181-GF, FWGCBPmw-00900160-GF, FWGFWG-011-0188-GF and FWGLL6mw-008-0186-GF were qualified as estimated, "J/UJ".

Metals - 6020

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Matrix Spike and Spike Duplicate Recovery and RPD Criteria
- Lab and Field Duplicate RPD Criteria

Blanks

The ICB analyzed 10/26/12 had thallium detected at 0.491ug/L. The thallium results for samples FWGLL1mw-086-0181-GF, FWGEQUIPRinse3-0214-GW and FWGLL6mw-008-0186-GF were qualified, "U".

The CCBs analyzed 10/26/12 had thallium detected from 0.354 to 0.499ug/L, cadmium from 0.055ug/L to 0.082ug/L and beryllium from 0.060ug/L to 0.105ug/L.

- The thallium results for samples FWGLL1mw-086-0181-GF, FWGEQUIPRinse3-0214-GW and FWGLL6mw-008-0186-GF were qualified, "U".
- The beryllium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF and FWGEQUIPRinse3-0214-GW were qualified, "U".
- The cadmium results for samples FWGLL1mw-087-0182-GF, FWGEQUIPRinse3-0214-GW, FWGWBGmw-021-0198-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGLL6mw-009-0187-GF, FWGWBGmw-019-0196-GF, FWGFWGmw-013-0176-GF and FWGDA2mw-114-0161-GF were qualified, "U".

The method blank from batch 240-62201 had zinc detected at 9.02ug/L. The zinc result for sample FWGLL1mw-087-182-GFwas qualified "B".

FWGEQUIPRinse3-0214-GW had antimony detected at 0.24ug/L, beryllium at 0.16ug/L, cadmium at 0.15ug/L, iron at 54ug/L, and thallium at 0.67ug/L.

- The cadmium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGWBGmw-021-0198-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGLL6mw-009-0187-GF, FWGWBGmw-019-0196-GF, FWGFWGmw-013-0176-GF, FWGDA2mw-114-0161-GF and FWGWBGmw-DUP8-0205-GF were qualified, "B".
- The antimony results for samples FWGLL1mw-086-181-GF and FWGLL6mw-008-0186-GF were qualified as estimated. "B".
- The thallium results for samples FWGLL1mw-086-0181-GF and FWGLL6mw-008-0186-GF were qualified, "B".

- The beryllium results for samples FWGLL1mw-087-0182-GF and FWGLL1mw-086-0181-GF were qualified, "B".

Lab Duplicate RPD
The lab duplicate analyzed on sample FWGLL1mw-086-181-GF had an RPD above control limits of 20% for beryllium at 122% and cadmium at 188%. The beryllium and cadmium results for samples FWGLL1mw-086-181-GF, FWGCBPmw-00900160-GF, FWGFWG-011-0188-GF and FWGLL6mw-008-0186-GF were qualified as estimated, "J/UJ".

Field Duplicate RPD
The field duplicate analyzed on sample FWGDA2mw-115-0162-GF was above control limits of 50% for cadmium at 200%. The cadmium result for FWGDA2mw-115-0162-GF was qualified as estimated, "UJ".

Mercury - 7470A
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- LOD and MRL verification criteria
- LCS percent recovery criteria
- Lab and Field duplicate RPD criteria

No QC outliers noted.

Cyanide - 9012
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- ICV and CCV criteria
- ICB /CCBs criteria
- Method/Field blank Criteria
- MRL and MDL verification criteria
- LCS percent recovery criteria
- MS percent recovery
- Matrix Duplicate RPD criteria
- Field duplicate RPD criteria

No QC outliers were noted.

Explosives- 8330
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration Criteria
- ICV and CCV criteria
- Retention time criteria
- LOD and MRL verification criteria
- Surrogate recovery criteria
- Equipment and method blanks free from contamination
- LCS/LCD Recovery and RPD Criteria

MRL Recovery
10/29/12 @ 1102- The MRL recovered above control limits of 70-130% for 2-nitrotoluene and 2,6-dinitrolotuene at 141%. No qualifications were required as there were no detected concentrations of 2-nitrotoluene or 2,6-dinitrolotuene reported for the bracketed field samples.

10/30/12 @ 1029- The MRL recovered above control limits of 70-130% for 4-amino-2,6-dinitrotoluene at 134% and 2-amino-4,6-dinitrolotuene at 136%. No qualifications were required as there were no detected concentrations of 4-amino-2,6-dinitrotoluene or 2-amino-4,6-dinitrolotuene reported for the bracketed field samples.

10/31/12 @ 1444- The MRL recovered above control limits of 70-130% for 3-nitrotoluene at 131%. No qualifications were required as there were no detected concentrations of for 3-nitrotoluene reported for the associated field samples.

11/1/12 @ 1214- The MRL recovered above control limits of 70-130% for HMX at 133%, nitrobenzene at 134%, 4-amino- 2,6-dinitrotoluene at 135%, 2,6-dinitrotoluene at 146% and 4-nitrotoluene at 133%. The RDX results for samples FWGWBGmw-018-0195-GW and FWGWBGmw-DUP8-0205-GW were qualified as estimated, "J". No additional qualifications were required as there were no detected concentrations of 4-amino- 2,6-dinitrotoluene, nitrobenzene, 2,6-dinitrotoluene or 4-nitrotoluene reported for the bracketed field samples.

11/2/12 @ 1142- The MRL recovered above control limits of 70-130% for 4-amino- 2,6-dinitrotoluene at 146%, 2,6-dinitrotoluene at 146% and 2-nitrotoluene at 143%. No qualifications were required as there were no detected concentrations of 4-amino- 2,6-dinitrotoluene,2,6-dinitrotoluene or 2-nitrotoluene reported for the associated field samples.

11/2/12 @ 1343- The MRL recovered above control limits of 70-130% for RDX at 149%, 4-amino- 2,6-dinitrotoluene at 136%, 4-nitrotoluene at 135% and 2-nitrotoluene at 141%. No qualifications were required as there were no detected concentrations of RDX, 4-amino- 2,6-dinitrotoluene, 4-nitrotoluene or 2-nitrotoluene reported for the associated field samples.

Closing MRL check data was not provided for LC12. No qualifications were made as LC12 was used for confirmation only.

Blanks
The method blank analyzed 11/1/12 had 1,3,5-trinitrobenzene detected at 0.0543ug/L. No qualifications were made as there were no detected 1,3,5-trinitrobenzene results reported for the associated field samples.

Surrogate Recovery
The surrogate 3,4-dinitrotoluene recovered above control limits of 79-111% on LC12 for sample FWGEQUIPRINSE3-0214-GW at 120%. No qualifications were required as there were no detected concentrations reported for FWGEQUIPRINSE3-0214-GW.

Nitroguanidine- 8330M
The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration criteria
- Retention time criteria
- LOD and MRL verification criteria
- ICV and CCV criteria
- The method blank and equipment blanks were free from contamination
- LCS/LCSD percent recoveries and RPD value criteria
- Matrix spike recovery criteria

No QC outliers were noted.

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** February 11, 2013
Sample Delivery Group: 240-16528 **Revision:** 2

Nitrocellulose – WS-WC-0050

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Sample preparation criteria
- Initial Calibration criteria
- ICV and CCV criteria
- The method and equipment blanks were free from contamination
- LOD and MRL verification criteria
- ICB and CCBs were free from contamination
- LCS/LCSD percent recoveries and RPD value criteria
- MS/MSD percent recoveries

No QC outliers were noted.

Job ID: 240-16528-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Environmental Quality Mgt., Inc.

Project: RVAAP (OH)

Report Number: 240-16528-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

The 353.2 Nitrocellulose, 8330 Nitroguanidine and 8330A Explosives analysis were performed at the TestAmerica West Sacramento Laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

All parameters for which TestAmerica North Canton has certification were evaluated to the limit of detection (LOD) and include qualified results where applicable. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

RECEIPT

The samples were received on 10/18/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 0.4° C, 0.8° C, 1.2° C, 1.2° C, 1.2° C, 1.2° C, 1.2° C, 1.6° C, 2.2° C, 2.6° C, 2.6° C, 2.7° C, 2.9° C, 3.0° C, 3.1° C, 3.2° C, 3.6° C, 4.2° C, 4.2° C and 5.1° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWG TEAM 1 TRIP (240-16528-1), FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWG TEAM 2 TRIP (240-16528-11), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL4mw-201-0185-GW (240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22),

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FWGTEAM3-TRIP (240-16528-24), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B DoD. The samples were analyzed on 10/24/2012, 10/25/2012, 10/26/2012 and 10/30/2012.

Methylene Chloride was detected in method blank MB 240-62557/6, MB 240-62676/6, and MB 240-63255/6 at levels exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. None of the samples associated with these method blanks contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria high for samples FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGTEAM3-TRIP (240-16528-24), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35), FWGFWGmw-011-0188-GW (240-16528-37), and FWGLL1mw-087-0182-GW (240-16528-6). These samples did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

o-Xylene failed the recovery criteria low for MRL 240-62557/29. Methylene Chloride failed the recovery criteria high.

Chloroethane, Chloromethane, Methylene Chloride and Vinyl chloride failed the recovery criteria high for MRL 240-62557/5.

Bromomethane, Chloroethane and Methylene Chloride failed the recovery criteria high for MRL 240-62676/29.

2-Butanone (MEK), 2-Hexanone and 4-Methyl-2-pentanone (MIBK) failed the recovery criteria low for MRL 240-62676/5. Methylene Chloride failed the recovery criteria high.

Bromomethane, Chloroethane and Methylene Chloride failed the recovery criteria high for MRL 240-62920/19.

m-Xylene & p-Xylene and Styrene failed the recovery criteria low for MRL 240-63255/12. Methylene Chloride failed the recovery criteria high.

Chloroethane, Chloromethane, Methylene Chloride and Vinyl chloride failed the recovery criteria high for MRL 240-63255/5. Refer to the QC report for details.

The continuing calibration verification (CCV) for Methylene Chloride associated with batch 62676 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The closing MRL for batch 62676 was out of tune by 14 hours due to an instrument malfunction. The instrument was fixed and proceeded with the closing MRL analysis. The PM was notified and confirmed with client as acceptable data.

There was no MS/MSD in batch 62920 due to the sample needing reanalysis to meet QC limits.

The continuing calibration verification (CCV) for Acetone associated with batch 63255 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 63255.

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL12mw-182c-0190-GW (240-16528-18), FWGLL12mw-182ss-0191-GW (240-16528-19), FWGLL4mw-201-0185-GW (240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22), FWGWBGmw-018-0195-GW (240-16528-25),

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FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 10/23/2012, 10/24/2012 and 10/30/2012 and analyzed on 10/26/2012, 10/28/2012 and 11/02/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Bis(2-ethylhexyl) phthalate was detected in method blanks MB 240-62371/20-A and MB 240-62510/21-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

All surrogate recoveries for the following sample were below acceptance criteria: FWGLL4mw-201-0185-GW (240-16528-20). Upon reextraction and reanalysis all surrogate recoveries and QC met acceptance criteria, however, sample holding times had been exceeded. As per client protocol only the reextracted results have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 62510, 8270.

No other difficulties were encountered during the SVOCs analyses. All other quality control parameters were within the acceptance limits.

NITROGUANIDINE (HPLC)

Samples FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL4mw-201-0185-GW (240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for nitroguanidine (HPLC) in accordance with EPA SW-846 Method 8330_Ngu. The samples were prepared on 10/30/2012 and analyzed on 11/05/2012.

The sample(s) listed below contained excessive sediment/particulates. Samples were filtered prior to extraction.

240-16528-6,25,37

No other difficulties were encountered during the explosives analyses. All quality control parameters were within the acceptance limits.

CHLORINATED PESTICIDES

Samples FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL4mw-201-0185-GW (240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for chlorinated pesticides in accordance with EPA SW-846 Method 8081A DoD. The samples were prepared on 10/19/2012 and 10/24/2012 and analyzed on 10/30/2012 and 10/31/2012.

The closing continuing calibration verification (CCV) for DDE associated with batch 63133 recovered above the upper control limit. The samples associated with this CCVFWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGFWGmw-013-0176-GW (240-16528-22), FWGLL1mw-086-0181-GW (240-16528-8), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL4mw-201-0185-GW (240-16528-20), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGmw-019-0196-GW (240-16528-29), FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGWBGMW-DUP8-0205-GW (240-16528-27) were non-detect for the affected analyte; therefore the data have been reported.

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Laboratory: TestAmerica Canton (Continued)

The closing continuing calibration verification (CCV) associated with batch 63133 recovered above the upper control limits. The samples associated with this CCVFWGWBGmw-018-0195-GW (240-16528-25), FWGWBGmw-019-0196-GW (240-16528-29), FWGWBGMW-DUP8-0205-GW (240-16528-27) were non-detects for the affected analytes; therefore the data have been reported.

The data for Lindane and DDT have been reported from the confirmation column for the associated sampels FWGLL1mw-086-0181-GW (240-16528-8 MS), FWGLL1mw-086-0181-GW (240-16528-8 MSD).

The initial calibration verification (ICV) for analytical batch 63323 exceeded control criteria for Toxaphene on the confirmation column. The data for the associated samples FWGCBPmw-009-0160-GW (240-16528-35), FWGFWGmw-011-0188-GW (240-16528-37), FWGLL6mw-008-0186-GW (240-16528-33), FWGLL6mw-009-0187-GW (240-16528-31) was reported from the primary column.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 62519, 8081.

No other difficulties were encountered during the pesticides analyses. All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL4mw-201-0185-GW (240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082 DOD. The samples were prepared on 10/19/2012, 10/24/2012 and 10/29/2012 and analyzed on 10/23/2012, 10/24/2012, 10/25/2012 and 11/01/2012.

DCB Decachlorobiphenyl failed the surrogate recovery criteria low for FWGFWGmw-011-0188-GW (240-16528-37). Refer to the QC report for details.

Surrogate recovery for the following samples was outside control limits: FWGLL1mw-086-0181-GW (240-16528-8), FWGLL1mw-086-0181-GW (240-16528-8 MS), FWGLL1mw-086-0181-GW (240-16528-8 MSD), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL6mw-008-0186-GW (240-16528-33), FWGWBGmw-021-0198-GW (240-16528-4). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Only the re-extract data is reported.

Surrogate recovery for the following sample was outside control limits: FWGFWGmw-011-0188-GW (240-16528-37). Re-extraction and/or re-analysis was performed with concurring results. The original analysis has been reported.

The method reporting limit (MRL) for batch 63567 exceeded control limits for the following analytes: Aroclor 1016. These analytes were not detected in the associated samples; therefore, the data have been reported.

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 62522, 8082.

No other difficulties were encountered during the PCBs analyses. All other quality control parameters were within the acceptance limits.

EXPLOSIVES

Samples FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL4mw-201-0185-GW (240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for explosives in accordance with EPA SW-846 Method 8330A. The samples were prepared on 10/23/2012 and analyzed on 10/30/2012, 10/31/2012, 11/01/2012 and 11/02/2012.

1,3,5-Trinitrobenzene was detected in method blank MB 320-4831/1-A at a level that was above the method detection limit but below the

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reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The method reporting limit calibration verifications (MRL) for analytical batch 5034 exceeded control criteria for the analytes listed below. The data have been qualified and reported. The corrective action for this deficiency is an analysis of a standard at approximately 2X the MDL. This MRL standard is approximately 2X the MDL. The acceptance criteria for the 2X MDL standard is detection of the compound. As the compound was detected, the data is reported wit no further corrective action.

MRL 1- 2,6 Dinitrotoluene and 0-Nitrotoluene
MRL2- 2 Amino-4,6-Dinitrotoluene, 4 Amino- 2,6-Dinitrotoluene, and RDX

The continuing calibration verification (CCV) for analytical batch 4789 exceeded control criteria for Nitrobenzene, p-Nitrotoluene, RDX, HMX, 4-Amino-2,6-Dinitrotoluene, and 2,6-Dinitrotoluene. The corrective action for this deficiency is an analysis of a standard at apporximately 2x the MDL. The acceptance criterion for the 2x MDL standard is detection of the compound. As the compounds were detected, the data have been qualified and reported.

The continuing calibration verification (CCV) for analytical batch 4831 exceeded control criteria for 4-Amino-2,6-Dinitrotoluene and 0-Nitrotoluene. The corrective action for this deficiency is an analysis of a standard at apporximately 2x the MDL. The acceptance criterion for the 2x MDL standard is detection of the compound. As the compounds were detected, the data have been qualified and reported.

Method(s) 8330A: The continuing calibration verification (CCV) for analytical batch 4831 exceeded control criteria for 4-Amino-2,6-dinitrotoluene, o-Nitrotoluene, p-Nitrotoluene, and RDX. The corrective action for this deficiency is an analysis of a standard at apporximately 2x the MDL. The acceptance criterion for the 2x MDL standard is detection of the compound. As the compounds were detected, the data have been qualified and reported.

No other difficulties were encountered during the explosives analyses. All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICP)

Samples FWGWBGmw-020-0197-GF (240-16528-3), FWGWBGmw-021-0198-GF (240-16528-5), FWGLL1mw-087-0182-GF (240-16528-7), FWGLL1mw-086-0181-GF (240-16528-9), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GF (240-16528-13), FWGDA2mw-115-0162-GF (240-16528-15), FWGDA2mw-DUP1-0199-GF (240-16528-17), FWGLL4mw-201-0185-GF (240-16528-21), FWGFWGmw-013-0176-GF (240-16528-23), FWGWBGmw-018-0195-GF (240-16528-26), FWGWBGMW-DUP8-0205-GF (240-16528-28), FWGWBGmw-019-0196-GF (240-16528-30), FWGLL6mw-009-0187-GF (240-16528-32), FWGLL6mw-008-0186-GF (240-16528-34), FWGCBPmw-009-0160-GF (240-16528-36) and FWGFWGmw-011-0188-GF (240-16528-38) were analyzed for total recoverable metals (ICP) in accordance with EPA SW-846 Method 6010B DoD. The samples were prepared on 10/22/2012 and analyzed on 10/23/2012.

ICB, CCB, and ICSA samples are evaluated using the lowest LOD and DL criteria in LIMS. Using this criteria, an individual element may occasionally be flagged as out of control. If the element has a higher LOD or DL, the data is evaluated to the higher limit and determined to be acceptable.

Vanadium was detected in method blank MB 240-62201/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Vanadium was detected in method blank MB 240-62274/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

TOTAL RECOVERABLE METALS (ICPMS)

Samples FWGWBGmw-020-0197-GF (240-16528-3), FWGWBGmw-021-0198-GF (240-16528-5), FWGLL1mw-087-0182-GF (240-16528-7), FWGLL1mw-086-0181-GF (240-16528-9), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GF

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(240-16528-13), FWGDA2mw-115-0162-GF (240-16528-15), FWGDA2mw-DUP1-0199-GF (240-16528-17), FWGLL4mw-201-0185-GF (240-16528-21), FWGFWGmw-013-0176-GF (240-16528-23), FWGWBGmw-018-0195-GF (240-16528-26), FWGWBGMW-DUP8-0205-GF (240-16528-28), FWGWBGmw-019-0196-GF (240-16528-30), FWGLL6mw-009-0187-GF (240-16528-32), FWGLL6mw-008-0186-GF (240-16528-34), FWGCBPmw-009-0160-GF (240-16528-36) and FWGFWGmw-011-0188-GF (240-16528-38) were analyzed for total recoverable metals (ICPMS) in accordance with EPA SW-846 Method 6020 DoD. The samples were prepared on 10/22/2012 and analyzed on 10/26/2012, 10/27/2012 and 10/29/2012.

ICB, CCB, and ICSA samples are evaluated using the lowest LOD and DL criteria in LIMS. Using this criteria, an individual element may occasionally be flagged as out of control. If the element has a higher LOD or DL, the data is evaluated to the higher limit and determined to be acceptable.

Zinc was detected in method blank MB 240-62201/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The CCB was greater than the MDLV for Cadmium. Since the sample results were below the reporting limit, the results were accepted. FWGDA2mw-114-0161-GF (240-16528-13), FWGDA2mw-115-0162-GF (240-16528-15), FWGDA2mw-DUP1-0199-GF (240-16528-17), FWGFWGmw-013-0176-GF (240-16528-23), FWGLL1mw-087-0182-GF (240-16528-7), FWGLL4mw-201-0185-GF (240-16528-21), FWGWBGmw-018-0195-GF (240-16528-26), FWGWBGmw-020-0197-GF (240-16528-3), FWGWBGmw-021-0198-GF (240-16528-5), FWGWBGMW-DUP8-0205-GF (240-16528-28).

The CCB was greater than the MDLV for Cadmium and Beryllium. Since the sample results were below the reporting limit, the results were accepted. FWGCBPmw-009-0160-GF (240-16528-36), FWGFWGmw-011-0188-GF (240-16528-38), FWGLL1mw-086-0181-GF (240-16528-9), FWGLL6mw-008-0186-GF (240-16528-34), FWGLL6mw-009-0187-GF (240-16528-32), FWGWBGmw-019-0196-GF (240-16528-30).

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

TOTAL MERCURY - DOD

Samples FWGWBGmw-020-0197-GF (240-16528-3), FWGWBGmw-021-0198-GF (240-16528-5), FWGLL1mw-087-0182-GF (240-16528-7), FWGLL1mw-086-0181-GF (240-16528-9), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GF (240-16528-13), FWGDA2mw-115-0162-GF (240-16528-15), FWGDA2mw-DUP1-0199-GF (240-16528-17), FWGLL4mw-201-0185-GF (240-16528-21), FWGFWGmw-013-0176-GF (240-16528-23), FWGWBGmw-018-0195-GF (240-16528-26), FWGWBGMW-DUP8-0205-GF (240-16528-28), FWGWBGmw-019-0196-GF (240-16528-30), FWGLL6mw-009-0187-GF (240-16528-32), FWGLL6mw-008-0186-GF (240-16528-34), FWGCBPmw-009-0160-GF (240-16528-36) and FWGFWGmw-011-0188-GF (240-16528-38) were analyzed for Total Mercury - DOD in accordance with EPA SW-846 Method 7470A. The samples were prepared on 10/22/2012 and analyzed on 10/23/2012 and 10/24/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

NITROCELLULOSE

Samples FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL4mw-201-0185-GW (240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for Nitrocellulose in accordance with EPA Method 353.2. The samples were prepared and analyzed on 11/01/2012.

No difficulties were encountered during the Nitrocellulose analyses. All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples FWGWBGmw-020-0197-GW (240-16528-2), FWGWBGmw-021-0198-GW (240-16528-4), FWGLL1mw-087-0182-GW (240-16528-6), FWGLL1mw-086-0181-GW (240-16528-8), FWG EQUIPRINSE3-0214-GW (240-16528-10), FWGDA2mw-114-0161-GW (240-16528-12), FWGDA2mw-115-0162-GW (240-16528-14), FWGDA2mw-DUP1-0199-GW (240-16528-16), FWGLL4mw-201-0185-GW

Job ID: 240-16528-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

(240-16528-20), FWGFWGmw-013-0176-GW (240-16528-22), FWGWBGmw-018-0195-GW (240-16528-25), FWGWBGMW-DUP8-0205-GW (240-16528-27), FWGWBGmw-019-0196-GW (240-16528-29), FWGLL6mw-009-0187-GW (240-16528-31), FWGLL6mw-008-0186-GW (240-16528-33), FWGCBPmw-009-0160-GW (240-16528-35) and FWGFWGmw-011-0188-GW (240-16528-37) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 10/25/2012.

No difficulties were encountered during the cyanide analyses. All quality control parameters were within the acceptance limits.

Method Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Method	Method Description	Protocol	Laboratory
8260B/DoD	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
8270C/DoD	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NC
8081/DOD	Organochlorine Pesticides (GC)	SW846	TAL NC
8082/DOD	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL NC
8330 Modified	Nitroguanidine (HPLC)	SW846	TAL WSC
8330A	Nitroaromatics and Nitramines	SW846	TAL WSC
6010B/DOD	Metals (ICP)	SW846	TAL NC
6020/DOD	Metals (ICP/MS)	SW846	TAL NC
7470A/DOD	Mercury (CVAA)	SW846	TAL NC
9012A	Cyanide, Total and/or Amenable	SW846	TAL NC
WS-WC-0050	Nitrocellulose	TAL-SAC	TAL WSC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-SAC = TestAmerica Laboratories, West Sacramento, Facility Standard Operating Procedure.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-16528-1	FWG TEAM 1 TRIP	Water	10/17/12 08:00	10/18/12 06:00
240-16528-2	FWGWBGmw-020-0197-GW	Water	10/17/12 09:20	10/18/12 06:00
240-16528-3	FWGWBGmw-020-0197-GF	Water	10/17/12 09:20	10/18/12 06:00
240-16528-4	FWGWBGmw-021-0198-GW	Water	10/17/12 11:30	10/18/12 06:00
240-16528-5	FWGWBGmw-021-0198-GF	Water	10/17/12 11:30	10/18/12 06:00
240-16528-6	FWGLL1mw-087-0182-GW	Water	10/17/12 13:15	10/18/12 06:00
240-16528-7	FWGLL1mw-087-0182-GF	Water	10/17/12 13:15	10/18/12 06:00
240-16528-8	FWGLL1mw-086-0181-GW	Water	10/17/12 15:15	10/18/12 06:00
240-16528-9	FWGLL1mw-086-0181-GF	Water	10/17/12 15:15	10/18/12 06:00
240-16528-10	FWG EQUIPRINSE3-0214-GW	Water	10/17/12 15:10	10/18/12 06:00
240-16528-11	FWG TEAM 2 TRIP	Water	10/17/12 08:00	10/18/12 06:00
240-16528-12	FWGDA2mw-114-0161-GW	Water	10/17/12 09:24	10/18/12 06:00
240-16528-13	FWGDA2mw-114-0161-GF	Water	10/17/12 09:24	10/18/12 06:00
240-16528-14	FWGDA2mw-115-0162-GW	Water	10/17/12 10:30	10/18/12 06:00
240-16528-15	FWGDA2mw-115-0162-GF	Water	10/17/12 10:30	10/18/12 06:00
240-16528-16	FWGDA2mw-DUP1-0199-GW	Water	10/17/12 11:38	10/18/12 06:00
240-16528-17	FWGDA2mw-DUP1-0199-GF	Water	10/17/12 11:38	10/18/12 06:00
240-16528-18	FWGLL12mw-182c-0190-GW	Water	10/17/12 13:22	10/18/12 06:00
240-16528-19	FWGLL12mw-182ss-0191-GW	Water	10/17/12 13:52	10/18/12 06:00
240-16528-20	FWGLL4mw-201-0185-GW	Water	10/17/12 14:42	10/18/12 06:00
240-16528-21	FWGLL4mw-201-0185-GF	Water	10/17/12 14:42	10/18/12 06:00
240-16528-22	FWGFWGmw-013-0176-GW	Water	10/17/12 16:08	10/18/12 06:00
240-16528-23	FWGFWGmw-013-0176-GF	Water	10/17/12 16:08	10/18/12 06:00
240-16528-24	FWGTEAM3-TRIP	Water	10/17/12 08:00	10/18/12 06:00
240-16528-25	FWGWBGmw-018-0195-GW	Water	10/17/12 09:33	10/18/12 06:00
240-16528-26	FWGWBGmw-018-0195-GF	Water	10/17/12 09:33	10/18/12 06:00
240-16528-27	FWGWBGMW-DUP8-0205-GW	Water	10/17/12 10:33	10/18/12 06:00
240-16528-28	FWGWBGMW-DUP8-0205-GF	Water	10/17/12 10:33	10/18/12 06:00
240-16528-29	FWGWBGmw-019-0196-GW	Water	10/17/12 11:19	10/18/12 06:00
240-16528-30	FWGWBGmw-019-0196-GF	Water	10/17/12 11:19	10/18/12 06:00
240-16528-31	FWGLL6mw-009-0187-GW	Water	10/17/12 13:03	10/18/12 06:00
240-16528-32	FWGLL6mw-009-0187-GF	Water	10/17/12 13:03	10/18/12 06:00
240-16528-33	FWGLL6mw-008-0186-GW	Water	10/17/12 14:13	10/18/12 06:00
240-16528-34	FWGLL6mw-008-0186-GF	Water	10/17/12 14:13	10/18/12 06:00
240-16528-35	FWGCBPmw-009-0160-GW	Water	10/17/12 15:49	10/18/12 06:00
240-16528-36	FWGCBPmw-009-0160-GF	Water	10/17/12 15:49	10/18/12 06:00
240-16528-37	FWGFWGmw-011-0188-GW	Water	10/17/12 17:03	10/18/12 06:00
240-16528-38	FWGFWGmw-011-0188-GF	Water	10/17/12 17:03	10/18/12 06:00

Client Sample ID: FWG TEAM 1 TRIP
Date Collected: 10/17/12 08:00
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-1
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 18:37	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 18:37	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 18:37	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 18:37	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 18:37	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 18:37	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 18:37	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 18:37	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 18:37	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 18:37	1
Acetone	**1.6**	**J**	10	1.1	1.1	ug/L		10/24/12 18:37	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 18:37	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 18:37	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 18:37	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 18:37	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 18:37	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 18:37	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 18:37	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 18:37	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 18:37	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 18:37	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 18:37	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 18:37	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 18:37	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 18:37	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 18:37	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 18:37	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 18:37	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 18:37	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 18:37	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 18:37	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 18:37	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 18:37	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 18:37	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 18:37	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 18:37	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 18:37	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 18:37	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*70 - 120*		*10/24/12 18:37*	*1*
4-Bromofluorobenzene (Surr)	*81*		*75 - 120*		*10/24/12 18:37*	*1*
Toluene-d8 (Surr)	*89*		*85 - 120*		*10/24/12 18:37*	*1*
Dibromofluoromethane (Surr)	*108*		*85 - 115*		*10/24/12 18:37*	*1*

Client Sample ID: FWGWBGmw-020-0197-GW
Date Collected: 10/17/12 09:20
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-2
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:49	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:49	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 12:49	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:49	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:49	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:49	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 12:49	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:49	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 12:49	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:49	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/25/12 12:49	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:49	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 12:49	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 12:49	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:49	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:49	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:49	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:49	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 12:49	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 12:49	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:49	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 12:49	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 12:49	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:49	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 12:49	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 12:49	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 12:49	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 12:49	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 12:49	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 12:49	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 12:49	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 12:49	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 12:49	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:49	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 12:49	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 12:49	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 12:49	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 12:49	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 120*		*10/25/12 12:49*	*1*
4-Bromofluorobenzene (Surr)	*85*		*75 - 120*		*10/25/12 12:49*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/25/12 12:49*	*1*
Dibromofluoromethane (Surr)	*112*		*85 - 115*		*10/25/12 12:49*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1

Client Sample ID: FWGWBGmw-020-0197-GW
Date Collected: 10/17/12 09:20
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-2
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 14:18	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 14:18	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 14:18	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:18	1
Bis(2-ethylhexyl) phthalate	**0.88**	**J B**	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:18	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 14:18	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:18	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 14:18	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 14:18	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:18	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 14:18	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:18	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 14:18	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/26/12 14:18	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 14:18	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
Dimethyl phthalate	**0.53**	**J**	0.95	0.76	0.28	ug/L		10/26/12 14:18	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 14:18	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:18	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:18	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:18	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 14:18	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 14:18	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:18	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 14:18	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:18	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 14:18	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:18	1

Client Sample ID: FWGWBGmw-020-0197-GW **Lab Sample ID: 240-16528-2**

Date Collected: 10/17/12 09:20 **Matrix: Water**

Date Received: 10/18/12 06:00

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 14:18	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:18	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:18	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 14:18	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 14:18	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:18	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 14:18	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:18	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 14:18	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 14:18	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*50 - 110*	*10/23/12 08:51*	*10/26/12 14:18*	*1*
2-Fluorophenol (Surr)	*84*		*20 - 110*	*10/23/12 08:51*	*10/26/12 14:18*	*1*
Nitrobenzene-d5 (Surr)	*85*		*40 - 110*	*10/23/12 08:51*	*10/26/12 14:18*	*1*
Phenol-d5 (Surr)	*86*		*10 - 115*	*10/23/12 08:51*	*10/26/12 14:18*	*1*
Terphenyl-d14 (Surr)	*95*		*50 - 135*	*10/23/12 08:51*	*10/26/12 14:18*	*1*
2,4,6-Tribromophenol (Surr)	*90*		*40 - 125*	*10/23/12 08:51*	*10/26/12 14:18*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 01:12	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 01:12	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 01:12	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 01:12	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 01:12	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 01:12	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/30/12 01:12	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 01:12	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 01:12	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 01:12	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 01:12	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 01:12	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 01:12	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 01:12	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 01:12	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 01:12	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 01:12	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 01:12	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 01:12	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 01:12	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*52*		*30 - 135*	*10/19/12 10:34*	*10/30/12 01:12*	*1*
DCB Decachlorobiphenyl	*46*		*30 - 135*	*10/19/12 10:34*	*10/30/12 01:12*	*1*
Tetrachloro-m-xylene	*80*		*25 - 140*	*10/19/12 10:34*	*10/30/12 01:12*	*1*
Tetrachloro-m-xylene	*83*		*25 - 140*	*10/19/12 10:34*	*10/30/12 01:12*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-020-0197-GW
Date Collected: 10/17/12 09:20
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-2
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 22:10	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 22:10	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 22:10	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 22:10	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 22:10	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 22:10	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*40 - 140*	*10/19/12 10:39*	*10/23/12 22:10*	*1*
Tetrachloro-m-xylene	*82*		*40 - 140*	*10/19/12 10:39*	*10/23/12 22:10*	*1*
DCB Decachlorobiphenyl	*42*		*40 - 135*	*10/19/12 10:39*	*10/23/12 22:10*	*1*
DCB Decachlorobiphenyl	*44*		*40 - 135*	*10/19/12 10:39*	*10/23/12 22:10*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 14:14	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		10/30/12 01:05	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 01:05	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 01:05	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/30/12 01:05	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/30/12 01:05	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/30/12 01:05	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/30/12 01:05	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/30/12 01:05	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/30/12 01:05	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 01:05	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		10/30/12 01:05	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		10/30/12 01:05	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 01:05	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 01:05	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		10/30/12 01:05	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		10/30/12 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/23/12 06:29*	*10/30/12 01:05*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:17	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-020-0197-GF
Date Collected: 10/17/12 09:20
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-3
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 15:57	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 15:57	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 15:57	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:57	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:57	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:57	1
Vanadium	**1.4**	**J**	7.0	4.0	1.3	ug/L		10/23/12 15:57	1
Barium	**16**	**J**	200	5.0	2.8	ug/L		10/23/12 15:57	1
Calcium	**31000**		5000	1000	630	ug/L		10/23/12 15:57	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:57	1
Magnesium	**10000**		5000	300	120	ug/L		10/23/12 15:57	1
Manganese	**370**		15	5.0	1.8	ug/L		10/23/12 15:57	1
Nickel	**2.2**	**J**	40	5.0	2.2	ug/L		10/23/12 15:57	1
Potassium	**670**	**J**	5000	900	300	ug/L		10/23/12 15:57	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 16:33	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:38	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 21:38	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 21:38	1
Iron	**4100**		150	100	44	ug/L		10/26/12 21:38	1
Sodium	**3600**		1000	400	160	ug/L		10/26/12 21:38	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:38	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 16:33	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:02	1

Client Sample ID: FWGWBGmw-021-0198-GW — **Lab Sample ID: 240-16528-4**

Date Collected: 10/17/12 11:30 — **Matrix: Water**

Date Received: 10/18/12 06:00

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 19:21	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 19:21	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/24/12 19:21	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 19:21	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 19:21	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 19:21	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/24/12 19:21	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 19:21	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/24/12 19:21	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 19:21	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/24/12 19:21	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 19:21	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/24/12 19:21	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/24/12 19:21	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 19:21	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 19:21	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 19:21	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 19:21	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/24/12 19:21	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/24/12 19:21	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 19:21	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 19:21	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/24/12 19:21	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 19:21	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/24/12 19:21	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/24/12 19:21	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/24/12 19:21	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/24/12 19:21	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/24/12 19:21	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/24/12 19:21	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/24/12 19:21	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/24/12 19:21	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/24/12 19:21	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 19:21	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/24/12 19:21	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/24/12 19:21	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/24/12 19:21	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/24/12 19:21	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/24/12 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 120*		*10/24/12 19:21*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 120*		*10/24/12 19:21*	*1*
Toluene-d8 (Surr)	*88*		*85 - 120*		*10/24/12 19:21*	*1*
Dibromofluoromethane (Surr)	*107*		*85 - 115*		*10/24/12 19:21*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-021-0198-GW
Date Collected: 10/17/12 11:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-4
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 14:37	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 14:37	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 14:37	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:37	1
Bis(2-ethylhexyl) phthalate	**0.81**	**J B**	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:37	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 14:37	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:37	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 14:37	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 14:37	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:37	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 14:37	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:37	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 14:37	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/26/12 14:37	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 14:37	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 14:37	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 14:37	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:37	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:37	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:37	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 14:37	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 14:37	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:37	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 14:37	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:37	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 14:37	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:37	1

Client Sample ID: FWGWBGmw-021-0198-GW
Date Collected: 10/17/12 11:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-4
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 14:37	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:37	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:37	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 14:37	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 14:37	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:37	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 14:37	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:37	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 14:37	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 14:37	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*50 - 110*	*10/23/12 08:51*	*10/26/12 14:37*	*1*
2-Fluorophenol (Surr)	*70*		*20 - 110*	*10/23/12 08:51*	*10/26/12 14:37*	*1*
Nitrobenzene-d5 (Surr)	*78*		*40 - 110*	*10/23/12 08:51*	*10/26/12 14:37*	*1*
Phenol-d5 (Surr)	*72*		*10 - 115*	*10/23/12 08:51*	*10/26/12 14:37*	*1*
Terphenyl-d14 (Surr)	*85*		*50 - 135*	*10/23/12 08:51*	*10/26/12 14:37*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*40 - 125*	*10/23/12 08:51*	*10/26/12 14:37*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 01:36	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 01:36	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 01:36	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 01:36	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 01:36	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 01:36	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/30/12 01:36	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 01:36	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 01:36	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 01:36	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 01:36	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 01:36	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 01:36	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 01:36	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 01:36	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 01:36	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 01:36	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 01:36	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 01:36	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 01:36	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*35*		*30 - 135*	*10/19/12 10:34*	*10/30/12 01:36*	*1*
DCB Decachlorobiphenyl	*33*		*30 - 135*	*10/19/12 10:34*	*10/30/12 01:36*	*1*
Tetrachloro-m-xylene	*41*		*25 - 140*	*10/19/12 10:34*	*10/30/12 01:36*	*1*
Tetrachloro-m-xylene	*41*		*25 - 140*	*10/19/12 10:34*	*10/30/12 01:36*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-021-0198-GW — **Lab Sample ID: 240-16528-4**
Date Collected: 10/17/12 11:30 — **Matrix: Water**
Date Received: 10/18/12 06:00

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 21:09	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/01/12 21:09	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 21:09	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/01/12 21:09	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/01/12 21:09	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 21:09	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*100*		*40 - 140*	*10/29/12 10:31*	*11/01/12 21:09*	*1*
Tetrachloro-m-xylene	*74*		*40 - 140*	*10/29/12 10:31*	*11/01/12 21:09*	*1*
DCB Decachlorobiphenyl	*70*		*40 - 135*	*10/29/12 10:31*	*11/01/12 21:09*	*1*
DCB Decachlorobiphenyl	*75*		*40 - 135*	*10/29/12 10:31*	*11/01/12 21:09*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 14:29	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		11/02/12 13:03	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 13:03	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 13:03	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/02/12 13:03	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		11/02/12 13:03	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		11/02/12 13:03	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/02/12 13:03	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		11/02/12 13:03	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		11/02/12 13:03	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 13:03	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		11/02/12 13:03	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		11/02/12 13:03	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 13:03	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		11/02/12 13:03	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		11/02/12 13:03	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		11/02/12 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*93*	*M*	*79 - 111*	*10/23/12 06:29*	*11/02/12 13:03*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:19	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-021-0198-GF
Date Collected: 10/17/12 11:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-5
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**6.2**	**J**	10	10	3.3	ug/L		10/23/12 16:01	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:01	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:01	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:01	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:01	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:01	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 16:01	1
Barium	**56**	**J**	200	5.0	2.8	ug/L		10/23/12 16:01	1
Calcium	**73000**		5000	1000	630	ug/L		10/23/12 16:01	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:01	1
Magnesium	**19000**		5000	300	120	ug/L		10/23/12 16:01	1
Manganese	**220**		15	5.0	1.8	ug/L		10/23/12 16:01	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:01	1
Potassium	**1300**	**J**	5000	900	300	ug/L		10/23/12 16:01	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 16:39	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:44	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 21:44	1
Cadmium	**0.11**	**J**	2.0	0.070	0.023	ug/L		10/26/12 21:44	1
Iron	**490**		150	100	44	ug/L		10/26/12 21:44	1
Sodium	**4600**		1000	400	160	ug/L		10/26/12 21:44	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:44	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 16:39	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:12	1

Client Sample ID: FWGLL1mw-087-0182-GW
Date Collected: 10/17/12 13:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-6
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 13:12	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 13:12	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 13:12	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 13:12	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 13:12	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 13:12	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 13:12	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 13:12	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 13:12	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 13:12	1
Acetone	**1.4**	**J**	10	1.1	1.1	ug/L		10/25/12 13:12	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:12	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 13:12	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 13:12	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:12	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:12	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 13:12	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 13:12	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 13:12	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 13:12	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 13:12	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 13:12	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 13:12	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 13:12	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 13:12	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 13:12	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 13:12	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 13:12	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 13:12	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 13:12	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 13:12	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 13:12	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:12	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 13:12	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 13:12	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 13:12	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 13:12	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 13:12	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*	*Q*	*70 - 120*		*10/25/12 13:12*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/25/12 13:12*	*1*
Toluene-d8 (Surr)	*92*		*85 - 120*		*10/25/12 13:12*	*1*
Dibromofluoromethane (Surr)	*110*		*85 - 115*		*10/25/12 13:12*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1

Client Sample ID: FWGLL1mw-087-0182-GW
Date Collected: 10/17/12 13:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-6
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 14:56	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 14:56	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 14:56	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:56	1
Bis(2-ethylhexyl) phthalate	**0.85**	**J B**	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:56	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 14:56	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:56	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 14:56	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 14:56	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 14:56	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 14:56	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:56	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 14:56	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/26/12 14:56	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 14:56	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
Dimethyl phthalate	**0.92**	**J**	0.95	0.76	0.28	ug/L		10/26/12 14:56	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 14:56	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:56	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:56	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:56	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 14:56	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 14:56	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:56	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 14:56	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:56	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 14:56	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 14:56	1

Client Sample ID: FWGLL1mw-087-0182-GW
Date Collected: 10/17/12 13:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-6
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 14:56	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:56	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 14:56	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 14:56	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 14:56	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 14:56	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 14:56	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 14:56	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 14:56	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 14:56	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*50 - 110*	*10/23/12 08:51*	*10/26/12 14:56*	*1*
2-Fluorophenol (Surr)	*76*		*20 - 110*	*10/23/12 08:51*	*10/26/12 14:56*	*1*
Nitrobenzene-d5 (Surr)	*76*		*40 - 110*	*10/23/12 08:51*	*10/26/12 14:56*	*1*
Phenol-d5 (Surr)	*78*		*10 - 115*	*10/23/12 08:51*	*10/26/12 14:56*	*1*
Terphenyl-d14 (Surr)	*67*		*50 - 135*	*10/23/12 08:51*	*10/26/12 14:56*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*40 - 125*	*10/23/12 08:51*	*10/26/12 14:56*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 02:01	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 02:01	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 02:01	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 02:01	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 02:01	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 02:01	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/30/12 02:01	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 02:01	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 02:01	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 02:01	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 02:01	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:01	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:01	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:01	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 02:01	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 02:01	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 02:01	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 02:01	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 02:01	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 02:01	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 02:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*33*		*30 - 135*	*10/19/12 10:34*	*10/30/12 02:01*	*1*
DCB Decachlorobiphenyl	*28*	*Q*	*30 - 135*	*10/19/12 10:34*	*10/30/12 02:01*	*1*
Tetrachloro-m-xylene	*71*		*25 - 140*	*10/19/12 10:34*	*10/30/12 02:01*	*1*
Tetrachloro-m-xylene	*80*		*25 - 140*	*10/19/12 10:34*	*10/30/12 02:01*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL1mw-087-0182-GW
Date Collected: 10/17/12 13:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-6
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 21:23	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/01/12 21:23	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 21:23	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/01/12 21:23	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/01/12 21:23	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 21:23	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*132*		*40 - 140*	*10/29/12 10:31*	*11/01/12 21:23*	*1*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/29/12 10:31*	*11/01/12 21:23*	*1*
DCB Decachlorobiphenyl	*41*		*40 - 135*	*10/29/12 10:31*	*11/01/12 21:23*	*1*
DCB Decachlorobiphenyl	*48*		*40 - 135*	*10/29/12 10:31*	*11/01/12 21:23*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 14:43	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		10/30/12 03:05	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 03:05	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 03:05	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/30/12 03:05	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/30/12 03:05	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/30/12 03:05	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/30/12 03:05	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/30/12 03:05	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/30/12 03:05	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 03:05	1
HMX	0.051	U	0.15	0.051	0.036	ug/L		10/30/12 03:05	1
RDX	0.051	U	0.15	0.051	0.036	ug/L		10/30/12 03:05	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 03:05	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 03:05	1
Nitroglycerin	0.51	U	0.66	0.51	0.33	ug/L		10/30/12 03:05	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		10/30/12 03:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*93*		*79 - 111*	*10/23/12 06:29*	*10/30/12 03:05*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:21	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL1mw-087-0182-GF
Date Collected: 10/17/12 13:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-7
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 16:04	1
Chromium	**1.8**	**J**	7.0	4.0	1.4	ug/L		10/23/12 16:04	1
Cobalt	**1.7**	**J**	7.0	4.0	1.5	ug/L		10/23/12 16:04	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:04	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:04	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:04	1
Vanadium	**1.5**	**J**	7.0	4.0	1.3	ug/L		10/23/12 16:04	1
Barium	**33**	**J**	200	5.0	2.8	ug/L		10/23/12 16:04	1
Calcium	**91000**		5000	1000	630	ug/L		10/23/12 16:04	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:04	1
Magnesium	**27000**		5000	300	120	ug/L		10/23/12 16:04	1
Manganese	**170**		15	5.0	1.8	ug/L		10/23/12 16:04	1
Nickel	**2.5**	**J**	40	5.0	2.2	ug/L		10/23/12 16:04	1
Potassium	**1100**	**J**	5000	900	300	ug/L		10/23/12 16:04	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**650**		60	60	20	ug/L		10/29/12 16:44	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:49	1
Beryllium	**0.037**	**J**	1.0	0.10	0.033	ug/L		10/26/12 21:49	1
Cadmium	**0.033**	**J**	2.0	0.070	0.023	ug/L		10/26/12 21:49	1
Iron	**1200**		150	100	44	ug/L		10/26/12 21:49	1
Sodium	**6700**		1000	400	160	ug/L		10/26/12 21:49	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:49	1
Zinc	**12**	**J**	40	20	8.8	ug/L		10/29/12 16:44	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:17	1

Client Sample ID: FWGLL1mw-086-0181-GW — **Lab Sample ID: 240-16528-8**
Date Collected: 10/17/12 15:15 — **Matrix: Water**
Date Received: 10/18/12 06:00

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 13:34	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 13:34	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 13:34	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 13:34	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 13:34	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 13:34	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 13:34	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 13:34	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 13:34	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 13:34	1
Acetone	**2.2**	**J**	10	1.1	1.1	ug/L		10/25/12 13:34	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:34	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 13:34	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 13:34	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:34	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:34	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 13:34	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 13:34	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 13:34	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 13:34	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 13:34	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 13:34	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 13:34	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 13:34	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 13:34	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 13:34	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 13:34	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 13:34	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 13:34	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 13:34	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 13:34	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 13:34	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 13:34	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 13:34	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 13:34	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 13:34	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 13:34	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 13:34	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/25/12 13:34*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 120*		*10/25/12 13:34*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/25/12 13:34*	*1*
Dibromofluoromethane (Surr)	*103*		*85 - 115*		*10/25/12 13:34*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL1mw-086-0181-GW
Date Collected: 10/17/12 15:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-8
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Benzo[a]pyrene	0.095	U J	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Benzo[g,h,i]perylene	0.095	U J	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 15:15	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 15:15	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 15:15	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 15:15	1
Bis(2-ethylhexyl) phthalate	**1.2**	**J B**	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 15:15	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 15:15	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 15:15	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 15:15	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 15:15	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 15:15	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 15:15	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 15:15	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 15:15	1
3,3'-Dichlorobenzidine	0.76	U J	4.8	0.76	0.35	ug/L		10/26/12 15:15	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 15:15	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 15:15	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 15:15	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 15:15	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 15:15	1
Di-n-octyl phthalate	0.76	U J	0.95	0.76	0.76	ug/L		10/26/12 15:15	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 15:15	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 15:15	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 15:15	1
Indeno[1,2,3-cd]pyrene	0.095	U J	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 15:15	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 15:15	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 15:15	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 15:15	1

Client Sample ID: FWGLL1mw-086-0181-GW
Date Collected: 10/17/12 15:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-8
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 15:15	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 15:15	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 15:15	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 15:15	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 15:15	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 15:15	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 15:15	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 15:15	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 15:15	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 15:15	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*50 - 110*	*10/23/12 08:51*	*10/26/12 15:15*	*1*
2-Fluorophenol (Surr)	*81*		*20 - 110*	*10/23/12 08:51*	*10/26/12 15:15*	*1*
Nitrobenzene-d5 (Surr)	*82*		*40 - 110*	*10/23/12 08:51*	*10/26/12 15:15*	*1*
Phenol-d5 (Surr)	*84*		*10 - 115*	*10/23/12 08:51*	*10/26/12 15:15*	*1*
Terphenyl-d14 (Surr)	*82*		*50 - 135*	*10/23/12 08:51*	*10/26/12 15:15*	*1*
2,4,6-Tribromophenol (Surr)	*90*		*40 - 125*	*10/23/12 08:51*	*10/26/12 15:15*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 02:25	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 02:25	1
4,4'-DDT	0.029	U J	0.048	0.029	0.015	ug/L		10/30/12 02:25	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 02:25	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 02:25	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 02:25	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/30/12 02:25	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 02:25	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 02:25	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 02:25	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 02:25	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:25	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:25	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:25	1
Endrin ketone	0.0095	U Q J	0.048	0.0095	0.0074	ug/L		10/30/12 02:25	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 02:25	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 02:25	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 02:25	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 02:25	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 02:25	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*40*		*30 - 135*	*10/19/12 10:34*	*10/30/12 02:25*	*1*
DCB Decachlorobiphenyl	*40*		*30 - 135*	*10/19/12 10:34*	*10/30/12 02:25*	*1*
Tetrachloro-m-xylene	*86*		*25 - 140*	*10/19/12 10:34*	*10/30/12 02:25*	*1*
Tetrachloro-m-xylene	*86*	*M*	*25 - 140*	*10/19/12 10:34*	*10/30/12 02:25*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL1mw-086-0181-GW
Date Collected: 10/17/12 15:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-8
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 21:37	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/01/12 21:37	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 21:37	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/01/12 21:37	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/01/12 21:37	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 21:37	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*40 - 140*	*10/29/12 10:31*	*11/01/12 21:37*	*1*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/29/12 10:31*	*11/01/12 21:37*	*1*
DCB Decachlorobiphenyl	*39*	*Q*	*40 - 135*	*10/29/12 10:31*	*11/01/12 21:37*	*1*
DCB Decachlorobiphenyl	*42*		*40 - 135*	*10/29/12 10:31*	*11/01/12 21:37*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 14:57	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/30/12 03:46	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 03:46	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 03:46	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/30/12 03:46	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/30/12 03:46	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/30/12 03:46	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		10/30/12 03:46	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		10/30/12 03:46	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		10/30/12 03:46	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 03:46	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		10/30/12 03:46	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		10/30/12 03:46	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 03:46	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 03:46	1
Nitroglycerin	0.50	U	0.65	0.50	0.33	ug/L		10/30/12 03:46	1
PETN	0.50	U	0.65	0.50	0.30	ug/L		10/30/12 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*93*		*79 - 111*	*10/23/12 06:29*	*10/30/12 03:46*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:31	1

Client Sample ID: FWGLL1mw-086-0181-GF
Date Collected: 10/17/12 15:15
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-9
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**3.3**	**J**	10	10	3.3	ug/L		10/23/12 17:01	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 17:01	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 17:01	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 17:01	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 17:01	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 17:01	1
Vanadium	**2.1**	**J**	7.0	4.0	1.3	ug/L		10/23/12 17:01	1
Barium	**45**	**J**	200	5.0	2.8	ug/L		10/23/12 17:01	1
Calcium	**62000**		5000	1000	630	ug/L		10/23/12 17:01	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 17:01	1
Magnesium	**27000**		5000	300	120	ug/L		10/23/12 17:01	1
Manganese	**610**		15	5.0	1.8	ug/L		10/23/12 17:01	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 17:01	1
Potassium	**2600**	**J**	5000	900	300	ug/L		10/23/12 17:01	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**160**		60	60	20	ug/L		10/29/12 18:05	1
Antimony	**0.28**	**J**	2.0	0.50	0.21	ug/L		10/26/12 23:10	1
Beryllium	**0.16**	**J**	1.0	0.10	0.033	ug/L		10/26/12 23:10	1
Cadmium	**0.74**	**J**	2.0	0.070	0.023	ug/L		10/26/12 23:10	1
Iron	**2000**		150	100	44	ug/L		10/26/12 23:10	1
Sodium	**5600**		1000	400	160	ug/L		10/26/12 23:10	1
Thallium	**0.88**	**J**	2.0	1.0	0.32	ug/L		10/26/12 23:10	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 18:05	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/23/12 20:48	1

Client Sample ID: FWGEQUIPRINSE3-0214-GW — **Lab Sample ID: 240-16528-10**

Date Collected: 10/17/12 15:10 — **Matrix: Water**

Date Received: 10/18/12 06:00

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 14:42	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 14:42	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 14:42	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 14:42	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 14:42	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 14:42	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 14:42	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 14:42	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 14:42	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 14:42	1
Acetone	**9.0**	**J**	10	1.1	1.1	ug/L		10/25/12 14:42	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 14:42	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 14:42	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 14:42	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 14:42	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 14:42	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 14:42	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 14:42	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 14:42	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 14:42	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 14:42	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 14:42	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 14:42	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 14:42	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 14:42	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 14:42	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 14:42	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 14:42	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 14:42	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 14:42	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 14:42	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 14:42	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 14:42	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 14:42	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 14:42	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 14:42	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 14:42	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 14:42	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 120*		*10/25/12 14:42*	*1*
4-Bromofluorobenzene (Surr)	*82*		*75 - 120*		*10/25/12 14:42*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/25/12 14:42*	*1*
Dibromofluoromethane (Surr)	*99*		*85 - 115*		*10/25/12 14:42*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Acenaphthylene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1

