# FINAL FACILITY-WIDE GROUNDWATER MONITORING PROGRAM RVAAP-66 FACILITY-WIDE GROUNDWATER QUALITY ASSURANCE SURVEILLANCE PLAN

# RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO

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

"Draft" Prepared by



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

> "Final" Completed by USACE 19 April 2012

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# RVAAP-66 Facility-Wide Groundwater Quality Assurance Surveillance Plan Final Distribution List

Organization	Number of <u>Printed Copies</u>	Number of <u>Electronic Copies</u>
RVAAP Facility Manager	0	0
USACE Project Manager	0	1
USACE Project File	1	1
EQM	0	1
USAEC Program Manager	0	0
OHARNG - RTLS/ENV	0	0
NGB Cleanup Program Manager	0	0

OHARNG – RTLS/ENV – Ohio Army National Guard Ravenna Training and Logistics Site/Environmental

RVAAP – Ravenna Army Ammunition Plant

USACE – U.S. Army Corps of Engineers

USAEC – U.S. Army Environmental Center

NGB – National Guard Bureau

EQM – Environmental Quality Management, Inc.

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#### ACRONYMS AND ABBREVIATIONS

CAR Corrective Action Reports
CLIN Contracts Line Item Number

CHMM Certified Hazardous Materials Manager

CONUS Continental United States

COR Contracting Officer's Representative
CPAR Contractor Performance Report
CPG Certified Professional Geologist
DFFO Director's Final Findings and Orders
EQM Environmental Quality Management, Inc.

FS Feasibility Study

FWGWMP Facility-wide Groundwater Monitoring Program

GSA Government Services Administration

KO Contracting Officer

OHARNG Ohio Army National Guard

Ohio EPA Ohio Environmental Protection Agency Ohio EPA

NGB National Guard Bureau

PBA Performance-Based Acquisition

pdf Portable Data Format PMP Project Management Plan

PP Proposed Plan

PWS Performance Work Statement

QA Quality Assurance

QASP Quality Assurance Surveillance Plan

RI Remedial Investigation ROD Record of Decision

RTLS/ENV Ravenna Training and Logistics Site/Environmental

RVAAP Ravenna Army Ammunition Plant

SME Subject Matter Experts

USACE United States Army Corps of Engineers
USAEC United States Environmental Centers

#### **SECTION 1.0**

#### **OVERVIEW**

#### 1.1 Introduction

This Quality Assurance Surveillance Plan (QASP) has been developed pursuant to the requirements of the Environmental Investigative Services for Performance-Based Acquisition (PBA) Performance Work Statement (PWS) at the former Ravenna Army Ammunition Plant (RVAAP) under GSA Contract Number GS-10F-0293K, Delivery Order W912QR-11-F-0266 for the U.S. Army Corps of Engineers (USACE), Louisville District. Under the contract, Environmental Quality Management, Inc. (EQM) is responsible for implementing and completing comprehensive groundwater monitoring services. Additionally, EQM shall obtain a signed Record of Decision (ROD) for the Facility-Wide groundwater (RVAAP-66) at RVAAP, pursuant to the CERCLA requirements as well as the facility-wide groundwater monitoring program (FWGWMP) and the Director's Final Findings and Orders (DFFO) criteria. This plan sets forth procedures and guidelines that USACE and the Contracting Officer's Representative (COR) will use in evaluating the technical performance of EQM in accordance with the terms and conditions of the PWS. Associated major tasks under this task order include:

- Completion of a Remedial Investigation(RI) /Feasibility Study (FS)
- Completion of the Proposed Plan (PP)
- Continued groundwater monitoring and associated reporting for the facility.

#### 1.2 Purpose

The QASP objective is to detail the Government procedures that will be used to verify and document that EQM will use the appropriate performance and quality assurance methods in compliance with the terms of the PWS for the management of this performance-based contract. The purpose of the QASP is to assure that performance of specific activities and completion of milestones are accomplished in accordance with all requirements set forth in the PWS.

This QASP describes the mechanism for documenting noteworthy accomplishments or discrepancies for work performed by EQM. Information generated from COR's surveillance activities will directly feed into performance discussions with EQM. The intent is to ensure that EQM performs in accordance with performance metrics set forth in the PWS documents, the USACE receives the quality of services called for in the contract, and the USACE only pays for the acceptable level of services received. The QASP details how and when the COR will monitor, evaluate, and document EQM's performance on the contract. The QASP is intended to accomplish the following:

- 1. Define the role and responsibilities of participating USACE officials.
- 2. Define the key milestones/deliverables that will be assessed.

- 3. Define Exceptional, Very Good, Satisfactory, Marginal, and Unsatisfactory performance standards for key milestones/deliverables.
- 4. Describe the surveillance methodology that will be employed by the USACE in assessing EQM's performance.
- 5. Describe the surveillance documentation process and provide copies of the form that the USACE will use in evaluating EQM's performance.
- 6. Outline corrective action procedures.
- 7. Describe payment procedures.