Client Sample ID: FWGEQUIPRINSE3-0214-GW
Date Collected: 10/17/12 15:10
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-10
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Benzo[a]anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Benzo[a]pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Benzo[b]fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Benzo[g,h,i]perylene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Benzoic acid	9.9	U	25	9.9	9.9	ug/L		10/26/12 16:12	1
Benzo[k]fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Benzyl alcohol	**0.61**	**J**	5.0	0.79	0.38	ug/L		10/26/12 16:12	1
Bis(2-chloroethoxy)methane	0.79	U	0.99	0.79	0.32	ug/L		10/26/12 16:12	1
Bis(2-chloroethyl)ether	0.099	U	0.99	0.099	0.099	ug/L		10/26/12 16:12	1
Bis(2-ethylhexyl) phthalate	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
4-Bromophenyl phenyl ether	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
Butyl benzyl phthalate	0.79	U	0.99	0.79	0.79	ug/L		10/26/12 16:12	1
Carbazole	0.79	U	0.99	0.79	0.28	ug/L		10/26/12 16:12	1
4-Chloroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
4-Chloro-3-methylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
2-Chloronaphthalene	0.099	U	0.99	0.099	0.099	ug/L		10/26/12 16:12	1
2-Chlorophenol	0.79	U	0.99	0.79	0.29	ug/L		10/26/12 16:12	1
4-Chlorophenyl phenyl ether	0.79	U	2.0	0.79	0.30	ug/L		10/26/12 16:12	1
Chrysene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Dibenz(a,h)anthracene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Dibenzofuran	0.099	U	0.99	0.099	0.099	ug/L		10/26/12 16:12	1
1,2-Dichlorobenzene	0.79	U	0.99	0.79	0.29	ug/L		10/26/12 16:12	1
1,3-Dichlorobenzene	0.79	U	0.99	0.79	0.79	ug/L		10/26/12 16:12	1
1,4-Dichlorobenzene	0.79	U	0.99	0.79	0.34	ug/L		10/26/12 16:12	1
3,3'-Dichlorobenzidine	0.79	U	5.0	0.79	0.37	ug/L		10/26/12 16:12	1
2,4-Dichlorophenol	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
Diethyl phthalate	0.79	U	0.99	0.79	0.59	ug/L		10/26/12 16:12	1
2,4-Dimethylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
Dimethyl phthalate	0.79	U	0.99	0.79	0.29	ug/L		10/26/12 16:12	1
Di-n-butyl phthalate	0.79	U	0.99	0.79	0.66	ug/L		10/26/12 16:12	1
4,6-Dinitro-2-methylphenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 16:12	1
2,4-Dinitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 16:12	1
Di-n-octyl phthalate	0.79	U	0.99	0.79	0.79	ug/L		10/26/12 16:12	1
Fluoranthene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Fluorene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Hexachlorobenzene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Hexachlorobutadiene	0.79	U	0.99	0.79	0.27	ug/L		10/26/12 16:12	1
Hexachlorocyclopentadiene	0.79	U	9.9	0.79	0.79	ug/L		10/26/12 16:12	1
Hexachloroethane	0.79	U	0.99	0.79	0.79	ug/L		10/26/12 16:12	1
Indeno[1,2,3-cd]pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Isophorone	0.79	U	0.99	0.79	0.27	ug/L		10/26/12 16:12	1
2-Methylnaphthalene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
2-Methylphenol	0.79	U	0.99	0.79	0.79	ug/L		10/26/12 16:12	1
3 & 4 Methylphenol	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
Naphthalene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
2-Nitroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1
3-Nitroaniline	0.79	U	2.0	0.79	0.28	ug/L		10/26/12 16:12	1
4-Nitroaniline	0.79	U	2.0	0.79	0.79	ug/L		10/26/12 16:12	1

Client Sample ID: FWGEQUIPRINSE3-0214-GW
Date Collected: 10/17/12 15:10
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-10
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.79	U	2.0	0.79	0.28	ug/L		10/26/12 16:12	1
4-Nitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 16:12	1
N-Nitrosodi-n-propylamine	0.79	U	0.99	0.79	0.79	ug/L		10/26/12 16:12	1
N-Nitrosodiphenylamine	0.79	U	0.99	0.79	0.31	ug/L		10/26/12 16:12	1
2,2'-oxybis[1-chloropropane]	0.79	U	0.99	0.79	0.40	ug/L		10/26/12 16:12	1
Pentachlorophenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 16:12	1
Phenanthrene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
Phenol	0.79	U	0.99	0.79	0.59	ug/L		10/26/12 16:12	1
Pyrene	0.099	U	0.20	0.099	0.099	ug/L		10/26/12 16:12	1
1,2,4-Trichlorobenzene	0.79	U	0.99	0.79	0.28	ug/L		10/26/12 16:12	1
2,4,5-Trichlorophenol	0.79	U	5.0	0.79	0.30	ug/L		10/26/12 16:12	1
2,4,6-Trichlorophenol	0.79	U	5.0	0.79	0.79	ug/L		10/26/12 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*		*50 - 110*	*10/23/12 08:51*	*10/26/12 16:12*	*1*
2-Fluorophenol (Surr)	*81*		*20 - 110*	*10/23/12 08:51*	*10/26/12 16:12*	*1*
Nitrobenzene-d5 (Surr)	*82*		*40 - 110*	*10/23/12 08:51*	*10/26/12 16:12*	*1*
Phenol-d5 (Surr)	*83*		*10 - 115*	*10/23/12 08:51*	*10/26/12 16:12*	*1*
Terphenyl-d14 (Surr)	*87*		*50 - 135*	*10/23/12 08:51*	*10/26/12 16:12*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*40 - 125*	*10/23/12 08:51*	*10/26/12 16:12*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 02:49	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 02:49	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 02:49	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 02:49	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 02:49	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 02:49	1
beta-BHC	**0.011**	**J**	0.048	0.0095	0.0080	ug/L		10/30/12 02:49	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 02:49	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 02:49	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 02:49	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 02:49	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:49	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:49	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 02:49	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 02:49	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 02:49	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 02:49	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 02:49	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 02:49	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 02:49	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 02:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*30 - 135*	*10/19/12 10:34*	*10/30/12 02:49*	*1*
DCB Decachlorobiphenyl	*70*		*30 - 135*	*10/19/12 10:34*	*10/30/12 02:49*	*1*
Tetrachloro-m-xylene	*77*		*25 - 140*	*10/19/12 10:34*	*10/30/12 02:49*	*1*
Tetrachloro-m-xylene	*85*		*25 - 140*	*10/19/12 10:34*	*10/30/12 02:49*	*1*

Client Sample ID: FWGEQUIPRINSE3-0214-GW
Date Collected: 10/17/12 15:10
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-10
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 23:55	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/23/12 23:55	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 23:55	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/23/12 23:55	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/23/12 23:55	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/23/12 23:55	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/23/12 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*97*		*40 - 140*	*10/19/12 10:39*	*10/23/12 23:55*	*1*
Tetrachloro-m-xylene	*96*		*40 - 140*	*10/19/12 10:39*	*10/23/12 23:55*	*1*
DCB Decachlorobiphenyl	*76*		*40 - 135*	*10/19/12 10:39*	*10/23/12 23:55*	*1*
DCB Decachlorobiphenyl	*77*		*40 - 135*	*10/19/12 10:39*	*10/23/12 23:55*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 15:40	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/30/12 05:46	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 05:46	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 05:46	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/30/12 05:46	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/30/12 05:46	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/30/12 05:46	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/30/12 05:46	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		10/30/12 05:46	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/30/12 05:46	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 05:46	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		10/30/12 05:46	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		10/30/12 05:46	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/30/12 05:46	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		11/01/12 21:02	1
Nitroglycerin	0.50	U	0.65	0.50	0.33	ug/L		10/30/12 05:46	1
PETN	0.50	U	0.65	0.50	0.30	ug/L		10/30/12 05:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*90*		*79 - 111*	*10/23/12 06:29*	*10/30/12 05:46*	*1*
3,4-Dinitrotoluene	*120*	*M Q*	*79 - 111*	*10/23/12 06:29*	*11/01/12 21:02*	*1*

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 15:04	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 15:04	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 15:04	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 15:04	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 15:04	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 15:04	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 15:04	1
Barium	5.0	U	200	5.0	2.8	ug/L		10/23/12 15:04	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGEQUIPRINSE3-0214-GW
Date Collected: 10/17/12 15:10
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-10
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Calcium	1000	U	5000	1000	630	ug/L		10/23/12 15:04	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 15:04	1
Magnesium	300	U	5000	300	120	ug/L		10/23/12 15:04	1
Manganese	5.0	U	15	5.0	1.8	ug/L		10/23/12 15:04	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 15:04	1
Potassium	900	U	5000	900	300	ug/L		10/23/12 15:04	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 14:59	1
Antimony	**0.24**	**J**	2.0	0.50	0.21	ug/L		10/26/12 20:02	1
Beryllium	**0.16**	**J**	1.0	0.10	0.033	ug/L		10/26/12 20:02	1
Cadmium	**0.15**	**J**	2.0	0.070	0.023	ug/L		10/26/12 20:02	1
Iron	**54**	**J**	150	100	44	ug/L		10/26/12 20:02	1
Sodium	400	U	1000	400	160	ug/L		10/26/12 20:02	1
Thallium	**0.67**	**J**	2.0	1.0	0.32	ug/L		10/26/12 20:02	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 14:59	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 13:45	1

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:37	1

Client Sample ID: FWG TEAM 2 TRIP
Date Collected: 10/17/12 08:00
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-11
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:05	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:05	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 15:05	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:05	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:05	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:05	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 15:05	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:05	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 15:05	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:05	1
Acetone	**1.6**	**J**	10	1.1	1.1	ug/L		10/25/12 15:05	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:05	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 15:05	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 15:05	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:05	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:05	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:05	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:05	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 15:05	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 15:05	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:05	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 15:05	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:05	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:05	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 15:05	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 15:05	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 15:05	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 15:05	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 15:05	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 15:05	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 15:05	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:05	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:05	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:05	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:05	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:05	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:05	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 15:05	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/25/12 15:05*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/25/12 15:05*	*1*
Toluene-d8 (Surr)	*92*		*85 - 120*		*10/25/12 15:05*	*1*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*10/25/12 15:05*	*1*

Client Sample ID: FWGDA2mw-114-0161-GW
Date Collected: 10/17/12 09:24
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-12
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:27	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:27	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 15:27	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:27	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:27	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:27	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 15:27	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:27	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 15:27	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:27	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/25/12 15:27	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:27	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 15:27	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 15:27	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:27	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:27	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:27	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:27	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 15:27	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 15:27	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:27	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 15:27	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:27	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:27	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 15:27	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 15:27	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 15:27	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 15:27	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 15:27	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 15:27	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 15:27	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:27	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:27	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:27	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:27	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:27	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:27	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 15:27	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*	*Q*	*70 - 120*		*10/25/12 15:27*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/25/12 15:27*	*1*
Toluene-d8 (Surr)	*92*		*85 - 120*		*10/25/12 15:27*	*1*
Dibromofluoromethane (Surr)	*112*		*85 - 115*		*10/25/12 15:27*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Acenaphthylene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1

Client Sample ID: FWGDA2mw-114-0161-GW
Date Collected: 10/17/12 09:24
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-12
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Benzo[a]anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Benzo[a]pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Benzo[b]fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Benzo[g,h,i]perylene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Benzoic acid	10	U	25	10	10	ug/L		10/26/12 16:31	1
Benzo[k]fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Benzyl alcohol	0.81	U	5.1	0.81	0.38	ug/L		10/26/12 16:31	1
Bis(2-chloroethoxy)methane	0.81	U	1.0	0.81	0.32	ug/L		10/26/12 16:31	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 16:31	1
Bis(2-ethylhexyl) phthalate	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
4-Bromophenyl phenyl ether	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
Butyl benzyl phthalate	0.81	U	1.0	0.81	0.81	ug/L		10/26/12 16:31	1
Carbazole	0.81	U	1.0	0.81	0.28	ug/L		10/26/12 16:31	1
4-Chloroaniline	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
4-Chloro-3-methylphenol	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
2-Chloronaphthalene	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 16:31	1
2-Chlorophenol	0.81	U	1.0	0.81	0.29	ug/L		10/26/12 16:31	1
4-Chlorophenyl phenyl ether	0.81	U	2.0	0.81	0.30	ug/L		10/26/12 16:31	1
Chrysene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Dibenz(a,h)anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Dibenzofuran	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 16:31	1
1,2-Dichlorobenzene	0.81	U	1.0	0.81	0.29	ug/L		10/26/12 16:31	1
1,3-Dichlorobenzene	0.81	U	1.0	0.81	0.81	ug/L		10/26/12 16:31	1
1,4-Dichlorobenzene	0.81	U	1.0	0.81	0.34	ug/L		10/26/12 16:31	1
3,3'-Dichlorobenzidine	0.81	U	5.1	0.81	0.37	ug/L		10/26/12 16:31	1
2,4-Dichlorophenol	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
Diethyl phthalate	0.81	U	1.0	0.81	0.61	ug/L		10/26/12 16:31	1
2,4-Dimethylphenol	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
Dimethyl phthalate	0.81	U	1.0	0.81	0.29	ug/L		10/26/12 16:31	1
Di-n-butyl phthalate	0.81	U	1.0	0.81	0.68	ug/L		10/26/12 16:31	1
4,6-Dinitro-2-methylphenol	2.4	U	5.1	2.4	2.4	ug/L		10/26/12 16:31	1
2,4-Dinitrophenol	2.4	U	5.1	2.4	2.4	ug/L		10/26/12 16:31	1
Di-n-octyl phthalate	0.81	U	1.0	0.81	0.81	ug/L		10/26/12 16:31	1
Fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Fluorene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Hexachlorobenzene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Hexachlorobutadiene	0.81	U	1.0	0.81	0.27	ug/L		10/26/12 16:31	1
Hexachlorocyclopentadiene	0.81	U	10	0.81	0.81	ug/L		10/26/12 16:31	1
Hexachloroethane	0.81	U	1.0	0.81	0.81	ug/L		10/26/12 16:31	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Isophorone	0.81	U	1.0	0.81	0.27	ug/L		10/26/12 16:31	1
2-Methylnaphthalene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
2-Methylphenol	0.81	U	1.0	0.81	0.81	ug/L		10/26/12 16:31	1
3 & 4 Methylphenol	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
Naphthalene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
2-Nitroaniline	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1
3-Nitroaniline	0.81	U	2.0	0.81	0.28	ug/L		10/26/12 16:31	1
4-Nitroaniline	0.81	U	2.0	0.81	0.81	ug/L		10/26/12 16:31	1

Client Sample ID: FWGDA2mw-114-0161-GW
Date Collected: 10/17/12 09:24
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-12
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.81	U	2.0	0.81	0.28	ug/L		10/26/12 16:31	1
4-Nitrophenol	2.4	U	5.1	2.4	2.4	ug/L		10/26/12 16:31	1
N-Nitrosodi-n-propylamine	0.81	U	1.0	0.81	0.81	ug/L		10/26/12 16:31	1
N-Nitrosodiphenylamine	0.81	U	1.0	0.81	0.31	ug/L		10/26/12 16:31	1
2,2'-oxybis[1-chloropropane]	0.81	U	1.0	0.81	0.40	ug/L		10/26/12 16:31	1
Pentachlorophenol	2.4	U	5.1	2.4	2.4	ug/L		10/26/12 16:31	1
Phenanthrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
Phenol	0.81	U	1.0	0.81	0.61	ug/L		10/26/12 16:31	1
Pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 16:31	1
1,2,4-Trichlorobenzene	0.81	U	1.0	0.81	0.28	ug/L		10/26/12 16:31	1
2,4,5-Trichlorophenol	0.81	U	5.1	0.81	0.30	ug/L		10/26/12 16:31	1
2,4,6-Trichlorophenol	0.81	U	5.1	0.81	0.81	ug/L		10/26/12 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*70*		*50 - 110*	*10/23/12 08:51*	*10/26/12 16:31*	*1*
2-Fluorophenol (Surr)	*76*		*20 - 110*	*10/23/12 08:51*	*10/26/12 16:31*	*1*
Nitrobenzene-d5 (Surr)	*76*		*40 - 110*	*10/23/12 08:51*	*10/26/12 16:31*	*1*
Phenol-d5 (Surr)	*79*		*10 - 115*	*10/23/12 08:51*	*10/26/12 16:31*	*1*
Terphenyl-d14 (Surr)	*78*		*50 - 135*	*10/23/12 08:51*	*10/26/12 16:31*	*1*
2,4,6-Tribromophenol (Surr)	*89*		*40 - 125*	*10/23/12 08:51*	*10/26/12 16:31*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0099	U	0.050	0.0099	0.0095	ug/L		10/30/12 03:14	1
4,4'-DDE	0.0099	U	0.050	0.0099	0.0096	ug/L		10/30/12 03:14	1
4,4'-DDT	0.030	U	0.050	0.030	0.016	ug/L		10/30/12 03:14	1
Aldrin	0.0099	U	0.030	0.0099	0.0081	ug/L		10/30/12 03:14	1
alpha-BHC	0.0099	U	0.030	0.0099	0.0069	ug/L		10/30/12 03:14	1
alpha-Chlordane	0.014	U	0.050	0.014	0.014	ug/L		10/30/12 03:14	1
beta-BHC	0.0099	U	0.050	0.0099	0.0083	ug/L		10/30/12 03:14	1
delta-BHC	0.0099	U	0.050	0.0099	0.0086	ug/L		10/30/12 03:14	1
Dieldrin	0.0099	U	0.030	0.0099	0.0074	ug/L		10/30/12 03:14	1
Endosulfan I	0.013	U	0.050	0.013	0.013	ug/L		10/30/12 03:14	1
Endosulfan II	0.012	U	0.050	0.012	0.012	ug/L		10/30/12 03:14	1
Endosulfan sulfate	0.011	U	0.050	0.011	0.011	ug/L		10/30/12 03:14	1
Endrin	0.011	U	0.050	0.011	0.011	ug/L		10/30/12 03:14	1
Endrin aldehyde	0.011	U	0.050	0.011	0.011	ug/L		10/30/12 03:14	1
Endrin ketone	0.0099	U Q	0.050	0.0099	0.0077	ug/L		10/30/12 03:14	1
gamma-BHC (Lindane)	0.0099	U	0.050	0.0099	0.0063	ug/L		10/30/12 03:14	1
gamma-Chlordane	0.012	U	0.050	0.012	0.012	ug/L		10/30/12 03:14	1
Heptachlor	0.0099	U	0.030	0.0099	0.0079	ug/L		10/30/12 03:14	1
Heptachlor epoxide	0.0099	U	0.030	0.0099	0.0070	ug/L		10/30/12 03:14	1
Methoxychlor	0.032	U	0.099	0.032	0.032	ug/L		10/30/12 03:14	1
Toxaphene	0.50	U	2.0	0.50	0.32	ug/L		10/30/12 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*43*		*30 - 135*	*10/19/12 10:34*	*10/30/12 03:14*	*1*
DCB Decachlorobiphenyl	*41*		*30 - 135*	*10/19/12 10:34*	*10/30/12 03:14*	*1*
Tetrachloro-m-xylene	*78*		*25 - 140*	*10/19/12 10:34*	*10/30/12 03:14*	*1*
Tetrachloro-m-xylene	*83*		*25 - 140*	*10/19/12 10:34*	*10/30/12 03:14*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGDA2mw-114-0161-GW
Date Collected: 10/17/12 09:24
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-12
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.20	U	0.50	0.20	0.17	ug/L		10/24/12 00:10	1
Aroclor-1221	0.20	U	0.50	0.20	0.13	ug/L		10/24/12 00:10	1
Aroclor-1232	0.20	U	0.50	0.20	0.16	ug/L		10/24/12 00:10	1
Aroclor-1242	0.40	U	0.50	0.40	0.22	ug/L		10/24/12 00:10	1
Aroclor-1248	0.20	U	0.50	0.20	0.099	ug/L		10/24/12 00:10	1
Aroclor-1254	0.20	U	0.50	0.20	0.16	ug/L		10/24/12 00:10	1
Aroclor-1260	0.20	U	0.50	0.20	0.17	ug/L		10/24/12 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:10*	*1*
Tetrachloro-m-xylene	*79*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:10*	*1*
DCB Decachlorobiphenyl	*40*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:10*	*1*
DCB Decachlorobiphenyl	*40*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:10*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 15:55	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.054	U	0.16	0.054	0.033	ug/L		10/30/12 06:27	1
1,3-Dinitrobenzene	0.11	U	0.16	0.11	0.054	ug/L		10/30/12 06:27	1
2,4,6-Trinitrotoluene	0.11	U	0.16	0.11	0.054	ug/L		10/30/12 06:27	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.054	ug/L		10/30/12 06:27	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.054	ug/L		10/30/12 06:27	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.16	0.11	0.016	ug/L		10/30/12 06:27	1
2-Nitrotoluene	0.11	U	0.54	0.11	0.094	ug/L		10/30/12 06:27	1
3-Nitrotoluene	0.11	U	0.54	0.11	0.061	ug/L		10/30/12 06:27	1
4-Nitrotoluene	0.11	U	0.54	0.11	0.094	ug/L		10/30/12 06:27	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.16	0.11	0.054	ug/L		10/30/12 06:27	1
HMX	0.054	U	0.16	0.054	0.039	ug/L		10/30/12 06:27	1
RDX	0.054	U	0.16	0.054	0.039	ug/L		10/30/12 06:27	1
Nitrobenzene	0.11	U	0.16	0.11	0.054	ug/L		10/30/12 06:27	1
Tetryl	0.11	U	0.16	0.11	0.054	ug/L		10/30/12 06:27	1
Nitroglycerin	0.54	U	0.70	0.54	0.35	ug/L		10/30/12 06:27	1
PETN	0.54	U	0.70	0.54	0.32	ug/L		10/30/12 06:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*93*		*79 - 111*	*10/23/12 06:29*	*10/30/12 06:27*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:39	1

Client Sample ID: FWGDA2mw-114-0161-GF
Date Collected: 10/17/12 09:24
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-13
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 16:08	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:08	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:08	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:08	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:08	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:08	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 16:08	1
Barium	**29**	**J**	200	5.0	2.8	ug/L		10/23/12 16:08	1
Calcium	**110000**		5000	1000	630	ug/L		10/23/12 16:08	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:08	1
Magnesium	**37000**		5000	300	120	ug/L		10/23/12 16:08	1
Manganese	**82**		15	5.0	1.8	ug/L		10/23/12 16:08	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:08	1
Potassium	**4200**	**J**	5000	900	300	ug/L		10/23/12 16:08	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 16:50	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 21:55	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 21:55	1
Cadmium	**0.026**	**J**	2.0	0.070	0.023	ug/L		10/26/12 21:55	1
Iron	**1000**		150	100	44	ug/L		10/26/12 21:55	1
Sodium	**12000**		1000	400	160	ug/L		10/26/12 21:55	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 21:55	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 16:50	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:13	1

Client Sample ID: FWGDA2mw-115-0162-GW
Date Collected: 10/17/12 10:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-14
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:50	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:50	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 15:50	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:50	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:50	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:50	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 15:50	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:50	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 15:50	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:50	1
Acetone	**2.3**	**J**	10	1.1	1.1	ug/L		10/25/12 15:50	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:50	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 15:50	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 15:50	1
Carbon disulfide	**0.26**	**J**	1.0	0.25	0.13	ug/L		10/25/12 15:50	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:50	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:50	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:50	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 15:50	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 15:50	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:50	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 15:50	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 15:50	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:50	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 15:50	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 15:50	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 15:50	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 15:50	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 15:50	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 15:50	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 15:50	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 15:50	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 15:50	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:50	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 15:50	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 15:50	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 15:50	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 15:50	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 120*		*10/25/12 15:50*	*1*
4-Bromofluorobenzene (Surr)	*81*		*75 - 120*		*10/25/12 15:50*	*1*
Toluene-d8 (Surr)	*90*		*85 - 120*		*10/25/12 15:50*	*1*
Dibromofluoromethane (Surr)	*98*		*85 - 115*		*10/25/12 15:50*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Acenaphthylene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1

Client Sample ID: FWGDA2mw-115-0162-GW
Date Collected: 10/17/12 10:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-14
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Benzo[a]anthracene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Benzo[a]pyrene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Benzo[b]fluoranthene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Benzo[g,h,i]perylene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Benzoic acid	10	U	26	10	10	ug/L		10/26/12 16:50	1
Benzo[k]fluoranthene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Benzyl alcohol	0.83	U	5.2	0.83	0.40	ug/L		10/26/12 16:50	1
Bis(2-chloroethoxy)methane	0.83	U	1.0	0.83	0.33	ug/L		10/26/12 16:50	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 16:50	1
Bis(2-ethylhexyl) phthalate	**2.2**	**B**	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
4-Bromophenyl phenyl ether	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
Butyl benzyl phthalate	0.83	U	1.0	0.83	0.83	ug/L		10/26/12 16:50	1
Carbazole	0.83	U	1.0	0.83	0.29	ug/L		10/26/12 16:50	1
4-Chloroaniline	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
4-Chloro-3-methylphenol	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
2-Chloronaphthalene	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 16:50	1
2-Chlorophenol	0.83	U	1.0	0.83	0.30	ug/L		10/26/12 16:50	1
4-Chlorophenyl phenyl ether	0.83	U	2.1	0.83	0.31	ug/L		10/26/12 16:50	1
Chrysene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Dibenz(a,h)anthracene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Dibenzofuran	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 16:50	1
1,2-Dichlorobenzene	0.83	U	1.0	0.83	0.30	ug/L		10/26/12 16:50	1
1,3-Dichlorobenzene	0.83	U	1.0	0.83	0.83	ug/L		10/26/12 16:50	1
1,4-Dichlorobenzene	0.83	U	1.0	0.83	0.35	ug/L		10/26/12 16:50	1
3,3'-Dichlorobenzidine	0.83	U	5.2	0.83	0.39	ug/L		10/26/12 16:50	1
2,4-Dichlorophenol	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
Diethyl phthalate	0.83	U	1.0	0.83	0.62	ug/L		10/26/12 16:50	1
2,4-Dimethylphenol	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
Dimethyl phthalate	0.83	U	1.0	0.83	0.30	ug/L		10/26/12 16:50	1
Di-n-butyl phthalate	0.83	U	1.0	0.83	0.70	ug/L		10/26/12 16:50	1
4,6-Dinitro-2-methylphenol	2.5	U	5.2	2.5	2.5	ug/L		10/26/12 16:50	1
2,4-Dinitrophenol	2.5	U	5.2	2.5	2.5	ug/L		10/26/12 16:50	1
Di-n-octyl phthalate	0.83	U	1.0	0.83	0.83	ug/L		10/26/12 16:50	1
Fluoranthene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Fluorene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Hexachlorobenzene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Hexachlorobutadiene	0.83	U	1.0	0.83	0.28	ug/L		10/26/12 16:50	1
Hexachlorocyclopentadiene	0.83	U	10	0.83	0.83	ug/L		10/26/12 16:50	1
Hexachloroethane	0.83	U	1.0	0.83	0.83	ug/L		10/26/12 16:50	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Isophorone	0.83	U	1.0	0.83	0.28	ug/L		10/26/12 16:50	1
2-Methylnaphthalene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
2-Methylphenol	0.83	U	1.0	0.83	0.83	ug/L		10/26/12 16:50	1
3 & 4 Methylphenol	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
Naphthalene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
2-Nitroaniline	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1
3-Nitroaniline	0.83	U	2.1	0.83	0.29	ug/L		10/26/12 16:50	1
4-Nitroaniline	0.83	U	2.1	0.83	0.83	ug/L		10/26/12 16:50	1

Client Sample ID: FWGDA2mw-115-0162-GW
Date Collected: 10/17/12 10:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-14
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.83	U	2.1	0.83	0.29	ug/L		10/26/12 16:50	1
4-Nitrophenol	2.5	U	5.2	2.5	2.5	ug/L		10/26/12 16:50	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	0.83	ug/L		10/26/12 16:50	1
N-Nitrosodiphenylamine	0.83	U	1.0	0.83	0.32	ug/L		10/26/12 16:50	1
2,2'-oxybis[1-chloropropane]	0.83	U	1.0	0.83	0.42	ug/L		10/26/12 16:50	1
Pentachlorophenol	2.5	U	5.2	2.5	2.5	ug/L		10/26/12 16:50	1
Phenanthrene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
Phenol	0.83	U	1.0	0.83	0.62	ug/L		10/26/12 16:50	1
Pyrene	0.10	U	0.21	0.10	0.10	ug/L		10/26/12 16:50	1
1,2,4-Trichlorobenzene	0.83	U	1.0	0.83	0.29	ug/L		10/26/12 16:50	1
2,4,5-Trichlorophenol	0.83	U	5.2	0.83	0.31	ug/L		10/26/12 16:50	1
2,4,6-Trichlorophenol	0.83	U	5.2	0.83	0.83	ug/L		10/26/12 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*79*		*50 - 110*	*10/23/12 08:51*	*10/26/12 16:50*	*1*
2-Fluorophenol (Surr)	*83*		*20 - 110*	*10/23/12 08:51*	*10/26/12 16:50*	*1*
Nitrobenzene-d5 (Surr)	*82*		*40 - 110*	*10/23/12 08:51*	*10/26/12 16:50*	*1*
Phenol-d5 (Surr)	*85*		*10 - 115*	*10/23/12 08:51*	*10/26/12 16:50*	*1*
Terphenyl-d14 (Surr)	*91*		*50 - 135*	*10/23/12 08:51*	*10/26/12 16:50*	*1*
2,4,6-Tribromophenol (Surr)	*92*		*40 - 125*	*10/23/12 08:51*	*10/26/12 16:50*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 03:38	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 03:38	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 03:38	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 03:38	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 03:38	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 03:38	1
beta-BHC	**0.0081**	**J**	0.048	0.0095	0.0080	ug/L		10/30/12 03:38	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 03:38	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 03:38	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 03:38	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 03:38	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 03:38	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 03:38	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 03:38	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 03:38	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 03:38	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 03:38	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 03:38	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 03:38	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 03:38	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*64*		*30 - 135*	*10/19/12 10:34*	*10/30/12 03:38*	*1*
DCB Decachlorobiphenyl	*58*		*30 - 135*	*10/19/12 10:34*	*10/30/12 03:38*	*1*
Tetrachloro-m-xylene	*95*		*25 - 140*	*10/19/12 10:34*	*10/30/12 03:38*	*1*
Tetrachloro-m-xylene	*92*		*25 - 140*	*10/19/12 10:34*	*10/30/12 03:38*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGDA2mw-115-0162-GW
Date Collected: 10/17/12 10:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-14
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 00:25	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/24/12 00:25	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 00:25	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/24/12 00:25	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/24/12 00:25	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 00:25	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*75*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:25*	*1*
Tetrachloro-m-xylene	*79*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:25*	*1*
DCB Decachlorobiphenyl	*50*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:25*	*1*
DCB Decachlorobiphenyl	*52*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:25*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 16:23	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.053	U	0.16	0.053	0.033	ug/L		10/30/12 07:07	1
1,3-Dinitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 07:07	1
2,4,6-Trinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 07:07	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		10/30/12 07:07	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		10/30/12 07:07	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.16	0.11	0.016	ug/L		10/30/12 07:07	1
2-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		10/30/12 07:07	1
3-Nitrotoluene	0.11	U	0.53	0.11	0.060	ug/L		10/30/12 07:07	1
4-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		10/30/12 07:07	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 07:07	1
HMX	0.053	U	0.16	0.053	0.038	ug/L		10/30/12 07:07	1
RDX	0.053	U	0.16	0.053	0.038	ug/L		10/30/12 07:07	1
Nitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 07:07	1
Tetryl	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 07:07	1
Nitroglycerin	0.53	U	0.69	0.53	0.35	ug/L		10/30/12 07:07	1
PETN	0.53	U	0.69	0.53	0.32	ug/L		11/01/12 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/23/12 06:29*	*10/30/12 07:07*	*1*
3,4-Dinitrotoluene	*88*		*79 - 111*	*10/23/12 06:29*	*11/01/12 22:07*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:41	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGDA2mw-115-0162-GF
Date Collected: 10/17/12 10:30
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-15
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 16:12	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:12	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:12	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:12	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:12	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:12	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 16:12	1
Barium	**21**	**J**	200	5.0	2.8	ug/L		10/23/12 16:12	1
Calcium	**100000**		5000	1000	630	ug/L		10/23/12 16:12	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:12	1
Magnesium	**29000**		5000	300	120	ug/L		10/23/12 16:12	1
Manganese	**110**		15	5.0	1.8	ug/L		10/23/12 16:12	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:12	1
Potassium	**3600**	**J**	5000	900	300	ug/L		10/23/12 16:12	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 16:55	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:00	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:00	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 22:00	1
Iron	**570**		150	100	44	ug/L		10/26/12 22:00	1
Sodium	**11000**		1000	400	160	ug/L		10/26/12 22:00	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:00	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 16:55	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:33	1

Client Sample ID: FWGDA2mw-DUP1-0199-GW
Date Collected: 10/17/12 11:38
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-16
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 20:23	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 20:23	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/25/12 20:23	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 20:23	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 20:23	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 20:23	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/25/12 20:23	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 20:23	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/25/12 20:23	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 20:23	1
Acetone	**4.8**	**J**	10	1.1	1.1	ug/L		10/25/12 20:23	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 20:23	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/25/12 20:23	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/25/12 20:23	1
Carbon disulfide	**0.40**	**J**	1.0	0.25	0.13	ug/L		10/25/12 20:23	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 20:23	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 20:23	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 20:23	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/25/12 20:23	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/25/12 20:23	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 20:23	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 20:23	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/25/12 20:23	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 20:23	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/25/12 20:23	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/25/12 20:23	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/25/12 20:23	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/25/12 20:23	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/25/12 20:23	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/25/12 20:23	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/25/12 20:23	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/25/12 20:23	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/25/12 20:23	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 20:23	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/25/12 20:23	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/25/12 20:23	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/25/12 20:23	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/25/12 20:23	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/25/12 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*123*	*Q*	*70 - 120*		*10/25/12 20:23*	*1*
4-Bromofluorobenzene (Surr)	*87*		*75 - 120*		*10/25/12 20:23*	*1*
Toluene-d8 (Surr)	*90*		*85 - 120*		*10/25/12 20:23*	*1*
Dibromofluoromethane (Surr)	*114*		*85 - 115*		*10/25/12 20:23*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Acenaphthylene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1

Client Sample ID: FWGDA2mw-DUP1-0199-GW
Date Collected: 10/17/12 11:38
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-16
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Benzo[a]anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Benzo[a]pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Benzo[b]fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Benzo[g,h,i]perylene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Benzoic acid	10	U	25	10	10	ug/L		10/26/12 17:09	1
Benzo[k]fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Benzyl alcohol	0.80	U	5.0	0.80	0.38	ug/L		10/26/12 17:09	1
Bis(2-chloroethoxy)methane	0.80	U	1.0	0.80	0.32	ug/L		10/26/12 17:09	1
Bis(2-chloroethyl)ether	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 17:09	1
Bis(2-ethylhexyl) phthalate	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
4-Bromophenyl phenyl ether	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
Butyl benzyl phthalate	0.80	U	1.0	0.80	0.80	ug/L		10/26/12 17:09	1
Carbazole	0.80	U	1.0	0.80	0.28	ug/L		10/26/12 17:09	1
4-Chloroaniline	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
4-Chloro-3-methylphenol	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
2-Chloronaphthalene	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 17:09	1
2-Chlorophenol	0.80	U	1.0	0.80	0.29	ug/L		10/26/12 17:09	1
4-Chlorophenyl phenyl ether	0.80	U	2.0	0.80	0.30	ug/L		10/26/12 17:09	1
Chrysene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Dibenz(a,h)anthracene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Dibenzofuran	0.10	U	1.0	0.10	0.10	ug/L		10/26/12 17:09	1
1,2-Dichlorobenzene	0.80	U	1.0	0.80	0.29	ug/L		10/26/12 17:09	1
1,3-Dichlorobenzene	0.80	U	1.0	0.80	0.80	ug/L		10/26/12 17:09	1
1,4-Dichlorobenzene	0.80	U	1.0	0.80	0.34	ug/L		10/26/12 17:09	1
3,3'-Dichlorobenzidine	0.80	U	5.0	0.80	0.37	ug/L		10/26/12 17:09	1
2,4-Dichlorophenol	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
Diethyl phthalate	0.80	U	1.0	0.80	0.60	ug/L		10/26/12 17:09	1
2,4-Dimethylphenol	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
Dimethyl phthalate	0.80	U	1.0	0.80	0.29	ug/L		10/26/12 17:09	1
Di-n-butyl phthalate	0.80	U	1.0	0.80	0.67	ug/L		10/26/12 17:09	1
4,6-Dinitro-2-methylphenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 17:09	1
2,4-Dinitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 17:09	1
Di-n-octyl phthalate	0.80	U	1.0	0.80	0.80	ug/L		10/26/12 17:09	1
Fluoranthene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Fluorene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Hexachlorobenzene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Hexachlorobutadiene	0.80	U	1.0	0.80	0.27	ug/L		10/26/12 17:09	1
Hexachlorocyclopentadiene	0.80	U	10	0.80	0.80	ug/L		10/26/12 17:09	1
Hexachloroethane	0.80	U	1.0	0.80	0.80	ug/L		10/26/12 17:09	1
Indeno[1,2,3-cd]pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Isophorone	0.80	U	1.0	0.80	0.27	ug/L		10/26/12 17:09	1
2-Methylnaphthalene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
2-Methylphenol	0.80	U	1.0	0.80	0.80	ug/L		10/26/12 17:09	1
3 & 4 Methylphenol	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
Naphthalene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
2-Nitroaniline	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1
3-Nitroaniline	0.80	U	2.0	0.80	0.28	ug/L		10/26/12 17:09	1
4-Nitroaniline	0.80	U	2.0	0.80	0.80	ug/L		10/26/12 17:09	1

Client Sample ID: FWGDA2mw-DUP1-0199-GW
Date Collected: 10/17/12 11:38
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-16
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.80	U	2.0	0.80	0.28	ug/L		10/26/12 17:09	1
4-Nitrophenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 17:09	1
N-Nitrosodi-n-propylamine	0.80	U	1.0	0.80	0.80	ug/L		10/26/12 17:09	1
N-Nitrosodiphenylamine	0.80	U	1.0	0.80	0.31	ug/L		10/26/12 17:09	1
2,2'-oxybis[1-chloropropane]	0.80	U	1.0	0.80	0.40	ug/L		10/26/12 17:09	1
Pentachlorophenol	2.4	U	5.0	2.4	2.4	ug/L		10/26/12 17:09	1
Phenanthrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
Phenol	0.80	U	1.0	0.80	0.60	ug/L		10/26/12 17:09	1
Pyrene	0.10	U	0.20	0.10	0.10	ug/L		10/26/12 17:09	1
1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.28	ug/L		10/26/12 17:09	1
2,4,5-Trichlorophenol	0.80	U	5.0	0.80	0.30	ug/L		10/26/12 17:09	1
2,4,6-Trichlorophenol	0.80	U	5.0	0.80	0.80	ug/L		10/26/12 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 17:09*	*1*
2-Fluorophenol (Surr)	*78*		*20 - 110*	*10/23/12 08:51*	*10/26/12 17:09*	*1*
Nitrobenzene-d5 (Surr)	*78*		*40 - 110*	*10/23/12 08:51*	*10/26/12 17:09*	*1*
Phenol-d5 (Surr)	*79*		*10 - 115*	*10/23/12 08:51*	*10/26/12 17:09*	*1*
Terphenyl-d14 (Surr)	*86*		*50 - 135*	*10/23/12 08:51*	*10/26/12 17:09*	*1*
2,4,6-Tribromophenol (Surr)	*83*		*40 - 125*	*10/23/12 08:51*	*10/26/12 17:09*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0099	U	0.050	0.0099	0.0095	ug/L		10/30/12 04:02	1
4,4'-DDE	0.0099	U	0.050	0.0099	0.0096	ug/L		10/30/12 04:02	1
4,4'-DDT	0.030	U	0.050	0.030	0.016	ug/L		10/30/12 04:02	1
Aldrin	0.0099	U	0.030	0.0099	0.0081	ug/L		10/30/12 04:02	1
alpha-BHC	0.0099	U	0.030	0.0099	0.0069	ug/L		10/30/12 04:02	1
alpha-Chlordane	0.014	U	0.050	0.014	0.014	ug/L		10/30/12 04:02	1
beta-BHC	0.0099	U	0.050	0.0099	0.0083	ug/L		10/30/12 04:02	1
delta-BHC	0.0099	U	0.050	0.0099	0.0086	ug/L		10/30/12 04:02	1
Dieldrin	0.0099	U	0.030	0.0099	0.0074	ug/L		10/30/12 04:02	1
Endosulfan I	0.013	U	0.050	0.013	0.013	ug/L		10/30/12 04:02	1
Endosulfan II	0.012	U	0.050	0.012	0.012	ug/L		10/30/12 04:02	1
Endosulfan sulfate	0.011	U	0.050	0.011	0.011	ug/L		10/30/12 04:02	1
Endrin	0.011	U	0.050	0.011	0.011	ug/L		10/30/12 04:02	1
Endrin aldehyde	0.011	U	0.050	0.011	0.011	ug/L		10/30/12 04:02	1
Endrin ketone	0.0099	U Q	0.050	0.0099	0.0077	ug/L		10/30/12 04:02	1
gamma-BHC (Lindane)	0.0099	U	0.050	0.0099	0.0063	ug/L		10/30/12 04:02	1
gamma-Chlordane	0.012	U	0.050	0.012	0.012	ug/L		10/30/12 04:02	1
Heptachlor	0.0099	U	0.030	0.0099	0.0079	ug/L		10/30/12 04:02	1
Heptachlor epoxide	0.0099	U	0.030	0.0099	0.0070	ug/L		10/30/12 04:02	1
Methoxychlor	0.032	U	0.099	0.032	0.032	ug/L		10/30/12 04:02	1
Toxaphene	0.50	U	2.0	0.50	0.32	ug/L		10/30/12 04:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*61*		*30 - 135*	*10/19/12 10:34*	*10/30/12 04:02*	*1*
DCB Decachlorobiphenyl	*65*		*30 - 135*	*10/19/12 10:34*	*10/30/12 04:02*	*1*
Tetrachloro-m-xylene	*86*		*25 - 140*	*10/19/12 10:34*	*10/30/12 04:02*	*1*
Tetrachloro-m-xylene	*85*		*25 - 140*	*10/19/12 10:34*	*10/30/12 04:02*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGDA2mw-DUP1-0199-GW
Date Collected: 10/17/12 11:38
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-16
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 00:40	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/24/12 00:40	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 00:40	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/24/12 00:40	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/24/12 00:40	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 00:40	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*77*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:40*	*1*
Tetrachloro-m-xylene	*79*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:40*	*1*
DCB Decachlorobiphenyl	*70*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:40*	*1*
DCB Decachlorobiphenyl	*72*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:40*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 16:38	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.032	ug/L		10/30/12 07:47	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 07:47	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 07:47	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/30/12 07:47	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/30/12 07:47	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/30/12 07:47	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/30/12 07:47	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/30/12 07:47	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.090	ug/L		10/30/12 07:47	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 07:47	1
HMX	0.051	U	0.15	0.051	0.037	ug/L		10/30/12 07:47	1
RDX	0.051	U	0.15	0.051	0.037	ug/L		10/30/12 07:47	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 07:47	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/30/12 07:47	1
Nitroglycerin	0.51	U	0.66	0.51	0.34	ug/L		10/30/12 07:47	1
PETN	0.51	U	0.66	0.51	0.31	ug/L		10/30/12 07:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*93*		*79 - 111*	*10/23/12 06:29*	*10/30/12 07:47*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:44	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:43	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGDA2mw-DUP1-0199-GF
Date Collected: 10/17/12 11:38
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-17
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 16:16	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:16	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:16	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:16	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:16	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:16	1
Vanadium	**1.6**	**J**	7.0	4.0	1.3	ug/L		10/23/12 16:16	1
Barium	**22**	**J**	200	5.0	2.8	ug/L		10/23/12 16:16	1
Calcium	**100000**		5000	1000	630	ug/L		10/23/12 16:16	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:16	1
Magnesium	**29000**		5000	300	120	ug/L		10/23/12 16:16	1
Manganese	**120**		15	5.0	1.8	ug/L		10/23/12 16:16	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:16	1
Potassium	**3700**	**J**	5000	900	300	ug/L		10/23/12 16:16	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 17:01	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:06	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:06	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 22:06	1
Iron	**550**		150	100	44	ug/L		10/26/12 22:06	1
Sodium	**11000**		1000	400	160	ug/L		10/26/12 22:06	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:06	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 17:01	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 13:53	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL12mw-182c-0190-GW
Date Collected: 10/17/12 13:22
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-18
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.0	J B	2.0	0.81	0.81	ug/L		10/26/12 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 17:28*	*1*
2-Fluorophenol (Surr)	*85*		*20 - 110*	*10/23/12 08:51*	*10/26/12 17:28*	*1*
Nitrobenzene-d5 (Surr)	*80*		*40 - 110*	*10/23/12 08:51*	*10/26/12 17:28*	*1*
Terphenyl-d14 (Surr)	*74*		*50 - 135*	*10/23/12 08:51*	*10/26/12 17:28*	*1*
2,4,6-Tribromophenol (Surr)	*94*		*40 - 125*	*10/23/12 08:51*	*10/26/12 17:28*	*1*
Phenol-d5 (Surr)	*93*		*10 - 115*	*10/23/12 08:51*	*10/26/12 17:28*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL12mw-182ss-0191-GW
Date Collected: 10/17/12 13:52
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-19
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	1.5	J B	2.1	0.84	0.84	ug/L		10/26/12 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 17:47*	*1*
2-Fluorophenol (Surr)	*79*		*20 - 110*	*10/23/12 08:51*	*10/26/12 17:47*	*1*
Nitrobenzene-d5 (Surr)	*78*		*40 - 110*	*10/23/12 08:51*	*10/26/12 17:47*	*1*
Terphenyl-d14 (Surr)	*81*		*50 - 135*	*10/23/12 08:51*	*10/26/12 17:47*	*1*
2,4,6-Tribromophenol (Surr)	*86*		*40 - 125*	*10/23/12 08:51*	*10/26/12 17:47*	*1*
Phenol-d5 (Surr)	*82*		*10 - 115*	*10/23/12 08:51*	*10/26/12 17:47*	*1*

Client Sample ID: FWGLL4mw-201-0185-GW
Date Collected: 10/17/12 14:42
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-20
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 15:36	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 15:36	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/26/12 15:36	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 15:36	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 15:36	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 15:36	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/26/12 15:36	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 15:36	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/26/12 15:36	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 15:36	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/26/12 15:36	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 15:36	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/26/12 15:36	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/26/12 15:36	1
Carbon disulfide	**0.17**	**J**	1.0	0.25	0.13	ug/L		10/26/12 15:36	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 15:36	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 15:36	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 15:36	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/26/12 15:36	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/26/12 15:36	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 15:36	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 15:36	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 15:36	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 15:36	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/26/12 15:36	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/26/12 15:36	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/26/12 15:36	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/26/12 15:36	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/26/12 15:36	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 15:36	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/26/12 15:36	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 15:36	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 15:36	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 15:36	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 15:36	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 15:36	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 15:36	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/26/12 15:36	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 120*		*10/26/12 15:36*	*1*
4-Bromofluorobenzene (Surr)	*83*		*75 - 120*		*10/26/12 15:36*	*1*
Toluene-d8 (Surr)	*87*		*85 - 120*		*10/26/12 15:36*	*1*
Dibromofluoromethane (Surr)	*108*		*85 - 115*		*10/26/12 15:36*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Acenaphthylene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1

Client Sample ID: FWGLL4mw-201-0185-GW
Date Collected: 10/17/12 14:42
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-20
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Benzo[a]anthracene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Benzo[a]pyrene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Benzo[b]fluoranthene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Benzo[g,h,i]perylene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Benzoic acid	9.5	U H	24	9.5	9.5	ug/L		11/02/12 12:11	1
Benzo[k]fluoranthene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Benzyl alcohol	0.76	U H	4.8	0.76	0.36	ug/L		11/02/12 12:11	1
Bis(2-chloroethoxy)methane	0.76	U H	0.95	0.76	0.30	ug/L		11/02/12 12:11	1
Bis(2-chloroethyl)ether	0.095	U H	0.95	0.095	0.095	ug/L		11/02/12 12:11	1
Bis(2-ethylhexyl) phthalate	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
4-Bromophenyl phenyl ether	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
Butyl benzyl phthalate	0.76	U H	0.95	0.76	0.76	ug/L		11/02/12 12:11	1
Carbazole	0.76	U H	0.95	0.76	0.27	ug/L		11/02/12 12:11	1
4-Chloroaniline	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
4-Chloro-3-methylphenol	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
2-Chloronaphthalene	0.095	U H	0.95	0.095	0.095	ug/L		11/02/12 12:11	1
2-Chlorophenol	0.76	U H	0.95	0.76	0.28	ug/L		11/02/12 12:11	1
4-Chlorophenyl phenyl ether	0.76	U H	1.9	0.76	0.29	ug/L		11/02/12 12:11	1
Chrysene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Dibenz(a,h)anthracene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Dibenzofuran	0.095	U H	0.95	0.095	0.095	ug/L		11/02/12 12:11	1
1,2-Dichlorobenzene	0.76	U H	0.95	0.76	0.28	ug/L		11/02/12 12:11	1
1,3-Dichlorobenzene	0.76	U H	0.95	0.76	0.76	ug/L		11/02/12 12:11	1
1,4-Dichlorobenzene	0.76	U H	0.95	0.76	0.32	ug/L		11/02/12 12:11	1
3,3'-Dichlorobenzidine	0.76	U H	4.8	0.76	0.35	ug/L		11/02/12 12:11	1
2,4-Dichlorophenol	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
Diethyl phthalate	0.76	U H	0.95	0.76	0.57	ug/L		11/02/12 12:11	1
2,4-Dimethylphenol	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
Dimethyl phthalate	0.76	U H	0.95	0.76	0.28	ug/L		11/02/12 12:11	1
Di-n-butyl phthalate	0.76	U H	0.95	0.76	0.64	ug/L		11/02/12 12:11	1
4,6-Dinitro-2-methylphenol	2.3	U H	4.8	2.3	2.3	ug/L		11/02/12 12:11	1
2,4-Dinitrophenol	2.3	U H	4.8	2.3	2.3	ug/L		11/02/12 12:11	1
Di-n-octyl phthalate	0.76	U H	0.95	0.76	0.76	ug/L		11/02/12 12:11	1
Fluoranthene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Fluorene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Hexachlorobenzene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Hexachlorobutadiene	0.76	U H	0.95	0.76	0.26	ug/L		11/02/12 12:11	1
Hexachlorocyclopentadiene	0.76	U H	9.5	0.76	0.76	ug/L		11/02/12 12:11	1
Hexachloroethane	0.76	U H	0.95	0.76	0.76	ug/L		11/02/12 12:11	1
Indeno[1,2,3-cd]pyrene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Isophorone	0.76	U H	0.95	0.76	0.26	ug/L		11/02/12 12:11	1
2-Methylnaphthalene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
2-Methylphenol	0.76	U H	0.95	0.76	0.76	ug/L		11/02/12 12:11	1
3 & 4 Methylphenol	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
Naphthalene	**0.32**	**H**	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
2-Nitroaniline	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1
3-Nitroaniline	0.76	U H	1.9	0.76	0.27	ug/L		11/02/12 12:11	1
4-Nitroaniline	0.76	U H	1.9	0.76	0.76	ug/L		11/02/12 12:11	1

Client Sample ID: FWGLL4mw-201-0185-GW
Date Collected: 10/17/12 14:42
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-20
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U H	1.9	0.76	0.27	ug/L		11/02/12 12:11	1
4-Nitrophenol	2.3	U H	4.8	2.3	2.3	ug/L		11/02/12 12:11	1
N-Nitrosodi-n-propylamine	0.76	U H	0.95	0.76	0.76	ug/L		11/02/12 12:11	1
N-Nitrosodiphenylamine	0.76	U H	0.95	0.76	0.30	ug/L		11/02/12 12:11	1
2,2'-oxybis[1-chloropropane]	0.76	U H	0.95	0.76	0.38	ug/L		11/02/12 12:11	1
Pentachlorophenol	2.3	U H	4.8	2.3	2.3	ug/L		11/02/12 12:11	1
Phenanthrene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
Phenol	0.76	U H	0.95	0.76	0.57	ug/L		11/02/12 12:11	1
Pyrene	0.095	U H	0.19	0.095	0.095	ug/L		11/02/12 12:11	1
1,2,4-Trichlorobenzene	0.76	U H	0.95	0.76	0.27	ug/L		11/02/12 12:11	1
2,4,5-Trichlorophenol	0.76	U H	4.8	0.76	0.29	ug/L		11/02/12 12:11	1
2,4,6-Trichlorophenol	0.76	U H	4.8	0.76	0.76	ug/L		11/02/12 12:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*50 - 110*	*10/30/12 10:18*	*11/02/12 12:11*	*1*
2-Fluorophenol (Surr)	*75*		*20 - 110*	*10/30/12 10:18*	*11/02/12 12:11*	*1*
Nitrobenzene-d5 (Surr)	*68*		*40 - 110*	*10/30/12 10:18*	*11/02/12 12:11*	*1*
Phenol-d5 (Surr)	*74*		*10 - 115*	*10/30/12 10:18*	*11/02/12 12:11*	*1*
Terphenyl-d14 (Surr)	*75*		*50 - 135*	*10/30/12 10:18*	*11/02/12 12:11*	*1*
2,4,6-Tribromophenol (Surr)	*72*		*40 - 125*	*10/30/12 10:18*	*11/02/12 12:11*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0096	U	0.048	0.0096	0.0092	ug/L		10/30/12 04:26	1
4,4'-DDE	0.0096	U	0.048	0.0096	0.0093	ug/L		10/30/12 04:26	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 04:26	1
Aldrin	0.0096	U	0.029	0.0096	0.0079	ug/L		10/30/12 04:26	1
alpha-BHC	0.0096	U	0.029	0.0096	0.0067	ug/L		10/30/12 04:26	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 04:26	1
beta-BHC	0.0096	U	0.048	0.0096	0.0081	ug/L		10/30/12 04:26	1
delta-BHC	0.0096	U	0.048	0.0096	0.0084	ug/L		10/30/12 04:26	1
Dieldrin	0.0096	U	0.029	0.0096	0.0072	ug/L		10/30/12 04:26	1
Endosulfan I	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 04:26	1
Endosulfan II	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 04:26	1
Endosulfan sulfate	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 04:26	1
Endrin	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 04:26	1
Endrin aldehyde	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 04:26	1
Endrin ketone	0.0096	U Q	0.048	0.0096	0.0075	ug/L		10/30/12 04:26	1
gamma-BHC (Lindane)	0.0096	U	0.048	0.0096	0.0062	ug/L		10/30/12 04:26	1
gamma-Chlordane	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 04:26	1
Heptachlor	0.0096	U	0.029	0.0096	0.0077	ug/L		10/30/12 04:26	1
Heptachlor epoxide	0.0096	U	0.029	0.0096	0.0068	ug/L		10/30/12 04:26	1
Methoxychlor	0.031	U	0.096	0.031	0.031	ug/L		10/30/12 04:26	1
Toxaphene	0.48	U	1.9	0.48	0.31	ug/L		10/30/12 04:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*30 - 135*	*10/19/12 10:34*	*10/30/12 04:26*	*1*
DCB Decachlorobiphenyl	*74*		*30 - 135*	*10/19/12 10:34*	*10/30/12 04:26*	*1*
Tetrachloro-m-xylene	*79*		*25 - 140*	*10/19/12 10:34*	*10/30/12 04:26*	*1*
Tetrachloro-m-xylene	*81*		*25 - 140*	*10/19/12 10:34*	*10/30/12 04:26*	*1*

Client Sample ID: FWGLL4mw-201-0185-GW
Date Collected: 10/17/12 14:42
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-20
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 00:55	1
Aroclor-1221	0.19	U	0.48	0.19	0.13	ug/L		10/24/12 00:55	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 00:55	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/24/12 00:55	1
Aroclor-1248	0.19	U	0.48	0.19	0.096	ug/L		10/24/12 00:55	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 00:55	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 00:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:55*	*1*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/19/12 10:39*	*10/24/12 00:55*	*1*
DCB Decachlorobiphenyl	*68*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:55*	*1*
DCB Decachlorobiphenyl	*70*		*40 - 135*	*10/19/12 10:39*	*10/24/12 00:55*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 16:52	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.052	U	0.16	0.052	0.032	ug/L		10/30/12 08:28	1
1,3-Dinitrobenzene	0.10	U	0.16	0.10	0.052	ug/L		10/30/12 08:28	1
2,4,6-Trinitrotoluene	0.10	U	0.16	0.10	0.052	ug/L		10/30/12 08:28	1
2,4-Dinitrotoluene	0.10	U	0.14	0.10	0.052	ug/L		10/30/12 08:28	1
2,6-Dinitrotoluene	0.10	U	0.14	0.10	0.052	ug/L		10/30/12 08:28	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.16	0.10	0.016	ug/L		10/30/12 08:28	1
2-Nitrotoluene	0.10	U	0.52	0.10	0.092	ug/L		10/30/12 08:28	1
3-Nitrotoluene	0.10	U	0.52	0.10	0.060	ug/L		10/30/12 08:28	1
4-Nitrotoluene	0.10	U	0.52	0.10	0.092	ug/L		10/30/12 08:28	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.16	0.10	0.052	ug/L		10/30/12 08:28	1
HMX	0.052	U	0.16	0.052	0.038	ug/L		10/30/12 08:28	1
RDX	0.052	U	0.16	0.052	0.038	ug/L		10/30/12 08:28	1
Nitrobenzene	0.10	U	0.16	0.10	0.052	ug/L		10/30/12 08:28	1
Tetryl	0.10	U	0.16	0.10	0.052	ug/L		10/30/12 08:28	1
Nitroglycerin	0.52	U	0.68	0.52	0.35	ug/L		10/30/12 08:28	1
PETN	0.52	U	0.68	0.52	0.31	ug/L		10/30/12 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*93*		*79 - 111*	*10/23/12 06:29*	*10/30/12 08:28*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:49	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:45	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL4mw-201-0185-GF
Date Collected: 10/17/12 14:42
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-21
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**35**		10	10	3.3	ug/L		10/23/12 16:20	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:20	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:20	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:20	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:20	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:20	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 16:20	1
Barium	**83**	**J**	200	5.0	2.8	ug/L		10/23/12 16:20	1
Calcium	**98000**		5000	1000	630	ug/L		10/23/12 16:20	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:20	1
Magnesium	**30000**		5000	300	120	ug/L		10/23/12 16:20	1
Manganese	**150**		15	5.0	1.8	ug/L		10/23/12 16:20	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:20	1
Potassium	**1800**	**J**	5000	900	300	ug/L		10/23/12 16:20	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 17:06	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:11	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:11	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 22:11	1
Iron	**1200**		150	100	44	ug/L		10/26/12 22:11	1
Sodium	**13000**		1000	400	160	ug/L		10/26/12 22:11	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:11	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 17:06	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:35	1

Client Sample ID: FWGFWGmw-013-0176-GW
Date Collected: 10/17/12 16:08
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-22
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 15:59	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 15:59	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/26/12 15:59	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 15:59	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 15:59	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 15:59	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/26/12 15:59	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 15:59	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/26/12 15:59	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 15:59	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/26/12 15:59	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 15:59	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/26/12 15:59	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/26/12 15:59	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 15:59	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 15:59	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 15:59	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 15:59	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/26/12 15:59	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/26/12 15:59	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 15:59	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 15:59	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 15:59	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 15:59	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/26/12 15:59	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/26/12 15:59	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/26/12 15:59	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/26/12 15:59	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/26/12 15:59	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 15:59	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/26/12 15:59	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 15:59	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 15:59	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 15:59	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 15:59	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 15:59	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 15:59	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/26/12 15:59	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 120*		*10/26/12 15:59*	*1*
4-Bromofluorobenzene (Surr)	*87*		*75 - 120*		*10/26/12 15:59*	*1*
Toluene-d8 (Surr)	*88*		*85 - 120*		*10/26/12 15:59*	*1*
Dibromofluoromethane (Surr)	*99*		*85 - 115*		*10/26/12 15:59*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Acenaphthylene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1

Client Sample ID: FWGFWGmw-013-0176-GW
Date Collected: 10/17/12 16:08
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-22
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Benzo[a]anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Benzo[a]pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Benzo[b]fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Benzo[g,h,i]perylene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Benzoic acid	11	U	27	11	11	ug/L		10/26/12 18:25	1
Benzo[k]fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Benzyl alcohol	0.86	U	5.4	0.86	0.41	ug/L		10/26/12 18:25	1
Bis(2-chloroethoxy)methane	0.86	U	1.1	0.86	0.34	ug/L		10/26/12 18:25	1
Bis(2-chloroethyl)ether	0.11	U	1.1	0.11	0.11	ug/L		10/26/12 18:25	1
Bis(2-ethylhexyl) phthalate	**1.9**	**J B**	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
4-Bromophenyl phenyl ether	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
Butyl benzyl phthalate	0.86	U	1.1	0.86	0.86	ug/L		10/26/12 18:25	1
Carbazole	0.86	U	1.1	0.86	0.30	ug/L		10/26/12 18:25	1
4-Chloroaniline	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
4-Chloro-3-methylphenol	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
2-Chloronaphthalene	0.11	U	1.1	0.11	0.11	ug/L		10/26/12 18:25	1
2-Chlorophenol	0.86	U	1.1	0.86	0.31	ug/L		10/26/12 18:25	1
4-Chlorophenyl phenyl ether	0.86	U	2.2	0.86	0.32	ug/L		10/26/12 18:25	1
Chrysene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Dibenz(a,h)anthracene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Dibenzofuran	0.11	U	1.1	0.11	0.11	ug/L		10/26/12 18:25	1
1,2-Dichlorobenzene	0.86	U	1.1	0.86	0.31	ug/L		10/26/12 18:25	1
1,3-Dichlorobenzene	0.86	U	1.1	0.86	0.86	ug/L		10/26/12 18:25	1
1,4-Dichlorobenzene	0.86	U	1.1	0.86	0.37	ug/L		10/26/12 18:25	1
3,3'-Dichlorobenzidine	0.86	U	5.4	0.86	0.40	ug/L		10/26/12 18:25	1
2,4-Dichlorophenol	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
Diethyl phthalate	0.86	U	1.1	0.86	0.65	ug/L		10/26/12 18:25	1
2,4-Dimethylphenol	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
Dimethyl phthalate	0.86	U	1.1	0.86	0.31	ug/L		10/26/12 18:25	1
Di-n-butyl phthalate	0.86	U	1.1	0.86	0.72	ug/L		10/26/12 18:25	1
4,6-Dinitro-2-methylphenol	2.6	U	5.4	2.6	2.6	ug/L		10/26/12 18:25	1
2,4-Dinitrophenol	2.6	U	5.4	2.6	2.6	ug/L		10/26/12 18:25	1
Di-n-octyl phthalate	0.86	U	1.1	0.86	0.86	ug/L		10/26/12 18:25	1
Fluoranthene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Fluorene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Hexachlorobenzene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Hexachlorobutadiene	0.86	U	1.1	0.86	0.29	ug/L		10/26/12 18:25	1
Hexachlorocyclopentadiene	0.86	U	11	0.86	0.86	ug/L		10/26/12 18:25	1
Hexachloroethane	0.86	U	1.1	0.86	0.86	ug/L		10/26/12 18:25	1
Indeno[1,2,3-cd]pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Isophorone	0.86	U	1.1	0.86	0.29	ug/L		10/26/12 18:25	1
2-Methylnaphthalene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
2-Methylphenol	0.86	U	1.1	0.86	0.86	ug/L		10/26/12 18:25	1
3 & 4 Methylphenol	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
Naphthalene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
2-Nitroaniline	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1
3-Nitroaniline	0.86	U	2.2	0.86	0.30	ug/L		10/26/12 18:25	1
4-Nitroaniline	0.86	U	2.2	0.86	0.86	ug/L		10/26/12 18:25	1

Client Sample ID: FWGFWGmw-013-0176-GW
Date Collected: 10/17/12 16:08
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-22
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.86	U	2.2	0.86	0.30	ug/L		10/26/12 18:25	1
4-Nitrophenol	2.6	U	5.4	2.6	2.6	ug/L		10/26/12 18:25	1
N-Nitrosodi-n-propylamine	0.86	U	1.1	0.86	0.86	ug/L		10/26/12 18:25	1
N-Nitrosodiphenylamine	0.86	U	1.1	0.86	0.33	ug/L		10/26/12 18:25	1
2,2'-oxybis[1-chloropropane]	0.86	U	1.1	0.86	0.43	ug/L		10/26/12 18:25	1
Pentachlorophenol	2.6	U	5.4	2.6	2.6	ug/L		10/26/12 18:25	1
Phenanthrene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
Phenol	0.86	U	1.1	0.86	0.65	ug/L		10/26/12 18:25	1
Pyrene	0.11	U	0.22	0.11	0.11	ug/L		10/26/12 18:25	1
1,2,4-Trichlorobenzene	0.86	U	1.1	0.86	0.30	ug/L		10/26/12 18:25	1
2,4,5-Trichlorophenol	0.86	U	5.4	0.86	0.32	ug/L		10/26/12 18:25	1
2,4,6-Trichlorophenol	0.86	U	5.4	0.86	0.86	ug/L		10/26/12 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 18:25*	*1*
2-Fluorophenol (Surr)	*73*		*20 - 110*	*10/23/12 08:51*	*10/26/12 18:25*	*1*
Nitrobenzene-d5 (Surr)	*73*		*40 - 110*	*10/23/12 08:51*	*10/26/12 18:25*	*1*
Phenol-d5 (Surr)	*74*		*10 - 115*	*10/23/12 08:51*	*10/26/12 18:25*	*1*
Terphenyl-d14 (Surr)	*75*		*50 - 135*	*10/23/12 08:51*	*10/26/12 18:25*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*40 - 125*	*10/23/12 08:51*	*10/26/12 18:25*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.011	U	0.053	0.011	0.010	ug/L		10/30/12 04:51	1
4,4'-DDE	0.011	U	0.053	0.011	0.010	ug/L		10/30/12 04:51	1
4,4'-DDT	0.032	U	0.053	0.032	0.017	ug/L		10/30/12 04:51	1
Aldrin	0.011	U	0.032	0.011	0.0086	ug/L		10/30/12 04:51	1
alpha-BHC	0.011	U	0.032	0.011	0.0074	ug/L		10/30/12 04:51	1
alpha-Chlordane	0.015	U	0.053	0.015	0.015	ug/L		10/30/12 04:51	1
beta-BHC	0.011	U	0.053	0.011	0.0088	ug/L		10/30/12 04:51	1
delta-BHC	0.011	U	0.053	0.011	0.0092	ug/L		10/30/12 04:51	1
Dieldrin	0.011	U	0.032	0.011	0.0079	ug/L		10/30/12 04:51	1
Endosulfan I	0.014	U	0.053	0.014	0.014	ug/L		10/30/12 04:51	1
Endosulfan II	0.013	U	0.053	0.013	0.013	ug/L		10/30/12 04:51	1
Endosulfan sulfate	0.012	U	0.053	0.012	0.012	ug/L		10/30/12 04:51	1
Endrin	0.012	U	0.053	0.012	0.012	ug/L		10/30/12 04:51	1
Endrin aldehyde	0.012	U	0.053	0.012	0.012	ug/L		10/30/12 04:51	1
Endrin ketone	0.011	U Q	0.053	0.011	0.0082	ug/L		10/30/12 04:51	1
gamma-BHC (Lindane)	0.011	U	0.053	0.011	0.0067	ug/L		10/30/12 04:51	1
gamma-Chlordane	0.013	U	0.053	0.013	0.013	ug/L		10/30/12 04:51	1
Heptachlor	0.011	U	0.032	0.011	0.0084	ug/L		10/30/12 04:51	1
Heptachlor epoxide	0.011	U	0.032	0.011	0.0075	ug/L		10/30/12 04:51	1
Methoxychlor	0.034	U	0.11	0.034	0.034	ug/L		10/30/12 04:51	1
Toxaphene	0.53	U	2.1	0.53	0.34	ug/L		10/30/12 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*30 - 135*	*10/19/12 10:34*	*10/30/12 04:51*	*1*
DCB Decachlorobiphenyl	*74*		*30 - 135*	*10/19/12 10:34*	*10/30/12 04:51*	*1*
Tetrachloro-m-xylene	*79*		*25 - 140*	*10/19/12 10:34*	*10/30/12 04:51*	*1*
Tetrachloro-m-xylene	*86*		*25 - 140*	*10/19/12 10:34*	*10/30/12 04:51*	*1*

Client Sample ID: FWGFWGmw-013-0176-GW
Date Collected: 10/17/12 16:08
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-22
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.21	U	0.53	0.21	0.18	ug/L		10/24/12 01:10	1
Aroclor-1221	0.21	U	0.53	0.21	0.14	ug/L		10/24/12 01:10	1
Aroclor-1232	0.21	U	0.53	0.21	0.17	ug/L		10/24/12 01:10	1
Aroclor-1242	0.42	U	0.53	0.42	0.23	ug/L		10/24/12 01:10	1
Aroclor-1248	0.21	U	0.53	0.21	0.11	ug/L		10/24/12 01:10	1
Aroclor-1254	0.21	U	0.53	0.21	0.17	ug/L		10/24/12 01:10	1
Aroclor-1260	0.21	U	0.53	0.21	0.18	ug/L		10/24/12 01:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*40 - 140*	*10/19/12 10:39*	*10/24/12 01:10*	*1*
Tetrachloro-m-xylene	*80*		*40 - 140*	*10/19/12 10:39*	*10/24/12 01:10*	*1*
DCB Decachlorobiphenyl	*76*		*40 - 135*	*10/19/12 10:39*	*10/24/12 01:10*	*1*
DCB Decachlorobiphenyl	*78*		*40 - 135*	*10/19/12 10:39*	*10/24/12 01:10*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 17:06	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.053	U	0.16	0.053	0.033	ug/L		10/30/12 09:09	1
1,3-Dinitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 09:09	1
2,4,6-Trinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 09:09	1
2,4-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		10/30/12 09:09	1
2,6-Dinitrotoluene	0.11	U	0.14	0.11	0.053	ug/L		10/30/12 09:09	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.16	0.11	0.016	ug/L		10/30/12 09:09	1
2-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		10/30/12 09:09	1
3-Nitrotoluene	0.11	U	0.53	0.11	0.060	ug/L		10/30/12 09:09	1
4-Nitrotoluene	0.11	U	0.53	0.11	0.093	ug/L		10/30/12 09:09	1
4-Amino-2,6-dinitrotoluene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 09:09	1
HMX	0.053	U	0.16	0.053	0.038	ug/L		10/30/12 09:09	1
RDX	0.053	U	0.16	0.053	0.038	ug/L		10/30/12 09:09	1
Nitrobenzene	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 09:09	1
Tetryl	0.11	U	0.16	0.11	0.053	ug/L		10/30/12 09:09	1
Nitroglycerin	0.53	U	0.69	0.53	0.35	ug/L		10/30/12 09:09	1
PETN	0.53	U	0.69	0.53	0.32	ug/L		10/30/12 09:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*	*M*	*79 - 111*	*10/23/12 06:29*	*10/30/12 09:09*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	**0.0071**	**J**	0.010	0.010	0.0050	mg/L		10/25/12 15:12	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:47	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGFWGmw-013-0176-GF
Date Collected: 10/17/12 16:08
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-23
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 16:31	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:31	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:31	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:31	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:31	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:31	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 16:31	1
Barium	**30**	**J**	200	5.0	2.8	ug/L		10/23/12 16:31	1
Calcium	**55000**		5000	1000	630	ug/L		10/23/12 16:31	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:31	1
Magnesium	**26000**		5000	300	120	ug/L		10/23/12 16:31	1
Manganese	**520**		15	5.0	1.8	ug/L		10/23/12 16:31	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:31	1
Potassium	**2800**	**J**	5000	900	300	ug/L		10/23/12 16:31	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 17:12	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:17	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:17	1
Cadmium	**0.046**	**J**	2.0	0.070	0.023	ug/L		10/26/12 22:17	1
Iron	100	U	150	100	44	ug/L		10/26/12 22:17	1
Sodium	**7600**		1000	400	160	ug/L		10/26/12 22:17	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:17	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 17:12	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:08	1

Client Sample ID: FWGTEAM3-TRIP
Date Collected: 10/17/12 08:00
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-24
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:59	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:59	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/30/12 14:59	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:59	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:59	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:59	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/30/12 14:59	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:59	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/30/12 14:59	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:59	1
Acetone	**1.8**	**J**	10	1.1	1.1	ug/L		10/30/12 14:59	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:59	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/30/12 14:59	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/30/12 14:59	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:59	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:59	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:59	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:59	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/30/12 14:59	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/30/12 14:59	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:59	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 14:59	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:59	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:59	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/30/12 14:59	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/30/12 14:59	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/30/12 14:59	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/30/12 14:59	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/30/12 14:59	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 14:59	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/30/12 14:59	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:59	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:59	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:59	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:59	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:59	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:59	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/30/12 14:59	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*131*	*Q*	*70 - 120*		*10/30/12 14:59*	*1*
4-Bromofluorobenzene (Surr)	*88*		*75 - 120*		*10/30/12 14:59*	*1*
Toluene-d8 (Surr)	*101*		*85 - 120*		*10/30/12 14:59*	*1*
Dibromofluoromethane (Surr)	*114*		*85 - 115*		*10/30/12 14:59*	*1*

Client Sample ID: FWGWBGmw-018-0195-GW
Date Collected: 10/17/12 09:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-25
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 13:51	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 13:51	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/30/12 13:51	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 13:51	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 13:51	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 13:51	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/30/12 13:51	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 13:51	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/30/12 13:51	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 13:51	1
Acetone	**1.1**	**J**	10	1.1	1.1	ug/L		10/30/12 13:51	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:51	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/30/12 13:51	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/30/12 13:51	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:51	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:51	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 13:51	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 13:51	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/30/12 13:51	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/30/12 13:51	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 13:51	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 13:51	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 13:51	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 13:51	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/30/12 13:51	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/30/12 13:51	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/30/12 13:51	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/30/12 13:51	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/30/12 13:51	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 13:51	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/30/12 13:51	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 13:51	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:51	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 13:51	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 13:51	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 13:51	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 13:51	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/30/12 13:51	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*70 - 120*		*10/30/12 13:51*	*1*
4-Bromofluorobenzene (Surr)	*80*		*75 - 120*		*10/30/12 13:51*	*1*
Toluene-d8 (Surr)	*91*		*85 - 120*		*10/30/12 13:51*	*1*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*10/30/12 13:51*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Acenaphthylene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1

Client Sample ID: FWGWBGmw-018-0195-GW
Lab Sample ID: 240-16528-25
Date Collected: 10/17/12 09:33
Matrix: Water
Date Received: 10/18/12 06:00

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Benzo[a]anthracene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Benzo[a]pyrene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Benzo[b]fluoranthene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Benzo[g,h,i]perylene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Benzoic acid	9.8	U	25	9.8	9.8	ug/L		10/26/12 18:44	1
Benzo[k]fluoranthene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Benzyl alcohol	0.78	U	4.9	0.78	0.37	ug/L		10/26/12 18:44	1
Bis(2-chloroethoxy)methane	0.78	U	0.98	0.78	0.31	ug/L		10/26/12 18:44	1
Bis(2-chloroethyl)ether	0.098	U	0.98	0.098	0.098	ug/L		10/26/12 18:44	1
Bis(2-ethylhexyl) phthalate	**0.95**	**J B**	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
4-Bromophenyl phenyl ether	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
Butyl benzyl phthalate	0.78	U	0.98	0.78	0.78	ug/L		10/26/12 18:44	1
Carbazole	0.78	U	0.98	0.78	0.27	ug/L		10/26/12 18:44	1
4-Chloroaniline	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
4-Chloro-3-methylphenol	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
2-Chloronaphthalene	0.098	U	0.98	0.098	0.098	ug/L		10/26/12 18:44	1
2-Chlorophenol	0.78	U	0.98	0.78	0.28	ug/L		10/26/12 18:44	1
4-Chlorophenyl phenyl ether	0.78	U	2.0	0.78	0.29	ug/L		10/26/12 18:44	1
Chrysene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Dibenz(a,h)anthracene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Dibenzofuran	0.098	U	0.98	0.098	0.098	ug/L		10/26/12 18:44	1
1,2-Dichlorobenzene	0.78	U	0.98	0.78	0.28	ug/L		10/26/12 18:44	1
1,3-Dichlorobenzene	0.78	U	0.98	0.78	0.78	ug/L		10/26/12 18:44	1
1,4-Dichlorobenzene	0.78	U	0.98	0.78	0.33	ug/L		10/26/12 18:44	1
3,3'-Dichlorobenzidine	0.78	U	4.9	0.78	0.36	ug/L		10/26/12 18:44	1
2,4-Dichlorophenol	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
Diethyl phthalate	0.78	U	0.98	0.78	0.59	ug/L		10/26/12 18:44	1
2,4-Dimethylphenol	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
Dimethyl phthalate	0.78	U	0.98	0.78	0.28	ug/L		10/26/12 18:44	1
Di-n-butyl phthalate	0.78	U	0.98	0.78	0.66	ug/L		10/26/12 18:44	1
4,6-Dinitro-2-methylphenol	2.4	U	4.9	2.4	2.4	ug/L		10/26/12 18:44	1
2,4-Dinitrophenol	2.4	U	4.9	2.4	2.4	ug/L		10/26/12 18:44	1
Di-n-octyl phthalate	0.78	U	0.98	0.78	0.78	ug/L		10/26/12 18:44	1
Fluoranthene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Fluorene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Hexachlorobenzene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Hexachlorobutadiene	0.78	U	0.98	0.78	0.26	ug/L		10/26/12 18:44	1
Hexachlorocyclopentadiene	0.78	U	9.8	0.78	0.78	ug/L		10/26/12 18:44	1
Hexachloroethane	0.78	U	0.98	0.78	0.78	ug/L		10/26/12 18:44	1
Indeno[1,2,3-cd]pyrene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Isophorone	0.78	U	0.98	0.78	0.26	ug/L		10/26/12 18:44	1
2-Methylnaphthalene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
2-Methylphenol	0.78	U	0.98	0.78	0.78	ug/L		10/26/12 18:44	1
3 & 4 Methylphenol	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
Naphthalene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
2-Nitroaniline	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1
3-Nitroaniline	0.78	U	2.0	0.78	0.27	ug/L		10/26/12 18:44	1
4-Nitroaniline	0.78	U	2.0	0.78	0.78	ug/L		10/26/12 18:44	1

Client Sample ID: FWGWBGmw-018-0195-GW
Date Collected: 10/17/12 09:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-25
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.78	U	2.0	0.78	0.27	ug/L		10/26/12 18:44	1
4-Nitrophenol	2.4	U	4.9	2.4	2.4	ug/L		10/26/12 18:44	1
N-Nitrosodi-n-propylamine	0.78	U	0.98	0.78	0.78	ug/L		10/26/12 18:44	1
N-Nitrosodiphenylamine	0.78	U	0.98	0.78	0.30	ug/L		10/26/12 18:44	1
2,2'-oxybis[1-chloropropane]	0.78	U	0.98	0.78	0.39	ug/L		10/26/12 18:44	1
Pentachlorophenol	2.4	U	4.9	2.4	2.4	ug/L		10/26/12 18:44	1
Phenanthrene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
Phenol	0.78	U	0.98	0.78	0.59	ug/L		10/26/12 18:44	1
Pyrene	0.098	U	0.20	0.098	0.098	ug/L		10/26/12 18:44	1
1,2,4-Trichlorobenzene	0.78	U	0.98	0.78	0.27	ug/L		10/26/12 18:44	1
2,4,5-Trichlorophenol	0.78	U	4.9	0.78	0.29	ug/L		10/26/12 18:44	1
2,4,6-Trichlorophenol	0.78	U	4.9	0.78	0.78	ug/L		10/26/12 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*77*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 18:44*	*1*
2-Fluorophenol (Surr)	*83*		*20 - 110*	*10/23/12 08:51*	*10/26/12 18:44*	*1*
Nitrobenzene-d5 (Surr)	*82*		*40 - 110*	*10/23/12 08:51*	*10/26/12 18:44*	*1*
Phenol-d5 (Surr)	*84*		*10 - 115*	*10/23/12 08:51*	*10/26/12 18:44*	*1*
Terphenyl-d14 (Surr)	*82*		*50 - 135*	*10/23/12 08:51*	*10/26/12 18:44*	*1*
2,4,6-Tribromophenol (Surr)	*80*		*40 - 125*	*10/23/12 08:51*	*10/26/12 18:44*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 05:39	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 05:39	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 05:39	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 05:39	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 05:39	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 05:39	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/30/12 05:39	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 05:39	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 05:39	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 05:39	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 05:39	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 05:39	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 05:39	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 05:39	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 05:39	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 05:39	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 05:39	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 05:39	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 05:39	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 05:39	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 05:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*30 - 135*	*10/19/12 10:34*	*10/30/12 05:39*	*1*
DCB Decachlorobiphenyl	*52*		*30 - 135*	*10/19/12 10:34*	*10/30/12 05:39*	*1*
Tetrachloro-m-xylene	*84*		*25 - 140*	*10/19/12 10:34*	*10/30/12 05:39*	*1*
Tetrachloro-m-xylene	*88*		*25 - 140*	*10/19/12 10:34*	*10/30/12 05:39*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-018-0195-GW
Date Collected: 10/17/12 09:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-25
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 01:25	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/24/12 01:25	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 01:25	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/24/12 01:25	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/24/12 01:25	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 01:25	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*40 - 140*	*10/19/12 10:39*	*10/24/12 01:25*	*1*
Tetrachloro-m-xylene	*82*		*40 - 140*	*10/19/12 10:39*	*10/24/12 01:25*	*1*
DCB Decachlorobiphenyl	*54*		*40 - 135*	*10/19/12 10:39*	*10/24/12 01:25*	*1*
DCB Decachlorobiphenyl	*56*		*40 - 135*	*10/19/12 10:39*	*10/24/12 01:25*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 17:21	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/31/12 16:04	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 16:04	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 16:04	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 16:04	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 16:04	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/31/12 16:04	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/31/12 16:04	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		10/31/12 16:04	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/31/12 16:04	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 16:04	1
HMX	**0.27**	**M**	0.15	0.050	0.036	ug/L		10/31/12 16:04	1
RDX	**0.55**		0.15	0.050	0.036	ug/L		10/31/12 16:04	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 16:04	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 16:04	1
Nitroglycerin	0.50	U	0.65	0.50	0.33	ug/L		10/31/12 16:04	1
PETN	0.50	U	0.65	0.50	0.30	ug/L		10/31/12 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*89*	*M*	*79 - 111*	*10/23/12 06:29*	*10/31/12 16:04*	*1*
3,4-Dinitrotoluene	*87*		*79 - 111*	*10/23/12 06:29*	*11/01/12 23:13*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:49	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:49	1

Client Sample ID: FWGWBGmw-018-0195-GF
Date Collected: 10/17/12 09:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-26
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 16:35	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:35	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:35	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:35	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:35	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:35	1
Vanadium	**1.6**	**J**	7.0	4.0	1.3	ug/L		10/23/12 16:35	1
Barium	**24**	**J**	200	5.0	2.8	ug/L		10/23/12 16:35	1
Calcium	**16000**		5000	1000	630	ug/L		10/23/12 16:35	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:35	1
Magnesium	**3700**	**J**	5000	300	120	ug/L		10/23/12 16:35	1
Manganese	**8.8**	**J**	15	5.0	1.8	ug/L		10/23/12 16:35	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:35	1
Potassium	**1000**	**J**	5000	900	300	ug/L		10/23/12 16:35	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 17:17	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:22	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:22	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/26/12 22:22	1
Iron	100	U	150	100	44	ug/L		10/26/12 22:22	1
Sodium	**1700**		1000	400	160	ug/L		10/26/12 22:22	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:22	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 17:17	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:31	1

Client Sample ID: FWGWBGMW-DUP8-0205-GW
Date Collected: 10/17/12 10:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-27
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:06	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:06	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/26/12 17:06	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:06	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:06	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:06	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/26/12 17:06	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:06	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/26/12 17:06	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:06	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/26/12 17:06	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:06	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/26/12 17:06	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/26/12 17:06	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:06	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:06	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:06	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:06	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/26/12 17:06	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/26/12 17:06	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:06	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 17:06	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:06	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:06	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/26/12 17:06	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/26/12 17:06	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/26/12 17:06	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/26/12 17:06	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/26/12 17:06	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 17:06	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/26/12 17:06	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:06	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:06	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:06	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:06	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:06	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:06	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/26/12 17:06	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 120*		*10/26/12 17:06*	*1*
4-Bromofluorobenzene (Surr)	*80*		*75 - 120*		*10/26/12 17:06*	*1*
Toluene-d8 (Surr)	*85*		*85 - 120*		*10/26/12 17:06*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*10/26/12 17:06*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1

Client Sample ID: FWGWBGMW-DUP8-0205-GW
Date Collected: 10/17/12 10:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-27
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 19:03	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 19:03	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 19:03	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:03	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:03	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 19:03	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:03	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:03	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 19:03	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:03	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:03	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:03	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 19:03	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/26/12 19:03	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 19:03	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:03	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 19:03	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:03	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:03	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:03	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 19:03	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 19:03	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:03	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 19:03	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:03	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 19:03	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:03	1

Client Sample ID: FWGWBGMW-DUP8-0205-GW
Date Collected: 10/17/12 10:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-27
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 19:03	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:03	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:03	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 19:03	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 19:03	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:03	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 19:03	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:03	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 19:03	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 19:03	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*76*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 19:03*	*1*
2-Fluorophenol (Surr)	*78*		*20 - 110*	*10/23/12 08:51*	*10/26/12 19:03*	*1*
Nitrobenzene-d5 (Surr)	*80*		*40 - 110*	*10/23/12 08:51*	*10/26/12 19:03*	*1*
Phenol-d5 (Surr)	*79*		*10 - 115*	*10/23/12 08:51*	*10/26/12 19:03*	*1*
Terphenyl-d14 (Surr)	*86*		*50 - 135*	*10/23/12 08:51*	*10/26/12 19:03*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*40 - 125*	*10/23/12 08:51*	*10/26/12 19:03*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 06:04	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 06:04	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 06:04	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 06:04	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 06:04	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 06:04	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/30/12 06:04	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 06:04	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 06:04	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 06:04	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 06:04	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 06:04	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 06:04	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 06:04	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 06:04	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 06:04	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 06:04	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 06:04	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 06:04	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 06:04	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 06:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*30 - 135*	*10/19/12 10:34*	*10/30/12 06:04*	*1*
DCB Decachlorobiphenyl	*62*		*30 - 135*	*10/19/12 10:34*	*10/30/12 06:04*	*1*
Tetrachloro-m-xylene	*77*		*25 - 140*	*10/19/12 10:34*	*10/30/12 06:04*	*1*
Tetrachloro-m-xylene	*79*		*25 - 140*	*10/19/12 10:34*	*10/30/12 06:04*	*1*

Client Sample ID: FWGWBGMW-DUP8-0205-GW
Date Collected: 10/17/12 10:33
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-27
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 02:09	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/24/12 02:09	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 02:09	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/24/12 02:09	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/24/12 02:09	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 02:09	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 02:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*64*		*40 - 140*	*10/19/12 10:39*	*10/24/12 02:09*	*1*
Tetrachloro-m-xylene	*71*		*40 - 140*	*10/19/12 10:39*	*10/24/12 02:09*	*1*
DCB Decachlorobiphenyl	*64*		*40 - 135*	*10/19/12 10:39*	*10/24/12 02:09*	*1*
DCB Decachlorobiphenyl	*65*		*40 - 135*	*10/19/12 10:39*	*10/24/12 02:09*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 17:35	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		10/31/12 16:44	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 16:44	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 16:44	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/31/12 16:44	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/31/12 16:44	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/31/12 16:44	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/31/12 16:44	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/31/12 16:44	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/31/12 16:44	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 16:44	1
HMX	**0.28**	**M**	0.15	0.051	0.036	ug/L		10/31/12 16:44	1
RDX	**0.61**		0.15	0.051	0.036	ug/L		10/31/12 16:44	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 16:44	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 16:44	1
Nitroglycerin	0.51	U	0.66	0.51	0.33	ug/L		10/31/12 16:44	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		10/31/12 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/23/12 06:29*	*10/31/12 16:44*	*1*
3,4-Dinitrotoluene	*88*		*79 - 111*	*10/23/12 06:29*	*11/02/12 00:18*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:49	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 16:59	1

Client Sample ID: FWGWBGMW-DUP8-0205-GF
Lab Sample ID: 240-16528-28
Date Collected: 10/17/12 10:33
Matrix: Water
Date Received: 10/18/12 06:00

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 16:39	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:39	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:39	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:39	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:39	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:39	1
Vanadium	**1.7**	**J**	7.0	4.0	1.3	ug/L		10/23/12 16:39	1
Barium	**24**	**J**	200	5.0	2.8	ug/L		10/23/12 16:39	1
Calcium	**16000**		5000	1000	630	ug/L		10/23/12 16:39	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:39	1
Magnesium	**3700**	**J**	5000	300	120	ug/L		10/23/12 16:39	1
Manganese	**8.8**	**J**	15	5.0	1.8	ug/L		10/23/12 16:39	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:39	1
Potassium	**1000**	**J**	5000	900	300	ug/L		10/23/12 16:39	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 17:23	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:28	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:28	1
Cadmium	**0.46**	**J**	2.0	0.070	0.023	ug/L		10/26/12 22:28	1
Iron	100	U	150	100	44	ug/L		10/26/12 22:28	1
Sodium	**1700**		1000	400	160	ug/L		10/26/12 22:28	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:28	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 17:23	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:25	1

Client Sample ID: FWGWBGmw-019-0196-GW
Date Collected: 10/17/12 11:19
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-29
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:29	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:29	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/26/12 17:29	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:29	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:29	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:29	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/26/12 17:29	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:29	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/26/12 17:29	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:29	1
Acetone	1.1	U	10	1.1	1.1	ug/L		10/26/12 17:29	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:29	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/26/12 17:29	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/26/12 17:29	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:29	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:29	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:29	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:29	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/26/12 17:29	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/26/12 17:29	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:29	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 17:29	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:29	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:29	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/26/12 17:29	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/26/12 17:29	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/26/12 17:29	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/26/12 17:29	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/26/12 17:29	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 17:29	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/26/12 17:29	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:29	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:29	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:29	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:29	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:29	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:29	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/26/12 17:29	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*130*	*Q*	*70 - 120*		*10/26/12 17:29*	*1*
4-Bromofluorobenzene (Surr)	*87*		*75 - 120*		*10/26/12 17:29*	*1*
Toluene-d8 (Surr)	*90*		*85 - 120*		*10/26/12 17:29*	*1*
Dibromofluoromethane (Surr)	*115*		*85 - 115*		*10/26/12 17:29*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1

Client Sample ID: FWGWBGmw-019-0196-GW
Lab Sample ID: 240-16528-29
Date Collected: 10/17/12 11:19
Matrix: Water
Date Received: 10/18/12 06:00

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 19:23	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 19:23	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 19:23	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:23	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:23	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 19:23	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:23	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:23	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 19:23	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:23	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:23	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:23	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 19:23	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/26/12 19:23	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 19:23	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:23	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 19:23	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:23	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:23	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:23	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 19:23	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 19:23	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:23	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 19:23	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:23	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 19:23	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:23	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-019-0196-GW
Date Collected: 10/17/12 11:19
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-29
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 19:23	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:23	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:23	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 19:23	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 19:23	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:23	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 19:23	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:23	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 19:23	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 19:23	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*75*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 19:23*	*1*
2-Fluorophenol (Surr)	*74*		*20 - 110*	*10/23/12 08:51*	*10/26/12 19:23*	*1*
Nitrobenzene-d5 (Surr)	*75*		*40 - 110*	*10/23/12 08:51*	*10/26/12 19:23*	*1*
Phenol-d5 (Surr)	*71*		*10 - 115*	*10/23/12 08:51*	*10/26/12 19:23*	*1*
Terphenyl-d14 (Surr)	*86*		*50 - 135*	*10/23/12 08:51*	*10/26/12 19:23*	*1*
2,4,6-Tribromophenol (Surr)	*76*		*40 - 125*	*10/23/12 08:51*	*10/26/12 19:23*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/30/12 06:28	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/30/12 06:28	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/30/12 06:28	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/30/12 06:28	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/30/12 06:28	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/30/12 06:28	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/30/12 06:28	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/30/12 06:28	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/30/12 06:28	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/30/12 06:28	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 06:28	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 06:28	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 06:28	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/30/12 06:28	1
Endrin ketone	0.0095	U Q	0.048	0.0095	0.0074	ug/L		10/30/12 06:28	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/30/12 06:28	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/30/12 06:28	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/30/12 06:28	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/30/12 06:28	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/30/12 06:28	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/30/12 06:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*30 - 135*	*10/19/12 10:34*	*10/30/12 06:28*	*1*
DCB Decachlorobiphenyl	*83*		*30 - 135*	*10/19/12 10:34*	*10/30/12 06:28*	*1*
Tetrachloro-m-xylene	*87*		*25 - 140*	*10/19/12 10:34*	*10/30/12 06:28*	*1*
Tetrachloro-m-xylene	*91*		*25 - 140*	*10/19/12 10:34*	*10/30/12 06:28*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-019-0196-GW
Date Collected: 10/17/12 11:19
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-29
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 02:24	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/24/12 02:24	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 02:24	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/24/12 02:24	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/24/12 02:24	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/24/12 02:24	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/24/12 02:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/19/12 10:39*	*10/24/12 02:24*	*1*
Tetrachloro-m-xylene	*84*		*40 - 140*	*10/19/12 10:39*	*10/24/12 02:24*	*1*
DCB Decachlorobiphenyl	*82*		*40 - 135*	*10/19/12 10:39*	*10/24/12 02:24*	*1*
DCB Decachlorobiphenyl	*84*		*40 - 135*	*10/19/12 10:39*	*10/24/12 02:24*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 17:49	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.051	U	0.15	0.051	0.031	ug/L		10/31/12 17:25	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 17:25	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 17:25	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/31/12 17:25	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.051	ug/L		10/31/12 17:25	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/31/12 17:25	1
2-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/31/12 17:25	1
3-Nitrotoluene	0.10	U	0.51	0.10	0.058	ug/L		10/31/12 17:25	1
4-Nitrotoluene	0.10	U	0.51	0.10	0.089	ug/L		10/31/12 17:25	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 17:25	1
HMX	0.051	U	0.15	0.051	0.036	ug/L		10/31/12 17:25	1
RDX	0.051	U	0.15	0.051	0.036	ug/L		10/31/12 17:25	1
Nitrobenzene	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 17:25	1
Tetryl	0.10	U	0.15	0.10	0.051	ug/L		10/31/12 17:25	1
Nitroglycerin	0.51	U	0.66	0.51	0.33	ug/L		10/31/12 17:25	1
PETN	0.51	U	0.66	0.51	0.30	ug/L		10/31/12 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*94*		*79 - 111*	*10/23/12 06:29*	*10/31/12 17:25*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 14:49	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 17:01	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGWBGmw-019-0196-GF
Date Collected: 10/17/12 11:19
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-30
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**4.5**	**J**	10	10	3.3	ug/L		10/23/12 16:42	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:42	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 16:42	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:42	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:42	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:42	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 16:42	1
Barium	**59**	**J**	200	5.0	2.8	ug/L		10/23/12 16:42	1
Calcium	**80000**		5000	1000	630	ug/L		10/23/12 16:42	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:42	1
Magnesium	**23000**		5000	300	120	ug/L		10/23/12 16:42	1
Manganese	**240**		15	5.0	1.8	ug/L		10/23/12 16:42	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:42	1
Potassium	**1900**	**J**	5000	900	300	ug/L		10/23/12 16:42	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 17:41	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:46	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:46	1
Cadmium	**0.077**	**J**	2.0	0.070	0.023	ug/L		10/26/12 22:46	1
Iron	**480**		150	100	44	ug/L		10/26/12 22:46	1
Sodium	**7900**		1000	400	160	ug/L		10/26/12 22:46	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:46	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 17:41	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:03	1

Client Sample ID: FWGLL6mw-009-0187-GW
Date Collected: 10/17/12 13:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-31
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:51	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:51	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/26/12 17:51	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:51	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:51	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:51	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/26/12 17:51	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:51	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/26/12 17:51	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:51	1
Acetone	**1.2**	**J**	10	1.1	1.1	ug/L		10/26/12 17:51	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:51	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/26/12 17:51	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/26/12 17:51	1
Carbon disulfide	**0.24**	**J**	1.0	0.25	0.13	ug/L		10/26/12 17:51	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:51	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:51	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:51	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/26/12 17:51	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/26/12 17:51	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:51	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 17:51	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/26/12 17:51	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:51	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/26/12 17:51	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/26/12 17:51	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/26/12 17:51	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/26/12 17:51	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/26/12 17:51	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/26/12 17:51	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/26/12 17:51	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/26/12 17:51	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/26/12 17:51	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:51	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/26/12 17:51	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/26/12 17:51	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/26/12 17:51	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/26/12 17:51	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/26/12 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*70 - 120*		*10/26/12 17:51*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/26/12 17:51*	*1*
Toluene-d8 (Surr)	*86*		*85 - 120*		*10/26/12 17:51*	*1*
Dibromofluoromethane (Surr)	*107*		*85 - 115*		*10/26/12 17:51*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1

Client Sample ID: FWGLL6mw-009-0187-GW
Date Collected: 10/17/12 13:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-31
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 19:42	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 19:42	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 19:42	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:42	1
Bis(2-ethylhexyl) phthalate	**1.9**	**B**	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:42	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 19:42	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:42	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:42	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 19:42	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 19:42	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:42	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:42	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 19:42	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/26/12 19:42	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 19:42	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 19:42	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 19:42	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:42	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:42	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:42	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 19:42	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 19:42	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:42	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 19:42	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:42	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 19:42	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 19:42	1

Client Sample ID: FWGLL6mw-009-0187-GW
Date Collected: 10/17/12 13:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-31
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 19:42	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:42	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 19:42	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 19:42	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 19:42	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 19:42	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 19:42	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 19:42	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 19:42	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 19:42	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 19:42*	*1*
2-Fluorophenol (Surr)	*77*		*20 - 110*	*10/23/12 08:51*	*10/26/12 19:42*	*1*
Nitrobenzene-d5 (Surr)	*75*		*40 - 110*	*10/23/12 08:51*	*10/26/12 19:42*	*1*
Phenol-d5 (Surr)	*77*		*10 - 115*	*10/23/12 08:51*	*10/26/12 19:42*	*1*
Terphenyl-d14 (Surr)	*76*		*50 - 135*	*10/23/12 08:51*	*10/26/12 19:42*	*1*
2,4,6-Tribromophenol (Surr)	*78*		*40 - 125*	*10/23/12 08:51*	*10/26/12 19:42*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/31/12 15:05	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/31/12 15:05	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/31/12 15:05	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/31/12 15:05	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/31/12 15:05	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/31/12 15:05	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/31/12 15:05	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/31/12 15:05	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/31/12 15:05	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/31/12 15:05	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 15:05	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 15:05	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 15:05	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 15:05	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/31/12 15:05	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/31/12 15:05	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 15:05	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/31/12 15:05	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/31/12 15:05	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/31/12 15:05	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/31/12 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*	*M*	*30 - 135*	*10/24/12 09:25*	*10/31/12 15:05*	*1*
DCB Decachlorobiphenyl	*62*		*30 - 135*	*10/24/12 09:25*	*10/31/12 15:05*	*1*
Tetrachloro-m-xylene	*95*		*25 - 140*	*10/24/12 09:25*	*10/31/12 15:05*	*1*
Tetrachloro-m-xylene	*82*		*25 - 140*	*10/24/12 09:25*	*10/31/12 15:05*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL6mw-009-0187-GW
Date Collected: 10/17/12 13:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-31
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/25/12 15:41	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/25/12 15:41	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/25/12 15:41	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/25/12 15:41	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/25/12 15:41	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/25/12 15:41	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/25/12 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*40 - 140*	*10/24/12 09:38*	*10/25/12 15:41*	*1*
Tetrachloro-m-xylene	*82*		*40 - 140*	*10/24/12 09:38*	*10/25/12 15:41*	*1*
DCB Decachlorobiphenyl	*58*		*40 - 135*	*10/24/12 09:38*	*10/25/12 15:41*	*1*
DCB Decachlorobiphenyl	*63*		*40 - 135*	*10/24/12 09:38*	*10/25/12 15:41*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 18:04	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/31/12 18:05	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:05	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:05	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 18:05	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 18:05	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/31/12 18:05	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/31/12 18:05	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		10/31/12 18:05	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/31/12 18:05	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:05	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 18:05	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 18:05	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:05	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:05	1
Nitroglycerin	0.50	U	0.65	0.50	0.33	ug/L		10/31/12 18:05	1
PETN	0.50	U	0.65	0.50	0.30	ug/L		10/31/12 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*90*	*M*	*79 - 111*	*10/23/12 06:29*	*10/31/12 18:05*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 15:56	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 17:03	1

Client Sample ID: FWGLL6mw-009-0187-GF
Date Collected: 10/17/12 13:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-32
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**9.0**	**J**	10	10	3.3	ug/L		10/23/12 16:46	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 16:46	1
Cobalt	**2.9**	**J**	7.0	4.0	1.5	ug/L		10/23/12 16:46	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 16:46	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 16:46	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 16:46	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 16:46	1
Barium	**30**	**J**	200	5.0	2.8	ug/L		10/23/12 16:46	1
Calcium	**95000**		5000	1000	630	ug/L		10/23/12 16:46	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 16:46	1
Magnesium	**33000**		5000	300	120	ug/L		10/23/12 16:46	1
Manganese	**600**		15	5.0	1.8	ug/L		10/23/12 16:46	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 16:46	1
Potassium	**1900**	**J**	5000	900	300	ug/L		10/23/12 16:46	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 17:46	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/26/12 22:51	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 22:51	1
Cadmium	**0.043**	**J**	2.0	0.070	0.023	ug/L		10/26/12 22:51	1
Iron	**2900**		150	100	44	ug/L		10/26/12 22:51	1
Sodium	**13000**		1000	400	160	ug/L		10/26/12 22:51	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/26/12 22:51	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 17:46	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 14:15	1

Client Sample ID: FWGLL6mw-008-0186-GW
Date Collected: 10/17/12 14:13
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-33
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:14	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:14	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/30/12 14:14	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:14	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:14	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:14	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/30/12 14:14	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:14	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/30/12 14:14	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:14	1
Acetone	**1.4**	**J**	10	1.1	1.1	ug/L		10/30/12 14:14	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:14	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/30/12 14:14	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/30/12 14:14	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:14	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:14	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:14	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:14	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/30/12 14:14	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/30/12 14:14	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:14	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 14:14	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:14	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:14	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/30/12 14:14	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/30/12 14:14	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/30/12 14:14	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/30/12 14:14	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/30/12 14:14	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 14:14	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/30/12 14:14	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:14	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:14	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:14	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:14	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:14	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:14	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/30/12 14:14	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*	*Q*	*70 - 120*		*10/30/12 14:14*	*1*
4-Bromofluorobenzene (Surr)	*79*		*75 - 120*		*10/30/12 14:14*	*1*
Toluene-d8 (Surr)	*90*		*85 - 120*		*10/30/12 14:14*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*10/30/12 14:14*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1

Client Sample ID: FWGLL6mw-008-0186-GW
Lab Sample ID: 240-16528-33
Date Collected: 10/17/12 14:13
Matrix: Water
Date Received: 10/18/12 06:00

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/26/12 20:01	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/26/12 20:01	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 20:01	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 20:01	1
Bis(2-ethylhexyl) phthalate	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 20:01	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 20:01	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 20:01	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 20:01	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/26/12 20:01	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/26/12 20:01	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 20:01	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 20:01	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/26/12 20:01	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/26/12 20:01	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 20:01	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/26/12 20:01	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/26/12 20:01	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 20:01	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 20:01	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 20:01	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 20:01	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/26/12 20:01	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 20:01	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/26/12 20:01	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 20:01	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 20:01	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/26/12 20:01	1

Client Sample ID: FWGLL6mw-008-0186-GW
Date Collected: 10/17/12 14:13
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-33
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/26/12 20:01	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 20:01	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/26/12 20:01	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/26/12 20:01	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/26/12 20:01	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/26/12 20:01	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/26/12 20:01	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/26/12 20:01	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/26/12 20:01	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/26/12 20:01	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/26/12 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*74*	*M*	*50 - 110*	*10/23/12 08:51*	*10/26/12 20:01*	*1*
2-Fluorophenol (Surr)	*75*		*20 - 110*	*10/23/12 08:51*	*10/26/12 20:01*	*1*
Nitrobenzene-d5 (Surr)	*77*		*40 - 110*	*10/23/12 08:51*	*10/26/12 20:01*	*1*
Phenol-d5 (Surr)	*76*		*10 - 115*	*10/23/12 08:51*	*10/26/12 20:01*	*1*
Terphenyl-d14 (Surr)	*83*		*50 - 135*	*10/23/12 08:51*	*10/26/12 20:01*	*1*
2,4,6-Tribromophenol (Surr)	*83*		*40 - 125*	*10/23/12 08:51*	*10/26/12 20:01*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/31/12 15:30	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/31/12 15:30	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/31/12 15:30	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/31/12 15:30	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/31/12 15:30	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/31/12 15:30	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/31/12 15:30	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/31/12 15:30	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/31/12 15:30	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/31/12 15:30	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 15:30	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 15:30	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 15:30	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 15:30	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/31/12 15:30	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/31/12 15:30	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 15:30	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/31/12 15:30	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/31/12 15:30	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/31/12 15:30	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/31/12 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*39*		*30 - 135*	*10/24/12 09:25*	*10/31/12 15:30*	*1*
DCB Decachlorobiphenyl	*39*		*30 - 135*	*10/24/12 09:25*	*10/31/12 15:30*	*1*
Tetrachloro-m-xylene	*78*		*25 - 140*	*10/24/12 09:25*	*10/31/12 15:30*	*1*
Tetrachloro-m-xylene	*76*		*25 - 140*	*10/24/12 09:25*	*10/31/12 15:30*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGLL6mw-008-0186-GW
Date Collected: 10/17/12 14:13
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-33
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 22:20	1
Aroclor-1221	0.19	U H	0.48	0.19	0.12	ug/L		11/01/12 22:20	1
Aroclor-1232	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 22:20	1
Aroclor-1242	0.38	U H	0.48	0.38	0.21	ug/L		11/01/12 22:20	1
Aroclor-1248	0.19	U H	0.48	0.19	0.095	ug/L		11/01/12 22:20	1
Aroclor-1254	0.19	U H	0.48	0.19	0.15	ug/L		11/01/12 22:20	1
Aroclor-1260	0.19	U H	0.48	0.19	0.16	ug/L		11/01/12 22:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*94*		*40 - 140*	*10/29/12 10:31*	*11/01/12 22:20*	*1*
Tetrachloro-m-xylene	*80*		*40 - 140*	*10/29/12 10:31*	*11/01/12 22:20*	*1*
DCB Decachlorobiphenyl	*50*		*40 - 135*	*10/29/12 10:31*	*11/01/12 22:20*	*1*
DCB Decachlorobiphenyl	*54*		*40 - 135*	*10/29/12 10:31*	*11/01/12 22:20*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 18:18	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/31/12 18:45	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:45	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:45	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 18:45	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 18:45	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/31/12 18:45	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		10/31/12 18:45	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.058	ug/L		10/31/12 18:45	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		10/31/12 18:45	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:45	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 18:45	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 18:45	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:45	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 18:45	1
Nitroglycerin	0.50	U	0.66	0.50	0.33	ug/L		10/31/12 18:45	1
PETN	0.50	U	0.66	0.50	0.30	ug/L		10/31/12 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*96*		*79 - 111*	*10/23/12 06:29*	*10/31/12 18:45*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 15:56	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 17:05	1

Client Sample ID: FWGLL6mw-008-0186-GF
Date Collected: 10/17/12 14:13
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-34
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	10	U	10	10	3.3	ug/L		10/23/12 17:27	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 17:27	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 17:27	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 17:27	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 17:27	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 17:27	1
Vanadium	**1.3**	**J**	7.0	4.0	1.3	ug/L		10/23/12 17:27	1
Barium	**22**	**J**	200	5.0	2.8	ug/L		10/23/12 17:27	1
Calcium	**110000**		5000	1000	630	ug/L		10/23/12 17:27	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 17:27	1
Magnesium	**40000**		5000	300	120	ug/L		10/23/12 17:27	1
Manganese	**800**		15	5.0	1.8	ug/L		10/23/12 17:27	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 17:27	1
Potassium	**1200**	**J**	5000	900	300	ug/L		10/23/12 17:27	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**23**	**J**	60	60	20	ug/L		10/29/12 18:35	1
Antimony	**0.67**	**J**	2.0	0.50	0.21	ug/L		10/26/12 23:42	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/26/12 23:42	1
Cadmium	**0.089**	**J**	2.0	0.070	0.023	ug/L		10/26/12 23:42	1
Iron	100	U	150	100	44	ug/L		10/26/12 23:42	1
Sodium	**3300**		1000	400	160	ug/L		10/26/12 23:42	1
Thallium	**0.39**	**J**	2.0	1.0	0.32	ug/L		10/26/12 23:42	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 18:35	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 08:29	1

Client Sample ID: FWGCBPmw-009-0160-GW
Date Collected: 10/17/12 15:49
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-35
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:37	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:37	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/30/12 14:37	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:37	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:37	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:37	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/30/12 14:37	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:37	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/30/12 14:37	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:37	1
Acetone	**1.5**	**J**	10	1.1	1.1	ug/L		10/30/12 14:37	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:37	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/30/12 14:37	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/30/12 14:37	1
Carbon disulfide	**0.24**	**J**	1.0	0.25	0.13	ug/L		10/30/12 14:37	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:37	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:37	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:37	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/30/12 14:37	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/30/12 14:37	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:37	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 14:37	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 14:37	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:37	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/30/12 14:37	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/30/12 14:37	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/30/12 14:37	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/30/12 14:37	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/30/12 14:37	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 14:37	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/30/12 14:37	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 14:37	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 14:37	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:37	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 14:37	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 14:37	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 14:37	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/30/12 14:37	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*126*	*Q*	*70 - 120*		*10/30/12 14:37*	*1*
4-Bromofluorobenzene (Surr)	*86*		*75 - 120*		*10/30/12 14:37*	*1*
Toluene-d8 (Surr)	*98*		*85 - 120*		*10/30/12 14:37*	*1*
Dibromofluoromethane (Surr)	*111*		*85 - 115*		*10/30/12 14:37*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1

Client Sample ID: FWGCBPmw-009-0160-GW
Date Collected: 10/17/12 15:49
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-35
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/28/12 14:04	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/28/12 14:04	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/28/12 14:04	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/28/12 14:04	1
Bis(2-ethylhexyl) phthalate	**1.6**	**J**	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 14:04	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/28/12 14:04	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/28/12 14:04	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/28/12 14:04	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/28/12 14:04	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/28/12 14:04	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/28/12 14:04	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 14:04	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/28/12 14:04	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/28/12 14:04	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/28/12 14:04	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
Dimethyl phthalate	0.76	U	0.95	0.76	0.28	ug/L		10/28/12 14:04	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/28/12 14:04	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 14:04	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 14:04	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 14:04	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/28/12 14:04	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/28/12 14:04	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 14:04	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/28/12 14:04	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 14:04	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/28/12 14:04	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 14:04	1