The project work breakdown consists of the following tasks that are further detailed in Section 3:

- CLIN 001 Achieve approved PMP and QASP
- CLIN 002 Achieve an approved ROD
- CLIN 003 Groundwater Monitoring

#### **SECTION 2.0**

#### ROLES AND RESPONSIBILITIES OF USACE OFFICIALS

This section outlines the roles and responsibilities of participating U.S. government officials involved in completion of this project and contractor oversight. These roles and responsibilities may be delegated and/or coordinated with other USACE, as appropriate. The government officials participating in this project may change. In the event that government personnel changes occur, equally qualified persons will assume the roles and responsibilities identified herein and will be identified by addendum to the QASP.

#### 2.1 Contracting Officer (KO)

The Contracting Officer (KO) has overall responsibility for overseeing EQM's performance. The KO is responsible for the day-to-day monitoring of EQM's performance in the areas of contract compliance, and contract administration; reviewing the COR's assessment of EQM's performance; and resolving all differences between the COR's assessment and EQM's assessment of performance. It is the KO that assures EQM receives impartial, fair, and equitable treatment under the contract. The KO is ultimately responsible for the final determination of the adequacy of EQM's performance. The KO is the only one authorized to obligate the Government on this contract.

#### 2.2 Contracting Officer's Representative (COR)

The COR is responsible for technical administration of the project and assures proper USACE surveillance of EQM's performance. The COR is responsible for monitoring, assessing, recording, and reporting on the technical performance of EQM on a day-to-day basis.

# 2.3 Technical Expertise and Subject Matter Experts

The KO and COR may call upon the technical expertise of other USACE officials and subject matter experts (SME) as required. These USACE officials/SMEs may be called upon to review technical documents and products generated by EQM. Contracting Agency representatives will also conduct review of contract documentation such as invoices, monthly status reports, and work plans. These roles will allow the USACE to conduct the following:

- Confirm that actions are conducted using proper procedures and in accordance with the approved project plans.
- Confirm the required end results of the work performed.
- Document the evaluation methods employed by USACE in assessing EQM's performance.

- Approve the documenting and evaluating EQM's performance.
- Follow the process of performance documentation.

#### **SECTION 3.0**

#### KEY MILESTONES/DELIVERABLES TO BE ASSESSED

#### **3.1** Key Milestones/Deliverables

Deliverables for this project will include preliminary draft, draft, and final versions in printed copy and electronic Portable Document Format (pdf). Documents will be in compliance with the latest version of the *RVAAP Submission Format Guidelines*. Preliminary draft versions of the documents will be prepared and submitted for Army review only. Once Army comments on the Preliminary Draft have been addressed, a Draft version of the document will be prepared for review by the regulators, the Army and other stakeholders as appropriate. Following receipt and resolution of stakeholder comments on the draft document, it will be revised and a Final version of the document issued. Deliverables will include the following:

- Quarterly and Semiannual groundwater monitoring reports
- Annual groundwater reports
- Amendments to the FWGWMP
- RI Work Plan
- RI Report
- FS
- PP
- ROD
- Monthly Update Reports

Additionally, the USACE will evaluate performance on the key quality control activities and events specified by the Contractor through their Quality Assurance (QA) strategy. Per the PWS, EQM will ensure that the quality of all work performed or produced under this contract meets USACE approval, through the COR. Quality control/assurance plans will be prepared and approved by the COR. The USACE has prepared the final QASP. The QASP highlights key quality control activities or events that the COR will use to determine when USACE (COR or KO) inspections can be conducted to assess progress toward and/or completion of milestones. Successful correction of any deficiencies discovered during the contract period of performance will be completed in accordance with a schedule to be determined by the USACE, the Ohio EPA and other stakeholders (as applicable and appropriate).

At a minimum, the milestones and associated deliverables will be evaluated in accordance with this QASP. The major milestones for the PWS are expanded into multiple milestones that are the Performance Objectives (Table 3-1). Additional interim milestones are identified and detailed in the PMP.