Client Sample ID: FWGCBPmw-009-0160-GW
Date Collected: 10/17/12 15:49
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-35
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/28/12 14:04	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 14:04	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 14:04	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/28/12 14:04	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/28/12 14:04	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 14:04	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/28/12 14:04	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 14:04	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/28/12 14:04	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/28/12 14:04	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/28/12 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*68*		*50 - 110*	*10/24/12 08:55*	*10/28/12 14:04*	*1*
2-Fluorophenol (Surr)	*72*		*20 - 110*	*10/24/12 08:55*	*10/28/12 14:04*	*1*
Nitrobenzene-d5 (Surr)	*69*		*40 - 110*	*10/24/12 08:55*	*10/28/12 14:04*	*1*
Phenol-d5 (Surr)	*75*		*10 - 115*	*10/24/12 08:55*	*10/28/12 14:04*	*1*
Terphenyl-d14 (Surr)	*82*		*50 - 135*	*10/24/12 08:55*	*10/28/12 14:04*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*40 - 125*	*10/24/12 08:55*	*10/28/12 14:04*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0096	U	0.048	0.0096	0.0092	ug/L		10/31/12 15:54	1
4,4'-DDE	0.0096	U	0.048	0.0096	0.0093	ug/L		10/31/12 15:54	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/31/12 15:54	1
Aldrin	0.0096	U	0.029	0.0096	0.0079	ug/L		10/31/12 15:54	1
alpha-BHC	0.0096	U	0.029	0.0096	0.0067	ug/L		10/31/12 15:54	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/31/12 15:54	1
beta-BHC	0.0096	U	0.048	0.0096	0.0081	ug/L		10/31/12 15:54	1
delta-BHC	0.0096	U	0.048	0.0096	0.0084	ug/L		10/31/12 15:54	1
Dieldrin	0.0096	U	0.029	0.0096	0.0072	ug/L		10/31/12 15:54	1
Endosulfan I	0.013	U	0.048	0.013	0.013	ug/L		10/31/12 15:54	1
Endosulfan II	0.012	U	0.048	0.012	0.012	ug/L		10/31/12 15:54	1
Endosulfan sulfate	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 15:54	1
Endrin	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 15:54	1
Endrin aldehyde	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 15:54	1
Endrin ketone	0.0096	U	0.048	0.0096	0.0075	ug/L		10/31/12 15:54	1
gamma-BHC (Lindane)	0.0096	U	0.048	0.0096	0.0062	ug/L		10/31/12 15:54	1
gamma-Chlordane	0.012	U	0.048	0.012	0.012	ug/L		10/31/12 15:54	1
Heptachlor	0.0096	U	0.029	0.0096	0.0077	ug/L		10/31/12 15:54	1
Heptachlor epoxide	0.0096	U	0.029	0.0096	0.0068	ug/L		10/31/12 15:54	1
Methoxychlor	0.031	U	0.096	0.031	0.031	ug/L		10/31/12 15:54	1
Toxaphene	0.48	U	1.9	0.48	0.31	ug/L		10/31/12 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*30 - 135*	*10/24/12 09:25*	*10/31/12 15:54*	*1*
DCB Decachlorobiphenyl	*62*		*30 - 135*	*10/24/12 09:25*	*10/31/12 15:54*	*1*
Tetrachloro-m-xylene	*96*		*25 - 140*	*10/24/12 09:25*	*10/31/12 15:54*	*1*
Tetrachloro-m-xylene	*77*		*25 - 140*	*10/24/12 09:25*	*10/31/12 15:54*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGCBPmw-009-0160-GW
Date Collected: 10/17/12 15:49
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-35
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/25/12 16:11	1
Aroclor-1221	0.19	U	0.48	0.19	0.13	ug/L		10/25/12 16:11	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/25/12 16:11	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/25/12 16:11	1
Aroclor-1248	0.19	U	0.48	0.19	0.096	ug/L		10/25/12 16:11	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/25/12 16:11	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/25/12 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*40 - 140*	*10/24/12 09:38*	*10/25/12 16:11*	*1*
Tetrachloro-m-xylene	*84*		*40 - 140*	*10/24/12 09:38*	*10/25/12 16:11*	*1*
DCB Decachlorobiphenyl	*60*		*40 - 135*	*10/24/12 09:38*	*10/25/12 16:11*	*1*
DCB Decachlorobiphenyl	*62*		*40 - 135*	*10/24/12 09:38*	*10/25/12 16:11*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 18:47	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/31/12 19:25	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 19:25	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 19:25	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 19:25	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 19:25	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/31/12 19:25	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		10/31/12 19:25	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		10/31/12 19:25	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.089	ug/L		10/31/12 19:25	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 19:25	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 19:25	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 19:25	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 19:25	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 19:25	1
Nitroglycerin	0.50	U	0.66	0.50	0.33	ug/L		10/31/12 19:25	1
PETN	0.50	U	0.66	0.50	0.30	ug/L		10/31/12 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*91*		*79 - 111*	*10/23/12 06:29*	*10/31/12 19:25*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 15:56	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 17:07	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGCBPmw-009-0160-GF
Date Collected: 10/17/12 15:49
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-36
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**3.4**	**J**	10	10	3.3	ug/L		10/23/12 17:31	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 17:31	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 17:31	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 17:31	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 17:31	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 17:31	1
Vanadium	**1.7**	**J**	7.0	4.0	1.3	ug/L		10/23/12 17:31	1
Barium	**73**	**J**	200	5.0	2.8	ug/L		10/23/12 17:31	1
Calcium	**75000**		5000	1000	630	ug/L		10/23/12 17:31	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 17:31	1
Magnesium	**25000**		5000	300	120	ug/L		10/23/12 17:31	1
Manganese	**98**		15	5.0	1.8	ug/L		10/23/12 17:31	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 17:31	1
Potassium	**1800**	**J**	5000	900	300	ug/L		10/23/12 17:31	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	60	U	60	60	20	ug/L		10/29/12 18:54	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/27/12 00:00	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/27/12 00:00	1
Cadmium	**0.051**	**J**	2.0	0.070	0.023	ug/L		10/27/12 00:00	1
Iron	**650**		150	100	44	ug/L		10/27/12 00:00	1
Sodium	**13000**		1000	400	160	ug/L		10/27/12 00:00	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/27/12 00:00	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 18:54	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 08:32	1

Client Sample ID: FWGFWGmw-011-0188-GW
Date Collected: 10/17/12 17:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-37
Matrix: Water

Method: 8260B/DoD - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 13:28	1
1,1,2,2-Tetrachloroethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 13:28	1
1,1,2-Trichloroethane	0.50	U	1.0	0.50	0.27	ug/L		10/30/12 13:28	1
1,1-Dichloroethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 13:28	1
1,1-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 13:28	1
1,2-Dichloroethane	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 13:28	1
1,2-Dichloroethene, Total	0.50	U	2.0	0.50	0.34	ug/L		10/30/12 13:28	1
1,2-Dichloropropane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 13:28	1
2-Hexanone	0.50	U	10	0.50	0.41	ug/L		10/30/12 13:28	1
Bromochloromethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 13:28	1
Acetone	**1.6**	**J**	10	1.1	1.1	ug/L		10/30/12 13:28	1
Benzene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:28	1
Bromoform	0.64	U	1.0	0.64	0.64	ug/L		10/30/12 13:28	1
Bromomethane	0.50	U	1.0	0.50	0.41	ug/L		10/30/12 13:28	1
Carbon disulfide	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:28	1
Carbon tetrachloride	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:28	1
Chlorobenzene	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 13:28	1
Chloroethane	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 13:28	1
Chloroform	0.25	U	1.0	0.25	0.16	ug/L		10/30/12 13:28	1
Chloromethane	0.50	U	1.0	0.50	0.30	ug/L		10/30/12 13:28	1
cis-1,2-Dichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 13:28	1
cis-1,3-Dichloropropene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 13:28	1
Bromodichloromethane	0.25	U	1.0	0.25	0.15	ug/L		10/30/12 13:28	1
Ethylbenzene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 13:28	1
1,2-Dibromoethane	0.25	U	1.0	0.25	0.24	ug/L		10/30/12 13:28	1
m-Xylene & p-Xylene	0.50	U	2.0	0.50	0.24	ug/L		10/30/12 13:28	1
2-Butanone (MEK)	0.57	U	10	0.57	0.57	ug/L		10/30/12 13:28	1
4-Methyl-2-pentanone (MIBK)	0.50	U	10	0.50	0.32	ug/L		10/30/12 13:28	1
Methylene Chloride	0.50	U	1.0	0.50	0.33	ug/L		10/30/12 13:28	1
o-Xylene	0.25	U	1.0	0.25	0.14	ug/L		10/30/12 13:28	1
Styrene	0.25	U	1.0	0.25	0.11	ug/L		10/30/12 13:28	1
Tetrachloroethene	0.50	U	1.0	0.50	0.29	ug/L		10/30/12 13:28	1
Toluene	0.25	U	1.0	0.25	0.13	ug/L		10/30/12 13:28	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 13:28	1
trans-1,3-Dichloropropene	0.25	U	1.0	0.25	0.19	ug/L		10/30/12 13:28	1
Trichloroethene	0.25	U	1.0	0.25	0.17	ug/L		10/30/12 13:28	1
Vinyl chloride	0.25	U	1.0	0.25	0.22	ug/L		10/30/12 13:28	1
Xylenes, Total	0.75	U	2.0	0.75	0.28	ug/L		10/30/12 13:28	1
Dibromochloromethane	0.25	U	1.0	0.25	0.18	ug/L		10/30/12 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*124*	*Q*	*70 - 120*		*10/30/12 13:28*	*1*
4-Bromofluorobenzene (Surr)	*76*		*75 - 120*		*10/30/12 13:28*	*1*
Toluene-d8 (Surr)	*92*		*85 - 120*		*10/30/12 13:28*	*1*
Dibromofluoromethane (Surr)	*109*		*85 - 115*		*10/30/12 13:28*	*1*

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Acenaphthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Acenaphthylene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1

Client Sample ID: FWGFWGmw-011-0188-GW
Lab Sample ID: 240-16528-37
Date Collected: 10/17/12 17:03
Matrix: Water
Date Received: 10/18/12 06:00

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Benzo[a]anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Benzo[a]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Benzo[b]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Benzo[g,h,i]perylene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Benzoic acid	9.5	U	24	9.5	9.5	ug/L		10/28/12 13:45	1
Benzo[k]fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Benzyl alcohol	0.76	U	4.8	0.76	0.36	ug/L		10/28/12 13:45	1
Bis(2-chloroethoxy)methane	0.76	U	0.95	0.76	0.30	ug/L		10/28/12 13:45	1
Bis(2-chloroethyl)ether	0.095	U	0.95	0.095	0.095	ug/L		10/28/12 13:45	1
Bis(2-ethylhexyl) phthalate	**1.3**	**J**	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
4-Bromophenyl phenyl ether	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
Butyl benzyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 13:45	1
Carbazole	0.76	U	0.95	0.76	0.27	ug/L		10/28/12 13:45	1
4-Chloroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
4-Chloro-3-methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
2-Chloronaphthalene	0.095	U	0.95	0.095	0.095	ug/L		10/28/12 13:45	1
2-Chlorophenol	0.76	U	0.95	0.76	0.28	ug/L		10/28/12 13:45	1
4-Chlorophenyl phenyl ether	0.76	U	1.9	0.76	0.29	ug/L		10/28/12 13:45	1
Chrysene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Dibenz(a,h)anthracene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Dibenzofuran	0.095	U	0.95	0.095	0.095	ug/L		10/28/12 13:45	1
1,2-Dichlorobenzene	0.76	U	0.95	0.76	0.28	ug/L		10/28/12 13:45	1
1,3-Dichlorobenzene	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 13:45	1
1,4-Dichlorobenzene	0.76	U	0.95	0.76	0.32	ug/L		10/28/12 13:45	1
3,3'-Dichlorobenzidine	0.76	U	4.8	0.76	0.35	ug/L		10/28/12 13:45	1
2,4-Dichlorophenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
Diethyl phthalate	0.76	U	0.95	0.76	0.57	ug/L		10/28/12 13:45	1
2,4-Dimethylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
Dimethyl phthalate	**0.66**	**J**	0.95	0.76	0.28	ug/L		10/28/12 13:45	1
Di-n-butyl phthalate	0.76	U	0.95	0.76	0.64	ug/L		10/28/12 13:45	1
4,6-Dinitro-2-methylphenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 13:45	1
2,4-Dinitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 13:45	1
Di-n-octyl phthalate	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 13:45	1
Fluoranthene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Fluorene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Hexachlorobenzene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Hexachlorobutadiene	0.76	U	0.95	0.76	0.26	ug/L		10/28/12 13:45	1
Hexachlorocyclopentadiene	0.76	U	9.5	0.76	0.76	ug/L		10/28/12 13:45	1
Hexachloroethane	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 13:45	1
Indeno[1,2,3-cd]pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Isophorone	0.76	U	0.95	0.76	0.26	ug/L		10/28/12 13:45	1
2-Methylnaphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
2-Methylphenol	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 13:45	1
3 & 4 Methylphenol	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
Naphthalene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
2-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1
3-Nitroaniline	0.76	U	1.9	0.76	0.27	ug/L		10/28/12 13:45	1
4-Nitroaniline	0.76	U	1.9	0.76	0.76	ug/L		10/28/12 13:45	1

Client Sample ID: FWGFWGmw-011-0188-GW
Date Collected: 10/17/12 17:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-37
Matrix: Water

Method: 8270C/DoD - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2-Nitrophenol	0.76	U	1.9	0.76	0.27	ug/L		10/28/12 13:45	1
4-Nitrophenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 13:45	1
N-Nitrosodi-n-propylamine	0.76	U	0.95	0.76	0.76	ug/L		10/28/12 13:45	1
N-Nitrosodiphenylamine	0.76	U	0.95	0.76	0.30	ug/L		10/28/12 13:45	1
2,2'-oxybis[1-chloropropane]	0.76	U	0.95	0.76	0.38	ug/L		10/28/12 13:45	1
Pentachlorophenol	2.3	U	4.8	2.3	2.3	ug/L		10/28/12 13:45	1
Phenanthrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
Phenol	0.76	U	0.95	0.76	0.57	ug/L		10/28/12 13:45	1
Pyrene	0.095	U	0.19	0.095	0.095	ug/L		10/28/12 13:45	1
1,2,4-Trichlorobenzene	0.76	U	0.95	0.76	0.27	ug/L		10/28/12 13:45	1
2,4,5-Trichlorophenol	0.76	U	4.8	0.76	0.29	ug/L		10/28/12 13:45	1
2,4,6-Trichlorophenol	0.76	U	4.8	0.76	0.76	ug/L		10/28/12 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*67*		*50 - 110*	*10/24/12 08:55*	*10/28/12 13:45*	*1*
2-Fluorophenol (Surr)	*70*		*20 - 110*	*10/24/12 08:55*	*10/28/12 13:45*	*1*
Nitrobenzene-d5 (Surr)	*70*		*40 - 110*	*10/24/12 08:55*	*10/28/12 13:45*	*1*
Phenol-d5 (Surr)	*76*		*10 - 115*	*10/24/12 08:55*	*10/28/12 13:45*	*1*
Terphenyl-d14 (Surr)	*65*		*50 - 135*	*10/24/12 08:55*	*10/28/12 13:45*	*1*
2,4,6-Tribromophenol (Surr)	*74*		*40 - 125*	*10/24/12 08:55*	*10/28/12 13:45*	*1*

Method: 8081/DOD - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
4,4'-DDD	0.0095	U	0.048	0.0095	0.0091	ug/L		10/31/12 16:19	1
4,4'-DDE	0.0095	U	0.048	0.0095	0.0092	ug/L		10/31/12 16:19	1
4,4'-DDT	0.029	U	0.048	0.029	0.015	ug/L		10/31/12 16:19	1
Aldrin	0.0095	U	0.029	0.0095	0.0078	ug/L		10/31/12 16:19	1
alpha-BHC	0.0095	U	0.029	0.0095	0.0067	ug/L		10/31/12 16:19	1
alpha-Chlordane	0.013	U	0.048	0.013	0.013	ug/L		10/31/12 16:19	1
beta-BHC	0.0095	U	0.048	0.0095	0.0080	ug/L		10/31/12 16:19	1
delta-BHC	0.0095	U	0.048	0.0095	0.0083	ug/L		10/31/12 16:19	1
Dieldrin	0.0095	U	0.029	0.0095	0.0071	ug/L		10/31/12 16:19	1
Endosulfan I	0.012	U	0.048	0.012	0.012	ug/L		10/31/12 16:19	1
Endosulfan II	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 16:19	1
Endosulfan sulfate	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 16:19	1
Endrin	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 16:19	1
Endrin aldehyde	0.010	U	0.048	0.010	0.010	ug/L		10/31/12 16:19	1
Endrin ketone	0.0095	U	0.048	0.0095	0.0074	ug/L		10/31/12 16:19	1
gamma-BHC (Lindane)	0.0095	U	0.048	0.0095	0.0061	ug/L		10/31/12 16:19	1
gamma-Chlordane	0.011	U	0.048	0.011	0.011	ug/L		10/31/12 16:19	1
Heptachlor	0.0095	U	0.029	0.0095	0.0076	ug/L		10/31/12 16:19	1
Heptachlor epoxide	0.0095	U	0.029	0.0095	0.0068	ug/L		10/31/12 16:19	1
Methoxychlor	0.030	U	0.095	0.030	0.030	ug/L		10/31/12 16:19	1
Toxaphene	0.48	U	1.9	0.48	0.30	ug/L		10/31/12 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*36*	*M*	*30 - 135*	*10/24/12 09:25*	*10/31/12 16:19*	*1*
DCB Decachlorobiphenyl	*25*	*Q*	*30 - 135*	*10/24/12 09:25*	*10/31/12 16:19*	*1*
Tetrachloro-m-xylene	*73*		*25 - 140*	*10/24/12 09:25*	*10/31/12 16:19*	*1*
Tetrachloro-m-xylene	*73*		*25 - 140*	*10/24/12 09:25*	*10/31/12 16:19*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGFWGmw-011-0188-GW
Date Collected: 10/17/12 17:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-37
Matrix: Water

Method: 8082/DOD - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aroclor-1016	0.19	U	0.48	0.19	0.16	ug/L		10/25/12 16:26	1
Aroclor-1221	0.19	U	0.48	0.19	0.12	ug/L		10/25/12 16:26	1
Aroclor-1232	0.19	U	0.48	0.19	0.15	ug/L		10/25/12 16:26	1
Aroclor-1242	0.38	U	0.48	0.38	0.21	ug/L		10/25/12 16:26	1
Aroclor-1248	0.19	U	0.48	0.19	0.095	ug/L		10/25/12 16:26	1
Aroclor-1254	0.19	U	0.48	0.19	0.15	ug/L		10/25/12 16:26	1
Aroclor-1260	0.19	U	0.48	0.19	0.16	ug/L		10/25/12 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*40 - 140*	*10/24/12 09:38*	*10/25/12 16:26*	*1*
Tetrachloro-m-xylene	*76*		*40 - 140*	*10/24/12 09:38*	*10/25/12 16:26*	*1*
DCB Decachlorobiphenyl	*23*	*Q*	*40 - 135*	*10/24/12 09:38*	*10/25/12 16:26*	*1*
DCB Decachlorobiphenyl	*24*	*Q*	*40 - 135*	*10/24/12 09:38*	*10/25/12 16:26*	*1*

Method: 8330 Modified - Nitroguanidine (HPLC)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitroguanidine	6.0	U	20	6.0	2.4	ug/L		11/05/12 19:01	1

Method: 8330A - Nitroaromatics and Nitramines

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.050	U	0.15	0.050	0.031	ug/L		10/31/12 20:05	1
1,3-Dinitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 20:05	1
2,4,6-Trinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 20:05	1
2,4-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 20:05	1
2,6-Dinitrotoluene	0.10	U	0.13	0.10	0.050	ug/L		10/31/12 20:05	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.15	0.10	0.015	ug/L		10/31/12 20:05	1
2-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/31/12 20:05	1
3-Nitrotoluene	0.10	U	0.50	0.10	0.057	ug/L		10/31/12 20:05	1
4-Nitrotoluene	0.10	U	0.50	0.10	0.088	ug/L		10/31/12 20:05	1
4-Amino-2,6-dinitrotoluene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 20:05	1
HMX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 20:05	1
RDX	0.050	U	0.15	0.050	0.036	ug/L		10/31/12 20:05	1
Nitrobenzene	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 20:05	1
Tetryl	0.10	U	0.15	0.10	0.050	ug/L		10/31/12 20:05	1
Nitroglycerin	0.50	U	0.65	0.50	0.33	ug/L		10/31/12 20:05	1
PETN	0.50	U	0.65	0.50	0.30	ug/L		10/31/12 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
3,4-Dinitrotoluene	*92*		*79 - 111*	*10/23/12 06:29*	*10/31/12 20:05*	*1*

General Chemistry

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.010	0.0050	mg/L		10/25/12 15:56	1
Nitrocellulose	1.0	U	2.0	1.0	0.48	mg/L		11/01/12 17:09	1

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (OH)

TestAmerica Job ID: 240-16528-1

Client Sample ID: FWGFWGmw-011-0188-GF
Date Collected: 10/17/12 17:03
Date Received: 10/18/12 06:00

Lab Sample ID: 240-16528-38
Matrix: Water

Method: 6010B/DOD - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Arsenic	**4.3**	**J**	10	10	3.3	ug/L		10/23/12 17:35	1
Chromium	4.0	U	7.0	4.0	1.4	ug/L		10/23/12 17:35	1
Cobalt	4.0	U	7.0	4.0	1.5	ug/L		10/23/12 17:35	1
Lead	5.0	U	10	5.0	1.7	ug/L		10/23/12 17:35	1
Selenium	10	U	15	10	4.0	ug/L		10/23/12 17:35	1
Silver	5.0	U	7.0	5.0	1.7	ug/L		10/23/12 17:35	1
Vanadium	4.0	U	7.0	4.0	1.3	ug/L		10/23/12 17:35	1
Barium	**40**	**J**	200	5.0	2.8	ug/L		10/23/12 17:35	1
Calcium	**61000**		5000	1000	630	ug/L		10/23/12 17:35	1
Copper	10	U	25	10	4.4	ug/L		10/23/12 17:35	1
Magnesium	**17000**		5000	300	120	ug/L		10/23/12 17:35	1
Manganese	**570**		15	5.0	1.8	ug/L		10/23/12 17:35	1
Nickel	5.0	U	40	5.0	2.2	ug/L		10/23/12 17:35	1
Potassium	**1200**	**J**	5000	900	300	ug/L		10/23/12 17:35	1

Method: 6020/DOD - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Aluminum	**140**		60	60	20	ug/L		10/29/12 18:59	1
Antimony	0.50	U	2.0	0.50	0.21	ug/L		10/27/12 00:06	1
Beryllium	0.10	U	1.0	0.10	0.033	ug/L		10/27/12 00:06	1
Cadmium	0.070	U	2.0	0.070	0.023	ug/L		10/27/12 00:06	1
Iron	**630**		150	100	44	ug/L		10/27/12 00:06	1
Sodium	**12000**		1000	400	160	ug/L		10/27/12 00:06	1
Thallium	1.0	U	2.0	1.0	0.32	ug/L		10/27/12 00:06	1
Zinc	20	U	40	20	8.8	ug/L		10/29/12 18:59	1

Method: 7470A/DOD - Mercury (CVAA)

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Hg	0.20	U	0.20	0.20	0.12	ug/L		10/24/12 08:35	1

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: CANTON, OH

Regulatory program: ☐ DW ☒ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: JOHN MILLER	Site Contact: ERIK CARON	Lab Contact: MARK LOEB	COC No: 043228
Address: 1800 CARILLON BLVD	Telephone: (513) 825-7500	Telephone: (513) 825-7500	Telephone: (330) 497-9396	1 of 2 COCs
City/State/Zip: CINCINNATI, OH 45240	Email: ELORBIN@EQM.COM	Analysis Turnaround Time (in BUSINESS days)	Analyses	For lab use only
Phone: (513)825-7500		TAT if different from below: PER SOW ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client: ☐ Lab picking: ☐ Lab sampling: ☐
Project Name: RIVERSIDE (OH)	Method of Shipment/Carrier: LAB PICKUP			Job/SDG No:
Project Number: 030174.0016.001.09.01	Shipping/Tracking No: N/A			
PO#				Sample Specific Notes / Special Instructions: COOLER ID

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260	SVOC 8270	Pest 8081	PCB 8082	Explo 8330	Propellants	Cyanide 9012	Metals 6010/6020 7470		
FWG TRIM 1 - TRIP	~~10/17/12~~ 10/16/12	0800		X						2					N	G	X									Ø15
FWG WBG MW-020-0197-GW	10/17/12	0920		X				X		3	1		9		N	G	X	X	X	X	X	X	X			NZ-1
FWG WBG MW-020-0197-GF	10/17/12	0920		X					1						Y	G								X		NZ-1
FWG WBG MW-021-0198-GW	10/17/12	1130		X						3	1		9		N	G	X	X	X	X	X	X	X			Ø15
FWG WBG MW-021-0198-GF	10/17/12	1130		X					1						Y	G								X		Ø15
FWG LL1 MW-087-0182-GW	10/17/12	1315		X						3	1		9		N	G	X	X	X	X	X	X	X			BIII
FWG LL1 MW-087-0182-GF	10/17/12	1315		X					1						Y	G								X		BIII
FWG LL1 MW-086-0181-GW	10/17/12	1515		X						9	3		21		N	G	X	X	X	X	X	X	X			405/179/Z-86
FWG LL1 MW-086-0181-GF	10/17/12	1515		X					3						Y	G								X		405/179/Z-86
~~FWG 10/17/12~~																										

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

ALL METALS ARE FIELD FILTERED

ALL VOAs IN COOLER Ø15

TEMPS MAY NOT MEET REQUIREMENTS IF SAMPLE COLLECTION IS CLOSE TO LAB PICKUP TIME

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	EQM	10/17/12 1800		TALXC	10-17-12-1800
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TALXC	10-17-12-1920			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL	10/18/12 600 AM

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: CANTON, OH

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact

Company Name: EQM	Client Project Manager: JOHN MILLER	Site Contact: ERIK COLBIN	Lab Contact: MARK LOEB	COC No: PGA 10172012
Address: 1800 CARILLON BLVD	Telephone: (513) 825-7500	Telephone: (513) 825-7500	Telephone: (330) 497-9396	2 of 2 COCs
City/State/Zip: CINCINNATI, OH	Email: ECOLBIN@EQM.COM			
Phone: (513) 825-7500				
Project Name: RVAAP (66) OH	Method of Shipment/Carrier: LAB PICKUP			
Project Number: 030174.0016.001.09.01	Shipping/Tracking No: N/A			
PO#				

Analysis Turnaround Time (CALENDAR DAYS or BUSINESS DAYS)

TAT if different from below

- ☒ 3 weeks
- ☐ 2 weeks
- ☐ 1 week
- ☐ 2 days
- ☐ 1 day

PGE SOW

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C) or Grab (G)	Analyses: VOC 8260	SVOC 8270	PEST 8081	PCB 8082	EXPLO 8330	PROPELLANTS	CYANIDE 9012	METALS 6010/6020	6470	Sample Specific Notes / Special Instructions:
PWGEQUIPRINSE3-0214-GW	10/17/12	1510		X					1	3	1		9		N	G	X	X	X	X	X	X	X	X		*PH 8

PGA 10/17/12

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments: *EQUIPRINSE METAL NOT filtered ALL VOAs IN COOLER @15

TEMPS MAY NOT MEET REQUIREMENTS IF SAMPLE COLLECTION IS CLOSE TO LAB PICKUP TIME

	Company	Date/Time		Company	Date/Time
Relinquished by:	EQM	10/17/12 1800	Received by:	TAL-NC	10-17-12-1800
Relinquished by:	TAL-NC	10-17-12-1925	Received by:		
Relinquished by:			Received in Laboratory by:	TAL	10/18/12 0900

TAL-0018 (1006)

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Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: N. Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: John Muller	Site Contact: Eric Corbin	Lab Contact: Mark Loeb	COC No: 043250
Address: 1800 Carillon Blvd	Telephone: 513 825 7500 →	Telephone: fax 7495	Telephone: (330)	1 of 2 COCs (2 coc = 043253)
City/State/Zip: Cincinnati Ohio 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 513) 825 7500		TAT if different from below: ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day (per SOW)		Walk-in client: ☐ Lab pickup: ☐ Lab sampling: ☐
Project Name: RVAAP-66 Ohio	Method of Shipment/Carrier: Lab Pick up			Job/SDG No:
Project Number: 30174.0016.001.03	Shipping/Tracking No: N/A			
PO#				Sample Specific Notes / Special Instructions:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAcet NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260	SVOA 8270	Pest 8081	PCB 8082	Explosives 8330	Propellants	Cyanide 9012	Bis(2-ethylhexyl) phthalate only	Metals 6010 7470	Sample Specific Notes / Special Instructions: COC ID #
FWGTeam2-Trip	10-17-12	0800		X											N		X									727
FWGDA2mw-114-0161-GW		0924		X						3	1		9		N	G	X	X	X	X	X	X	X			185
FWGDA2mw-114-0161-GF				X					1						Y	G									X	185
FWGDA2mw-115-0162-GW		1030		X						3	1		9		N	G	X	X	X	X	X	X	X			114
FWGDA2mw-115-0162-GW				X					1						Y	G									X	114
FWGDA2mw-DUP1-0199-GW		1138		X						3	1		9		N	G	X	X	X	X	X	X	V			54
FWGDA2mw-DUP1-0199-GF				X					1						Y	G									X	54
FWGLL2mw-182C-0190-GW		1322		X									2		N	G								X		727
FWGLL2mw-182ss-0191-GW		1352		X									2		N	G								X		727

see page 2

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:
all metals are field filtered.
Temps may not meet requirements if sample collection is close to lab pick up time.

All VOAs in Cooler ID# 727

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	EQM	10/17/12 1800		TAL-NC	10-17-12 1800
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL-NC	10-17-12 1920			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL	10/18/12 600 am

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica Laboratory location: N. Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

COC # 043250 = pg #1

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: Erik Corbin	Lab Contact: Mark Loeb	COC No: 043253
Address: 1800 CARILLON BLVD	Telephone: Same	Telephone: Same	Telephone:	2 of 2 COCs
City/State/Zip: CINCINNATI OH 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 5138257500 →	FAX 7495	TAT if different from below ____ ☒ 3 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day (per SOW)		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐ Job/SDG No.:
Project Name: 3 RVAAP Ohio	Method of Shipment/Carrier: Lab pickup			
Project Number: 30174.0016.001.3	Shipping/Tracking No: N/A			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y / N)	Composite=C / Grab=G	VOC 8260	SVOC 8270	Pest 8081	PCB 8082	Endo 8330	Explosives 8330	Cyanide 9012	Nitrate/Nitrite 353.2	Sample Specific Notes / Special Instructions:
FWGLLA mw-201-0185-GW	10/17/12	1442		X						3	1		9		N	G	X	X	X	X	X	X	X		TS2
FWGLLA mw-201-0185-GF	1	1		X					1						Y	G								X	TS2
FWGFWB mw-013-0176-GW	1	1698		X						3	1		9		N	G	X	X	X	X	X	X	X		XXX
FWGFWB mw-013-0176-GW	1	1		X					1						Y	G								X	XXX

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements & Comments:

All VOAs in 727

~~Sample temps may not meet requirements~~ if lab pickup is close to sample collection

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	EQM	10/17/12 1800		TALNC	10-17-12-1808
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL-NC	10-17-12-1920			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL	10/18/12 600 AM

TAL 0018-1 (04/10)

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Chain of Custody Record

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton

Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

page 2 COC No: 043202

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: Erik Corbin	Lab Contact: Mark Loeb	COC No: 043261
Address: 1800 Carillon Blvd	Telephone: 513-825-7500	Telephone: 513-825-7500	Telephone: 330-966-9387	1 of 2 COCs
City/State/Zip: Cincinnati / Ohio / 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time (in BUS days)	Analyses	For lab use only
Phone: 513-825-7500		TAT if different from below: Per SOW ☒ 5 weeks ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Walk-in client ☐ Lab pickup ☐ Lab sampling ☐
Project Name: RVAAP (106)	Method of Shipment/Carrier: Lab Pickup			Job/SDG No:
Project Number: D30174.0016.001.3	Shipping/Tracking No: N/A			
PO#				

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other	Filtered Sample (Y/N)	Composite=C / Grab=G	VOC 8260D	SVOC 8270D - Full List	Pest 8081	PCB 8082	Explosives / Propellants	Cyanide 9012	Metals 6010/6020/7470	Sample Specific Notes / Special Instructions:
FWGTEAM3-TRIP	10/17/12	0800		X						2					N	G	X							COOLER ID C8
FWGWBGMW-018-0195-GW		0933		X						3	1		9		N	G	X	X	X	X	X	X		C8
FWGWBGMW-018-0195-GF		↓		X					1						Y	G							X	C8
FWGWBGMW-DUP8-0205-GW		1033		X						3	1		9		N	G	X	X	X	X	X	X		E120
FWGWBGMW-DUP8-0205-GF		↓		X					1						Y	G							X	E120
FWGWBGMW-019-0196-GW		1119		X						3	1		9		N	G	X	X	X	X	X	X		IVY
FWGWBGMW-019-0196-GF		↓		X					1						Y	G							X	IVY
FWGLLEMW-009-0187-GW		1303		X			DIW	X		3	1		9		N	G	X	X	X	X	X	X		KCA
FWGLLEMW-009-0187-GF	↓	↓		X					1						Y	G							X	KCA

ADD 10/17/12

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

- Temperatures may not meet requirements if collection time is close to pickup
- metals are field filtered.

All VOAs in Cooler C8

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	EQM	10/17/12 1800		TAL-NC	10-17-12 1800
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL NC	10-17-12 1920			
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL	10/18/12 6:00 am

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TAL 0018-1 (04/10)

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Page 1 COC No: 043261
TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: Erik Corbin	Lab Contact: Mark Loeb	COC No: 043262
Address: 1800 Carillon Blvd	Telephone: 513-825-7500	Telephone: 513-825-7500	Telephone: 330-966-9387	2 of 2 COCs
City/State/Zip: Cincinnati, Ohio 45240	Email: ecorbin@eqm.com			
Phone: 513-825-7500				
Project Name: RVAAP (66)	Method of Shipment/Carrier: Lab Pickup			
Project Number: 030174.0016.0013	Shipping/Tracking No: N/A			
PO#				

Analysis Turnaround Time (in BUS days)
TAT if different from below
Per SOW
☒ 3 weeks
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

For lab use only
Walk-in client ☐
Lab pickup ☐
Lab sampling ☐
Job/SDG No:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite=C / Grab=G	Analyses: VOC 8260	SVOC 8270 full list	Pest 8081	PCB 8082	Explosives/Propellants	Cyanide 9012	Metals 6010/6020/7470				Sample Specific Notes / Special Instructions: COOLER ID
FWGLL6MW-008-0186-GW	10/17/12	1413		X						3	1		9		N	G	X	X	X	X	X	X					2FACE
FWGLL6MW-008-0186-GF		1413		X					1						Y	G							X				2FACE
FWGCBPMW-009-0160-GW		1549		X						3	1		9		N	G	X	X	X	X	X	X					176
FWGCBPMW-009-0160-GF		1549		X					1						Y	G							X				176
FWGFWGMW-011-0188-GW		1703		X						3	1		9		N	G	X	X	X	X	X	X					220
FWGFWGMW-011-0188-GF		1703		X					1						Y	G							X				220

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:
- Samples collected close to pickup time may not meet temperature requirements.
All VOAs in Cooler C8

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	EQM	1800 10/17/12	RC Cobar	TAL NC	10-17-12-1800
RC Cobar	TAL-NC	10-17-12 1920			
			Received in Laboratory by: [signature]	TAL	10/18/12 600AM

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TAL 0018-1 (04/10)

TestAmerica Canton Sample Receipt Form/Narrative Login # : 16528

Client EQM Site Name _____ By: _____ (Signature)

Cooler Received on 10/18/12 Opened on 10/18/12

FedEx: 1st Grd Exp UPS FAS Stetson Client Drop Off ~~TestAmerica Courier~~ Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 8	(CF 0°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C

Multiple on Back

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 20	Yes No
-Were custody seals on the outside of the cooler(s) signed & dated?	Yes No NA
-Were custody seals on the bottle(s)?	Yes No
3. Shippers' packing slip attached to the cooler(s)?	Yes No
4. Did custody papers accompany the sample(s)?	Yes No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes No
6. Did all bottles arrive in good condition (Unbroken)?	Yes No
7. Could all bottle labels be reconciled with the COC?	Yes No
8. Were correct bottle(s) used for the test(s) indicated?	Yes No
9. Sufficient quantity received to perform indicated analyses?	Yes No
10. Were sample(s) at the correct pH upon receipt?	Yes No NA
11. Were VOAs on the COC?	Yes No
12. Were air bubbles >6 mm in any VOA vials?	Yes No NA
13. Was a trip blank present in the cooler(s)?	Yes No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
0197GW	≥12	10/18/12	CSL
0197GF	<2		
0198GW	≥12		
0198GF	<2		
0182GW	≥12		
0182GF	<2		
0181GW	≥12		
0181GF	<2		
Equip 3	<2 ≥12		
0195	≥12		
0195	<2		
DUP8	≥12		
DUP8	<2		
0196	≥12		
0196	<2		
0187	≥12		
0187	<2		
0186	≥12		
0186	<2		
0160	≥12		
0160	<2		
0188	≥12		
0188	<2		
0161	≥12		
0161	<2		
0162	≥12		
0162	<2		
DUP1	≥12		
DUP1	<2		
0185	≥12		
0185	<2		
0176	≥12		
0176	<2		

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant
	SEE XTRA FORM			

TestAmerica Multiple Cooler Receipt Form/Narrative Lot Number: 16528
North Canton Facility

Cooler #	Temp °C		Method	Coolant	Comments
NTA1	4.6	3.6	IR 4G	ICE	
015	5.2	4.2			
B111	6.1	5.1			
405	4.0	3.0			
179	5.2	4.2			
Z86	3.9	2.9			
PH8	4.1	3.1			
C8	3.2	3.2	IR 8		
E-120	2.6	2.6			
IVY	0.4	0.4			
KCA	0.8	0.8			
2FACE	2.2	2.2			
176	2.6	2.6			
185	2.2	1.2	IR 5G		
114	2.2	1.2			
54	2.6	1.6			
727	2.2	1.2			
TS2	2.2	1.2			
XXX	2.2	1.2			
220	2.7	2.7	IR 8		

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16528-1

Login Number: 16528
List Number: 1
Creator: Livengood, Chris

List Source: TestAmerica Canton

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16528-1

Login Number: 16528
List Number: 1
Creator: Sadler, Jeremy

List Source: TestAmerica West Sacramento
List Creation: 10/19/12 01:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16528-1

Login Number: 16528
List Number: 2
Creator: Sadler, Jeremy

List Source: TestAmerica West Sacramento
List Creation: 10/19/12 01:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix I

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 29, 2012

SDG: 240-16528-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1,
3. Were holding times met?	X				QAPP Table 5-1, J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1,
5. Were all QAPP addendum-specified target analytes reported?	X				QAPP Table 4-5
6. Was the GC/MS system tuned with bromofluorobenzene (BFB) during each 12 hour shift (prior to ICAL and Cal Ver.)?	X				QSM Table F-4
7. Calibration					
7a. Did the initial calibration curve consist of 5 concentration levels?	X			Instrument A3UX15–10/10/12	QSM Table F-4 R
7b. Did the Calibration Check Compounds (CCCs) (see Table 1 below) relative standard deviations (%RSD) ≤ 30%?	X				QSM Table F-4 R
7c. Were the minimum response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) met?	X				QSM Table F-4
7d. Did target analytes with an average calibration type have an RSD ≤ 15%?	X				QSM Table F-4 15% <RSD< 20% = J/UJ
7e. IF the RSD was >15% was a different calibration option used?	X				
7f. If a linear regression curve was used, was the correlation coefficient r>0.995?	X			Methylene chloride used a linear fit with r>0.995.	QSM Table F-4 R<0.99=-J/R
7g. If a non-linear regression was used, was the COD r≥0.99, with a minimum of 6 points for second order and 7 points for third order?			X	cis-1,3-Dichloropropene, trans-1,3-dichloropropene, bromoform and dibromochloromethane used a quadratic fit.	QSM Table F-4 R<0.99=-J/R
8. Was a LOD Level Verification performed quarterly for each reported analyte with detected results?	X			7/31/12 @ 1236, 1258 and 1320	QSM Table F-4 and section D.1.2.1
9. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours?	X				

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
10. Were the QC/MRL recoveries 70-130%		X		10/24/12- Opening MRL analyzed @ 1105 recovered above control limits of 70-130% for methylene chloride at 322%, chloroethane at 134%, vinyl chloride at 133% and at 144% for chloromethane. The closing MRL analyzed at 2028 recovered above control limits of 70-130% for methylene chloride at 318% and below limits at 68% for o-xylene. The o-xylene results for FWG TEAM 1 TRIP and FWGFWGmw-021-0198-GW were qualified as estimated, "UJ". No additional qualifications were required for the other outliers as there were no detected methylene chloride, chloroethane, vinyl chloride or chloromethane concentrations reported for the bracketed field samples. 10/25/12- Opening MRL analyzed @ 0942 recovered above control limits of 70-130% for methylene chloride at 207% and below limits for 2-hexanone at 64%, 2-butanone at 55% and 4-methyl-2-pentanone at 56%. A closing MRL from the same analytical run was not reported due to instrument malfunction, however the opening MRL analyzed 10/26/12 at 1048 recovered above control limits of 70-130% for methylene chloride at 142%, bromomethane at 144% and chloroethane at 144%. The 2-butanone and 4-methyl-2-pentanone results for samples FWGWBGmw-020-0197-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWG TEAM 2 Trip, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW and FWGDA2mw-DUP1-0199-GW were qualified as unusable, "R". The 2-hexanone results for samples FWGWBGmw-020-0197-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWG TEAM 2 Trip, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ". No additional qualifications were required for the other outliers as there were no detected methylene chloride, chloroethane or bromomethane concentrations reported for the bracketed field samples 10/26/12- The closing MRL analyzed at 10/26/12 @ 2005 recovered above control limits of 70-130% for methylene chloride at 161%, bromomethane at 136% and chloroethane at 145%. No qualifications	Louisville Supplement to the DOD QSM

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				were required as there were no detected methylene chloride, chloroethane or bromomethane concentrations reported for the bracketed field samples. 10/30/12- The opening MRL analyzed at 10/30/12 @ 1217 recovered above control limits of 70-130% for methylene chloride at 240%, chloromethane and vinyl chloride at 132% and chloroethane at 143%. The closing MRL analyzed at @ 2005 recovered above control limits of 70-130% for methylene chloride at 231% and below limits for styrene and m,p-xylene at 69%. The styrene and m,p-xylene results for samples FWGFWGmw-011-0118-GW, FWGWBGmw-18-0195-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGTEAM3-Trip were qualified as estimated, "UJ". No additional qualifications were required as there were no detected methylene chloride, chloromethane or vinyl chloride concentrations reported for the bracketed field samples.	
11. Was a second source verification (ICV) analyzed? Were results 80-120%?	X			10/10/12 @ 1344	QSM Table F-4 J=<80% and >120%
12. Was a CCV run daily prior to analysis and every 12 hours of analysis time?	X			10/23/12 @ 0938 and 10/24/12 @ 0957, 10/25/12 @ 0834	QSM Table F-4
12a. Were the average response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) met?	X				QSM Table F-4
12b. Were all target analytes $\leq$ 20%D?		X		10/24/12 @ 0957- The %D for methylene chloride was above control limits of 20% D at 23.7% for the CCV analyzed 10/24/12 @ 0957 and at 28.9% for the methylene chloride CCV analyzed 10/25/12 @ 0834. No qualifications were required as there were no detected methylene chloride concentrations reported for the bracketed field samples. 10/30/12 @ 1109- The %D for acetone was above control limits of 20% D at 23.1%. The acetone results for samples FWGFWGmw-011-0118-GW, FWGWBGmw-18-0195-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGTEAM3-Trip were qualified as estimated, "J".	QSM Table F-4 %D <20% = J/UJ

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 29, 2012

SDG: 240-16528-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
13. Were the internal standards added to every sample?	X				QSM Table F-4
13a. Was the EICP area between -50% and +100% of the ICAL mid-point standard?	X				QSM Table F-4 R
13b. Were the retention times for all IS compounds within ±30 seconds from the RT of the mid-point standard in the ICAL?	X				QSM Table F-4 J/UJ
14. Were the retention times for target analytes within ±0.06 RRT units from the RT of the mid-point standard in the ICAL or the most recently updated RRT for all samples?	X				QSM Table F-4 J
15. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-4
15a. Were target analytes detected in the method blank >1/2 the MRL >RL for common contaminants?	X			Checked by ADR. Methylene chloride was detected in the method blank from batch 240-62557 at 1.94ug/L, in batch 240-62676 at 1.13ug/L and in batch 240-63255 at 1.23ug/L. No qualifications were made as detected methylene chloride results were not reported for the associated field samples.	QSM Table F-4 <5/10X =B
16. Was a field blank (equipment and/or trip) collected and analyzed?	X				
16a. Were target analytes detected in the field blank?	X			Checked by ADR. Acetone was detected in FWG TEAM 1 TRIP at and FWG TEAM 2 TRIP at 1.6ug/L and in FWG TEAM3-TRIP at 1.8ug/L. FWGEQUIPRINSE3-0214-GW had acetone detected at 9ug/L. The acetone results for samples FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGDA2mw-115-0162-GW, FWGDA2mw-DUP1-0199-GW, FWGWBGmw-018-0195-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW and FWGFWGmw-011-0188-GW were qualified, "B".	QSM Table F-4 <5/10X =B
17. Was a LCS prepared and analyzed with each batch?	X				QSM Table F-4
17a. Were the LCS recoveries within limits specified in Table G-5 of the DoD QSM?	X			ADR checked section;	QSM Table F-4, Table G-5, J/UJ
18. Was a MS/MSD prepared with each batch?	X			FWGFWGmw-021-0198-GW, FWGLL1mw-086-0181-GW	QSM Table F-4

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SDG: 240-16528-1 Rev0
Analysis: SW846 8260B

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
18a. Were the MS/MSD recoveries within limits specified in Table G-4 of the DoD QSM with an RPD <30%?	X				QSM Table F-4, Table G-5 J/UJ Parent sample only
19. Was a field duplicate analyzed?	X			A field duplicate analyzed on samples FWGWBGmw-018-0195-GW and FWGDA2mw-115-0162-GW	QSM Table F-4,
19a. Were the field duplicates RPDs within ±30%?		X		Checked by ADR. The field duplicate analyzed on sample FWGWBGmw-018-0195-GW had a duplicate RPD above control limits of 50% at 200% for acetone. The field duplicate analyzed on sample FWGDA2mw-115-0162-GW had a duplicate RPD above control limits of 50% at 70% for acetone. The acetone results for samples FWGWBGmw-018-0195-GW and FWGDA2mw-115-0162-GW were qualified as estimated, "J".	QSM Table F-4, RPD >30=J Parent sample only
20. Were surrogate recoveries within control limits specified in the DOD QSM?		X		The surrogate, 1,2-dichloroethane-d4 recovered above control limits of 70-120% at 121% in samples FWGLL1mw-087-0182-GW and FWGLL6mw-008-0186-GW, at 126% in sample FWGCBPmw-009-0160-GW, at 122% in sample FWGDA2mw-114-0161-GW, at 123% in sample FWGDA2mw-DUP1-0199-GW, at 124% in sample FWGFWGmw-011-0188-GW, at 131% in FWG TEAM-3 Trip and at 130% in sample FWGFWGmw-019-0196-GW. The acetone results for samples FWGLL1mw-087-0182-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW, FWGFWGmw-011-0188-GW, FWGDA2mw-DUP1-0199-GW and FWG TEAM-3 Trip were qualified as estimated, "J". The carbon disulfide results for samples FWGCBPmw-009-0160-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "J".	QSM Tables F-4 & G-3 >150%=J; 10% - 50%=J/UJ; <10%=J/R
21. Were reported sample concentrations within calibration range?	X				

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010
Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007
Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012
Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/November 29, 2012

SDG: 240-16528-1 Rev0
Analysis: SW846 8260B

Additional Comments:

Table1- CCCs

Analyte
1,1-Dichloroethene
Chloroform
1,2-Dichloropropane
Toluene
Ethylbenzene
Vinyl chloride

Table 2- SPCCs

Analyte	Minimum RF
Chloromethane	0.10
1,1-Dichlorethane	0.10
Bromoform	0.10
Chlorobenzene	0.30
1,1,2,2-Tetrachloroethane	0.30

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Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 30, 2012

SDG: 240-16528-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1,
3.Were holding times met?		X		Surrogate(s) recovered below acceptance criteria in the initial analysis of sample FWGLL4mw-201-0185-GW. FWGLL4mw-201-0185-GW was reextracted outside hold time of 7 days at 13 days (<2x hold time). The re extracted and reanalyzed sample was reported with acceptable surrogate recoveries. The sample results for sample FWGLL4mw-201-0185-GW were qualified as estimated, "UJ".	QAPP Table 5-1, J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1,
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-6
6. Was the GC/MS system tuned each 12 hour shift (prior to ICAL and Cal Ver.)?	X				QSM Table F-4
7. Initial Calibration					
7a. Did the initial calibration curve consist of 5 concentration levels?	X			Instrument A4HP9–10/25/12, 11/1/12	QSM Table F-4 R
7b. Did the Calibration Check Compounds (CCCs) (see Table 1 below) relative standard deviations (%RSD) ≤ 30%?	X				QSM Table F-4 R
7c. Were the minimum response factors (RFs) for the System Performance Check Compounds (SPCCs) (see Table 2 below) ≤0.050?	X				QSM Table F-4
7d. Were all other target analytes reported with an avg response have an RSD ≤ 15%?	X				QSM Table F-4 15% <RSD< 20% = J/UJ
7e. IF the RSD was >15% was a different calibration option used?	X				
7f. If a linear regression curve was used, was the correlation coefficient r>0.995?	X				QSM Table F-4 R<0.99=-J/R
7g. If a non-linear regression was used, was the COD r≥0.99, with a minimum of 6 points for second order and 7 points for third order?	X			10/25/12 Benzoic acid and 2,4-dinitrophenol used a quadratic fit. 11/1/12 Benzoic acid and 2,4-dinitrophenol used a quadratic fit.	QSM Table F-4 R<0.99=-J/R
8. Was a LOD Level Verification performed quarterly for each reported analyte?	X			9/29/12 @1247, 9/21/12 @1338, 1357 and 1416	QSM Table F-4 and section D.1.2.1

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SDG: 240-16528-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
9 Was a breakdown check run at the beginning of every 12 hours with DDT degradation <20% and tailing factors of benzidine and pentachlorophenol ≤2?	X				QSM Table F-4 R
10. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours with recoveries within 70-130%?		X		The closing MRL analyzed 10/26/12 @2020 recovered below control limits of 70-130% at 57% for 2,4-dinitrophenol. An MDL check was analyzed with an acceptable result. The 2,4-dinitrophenol results for samples FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW, FWGLL12mw-182c-0190-GW, FWGLL12mw-0182ss-0191-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGFWGmw-019-0196-GW, FWGFWGmw-DUP8-0205-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ".	Louisville Supplement to the DOD QSM
11. Was a second source verification (ICV) analyzed? Were results 80-120%?		X		10/25/12 @ 1715, The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 26.2%. The 3,3'-dichlorobenzidine results for FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW, FWGLL12mw-182c-0190-GW, FWGLL12mw-0182ss-0191-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGFWGmw-019-0196-GW, FWGFWGmw-DUP8-0205-GW, FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBPmw-009-0160-GW, FWGFWGmw-011-0188-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ". 11/1/12 @ 0935 The ICV recovered below limits of 20% for 3,3'-dichlorobenzidine with a %D of 22.1%. The 3,3'-dichlorobenzidine result for sample FWGLL4mw-201-0185-GW was qualified as estimated, "UJ".	QSM Table F-4 J=<80% and >120%
12. Was a CCV run daily prior to analysis and every 12 hours of analysis time?	X			10/26/12 @1022, 10/28/12 @ 1034, 11/2/12 @0916	QSM Table F-4
12a. Were the average response factors (RFs) for	X				QSM Table F-4

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SDG: 240-16528-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
the System Performance Check Compounds (SPCCs) ≥0.050?					
12b. Were all target analytes ≤ 20%D?	X				QSM Table F-4 %D <20% = J/UJ
13. Were the internal standards added to every sample?	X				QSM Table F-4
13a. Was the EICP area between -50% and +100% of the ICAL mid-point standard?	X				QSM Table F-4 R
13b. Were the retention times for all IS compounds within ±30 seconds from the RT of the mid-point standard in the ICAL?	X				QSM Table F-4 J/UJ
14. Were the retention times for target analytes within ±0.06 RRT units from the RT of the mid-point standard in the ICAL or the most recently updated RRT for all samples?	X				QSM Table F-4 J
15. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-4
15a. Were target analytes detected in the method blank >1/2 the MRL, >RL for common contaminants?		X		Checked by ADR. The method blank associated with batch 240-62371 had bis(2-ethylhexyl)phthalate detected at 1.2ug/L and the method blank from batch 240-62510 had bis(2-ethylhexyl)phthalate detected at 0.804ug/L . The bis(2-ethylhexyl)phthalate results for samples FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGDA2mw-115-0162-GW, FWGLL12mw-182c-0190-GW, FWGLL12mw-0182ss-0191-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGLL6mw-009-0187-GW, FWGCBPmw-009-0160-GW and FWGFWGmw-011-0188-GW and were qualified, "B".	QSM Table F-4 <5/10X =B
16. Was a field blank (equipment and/or trip) collected and analyzed?	X			FWGEQUIPRINSE3-0214-GW	
16a. Were target analytes detected in the field blank?	X			Checked by ADR. Benzyl alcohol was detected in FWGEQUIPRINSE3-0214-GW at 0.61ug/L. No qualifications were made as there were no detected benzyl alcohol concentrations reported in the associated field samples.	QSM Table F-4 <5/10X =B

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Data Reviewer/Date: Angela Dragotta/ November 30, 2012

SDG: 240-16528-1 R0
Analysis: SW846 8270

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
17. Was a LCS prepared and analyzed with each batch?	X				QSM Table F-4
17a. Were the LCS recoveries within limits specified in Table G-6 of the DoD QSM?	X			ADR checked section;	QSM Table F-4, Table G-6 J/UJ
18. Was a MS/MSD prepared with each batch?	X			FWGLL1mw-086-0181-GW	
18a. Were the MS/MSD recoveries within limits specified in Table G-6 of the DoD QSM with an RPD <30%?		X		The matrix spike analysis performed on sample FWGLL1mw-086-0181-GW recovered below control limits of 55-110% with the MS recovering at 18% and the MSD at 16% for benzo(a)pyrene. The spike analysis recovered below control limits of 35-135% for di-n-octylphthalate at 19% in the MS and 20% in the MSD. The spike analysis recovered below control limits of 40-12% for benzo(g,h,i) perylene at 37% in the MS and for bis(2-ethyl hexyl)phthalate at 20% in the MS and 23% in the MSD. The spike analysis recovered below control limits of 45-125% for indeno (1,2,3-cd)pyrene at 39% in the MS. The MSD duplicate for 3,3-dichlorobenzidine recovered below control limits of 20-110% at 13% with a duplicate RPD of 69% (30% limit). The benzo(a)pyrene, di-n-octylphthalate, benzo(g,h,i) perylene, bis(2-ethyl hexyl)phthalate, indeno (1,2,3-cd)pyrene and 3,3-dichlorobenzidine results for sample FWGLL1mw-086-0181-GW were qualified as estimated, "J/UJ".	QSM Table F-4, Table G-6 J/UJ Parent sample only
19. Was a field duplicate analyzed?	X			Checked by ADR	
19a. Were the field duplicates RPDs within ±50%?	X			Checked by ADR. The field duplicates analyzed on sample FWGWBGmw-018-0195-GW FWGDA2mw-115-0162-GW had duplicate RPDs above control limits of 50% at 200% for bis(2-ethylhexyl)phthalate. The bis(2-ethylhexyl)phthalate results for samples FWGWBGmw-018-0195-GW and FWGDA2mw-115-0162-GW were qualified as estimated, "J".	QSM Table F-4, RPD >50=J Parent sample only
20. Were surrogate recoveries within control limits specified in the DOD QSM?	X				QSM Tables F-4 & G-3 >150%=J; 10% - 50%=J/UJ; <10%=J/R
21. Were reported sample concentrations within calibration range?	X				

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Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ November 30, 2012

SDG: 240-16528-1 R0
Analysis: SW846 8270

References:

- *DoD Quality Systems Manual (QSM), version 4.1, October 2010*
- *Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007*
- *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012*
- *Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011*

Additional Comments:

Table 1: CCCs *(All analytes if CCCs not included in standard)*

Base / Neutral Compounds	Acid Compounds
Acenaphthalene	4-Chloro-3-methylphenol
1,4-Dichlorobenzene	2,4-Dichlorophenol
Hexachlorobutadiene	2-Nitrophenol
N-Nitrosodiphehylamine	Phenol
Di-n-octylphthalate	Pentachlorophenol
Fluoroanthene	2,4,6-Trichlorophenol
Benzo(a)pyrene	

Table 2: SPCCs -

N-Nitroso-di-n-propylamine	0.050
Hexachlorocyclopentadiene	0.050
2,4-Dinitrophenol	0.050
4-Nitrophenol	0.050

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Project Number: 030174.0016
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Data Reviewer/Date: Angela Dragotta / December 1, 2012

SDG: 240-16528 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X			Checked by ADR	QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a DDT standard analyzed every 12 hours? Was the DDT %breakdown < 15%?	X				QSM Table F-2 >15%=J/R
7. Was an endrin standard analyzed every 12 hours? Was the endrin %breakdown <15%?	X				QSM Table F-2 >15%=J/R
8. Initial Calibration					
8a. Does the initial calibration curve consist of 5 concentration levels?	X			Instrument A2HP9 10/27/12, 10/31/12	QSM Table F-2 R
8a. Were the %RSDs for each analyte ≤ 20%? OR was the average %RSD ≥20% with the r >0.990?	X			10/27/12 CLP-2 used a quadratic fit for endrin ketone, endrin aldehyde, endosulfan sulfate, methoxychlor and DCB CLP-2 used a linear fit for delta-BHC, 4,4'-DDT and a quadratic fir for endrin ketone..	QSM Table F-2 RSD>20% or r<0.99=J/R
9. Was a LOD Level Verification performed once per quarter with all target analytes detected?	X			9/18/12 @2208, 2231, 2255, 2319	QSM Table F-2 R
10. Was a MRL Verification performed at the beginning and end of the sequence or every 12 hours with results within limits of 70-130%?	X			The closing MRL analyzed 11/1/12 @ 0023 recovered below control limits of 70-130% for methoxychlor at 0% on CLP-1 and CLP-2. The methoxychlor results for sample FWGLL6mw-009-0187-GW, FWGLL6mw-008-0186-GW, FWGCBP-009-0160-GW and FWGFWGmw-011-0188-GW were qualified as unusable, "R".	QSM Table F-2, G-14 >UL=J; <LL=J/UJ/R
11. Was a second source (ICV) verification analyzed after the ICAL? Were results 80-120%?	X			The ICV analyzed 10/27/12 1934 recovered below control limits of 20% D for endrin ketone at 22.5% on CLP-2. No qualifications were made as CLP-2 was used for confirmation and there were no detected concentrations of endrin ketone reported in the associated field samples.	QSM Table F-2 >120%=J; <80%=J/UJ
12. Was a CCV run every 12 hours or at the beginning and end of the analytical run with the %D for all target analytes ≤20%?		X		The CCV analyzed 10/29/12 @ 1956 had %D above control limits of 20% for 4,4'-DDE at 24.3% on CLP-1 and at 21.7% on CLP-2. The CCV analyzed 10/30/12 @ 0048 had %D above control limits of 20% for	QSM Table F-2 >120%=J; <80%=J/UJ

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Data Reviewer/Date: Angela Dragotta / December 1, 2012

SDG: 240-16528 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				4,4'-DDE at 22.6% on CLP-2. No qualifications were made as there were no detected concentrations of 4,4'-DDE reported for the bracketed field samples. The CCV analyzed 10/30/12 @ 0515 had %D above control limits of 20% for 4,4'-DDE at 24.3% on CLP-1 and 25.8 on CLP-2. The CCV analyzed 10/30/12 @ 0855 had %D above control limits of 20% for alpha- BHC at 21.4% on CLP-1, delta BHC had a %D of 21.3% , aldrin at 22.6%, 4,4-DDE at 28.^% and DCB at 35.5%. Only CLP-1 was evaluated and no qualifications were made for %D outliers as there were no detected concentrations reported for the bracketed field samples.	
13. Was a method blank prepared and analyzed with each batch?	X				QSM Table F-2
14. Were target analytes detected> ½ the RL?		X			QSM Table F-2 <5x=B
15. Was a field blank collected and analyzed?	X			Beta-BHC was detected in FWGEQUIPRinse3-0214-GWat 0.011ug/L. The beta-BHC result for sample FWGDA2mw-115-0162-GW was qualified, "B".	
16. Were target analytes detected in the field blank analyses >1/2 the MRL?		X			QSM Table F-2 <5x=B
17. Was an LCS prepared and analyzed with each batch?	X				QSM Table F-2
18. Were the LCS recoveries within limits specified in QSM Table G-14?		X		Checked by ADR. The toxaphene LCS recovered below control limits of 70-130% in batch 240-62004 at 65%. The toxaphene results for samples FWGWBGmw-020-0197-GW, FWGWBGmw-021-0198-GW, FWGLL1mw-087-0182-GW, FWGLL1mw-086-0181-GW, FWGEQUIPRinse3-0214-GW, FWGDA2mw-114-0161-GW, FWGDA2mw-115-0162-GW, FWGFWGmw-013-0176-GW, FWGFWGmw-018-0195-GW, FWGFWGmw-019-0196-GW, FWGFWGmw-DUP8-0205-GW, FWGLL4mw-201-0185-GW and FWGDA2mw-DUP1-0199-GW were qualified as estimated, "UJ".	QSM Table G-14 >UL=J; <LL=J/UJ/R
19. Was a MS/MSD pair prepared with each batch?			X	Not enough sample for matrix spike analysis from the set of samples.	QSM Table F-2
20. Was the MS/MSD parent a Ravenna sample?	X				
21. Were MS/MSD recoveries and RPD within limits specified in QSM Table G-14?		X		The matrix spike analysis performed on sample FWGLL1mw-086-0181-GW recovered below control limits of 75-125% for endrin ketone at 71% in the MS and 66% in the MSD. The toxaphene matrix spike analysis recovered	QSM Table F-2 Pj with >UL=J; <LL=J/UJ/R

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta / December 1, 2012

SDG: 240-16528 R0
Analysis: SW846 8081A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				below control limits of 70-130% at 60% in the MS and 50% in the MSD. The endrin ketone and toxaphene results for sampleFWGLL1mw-086-0181-GW were qualified as estimated, "UJ".	
22. Were surrogate recoveries as specified in QSM table G-3?		X		The surrogate DCB recovered below control limits of 30-135% on CLP-2 at 28% in sample FWGLL1mw-087-0182-GW and for FWGFWGmw-011-0188-GW at 25%. No qualification was made as CLP-2 was used for confirmation and there were no detected results reported for FWGLL1mw-087-0182-GW or FWGFWGmw-011-0188-GW.	QSM Table F-2 >LL=J; <LL=UJ/J/R
23. Was a field duplicate analyzed? Were the RPDs ≤50%?		X		Checked by ADR. The field duplicate analyzed on sample FWGDA2mw-115-0162-GW had an RPD above control limits of 50% at 200% for beta-BHC. The beta-BHC result for FWGDA2mw-115-0162-GW was qualified as estimated, "J"	RPD >50=J parent sample only
24. Were all positive results verified by a second column confirmation? Were the RPD's ≤ 40?	X			There were no detected concentrations greater than the LOD, so no evaluation was made.	QSM Table F-2 >40 RPD=J

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 2 , 2012

SDG: 240-16528-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	**X**				QAPP Table 5-1
3. Were holding times met?		**X**		The following samples were re-prepared outside the holding time of seven days but were re extracted within 2x hold (12 days) because of low surrogates in the initial analysis. The results associated with the reanalysis were qualified as estimated, "UJ": FWGFWGmw-021-0198-GW, FWGLL1mw-086-0181-GW, FWGLL1mw-087-0182-GW and FWGLL6mw-008-0186-GW.	QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	**X**				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	**X**				QAPP Table 4-3
6. Calibration					
6a. Does the initial calibration curve consist of 5 concentration levels of Aroclors 1016 and 1260?	**X**			Instrument A2HP13 10/21/12, A2HP12 9/4/12 Stds = 0.05, 0.1, 0.2, 0.5, 1.0, 2.0	QSM Table F-2 R
6b. Was the % RSD ≤ 20%? or Were the r^2s >0.990?	**X**				QSM Table F-2 RSD>20% or r<0.99= J/R
7. Was a LOD Verification performed once per quarter? Were all target analytes detected?	**X**			8/31/12	QSM Table F-2 R
8. Was an MRL Level Verification performed at the beginning and end of the sequence or every 12 hours? Were recoveries 70-130%?		**X**		The closing MRL analyzed 11/1/12 @ 2330 recovered above control limits of 70-130 for aroclor 1016 at 132%. No qualifications were made as there were no detected aroclor concentrations reported for the bracketed field samples.	LCG Table 3 >UCL=J; <LCL=J/UJ/R;
9. Was a second source (ICV) verification performed after the ICAL? Were the avg of all peaks for each aroclor 80-120%?	X				QSM Table F-2 >120%=J; <80%=J/ UJ/R
10. Were single standards of the other five Aroclors run to aid in pattern recognition and to determine a single point calibration factor?			**X**	All other aroclors calibrated.	Method 8082 Section 5.6.2
11. Was a CCV run every 12 hours?	**X**				QSM Table F-2

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 2 , 2012

SDG: 240-16528-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
12. Was the % D ≤ 20 % for each analyte?	X				QSM Table F-2 D>20%(neg)=J/R D>20% (pos) =J
13. Was a method blank prepared and analyzed with each batch?	X			Section checked by ADR	QSM Table F-2
14. Were target analytes <1/2 the MRL?	X				QSM Table F-2 <5x = B
15. Was an equipment blank collected and analyzed?	X				
16. Were target analytes in the field blank analyses (equipment) <1/2 the MRL?	X			Section checked by ADR	QSM Table F-2 <5x = B
17. Was an LCS prepared and analyzed with each batch?	X				QSM Table F-2
18. Were the LCS recoveries within limits specified in LCG Appendix C?	X			Section checked by ADR	QSM Table F-2, Table G-16 >UL=J; <LCL%=J/R/UJ;
19. Was a MS/MSD pair prepared with each batch?	X				LCG Table 3
20. Was the MS/MSD parent a Ravenna sample?	X			FWGLL1mw-086-0181-GW	
21. Were MS/MSD recoveries and RPD within limits specified in the DOD QSM Table G-16?	X				QSM Table F-2, Table G-16 >UL=J; <LCL%=J/R/UJ;
22. Was the surrogate spiked into all samples?	X				
23. Were surrogate recoveries As specified in table G-3 of the DoD QSM?		X		Checked by ADR. The surrogate, DCB, recovered below control limits of 40-135% for sample FWGLL1mw-086-0181-GW at 39% on CLP2 and for sample FWGFWGmw-011-0188-GW at 23% on CLP2 and 24% on CLP-1. The results for FWGLL1mw-086-0181-GW and FWGFWGmw-011-0188-GW were qualified as estimated, "UJ".	QSM Table F-2, Table G-3 >UCL=J; <LCL=J/UJ/R
24. Was a field duplicate analyzed? Were the RPDs <50%?			X	Checked by ADR. No detected concentrations were reported.	QSM Table F-2, RPD >50=J

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 2 , 2012

SDG: 240-16528-1 R0
Analysis: SW846 8082

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
25. Were all positive results verified by a second dissimilar column confirmation? Was the RPD $\leq$ 40?			X	No detected concentrations were reported.	QSM Table F-2, RPD>40=J

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 2, 2012

SDG: 240-16528-1
Analysis: SW846 9012

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Does the initial calibration curve consist of at least 6 standards and one blank, with the correlation coefficient R $\geq$ 0.995? ?	X				*DoD QSM Table F-10* R
7. Were a high and low standard distilled and analyzed with results within $\pm$ 15%?	X				*DoD QSM Table F-10* R
8. Was an LOD Verification performed at least once per quarter with all target analytes detected?	X			8/7/12	LCG Table 10 R
9. Was a MRL Level Verification performed at the beginning of every and end of the daily sequence? Were results within 70-130%?	X			10/25/12 @ 1438, 1512, 1556 and 1711	LCG Table 10, LS >130%=J; 65-70%=J/UJ; <65%=J/R
10. Was a second source verification (ICV) analyzed after the ICAL and all analytes 85-115%?	X				*DoD QSM Table F-10* >115%=J; 80-85%=J/UJ; <80%=J/R
11. Was a method blank prepared and analyzed with each batch?	X				*DoD QSM Table F-10*
12. Were target analytes detected in the method blank >1/2 the MRL?		X		Checked by ADR.	*DoD QSM Table F-10* <5x=B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes in the field blank analyses <1/2 the MRL?	X				*DoD QSM Table F-10* <5x=B
15. Was a field duplicate analyzed? Were the RPDs $\leq$20%?	X			Checked by ADR.	>30% = J
16. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-10

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 2, 2012

SDG: 240-16528-1
Analysis: SW846 9012

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
17. Were the LCS recoveries 80-118%?	X			Checked by ADR.	*DoD QSM Table F-10* Lab Limits >118%=J; 50-79%=J/UJ; <50%=R
18. Was a MS and duplicate (sample or matrix) prepared once per every 10 samples?	X				DoD QSM Table F-10
19. Was the MS parent a Ravenna sample?	X				
20. Were matrix spike recoveries 42-140%?	X			Checked by ADR.	DoD QSM Table F-10 >140%=J; <42%=J/UJ/R

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011
Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 3, 2012

SDG: 240-16528-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table *5-1* J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table *5-1*
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Was a LOD Verification performed once per quarter with all target analytes detected?	X			ICP 7/10/12, ICPMS 7/12/12 and mercury, 7/13/12	DoD QSM Table F-8
7. Tuning (ICP MS Only)					
7a. Was a tune performed daily prior to calibration	X				DoD QSM Table F-8 R
7b. Mass Calibration <0.1 amu from true value	X				
7c. Resolution <0.9 amu full width at 10 % peak height	X				
7d. RSD <%5 for a minimum of four replicate analyses	X				
8.Calibration	X				
8a. Was the ICAL performed daily with at least	X				DoD QSM Tables F-8 and F-7
3 standards and a blank for ICP	X				
2 standards and a blank for ICP MS	X				
5 standards and a blank for Hg	X				
8b. Was the correlation coefficient r≥0.995 for each analyte?	X				DoD QSM Tables F-8 and F-7 r<0.995=J/R
8c. Was the ICV (second source verification) analyzed after the ICAL with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7
8d. Was the ICB analyzed after the ICV with detected results <1/2 the MRL?	X			ICP The ICB analyzed 10/23/12 had vanadium detected at 2.68ug/L. The vanadium results for samples FWGWBGmw-020-0197-GF, FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGFWGmw-018-0195-GF, FWGFWGmw-DUP8-0205-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF and	DoD QSM Tables F-8 and F-7 < 5x = U

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 3, 2012

SDG: 240-16528-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
				FWGDA2mw-DUP1-0199-GF were qualified, "U". ICPMS The ICB analyzed 10/26/12 had thallium detected at 0.491ug/L. The thallium results for samples FWGLL1mw-086-0181-GF, FWGEQUIPRinse3-0214-GW and FWGLL6mw-008-0186-GF were qualified, "U".	
Sample Analysis					
9. Was a MRL Level Verification performed at the beginning of the daily sequence and end of the analytical sequence bracketing samples? Were results 70-130%?	X				LS to the DoD QSM DoD QSM Table G-18 >130%=J; 70-80%=J/UJ; <70%=J/UJ <65%=R, unless DL check with detected results
10. Were CCVs analyzed every 10 samples and at the end of the analytical sequence with results 90-110% of the true value?	X				DoD QSM Tables F-8 and F-7 >110%=J, <85%=J/R 90-85%=J/UJ;
11. Were the CCBs run every 10 samples and at the end of the analytical sequence? Were results <1/2 the MRL?		**X**		ICP The CCBs analyzed 10/23/12 had vanadium detected from 1.24ug/L to 3.0ug/L. The vanadium results for samples FWGWBGmw-020-0197-GF, FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGFWGmw-018-0195-GF, FWGFWGmw-DUP8-0205-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF and FWGDA2mw-DUP1-0199-GF were qualified, "U". ICPMS The CCBs analyzed 10/26/12 had thallium detected from 0.354 to 0.499ug/L, cadmium from 0.055ug/L to 0.082ug/L and beryllium from 0.060ug/L to 0.105ug/L. The thallium results for samples FWGLL1mw-086-0181-GF, FWGEQUIPRinse3-0214-GW and FWGLL6mw-008-0186-GF were qualified, "U". The beryllium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF and FWGEQUIPRinse3-0214-GW were qualified, "U". The cadmium results for samples FWGLL1mw-087-0182-GF, FWGEQUIPRinse3-0214-GW, FWGWBGmw-021-0198-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGLL6mw-009-0187-GF, FWGWBGmw-019-0196-GF, FWGFWGmw-013-0176-GF and FWGDA2mw-114-0161-GF were qualified, "U".	DoD QSM Tables F-8 and F-7 <5x = U

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 3, 2012

SDG: 240-16528-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
12. Was an Interelement Check Standard run at the beginning of the analytical sequence and every 12 hours with the ICS recovery within 80 to 120% of true value for each element of interest (ICP and ICPMS only)?	X				DoD QSM Tables F-8 and F-7 >120%=J; 50-79%=J/UJ; <50%=Pj/R
13. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
14. Were target analytes <1/2 the MRL in the method blank?		X		Checked by ADR. ICP-The method blank from batch 240-62201 had vanadium detected at 1.31ug/L and from batch 240-622741, vanadium was detected at 1.57ug/L. The vanadium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGWBGmw-020-0197-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGWBGmw-018-0195-GF, FWGDA2mw-DUP1-0199-GF and FWGWBGmw-DUP8-0205-GF were qualified, "B". ICPMS-The method blank from batch 240-62201 had zinc detected at 9.02ug/L. The zinc result for sample FWGLL1mw-087-182-GFwas qualified "B".	DoD QSM Tables F-8 and F-7 <5x = B
15. Was a field blank collected and analyzed?	X				
16. Were target analytes reported in the field blank analyses >1/2 the MRL?	X			ADR checked section. ICPMS FWGEQUIPRinse3-0214-GW had antimony detected at 0.24ug/L, beryllium at 0.16ug/L, cadmium at 0.15ug/L, iron at 54ug/L, and thallium at 0.67ug/L. The cadmium results for samples FWGLL1mw-087-0182-GF, FWGLL1mw-086-0181-GF, FWGWBGmw-021-0198-GF, FWGCBPmw-009-0160-GF, FWGLL6mw-008-0186-GF, FWGLL6mw-009-0187-GF, FWGWBGmw-019-0196-GF, FWGFWGmw-013-0176-GF, FWGDA2mw-114-0161-GF and FWGWBGmw-DUP8-0205-GF were qualified, "B". The antimony results for samples FWGLL1mw-086-181-GF and FWGLL6mw-008-0186-GF were qualified as estimated. "B". The thallium results for samples FWGLL1mw-086-0181-GF and FWGLL6mw-008-0186-GF were qualified, "B". The beryllium results for samples FWGLL1mw-087-0182-GF and FWGLL1mw-086-0181-GF were qualified, "B".	DoD QSM Tables F-8 and F-7
17. Was a LCS prepared and analyzed with each batch?	X				DoD QSM Tables F-8 and F-7
18. Were the LCS recoveries within limits specified in LCG Appendix C?	X			Checked by ADR.	DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 3, 2012

SDG: 240-16528-1 R0
Analysis: SW846 6010/6020/7470A

Review Questions:	Yes	No	N/A	Comments	Qual/Criteria
19. Was a matrix spike (MS) and lab duplicate sample prepared with each batch?	X				DoD QSM Tables F-8 and F-7
20. Was the MS and Lab Duplicate parent a Ravenna sample?	X				
21. Were the MS recoveries within 80-120%?	X				DoD QSM Tables G-18, F-8 and F-7 >120%=J; 70-79%=J/UJ; <70%=J/R All samples in batch
22. Was the lab sample duplicate RPD ≤ 20%?		X		ICP The lab duplicate analyzed on sample FWGLL1mw-086-181-GF had an RPD above control limits of 20% for arsenic at 56%. The arsenic results for samples FWGLL1mw-086-181-GF, FWGCBPmw-00900160-GF, FWGFWG-011-0188-GF and FWGLL6mw-008-0186-GF were qualified as estimated, "J/UJ". ICPMS The lab duplicate analyzed on sample FWGLL1mw-086-181-GF had an RPD above control limits of 20% for beryllium at 122% and cadmium at 188%. The beryllium and cadmium results for samples FWGLL1mw-086-181-GF, FWGCBPmw-00900160-GF, FWGFWG-011-0188-GF and FWGLL6mw-008-0186-GF were qualified as estimated, "J/UJ".	DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
23. Was a serial dilution performed, with the five fold dilution ± 10% of the original result?	X				DoD QSM Tables F-8 and F-7 >20% = J All samples in batch
24. Was a Post Digestion Spike analyzed as needed? Were results within 75-125%?	X				LCG Table 7 >125%=J; 30-75%=J/UJ; <30%=R
25. Was a field duplicate analyzed? Were the RPDs ± 50% for sample results detected above the LOD?		X		Checked by ADR. ICPMS The field duplicate analyzed on sample FWGDA2mw-115-0162-GF was above control limits of 50% for cadmium at 200%. The cadmium result for FWGDA2mw-115-0162-GF was qualified as estimated, "UJ".	QAPP Table 3-2 >30% = J parent sample only
26. Were internal standards added to all ICPMS samples with intensity within 30-120% of the intensity of the ICAL internal standard?	X				DoD QSM Table F-8 >120%=J/R <20%=J

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 3, 2012

SDG: 240-16528-1 R0
Analysis: SW846 6010/6020/7470A

References:

- *DoD Quality Systems Manual (QSM), version 4.1, October 2010*
- *Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007*
- *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012*
- *Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011*

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/December 2, 2012

SDG: 240-16528 R0
Analysis: SW846 8330 Explosives

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a LOD Verification analyzed once per quarter with all target analytes detected?	X			LC10 9/1/12 @ 1911 LC12 10/1/12 @ 0029	DoD QSM Table F-3, R
7.Calibration					
7a. Does the initial calibration curve consist of 5 concentration levels? (6 stds for quadratic curves)	X			LC10 9/1/12 LC12 10/1/12, 2-nitrotoluene coelutes with 4-nitrotoluene, LC12 not used as primary reporting column of 2-nitrotoluene and 4-nitrotoluene	DoD QSM Table F-3 R
7b. Did all target analytes using avg response have an RSD $\leq$ 15%?	X				
7c. If a linear regression curve was used, was the correlation coefficient r≥0.995? (0.990 for Quadratic curve).			X		
8. Was a second source verification (ICV) analyzed after the ICAL and all analytes 80-120%?	X			LC10 9/1/12 1751 LC12 10/1/12 @2324	DoD QSM Table F-3 >120%=J; <80%= J/UJ;
Sample Analysis					
9. Was a CCV run at the beginning of the analytical sequence, every 10 samples and at the end of the analytical run with targets and surrogates recovering 80-120% of the true value?	X				DoD QSM Table F-3 J/UJ
10. Was a MRL Level verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D < 30%?		X		10/29/12 @ 1102- The MRL recovered above control limits of 70-130% for 2-nitrotoluene and 2,6-dinitrolotuene at 141%. No qualifications were required as there were no detected concentrations of 2-nitrotoluene or 2,6-dinitrolotuene reported for the bracketed field samples. 10/30/12 @ 1029- The MRL recovered above control limits of 70-130% for 4-amino-2,6-dinitrotoluene at 134% and 2-amino-4,6-dinitrolotuene at 136%. No qualifications were required as there were no detected	LCG Table 5 >30%=J

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/December 2, 2012

SDG: 240-16528 R0
Analysis: SW846 8330 Explosives

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
				concentrations of 4-amino-2,6-dinitrotoluene or 2-amino-4,6-dinitrolotuene reported for the bracketed field samples. 10/31/12 @ 1444- The MRL recovered above control limits of 70-130% for 3-nitrotoluene at 131%. No qualifications were required as there were no detected concentrations of for 3-nitrotoluene reported for the associated field samples. 11/1/12 @ 1214- The MRL recovered above control limits of 70-130% for HMX at 133%, nitrobenzene at 134%, 4-amino- 2,6-dinitrotoluene at 135%, 2,6-dinitrotoluene at 146% and 4-nitrotoluene at 133%. The RDX results for samples FWGWBGmw-018-0195-GW and FWGWBGmw-DUP8-0205-GW were qualified as estimated, "J". No additional qualifications were required as there were no detected concentrations of 4-amino- 2,6-dinitrotoluene, nitrobenzene, 2,6-dinitrotoluene or 4-nitrotoluene reported for the bracketed field samples. 11/2/12 @ 1142- The MRL recovered above control limits of 70-130% for 4-amino- 2,6-dinitrotoluene at 146%, 2,6-dinitrotoluene at 146% and 2-nitrotoluene at 143%. No qualifications were required as there were no detected concentrations of 4-amino- 2,6-dinitrotoluene,2,6-dinitrotoluene or 2-nitrotoluene reported for the associated field samples. 11/2/12 @ 1343- The MRL recovered above control limits of 70-130% for RDX at 149%, 4-amino- 2,6-dinitrotoluene at 136%, 4-nitrotoluene at 135% and 2-nitrotoluene at 141%. No qualifications were required as there were no detected concentrations of RDX, 4-amino- 2,6-dinitrotoluene, 4-nitrotoluene or 2-nitrotoluene reported for the associated field samples. Closing MRL check data was not provided for LC12. No qualifications were made as LC12 was used for confirmation only.	
11. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Table F-3
12. Were target analytes detected in the method blank <1/2 the MRL?	X			Checked by ADR. The method blank analyzed 11/1/12 had 1,3,5-trinitrobenzene detected at 0.0543ug/L. No qualifications were made as there were no detected 1,3,5-trinitrobenzene results reported for the associated field samples.	DoD QSM Table F-3 <5x = B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes detected in the field blank analyses > ½ the MRL?		X		Checked by ADR	DoD QSM Table F-3 <5x=B

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/December 2, 2012

SDG: 240-16528 R0
Analysis: SW846 8330 Explosives

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
15. Was a field duplicate analyzed? Were the RPDs ≤30%?	X				RPD >30=J
16. Were all positive results confirmed with a second column confirmation? Were the RPDs ≤ 40%?	X				DoD QSM Table F-3 RPD>40%=J
17. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-3
18. Were the LCS recoveries within limits specified in table G-12 of the DoD QSM?	X			Checked by ADR.	DoD QSM Table F-3 <UL=J; 30-LL=J/UJ; <30%=J/R
19.Was a MS/MSD or MS and sample duplicate prepared with each batch?	X				DoD QSM Table F-3
20. Were MS/MSD recoveries within limits specified in table G-12 of the DoD QSM with an RPD ≤20%?	X				DoD QSM Table F-3 Pj
21. Were surrogate recoveries within laboratory limits (79-111%)?		X		The surrogate 3,4-dinitrotoluene recovered above control limits of 79-111% on LC12 for sample FWGEQUIPRINSE3-0214-GW at 120%. No qualifications were required as there were no detected concentrations reported for FWGEQUIPRINSE3-0214-GW.	QSM Tables F-2 >UL=J; <LL =J/UJ

References: DoD Quality Systems Manual (QSM), version 4.1, October 2010
Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007
Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012
Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/December 2, 2012

SDG: 240-16528-1
Analysis: SW846 8330M Nitroguanidine

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-3
6. Was a LOD Verification analyzed once per quarter with all target analytes detected?	X			10/17/12 @1124	DoD QSM Table F-3 R
7.Calibration					
7a. Does the initial calibration curve consist of 5 concentration levels? (6 stds for quadratic curves)	X			PDA-1 10/17/12	DoD QSM Table F-3 R
7b. Did all target analytes using avg response have an RSD $\leq$ 15% ?	X				
7c. If a linear regression curve was used, was the correlation coefficient r$\geq$0.995? (0.990 for Quadratic curve).			X		
7d. Did reanalysis of the low level standard after calibration, recover within 15%?	X			10/17/12 @1138	
8. Was a second source verification (ICV) analyzed after the ICAL and all analytes 80-120%?	X			10/17/12 @ 1110	DoD QSM Table F-3 >120%=J; <80%= J/UJ;
Sample Analysis					
9. Was a CCV run at the beginning of the analytical sequence, every 10 samples and at the end of the analytical run with targets and surrogates recovering 80-120% of the true value?	X				DoD QSM Table F-3 J/UJ
10. Was a MRL Level verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D < 30%?	X				LCG Table 5 >30%=J
11. Was a method blank prepared and analyzed with each batch?	X				DoD QSM Table F-3

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/December 2, 2012

SDG: 240-16528-1
Analysis: SW846 8330M Nitroguanidine

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
12. Were target analytes detected in the method blank <1/2 the MRL?		X		Checked by ADR.	DoD QSM Table F-3 <5x = B
13. Was a field blank collected and analyzed?	X				
14. Were target analytes detected in the field blank analyses < ½ the MRL?		X		Checked by ADR.	DoD QSM Table F-3 <5x=B
15. Was a field duplicate analyzed? Were the RPDs ≤30%?	X				RPD >30=J
16. Were all positive results confirmed with a second column confirmation? Were the RPDs ≤ 40%?			X	No detected concentrations were reported.	DoD QSM Table F-3 RPD>40%=J
17. Was an LCS prepared and analyzed with each batch?	X				DoD QSM Table F-3
18. Were the LCS recoveries within laboratory limits of 79%-119%?	X			Checked by ADR.	DoD QSM Table F-3 <UL=J; 30-LL=J/UJ; <30%=J/R
19. Was a MS/MSD or MS and sample duplicate prepared with each batch?	X				DoD QSM Table F-3
20. Were MS/MSD recoveries within laboratory limits of 40%-150% with an RPD ≤20%?	X				DoD QSM Table F-3 Pj

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 2, 2012

SDG: 240-16528-1
Analysis: TAL SOP WS-WC-0050

Review Questions:	Yes	No	N/A	Comments	Qualifier
1. Did Chain-of-Custody information agree with laboratory report?	X				
2. Were samples preserved properly and received in good condition?	X				QAPP Table 5-1, NELAC
3. Were holding times met?	X				QAPP Table 5-1 J/UJ/R
4. Were sample storage requirements met?	X				QAPP Table 5-1
5. Were all QAPP-specified target analytes reported?	X				QAPP Table 4-1
6. Does the initial calibration curve consist of 5 concentration levels with the low standard near but > MDL?	X				STL SOP Section 10.2 R
7. Was the correlation coefficient >0.995?	X				STL SOP Section 10.2
8. Was a MRL Level Verification run at the beginning and end of every daily sequence or every 12 hours? Was the %D <30%?	X			10/23/12 @ 1146, 1206, and 1235 10/25/12 @ 1457, 1517, 1545 and 1557	LCG Table 5 >30%=J
9. Was a second source verification (ICV) analyzed after the ICAL? Were all analytes 90-110%?	X				STL SOP Section 9.8, 10.3, LCG >110%=J; 90-85%=J/UJ; <85%=J/R
10. Was the ICB analyzed after the ICV with results <1/2 the MRL?	X				STL SOP Section 9.8, LCG ,< 5x = U
11. Was a CCV run every 10 samples and at the end of the analytical run?	X			10/23/12 @ 1208, 1237, and 1251 10/25/12 @ 1519, 1547 and 1559	STL SOP Section 10.4
12. Was the ICV and CCV a mid-level standard from the initial calibration curve?	X				STL SOP Section 10.3.1
13. Were all CCV calibration analytes within 90-110%?	X				STL SOP Section 10.4, >110%=J; 85-90%=J/UJ; <85%=J/R
14. Was the ICB analyzed after the ICV with results <1/2 the MRL?	X				STL SOP Section 10.4, QSM, < 5x = U

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angela Dragotta/ December 2, 2012

SDG: 240-16528-1
Analysis: TAL SOP WS-WC-0050

Review Questions:	Yes	No	N/A	Comments	Qualifier
15. Was the Nitrocellulose assay available and/or analyzed to be within 10%?	X				STL SOP Section 7.14.1, R
16. Was a method blank prepared and analyzed with each batch?	X				
17. Were target analytes detected in the method blank <1/2 the MRL?		X		ADR checked section.	STL SOP Section 9.4, LCG, *<5x=B*
18. Was a field blank collected and analyzed?	X				
19. Were target analytes detected in the field blank analyses <1/2 the MRL?		X			<5x=B
20. Was a field duplicate analyzed? Were the RPDs ≤30%?	X			ADR checked section.	QAPP Table 3-2 RPD > 30% = J
21. Was an LCS prepared and analyzed with each batch? Was the LCS recovery within lab's in-house limits% (26-144%)?	X				>UL%=J; 50-LL%=J/UJ; <50%=J/R
22. Was a MS/MSD pair prepared with each batch?	X				
23. Was the MS/MSD parent a Ravenna sample?	X				
24. Were MS/MSD recoveries 26-144% and RPD ≤20?	X			ADR checked section.	Method EPA 353.2 Section 9.4.2 >UL%=J; <LL%=J/UJ; RPD>20%=J/UJ

References:

STL SOP SAC-WC-0050 "Preparation and Analysis of Nitrocellulose in Aqueous and Soil/Sediment Samples by Colorimetric Autoanalyzer", Jan 2007, rev. 2.0

DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

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Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Appendix II

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
6010B	FWGCBPmw-009-0160-GF	AQ	N							
				ARSENIC	10	3.4J		J	ug/L	Ld, RI
				VANADIUM	4.0	1.7J		UB	ug/L	Mb, Cb
6010B	FWGDA2mw-DUP1-0199-GF	AQ	FD							
				VANADIUM	4.0	1.6J		UB	ug/L	Mb, Cb
6010B	FWGFWGmw-011-0188-GF	AQ	N							
				ARSENIC	10	4.3J		J	ug/L	Ld, RI
6010B	FWGLL1mw-086-0181-GF	AQ	N							
				ARSENIC	10	3.3J		J	ug/L	Ld, RI
				VANADIUM	4.0	2.1J		UB	ug/L	Mb, Cb
6010B	FWGLL1mw-087-0182-GF	AQ	N							
				CHROMIUM	4.0	1.8J		J	ug/L	RI
				COBALT	4.0	1.7J		J	ug/L	RI
				NICKEL	5.0	2.5J		J	ug/L	RI
				VANADIUM	4.0	1.5J		UB	ug/L	Mb, Cb
6010B	FWGLL6mw-008-0186-GF	AQ	N							
				ARSENIC	10	10U		UJ	ug/L	Ld
				VANADIUM	4.0	1.3J		UB	ug/L	Mb, Cb
6010B	FWGLL6mw-009-0187-GF	AQ	N							
				ARSENIC	10	9.0J		J	ug/L	RI
				COBALT	4.0	2.9J		J	ug/L	RI
6010B	FWGWBGmw-018-0195-GF	AQ	N							
				VANADIUM	4.0	1.6J		UB	ug/L	Mb, Cb
6010B	FWGWBGmw-019-0196-GF	AQ	N							
				ARSENIC	10	4.5J		J	ug/L	RI

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
6010B	FWGWBGmw-020-0197-GF	AQ	N							
				NICKEL	5.0	2.2J		J	ug/L	RI
				POTASSIUM	900	670J		J	ug/L	RI
				VANADIUM	4.0	1.4J		UB	ug/L	Mb, Cb
6010B	FWGWBGmw-021-0198-GF	AQ	N							
				ARSENIC	10	6.2J		J	ug/L	RI
6010B	FWGWBGMW-DUP8-0205-GF	AQ	FD							
				VANADIUM	4.0	1.7J		UB	ug/L	Mb, Cb
6020	FWGCBPmw-009-0160-GF	AQ	N							
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.051J		UJB	ug/L	Eb, Ld, Cb
6020	FWGDA2mw-114-0161-GF	AQ	N							
				CADMIUM	0.070	0.026J		UB	ug/L	Eb, Cb
6020	FWGEQUIPRINSE3-0214-GW	AQ	EB							
				ANTIMONY	0.50	0.24J		J	ug/L	RI
				BERYLLIUM	0.10	0.16J		U	ug/L	Cb
				CADMIUM	0.070	0.15J		U	ug/L	Cb
				IRON	100	54J		J	ug/L	RI
				THALLIUM	1.0	0.67J		U	ug/L	Cb
6020	FWGFWGmw-011-0188-GF	AQ	N							
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.070U		UJ	ug/L	Ld
6020	FWGFWGmw-013-0176-GF	AQ	N							
				CADMIUM	0.070	0.046J		UB	ug/L	Eb, Cb

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
6020	FWGLL1mw-086-0181-GF	AQ	N							
				ANTIMONY	0.50	0.28J		B	ug/L	Eb
				BERYLLIUM	0.10	0.16J		UJB	ug/L	Eb, Ld, Cb
				CADMIUM	0.070	0.74J		JB	ug/L	Eb, Ld
				THALLIUM	1.0	0.88J		UB	ug/L	Eb, Cb
6020	FWGLL1mw-087-0182-GF	AQ	N							
				BERYLLIUM	0.10	0.037J		UB	ug/L	Eb, Cb
				CADMIUM	0.070	0.033J		UB	ug/L	Eb, Cb
				ZINC	20	12J		B	ug/L	Mb
6020	FWGLL6mw-008-0186-GF	AQ	N							
				ALUMINUM	60	23J		J	ug/L	Rl
				ANTIMONY	0.50	0.67J		B	ug/L	Eb
				BERYLLIUM	0.10	0.10U		UJ	ug/L	Ld
				CADMIUM	0.070	0.089J		UJB	ug/L	Eb, Ld, Cb
				THALLIUM	1.0	0.39J		UB	ug/L	Eb, Cb
6020	FWGLL6mw-009-0187-GF	AQ	N							
				CADMIUM	0.070	0.043J		UB	ug/L	Eb, Cb
6020	FWGWBGmw-018-0195-GF	AQ	N							
				CADMIUM	0.070	0.070U		UJ	ug/L	Fd
6020	FWGWBGmw-019-0196-GF	AQ	N							
				CADMIUM	0.070	0.077J		UB	ug/L	Eb, Cb
6020	FWGWBGmw-021-0198-GF	AQ	N							
				CADMIUM	0.070	0.11J		UB	ug/L	Eb, Cb
6020	FWGWBGMW-DUP8-0205-GF	AQ	FD							
				CADMIUM	0.070	0.46J		B	ug/L	Eb
8081A	FWGCBPmw-009-0160-GW	AQ	N							
				METHOXYCHLOR	0.031	0.031U		R	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8081A	FWGDA2mw-114-0161-GW	AQ	N							
				TOXAPHENE	0.50	0.50U		UJ	ug/L	Lcs
8081A	FWGDA2mw-115-0162-GW	AQ	N							
				BETA-BHC	0.0095	0.0081J		JB	ug/L	Eb, Fd
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGDA2mw-DUP1-0199-GW	AQ	FD							
				TOXAPHENE	0.50	0.50U		UJ	ug/L	Lcs
8081A	FWGEQUIPRINSE3-0214-GW	AQ	EB							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGFWGmw-011-0188-GW	AQ	N							
				METHOXYCHLOR	0.030	0.030U		R	ug/L	ProfJudg
8081A	FWGFWGmw-013-0176-GW	AQ	N							
				TOXAPHENE	0.53	0.53U		UJ	ug/L	Lcs
8081A	FWGLL1mw-086-0181-GW	AQ	N							
				ENDRIN KETONE	0.0095	0.0095U Q J		UJ	ug/L	Ms
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Ms, Lcs
8081A	FWGLL1mw-087-0182-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGLL4mw-201-0185-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGLL6mw-008-0186-GW	AQ	N							
				METHOXYCHLOR	0.030	0.030U		R	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8081A	FWGLL6mw-009-0187-GW	AQ	N							
				METHOXYCHLOR	0.030	0.030U		R	ug/L	ProfJudg
8081A	FWGWBGmw-018-0195-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGWBGmw-019-0196-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGWBGmw-020-0197-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGWBGmw-021-0198-GW	AQ	N							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8081A	FWGWBGMW-DUP8-0205-GW	AQ	FD							
				TOXAPHENE	0.48	0.48U		UJ	ug/L	Lcs
8082	FWGLL1mw-086-0181-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8082	FWGLL1mw-087-0182-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE
8082	FWGLL6mw-008-0186-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE
8082	FWGWBGmw-021-0198-GW	AQ	N							
				AROCLOR 1016	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1221	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1232	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1242	0.38	0.38U H		UJ	ug/L	StoE
				AROCLOR 1248	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1254	0.19	0.19U H		UJ	ug/L	StoE
				AROCLOR 1260	0.19	0.19U H		UJ	ug/L	StoE
8260B	FWG TEAM 1 TRIP	AQ	TB							
				ACETONE	1.1	1.6J		J	ug/L	Ccv
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8260B	FWG TEAM 2 TRIP	AQ	TB							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	1.6J		J	ug/L	Ccv
8260B	FWGCBPmw-009-0160-GW	AQ	N							
				ACETONE	1.1	1.5J		JB	ug/L	Tb, Eb, Su
				CARBON DISULFIDE	0.25	0.24J		J	ug/L	Surr, RI
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGDA2mw-114-0161-GW	AQ	N							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
8260B	FWGDA2mw-115-0162-GW	AQ	N							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	2.3J		JB	ug/L	Tb, Eb, Fd
8260B	FWGDA2mw-DUP1-0199-GW	AQ	FD							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	4.8J		JB	ug/L	Tb, Eb, Su
				CARBON DISULFIDE	0.25	0.40J		J	ug/L	Surr

N = Normal Sample *TB = Trip Blank*
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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8260B	FWGEQUIPRINSE3-0214-GW	AQ	EB							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	9.0J		JB	ug/L	Tb, Ccv
8260B	FWGFWGmw-011-0188-GW	AQ	N							
				ACETONE	1.1	1.6J		UJ	ug/L	Tb, Eb, Su
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGLL1mw-086-0181-GW	AQ	N							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	2.2J		JB	ug/L	Tb, Eb, Cc
8260B	FWGLL1mw-087-0182-GW	AQ	N							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
				ACETONE	1.1	1.4J		JB	ug/L	Tb, Eb, Su
8260B	FWGLL4mw-201-0185-GW	AQ	N							
				CARBON DISULFIDE	0.25	0.17J		J	ug/L	RI
8260B	FWGLL6mw-008-0186-GW	AQ	N							
				ACETONE	1.1	1.4J		JB	ug/L	Tb, Eb, Su
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8260B	FWGLL6mw-009-0187-GW	AQ	N							
				ACETONE	1.1	1.2J		JB	ug/L	Tb, Eb, Cc
				CARBON DISULFIDE	0.25	0.24J		J	ug/L	RI
8260B	FWGTEAM3-TRIP	AQ	TB							
				ACETONE	1.1	1.8J		J	ug/L	Surr, Ccv
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGWBGmw-018-0195-GW	AQ	N							
				ACETONE	1.1	1.1J		JB	ug/L	Tb, Eb, Fd
				m,p-Xylene	0.50	0.50U		UJ	ug/L	ProfJudg
				STYRENE	0.25	0.25U		UJ	ug/L	ProfJudg
8260B	FWGWBGmw-020-0197-GW	AQ	N							
				2-BUTANONE	0.57	0.57U		R	ug/L	ProfJudg
				2-HEXANONE	0.50	0.50U		UJ	ug/L	ProfJudg
				4-METHYL-2-PENTANONE	0.50	0.50U		R	ug/L	ProfJudg
8260B	FWGWBGmw-021-0198-GW	AQ	N							
				O-XYLENE	0.25	0.25U		UJ	ug/L	ProfJudg
8270C -SVOC1	FWGLL12mw-182c-0190-GW	AQ	N							
				BIS(2-ETHYLHEXYL)PHTHALATE	0.81	1.0J B		B	ug/L	Mb
8270C -SVOC1	FWGLL12mw-182ss-0191-GW	AQ	N							
				BIS(2-ETHYLHEXYL)PHTHALATE	0.84	1.5J B		B	ug/L	Mb
8270C-SVOC4	FWGCBPmw-009-0160-GW	AQ	N							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	Icv
				BIS(2-ETHYLHEXYL)PHTHALATE	0.76	1.6J		B	ug/L	Mb

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8270C-SVOC4	FWGDA2mw-114-0161-GW	AQ	N							
				2,4-DINITROPHENOL	2.4	2.4U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.81	0.81U		UJ	ug/L	lcv
8270C-SVOC4	FWGDA2mw-115-0162-GW	AQ	N							
				2,4-DINITROPHENOL	2.5	2.5U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.83	0.83U		UJ	ug/L	lcv
				BIS(2-ETHYLHEXYL)PHTHALATE	0.83	2.2B		J	ug/L	Fd
8270C-SVOC4	FWGDA2mw-DUP1-0199-GW	AQ	FD							
				2,4-DINITROPHENOL	2.4	2.4U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.80	0.80U		UJ	ug/L	lcv
8270C-SVOC4	FWGEQUIPRINSE3-0214-GW	AQ	EB							
				2,4-DINITROPHENOL	2.4	2.4U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.79	0.79U		UJ	ug/L	lcv
				BENZYL ALCOHOL	0.79	0.61J		J	ug/L	RI
8270C-SVOC4	FWGFWGmw-011-0188-GW	AQ	N							
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
				BIS(2-ETHYLHEXYL)PHTHALATE	0.76	1.3J		B	ug/L	Mb
				Dimethylphthalate	0.76	0.66J		J	ug/L	RI
8270C-SVOC4	FWGFWGmw-013-0176-GW	AQ	N							
				2,4-DINITROPHENOL	2.6	2.6U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.86	0.86U		UJ	ug/L	lcv

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8270C-SVOC4	FWGLL1mw-086-0181-GW	AQ	N							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	Icv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U J		UJ	ug/L	Ms, Icv
				BENZO(A)PYRENE	0.095	0.095U J		UJ	ug/L	Ms
				BENZO(G,H,I)PERYLENE	0.095	0.095U J		UJ	ug/L	Ms
				BIS(2-ETHYLHEXYL)PHTHALATE	0.76	1.2J B		J	ug/L	Ms
				DI-N-OCTYL PHTHALATE	0.76	0.76U J		UJ	ug/L	Ms
				INDENO(1,2,3-CD)PYRENE	0.095	0.095U J		UJ	ug/L	Ms
8270C-SVOC4	FWGLL1mw-087-0182-GW	AQ	N							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	Icv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	Icv

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8270C-SVOC4	FWGLL4mw-201-0185-GW	AQ	N							
				1,2,4-TRICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				1,2-DICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				1,3-DICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				1,4-DICHLOROBENZENE	0.76	0.76U H		UJ	ug/L	StoE
				2,2'-OXYBIS (1-CHLOROPROPANE)	0.76	0.76U H		UJ	ug/L	StoE
				2,4,5-TRICHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4,6-TRICHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4-DICHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4-DIMETHYLPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2,4-DINITROPHENOL	2.3	2.3U H		UJ	ug/L	StoE
				2-CHLORONAPHTHALENE	0.095	0.095U H		UJ	ug/L	StoE
				2-CHLOROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2-METHYLNAPHTHALENE	0.095	0.095U H		UJ	ug/L	StoE
				2-METHYLPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				2-NITROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				2-NITROPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				3,3'-DICHLOROBENZIDINE	0.76	0.76U H		UJ	ug/L	StoE, lcv
				3-methylphenol/4-methylphenol	0.76	0.76U H		UJ	ug/L	StoE
				3-NITROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				4,6-DINITRO-2-METHYLPHENOL	2.3	2.3U H		UJ	ug/L	StoE
				4-BROMOPHENYL-PHENYLETHER	0.76	0.76U H		UJ	ug/L	StoE
				4-CHLORO-3-METHYLPHENOL	0.76	0.76U H		UJ	ug/L	StoE
				4-CHLOROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				4-CHLOROPHENYL-PHENYLETHER	0.76	0.76U H		UJ	ug/L	StoE
				4-NITROANILINE	0.76	0.76U H		UJ	ug/L	StoE
				4-NITROPHENOL	2.3	2.3U H		UJ	ug/L	StoE
				ACENAPHTHENE	0.095	0.095U H		UJ	ug/L	StoE
				ACENAPHTHYLENE	0.095	0.095U H		UJ	ug/L	StoE
				ANTHRACENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZO(A)ANTHRACENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZO(A)PYRENE	0.095	0.095U H		UJ	ug/L	StoE

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
				BENZO(B)FLUORANTHENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZO(G,H,I)PERYLENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZO(K)FLUORANTHENE	0.095	0.095U H		UJ	ug/L	StoE
				BENZOIC ACID	9.5	9.5U H		UJ	ug/L	StoE
				BENZYL ALCOHOL	0.76	0.76U H		UJ	ug/L	StoE
				BIS(2-CHLOROETHOXY)METHANE	0.76	0.76U H		UJ	ug/L	StoE
				Bis(2-chloroethyl)ether	0.095	0.095U H		UJ	ug/L	StoE
				BIS(2-ETHYLHEXYL)PHTHALATE	0.76	0.76U H		UJ	ug/L	StoE
				Butylbenzylphthalate	0.76	0.76U H		UJ	ug/L	StoE
				CARBAZOLE	0.76	0.76U H		UJ	ug/L	StoE
				CHRYSENE	0.095	0.095U H		UJ	ug/L	StoE
				DIBENZ(A,H)ANTHRACENE	0.095	0.095U H		UJ	ug/L	StoE
				DIBENZOFURAN	0.095	0.095U H		UJ	ug/L	StoE
				Diethylphthalate	0.76	0.76U H		UJ	ug/L	StoE
				Dimethylphthalate	0.76	0.76U H		UJ	ug/L	StoE
				DI-N-BUTYL PHTHALATE	0.76	0.76U H		UJ	ug/L	StoE
				DI-N-OCTYL PHTHALATE	0.76	0.76U H		UJ	ug/L	StoE
				FLUORANTHENE	0.095	0.095U H		UJ	ug/L	StoE
				FLUORENE	0.095	0.095U H		UJ	ug/L	StoE
				HEXACHLOROBENZENE	0.095	0.095U H		UJ	ug/L	StoE
				HEXACHLOROBUTADIENE	0.76	0.76U H		UJ	ug/L	StoE
				HEXACHLOROCYCLOPENTADIENE	0.76	0.76U H		UJ	ug/L	StoE
				HEXACHLOROETHANE	0.76	0.76U H		UJ	ug/L	StoE
				INDENO(1,2,3-CD)PYRENE	0.095	0.095U H		UJ	ug/L	StoE
				ISOPHORONE	0.76	0.76U H		UJ	ug/L	StoE
				NAPHTHALENE	0.095	0.32H		J	ug/L	StoE
				N-NITROSO-DI-N-PROPYLAMINE	0.76	0.76U H		UJ	ug/L	StoE
				N-NITROSODIPHENYLAMINE	0.76	0.76U H		UJ	ug/L	StoE
				PENTACHLOROPHENOL	2.3	2.3U H		UJ	ug/L	StoE
				PHENANTHRENE	0.095	0.095U H		UJ	ug/L	StoE
				PHENOL	0.76	0.76U H		UJ	ug/L	StoE
				PYRENE	0.095	0.095U H		UJ	ug/L	StoE

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8270C-SVOC4	FWGLL6mw-008-0186-GW	AQ	N							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGLL6mw-009-0187-GW	AQ	N							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGWBGmw-018-0195-GW	AQ	N							
				2,4-DINITROPHENOL	2.4	2.4U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.78	0.78U		UJ	ug/L	lcv
				BIS(2-ETHYLHEXYL)PHTHALATE	0.78	0.95J B		J	ug/L	Fd
8270C-SVOC4	FWGWBGmw-019-0196-GW	AQ	N							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGWBGmw-020-0197-GW	AQ	N							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
				Dimethylphthalate	0.76	0.53J		J	ug/L	RI
8270C-SVOC4	FWGWBGmw-021-0198-GW	AQ	N							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8270C-SVOC4	FWGWBGMW-DUP8-0205-GW	AQ	FD							
				2,4-DINITROPHENOL	2.3	2.3U		UJ	ug/L	lcv
				3,3'-DICHLOROBENZIDINE	0.76	0.76U		UJ	ug/L	lcv
8330	FWGWBGmw-018-0195-GW	AQ	N							
				Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.050	0.55		J	ug/L	ProfJudg

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Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: 240-16528-1										
8330	FWGWBGMW-DUP8-0205-GW	AQ	FD							
				Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.051	0.61		J	ug/L	ProfJudg
9012A	FWGFWGmw-013-0176-GW	AQ	N							
				CYANIDE	0.010	0.0071J		J	mg/L	RI

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Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: GENCHEM

Method: 9012A **Matrix: AQ**

Sample ID: FWGFWGmw-013-0176-GW **Collected:** 10/17/2012 4:08:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CYANIDE	0.0071	J	0.0050	MDL	0.010	LOD	mg/L	J	RI

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: FWGCBPmw-009-0160-GF **Collected:** 10/17/2012 3:49:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.4	J	3.3	MDL	10	LOD	ug/L	J	RI, Ld
VANADIUM	1.7	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: FWGDA2mw-DUP1-0199-GF **Collected:** 10/17/2012 11:38:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.6	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: FWGFWGmw-011-0188-GF **Collected:** 10/17/2012 6:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.3	J	3.3	MDL	10	LOD	ug/L	J	RI, Ld

Sample ID: FWGLL1mw-086-0181-GF **Collected:** 10/17/2012 3:15:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	3.3	J	3.3	MDL	10	LOD	ug/L	J	RI, Ld
VANADIUM	2.1	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: FWGLL1mw-087-0182-GF **Collected:** 10/17/2012 1:15:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CHROMIUM	1.8	J	1.4	MDL	4.0	LOD	ug/L	J	RI
COBALT	1.7	J	1.5	MDL	4.0	LOD	ug/L	J	RI
NICKEL	2.5	J	2.2	MDL	5.0	LOD	ug/L	J	RI
VANADIUM	1.5	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6010B **Matrix: AQ**