**Table 3-1. Performance Objectives** 

Milestone	DESCRIPTION
1	CLIN 0001 - ACHIEVE APPROVED PMP AND QASP
1.1a	Approval of the Draft PMP and QASP
1.1a 1.1b	Approval of the Final PMP and QASP by 31 December 2011
1.10	CLIN 0002 - ACHIEVE APPROVED ROD FOR RVAAP-66 FACILITY-
2	WIDE GROUNDWATER
2.1	Addendum(s) to FWGWMP Plan for New Wells & Semi-annual Monitoring
2.2a	Installation of New Groundwater Monitoring Wells
2.2b	Well Installation Report
2.3a	Complete 4 Quarters of Groundwater Monitoring for New Wells - 1st Quarter
2.3b	Complete 4 Quarters of Groundwater Monitoring for New Wells - 2nd Quarter
2.3c	Complete 4 Quarters of Groundwater Monitoring for New Wells - 3rd Quarter
2.3d	Complete 4 Quarters of Groundwater Monitoring for New Wells - 4th Quarter
2.4a	Approval of the Remedial Investigation Work Plan by 27 April 2012
2.4b	Remedial Investigation Implementation
2.4c	Approval of the Remedial Investigation Report by 30 September 2013
2.5	Approval of the Feasibility Study by 30 April 2014
2.6	Approval of the Proposed Plan by 30 November 2014
2.7	Approval/Signature of the Record of Decision by 31 December 2015
3	CLIN 0003 - ACHIEVE REQUIREMENTS OF THE FWGWMP PROGRAM THROUGH ROD APPROVAL
3.1a	
3.1a 3.1b	2012 FWGWMP Semi-annual Groundwater Monitoring - 1st Semi-annual Event 2012 FWGWMP Semi-annual Groundwater Monitoring - 2nd Semi-annual Event
3.1c	Approval of the 2012 Annual FWGWMP Report
3.1c 3.2a	2013 FWGWMP Semi-annual Groundwater Monitoring - 1st Semi-annual Event
3.2b	2013 FWGWMP Semi-annual Groundwater Monitoring - 2nd Semi-annual Event
3.2c	Approval of the 2013 Annual FWGWMP Report
3.3a 3.3b	2014 FWGWMP Semi-annual Groundwater Monitoring - 1st Semi-annual Event
3.3c	2014 FWGWMP Semi-annual Groundwater Monitoring - 2nd Semi-annual Event Approval of the 2014 Annual FWGWMP Report
3.4a	2015 FWGWMP Semi-annual Groundwater Monitoring - 1st Semi-annual Event
3.4b	2015 FWGWMP Semi-annual Groundwater Monitoring - 2nd Semi-annual Event

#### 3.2 Performance Standards for Key Milestones/Deliverables

Since price is fixed in the performance-based acquisitions utilized by the USACE, EQM's performance will be evaluated by assessing the key milestones/deliverables described above in the areas of performance and safety according to five standards:

- Quality
- Schedule
- Safety
- Management of key personnel and resources
- Stakeholder concurrence

For each of the above performance standards, the COR will assign one of five ratings of EQM's performance:

- Exceptional
- Very good
- Satisfactory
- Marginal
- Unsatisfactory

The above performance standards are defined in Table 3-2 (from the PWS). These standards are based on the Table 3-3 Performance Objectives Summary (from the PWS). These performance standards may be modified to meet the needs of the USACE and indicate approval through the following:

- Acceptance of the final PMP.
- Achievement of performance objective at each site specified in the PWS.
- Acceptance of annual monitoring report(s).
- Acceptance of final remedy review(s).
- Correction of deficiencies noted in the remedy review(s).
- Approved interim milestones identified in the final PMP.
- COR and Ohio EPA concurrence...
- Compliance with the Ohio EPA DFFO and the FWGWMP,.
- Acceptance by the COR and Ohio EPA of EQM's demonstration of acceptable proposed remedy.

**Table 3-2: QASP Performance Standards and Ratings Definitions** 

	Table 3-2: QASP Performance Standards and Ratings Definitions						
Performance Standard	Exceptional	Very Good	Satisfactory	Marginal	Unsatisfactory		
Basic Definition	Contractor exceeds the performance requirements for the milestone, deliverable, or standard, with no substantive input from the government.	Contractor exceeds the performance requirements for the milestone, deliverable, or standard, with minimal input from the government.	Contractor meets the performance requirements for the milestone, deliverable, or standard, with moderate input from the government.	Contractor meets the performance requirements for the milestone, deliverable, or standard, with significant input from the government.	Contractor does not meet the performance requirements for the milestone, deliverable, or standard, after significant input from the government.		
Performance C	Category: Quality		vice				
Quality	Draft and Final deliverables are of excellent quality, approved as submitted, or with no substantive comments limited to grammar, spelling, or terminology. USACE audit finds that the data collected and/or the work performed exceeds the requirement of the PWS. No deficiencies noted.	Draft deliverables are of high quality and comments are mostly minor. Final deliverables are approved after one (1) round of USACE comments on the document through acceptance of response to comments table and back check of Final report against original comments. No further revisions are required. USACE audit of work does not identify any deficiencies that compromise the quality of the data collected or work performed.	Draft deliverables are of acceptable quality with only a few numbers of comments identifying major weaknesses. Final deliverables are approved after two (2) rounds of USACE comments on Document. No further revisions are required. USACE audit of work identifies deficiencies that do not compromise the quality of the data collected or work performed, and can be corrected.	Draft deliverables are of poor quality with a significant number of comments identifying major weaknesses or deficiencies. Final deliverables require more than two (2) rounds of USACE comments on Document before being approved. (e.g., changes are required to the Final document due to inadequate incorporation of comments). USACE audit of work identifies deficiencies that compromise the quality of the data collected or work performed, but was corrected.			