Sample ID: FWGLL6mw-008-0186-GF **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	10	U	3.3	MDL	10	LOD	ug/L	UJ	Ld
VANADIUM	1.3	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: FWGLL6mw-009-0187-GF **Collected:** 10/17/2012 1:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	9.0	J	3.3	MDL	10	LOD	ug/L	J	RI
COBALT	2.9	J	1.5	MDL	4.0	LOD	ug/L	J	RI

Sample ID: FWGWBGmw-018-0195-GF **Collected:** 10/17/2012 9:33:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.6	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: FWGWBGmw-019-0196-GF **Collected:** 10/17/2012 11:19:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	4.5	J	3.3	MDL	10	LOD	ug/L	J	RI

Sample ID: FWGWBGmw-020-0197-GF **Collected:** 10/17/2012 9:20:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
NICKEL	2.2	J	2.2	MDL	5.0	LOD	ug/L	J	RI
POTASSIUM	670	J	300	MDL	900	LOD	ug/L	J	RI
VANADIUM	1.4	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

Sample ID: FWGWBGmw-021-0198-GF **Collected:** 10/17/2012 11:30:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ARSENIC	6.2	J	3.3	MDL	10	LOD	ug/L	J	RI

Sample ID: FWGWBGMW-DUP8-0205-GF **Collected:** 10/17/2012 10:33:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
VANADIUM	1.7	J	1.3	MDL	4.0	LOD	ug/L	U	Mb, Cb

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGCBPmw-009-0160-GF **Collected:** 10/17/2012 3:49:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.051	J	0.023	MDL	0.070	LOD	ug/L	UJ	Ld, Eb, Cb

Sample ID: FWGDA2mw-114-0161-GF **Collected:** 10/17/2012 9:24:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.026	J	0.023	MDL	0.070	LOD	ug/L	U	Eb, Cb

Sample ID: FWGEQUIPRINSE3-0214-GW **Collected:** 10/17/2012 3:10:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.24	J	0.21	MDL	0.50	LOD	ug/L	J	RI
BERYLLIUM	0.16	J	0.033	MDL	0.10	LOD	ug/L	U	Cb
CADMIUM	0.15	J	0.023	MDL	0.070	LOD	ug/L	U	Cb
IRON	54	J	44	MDL	100	LOD	ug/L	J	RI
THALLIUM	0.67	J	0.32	MDL	1.0	LOD	ug/L	U	Cb

Sample ID: FWGFWGmw-011-0188-GF **Collected:** 10/17/2012 5:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Ld

Sample ID: FWGFWGmw-013-0176-GF **Collected:** 10/17/2012 4:08:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.046	J	0.023	MDL	0.070	LOD	ug/L	U	Eb, Cb

Sample ID: FWGLL1mw-086-0181-GF **Collected:** 10/17/2012 3:15:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.28	J	0.21	MDL	0.50	LOD	ug/L	U	Eb
BERYLLIUM	0.16	J	0.033	MDL	0.10	LOD	ug/L	UJ	Ld, Eb, Cb
CADMIUM	0.74	J	0.023	MDL	0.070	LOD	ug/L	UJ	Ld, Eb
THALLIUM	0.88	J	0.32	MDL	1.0	LOD	ug/L	U	Eb, Cb

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGLL1mw-087-0182-GF **Collected:** 10/17/2012 1:16:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ZINC	12	J	8.8	MDL	20	LOD	ug/L	U	Mb

Sample ID: FWGLL1mw-087-0182-GF **Collected:** 10/17/2012 1:16:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BERYLLIUM	0.037	J	0.033	MDL	0.10	LOD	ug/L	U	Eb, Cb
CADMIUM	0.033	J	0.023	MDL	0.070	LOD	ug/L	U	Eb, Cb

Sample ID: FWGLL6mw-008-0186-GF **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RE2/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ALUMINUM	23	J	20	MDL	60	LOD	ug/L	J	RI

Sample ID: FWGLL6mw-008-0186-GF **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ANTIMONY	0.67	J	0.21	MDL	0.50	LOD	ug/L	U	Eb
BERYLLIUM	0.10	U	0.033	MDL	0.10	LOD	ug/L	UJ	Ld
CADMIUM	0.089	J	0.023	MDL	0.070	LOD	ug/L	UJ	Ld, Eb, Cb
THALLIUM	0.39	J	0.32	MDL	1.0	LOD	ug/L	U	Eb, Cb

Sample ID: FWGLL6mw-009-0187-GF **Collected:** 10/17/2012 1:03:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.043	J	0.023	MDL	0.070	LOD	ug/L	U	Eb, Cb

Sample ID: FWGWBGmw-018-0195-GF **Collected:** 10/17/2012 9:33:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.070	U	0.023	MDL	0.070	LOD	ug/L	UJ	Fd

Sample ID: FWGWBGmw-019-0196-GF **Collected:** 10/17/2012 11:19:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.077	J	0.023	MDL	0.070	LOD	ug/L	U	Eb, Cb

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: METALS

Method: 6020 **Matrix: AQ**

Sample ID: FWGWBGmw-021-0198-GF **Collected:** 10/17/2012 11:30:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.11	J	0.023	MDL	0.070	LOD	ug/L	U	Eb, Cb

Sample ID: FWGWBGMW-DUP8-0205-GF **Collected:** 10/17/2012 10:33:00 **Analysis Type:** RES/TOT **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CADMIUM	0.46	J	0.023	MDL	0.070	LOD	ug/L	U	Eb

Method Category: SVOA

Method: 8081A **Matrix: AQ**

Sample ID: FWGCBPmw-009-0160-GW **Collected:** 10/17/2012 3:49:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHOXYCHLOR	0.031	U	0.031	MDL	0.031	LOD	ug/L	R	ProfJudg

Sample ID: FWGDA2mw-114-0161-GW **Collected:** 10/17/2012 9:24:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.50	U	0.32	MDL	0.50	LOD	ug/L	UJ	Lcs

Sample ID: FWGDA2mw-116-0162-GW **Collected:** 10/17/2012 10:30:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BETA-BHC	0.0081	J	0.0080	MDL	0.0095	LOD	ug/L	UJ	Eb, Fd
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGDA2mw-DUP1-0199-GW **Collected:** 10/17/2012 11:38:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.50	U	0.32	MDL	0.50	LOD	ug/L	UJ	Lcs

Sample ID: FWGEQUIPRINSE3-0214-GW **Collected:** 10/17/2012 3:10:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8081A **Matrix:** AQ

Sample ID: FWGFWGmw-011-0188-GW **Collected:** 10/17/2012 5:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHOXYCHLOR	0.030	U	0.030	MDL	0.030	LOD	ug/L	R	ProfJudg

Sample ID: FWGFWGmw-013-0176-GW **Collected:** 10/17/2012 4:08:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.53	U	0.34	MDL	0.53	LOD	ug/L	UJ	Lcs

Sample ID: FWGLL1mw-086-0181-GW **Collected:** 10/17/2012 3:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ENDRIN KETONE	0.0095	U Q J	0.0074	MDL	0.0095	LOD	ug/L	UJ	Ms
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Ms, Lcs

Sample ID: FWGLL1mw-087-0182-GW **Collected:** 10/17/2012 1:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGLL4mw-201-0185-GW **Collected:** 10/17/2012 2:42:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.31	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGLL6mw-008-0186-GW **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHOXYCHLOR	0.030	U	0.030	MDL	0.030	LOD	ug/L	R	ProfJudg

Sample ID: FWGLL6mw-009-0187-GW **Collected:** 10/17/2012 1:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
METHOXYCHLOR	0.030	U	0.030	MDL	0.030	LOD	ug/L	R	ProfJudg

* denotes a non-reportable result

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8081A **Matrix: AQ**

Sample ID: FWGWBGmw-018-0195-GW **Collected:** 10/17/2012 9:33:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGWBGmw-019-0196-GW **Collected:** 10/17/2012 11:19:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGWBGmw-020-0197-GW **Collected:** 10/17/2012 9:20:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGWBGmw-021-0198-GW **Collected:** 10/17/2012 11:30:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Sample ID: FWGWBGMW-DUP8-0205-GW **Collected:** 10/17/2012 10:33:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
TOXAPHENE	0.48	U	0.30	MDL	0.48	LOD	ug/L	UJ	Lcs

Method Category: SVOA

Method: 8082 **Matrix: AQ**

Sample ID: FWGLL1mw-086-0181-GW **Collected:** 10/17/2012 3:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8082 **Matrix:** AQ

Sample ID: FWGLL1mw-087-0182-GW **Collected:** 10/17/2012 1:15:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

Sample ID: FWGLL6mw-008-0186-GW **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

Sample ID: FWGWBGmw-021-0198-GW **Collected:** 10/17/2012 11:30:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
AROCLOR 1016	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1221	0.19	U H	0.12	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1232	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1242	0.38	U H	0.21	MDL	0.38	LOD	ug/L	UJ	StoE
AROCLOR 1248	0.19	U H	0.095	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1254	0.19	U H	0.15	MDL	0.19	LOD	ug/L	UJ	StoE
AROCLOR 1260	0.19	U H	0.16	MDL	0.19	LOD	ug/L	UJ	StoE

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C -SVOC1 **Matrix: AQ**

Sample ID: FWGLL12mw-182c-0190-GW **Collected:** 10/17/2012 1:22:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	1.0	J B	0.81	MDL	0.81	LOD	ug/L	U	Mb

Sample ID: FWGLL12mw-182ss-0191-GW **Collected:** 10/17/2012 1:52:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BIS(2-ETHYLHEXYL)PHTHALATE	1.5	J B	0.84	MDL	0.84	LOD	ug/L	U	Mb

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix: AQ**

Sample ID: FWGCBPmw-009-0160-GW **Collected:** 10/17/2012 3:49:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv
BIS(2-ETHYLHEXYL)PHTHALATE	1.6	J	0.76	MDL	0.76	LOD	ug/L	U	Mb

Sample ID: FWGDA2mw-114-0161-GW **Collected:** 10/17/2012 9:24:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.4	U	2.4	MDL	2.4	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.81	U	0.37	MDL	0.81	LOD	ug/L	UJ	Icv

Sample ID: FWGDA2mw-116-0162-GW **Collected:** 10/17/2012 10:30:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.5	U	2.5	MDL	2.5	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.83	U	0.39	MDL	0.83	LOD	ug/L	UJ	Icv
BIS(2-ETHYLHEXYL)PHTHALATE	2.2	B	0.83	MDL	0.83	LOD	ug/L	J	Fd

Sample ID: FWGDA2mw-DUP1-0199-GW **Collected:** 10/17/2012 11:38:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.4	U	2.4	MDL	2.4	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.80	U	0.37	MDL	0.80	LOD	ug/L	UJ	Icv

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGEQUIPRINSE3-0214-GW **Collected:** 10/17/2012 3:10:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.4	U	2.4	MDL	2.4	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.79	U	0.37	MDL	0.79	LOD	ug/L	UJ	Icv
BENZYL ALCOHOL	0.61	J	0.38	MDL	0.79	LOD	ug/L	J	RI

Sample ID: FWGFWGmw-011-0188-GW **Collected:** 10/17/2012 5:03:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv
BIS(2-ETHYLHEXYL)PHTHALATE	1.3	J	0.76	MDL	0.76	LOD	ug/L	U	Mb
Dimethylphthalate	0.66	J	0.28	MDL	0.76	LOD	ug/L	J	RI

Sample ID: FWGFWGmw-013-0176-GW **Collected:** 10/17/2012 4:08:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.6	U	2.6	MDL	2.6	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.86	U	0.40	MDL	0.86	LOD	ug/L	UJ	Icv

Sample ID: FWGLL1mw-086-0181-GW **Collected:** 10/17/2012 3:15:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.76	U J	0.35	MDL	0.76	LOD	ug/L	UJ	Ms, Ms, Icv
BENZO(A)PYRENE	0.095	U J	0.095	MDL	0.095	LOD	ug/L	UJ	Ms
BENZO(G,H,I)PERYLENE	0.095	U J	0.095	MDL	0.095	LOD	ug/L	UJ	Ms
BIS(2-ETHYLHEXYL)PHTHALATE	1.2	J B	0.76	MDL	0.76	LOD	ug/L	J-	Ms
DI-N-OCTYL PHTHALATE	0.76	U J	0.76	MDL	0.76	LOD	ug/L	UJ	Ms
INDENO(1,2,3-CD)PYRENE	0.095	U J	0.095	MDL	0.095	LOD	ug/L	UJ	Ms

Sample ID: FWGLL1mw-087-0182-GW **Collected:** 10/17/2012 1:15:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGLL4mw-201-0185-GW **Collected:** 10/17/2012 2:42:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
1,2,4-TRICHLOROBENZENE	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
1,2-DICHLOROBENZENE	0.76	U H	0.28	MDL	0.76	LOD	ug/L	UJ	StoE
1,3-DICHLOROBENZENE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
1,4-DICHLOROBENZENE	0.76	U H	0.32	MDL	0.76	LOD	ug/L	UJ	StoE
2,2'-OXYBIS (1-CHLOROPROPANE)	0.76	U H	0.38	MDL	0.76	LOD	ug/L	UJ	StoE
2,4,5-TRICHLOROPHENOL	0.76	U H	0.29	MDL	0.76	LOD	ug/L	UJ	StoE
2,4,6-TRICHLOROPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2,4-DICHLOROPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2,4-DIMETHYLPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2,4-DINITROPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
2-CHLORONAPHTHALENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
2-CHLOROPHENOL	0.76	U H	0.28	MDL	0.76	LOD	ug/L	UJ	StoE
2-METHYLNAPHTHALENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
2-METHYLPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2-NITROANILINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
2-NITROPHENOL	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
3,3'-DICHLOROBENZIDINE	0.76	U H	0.35	MDL	0.76	LOD	ug/L	UJ	StoE, Icv
3-methylphenol/4-methylphenol	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
3-NITROANILINE	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
4,6-DINITRO-2-METHYLPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
4-BROMOPHENYL-PHENYLETHER	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-CHLORO-3-METHYLPHENOL	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-CHLOROANILINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-CHLOROPHENYL-PHENYLETHER	0.76	U H	0.29	MDL	0.76	LOD	ug/L	UJ	StoE
4-NITROANILINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
4-NITROPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
ACENAPHTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
ACENAPHTHYLENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
ANTHRACENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(A)ANTHRACENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(A)PYRENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(B)FLUORANTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(G,H,I)PERYLENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BENZO(K)FLUORANTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGLL4mw-201-0186-GW **Collected:** 10/17/2012 2:42:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
BENZOIC ACID	9.5	U H	9.5	MDL	9.5	LOD	ug/L	UJ	StoE
BENZYL ALCOHOL	0.76	U H	0.36	MDL	0.76	LOD	ug/L	UJ	StoE
BIS(2-CHLOROETHOXY)METHANE	0.76	U H	0.30	MDL	0.76	LOD	ug/L	UJ	StoE
Bis(2-chloroethyl)ether	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
BIS(2-ETHYLHEXYL)PHTHALATE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
Butylbenzylphthalate	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
CARBAZOLE	0.76	U H	0.27	MDL	0.76	LOD	ug/L	UJ	StoE
CHRYSENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
DIBENZ(A,H)ANTHRACENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
DIBENZOFURAN	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
Diethylphthalate	0.76	U H	0.57	MDL	0.76	LOD	ug/L	UJ	StoE
Dimethylphthalate	0.76	U H	0.28	MDL	0.76	LOD	ug/L	UJ	StoE
DI-N-BUTYL PHTHALATE	0.76	U H	0.64	MDL	0.76	LOD	ug/L	UJ	StoE
DI-N-OCTYL PHTHALATE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
FLUORANTHENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
FLUORENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
HEXACHLOROBENZENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
HEXACHLOROBUTADIENE	0.76	U H	0.26	MDL	0.76	LOD	ug/L	UJ	StoE
HEXACHLOROCYCLOPENTADIENE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
HEXACHLOROETHANE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
INDENO(1,2,3-CD)PYRENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
ISOPHORONE	0.76	U H	0.26	MDL	0.76	LOD	ug/L	UJ	StoE
NAPHTHALENE	0.32	H	0.095	MDL	0.095	LOD	ug/L	J-	StoE
N-NITROSO-DI-N-PROPYLAMINE	0.76	U H	0.76	MDL	0.76	LOD	ug/L	UJ	StoE
N-NITROSODIPHENYLAMINE	0.76	U H	0.30	MDL	0.76	LOD	ug/L	UJ	StoE
PENTACHLOROPHENOL	2.3	U H	2.3	MDL	2.3	LOD	ug/L	UJ	StoE
PHENANTHRENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE
PHENOL	0.76	U H	0.57	MDL	0.76	LOD	ug/L	UJ	StoE
PYRENE	0.095	U H	0.095	MDL	0.095	LOD	ug/L	UJ	StoE

Sample ID: FWGLL6mw-008-0186-GW **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	lcv

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix:** AQ

Sample ID: FWGLL6mw-008-0186-GW **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RES-BASE/NEUTRAL **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	lcv

Sample ID: FWGLL6mw-009-0187-GW **Collected:** 10/17/2012 1:03:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	lcv
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	lcv

Sample ID: FWGWBGmw-018-0195-GW **Collected:** 10/17/2012 9:33:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.4	U	2.4	MDL	2.4	LOD	ug/L	UJ	lcv
3,3'-DICHLOROBENZIDINE	0.78	U	0.36	MDL	0.78	LOD	ug/L	UJ	lcv
BIS(2-ETHYLHEXYL)PHTHALATE	0.95	J B	0.78	MDL	0.78	LOD	ug/L	J	Fd

Sample ID: FWGWBGmw-019-0196-GW **Collected:** 10/17/2012 11:19:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	lcv
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	lcv

Sample ID: FWGWBGmw-020-0197-GW **Collected:** 10/17/2012 9:20:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	lcv
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	lcv
Dimethylphthalate	0.53	J	0.28	MDL	0.76	LOD	ug/L	J	RI

Sample ID: FWGWBGmw-021-0198-GW **Collected:** 10/17/2012 11:30:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	lcv
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	lcv

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: SVOA

Method: 8270C-SVOC4 **Matrix: AQ**

Sample ID: FWGWBGMW-DUP8-0205-GW **Collected:** 10/17/2012 10:33:00 **Analysis Type:** RES-ACID **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2,4-DINITROPHENOL	2.3	U	2.3	MDL	2.3	LOD	ug/L	UJ	Icv
3,3'-DICHLOROBENZIDINE	0.76	U	0.35	MDL	0.76	LOD	ug/L	UJ	Icv

Method Category: SVOA

Method: 8330 **Matrix: AQ**

Sample ID: FWGWBGmw-018-0195-GW **Collected:** 10/17/2012 9:33:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.55		0.036	MDL	0.050	LOD	ug/L	J	ProfJudg

Sample ID: FWGWBGMW-DUP8-0205-GW **Collected:** 10/17/2012 10:33:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
Hexahydro-1,3,5-Trinitro-1,3,5-Triazine (RDX)	0.61		0.036	MDL	0.051	LOD	ug/L	J	ProfJudg

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: FWG TEAM 1 TRIP **Collected:** 10/17/2012 8:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.6	J	1.1	MDL	1.1	LOD	ug/L	J	Ccv
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWG TEAM 2 TRIP **Collected:** 10/17/2012 8:00:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	1.6	J	1.1	MDL	1.1	LOD	ug/L	J	Ccv

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWGCBPmw-009-0160-GW **Collected:** 10/17/2012 3:49:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.5	J	1.1	MDL	1.1	LOD	ug/L	UJ	Surr, Eb, Tb, Ccv
CARBON DISULFIDE	0.24	J	0.13	MDL	0.25	LOD	ug/L	J	RI, Surr
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGDA2mw-114-0161-GW **Collected:** 10/17/2012 9:24:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg

Sample ID: FWGDA2mw-115-0162-GW **Collected:** 10/17/2012 10:30:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	2.3	J	1.1	MDL	1.1	LOD	ug/L	UJ	Tb, Eb, Ccv, Fd

Sample ID: FWGDA2mw-DUP1-0199-GW **Collected:** 10/17/2012 11:38:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	4.8	J	1.1	MDL	1.1	LOD	ug/L	UJ	Surr, Tb, Eb, Ccv
CARBON DISULFIDE	0.40	J	0.13	MDL	0.25	LOD	ug/L	J+	Surr

Sample ID: FWGEQUIPRINSE3-0214-GW **Collected:** 10/17/2012 3:10:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix:** AQ

Sample ID: FWGEQUIPRINSE3-0214-GW **Collected:** 10/17/2012 3:10:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	9.0	J	1.1	MDL	1.1	LOD	ug/L	UJ	Tb, Ccv

Sample ID: FWGFWGmw-011-0188-GW **Collected:** 10/17/2012 5:03:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.6	J	1.1	MDL	1.1	LOD	ug/L	UJ	Surr, Eb, Tb, Ccv
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGLL1mw-086-0181-GW **Collected:** 10/17/2012 3:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	2.2	J	1.1	MDL	1.1	LOD	ug/L	UJ	Tb, Eb, Ccv

Sample ID: FWGLL1mw-087-0182-GW **Collected:** 10/17/2012 1:15:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg
ACETONE	1.4	J	1.1	MDL	1.1	LOD	ug/L	UJ	Surr, Tb, Eb, Ccv

Sample ID: FWGLL4mw-201-0185-GW **Collected:** 10/17/2012 2:42:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
CARBON DISULFIDE	0.17	J	0.13	MDL	0.25	LOD	ug/L	J	RI

Sample ID: FWGLL6mw-008-0186-GW **Collected:** 10/17/2012 2:13:00 **Analysis Type:** RES **Dilution:** 1

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.4	J	1.1	MDL	1.1	LOD	ug/L	UJ	Surr, Eb, Tb, Ccv
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Method Category: VOA

Method: 8260B **Matrix: AQ**

Sample ID: FWGLL6mw-008-0186-GW **Collected: 10/17/2012 2:13:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGLL6mw-009-0187-GW **Collected: 10/17/2012 1:03:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.2	J	1.1	MDL	1.1	LOD	ug/L	UJ	Eb, Tb, Ccv
CARBON DISULFIDE	0.24	J	0.13	MDL	0.25	LOD	ug/L	J	RI

Sample ID: FWGTEAM3-TRIP **Collected: 10/17/2012 8:00:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.8	J	1.1	MDL	1.1	LOD	ug/L	J	Surr, Ccv
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGWBGmw-018-0195-GW **Collected: 10/17/2012 9:33:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
ACETONE	1.1	J	1.1	MDL	1.1	LOD	ug/L	UJ	Eb, Tb, Ccv, Fd
m,p-Xylene	0.50	U	0.24	MDL	0.50	LOD	ug/L	UJ	ProfJudg
STYRENE	0.25	U	0.11	MDL	0.25	LOD	ug/L	UJ	ProfJudg

Sample ID: FWGWBGmw-020-0197-GW **Collected: 10/17/2012 9:20:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
2-BUTANONE	0.57	U	0.57	MDL	0.57	LOD	ug/L	R	ProfJudg
2-HEXANONE	0.50	U	0.41	MDL	0.50	LOD	ug/L	UJ	ProfJudg
4-METHYL-2-PENTANONE	0.50	U	0.32	MDL	0.50	LOD	ug/L	R	ProfJudg

Sample ID: FWGWBGmw-021-0198-GW **Collected: 10/17/2012 11:30:00** **Analysis Type: RES** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
O-XYLENE	0.25	U	0.14	MDL	0.25	LOD	ug/L	UJ	ProfJudg

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

* denotes a non-reportable result

Project Name and Number: 30174.0016.001.03 - RVAAP (66)

Data Qualifier Summary

Lab Reporting Batch ID: 240-16528-1 **Laboratory: TA CAN**

EDD Filename: Prep240-16528-1 dec2 **eQAPP Name: RVAAP 66-rev July 2012**

Reason Code Legend

Reason Code	*Description*
Cb	Calibration Blank Contamination
Ccv	Continuing Calibration Verification Percent Recovery Upper Estimation
Eb	Equipment Blank Contamination
Fd	Field Duplicate Precision
Icv	Initial Calibration Verification Percent Difference Lower Estimation
Lcs	Laboratory Control Spike Lower Estimation
Ld	Laboratory Duplicate Precision
Mb	Method Blank Contamination
Ms	Matrix Spike Lower Estimation
Ms	Matrix Spike Precision
ProfJudg	Professional Judgment
RI	Reporting Limit Trace Value
StoE	Sampling to Extraction Estimation
Surr	Surrogate/Tracer Recovery Upper Estimation
Tb	Trip Blank Contamination

Data Verification Summary

Site: Ravenna Army Ammunition Plant
Sampling Event: October 2012 **Date:** November 28, 2012
Workorder: R1207075 **Revision:** 0

Data Reviewer: Angye Dragotta /Environmental Quality Management, Inc. (EQM, Inc.)

QA/QC Summary

On October 16, 2012 the following samples were collected from groundwater-monitoring wells at Ravenna Army Ammunition Plant and analyzed as part of work order R1207075. Hexavalent chromium analysis was performed by ALS Laboratories (formerly Columbia Analytical Services), Rochester, New York by method EPA 218.6.

Field Sample IDs		
FWGLL12mw-247-0192-GF	FWGEQUIPRINSE2-0213-GW	FWGSCFmw-DUP7-0204-GF
FWGSCFmw-002-0194-GF		FWGLL3mw-247-0192-GF

The data presented in this report were evaluated according to the *Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January, 2012.* The following documents were used as needed to supplement the project documentation: The United States Department of Defense (DoD) Quality Services Manual (QSM) for Environmental Laboratories, Version 4.1, and the United States Army Corps of Engineers (USACE), Louisville District Quality Systems Manual Supplement (LS), *EPA National Functional Guidelines (NFG) for Organic Data Review, EPA-540/R-08-01, June 2008, NFG for Inorganic Data Review, EPA-540/R-04-004, October 2004*, Analytical Methods, and Laboratory Standard Operating Procedures. The QC criteria provided in the reference documents represent accuracy and precision performance goals for each analytical method. QC criteria reviewed for each method are listed below, along with any outliers.

All analytical results have been verified against compliance requirements specified in the project QAP, QSM, LS, associated analytical methods and/or SOPs, as appropriate, and reported by the laboratory as directed by the DoD QSM.

Checklists used in review of the data have been presented in Appendix 1. Outliers have been noted below and results requiring qualification, as a result of this verification process, have been summarized in Appendix 2.

The completeness objective for the project was 90%. The completeness objective was met for this SDG, 100%. Limitations, if any, on the data are indicated with qualifiers detailed below.

Hexavalent Chromium – 218.6

The following QC criteria were reviewed with acceptable results, except as noted below:

- Holding times, preservation, sample handling
- Initial Calibration Criteria including SPCC and CCC compounds
- ICV/CCV criteria
- Retention times
- MRL verification criteria
- Method and Field blank Criteria
- Field duplicate RPD criteria
- Laboratory Control Sample criteria
- Matrix Spike Recovery Criteria and RPD

Matrix Spike Analysis

The matrix spike analysis on sample FWGLL12mw-247-0192-GF recovered below laboratory control limits of 90-110% at 88% for the matrix spike and at 89% for the matrix spike duplicate. The hexavalent chromium results for samples FWGLL12mw-247-0192-GF, FWGEQUIPRINSE2-0213-GW, FWGSCFmw-DUP7-0204-GF, FWGSCFmw-002-0194-GF and FWGLL3mw-247-0192-GF were qualified as estimated, "J/UJ".

November 9, 2012

Ms. Angye Dragotta
EQM
1800 Carillion Blvd.
Cincinnati, OH 45240

Re: RVAAP,EQM PN 030174.0016.001.03
Service Request #R1207075

Dear Ms. Dragotta:

Enclosed is the analytical data report for the above referenced facility. A total of five samples were received by our laboratory on October 17, 2012.

Any problems encountered with this project are addressed in a case narrative section which is presented later in this report.

This report consists of two (2) packages: the sample data package and the sample data summary package. All data presented in this package has been reviewed prior to report submission. If you should have any questions or concerns, please contact me at (585) 288-5380.

Thank you for your continued use of our services.

Sincerely,
COLUMBIA ANALYTICAL SERVICES dba ALS Environmental

Janice M. Jaeger
Project Chemist

Enc.

This report contains 14 pages.

Columbia Analytical Services™
ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX+1 585 288 8475
Columbia Analytical Services, Inc.
Part of the ALS Group A Campbell Brothers Limited Company

CASE NARRATIVE

Client:	EQM	**Service Request:**	R1207075
Project:	RVAAP,EQM PN 030174.0016	**Project Number:**	
Sample Matrix:	Water	**Date Received:**	10/17/12

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV deliverables. When appropriate to the method, method blank and LCS results have been reported with each analytical test.

Sample Receipt

Samples were collected on 10/16/12 and received at CAS on 10/17/12 at cooler temperatures of 3.3 C in good condition except as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. All Dissolved parameters were filtered in the field.

Inorganic Analysis

Samples were analyzed for Hexavalent Chromium by method 218.6 Low Level.

All initial and continuing calibration criteria were acceptable.

Site specific QC was performed on FWGLL12mw-247-0192-GF as requested. All Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries were outside limits and have been flagged with an "*". All RPD's were acceptable. All Laboratory Control Sample (LCS) recoveries were acceptable.

The Method Blanks associated with these analyses were free of contamination .

No other analytical or QC problems were encountered.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the details conditioned above. Release of the data contained in this data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

ALS Environmental

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://alsglobal.com/environmental/laboratories/rochester-environmental-lab.aspx

CAS ASP/CLP Batching Form/Login Sheet

Client Proj #: 30174.0016.001.03	Batch Complete: Yes		Date Revised:
Submission: R1207075	Diskette Requested: No		Date Due: 11/12/12
Client: Environmental Quality Manageme	Date: 11/29/12		Protocol: MCAWW
Client Rep: JJAEGER	Custody Seal: Present/Absent:		Shipping No.:
Project: RVAAP, EQM PN 030174.0016	Chain of Custody: Present/Absent:		SDG #:

CAS Job #	Client/EPA ID	Matrix	Requested Parameters	Date Sampled	Date Received	pH (Solids)	% Solids	Remarks Sample Condition
R1207075-001	FWGSCFmw-002-0194-GF	Water	218.6	10/16/12	10/17/12			
R1207075-002	FWGSCFmw-DUP7-0204-GF	Water	218.6	10/16/12	10/17/12			
R1207075-003QC	FWGLL12mw-247-0192-GF	Water	218.6	10/16/12	10/17/12			
R1207075-004	FWGLL3mw-244-0183-GF	Water	218.6	10/16/12	10/17/12			
R1207075-005	FWGEQUIPRinse2-0213-GW	Water	218.6	10/16/12	10/17/12			

Folder Comments: Need MRL check

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 2067

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: RVAAP	Project Number: 30174.0016.001.03
Project Manager: John Miller	Report CC: A. Dragotta + E. Corbin
Company/Address: EQM 1800 CARLSON BLVD CINCINNATI OH 45240	
Phone #: 513 825 7500	Email: adragotta@eqm.com eecorbin@eqm.com
Sampler's Signature:	Sampler's Printed Name: Colleen A. Lear

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 8

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Cr+6	REMARKS/ ALTERNATE DESCRIPTION
FWGSCFmw002-0194-GF		10/16/12	1322	GW	1								X	
FWGSCFmw-DUP7-0204-GF		10/16/12	1342	GW	1								X	
FWGW2mw-247-0192-GF		10/16/12	1414	GW	3								X	MS/MSD
FWGW3mw-244-0183-GF		10/16/12	1624	GW	1								X	
FWGEQUIPRINSE2-0213-GW		10/16/12	1246	GW	1								X	NOT FILTERED

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other buffer solution

SPECIAL INSTRUCTIONS/COMMENTS
Metals
Samples field filtered except Rinse.

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report
Edata ____ Yes

INVOICE INFORMATION
PO #
BILL TO:

R1207075 5
Environmental Quality Management
RVAAP, EQM PN 030174.0016

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature FED	Signature	Signature Amy Hentschke	Signature	Signature
Printed Name Colleen A. Lear	Printed Name EXPRESS	Printed Name	Printed Name Amy Hentschke	Printed Name	Printed Name
Firm EQM	Firm 10-16-12	Firm	Firm ALS	Firm	Firm
Date/Time 10-16-12 1800	Date/Time 1800	Date/Time	Date/Time 10/17/12 0811	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

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Cooler Receipt and Preservation Check Form

Project/Client EQM Folder Number R12-7075

AHH 10/17/12

Cooler received on 10/17/12 by: AHH COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1.	Were custody seals on outside of cooler?	(YES)	NO			
2.	Were custody papers properly filled out (ink, signed, etc.)?	(YES)	NO			
3.	Did all bottles arrive in good condition (unbroken)?	(YES)	NO			
4.	Did VOA vials, Alkalinity, or Sulfide have significant* air bubbles?	YES	NO	(N/A)		
5.	Were **Ice** or **Ice packs** present?	(YES)	NO			
6.	Where did the bottles originate?	(ALS/ROC), CLIENT				
7.	Temperature of cooler(s) upon receipt:	3.3°				
	Is the temperature within 0° - 6° C?:	(Yes)	Yes	Yes	Yes	Yes
	If No, Explain Below	No	No	No	No	No

Date/Time Temperatures Taken: 10/17/12 0812

Thermometer ID: IR GUN#3 / (IR GUN#4) Reading From: (Temp Blank) / Sample Bottle

If out of Temperature, note packing/ice condition &Client Approval to Run Samples:

All Samples held in storage location R-002 by AHH on 10/17/12 at 0815

5035 samples placed in storage location _____ by _____ on _____ at _____

PC Secondary Review: AHH 10/17/12

Cooler Breakdown: Date: 10/17/12 Time: 1456 by: AHH

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		(N/A)

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For TCN Phenol and 522			If present, contact PM to add ascorbic acid Or sodium sulfite (522)					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*						

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Carb buffer - WC112063A exp: 07/13

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 082012-2HH

Other Comments:

PC Secondary Review: AHH 11/6/12

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

H:\SMODOCS\Cooler Receipt 5.doc

Client: Environmental Quality Management
Project: RVAAP, EQM PN 030174.0016/30174.0016.001.03
Sample Matrix: Water

Service Request: R1207075
Date Collected: 10/16/12 1322
Date Received: 10/17/12

Sample Name: FWGSCFmw-002-0194-GF
Lab Code: R1207075-001

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	11/2/12 16:20	

Client: Environmental Quality Management
Project: RVAAP, EQM PN 030174.0016/30174.0016.001.03
Sample Matrix: Water

Service Request: R1207075
Date Collected: 10/16/12 1342
Date Received: 10/17/12

Sample Name: FWGSCFmw-DUP7-0204-GF
Lab Code: R1207075-002

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	11/2/12 16:28	

Client: Environmental Quality Management
Project: RVAAP, EQM PN 030174.0016/30174.0016.001.03
Sample Matrix: Water

Sample Name: FWGLL12mw-247-0192-GF
Lab Code: R1207075-003

Service Request: R1207075
Date Collected: 10/16/12 1414
Date Received: 10/17/12

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	11/2/12 16:36	

Client: Environmental Quality Management
Project: RVAAP, EQM PN 030174.0016/30174.0016.001.03
Sample Matrix: Water

Service Request: R1207075
Date Collected: 10/16/12 1624
Date Received: 10/17/12

Sample Name: FWGLL3mw-244-0183-GF
Lab Code: R1207075-004

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	**0.173**		µg/L	0.020	0.010	1	NA	11/2/12 16:44	

COLUMBIA ANALYTICAL SERVICES, INC.
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Analytical Report

Client:	Environmental Quality Management	**Service Request:**	R1207075
Project:	RVAAP, EQM PN 030174.0016/30174.0016.001.03	**Date Collected:**	10/16/12 1246
Sample Matrix:	Water	**Date Received:**	10/17/12
Sample Name:	FWGEQUIPRinse2-0213-GW		
Lab Code:	R1207075-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chromium, Hexavalent, Dissolved	218.6	0.020	U	µg/L	0.020	0.010	1	NA	11/2/12 16:52	

Appendix I

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/ November 28, 2012

SDG: R1207075
Analysis: EPA 218.6

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
1. Did Chain-of-Custody information agree with laboratory report?	✓				
2. Were samples preserved properly and received in good condition?	✓				pH verified to be with 9.3-9.7 with 24 hours of sampling, 4°C
3. Were holding times met?	✓				J/UJ/R
4. Were sample storage requirements met?	✓				
5. Does the initial calibration curve consist of at least 3 standards and one blank?	✓				
6. Was a MRL Level Verification performed at the beginning of every daily sequence? Were results within 70-130%?	✓				>130%=J; 65-70%=J/UJ; <65%=J/R
7. Was the ICB analyzed after the ICV with results <1/2 the MRL?	✓				< 5x = U
8. Was a CCV run at the beginning and end of the analytical sequence?	✓				
9. Were the CCV results 95-105%?	✓				>110%=J; <90%=J/UJ;
10. Was a method blank prepared and analyzed with each batch?	✓				
11. Were target analytes detected in the method blank?		✓		Checked by ADR.	LCG Table 10 <5x=B
12. Was a field blank collected and analyzed?	✓				
13. Were target analytes in the field blank analyses <1/2 the MRL?	✓				<5x=B
14. Was a field duplicate analyzed? Were the RPDs ≤30%?	✓			Checked by ADR.	>30% = J
15. Was an LCS prepared and analyzed with each batch?	✓				
16. Were the LCS recoveries within lab limits%?	✓			Checked by ADR.	>UL=J; <LL=J/UJ;
17. Was a MS prepared once per every 10 samples?	✓				LCG Table 10

Ravenna, OH Data Review Checklist

Project Number: 030174.0016
Sample Event: October 2012
Data Reviewer/Date: Angye Dragotta/ November 28, 2012

SDG: R1207075
Analysis: EPA 218.6

Review Questions:	Yes	No	N/A	Comments	QUAL/Criteria
18. Was the MS parent a Ravenna sample?	✓				
19. Were MS/MSD recoveries within lab limits%?		✓		The matrix spike analysis on sample FWGLL12mw-247-0192-GF recovered below laboratory control limits of 90-110% at 88% for the matrix spike and at 89% for the matrix spike duplicate. The hexavalent chromium results for samples FWGLL12mw-247-0192-GF, FWGEQUIPRINSE-0213-GW, FWGSCFmw-DUP7-0204-GF, FWGSCFmw-002-0194-GF and FWGLL3mw-247-0192-GF were qualified as estimated, "J/UJ".	>UL=J; <LL=J/UJ;
20. Were reported sample concentrations within calibration range?	✓				

References:
DoD Quality Systems Manual (QSM), version 4.1, October 2010

Louisville DoD Quality Systems Manual Supplement (LS), Version 1 March 2007

Final Facility Wide Groundwater Monitoring Program, RVAAP-66 Facility Wide Groundwater Quality Assurance Project Plan (QAPP) Addendum for the Ravenna Army Ammunition Plant, Ravenna, OH, Environmental Quality Management, January 2012

Final Facility Wide Quality Assurance Project Plan for Environmental Investigations Groundwater for the Ravenna Army Ammunition Plant, Ravenna, OH, SAIC, February 2011

Additional Comments:

Appendix II

Overall Qualified Results

Analytical Method	Field Sample ID	Matrix	Sample Type	Analyte	RL	Lab Result	Unc / Error	Overall Qualifier	Units	Reason Code
SDG: R1207075										
218.6	FWGEQUIPRinse2-0213-GW	AQ	EB	Hexavalent Chromium	0.020	0.020U		UJ	ug/L	Ms
218.6	FWGLL12mw-247-0192-GF	AQ	N	Hexavalent Chromium	0.020	0.020U		UJ	ug/L	Ms
218.6	FWGLL3mw-244-0183-GF	AQ	N	Hexavalent Chromium	0.020	0.173		J	ug/L	Ms
218.6	FWGSCFmw-002-0194-GF	AQ	N	Hexavalent Chromium	0.020	0.020U		UJ	ug/L	Ms
218.6	FWGSCFmw-DUP7-0204-GF	AQ	FD	Hexavalent Chromium	0.020	0.020U		UJ	ug/L	Ms

N = Normal Sample *TB = Trip Blank*
FD = Field Duplicate *FB = Field Blank*

Data Qualifier Summary

Lab Reporting Batch ID: R1207075 **Laboratory: CAS_R**

EDD Filename: R1207075 **eQAPP Name: RVAAP Cr6+ rev1**

Method Category: METALS

Method: 218.6 **Matrix: AQ**

Sample ID: FWGEQUIPRinse2-0213-GW **Collected: 10/16/2012 12:46:00** **Analysis Type: RES/DIS** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.020	U	0.010	MDL	0.020	PQL	ug/L	UJ	Ms

Sample ID: FWGLL12mw-247-0192-GF **Collected: 10/16/2012 2:14:00** **Analysis Type: RES/DIS** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.020	U	0.010	MDL	0.020	PQL	ug/L	UJ	Ms

Sample ID: FWGLL3mw-244-0183-GF **Collected: 10/16/2012 4:24:00** **Analysis Type: RES/DIS** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.173		0.010	MDL	0.020	PQL	ug/L	J-	Ms

Sample ID: FWGSCFmw-002-0194-GF **Collected: 10/16/2012 1:22:00** **Analysis Type: RES/DIS** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.020	U	0.010	MDL	0.020	PQL	ug/L	UJ	Ms

Sample ID: FWGSCFmw-DUP7-0204-GF **Collected: 10/16/2012 1:42:00** **Analysis Type: RES/DIS** **Dilution: 1**

Analyte	Lab Result	Lab Qual	DL	DL Type	RL	RL Type	Units	Data Review Qual	Reason Code
HEXAVALENT CHROMIUM	0.020	U	0.010	MDL	0.020	PQL	ug/L	UJ	Ms

* denotes a non-reportable result

Project Name and Number: 30174.0016 - RVAAP, EQM

Data Qualifier Summary

Lab Reporting Batch ID: R1207075 **Laboratory: CAS_R**

EDD Filename: R1207075 **eQAPP Name: RVAAP Cr6+ rev1**

Reason Code Legend

Reason Code	*Description*
Ms	Matrix Spike Lower Estimation

* denotes a non-reportable result

Project Name and Number: 30174.0016 - RVAAP, EQM

APPENDIX E

INVESTIGATION-DERIVED WASTE CHARACTERIZATION AND DISPOSAL PLAN

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

November 14, 2012

RE: RAVENNA ARMY AMMUNITION PLANT, PORTAGE/TRUMBULL COUNTIES, DRAFT, INVESTIGATION DERIVED WASTE AND DISPOSAL PLAN, FWGWMP OCTOBER 2012 SAMPLING EVENT (# 267-000859-036)

Mr. Mark Patterson
Installation Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

CERTIFIED MAIL
7010 3090 0000 3936 7013

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Draft, Investigation-Derived Waste Characterization and Disposal Plan (IDW), for the Facility-Wide Groundwater Monitoring Program, October 2012 Sampling Event at the Ravenna Army Ammunition Plant, Ravenna, OH" document. This document was received at Ohio EPA, Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR), on November 9, 2012 and is dated November 8, 2012. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District, by Environmental Quality Management, Inc. (EQM), under contract no. W912QR-04-D-0036.

The report is approved and Ohio EPA concurs that the IDW (groundwater and decontamination fluids) from the October 2012 Sampling Event may be disposed of as contaminated, non-hazardous waste and that it be sent off-site for disposal to a permitted water treatment facility.

If you have any questions, please call me at (330) 963-1207.

Sincerely,

Vicki Deppisch

Vicki Deppisch, Project Coordinator
Division of Environmental Response and Revitalization

VD/kss

cc: Eileen Mohr, Ohio EPA, NEDO, DERR

ec: John Miller, EQM
LTC Ed Meade, OHARNG RTLS
Mark Nichter, USACE Louisville
Justin Burke, Ohio EPA, CO, DERR
Nancy Zikmanis, Ohio EPA, NEDO, DERR
Todd Fisher, Ohio EPA, NEDO, DERR
Katie Tait, OHARNG RTLS
Glen Beckham, USACE Louisville
Ann Wood, NGB
Christy Esler, Vista Sciences

Partnering with you for success EQ eqm.com

November 8, 2012

Ms. Vicki Deppisch
Ohio Environmental Protection Agency, NE District Office
Division of Emergency and Remedial Response
2110 E. Aurora Road
Twinsburg, OH 44087

Re: IDW Report – October 2012 Sampling Event
Ravenna Army Ammunition Plant
Ravenna, Ohio

Dear Ms. Deppisch:

Enclosed for your review is one (1) copy of the Investigation-Derived Waste Characterization and Disposal Plan for the RVAAP-66 Facility-Wide Groundwater sampling event from October 2012 at the Ravenna Army Ammunition Plant in Ravenna, Ohio. This copy is being provided to the Ohio EPA for your approval prior to disposal of the investigative derived waste. I have also sent you, via email, an electronic copy of this document.

If you have any questions or require further clarification concerning this submittal, please call me at (513) 825-7500, or Mr. Mark Nichter of the USACE at (502) 315-6375.

Sincerely,

ENVIRONMENTAL QUALITY MANAGEMENT, INC.

John M. Miller, CHMM
Project Manager

cc: M. Nichter – USACE
M. Patterson – RVAAP (BRAC)

DRAFT

FACILITY-WIDE GROUNDWATER MONITORING PROGRAM

INVESTIGATION-DERIVED WASTE CHARACTERIZATION AND DISPOSAL PLAN OCTOBER 2012 SAMPLING EVENT

RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO

MARC Contract Number W912QR-04-D-0036
Delivery Order No. 0006

Prepared for:

U.S. Army Corps of Engineers
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202

Prepared by:

Environmental Quality Management, Inc.
1800 Carillon Boulevard
Cincinnati, Ohio 45240

November 8, 2012

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A Investigation-Derived Waste Analytical Report

ACRONYMS

AOC	Area of Concern
B12	Building 1200
BKG	Background Well
CBL	C Block Quarry
CBP	Central Burn Pits
EBG	Erie Burning Grounds
EQM	Environmental Quality Management, Inc.
EPA	Environmental Protection Agency
°F	Degrees Fahrenheit
FWGWMPP	Facility-Wide Groundwater Monitoring Program Plan
FWSAP	Facility-Wide Sampling and Analysis Plan
gal	Gallon
IDW	Investigation-derived Waste
mg/L	Milligram per Liter
NTA	NACA Test Area
ODA2	Open Demolition Area #2
RCRA	Resource Conservation and Recovery Act
RQL	Ramsdell Quarry Landfill
RVAAP	Ravenna Army Ammunition Plant
SAP	Sampling and Analysis Plan
SCF	Sharon Conglomerate Formation
SVOC	Semi-volatile Organic Compounds
TCLP	Toxicity Characteristic Leaching Procedure
USACE	United States Army Corps of Engineers
VOC	Volatile Organic Compounds
WBG	Winklepeck Burning Grounds

1.0 INTRODUCTION

Investigative activities were conducted during the Facility-Wide Groundwater Monitoring Program sampling events in October 2012 at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio, resulting in the generation of investigation-derived wastes (IDW) comprising purge water and equipment decontamination wastewater. The IDW purge water was generated in the course of field activities at each well. The IDW decontamination waters were generated from the cleaning and decontamination of non-dedicated equipment used to sample the wells. The purpose of this report is to characterize and classify the IDW for proper disposal. The report includes:

- A summary of the IDW generated and its origin.
- A review of the analytical results used for waste characterization.
- Classification of the IDW per the *Facility Wide Sampling and Analysis Plan* (FWSAP).
- Recommendations for disposal.

This document follows guidance established by the United States Army Corps of Engineers (USACE) and the Ohio Environmental Protection Agency (EPA) regarding IDW disposition at RVAAP.

2.0 OPERATIONAL HISTORY AND WASTE GENERATION

Information regarding the operational history and suspected contaminants for the Facility-Wide Groundwater Monitoring Program Plan (FWGWMPP) is presented in Section 1.2 of the *Final Part 1 - Sampling and Analysis Plan Addendum for the Facility-Wide Groundwater Monitoring Program Plan at the Ravenna Army Ammunition Plant, Ravenna, Ohio* (SAP Addendum; Portage, 2004). Section 4.6 of the SAP Addendum describes procedures used for sampling and managing IDW at RVAAP.

Water (purged groundwater and decontamination water) IDW was generated during the October 2012 sampling event (40 wells). The purge water collected from the sampled areas of concern (AOCs) was stored in drums labeled for purge water disposal. Purge water was generated in accordance with the Facility-Wide Sampling and Analysis Plan (FWSAP), Section 5.4.4.2 (SAIC, 2011) under the micropurging criteria. Decontamination water was generated from the washing, rinsing, and decontamination procedures used for all non-dedicated sampling equipment. The decontamination water was stored in a drum separate from the purge water. These decontamination procedures are described in Section 5.4.8 of the FWSAP.

The drum container label, type and size of the drum container used, estimated volume per drum, and the source of purge wastewater or decontamination fluid is presented in Table 2-1.

Table 2-1. IDW Inventory of Drums

Drum Label	Drum Type & Size	Contents	Estimated Volume	Location/ Source
EQM 2012-8	55-gal Steel	Decontamination/Rinse Water	~25 gallons	Equipment Rinse/ Decontamination
EQM 2012-9	55-gal Steel	Purge Water	~55 gallons	Load Lines 1, 3, 4, 6, 11, and 12, EBG, ODA2, CBL, B12, NTA, CBP, WBG, SCF, and FWG wells
EQM 2012-10	55-gal Steel	Purge Water	~55 gallons	Load Lines 1, 3, 4, 6, 11, and 12, EBG, ODA2, CBL, B12, NTA, CBP, WBG, SCF, and FWG wells

EBG = Erie Burning Grounds
ODA2 = Open Demolition Area 2
WBG = Winklepeck Burning Grounds
B12 = Building 1200
NTA = NACA Test Area
CBP = Central Burn Pits
CBL = C Block Quarry
FWG = New Facility-Wide Groundwater wells
SCF = Sharon Conglomerate Formation

3.0 MANAGEMENT OF ENVIRONMENTAL MEDIA

All environmental media were managed in a manner that minimized potential risk to human health and the environment. Investigation-derived waste was handled as nonhazardous material pending waste characterization and classification based on analytical results. The FWSAP and the SAP Addendum describe approved procedures used for containerizing and handling IDW.

All liquid indigenous (purged groundwater) IDW generated from each micropurging event was placed into a 55-gal drum as previously agreed upon by RVAAP, USACE, and Ohio EPA. The purge water was transferred daily from each well location after sampling via closed-top 5-gal buckets to the appropriately labeled 55-gal drum located and staged on a wooden pallet inside Building 1036.

4.0 DISCUSSION OF ANALYTICAL RESULTS

Per Section 8.4, IDW Characterization and Classification for Disposal, of the FWSAP, all IDW indigenous wastes were characterized for disposal by taking composite samples collected from each of the segregated waste streams. There were only two segregated waste streams during this sampling event that required characterization: one for the generated purge water and one for the decontamination wastewater. A composite sample was taken of each waste stream using a disposable bailer until a total of approximately 4 liters was withdrawn in equal amounts from all drums of that particular waste stream. Each waste stream composite sample was submitted to TestAmerica Laboratories in North Canton, Ohio, for full toxicity characteristic leaching procedure (TCLP) analysis in accordance with the FWSAP using the following methods:

- TCLP mercury by EPA Method SW-846 1311/7470A.
- TCLP metals (silver, arsenic, barium, cadmium, chromium, lead, and selenium) by EPA Method SW-846 1311/6010B.
- TCLP semivolatile organic compounds (SVOCs) by EPA Method SW-846 1311/8270C.
- TCLP volatile organic compounds (VOCs) by EPA Method SW-846 1311/8260B.
- TCLP pesticides by EPA Method SW-846 1311/8081A
- TCLP herbicides by EPA Method SW-846 1311/8151A
- Total cyanide by EPA Method SW-846 9012A
- Sulfide by EPA Method SW-846 9034
- Flashpoint by EPA Method SW-846 1010
- pH by EPA Method SW-846 9040B

A trip blank was submitted with the samples and analyzed for VOCs. The IDW analytical results are presented in Appendix A.

5.0 RECOMMENDATIONS FOR DISPOSAL

Table 8-1 in the FWSAP presents the maximum concentrations of contaminants for the toxicity characteristic for hazardous wastes as per 40 CFR 261.24. Analytical results for the IDW generated during the October 2012 groundwater sampling event were compared against these criteria to determine whether the waste streams generated were potentially hazardous or non-hazardous.

5.1 Purge Water

During micro-purging of the monitoring wells, liquid IDW was generated and sampled. The analytical results for the purged groundwater were compared to the regulatory levels from Table 8-1 in the FWSAP. The regulatory criteria for Resource Conservation and Recovery Act (RCRA) hazardous waste determinations were not exceeded. Table 5-1 presents the detected results compared to the regulatory characteristics for hazardous wastes as per 40 CFR 261.24.

EQM recommends that the drums containing purged groundwater be classified as non-hazardous and be sent offsite for disposal to a permitted water treatment facility in accordance with Section 8.0 of the FWSAP.

Table 5-1. Detected Analytical Results

Sample ID	Detected Contaminant	Detected Result (mg/L)	Regulatory Level[1] (mg/L)	Above Regulatory Yes/No
FWG-IDW-MWPURGEOCT2012	2,4-D	0.00093 J	10	No
	Barium	0.065 J,B	100	No
	Flashpoint	>180°F	<140°F	No
	pH[2]	7.60	<2 or >12.5	No
FWG-IDW-MWDECONOCT2012	Chlordane	0.000054 J	0.03	No
	Barium	0.0075 J B	100	No
	Chromium	0.0038 J	5.0	No
	Lead	0.0019 J	5.0	No
	Flashpoint	>180°F	<140°F	No
	pH[2]	7.23	<2 or >12.5	No
TRIP BLANK (totals analysis)	No Detections	NA	NA	NA

1 = USEPA Regulatory Characteristic Levels (40 CFR 261.20 through 24).
2 = pH measured in Standard Units (S.U.).
J = estimated result. Result is less than reporting limit.
B = blank contamination.
NA = not applicable.

5.2 Decontamination Fluids

A composite sample was collected of the decontamination fluids generated during cleaning of non-dedicated sampling equipment. The analytical results indicated that all analytes were below TCLP threshold values. Therefore, the decontamination wastewater should be classified as non-hazardous and sent offsite to a permitted water treatment facility for disposal in accordance with Section 8.0 of the FWSAP.

5.3 Summary of Disposal Recommendations

It is recommended that all drums be classified as contaminated but non-hazardous. They should be sent offsite to a permitted water treatment facility for disposal. The TCLP test results for both composite samples show that no chemical was detected at hazardous waste levels. Table 5-2 presents a summary of each drum and the recommended disposal options for the waste streams.