Performance Standard	Exceptional	Very Good	Satisfactory	Marginal	Unsatisfactory		
Performance Category: Schedule							
Schedule	Contractor achieves milestone more than 90 days ahead of schedule (unless the COR waives this requirement), per criteria established in the PWS and the QASP.	Contractor achieves milestone less than 90 days but more than 30 days ahead of schedule (unless the COR waives this requirement), per criteria established in the PWS and the QASP.	Contractor achieves milestone according to the schedule (unless the COR waives this requirement), per criteria established in the PWS and the QASP.	Contractor achieves milestone more than 30 days but less than 90 days behind schedule (unless the COR waives this requirement), per criteria established in the PWS and the QASP.	Contractor achieves milestone more than 90 days behind schedule (unless the COR waives this requirement), per criteria established in the PWS and the QASP.		
	Category: Safety	T		T			
Safety	No significant safety deficiencies are reported during QA inspection of fieldwork. No lost time accidents or injuries are recorded during the fieldwork.	No more than one (1) serious safety deficiencies are reported during QA inspection of fieldwork. If any serious safety deficiency is noted during the project, appropriate investigation, corrective action, implementation, and written verification of the corrective action are provided to the USACE. No lost time accidents or injuries are recorded during the fieldwork.	No more than two (2) serious safety deficiencies are reported during QA inspection of fieldwork. If any serious safety deficiency is noted during the project, appropriate investigation, corrective action, implementation, and written verification of the corrective action are provided to the USACE. No lost time accidents or injuries are recorded during the fieldwork.	No more than three (3) serious safety deficiencies are reported during QA inspection of fieldwork. If any serious safety deficiency is noted during the project, appropriate investigation, corrective action, implementation, and written verification of the corrective action are provided to the USACE. No more than one lost time accident or injury is recorded during the fieldwork.	More than three (3) serious safety deficiencies are reported during QA inspection of field activities, or a serious safety deficiency is reported but not properly investigated and corrected, or two or more lost time accidents or injuries is recorded during the fieldwork.		

Performance Standard	Exceptional	Very Good	Satisfactory	Marginal	Unsatisfactory		
	Performance Category: Management of Key Personnel and Resources						
Management of Key Personnel and Resources	All personnel proposed by the contractor were assigned to the project. Some personnel were substituted by higher qualified individuals. Zero (0) instances of resource management issues creating a negative impact to the activity.	All personnel proposed by the contractor were assigned to the project. Some personnel were substituted by higher qualified individuals. No more than one (1) instance of resource management issues creating a negative impact to the activity.	All personnel proposed by the contractor were assigned to the project. Some personnel were substituted by equally qualified individuals. Informal poor performance feedback on conduct of personnel is provided by the COR but are corrected. No more than two (2) instances of resource management issues creating a negative impact to the activity.	All personnel proposed by the contractor were assigned to the project. Some personnel were substituted by equally qualified individuals. Formal letter of poor performance feedback on conduct of personnel is provided by the COR but are corrected. No more than three (3) instances of resource management issues creating a negative impact to the activity.	All personnel proposed by the contractor were assigned to the project. Some were substituted by lesser qualified individuals. Written request from KO requesting removal of assigned personnel for poor performance or notification of poor performance is provided by the COR & is not corrected. More than three (3) instances of resource management issues creating a negative impact to the activity.		
· ·	Category: Stakeho	1	T =:	T =	T =:		
Stakeholder Concurrence	Contractor obtains concurrence on deliverables from all stakeholders to include USACE, the installation, Federal &/or State regulators. This is obtained independently with little involvement & coordination required by the Government.	Contractor obtains concurrence on deliverables from all stakeholders to include USACE, the installation, Federal &/or State regulators. This is obtained independently with limited involvement & coordination required by the Government.	Contractor obtains concurrence on deliverables from all stakeholders to include USACE and the installation and from Federal and/or State regulators. This is obtained with moderate involvement and coordination required by the Government.	Contractor obtains concurrence on deliverables from all stakeholders to include USACE and the installation and from Federal and/or State regulators. This is obtained with significant involvement and coordination required by the Government.	Contractor does not obtain concurrence on deliverables from stakeholders to include USACE and the installation and/or from Federal and/or State regulators.		

**Table 3-3. PWS Performance Objectives Summary** 

Table 3-3. PWS Performance Objectives Sum	
Performance Objective	Performance Standards
Achieve Approved Project Management Plan (PMP) and Quality Assurance Surveillance Plan (QASP):  • Draft PMP submittal within 30 calendar days of contract award	USACE approval through the Contracting Officer's Representative (COR), and Ohio EPA concurrence (i.e., receipt of Ohio EPA documentation confirming PMP concurrence).
• Final PMP submittal within 30 calendar days of receipt of COR/Ohio EPA comments on the draft	
Draft QASP submittal within 30 calendar days of contract award	
Achieve approved Record of Decision (ROD) for the following site by 31 December 2015:	Compliance with the Ohio EPA Director's Final Findings and Orders (DFFOs).
• RVAAP-66 (Facility-Wide Groundwater).	USACE approval through the Contracting Officer's Representative (COR), and Ohio EPA concurrence (i.e., receipt of Ohio EPA documentation confirming acceptance of all final associated documents, and final ROD concurrence).
For all remedies, optimize capital and long-term costs.	Acceptance by the COR that the Contractor has demonstrated that the proposed remedy represents the lowest 30-year present worth cost to the USACE, and is acceptable to the Ohio EPA.
Achieve requirements of the RVAAP Facility-Wide Groundwater Monitoring Program (FWGWMP) until final ROD for RVAAP-66 (Facility-Wide Groundwater) is achieved or for the duration of the task order, whichever occurs first.	Compliance with the Ohio EPA Director's Final Findings and Orders (DFFOs), and the requirements of the FWGWMP documents.  USACE approval through the Contracting Officer's Representative (COR), and Ohio EPA concurrence (i.e., receipt of Ohio EPA documentation confirming acceptance of all final FWGWMP documents).

Performance requirements are for desired outcome/services and based on Table 3-4, the Performance Requirements Summary from the PWS. Final decisions regarding the adequacy of milestone and deliverable completion resides with the COR with appropriate acceptance and approval of necessary documentation by regulators, consistent with applicable regulatory requirements.

**Table 3-4. Performance Requirements Summary** 

Desired	Required	Performance	Monitoring	Incentive/Disincentives
Outcomes	Services	Standards	Method	For Meeting or Not Meeting the Acceptable Quality Level
<b>Quality Cont</b>	rol/Assurance d	& Safety		
Safety	Maintain high safety standards	Zero Class A Safety violations (CONUS only) where the contractor is determined at fault.	Submission of accident reports, adverse safety inspection reports, and similar documents.	Issuance of a cure notice and possible termination of task order or contract for continuous or uncorrected safety violations.  Adverse past performance reports.  The contractor may be in danger of not having its option period exercised
Performance	Compliance with PWS and referenced applicable regulations	No more than five Corrective Action Reports (CARs) received by the contractor within a given task order	COR Submission of CARs, COR report of failure to delivery acceptable product or service in accordance with Performance-Based Milestones/Objectives.	Issuance of a cure notice and possible termination of task order or contract for continuous or uncorrected performance deficiencies, or for failure to complete Performance-Based Milestones/Objectives. Adverse past performance reports. The contractor may be in danger of not having its option period exercised

If a milestone/deliverable as described in the QASP is rated as being of unsatisfactory quality at the time that the PMP deadline for the milestone/deliverable expires, the milestone/deliverable will automatically receive an unsatisfactory rating for timeliness. At no point will a milestone/deliverable receive an exceptional, very good, or satisfactory rating for timeliness if it is rated as being of unsatisfactory quality. Overall satisfactory performance on a milestone/deliverable requires ratings of satisfactory, very good or exceptional for the quality, timeliness, and safety standards.

#### 3.3 Approval

The COR will be responsible for contract management, inspection, oversight, review, and approval activities. Certification and approval of project milestones by the COR is necessary before distribution of payments. Final acceptance of milestone completion shall include appropriate acceptance of site remediation documentation by regulators. For the duration of the contract, the Contractor shall remain responsible for correction of deficiencies noted during the period of performance.

EQM will furnish all plant, labor, materials and equipment necessary to meet the performance objectives identified in Table 3-3. Any service or submittal performed that does not meet contract requirements shall be corrected or re-performed by the Contractor and at no additional cost to the Government. Final payments will be based on successful completion of the milestones as described in the PMP. There may be multiple milestones and/or deliverables for each performance objective as described by the PWS, therefore the above describe expanded milestones will be utilized for assessment and payment.

#### **SECTION 4.0**

#### SURVEILLANCE METHODOLOGY

The USACE will monitor EQM's performance on a continuing basis; however, technical inspection of every step, task, or activity is not practical. Accordingly, the USACE/COR will use the surveillance methods listed below in the execution of this QASP and monitoring EQM's performance under this contract.

#### **4.1 100%** Inspection

All key milestones and deliverables will be evaluated through 100% inspection (e.g., on-site inspection, document review, etc). The COR will document performance for each completed milestone/deliverable, as described in Section 5.0 of the QASP.