Table 5-2. Summary of Drum Containers, TCLP/Characteristic Waste Criteria, and Disposal Recommendations

Drum Container Label	Media	TCLP Criteria	Disposal Recommendation
EQM 2012-8	Water	Maximum concentration of contaminants NOT exceeded	Offsite disposal as non-hazardous waste
EQM 2012-9	Water	Maximum concentration of contaminants NOT exceeded	Offsite disposal as non-hazardous waste
EQM 2012-10	Water	Maximum concentration of contaminants NOT exceeded	Offsite disposal as non-hazardous waste

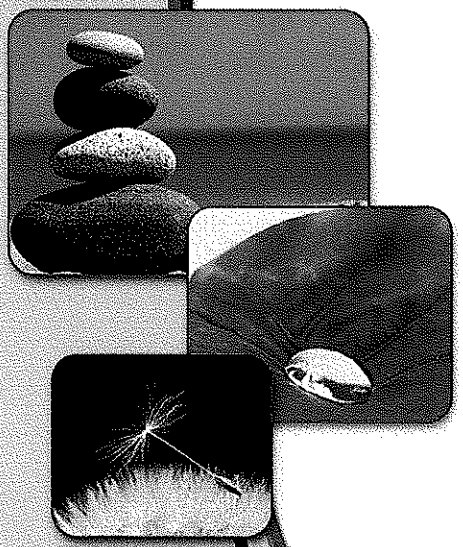
6.0 REFERENCES

Science Applications International Corporation (SAIC). February 24, 2011. *Final Facility-Wide Sampling and Analysis Plan for Environmental Investigations, Ravenna Army Ammunition Plant, Ravenna, Ohio.*

Portage Environmental. 2004. *RVAAP Facility Wide Groundwater Monitoring Program Plan.*

APPENDIX A

INVESTIGATION-DERIVED WASTE ANALYTICAL REPORT



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-16590-1
Client Project/Site: RVAAP (66)

For:
Environmental Quality Mgt., Inc.
1800 Carillon Blvd
Cincinnati, Ohio 45240

Attn: Mr. Erik Corbin

Authorized for release by:
11/2/2012 3:59:23 PM

Mark Loeb
Project Manager II
mark.loeb@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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Definitions/Glossary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-16590-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Environmental Quality Mgt., Inc.

Project: RVAAP (66)

Report Number: 240-16590-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 10/18/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 5.4 and 5.7 C.

Method(s) 9040B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: FWG-IDW-MWDECON OCT2012, FWG-IDW-MWPURGE OCT 2012.

TCLP VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for TCLP volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8260B. The samples were leached on 10/22/2012 and analyzed on 10/24/2012.

Surrogate recovery for the following sample was outside the upper control limit: FWG-IDW-MWTB OCT2012. This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

The laboratory control sample (LCS) for batch 62622 exceeded the upper control limit for the following surrogate: 1,2-dichloroethane-d4. No analytes were detected in the associated samples; therefore, the data have been reported.

Job ID: 240-16590-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

No other difficulties were encountered during the VOCs analyses. All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample FWG-IDW-MWTB OCT2012 (240-16590-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/25/2012.

1,2-Dichloroethane-d4 (Surr) failed the surrogate recovery criteria high for FWG-IDW-MWTB OCT2012 (240-16590-1). Refer to the QC report for details.

No other difficulties were encountered during the VOCs analysis. All other quality control parameters were within the acceptance limits.

TCLP SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for TCLP semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 1311/8270C. The samples were leached on 10/22/2012, prepared on 10/23/2012 and analyzed on 10/24/2012.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

No difficulties were encountered during the SVOCs analyses. All quality control parameters were within the acceptance limits.

TCLP CHLORINATED PESTICIDES

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for TCLP chlorinated pesticides in accordance with EPA SW-846 Methods 1311/ 8081A. The samples were leached on 10/22/2012, prepared on 10/23/2012 and analyzed on 10/26/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

Level 6 in the initial calibration (ICAL) for gamma-BHC and Heptachlor was disabled for the rear column. Data for the associated samples FWG-IDW-MWDECON OCT2012, FWG-IDW-MWPURGE OCT 2012 is reported from the front column for any analytes above the Level 5 ICAL range.

Only 4 levels of the Toxaphene initial calibration (ICAL) are utilized because of a bottling error for the level 5 standard. The Toxaphene CCVs met QC criteria for the sample associated with this ICAL FWG-IDW-MWDECON OCT2012, FWG-IDW-MWPURGE OCT 2012 was non-detect for Toxaphene; therefore the data have been reported.

No other difficulties were encountered during the pesticides analyses. All quality control parameters were within the acceptance limits.

TCLP CHLORINATED HERBICIDES

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for TCLP chlorinated herbicides in accordance with EPA SW-846 Methods 1311/ 8151A. The samples were leached on 10/22/2012, prepared on 10/23/2012 and analyzed on 11/01/2012.

Surrogates are added during the extraction process prior to dilution. When the sample dilution is 5X or greater, surrogate recoveries are diluted out and no corrective action is required.

The opening continuing calibration verification (CCV) associated with batch 63486 was outside %D criteria for the individual compounds. The average %D is in control for this analyte; therefore, corrective action was not performed. FWG-IDW-MWDECON OCT2012, FWG-IDW-MWPURGE OCT 2012.

No other difficulties were encountered during the herbicides analyses. All quality control parameters were within the acceptance limits.

TCLP METALS (ICP)

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for TCLP

Job ID: 240-16590-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

metals (ICP) in accordance with EPA SW-846 Methods 1311/ 6010B. The samples were leached on 10/22/2012, prepared on 10/23/2012 and analyzed on 10/24/2012.

Arsenic and Barium were detected in method blank LB 240-62305/1-D at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

No other difficulties were encountered during the metals analyses. All other quality control parameters were within the acceptance limits.

TCLP MERCURY

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for TCLP mercury in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 10/22/2012, prepared on 10/23/2012 and analyzed on 10/24/2012.

No difficulties were encountered during the mercury analyses. All quality control parameters were within the acceptance limits.

FLASHPOINT

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for flashpoint in accordance with EPA SW-846 Method 1010. The samples were analyzed on 10/30/2012.

No difficulties were encountered during the flashpoint analyses. All quality control parameters were within the acceptance limits.

TOTAL CYANIDE

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for total cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 10/23/2012.

No difficulties were encountered during the cyanide analyses. All quality control parameters were within the acceptance limits.

SULFIDE

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 10/24/2012.

No difficulties were encountered during the sulfide analyses. All quality control parameters were within the acceptance limits.

PH

Samples FWG-IDW-MWDECON OCT2012 (240-16590-2) and FWG-IDW-MWPURGE OCT 2012 (240-16590-3) were analyzed for pH in accordance with EPA SW-846 Method 9040B. The samples were analyzed on 10/18/2012.

No difficulties were encountered during the pH analyses. All quality control parameters were within the acceptance limits.

Method Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NC
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NC
8081A	Organochlorine Pesticides (GC)	SW846	TAL NC
8151A	Herbicides (GC)	SW846	TAL NC
6010B	Metals (ICP)	SW846	TAL NC
7470A	Mercury (CVAA)	SW846	TAL NC
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW846	TAL NC
9012A	Cyanide, Total and/or Amenable	SW846	TAL NC
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL NC
9040B	pH	SW846	TAL NC

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-16590-1	FWG-IDW-MWTB OCT2012	Water	10/18/12 08:30	10/18/12 10:30
240-16590-2	FWG-IDW-MWDECON OCT2012	Water	10/18/12 09:00	10/18/12 10:30
240-16590-3	FWG-IDW-MWPURGE OCT 2012	Water	10/18/12 09:30	10/18/12 10:30

Detection Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Client Sample ID: FWG-IDW-MWTB OCT2012 — Lab Sample ID: 240-16590-1

No Detections

Client Sample ID: FWG-IDW-MWDECON OCT2012 — Lab Sample ID: 240-16590-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlordane (technical)	0.000054	J	0.0050	0.000033	mg/L	1		8081A	TCLP
Barium	0.0075	J B	10	0.00067	mg/L	1		6010B	TCLP
Chromium	0.0038	J	0.50	0.0022	mg/L	1		6010B	TCLP
Lead	0.0019	J	0.50	0.0019	mg/L	1		6010B	TCLP
Flashpoint	>180		1.00	1.00	Degrees F	1		1010	Total/NA
pH	7.23		0.100	0.100	SU	1		9040B	Total/NA

Client Sample ID: FWG-IDW-MWPURGE OCT 2012 — Lab Sample ID: 240-16590-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2,4-D	0.00093	J	0.0020	0.00021	mg/L	1		8151A	TCLP
Barium	0.065	J B	10	0.00067	mg/L	1		6010B	TCLP
Flashpoint	>180		1.00	1.00	Degrees F	1		1010	Total/NA
pH	7.60		0.100	0.100	SU	1		9040B	Total/NA

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Client Sample ID: FWG-IDW-MWTB OCT2012
Date Collected: 10/18/12 08:30
Date Received: 10/18/12 10:30

Lab Sample ID: 240-16590-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/25/12 08:57	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			10/25/12 08:57	1
Benzene	1.0	U	1.0	0.13	ug/L			10/25/12 08:57	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			10/25/12 08:57	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			10/25/12 08:57	1
Chloroform	1.0	U	1.0	0.16	ug/L			10/25/12 08:57	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			10/25/12 08:57	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			10/25/12 08:57	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			10/25/12 08:57	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			10/25/12 08:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*131*	*X*	*63 - 129*		*10/25/12 08:57*	*1*
4-Bromofluorobenzene (Surr)	*81*		*66 - 117*		*10/25/12 08:57*	*1*
Toluene-d8 (Surr)	*89*		*74 - 115*		*10/25/12 08:57*	*1*
Dibromofluoromethane (Surr)	*119*		*75 - 121*		*10/25/12 08:57*	*1*

Client Sample ID: FWG-IDW-MWDECON OCT2012

Lab Sample ID: 240-16590-2

Date Collected: 10/18/12 09:00
Matrix: Water
Date Received: 10/18/12 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.0095	mg/L			10/24/12 22:41	1
1,2-Dichloroethane	0.025	U	0.025	0.011	mg/L			10/24/12 22:41	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/24/12 22:41	1
Benzene	0.025	U	0.025	0.0065	mg/L			10/24/12 22:41	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/24/12 22:41	1
Chlorobenzene	0.025	U	0.025	0.0075	mg/L			10/24/12 22:41	1
Chloroform	0.025	U	0.025	0.0080	mg/L			10/24/12 22:41	1
Tetrachloroethene	0.025	U	0.025	0.015	mg/L			10/24/12 22:41	1
Trichloroethene	0.025	U	0.025	0.0085	mg/L			10/24/12 22:41	1
Vinyl chloride	0.025	U	0.025	0.011	mg/L			10/24/12 22:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*80 - 121*		*10/24/12 22:41*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 124*		*10/24/12 22:41*	*1*
Toluene-d8 (Surr)	*115*		*90 - 115*		*10/24/12 22:41*	*1*
Dibromofluoromethane (Surr)	*119*		*84 - 128*		*10/24/12 22:41*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00034	mg/L		10/23/12 08:18	10/24/12 20:23	1
2,4,5-Trichlorophenol	0.020	U	0.020	0.00030	mg/L		10/23/12 08:18	10/24/12 20:23	1
2,4,6-Trichlorophenol	0.020	U	0.020	0.00080	mg/L		10/23/12 08:18	10/24/12 20:23	1
2,4-Dinitrotoluene	0.020	U	0.020	0.00027	mg/L		10/23/12 08:18	10/24/12 20:23	1
Hexachlorobenzene	0.020	U	0.020	0.00010	mg/L		10/23/12 08:18	10/24/12 20:23	1
Hexachlorobutadiene	0.020	U	0.020	0.00027	mg/L		10/23/12 08:18	10/24/12 20:23	1
Hexachloroethane	0.020	U	0.020	0.00080	mg/L		10/23/12 08:18	10/24/12 20:23	1
3 & 4 Methylphenol	0.040	U	0.040	0.00075	mg/L		10/23/12 08:18	10/24/12 20:23	1
2-Methylphenol	0.0040	U	0.0040	0.00080	mg/L		10/23/12 08:18	10/24/12 20:23	1
Nitrobenzene	0.0040	U	0.0040	0.000040	mg/L		10/23/12 08:18	10/24/12 20:23	1
Pentachlorophenol	0.040	U	0.040	0.0024	mg/L		10/23/12 08:18	10/24/12 20:23	1
Pyridine	0.020	U	0.020	0.00035	mg/L		10/23/12 08:18	10/24/12 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*42*		*30 - 110*	*10/23/12 08:18*	*10/24/12 20:23*	*1*
2-Fluorophenol (Surr)	*40*		*20 - 110*	*10/23/12 08:18*	*10/24/12 20:23*	*1*
2,4,6-Tribromophenol (Surr)	*41*		*23 - 110*	*10/23/12 08:18*	*10/24/12 20:23*	*1*
Nitrobenzene-d5 (Surr)	*44*		*28 - 110*	*10/23/12 08:18*	*10/24/12 20:23*	*1*
Phenol-d5 (Surr)	*37*		*21 - 110*	*10/23/12 08:18*	*10/24/12 20:23*	*1*
Terphenyl-d14 (Surr)	*59*		*48 - 110*	*10/23/12 08:18*	*10/24/12 20:23*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	**0.000054**	**J**	0.0050	0.000033	mg/L		10/23/12 08:23	10/26/12 11:41	1
Endrin	0.00050	U	0.00050	0.000011	mg/L		10/23/12 08:23	10/26/12 11:41	1
Heptachlor	0.00050	U	0.00050	0.0000080	mg/L		10/23/12 08:23	10/26/12 11:41	1
Heptachlor epoxide	0.00050	U	0.00050	0.0000071	mg/L		10/23/12 08:23	10/26/12 11:41	1
gamma-BHC (Lindane)	0.00050	U	0.00050	0.0000064	mg/L		10/23/12 08:23	10/26/12 11:41	1
Methoxychlor	0.0010	U	0.0010	0.000032	mg/L		10/23/12 08:23	10/26/12 11:41	1
Toxaphene	0.020	U	0.020	0.00032	mg/L		10/23/12 08:23	10/26/12 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*46 - 122*	*10/23/12 08:23*	*10/26/12 11:41*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Client Sample ID: FWG-IDW-MWDECON OCT2012
Date Collected: 10/18/12 09:00
Date Received: 10/18/12 10:30

Lab Sample ID: 240-16590-2
Matrix: Water

Method: 8081A - Organochlorine Pesticides (GC) - TCLP (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*57*		*46 - 122*	*10/23/12 08:23*	*10/26/12 11:41*	*1*
DCB Decachlorobiphenyl	*38*		*34 - 141*	*10/23/12 08:23*	*10/26/12 11:41*	*1*
DCB Decachlorobiphenyl	*41*		*34 - 141*	*10/23/12 08:23*	*10/26/12 11:41*	*1*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.0020	U	0.0020	0.00021	mg/L		10/23/12 08:37	11/01/12 12:06	1
Silvex (2,4,5-TP)	0.00050	U	0.00050	0.00010	mg/L		10/23/12 08:37	11/01/12 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*75*		*37 - 116*	*10/23/12 08:37*	*11/01/12 12:06*	*1*
2,4-Dichlorophenylacetic acid	*84*		*37 - 116*	*10/23/12 08:37*	*11/01/12 12:06*	*1*

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.0032	mg/L		10/23/12 12:03	10/24/12 12:18	1
Barium	**0.0075**	**J B**	10	0.00067	mg/L		10/23/12 12:03	10/24/12 12:18	1
Cadmium	0.10	U	0.10	0.00066	mg/L		10/23/12 12:03	10/24/12 12:18	1
Chromium	**0.0038**	**J**	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 12:18	1
Lead	**0.0019**	**J**	0.50	0.0019	mg/L		10/23/12 12:03	10/24/12 12:18	1
Selenium	0.25	U	0.25	0.0041	mg/L		10/23/12 12:03	10/24/12 12:18	1
Silver	0.50	U	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 12:18	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.00012	mg/L		10/23/12 15:40	10/24/12 13:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>180**		1.00	1.00	Degrees F			10/30/12 07:54	1
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		10/23/12 13:00	10/23/12 15:12	1
Sulfide	3.0	U	3.0	0.94	mg/L		10/24/12 08:16	10/24/12 11:29	1
pH	**7.23**		0.100	0.100	SU			10/18/12 18:05	1

Client Sample ID: FWG-IDW-MWPURGE OCT 2012 — **Lab Sample ID: 240-16590-3**

Date Collected: 10/18/12 09:30 — **Matrix: Water**

Date Received: 10/18/12 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.0095	mg/L			10/24/12 23:04	1
1,2-Dichloroethane	0.025	U	0.025	0.011	mg/L			10/24/12 23:04	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/24/12 23:04	1
Benzene	0.025	U	0.025	0.0065	mg/L			10/24/12 23:04	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/24/12 23:04	1
Chlorobenzene	0.025	U	0.025	0.0075	mg/L			10/24/12 23:04	1
Chloroform	0.025	U	0.025	0.0080	mg/L			10/24/12 23:04	1
Tetrachloroethene	0.025	U	0.025	0.015	mg/L			10/24/12 23:04	1
Trichloroethene	0.025	U	0.025	0.0085	mg/L			10/24/12 23:04	1
Vinyl chloride	0.025	U	0.025	0.011	mg/L			10/24/12 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*80 - 121*		*10/24/12 23:04*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 124*		*10/24/12 23:04*	*1*
Toluene-d8 (Surr)	*112*		*90 - 115*		*10/24/12 23:04*	*1*
Dibromofluoromethane (Surr)	*119*		*84 - 128*		*10/24/12 23:04*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00034	mg/L		10/23/12 08:18	10/24/12 20:05	1
2,4,5-Trichlorophenol	0.020	U	0.020	0.00030	mg/L		10/23/12 08:18	10/24/12 20:05	1
2,4,6-Trichlorophenol	0.020	U	0.020	0.00080	mg/L		10/23/12 08:18	10/24/12 20:05	1
2,4-Dinitrotoluene	0.020	U	0.020	0.00027	mg/L		10/23/12 08:18	10/24/12 20:05	1
Hexachlorobenzene	0.020	U	0.020	0.00010	mg/L		10/23/12 08:18	10/24/12 20:05	1
Hexachlorobutadiene	0.020	U	0.020	0.00027	mg/L		10/23/12 08:18	10/24/12 20:05	1
Hexachloroethane	0.020	U	0.020	0.00080	mg/L		10/23/12 08:18	10/24/12 20:05	1
3 & 4 Methylphenol	0.040	U	0.040	0.00075	mg/L		10/23/12 08:18	10/24/12 20:05	1
2-Methylphenol	0.0040	U	0.0040	0.00080	mg/L		10/23/12 08:18	10/24/12 20:05	1
Nitrobenzene	0.0040	U	0.0040	0.000040	mg/L		10/23/12 08:18	10/24/12 20:05	1
Pentachlorophenol	0.040	U	0.040	0.0024	mg/L		10/23/12 08:18	10/24/12 20:05	1
Pyridine	0.020	U	0.020	0.00035	mg/L		10/23/12 08:18	10/24/12 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*53*		*30 - 110*	*10/23/12 08:18*	*10/24/12 20:05*	*1*
2-Fluorophenol (Surr)	*39*		*20 - 110*	*10/23/12 08:18*	*10/24/12 20:05*	*1*
2,4,6-Tribromophenol (Surr)	*37*		*23 - 110*	*10/23/12 08:18*	*10/24/12 20:05*	*1*
Nitrobenzene-d5 (Surr)	*55*		*28 - 110*	*10/23/12 08:18*	*10/24/12 20:05*	*1*
Phenol-d5 (Surr)	*33*		*21 - 110*	*10/23/12 08:18*	*10/24/12 20:05*	*1*
Terphenyl-d14 (Surr)	*68*		*48 - 110*	*10/23/12 08:18*	*10/24/12 20:05*	*1*

Method: 8081A - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	0.0050	U	0.0050	0.000033	mg/L		10/23/12 08:23	10/26/12 12:02	1
Endrin	0.00050	U	0.00050	0.000011	mg/L		10/23/12 08:23	10/26/12 12:02	1
Heptachlor	0.00050	U	0.00050	0.0000080	mg/L		10/23/12 08:23	10/26/12 12:02	1
Heptachlor epoxide	0.00050	U	0.00050	0.0000071	mg/L		10/23/12 08:23	10/26/12 12:02	1
gamma-BHC (Lindane)	0.00050	U	0.00050	0.0000064	mg/L		10/23/12 08:23	10/26/12 12:02	1
Methoxychlor	0.0010	U	0.0010	0.000032	mg/L		10/23/12 08:23	10/26/12 12:02	1
Toxaphene	0.020	U	0.020	0.00032	mg/L		10/23/12 08:23	10/26/12 12:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*46 - 122*	*10/23/12 08:23*	*10/26/12 12:02*	*1*

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Client Sample ID: FWG-IDW-MWPURGE OCT 2012
Date Collected: 10/18/12 09:30
Date Received: 10/18/12 10:30

Lab Sample ID: 240-16590-3
Matrix: Water

Method: 8081A - Organochlorine Pesticides (GC) - TCLP (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*46 - 122*	*10/23/12 08:23*	*10/26/12 12:02*	*1*
DCB Decachlorobiphenyl	*58*		*34 - 141*	*10/23/12 08:23*	*10/26/12 12:02*	*1*
DCB Decachlorobiphenyl	*62*		*34 - 141*	*10/23/12 08:23*	*10/26/12 12:02*	*1*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	**0.00093**	**J**	0.0020	0.00021	mg/L		10/23/12 08:37	11/01/12 12:54	1
Silvex (2,4,5-TP)	0.00050	U	0.00050	0.00010	mg/L		10/23/12 08:37	11/01/12 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*64*		*37 - 116*	*10/23/12 08:37*	*11/01/12 12:54*	*1*
2,4-Dichlorophenylacetic acid	*70*		*37 - 116*	*10/23/12 08:37*	*11/01/12 12:54*	*1*

Method: 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.0032	mg/L		10/23/12 12:03	10/24/12 12:24	1
Barium	**0.065**	**J B**	10	0.00067	mg/L		10/23/12 12:03	10/24/12 12:24	1
Cadmium	0.10	U	0.10	0.00066	mg/L		10/23/12 12:03	10/24/12 12:24	1
Chromium	0.50	U	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 12:24	1
Lead	0.50	U	0.50	0.0019	mg/L		10/23/12 12:03	10/24/12 12:24	1
Selenium	0.25	U	0.25	0.0041	mg/L		10/23/12 12:03	10/24/12 12:24	1
Silver	0.50	U	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 12:24	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.00012	mg/L		10/23/12 15:40	10/24/12 13:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Flashpoint	**>180**		1.00	1.00	Degrees F			10/30/12 08:22	1
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		10/23/12 13:00	10/23/12 15:34	1
Sulfide	3.0	U	3.0	0.94	mg/L		10/24/12 08:16	10/24/12 12:23	1
pH	**7.60**		0.100	0.100	SU			10/18/12 18:08	1

Surrogate Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(63-129)	(66-117)	(74-115)	(75-121)
240-16590-1	FWG-IDW-MWTB OCT2012	131 X	81	89	119
LCS 240-62635/4	Lab Control Sample	104	105	94	97
MB 240-62635/5	Method Blank	107	75	91	97

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(80-121)	(70-124)	(90-115)	(84-128)
LCS 240-62622/13	Lab Control Sample	122 X	95	111	117

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(80-121)	(70-124)	(90-115)	(84-128)
240-16590-2	FWG-IDW-MWDECON OCT2012	115	99	115	119
240-16590-3	FWG-IDW-MWPURGE OCT 2012	116	96	112	119
LB 240-62356/1-A MB	Method Blank	116	97	110	118

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(30-110)	(20-110)	(23-110)	(28-110)	(21-110)	(48-110)
LCS 240-62352/11-A	Lab Control Sample	61	64	64	62	58	76
MB 240-62352/10-A	Method Blank	73	71	75	74	63	87

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)

TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	TBP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(30-110)	(20-110)	(23-110)	(28-110)	(21-110)	(48-110)
240-16590-2	FWG-IDW-MWDECON OCT2012	42	40	41	44	37	59
240-16590-3	FWG-IDW-MWPURGE OCT 2012	53	39	37	55	33	68

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(46-122)	(46-122)	(34-141)	(34-141)
LCS 240-62355/7-A	Lab Control Sample	85	77	79	83
MB 240-62355/6-A	Method Blank	70	69	57	62

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Water — **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(46-122)	(46-122)	(34-141)	(34-141)
240-16590-2	FWG-IDW-MWDECON OCT2012	67	57	38	41
240-16590-3	FWG-IDW-MWPURGE OCT 2012	74	68	58	62

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		DCPA1	DCPA2
Lab Sample ID	Client Sample ID	(37-116)	(37-116)
LCS 240-62366/7-A	Lab Control Sample	70	68
MB 240-62366/6-A	Method Blank	66	63

Surrogate Legend

Surrogate Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	**Client Sample ID**	**DCPA1 (37-116)**	**DCPA2 (37-116)**
240-16590-2	FWG-IDW-MWDECON OCT2012	75	84
240-16590-2 MS	FWG-IDW-MWDECON OCT2012	68	61
240-16590-3	FWG-IDW-MWPURGE OCT 2012	64	70

Surrogate Legend

DCPA = 2,4-Dichlorophenylacetic acid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LCS 240-62622/13
Matrix: Water
Analysis Batch: 62622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.00	1.15		mg/L		115	71 - 133
1,2-Dichloroethane	1.00	1.04		mg/L		104	81 - 114
Benzene	1.00	0.925		mg/L		92	84 - 120
2-Butanone (MEK)	2.00	1.97		mg/L		98	49 - 120
Carbon tetrachloride	1.00	1.11		mg/L		111	54 - 122
Chlorobenzene	1.00	0.951		mg/L		95	86 - 111
Chloroform	1.00	0.966		mg/L		97	87 - 123
Tetrachloroethene	1.00	0.957		mg/L		96	79 - 134
Trichloroethene	1.00	1.01		mg/L		101	78 - 130
Vinyl chloride	1.00	0.976		mg/L		98	56 - 111

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*122*	*X*	*80 - 121*
4-Bromofluorobenzene (Surr)	*95*		*70 - 124*
Toluene-d8 (Surr)	*111*		*90 - 115*
Dibromofluoromethane (Surr)	*117*		*84 - 128*

Lab Sample ID: MB 240-62635/5
Matrix: Water
Analysis Batch: 62635

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			10/25/12 00:55	1
1,2-Dichloroethane	1.0	U	1.0	0.22	ug/L			10/25/12 00:55	1
Benzene	1.0	U	1.0	0.13	ug/L			10/25/12 00:55	1
2-Butanone (MEK)	10	U	10	0.57	ug/L			10/25/12 00:55	1
Carbon tetrachloride	1.0	U	1.0	0.13	ug/L			10/25/12 00:55	1
Chlorobenzene	1.0	U	1.0	0.15	ug/L			10/25/12 00:55	1
Chloroform	1.0	U	1.0	0.16	ug/L			10/25/12 00:55	1
Tetrachloroethene	1.0	U	1.0	0.29	ug/L			10/25/12 00:55	1
Trichloroethene	1.0	U	1.0	0.17	ug/L			10/25/12 00:55	1
Vinyl chloride	1.0	U	1.0	0.22	ug/L			10/25/12 00:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*63 - 129*		*10/25/12 00:55*	*1*
4-Bromofluorobenzene (Surr)	*75*		*66 - 117*		*10/25/12 00:55*	*1*
Toluene-d8 (Surr)	*91*		*74 - 115*		*10/25/12 00:55*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 121*		*10/25/12 00:55*	*1*

Lab Sample ID: LCS 240-62635/4
Matrix: Water
Analysis Batch: 62635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	9.43		ug/L		94	78 - 131
1,2-Dichloroethane	10.0	9.99		ug/L		100	71 - 127
Benzene	10.0	9.50		ug/L		95	83 - 112
2-Butanone (MEK)	20.0	20.7		ug/L		103	60 - 126
Carbon tetrachloride	10.0	9.22		ug/L		92	66 - 128

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-62635/4
Matrix: Water
Analysis Batch: 62635

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorobenzene	10.0	8.92		ug/L		89	85 - 110
Chloroform	10.0	9.43		ug/L		94	79 - 117
Tetrachloroethene	10.0	8.33		ug/L		83	79 - 114
Trichloroethene	10.0	8.99		ug/L		90	76 - 117
Vinyl chloride	10.0	9.05		ug/L		91	53 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*63 - 129*
4-Bromofluorobenzene (Surr)	*105*		*66 - 117*
Toluene-d8 (Surr)	*94*		*74 - 115*
Dibromofluoromethane (Surr)	*97*		*75 - 121*

Lab Sample ID: LB 240-62356/1-A MB
Matrix: Water
Analysis Batch: 62622

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.025	U	0.025	0.0095	mg/L			10/24/12 21:26	1
1,2-Dichloroethane	0.025	U	0.025	0.011	mg/L			10/24/12 21:26	1
Benzene	0.025	U	0.025	0.0065	mg/L			10/24/12 21:26	1
2-Butanone (MEK)	0.25	U	0.25	0.029	mg/L			10/24/12 21:26	1
Carbon tetrachloride	0.025	U	0.025	0.0065	mg/L			10/24/12 21:26	1
Chlorobenzene	0.025	U	0.025	0.0075	mg/L			10/24/12 21:26	1
Chloroform	0.025	U	0.025	0.0080	mg/L			10/24/12 21:26	1
Tetrachloroethene	0.025	U	0.025	0.015	mg/L			10/24/12 21:26	1
Trichloroethene	0.025	U	0.025	0.0085	mg/L			10/24/12 21:26	1
Vinyl chloride	0.025	U	0.025	0.011	mg/L			10/24/12 21:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*80 - 121*		*10/24/12 21:26*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 124*		*10/24/12 21:26*	*1*
Toluene-d8 (Surr)	*110*		*90 - 115*		*10/24/12 21:26*	*1*
Dibromofluoromethane (Surr)	*118*		*84 - 128*		*10/24/12 21:26*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-62352/10-A
Matrix: Water
Analysis Batch: 62526

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62352

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.0040	U	0.0040	0.00034	mg/L		10/23/12 08:18	10/24/12 11:55	1
2,4,5-Trichlorophenol	0.020	U	0.020	0.00030	mg/L		10/23/12 08:18	10/24/12 11:55	1
2,4,6-Trichlorophenol	0.020	U	0.020	0.00080	mg/L		10/23/12 08:18	10/24/12 11:55	1
2,4-Dinitrotoluene	0.020	U	0.020	0.00027	mg/L		10/23/12 08:18	10/24/12 11:55	1
Hexachlorobenzene	0.020	U	0.020	0.00010	mg/L		10/23/12 08:18	10/24/12 11:55	1
Hexachlorobutadiene	0.020	U	0.020	0.00027	mg/L		10/23/12 08:18	10/24/12 11:55	1
Hexachloroethane	0.020	U	0.020	0.00080	mg/L		10/23/12 08:18	10/24/12 11:55	1
3 & 4 Methylphenol	0.040	U	0.040	0.00075	mg/L		10/23/12 08:18	10/24/12 11:55	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-62352/10-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62526 — **Prep Batch: 62352**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	0.0040	U	0.0040	0.00080	mg/L		10/23/12 08:18	10/24/12 11:55	1
Nitrobenzene	0.0040	U	0.0040	0.000040	mg/L		10/23/12 08:18	10/24/12 11:55	1
Pentachlorophenol	0.040	U	0.040	0.0024	mg/L		10/23/12 08:18	10/24/12 11:55	1
Pyridine	0.020	U	0.020	0.00035	mg/L		10/23/12 08:18	10/24/12 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*73*		*30 - 110*	*10/23/12 08:18*	*10/24/12 11:55*	*1*
2-Fluorophenol (Surr)	*71*		*20 - 110*	*10/23/12 08:18*	*10/24/12 11:55*	*1*
2,4,6-Tribromophenol (Surr)	*75*		*23 - 110*	*10/23/12 08:18*	*10/24/12 11:55*	*1*
Nitrobenzene-d5 (Surr)	*74*		*28 - 110*	*10/23/12 08:18*	*10/24/12 11:55*	*1*
Phenol-d5 (Surr)	*63*		*21 - 110*	*10/23/12 08:18*	*10/24/12 11:55*	*1*
Terphenyl-d14 (Surr)	*87*		*48 - 110*	*10/23/12 08:18*	*10/24/12 11:55*	*1*

Lab Sample ID: LCS 240-62352/11-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62526 — **Prep Batch: 62352**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.0800	0.0492		mg/L		61	48 - 110
2,4,5-Trichlorophenol	0.0800	0.0543		mg/L		68	51 - 110
2,4,6-Trichlorophenol	0.0800	0.0503		mg/L		63	46 - 110
2,4-Dinitrotoluene	0.0800	0.0548		mg/L		68	54 - 110
Hexachlorobenzene	0.0800	0.0518		mg/L		65	50 - 110
Hexachlorobutadiene	0.0800	0.0485		mg/L		61	34 - 110
Hexachloroethane	0.0800	0.0503		mg/L		63	41 - 110
3 & 4 Methylphenol	0.160	0.106		mg/L		66	48 - 110
2-Methylphenol	0.0800	0.0537		mg/L		67	44 - 111
Nitrobenzene	0.0800	0.0527		mg/L		66	40 - 110
Pentachlorophenol	0.0800	0.0237	J	mg/L		30	12 - 110
Pyridine	0.0800	0.0553		mg/L		69	30 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*61*		*30 - 110*
2-Fluorophenol (Surr)	*64*		*20 - 110*
2,4,6-Tribromophenol (Surr)	*64*		*23 - 110*
Nitrobenzene-d5 (Surr)	*62*		*28 - 110*
Phenol-d5 (Surr)	*58*		*21 - 110*
Terphenyl-d14 (Surr)	*76*		*48 - 110*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 240-62355/6-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62714 — **Prep Batch: 62355**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	0.0050	U	0.0050	0.000033	mg/L		10/23/12 08:23	10/26/12 12:46	1
Endrin	0.00050	U	0.00050	0.000011	mg/L		10/23/12 08:23	10/26/12 12:46	1
Heptachlor	0.00050	U	0.00050	0.0000080	mg/L		10/23/12 08:23	10/26/12 12:46	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 240-62355/6-A
Matrix: Water
Analysis Batch: 62714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62355

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor epoxide	0.00050	U	0.00050	0.0000071	mg/L		10/23/12 08:23	10/26/12 12:46	1
gamma-BHC (Lindane)	0.00050	U	0.00050	0.0000064	mg/L		10/23/12 08:23	10/26/12 12:46	1
Methoxychlor	0.0010	U	0.0010	0.000032	mg/L		10/23/12 08:23	10/26/12 12:46	1
Toxaphene	0.020	U	0.020	0.00032	mg/L		10/23/12 08:23	10/26/12 12:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*46 - 122*	*10/23/12 08:23*	*10/26/12 12:46*	*1*
Tetrachloro-m-xylene	*69*		*46 - 122*	*10/23/12 08:23*	*10/26/12 12:46*	*1*
DCB Decachlorobiphenyl	*57*		*34 - 141*	*10/23/12 08:23*	*10/26/12 12:46*	*1*
DCB Decachlorobiphenyl	*62*		*34 - 141*	*10/23/12 08:23*	*10/26/12 12:46*	*1*

Lab Sample ID: LCS 240-62355/7-A
Matrix: Water
Analysis Batch: 62714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 62355

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin	0.00200	0.00188	J	mg/L		94	59 - 136
Heptachlor	0.00200	0.00160	J	mg/L		80	63 - 123
Heptachlor epoxide	0.00200	0.00178	J	mg/L		89	59 - 141
gamma-BHC (Lindane)	0.00200	0.00170	J	mg/L		85	59 - 137
Methoxychlor	0.00400	0.00352	J	mg/L		88	42 - 141

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*85*		*46 - 122*
Tetrachloro-m-xylene	*77*		*46 - 122*
DCB Decachlorobiphenyl	*79*		*34 - 141*
DCB Decachlorobiphenyl	*83*		*34 - 141*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 240-62366/6-A
Matrix: Water
Analysis Batch: 63486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62366

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.0020	U	0.0020	0.00021	mg/L		10/23/12 08:37	11/01/12 13:41	1
Silvex (2,4,5-TP)	0.00050	U	0.00050	0.00010	mg/L		10/23/12 08:37	11/01/12 13:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*66*		*37 - 116*	*10/23/12 08:37*	*11/01/12 13:41*	*1*
2,4-Dichlorophenylacetic acid	*63*		*37 - 116*	*10/23/12 08:37*	*11/01/12 13:41*	*1*

Lab Sample ID: LCS 240-62366/7-A
Matrix: Water
Analysis Batch: 63486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 62366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	0.0200	0.0151		mg/L		75	35 - 136
Silvex (2,4,5-TP)	0.00500	0.00346		mg/L		69	46 - 112

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 240-62366/7-A
Matrix: Water
Analysis Batch: 63486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 62366

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	*70*		*37 - 116*
2,4-Dichlorophenylacetic acid	*68*		*37 - 116*

Lab Sample ID: 240-16590-2 MS
Matrix: Water
Analysis Batch: 63486

Client Sample ID: FWG-IDW-MWDECON OCT2012
Prep Type: TCLP
Prep Batch: 62366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-D	0.0020	U	0.0200	0.0126		mg/L		63	54 - 114
Silvex (2,4,5-TP)	0.00050	U	0.00500	0.00343		mg/L		69	52 - 124

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4-Dichlorophenylacetic acid	*68*		*37 - 116*
2,4-Dichlorophenylacetic acid	*61*		*37 - 116*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-62431/2-A
Matrix: Water
Analysis Batch: 62695

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 62431

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.50	U	0.50	0.0032	mg/L		10/23/12 12:03	10/24/12 11:41	1
Barium	10	U	10	0.00067	mg/L		10/23/12 12:03	10/24/12 11:41	1
Cadmium	0.10	U	0.10	0.00066	mg/L		10/23/12 12:03	10/24/12 11:41	1
Chromium	0.50	U	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 11:41	1
Lead	0.50	U	0.50	0.0019	mg/L		10/23/12 12:03	10/24/12 11:41	1
Selenium	0.25	U	0.25	0.0041	mg/L		10/23/12 12:03	10/24/12 11:41	1
Silver	0.50	U	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 11:41	1

Lab Sample ID: LCS 240-62431/3-A
Matrix: Water
Analysis Batch: 62695

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 62431

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.00	2.19		mg/L		109	50 - 150
Barium	2.00	2.15	J	mg/L		108	50 - 150
Cadmium	0.0500	0.0538	J	mg/L		108	50 - 150
Chromium	0.200	0.217	J	mg/L		109	50 - 150
Lead	0.500	0.535		mg/L		107	50 - 150
Selenium	2.00	2.21		mg/L		111	50 - 150
Silver	0.0500	0.0581	J	mg/L		116	50 - 150

Lab Sample ID: LB 240-62305/1-D LB
Matrix: Water
Analysis Batch: 62695

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 62431

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.00488	J	0.50	0.0032	mg/L		10/23/12 12:03	10/24/12 11:33	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LB 240-62305/1-D LB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: 62695 — **Prep Batch: 62431**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.00237	J	10	0.00067	mg/L		10/23/12 12:03	10/24/12 11:33	1
Cadmium	0.10	U	0.10	0.00066	mg/L		10/23/12 12:03	10/24/12 11:33	1
Chromium	0.50	U	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 11:33	1
Lead	0.50	U	0.50	0.0019	mg/L		10/23/12 12:03	10/24/12 11:33	1
Selenium	0.25	U	0.25	0.0041	mg/L		10/23/12 12:03	10/24/12 11:33	1
Silver	0.50	U	0.50	0.0022	mg/L		10/23/12 12:03	10/24/12 11:33	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 240-62432/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62722 — **Prep Batch: 62432**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.00012	mg/L		10/23/12 15:40	10/24/12 13:04	1

Lab Sample ID: LCS 240-62432/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62722 — **Prep Batch: 62432**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00500	0.00467		mg/L		93	50 - 150

Lab Sample ID: LB 240-62305/1-E LB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: TCLP**
Analysis Batch: 62722 — **Prep Batch: 62432**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0020	U	0.0020	0.00012	mg/L		10/23/12 15:40	10/24/12 13:37	1

Method: 1010 - Ignitability, Pensky-Martens Closed-Cup Method

Lab Sample ID: LCS 240-63274/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 63274

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Flashpoint	81.0	83.00		Degrees F		102	97 - 103

Lab Sample ID: 240-16590-2 DU — **Client Sample ID: FWG-IDW-MWDECON OCT2012**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 63274

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Flashpoint	>180		>180		Degrees F		NC	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 240-62398/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62472 — **Prep Batch: 62398**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.010	U	0.010	0.0050	mg/L		10/23/12 13:00	10/23/12 15:12	1

Lab Sample ID: LCS 240-62398/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62472 — **Prep Batch: 62398**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0498	0.0433		mg/L		87	69 - 118

Lab Sample ID: MRL 240-62472/6 MRL — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62472

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.00933	J	mg/L		93	70 - 130

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 240-62502/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62550 — **Prep Batch: 62502**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	3.0	U	3.0	0.94	mg/L		10/24/12 08:16	10/24/12 10:53	1

Lab Sample ID: LCS 240-62502/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62550 — **Prep Batch: 62502**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	8.80	8.13		mg/L		92	70 - 130

Lab Sample ID: 240-16590-2 MS — **Client Sample ID: FWG-IDW-MWDECON OCT2012**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62550 — **Prep Batch: 62502**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	3.0	U	8.80	6.93		mg/L		79	27 - 124

Lab Sample ID: 240-16590-2 MSD — **Client Sample ID: FWG-IDW-MWDECON OCT2012**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 62550 — **Prep Batch: 62502**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	3.0	U	8.80	6.53		mg/L		74	27 - 124	6	20

Method: 9040B - pH

Lab Sample ID: LCS 240-61765/18
Matrix: Water
Analysis Batch: 61765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.49	7.490		SU		100	97 - 103

Lab Sample ID: LCS 240-61765/36
Matrix: Water
Analysis Batch: 61765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.49	7.490		SU		100	97 - 103

GC/MS VOA

Leach Batch: 62356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	1311	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	1311	
LB 240-62356/1-A MB	Method Blank	TCLP	Water	1311	

Analysis Batch: 62622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	8260B	62356
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	8260B	62356
LB 240-62356/1-A MB	Method Blank	TCLP	Water	8260B	62356
LCS 240-62622/13	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 62635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-1	FWG-IDW-MWTB OCT2012	Total/NA	Water	8260B	
LCS 240-62635/4	Lab Control Sample	Total/NA	Water	8260B	
MB 240-62635/5	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Leach Batch: 62305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	1311	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	1311	

Prep Batch: 62352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	3510C	62305
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	3510C	62305
LCS 240-62352/11-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-62352/10-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 62526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	8270C	62352
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	8270C	62352
LCS 240-62352/11-A	Lab Control Sample	Total/NA	Water	8270C	62352
MB 240-62352/10-A	Method Blank	Total/NA	Water	8270C	62352

GC Semi VOA

Leach Batch: 62305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	1311	
240-16590-2 MS	FWG-IDW-MWDECON OCT2012	TCLP	Water	1311	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	1311	

Prep Batch: 62355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	3510C	62305
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	3510C	62305
LCS 240-62355/7-A	Lab Control Sample	Total/NA	Water	3510C	
MB 240-62355/6-A	Method Blank	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 62366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	8151A	62305
240-16590-2 MS	FWG-IDW-MWDECON OCT2012	TCLP	Water	8151A	62305
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	8151A	62305
LCS 240-62366/7-A	Lab Control Sample	Total/NA	Water	8151A	
MB 240-62366/6-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 62714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	8081A	62355
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	8081A	62355
LCS 240-62355/7-A	Lab Control Sample	Total/NA	Water	8081A	62355
MB 240-62355/6-A	Method Blank	Total/NA	Water	8081A	62355

Analysis Batch: 63486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	8151A	62366
240-16590-2 MS	FWG-IDW-MWDECON OCT2012	TCLP	Water	8151A	62366
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	8151A	62366
LCS 240-62366/7-A	Lab Control Sample	Total/NA	Water	8151A	62366
MB 240-62366/6-A	Method Blank	Total/NA	Water	8151A	62366

Metals

Leach Batch: 62305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	1311	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	1311	
LB 240-62305/1-D LB	Method Blank	TCLP	Water	1311	
LB 240-62305/1-E LB	Method Blank	TCLP	Water	1311	

Prep Batch: 62431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	3010A	62305
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	3010A	62305
LB 240-62305/1-D LB	Method Blank	TCLP	Water	3010A	62305
LCS 240-62431/3-A	Lab Control Sample	Total/NA	Water	3010A	
MB 240-62431/2-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 62432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	7470A	62305
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	7470A	62305
LB 240-62305/1-E LB	Method Blank	TCLP	Water	7470A	62305
LCS 240-62432/3-A	Lab Control Sample	Total/NA	Water	7470A	
MB 240-62432/2-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 62695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	6010B	62431
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	6010B	62431
LB 240-62305/1-D LB	Method Blank	TCLP	Water	6010B	62431
LCS 240-62431/3-A	Lab Control Sample	Total/NA	Water	6010B	62431

Metals (Continued)

Analysis Batch: 62695 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 240-62431/2-A	Method Blank	Total/NA	Water	6010B	62431

Analysis Batch: 62722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	TCLP	Water	7470A	62432
240-16590-3	FWG-IDW-MWPURGE OCT 2012	TCLP	Water	7470A	62432
LB 240-62305/1-E LB	Method Blank	TCLP	Water	7470A	62432
LCS 240-62432/3-A	Lab Control Sample	Total/NA	Water	7470A	62432
MB 240-62432/2-A	Method Blank	Total/NA	Water	7470A	62432

General Chemistry

Analysis Batch: 61765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9040B	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	Total/NA	Water	9040B	
LCS 240-61765/18	Lab Control Sample	Total/NA	Water	9040B	
LCS 240-61765/36	Lab Control Sample	Total/NA	Water	9040B	

Prep Batch: 62398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9012A	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	Total/NA	Water	9012A	
LCS 240-62398/2-A	Lab Control Sample	Total/NA	Water	9012A	
MB 240-62398/1-A	Method Blank	Total/NA	Water	9012A	

Analysis Batch: 62472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9012A	62398
240-16590-3	FWG-IDW-MWPURGE OCT 2012	Total/NA	Water	9012A	62398
LCS 240-62398/2-A	Lab Control Sample	Total/NA	Water	9012A	62398
MB 240-62398/1-A	Method Blank	Total/NA	Water	9012A	62398
MRL 240-62472/6 MRL	Lab Control Sample	Total/NA	Water	9012A	

Prep Batch: 62502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9030B	
240-16590-2 MS	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9030B	
240-16590-2 MSD	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9030B	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	Total/NA	Water	9030B	
LCS 240-62502/2-A	Lab Control Sample	Total/NA	Water	9030B	
MB 240-62502/1-A	Method Blank	Total/NA	Water	9030B	

Analysis Batch: 62550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9034	62502
240-16590-2 MS	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9034	62502
240-16590-2 MSD	FWG-IDW-MWDECON OCT2012	Total/NA	Water	9034	62502
240-16590-3	FWG-IDW-MWPURGE OCT 2012	Total/NA	Water	9034	62502
LCS 240-62502/2-A	Lab Control Sample	Total/NA	Water	9034	62502
MB 240-62502/1-A	Method Blank	Total/NA	Water	9034	62502

General Chemistry (Continued)

Analysis Batch: 63274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-16590-2	FWG-IDW-MWDECON OCT2012	Total/NA	Water	1010	
240-16590-2 DU	FWG-IDW-MWDECON OCT2012	Total/NA	Water	1010	
240-16590-3	FWG-IDW-MWPURGE OCT 2012	Total/NA	Water	1010	
LCS 240-63274/1	Lab Control Sample	Total/NA	Water	1010	

Lab Chronicle

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Client Sample ID: FWG-IDW-MWTB OCT2012

Lab Sample ID: 240-16590-1

Date Collected: 10/18/12 08:30
Matrix: Water
Date Received: 10/18/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	62635	10/25/12 08:57	RQ	TAL NC

Client Sample ID: FWG-IDW-MWDECON OCT2012

Lab Sample ID: 240-16590-2

Date Collected: 10/18/12 09:00
Matrix: Water
Date Received: 10/18/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			62356	10/22/12 15:50	BF	TAL NC
TCLP	Analysis	8260B		1	62622	10/24/12 22:41	TL	TAL NC
TCLP	Leach	1311			62305	10/22/12 15:36	DJ	TAL NC
TCLP	Prep	3510C			62352	10/23/12 08:18	AC	TAL NC
TCLP	Analysis	8270C		1	62526	10/24/12 20:23	JG	TAL NC
TCLP	Leach	1311			62305	10/22/12 15:36	DJ	TAL NC
TCLP	Prep	3510C			62355	10/23/12 08:23	AC	TAL NC
TCLP	Analysis	8081A		1	62714	10/26/12 11:41	CV	TAL NC
TCLP	Prep	8151A			62366	10/23/12 08:37	SE	TAL NC
TCLP	Analysis	8151A		1	63486	11/01/12 12:06	CR	TAL NC
TCLP	Leach	1311			62305	10/22/12 15:36	DJ	TAL NC
TCLP	Prep	3010A			62431	10/23/12 12:03	AS	TAL NC
TCLP	Analysis	6010B		1	62695	10/24/12 12:18	KC	TAL NC
TCLP	Prep	7470A			62432	10/23/12 15:40	AS	TAL NC
TCLP	Analysis	7470A		1	62722	10/24/12 13:29	RT	TAL NC
Total/NA	Analysis	9040B		1	61765	10/18/12 18:05	LG	TAL NC
Total/NA	Prep	9012A			62398	10/23/12 13:00	CN	TAL NC
Total/NA	Analysis	9012A		1	62472	10/23/12 15:12	CN	TAL NC
Total/NA	Prep	9030B			62502	10/24/12 08:16	BW	TAL NC
Total/NA	Analysis	9034		1	62550	10/24/12 11:29	BW	TAL NC
Total/NA	Analysis	1010		1	63274	10/30/12 07:54	TH	TAL NC

Client Sample ID: FWG-IDW-MWPURGE OCT 2012

Lab Sample ID: 240-16590-3

Date Collected: 10/18/12 09:30
Matrix: Water
Date Received: 10/18/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			62356	10/22/12 15:50	BF	TAL NC
TCLP	Analysis	8260B		1	62622	10/24/12 23:04	TL	TAL NC
TCLP	Leach	1311			62305	10/22/12 15:36	DJ	TAL NC
TCLP	Prep	3510C			62352	10/23/12 08:18	AC	TAL NC
TCLP	Analysis	8270C		1	62526	10/24/12 20:05	JG	TAL NC
TCLP	Leach	1311			62305	10/22/12 15:36	DJ	TAL NC
TCLP	Prep	3510C			62355	10/23/12 08:23	AC	TAL NC
TCLP	Analysis	8081A		1	62714	10/26/12 12:02	CV	TAL NC
TCLP	Prep	8151A			62366	10/23/12 08:37	SE	TAL NC
TCLP	Analysis	8151A		1	63486	11/01/12 12:54	CR	TAL NC
TCLP	Leach	1311			62305	10/22/12 15:36	DJ	TAL NC

Lab Chronicle

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Client Sample ID: FWG-IDW-MWPURGE OCT 2012

Lab Sample ID: 240-16590-3

Date Collected: 10/18/12 09:30
Matrix: Water
Date Received: 10/18/12 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Prep	3010A			62431	10/23/12 12:03	AS	TAL NC
TCLP	Analysis	6010B		1	62695	10/24/12 12:24	KC	TAL NC
TCLP	Prep	7470A			62432	10/23/12 15:40	AS	TAL NC
TCLP	Analysis	7470A		1	62722	10/24/12 13:25	RT	TAL NC
Total/NA	Analysis	9040B		1	61765	10/18/12 18:08	LG	TAL NC
Total/NA	Prep	9012A			62398	10/23/12 13:00	CN	TAL NC
Total/NA	Analysis	9012A		1	62472	10/23/12 15:34	CN	TAL NC
Total/NA	Prep	9030B			62502	10/24/12 08:16	BW	TAL NC
Total/NA	Analysis	9034		1	62550	10/24/12 12:23	BW	TAL NC
Total/NA	Analysis	1010		1	63274	10/30/12 08:22	TH	TAL NC

Laboratory References:

TAL NC = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Environmental Quality Mgt., Inc.
Project/Site: RVAAP (66)

TestAmerica Job ID: 240-16590-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	NELAC	9	01144CA	06-30-13
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAC	4	E87225	06-30-13
Georgia	State Program	4	N/A	06-30-13
Illinois	NELAC	5	200004	07-31-13
Kansas	NELAC	7	E-10336	01-31-13
Kentucky	State Program	4	58	11-16-12
L-A-B	DoD ELAP		L2315	02-28-13
Minnesota	NELAC	5	039-999-348	12-31-12
Nevada	State Program	9	OH-000482008A	07-31-13
New Jersey	NELAC	2	OH001	06-30-13
New York	NELAC	2	10975	04-01-13
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAC	3	68-00340	08-31-13
Texas	NELAC	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAC	3	460175	09-14-13
Washington	State Program	10	C971	01-12-13
West Virginia DEP	State Program	3	210	12-31-12
Wisconsin	State Program	5	999518190	08-31-13

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: North Canton
Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc.

Client Contact				
Company Name: EQM	Client Project Manager: John Miller	Site Contact: Erik Corbin	Lab Contact: Mark Loeb	COC No: 024801
Address: 1800 Carillon Blvd	Telephone:	Telephone:	Telephone:	1 of 1 COCs
City/State/Zip: Cincinnati OH 45240	Email: ecorbin@eqm.com	Analysis Turnaround Time		
Phone: 513 825 7500		TAT if different from below: ☐ 3 weeks ☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		
Project Name: RVAAP (66)	Method of Shipment/Carrier: Client Drop off			
Project Number: 030174.0016.001.03	Shipping/Tracking No: NA			
PO#				

Analyses

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y/N)	Composite (C/G)	Total VOC 8260	TCLP VOC	TCLP SVOC	TCLP RCRA Metals	TCLP Pesticides	TCLP Herbicides	Flashpoint 1010	pH 9040	Cyanide 9012	Sulfide 9034	Sample Specific Notes / Special Instructions: Cooler ID
FWG-IDW-MWTBOCT2012	10/18/12	0830		X						2					N	G	X										IDW1
FWG-IDW-MWDECONOCT2012	10/18/12	0900		X							1	1	7		N	C		X	X	X	X	X	X	X	X	X	IDW2 (TCLP VOC bottle is in IDW1)
FWG-IDW-MWPURGEOCT2012	10/18/12	0930		X							1	1	7		N	C		X	X	X	X	X	X	X	X	X	IDW1

EC 10/18/12

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:
Samples collected close to pick-up time may not meet requirements.
All VOCs in cooler IDW1.

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Ralph Stong	EQM	10-18-12 1030			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Terry Burns	Company: TA	Date/Time: 10/18/12 1030

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TAL 0018-1 (04/10)

TestAmerica Canton Sample Receipt Form/Narrative **Login # :** 16590

Client EQM Site Name _____ By: _____

Cooler Received on 10/18/12 Opened on 10/18/12 (Signature)

FedEx: 1st Grd Exp UPS FAS Stetson ~~Client Drop Off~~ TestAmerica Courier Other _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: ~~Wet Ice~~ Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# 1	(CF 0°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 4G	(CF –1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 5G	(CF –1°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C
IR GUN# 8	(CF 0°C)	Observed Sample Temp. _____ °C	Corrected Sample Temp. _____ °C

Multiple on Back

2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 2 ~~Yes~~ No
   -Were custody seals on the outside of the cooler(s) signed & dated? ~~Yes~~ No NA
   -Were custody seals on the bottle(s)? Yes ~~No~~
3. Shippers' packing slip attached to the cooler(s)? Yes ~~No~~
4. Did custody papers accompany the sample(s)? ~~Yes~~ No
5. Were the custody papers relinquished & signed in the appropriate place? ~~Yes~~ No
6. Did all bottles arrive in good condition (Unbroken)? ~~Yes~~ No
7. Could all bottle labels be reconciled with the COC? ~~Yes~~ No
8. Were correct bottle(s) used for the test(s) indicated? ~~Yes~~ No
9. Sufficient quantity received to perform indicated analyses? ~~Yes~~ No
10. Were sample(s) at the correct pH upon receipt? ~~Yes~~ No NA
11. Were VOAs on the COC? ~~Yes~~ No
12. Were air bubbles >6 mm in any VOA vials? Yes ~~No~~ NA
13. Was a trip blank present in the cooler(s)? ~~Yes~~ No

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). Nitric Acid Lot# 031512-HNO3; Sulfuric Acid Lot# 041911-H2SO4; Sodium Hydroxide Lot# 121809 - NaOH; Hydrochloric Acid Lot# 041911-HCl; Sodium Hydroxide and Zinc Acetate Lot# 100108-(CH3COO)2ZN/NaOH. What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials
1	>9 >12	10/18/12	CSL
2	>9 >12	1	1

Cooler #	Observed Sample Temp. °C	Corrected Sample Temp. °C	IR #	Coolant
IDW2	6.4	5.4	5G	ICE
IDW1	6.7	5.7	1	1

Login Sample Receipt Checklist

Client: Environmental Quality Mgt., Inc.