# 4.2 Periodic Progress Inspection

At the COR's discretion, periodic inspections may be conducted to evaluate progress toward and/or completion of key milestones and deliverables. The COR may complete a <u>periodic progress inspection</u> if s/he believes that deficiencies exist that must be addressed prior to milestone/deliverable completion. While corrective action or re-performance will be required if necessary, EQM will not be financially penalized for unacceptable performance recorded in periodic progress reports, provided that final performance evaluation of the milestone/deliverable is deemed acceptable.

#### 4.3 Customer Feedback

Additional feedback will be obtained through random customer feedback. To be considered valid, input must set forth clearly and in writing the detailed nature of the feedback, and must be signed by the COR or COR representative. The KO may elect to maintain a summary log of all formally received customer feedback as well as a copy of each feedback in a documentation file.

#### **SECTION 5.0**

#### SURVEILLANCE DOCUMENTATION

#### 5.1 Quality Assurance Monitoring Form

The COR (or COR representative) will use a performance evaluation form to record evaluation of EQM's performance for each milestone and deliverable in accordance with the methodology described in Sections 3.0 and 4.0 of the QASP. The COR must substantiate, through narratives in the form, all exceptional, very good, marginal, and unsatisfactory ratings as an evaluation of the contractor performance using the Performance Ratings Definitions in Table 2. Performance at the satisfactory level is expected from EQM. The evaluation form will indicate actual and scheduled delivery times and number of reviews required to achieve the final product. The COR will forward copies of all completed performance evaluation forms to the KO and EQM. The primary form used to document surveillance activities will be the Quality Assurance Monitoring Form provided in Attachment A. All team members are to document surveillance activities conducted using this form.

#### **5.2** Corrective Action Process

When a milestone/deliverable receives an overall marginal or unsatisfactory rating, EQM will explain, within 15 work days, in writing to COR (or COR representative) why performance was marginal or unsatisfactory, how performance will be returned to satisfactory levels, and how recurrence of the problem will be prevented in the future. All nonconformance items will be documented on a Corrective Action Form provided in Attachment A.

#### **5.3** KO Role in the Surveillance Process

The KO may choose to review each performance evaluation form prepared by the COR. When appropriate, the KO may investigate further to determine if all the facts and circumstances surrounding the event were considered in the COR opinions outlined on the form. The KO may choose to discuss any marginal or unsatisfactory rating with EQM (as applicable and appropriate) to assure that corrective action is promptly initiated.

#### 5.4 Annual Performance Assessment

At the end of every year, the COR (or COR representative) will prepare a written Contractor Performance Assessment Report (CPAR) for the KO summarizing the overall results of his/her surveillance of EQM's performance during the previous 12 months. This report will become part of the formal QA documentation.

#### 5.5 QA File

The COR (or COR representative) will maintain a complete QA file. This file will contain copies of all performance evaluation forms and any other related documentation. The COR will forward these records to the KO at termination or completion of the contract. All performance assessment forms, attachments and working papers must be marked "FOR OFFICIAL USE ONLY/SOURCE SELECTION INFORMATION - SEE FAR 2.101 AND 3.104" according to Freedom of Information Act Program, FAR 3.104, and 41 USC Sect. 423. Assessment reports may also contain information that is proprietary to the contractor. Information contained on the CPAR, such as trade secrets and protected commercial or financial data obtained from the contractor in confidence, must be protected from unauthorized disclosure. COR's shall annotate on the assessment report if it contains material that is a trade secret, etc., to ensure that future readers of the evaluations are informed and will protect as required. Contractor performance information is privileged source selection information. It is also protected by the Privacy Act and is not releasable under the Freedom of Information Act.

#### **SECTION 6.0**

#### PAYMENT AND CORRECTIVE ACTION

#### **6.1** Satisfactory Performance

Full payment for a milestone/deliverable will be provided upon verification of overall satisfactory performance, as rated on quality and schedule. The COR (or COR representative) may choose to record the verification on a performance evaluation form.

# **6.2** Marginal or Unsatisfactory Performance

If a milestone/deliverable receives a marginal or unsatisfactory rating for the quality performance standard, re-performance is required until the milestone/deliverable receives a rating of satisfactory or better. This re-performance is required regardless of cost or schedule constraints that may result from the marginal or unsatisfactory performance, unless the KO has opted to terminate the contract. If a rating of satisfactory or better is not achieved, the Government may reduce the contract price to reflect the reduced value of the services in accordance with FAR 52.246-4(e).

### 6.3 Key Elements

The QASP provides a sample of the minimum key elements planned for the QASP. Performance objectives, acceptance criteria, and monitoring methods checklists have been developed for each milestone to assist with surveillance activities. The checklists are provided in Appendix B. The final QASP will be developed with the COR (or COR representative), and will be based on the final PMP. The final QASP will be provided to the Contractor. Additional Government surveillance activities may include, but are not limited to, the following:

- Work plan review and approval.
- Participation in Technical Project Planning (or equivalent) sessions.
- Oversight of geophysical survey & analysis activities.
- Oversight of drilling, field sampling activities.
- Oversight of all waste management functions/responsibilities.
- Review of all waste management documentation.
- Separate/split laboratory QA samples.
- Review and approval of all access agreements associated with off-site areas.
- Review and approval of meeting minutes from RAB/BCT meetings, if attended.
- Review and approval of all deliverables to regulatory agencies.
- Review and approval of FS options to be considered.

- Review of quality control documentation.
- Review of project safety record.
- Adherence to the approved work plan.

# ATTACHMENT A **FORMS**

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# QUALITY ASSURANCE MONITORING FORM

Date:/
Work Task (Milestone/Activity):
Survey Period:/ through/
Method of Surveillance:
Evaluation of Contractor's Performance:
Evaluation
Corrective Action Required:Yes No  Narrative Discussion of Contractor's Performance During Survey Period:
Discussion

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# CORRECTIVE ACTION FORM FOR QASP

1) Work Task (Milestone/Activity):
2) Survey Period:/ through/
3) Description of the Failure/Deficiency that Precipitated the Corrective Action:  Description
4) Description of the Criterion that the Failure/Deficiency was Evaluated Against:  Description
5) Personnel Involved in the Identification of the Failure/Deficiency, Determination of the Appropriate Corrective Action, Approval of the Corrective Action, and Implementation of the Corrective Action:  Description
6) Description of the Corrective Action that was Required:  Description
7) Date/Time of Implementation of the Corrective Action:/
8) Follow-Up Information to Prevent Recurrence of Failure/Deficiency (i.e., Need for Revision of Procedures or Specifications):  Description
9) Personnel Responsible for Follow-Up Work:  Description
10) Planned Date for Follow-Up Surveillance:/
11) Other / Status:

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# ATTACHMENT B

PERFORMANCE OBJECTIVES, ACCEPTANCE CRITERIA, AND MONITORING METHODS CHECKLISTS

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Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performance Requirements (Ta	
		2		Performance	Safety
Approved PMP and QASP by December 31, 2011:  • Draft PMP and QASP within 30 calendar days of contract award  • Final PMP within 30 calendar days of receipt of COR/Ohio EPA comments on the draft  • Amendments to the H&S and the SAP	Army approval through the COR.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Detailed technical approach included in the PMP</li> <li>Project team and roles and responsibilities are included in the PMP</li> <li>Interim payment schedule included in the PMP</li> <li>Activity-based schedule included in the PMP</li> <li>Complete document submittal distribution list included in the PMP</li> <li>Project status reports provided as proposed</li> <li>Record of each phone conversation, written correspondence, and meeting minutes affecting decisions related to the performance of this scope of work. Copies of this correspondence are submitted to the COR.</li> <li>Accuracy and clarity of plans that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge of laws and regulations</li> <li>Innovative approaches</li> <li>USACE/Ohio EPA acceptance</li> </ul>		N/A
	Overal	1 Performance Standa	ard Rating		

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

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Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performance Standard Requirements (Table 3-3 & 3	
				Performance	Safety
CLIN 002 - Milestone 2.1 & 2.2.  Modification to FWGWMP to install New Wells:  • Modify FWGWMP  • Install additional wells  • Well survey and Development	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Detailed technical approach with document submittal distribution list included in the plan</li> <li>Accuracy and clarity of plans that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>Innovative approaches</li> <li>USACE/Ohio EPA acceptance</li> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> </ul>		
	Overal	1 Performance Standa	ard Kating		

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performance Standard Requirements (Table 3-3 & 3	
		Zy =		Performance	Safety
CLIN 002 - Milestone 2.3.  Compete 4 quarters of sampling for New Wells:  • Well sampling  • Associated reporting	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of report</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>USACE/Ohio EPA acceptance</li> </ul>		
	Overal	l Performance Standa	ard Rating		

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

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Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	•	ce Standard Table 3-3 & 3-4)
				Performance	Safety
CLIN 002 - Milestone 2.4.  Approval of Final RI Work Plan: • Review of Historical Data/Studies • Identification of Data Gaps • Determine the Need for Additional Analyses/Testing as it Relates to the RI • Preliminary Draft RI Work plan • Draft RI Work plan • Final RI Work plan Approval of Final RI Report by September 30, 2013: • Groundwater modeling • Baseline risk assessment • Conceptual model • Preliminary Draft RI report • Draft RI report • Final RI report	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>Detailed technical approach</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of report that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>Innovative approaches</li> <li>Effectiveness of communication</li> <li>Optimize capital and long-term costs</li> <li>USACE/Ohio EPA acceptance</li> </ul>		
	Overal	1 Performance Standa	ard Rating		