Job Number: 240-16590-1

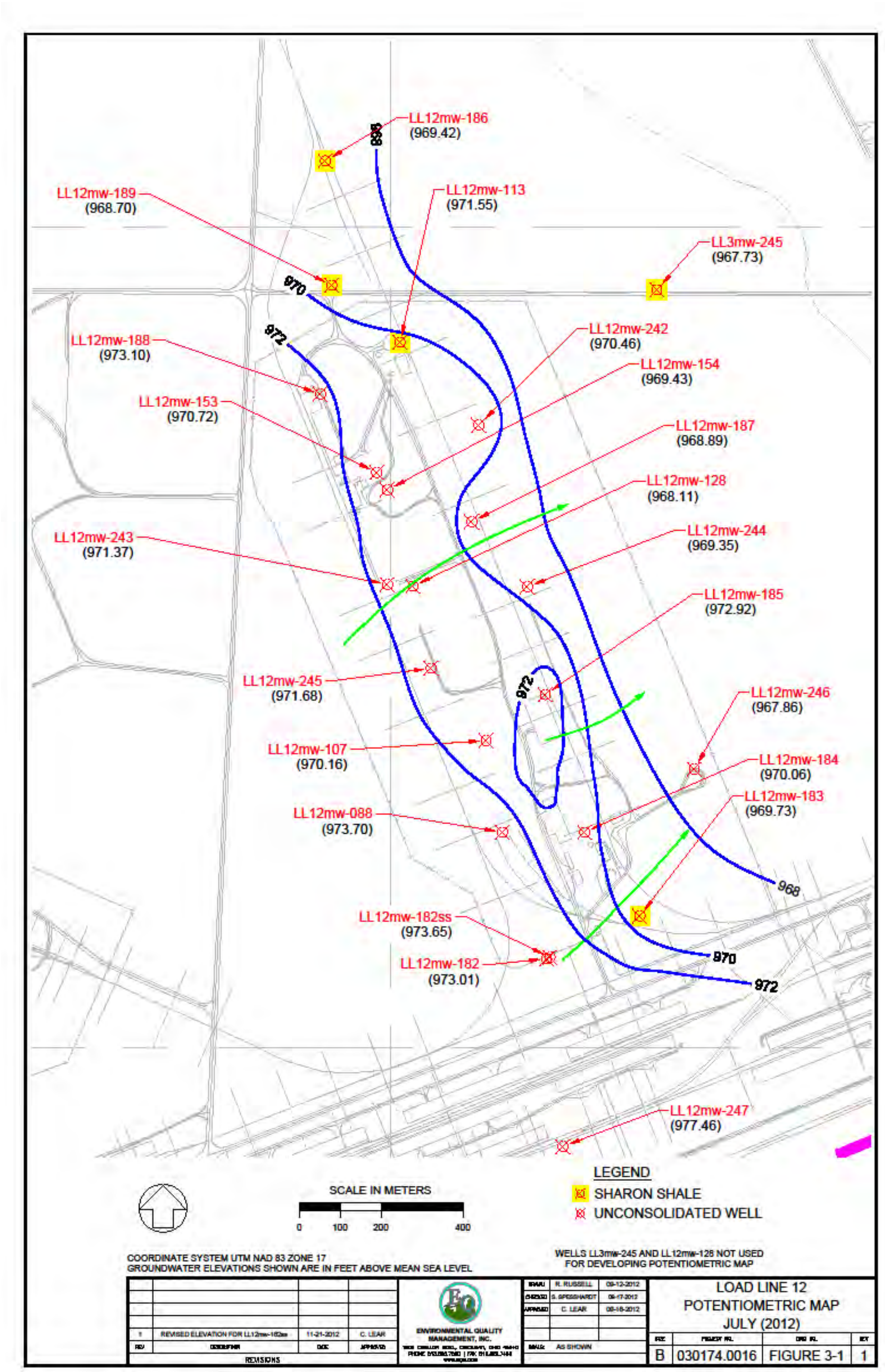
Login Number: 16590
List Number: 1
Creator: Livengood, Chris

List Source: TestAmerica Canton

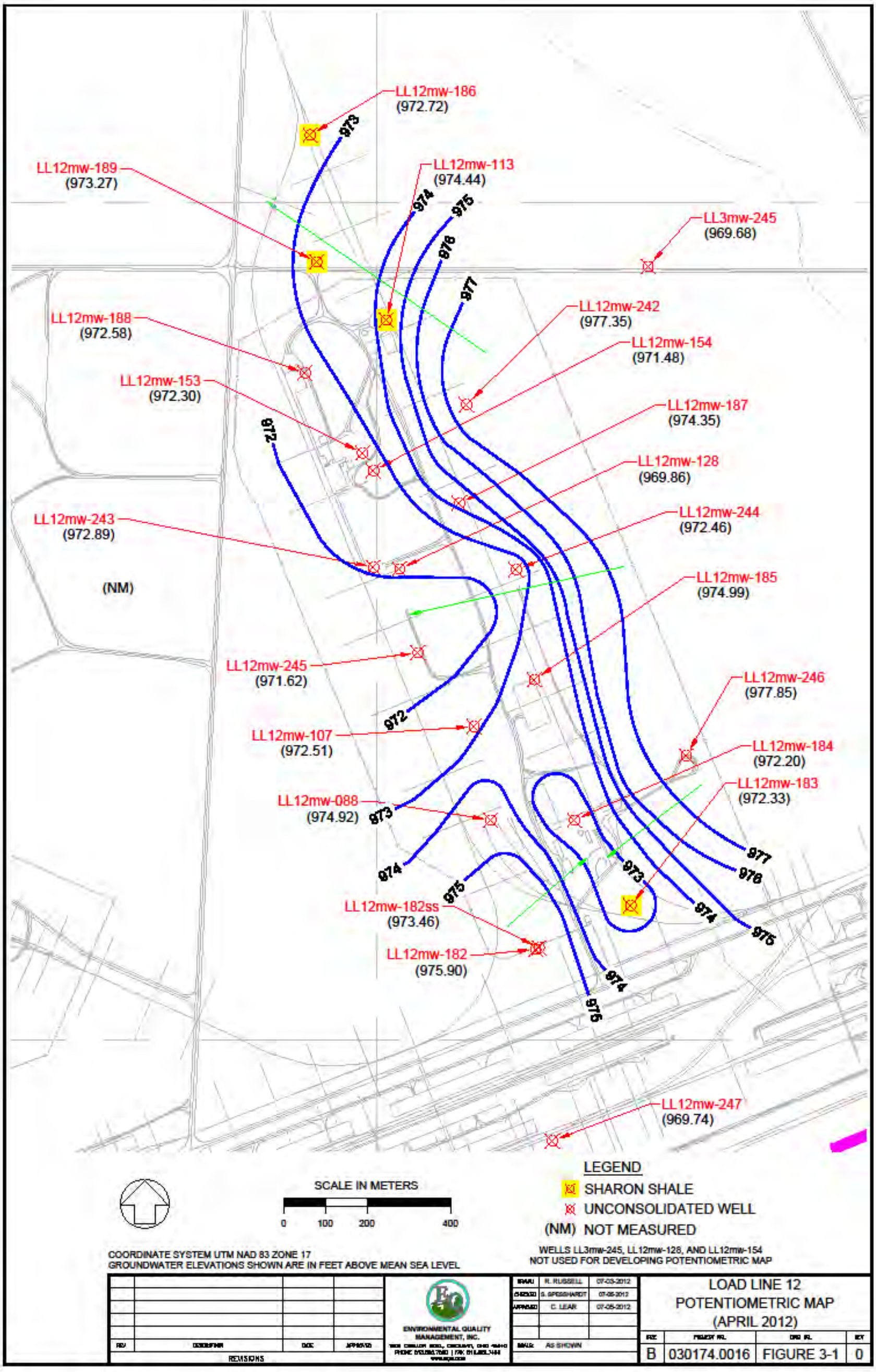
Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	REFER TO COOLER RECEIPT FORM
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	N/A	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	N/A	
Samples are received within Holding Time.	N/A	
Sample containers have legible labels.	N/A	
Containers are not broken or leaking.	N/A	
Sample collection date/times are provided.	N/A	
Appropriate sample containers are used.	N/A	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

APPENDIX F

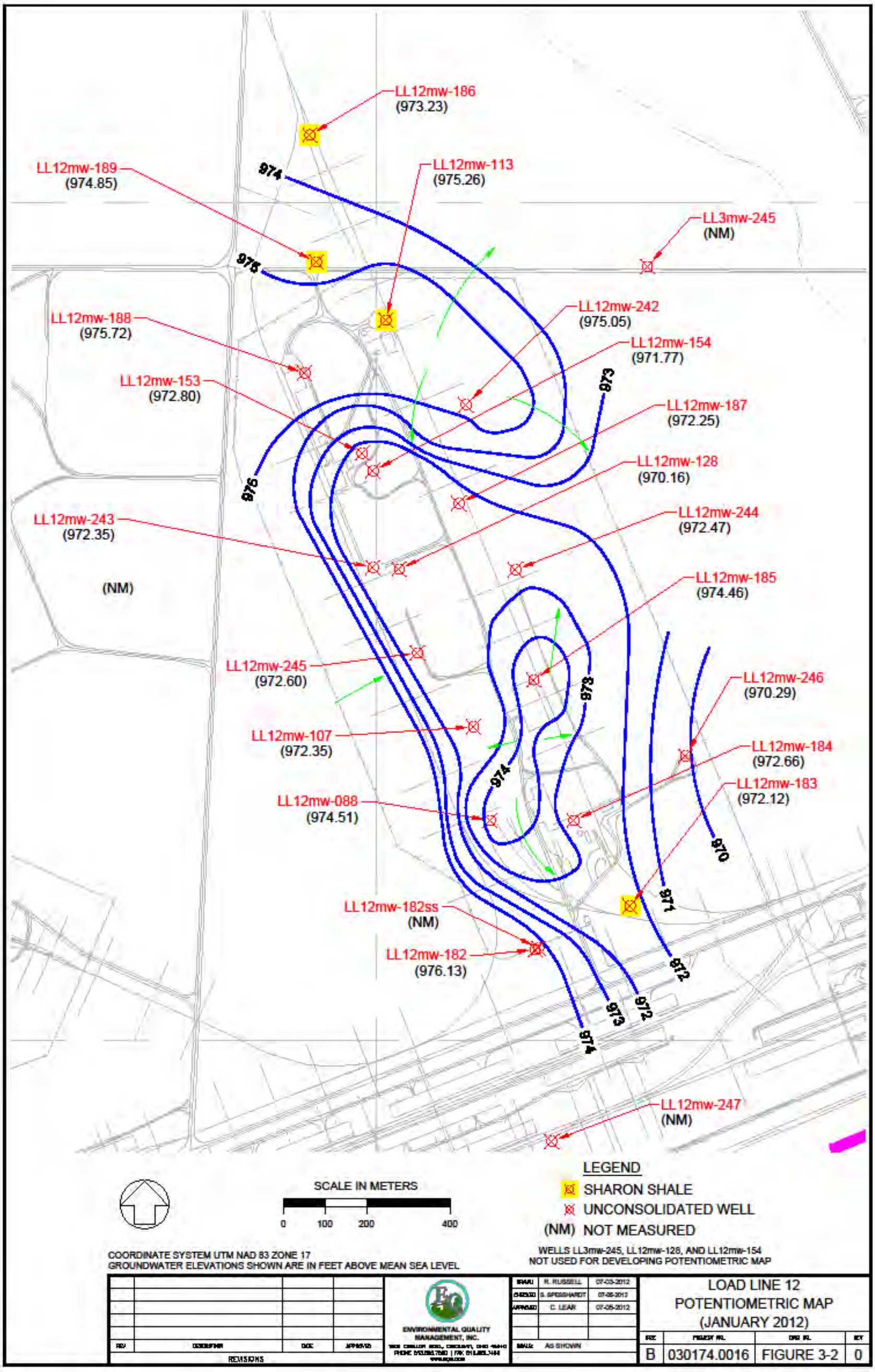
HISTORICAL LOADLINE 12 GROUNDWATER FLOW MAPS



July Potentiometric Load Line 12 Monitoring Well Map



April Potentiometric Load Line 12 Monitoring Well Map



January Potentiometric Load Line 12 Monitoring Well Map

APPENDIX G

REPORTING LIMITS THAT CURRENTLY DO NOT MEET THE RVAAP QAPP PROJECT ACTION REQUIRMENTS, MCLS, AND/OR RSLs

VOCs

CAS No.	Analyte Name	Units	MDL	LOD[1]	RL	PAR[2]	MCL	RSL
79-34-5	1,1,2,2-Tetrachloroethane	µg/L	0.18	0.25	1	1	NS	0.066
79-00-5	1,1,2-Trichloroethane	µg/L	0.27	0.5	1	1	5	0.24
106-93-4	1,2-Dibromoethane	µg/L	0.24	0.25	1	1	NS	0.0065
107-06-2	1,2-Dichloroethane	µg/L	0.22	0.25	1	1	5	0.15
75-27-4	Bromodichloromethane	µg/L	0.15	0.25	1	1	NS	0.12
124-48-1	Dibromochloromethane	µg/L	0.18	0.25	1	1	NS	0.15
127-18-4	Tetrachloroethene	µg/L	0.29	0.5	1	1	5	0.072

SVOCS

CAS No.	Analyte Name	Units	MDL	LOD[1]	RL	PAR[2]	MCL	RSL
121-14-2	2,4-Dinitrotoluene	µg/L	0.27	0.8	5	10	NS	0.2
91-94-1	3,3'-Dichlorobenzidine	µg/L	0.37	0.8	5	5	NS	0.11
534-52-1	4,6-Dinitro-2-methylphenol	µg/L	2.4	2.4	5	25	NS	1.2
106-47-8	4-Chloroaniline	µg/L	0.8	0.8	2	10	NS	0.32
56-55-3	Benzo(a)anthracene	µg/L	0.1	0.1	0.2	0.2	NS	0.029
50-32-8	Benzo(a)pyrene	µg/L	0.1	0.1	0.2	0.2	0.2	0.0029
205-99-2	Benzo(b)fluoranthene	µg/L	0.1	0.1	0.2	0.2	NS	0.029
111-44-4	bis(2-Chloroethyl)ether	µg/L	0.1	0.1	1	1	NS	0.012
53-70-3	Dibenzo(a,h)anthracene	µg/L	0.1	0.1	0.2	50	NS	0.0029
118-74-1	Hexachlorobenzene	µg/L	0.1	0.1	0.2	10	1	0.042
87-68-3	Hexachlorobutadiene	µg/L	0.27	0.8	1	10	NS	0.26
67-72-1	Hexachloroethane	µg/L	0.8	0.8	1	10	NS	0.79
193-39-5	Indeno(1,2,3-cd)pyrene	µg/L	0.1	0.1	0.2	0.2	NS	0.029
621-64-7	N-Nitroso-di-n-propylamine	µg/L	0.8	0.8	1	10	NS	0.0093
87-86-5	Pentachlorophenol	µg/L	2.4	2.4	5	5	1	0.035

Pesticides

CAS No.	Analyte Name	Units	MDL	LOD[1]	RL	PAR[2]	MCL	RSL
309-00-2	Aldrin	µg/L	0.0082	0.01	0.03	0.03	NS	0.004
319-84-6	alpha-BHC	µg/L	0.007	0.01	0.03	0.03	NS	0.0062
60-57-1	Dieldrin	µg/L	0.0075	0.01	0.03	0.03	NS	0.0015
76-44-8	Heptachlor	µg/L	0.008	0.01	0.03	0.03	0.4	0.0018
1024-57-3	Heptachlor epoxide	µg/L	0.0071	0.01	0.03	0.03	0.2	0.0033
8001-35-2	Toxaphene	µg/L	0.32	0.5	2	2	3	0.013

PCB

CAS No.	Analyte Name	Units	MDL	LOD[1]	RL	PAR[2]	MCL	RSL
11104-28-2	PCB- 1221	µg/L	0.13	0.2	0.5	0.2	0.5	0.004
11141-16-5	PCB- 1232	µg/L	0.16	0.2	0.5	0.2	0.5	0.004
53469-21-9	PCB- 1242	µg/L	0.22	0.4	0.5	0.2	0.5	0.034
12672-29-6	PCB- 1248	µg/L	0.1	0.2	0.5	0.2	0.5	0.034
11097-69-1	PCB- 1254	µg/L	0.16	0.2	0.5	0.2	0.5	0.034
11096-82-5	PCB- 1260	µg/L	0.17	0.2	0.5	0.2	0.5	0.034

Inorganics

CAS No.	Analyte Name	Units	MDL	LOD[1]	RL	PAR[2]	MCL	RSL
7440-38-2	Arsenic	µg/L	3.28	10	10	5	10	0.045
7440-70-2	Calcium	µg/L	634	1000	5000	100	NS	NS
57-12-5	Cyanide	mg/L	0.005	0.01	0.01	0.01	0.2	0.0014
7439-95-4	Magnesium	µg/L	122	300	5000	100	NS	NS
7440-09-7	Potassium	µg/L	300	900	5000	200	NS	NS
7440-28-0	Thallium	µg/L	0.32	1	2	1	2	0.16

Notes:

1- LOD= The smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate is 1%.

2- Project Action Requirements from table 4 of the Facility Wide QAPP

NS= No Standard

APPENDIX H

CORRESPONDENCE & COMMENT/RESPONSE TABLE

Ohio EPA
40 years and moving forward

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

April 22, 2013

CERTIFIED MAIL
7012 1010 0000 9467 6271

Mr. Mark Patterson
Installation Manager
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, OH 44266

Re: Ravenna Army Ammunition Plant, Portage/Trumbull Counties, Regarding Approval with Modifications, Draft FWGWMP – RVAAP-66 Facility Wide Groundwater October 2012 Sampling Event, Dated February 20, 2013 (Ohio EPA ID # 267-000859-036)

Dear Mr. Patterson:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the (Revised) "Draft Facility-Wide Ground Water Monitoring Program-RVAAP-66 Facility-wide Ground Water Report on the October 2012 Sampling Event" for the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio. This document was received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR), on February 21, 2013, and is dated February 20, 2013. The document was prepared for the U.S. Army Corps of Engineers (USACE) – Louisville District by EQM, under contract No. W912QR-11-F-0266.

Pursuant to The Directors Findings and Orders, Paragraph 39 (b), Ohio EPA approves the submittal upon specified conditions as presented below:

1. Global. All changes required in the Report on the July 2012 Ground Water Sampling Event related to the following should be corrected:

   a. Potentiometric surface maps (Plates 2, 3, and 4) should be updated, per comments on the July 2013 sampling event.

   b. Load Line 12 Discussion. The unusual ground water flow conditions (reversals) are atypical. These should not be included in ground water modeling applications.

2. Rationale for Sampling Well SCFMW-002. Table 2-2 (page 12) indicates that Well SCFMW-002 was only sampled for hexavalent chromium. Well SCFMW-002 was not one of the wells installed in 2012, and it is not clear why it was sampled as part of the quarterly sampling event. Additionally, it is not clear why well SCFMW-002 was sampled for hexavalent chromium. The sampling rationale for this well needs to be explained.

3. Bis(2-ethylhexyl)phthalate (BEHP) Source Evaluation Wells. The report indicated (pages viii and 39) October 2012 concentrations of BEHP in ground water samples from wells

E-MAILED 04-25-2013 RH

Scanned
By: RH
Date: 04-25-2013

RECEIVED 04-25-2013

LL12MW-182 (1.0 ug/l) and LL12MW-182SS (1.5 ug/l) are relatively low and similar to each other, as were results from the July sampling event. Note: The October 2012 sample results indicated method blank contamination. While both July and October 2012 sample results indicated that concentrations of BEHP were slightly lower in samples from the stainless steel well, well materials do not appear to be the source of the BEHP contamination at the facility. Another way to evaluate whether lab error may be causing the BEHP is to split samples between two different labs.

Please provide the corrected plates and text in accordance with the Director's Final Findings and Orders (DFFOs).

Pursuant to the CERCLA process, the property owner usually can provide the expected land uses to assist in ensuring that the investigation addresses all receptors for both current and future land uses. Be advised that due to land use uncertainty, Ohio EPA may require additional work in the future, to address data gaps. It is incumbent upon the Army to finalize land use at Camp Ravenna as soon as possible, otherwise additional work and schedule slippage may result.

This document was reviewed by personnel from Ohio EPA's Division of Environmental Response and Revitalization (DERR). Ohio EPA has determined that the document is approved upon satisfactory revision of the conditions outlined above. If you have any questions, please call Eileen Mohr.

Sincerely,

Nancy Zikmanis, CHMM
Environmental Supervisor
Division of Environmental Response and Revitalization

NZ/kss

cc: Ann Wood, NGB
Katie Tait, OHARNG RTLS
Cullen Grasty, U. .S Army Corps of Engineers

ec: Eileen Mohr, Ohio EPA, NEDO, DERR
Kevin Palombo, Ohio EPA, NEDO, DERR
Brian Tucker, Ohio EPA, CO, DERR
Justin Burke, Ohio EPA, CO, DERR
Al Muller, Ohio EPA, NEDO, DDAGW

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

MARK PATTERSON
RAVENNA ARMY AMMUNITION PLANT
8451 STATE ROUTE 5
RAVNNA OH 44266

COMPLETE THIS SECTION ON DELIVERY

A. Signature
x Rebecca Haney ☒ Agent ☐ Addressee

B. Received by (Printed Name) Rebecca Haney
C. Date of Delivery 4-25-2013

D. Is delivery address different from item 1? ☐ Yes
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☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number 7012 1010 0000 9467 6271 (04/23/13 K.Schillo for KP)
(Transfer from service label)

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OHIO EPA
NORTHEAST DISTRICT OFFICE
2110 EAST AURORA ROAD
TWINSBURG OH 44087

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Ohio EPA Comment Response Table
RVAAP – FWGWMP
Draft Facility-Wide Monitoring Program Groundwater
Report on The October 2012 Sampling Event Dated February 20, 2013
Reviewer: Nancy Zikmanis, Ohio EPA
(April 22, 2013)

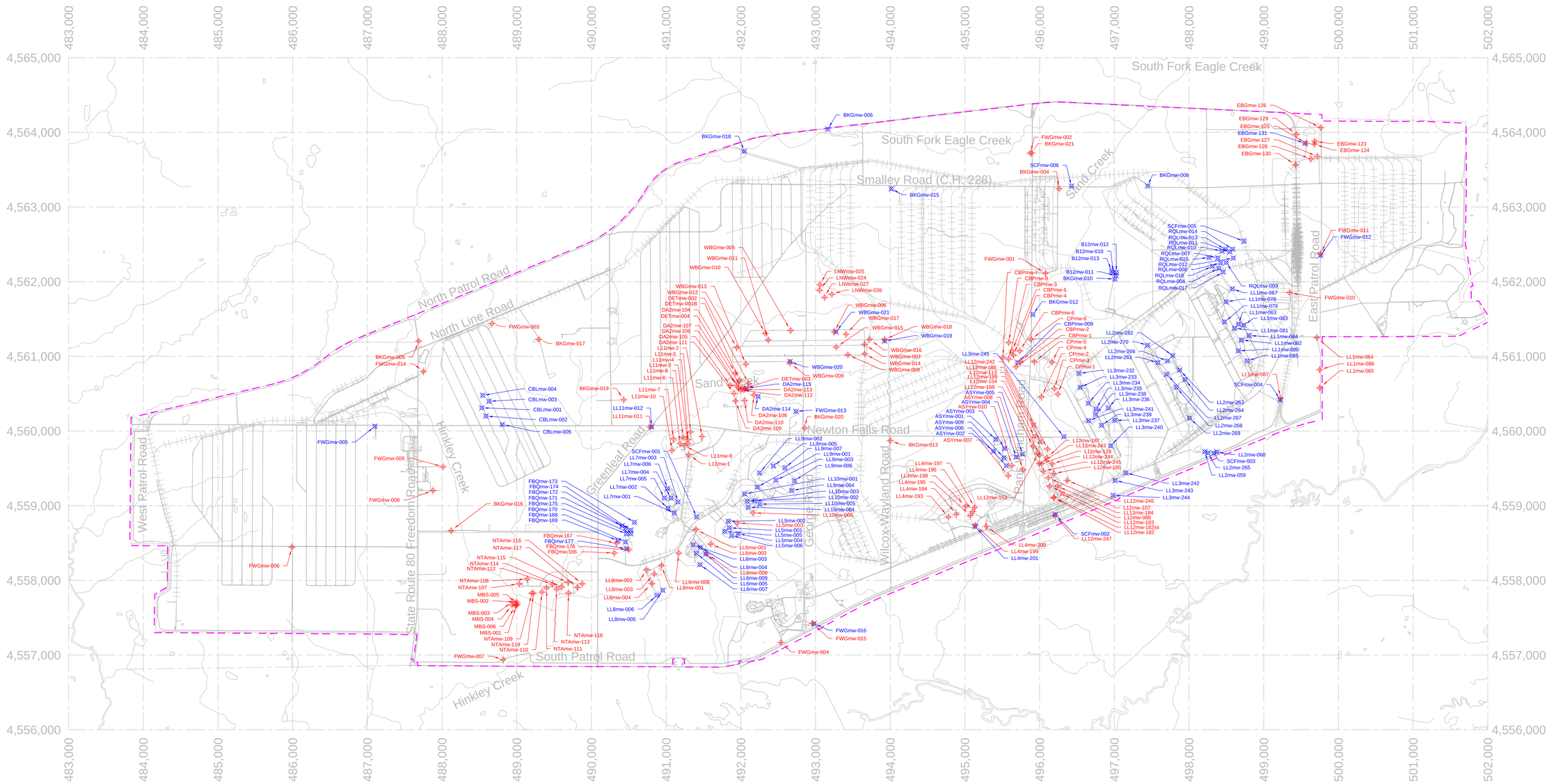
Comment Number	Page or Sheet	New Page or Sheet	Comment	Response
1	Global		All changes required in the Report on the July 2012 Ground Water Sampling Event related to the following should be corrected: a. Potentiometric surface maps (Plates 2, 3, and 4) should be updated, per comments on the July 2013 sampling event.	The potentiometric maps have been revised per the July Comment Response Table.
1b.			Load Line 12 Discussion. The unusual ground water flow conditions (reversals) are atypical. These should not be included in ground water modeling applications.	It is noted that the seasonal atypical April conditions will not be used during future modeling applications. The paragraph will be revised as follows: *Groundwater measurements have been collected quarterly since January 2012. Groundwater flow has generally been to the east toward the drainage ditch as evidenced during the January, July, and October 2012 sampling events. As mentioned previously, only the April 2012 event showed groundwater flow away from the ditch to the west. This appears to be a seasonal phenomenon related to periods of higher precipitation. Based on the Load Line 12 water level data, localized flow is controlled by the drainage ditch and precipitation events. Consequently, fluctuating conditions are expected to occur on a seasonal basis in the Load Line 12 area. Groundwater flow may also be partially influenced by preferential flow paths in the unconsolidated sediment.*
2	Table 2-2		Rationale for Sampling Well SCFMW-	As presented in the Ohio EPA approved *Facility-*

Ohio EPA Comment Response Table
RVAAP – FWGWMP
Draft Facility-Wide Monitoring Program Groundwater
Report on The October 2012 Sampling Event Dated February 20, 2013
Reviewer: Nancy Zikmanis, Ohio EPA
(April 22, 2013)

Comment Number	Page or Sheet	New Page or Sheet	Comment	Response
	p12		002. Table 2-2 (page 12) indicates that Well SCFMW-002 was only sampled for hexavalent chromium. Well SCFMW-002 was not one of the wells installed in 2012, and it is not clear why it was sampled as part of the quarterly sampling event. Additionally, it is not clear why well SCFMW-002 was sampled for hexavalent chromium. The sampling rationale for this well needs to be explained.	*Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Monitoring Addendum* dated January 2012, SCFnmw-002 is identified for hexavalent chromium analysis. As stated in Section 3.3.7 of the October sampling report: *Note that three wells (LL3mw-244, LL12mw-247 and SCFmw-002) were resampled for hexavalent chromium during the October 2012 monitoring event after being elevated above the RSL detection in July 2012.*
3	pages viii and 39		Bis(2-ethylhexyl)phthalate (BEHP) Source Evaluation Wells. The report indicated (pages viii and 39) October 2012 concentrations of BEHP in ground water samples from wells LL 12MW-182 (1.0 ug/1) and LL 12MW-182SS (1.5 ug/1) are relatively low and similar to each other, as were results from the July sampling event. Note: The October 2012 sample results indicated method blank contamination. While both July and October 2012 sample results indicated that concentrations of BEHP were slightly lower in samples from the stainless steel well, well materials do not appear to be the source of the BEHP contamination at the facility. Another way to evaluate whether lab error may be causing the BEHP is to split samples between two different labs.	At this point, BEHP is being evaluated as a chemical detected in the groundwater at RVAAP. As such it will be screened using the approved screening process to determine if it is a site related chemical (SRC) and eventually a COPC. Currently, split samples are collected quarterly from 10% of the wells sampled. However, the results from the split samples are not submitted to EQM; they are forwarded directly to the USACE from the laboratory. The results of the split samples will be evaluated to determine a comparison of laboratories, however as stated above we consider BEHP a groundwater SRC at RVAAP. Note that while there are results that contain method blank contamination, historically at RVAAP there are a significant number of detections for BEHP that are not associated with any blank contamination, hence the inclusion of BHEP as a potential SRC.

Ohio EPA Comment Response Table
RVAAP – FWGWMP
Draft Facility-Wide Monitoring Program Groundwater
Report on The October 2012 Sampling Event Dated February 20, 2013
Reviewer: Nancy Zikmanis, Ohio EPA
(April 22, 2013)

Comment Number	Page or Sheet	New Page or Sheet	Comment	Response
4	General Comment		Please provide the corrected plates and text in accordance with the DFFO.	The corrected plates are attached to these responses. The text will be revised as stated in the responses for the final submittal.



LEGEND

- WELL COMPLETED IN UNCONSOLIDATED MATERIAL
- WELL COMPLETED IN BEDROCK
- PROPERTY LINE

N

0 500 1000

SCALE (METERS)

COORDINATE SYSTEM UTM NAD 83 ZONE 17

REV	DESCRIPTION	DATE	APPROVED

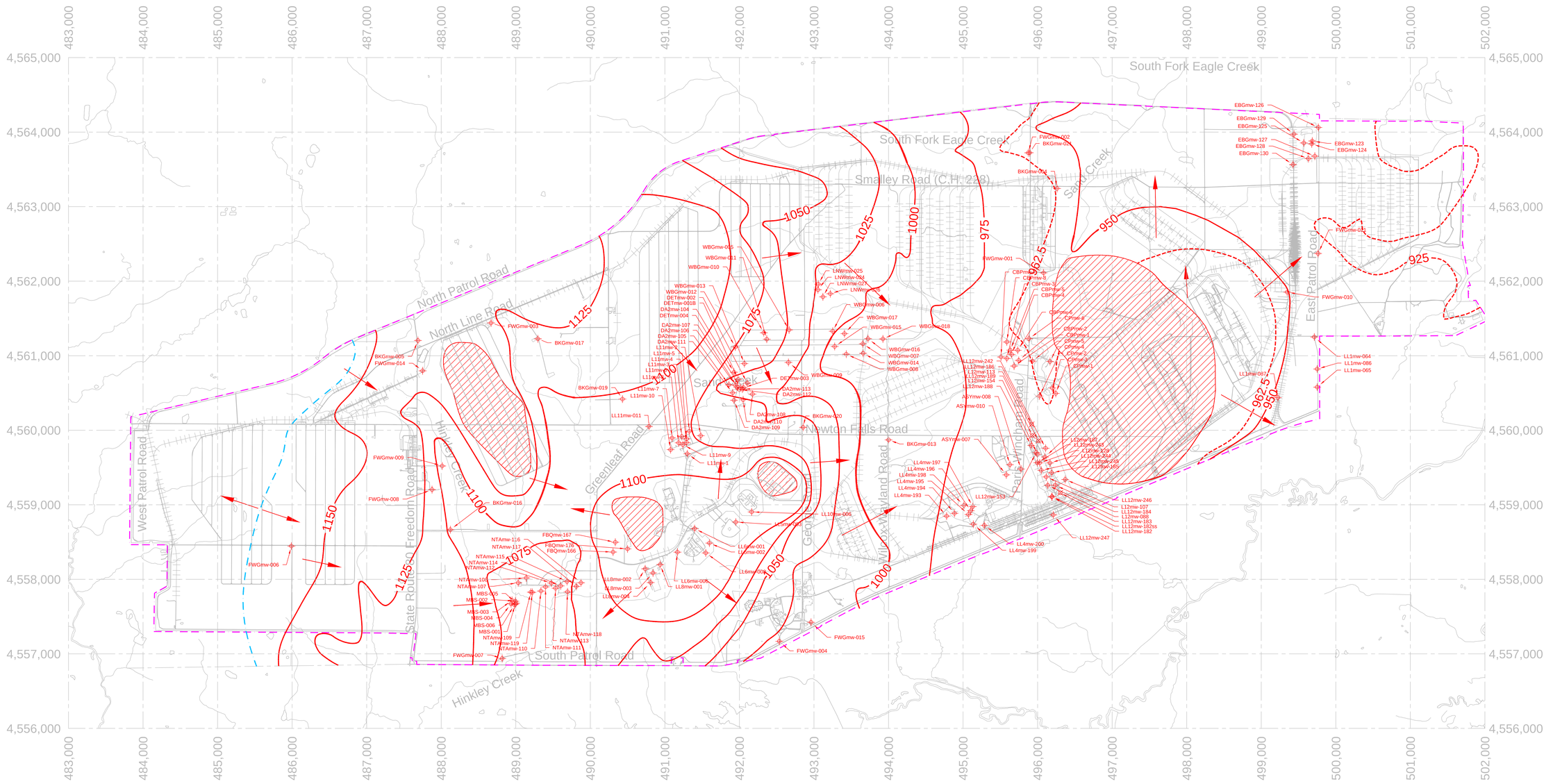
REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD., CINCINNATI, OHIO 45240
PHONE 513.825.7500 | FAX 513.825.7495
WWW.EQM.COM

DRAWN	R. RUSSELL	01-29-2013
CHECKED	S. SPESSHARDT	01-31-2013
APPROVED	J. MILLER	01-31-2013
SCALE:	AS SHOWN	

MONITORING WELLS
AT RVAAP

SIZE	PROJECT NO.	DWG NO.	REV
E	030174.0016	PLATE 1	0



RVAAP Area	Well ID	Potentiometric Elevation July 2012 (ft, amsl)
Load Line 1	LL1mw-064	931.78
	LL1mw-065	930.39
	LL1mw-086	930.71
	LL1mw-087	927.83
Load Line 4	LL4mw-193	974.53
	LL4mw-194	973.03
	LL4mw-195	970.45
	LL4mw-196	970.43
	LL4mw-197	970.52
	LL4mw-198	972.18
	LL4mw-199	969.33
	LL4mw-200	969.80
Load Line 5	LL5mw-003	1106.82
Load Line 6	LL6mw-001	1109.14
	LL6mw-002	1106.98
	LL6mw-006	1108.71
	LL6mw-008	1107.39
Load Line 8	LL8mw-001	1108.28
	LL8mw-002	1104.28
	LL8mw-003	1104.39
	LL8mw-004	1102.56
Load Line 10	LL10mw-006	1109.82
Load Line 11	LL11mw-001	1086.66
	LL11mw-002	1074.51
	LL11mw-003	1083.39
	LL11mw-004	1081.76
	LL11mw-005	1068.90
	LL11mw-006	1077.86
	LL11mw-007	1065.80
	LL11mw-008	1081.85
	LL11mw-009	1084.84
	LL11mw-010	1075.00
	LL11mw-011	1070.90

RVAAP Area	Well ID	Potentiometric Elevation July 2012 (ft, amsl)
Load Line 12	LL12mw-088	973.70
	LL12mw-107	970.16
	LL12mw-113	971.55
	LL12mw-128	968.11
	LL12mw-153	970.72
	LL12mw-154	969.43
	LL12mw-182	973.01
	LL12mw-182rs	973.65
	LL12mw-183	969.73
	LL12mw-184	970.06
	LL12mw-185	972.92
	LL12mw-186	969.42
	LL12mw-187	968.99
	LL12mw-188	973.10
	LL12mw-189	968.70
	LL12mw-242	970.46
	LL12mw-243	971.37
	LL12mw-244	969.35
	LL12mw-245	973.68
	LL12mw-246	967.86
	LL12mw-247	977.46
Atlas Scrap Yard	ASYmw-007	968.96
	ASYmw-008	971.16
	ASYmw-010	968.39
Central Burn Pits	CBPmw-001	962.36
	CBPmw-002	961.32
	CBPmw-003	961.15
	CBPmw-004	959.54
	CBPmw-005	956.77
	CBPmw-006	958.99
	CBPmw-007	959.47
	CBPmw-008	956.48
Cobbs Pond	CPmw-001	968.32
	CPmw-002	967.32
	CPmw-003	967.32
	CPmw-004	967.82
	CPmw-005	961.60
	CPmw-006	955.97

RVAAP Area	Well ID	Potentiometric Elevation July 2012 (ft, amsl)
Demolition Area 2	DETmw-0018	1041.36
	DETmw-002	1029.38
	DETmw-003	1026.99
	DETmw-004	1027.76
	DA2mw-104	1052.18
	DA2mw-105	1040.92
	DA2mw-106	1034.01
	DA2mw-107	1031.77
	DA2mw-108	1025.36
	DA2mw-109	1054.80
	DA2mw-110	1051.99
	DA2mw-111	1033.75
	DA2mw-112	1029.29
	DA2mw-113	1029.32
Erie Burning Grounds	EBGmw-123	937.39
	EBGmw-124	937.10
	EBGmw-125	936.91
	EBGmw-126	937.72
	EBGmw-127	937.46
	EBGmw-128	936.99
	EBGmw-129	937.01
	EBGmw-130	936.22
Fuze and Booster Quarry	FBQmw-166	1101.81
	FBQmw-167	1109.39
	FBQmw-176	1121.55
Landfill North of Winklepeck	LNWmw-024	1024.02
	LNWmw-025	1023.15
	LNWmw-026	1014.96
	LNWmw-027	1018.38

RVAAP Area	Well ID	Potentiometric Elevation July 2012 (ft, amsl)
NACA Test Area	NTAmw-107	1067.38
	NTAmw-108	1067.70
	NTAmw-109	1067.31
	NTAmw-110	1067.71
	NTAmw-111	1072.78
	NTAmw-112	1068.69
	NTAmw-113	1067.88
	NTAmw-114	1070.97
	NTAmw-115	1073.62
	NTAmw-116	1085.77
	NTAmw-117	1077.89
	NTAmw-118	1071.05
	NTAmw-119	1067.17
Winklepeck Burning Grounds	WBGmw-005	1066.94
	WBGmw-006	1064.87
	WBGmw-007	982.20
	WBGmw-008	992.23
	WBGmw-009	1032.35
	WBGmw-010	1060.46
	WBGmw-011	1060.43
	WBGmw-012	1056.72
	WBGmw-013	1059.76
	WBGmw-014	979.29
	WBGmw-015	967.35
	WBGmw-016	978.83
	WBGmw-017	987.28
	WBGmw-018	969.75

RVAAP Area	Well ID	Potentiometric Elevation July 2012 (ft, amsl)
Suspected Mustard Agent Burial Site	MBSmw-001	1064.24
	MBSmw-002	1064.73
	MBSmw-003	1065.61
	MBSmw-004	1064.86
	MBSmw-005	1064.23
	MBSmw-006	1064.19
Facilitywide	FWGmw-001	946.02
	FWGmw-002	949.10
	FWGmw-003	1124.98
	FWGmw-004	1020.74
	FWGmw-006	1174.08
	FWGmw-007	1051.22
	FWGmw-008	1102.64
	FWGmw-009	1099.05
	FWGmw-010	949.96
	FWGmw-011	937.13
	FWGmw-014	1131.39
	FWGmw-015	1005.77
Background	BKGmw-004	953.86
	BKGmw-005	1137.27
	BKGmw-013	976.40
	BKGmw-016	1092.63
	BKGmw-017	1114.45
	BKGmw-019	1090.05
	BKGmw-020	1055.03
	BKGmw-021	959.32

LEGEND

- UNCONSOLIDATED WELL
- PROPERTY LINE
- 1100 LINE OF EQUAL GROUNDWATER ELEVATION (ft.,amsl) [DASHED WHERE INFERRED]
- GROUNDWATER DIRECTION
- UNCONSOLIDATED AQUIFER MISSING
- INFERRED GROUNDWATER DIVIDE

N

0 500 1000

SCALE (METERS)

COORDINATE SYSTEM UTM NAD 83 ZONE 17

REV	DESCRIPTION	DATE	APPROVED
2	REVISED PER OEPA COMMENTS	MAY 2013	JM
1	REVISED PER OEPA COMMENTS	MARCH 2013	JM

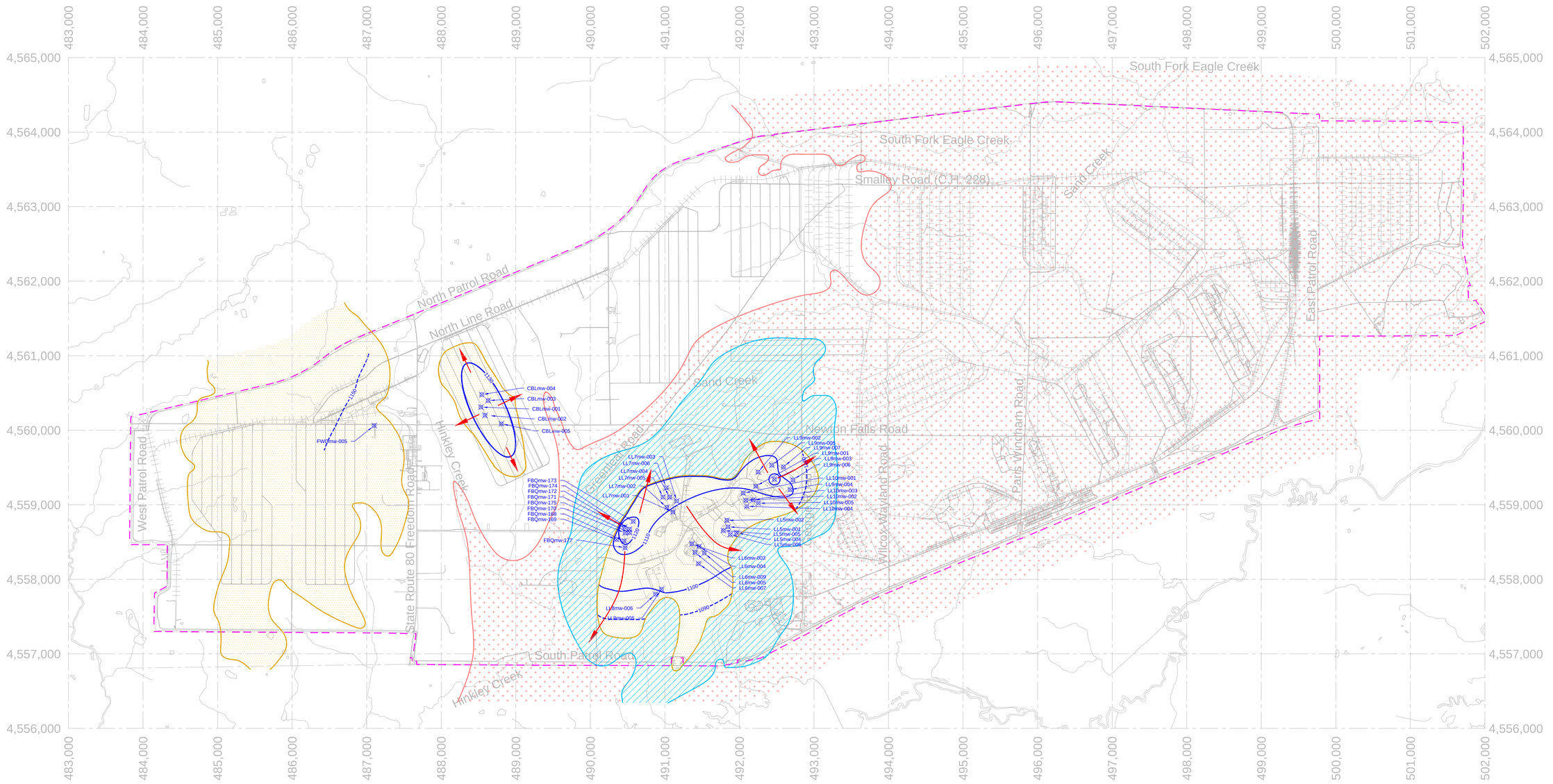
REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD., CINCINNATI, OHIO 45240
PHONE 513.825.7500 | FAX 513.825.7495
WWW.EQM.COM

DRAWN	R. RUSSELL	01-29-2013
CHECKED	S. SPESSHARDT	01-31-2013
APPROVED	J. MILLER	01-31-2013
SCALE:	AS SHOWN	

POTENTIOMETRIC SURFACE OF UNCONSOLIDATED AQUIFER (JULY 2012)

SIZE	PROJECT NO.	DWG. NO.	REV
E	030174.0016	PLATE 2	2



RVAAP Area	Well ID	Potentiometric Elevation July 2012 (ft, amsl)
Load Line 5	LL5mw-001	1106.50
	LL5mw-002	1106.51
	LL5mw-004	1106.43
	LL5mw-005	1106.50
	LL5mw-006	1106.47
Load Line 6	LL6mw-003	1107.92
	LL6mw-004	1107.09
	LL6mw-005	1107.24
	LL6mw-007	1106.83
	LL6mw-009	1107.43
Load Line 7	LL7mw-001	1107.81
	LL7mw-002	1111.40
	LL7mw-003	1107.99
	LL7mw-004	1111.09
	LL7mw-005	1112.88
	LL7mw-006	1110.63
Load Line 8	LL8mw-005	1100.67
	LL8mw-006	1096.18
Load Line 9	LL9mw-001	1117.70
	LL9mw-002	1112.11
	LL9mw-003	1121.47
	LL9mw-004	1110.14
	LL9mw-005	1112.95
	LL9mw-006	1109.52
	LL9mw-007	1109.16
Load Line 10	LL10mw-001	1107.54
	LL10mw-002	1106.42
	LL10mw-003	1108.66
	LL10mw-004	1107.78
	LL10mw-005	1106.90

RVAAP Area	Well ID	Potentiometric Elevation July 2012 (ft, amsl)
C-Block Quarry	CBLmw-001	1138.05
	CBLmw-002	1137.58
	CBLmw-003	1138.89
	CBLmw-004	1138.82
	CBLmw-005	1133.78
Fuze and Booster Quarry	FBQmw-168	1121.11
	FBQmw-169	1111.71
	FBQmw-170	1122.87
	FBQmw-171	1123.27
	FBQmw-172	1122.57
	FBQmw-173	1122.87
	FBQmw-174	1122.33
	FBQmw-175	1122.30
	FBQmw-177	1113.55
Facilitywide	FWGmw-005	1147.75

NOTES

1. BEDROCK GEOLOGY ADOPTED FROM "GEOLOGY AND GROUND-WATER RESOURCES OF PORTAGE COUNTY, OHIO" (WINSLOW AND WHITE, 1966). NOT ALL LITHOLOGIC UNITS ARE PRESENTED.

LEGEND

- HOMEWOOD MEMBER WELL
- PROPERTY LINE
- 1100 / 1030 — LINE OF EQUAL GROUNDWATER ELEVATION (ft.,amsl) (INTERMEDIATE DASHED)
- GROUNDWATER DIRECTION
- HOMEWOOD MEMBER
- SHARON MEMBER
- SHARON SHALE

N

0 500 1000

SCALE (METERS)

COORDINATE SYSTEM UTM NAD 83 ZONE 17

REV	DESCRIPTION	DATE	APPROVED
2	REVISED PER OEPA COMMENTS	MAY 2013	JM
1	REVISED PER OEPA COMMENTS	MARCH 2013	JM

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD., CINCINNATI, OHIO 45240
PHONE 513.825.7500 | FAX 513.825.7495
WWW.EQM.COM

DRAWN	R. RUSSELL	01-29-2013
CHECKED	S. SPESSHARDT	01-31-2013
APPROVED	J. MILLER	01-31-2013
SCALE:	AS SHOWN	

POTENTIOMETRIC SURFACE OF HOMEWOOD (JULY 2012)

SIZE	PROJECT NO.	DWG NO.	REV
E	030174.0016	PLATE 3	2


483,000
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4,557,000
4,556,000
South Fork Eagle Creek
Smalley Road (C.H. 228)
North Patrol Road
North Line Road
West Patrol Road
Hinkley Creek
State Route 82
Freedom Road
Greenleaf Road
Sand Creek
Newton Falls Road
George Road
Wilcox-Maitland Road
Paris Windham Road
East Patrol Road
South Patrol Road
BKGmw-018
BKGmw-006
BKGmw-015
EBGmw-131
BKGmw-008
WBGmw-021
WBGmw-019
WBGmw-020
WBGmw-013
OAXmw-114
LL11mw-012
CBPmw-009
LL3mw-245
ASYmw-005
ASYmw-004
ASYmw-003
ASYmw-001
ASYmw-009
ASYmw-006
ASYmw-002
B12mw-012
B12mw-010
B12mw-013
B12mw-011
BKGmw-010
BKGmw-012
RQLmw-014
RQLmw-013
RQLmw-011
RQLmw-010
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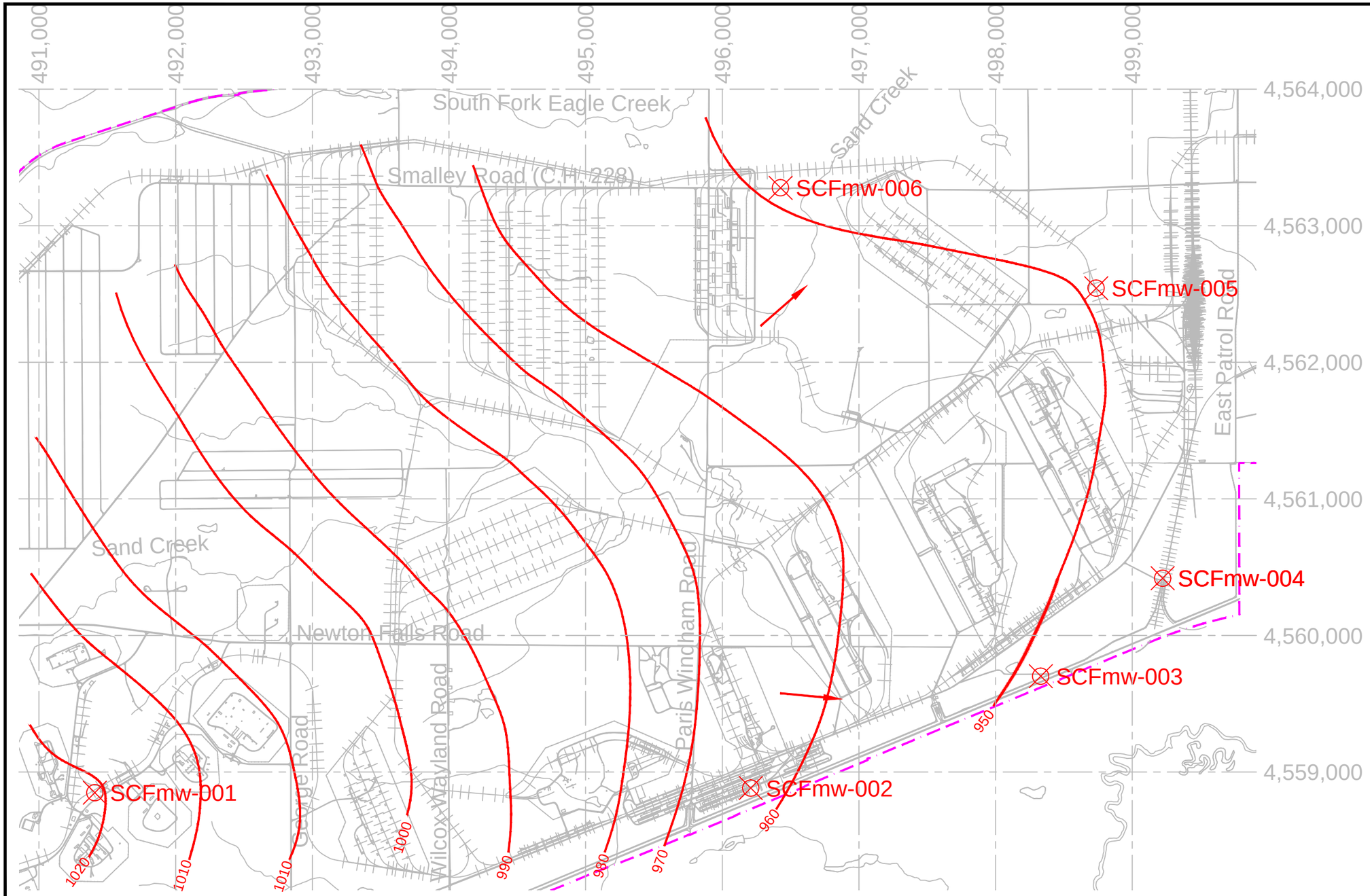

SHARON CONGLOMERATE WELLS

Well ID	Elevation (ft, amsl)
SCFmw-001	1031.20
SCFmw-002	966.28
SCFmw-003	949.98
SCFmw-004	943.72
SCFmw-005	948.99
SCFmw-006	947.56

N

0 500 1000

SCALE (METERS)

LEGEND

PROPERTY LINE

980 LINE OF EQUAL GROUNDWATER ELEVATION (ft,amsl)

GROUNDWATER DIRECTION

MONITORING WELL

COORDINATE SYSTEM UTM NAD 83 ZONE 17

REV	DESCRIPTION	DATE	APPROVED
1	REVISIONS PER OEPA COMMENTS	MARCH 2013	JM

REVISIONS

ENVIRONMENTAL QUALITY MANAGEMENT, INC.
1800 CARILLON BLVD.
CINCINNATI, OHIO 45240
P (513)825-7500
F (513)825-7495

DRAWN	R. RUSSELL	01-29-2013
CHECKED	S. SPESSHARDT	01-31-2013
APPROVED	J. MILLER	01-31-2013
SCALE:	AS SHOWN	

POTENTIOMETRIC SURFACE OF SHARON CONGLOMERATE (JULY 2012)

ORIGINAL SIZE	PROJECT NO.	DWG NO.	REV
B	30174.0016.001	PLATE 5	1