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	ce Standard Table 3-3 & 3-4)
Performance Objectives  CLIN 002 - Milestone 2.5.  Approval of FS report by April 30, 2014:  • Modeling • Optimization for remedial alternatives • Preliminary Draft FS report • Draft FS report • Final FS report	ŭ	<u> </u>	<ul> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of report that support the project objectives</li> </ul>	
T mai 15 topot	Overal	Il Performance Standa	<ul> <li>Repeat comments</li> <li>Knowledge and compliance of laws &amp; regulations</li> <li>Innovative approaches</li> <li>Effectiveness of communication</li> <li>Optimize capital and long-term costs</li> <li>USACE/Ohio EPA acceptance</li> </ul>	

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performand Requirements (T	
				Performance	Safety
CLIN 002 - Milestone 2.6.  Approval of final PP by November 30, 2014  • Preliminary Draft PP • Draft PP • Final PP • Public Meeting	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of plan that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>Innovative approaches</li> <li>Effectiveness of communication</li> <li>Optimize capital and long-term costs</li> <li>USACE/Ohio EPA acceptance</li> </ul>		N/A
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<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performance Standard Requirements (Table 3-3 & 3	
				Performance	Safety
CLIN 002 – Milestone 2.7.  Approval/Signature of ROD by December 31, 2015  • Preliminary Draft ROD  • Draft ROD  • Final ROD  • Signed ROD	Compliance with the DFFO and CERCLA.  Army approval through the COR and Ohio EPA concurrence.  COR acceptance of demonstrated lowest 30-yr present worth cost for the proposed remedy.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>CERCLA requirements</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of document that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>Innovative approaches</li> <li>Effectiveness of communication</li> <li>Optimize capital and long-term costs</li> <li>USACE/Ohio EPA acceptance</li> </ul>		
	Overal	i Ferrormance Standa	iu Kating		

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performance Requirements (To	
				Performance	Safety
CLIN 003- Milestone 3.1.  Submittal of Draft 2012 Annual FWGWMP by December 15, 2012:  • Prepare Amendment to the FWGWMP  • Groundwater monitoring/field activities  • Preliminary, Draft and Final Groundwater monitoring reports  • Preliminary, Draft and Final Annual FWGWMP reports	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Detailed technical approach</li> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of report that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>USACE/Ohio EPA acceptance</li> </ul>		
	Overal	ll Performance Standa	iru Kaung		

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performance Requirements (To	
				Performance	Safety
CLIN 003 - Milestone 3.2.  Submittal of Draft 2013 Annual FWGWMP by December 15, 2013:  • Prepare Amendment to the FWGWMP • Groundwater monitoring/field activities • Preliminary, Draft and Final Groundwater monitoring reports • Preliminary, Draft and Final Annual FWGWMP reports	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Detailed technical approach</li> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of report that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>USACE/Ohio EPA acceptance</li> </ul>		
	Overa	ll Performance Standa	rd Kating		

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria	Performance Requirements (Ta	
				Performance	Safety
CLIN 003- Milestone 3.3.  Submittal of Draft 2014 Annual FWGWMP by December 15, 2014:  • Prepare Amendment to the FWGWMP • Groundwater monitoring/field activities • Preliminary, Draft and Final Groundwater monitoring reports • Preliminary, Draft and Final Annual FWGWMP reports	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Detailed technical approach</li> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of report that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws and regulations</li> <li>USACE/Ohio EPA acceptance</li> </ul>		
	Overal	ll Performance Standa	ird Kating		

<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

Performance Objectives	Performance Standards	Acceptable Quality Levels	Acceptance Criteria		ce Standard Table 3-3 & 3-4)
				Performance	Safety
CLIN 003 - Milestone 3.4.  Completion of groundwater monitoring conducted by July 2015:  • Groundwater monitoring/field activities  • Preliminary, Draft and Final Groundwater monitoring reports	Compliance with the DFFO.  Army approval through the COR and Ohio EPA concurrence.	Exceptional, Very Good, or Satisfactory performance, as defined in Table 3-2 of the QASP.	<ul> <li>Thoroughness of field work following the approved plans</li> <li>Adherence to the schedule and depicted approach</li> <li>Quality control</li> <li>Health &amp; Safety</li> <li>Inclusion of document submittal distribution list and overall document presentation</li> <li>Accuracy and clarity of report that support the project objectives</li> <li>Repeat comments</li> <li>Knowledge and compliance of laws &amp; regulations</li> <li>USACE/Ohio EPA acceptance</li> </ul>		
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<sup>\*100%</sup> inspection of milestones / deliverables associated with objective

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