APPENDIX 46.1D U.S. EPA QUALITY ASSURANCE REVIEW FORM FOR CONTRACT ACTIONS

I. General Information

a. **Vehicle Type:**

[ ] Solicitation/Sole Source (RFP #: _____)

[X] Delivery Order/Work Assignment /Task Order

(Task Order No. 051 Contract #: EP-S8-13-02)

b. **Descriptive Title:** Gold King Mine, SOW dated 06/25/2014.

c. **Sponsoring Organization** *(e.g., Branch, Division, Office, etc.):* 8EPR-ER

d. **Project Duration (start [date]to end [date]):** 07/07/2014 thru 12/01/2014.

e. **Is this a new [X] or continuation of an existing [ ] project (mark one)?**

f. **Is this a Modified QARF that supersedes an Original QARF? [ ] yes or [X] no**

If yes, list the Descriptive Title from the Original QARF and the date signed by the RQAM: _____

II. Scope of Work

[For example activities, see www.epa.gov/quality/examples.html.]

a. Does the work involve:

	YES	NO
• the collection, generation, use, and/or reporting of environmental data? (Environmental data are defined as any measurements or information that describe environmental processes, location, or conditions; ecological or health effects and consequences; or the performance of environmental technology. For EPA, environmental data include information collected directly from measurements, produced from models, and compiled from other sources such as data bases or the literature.)	[ ]	[X]
• design, construction, and/or operation of environmental technologies?	[ ]	[X]
• development and/or use of models?	[ ]	[X]
• other activities that need quality assurance or quality control requirements as identified in your organization's Quality Management Plan? **If yes, list HERE:** _____	[ ]	[X]

If all answers are No, skip Section III and complete Section IV

b. Estimate of percentage of costs or level-of-effort allocated to quality assurance for the activities identified above: 0%

III. Quality-Related Requirements

Where applicable, reference a specific section of the Statement of Work.

a. **For Solicitations Only** *[complete (b) - (f) below, as well]*

1. Insert the percentage of technical evaluation points assigned to offeror's quality system documentation, or P/F if the evaluation is pass/fail: _____

2. List any quality standards (from your organization's Quality Management Plan) that you will use in lieu of, or in addition to, *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs (ANSI/ASQC E4)*. These standards are:

   Title: _____

   Numbering: _____

   Date: _____

   Requirements (Tailoring): _____

b. **QA Documentation Options:** *[For solicitations, complete items 1-4; for all actions other than solicitations, complete items 3-4. All documentation specified under "Other" must be defined in your organization's Quality Management Plan and be consistent with requirements defined in EPA Manual 2105-P-01-0* (formerly 5360 A1). *For items checked under #2, there must be adequate information in the SOW for the offeror to develop this documentation.]*

Before Award Documentation[1]

1. ____ Documentation of an organization's Quality System: Either ____QMP developed in accordance with R-2 or ____ Other: _____

   ____ Combined documentation of an organization's Quality System and application of QA and QC to the single project covered by contract: Either developed in accordance with ____R-2 and R-5 or ____ Other: _____

2. ____ Programmatic QA Project Plan: Either developed in accordance with: ____ R-5 or ____ Other: _____

   ____ Application of QA and QC activities to the single project covered by contract: Either ____QA Project Plan developed in accordance with R-5 or ____ Other: _____

   ____ Not applicable.

[1]QMP refers to a Quality Management Plan. Programmatic QA Project Plan refers to a QA Project Plan that would cover multiple projects with similar activities. R-2 refers to *EPA Requirements for Quality Management Plans (QA/R-2)* (EPA/240/B-01/002, 03/20/01) and R-5 refers to *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* (EPA/240/B-01/003, 03/20/01). Copies of these documents are available at www.epa.gov/quality.

After Award Documentation[1]

3. ____ Documentation of an organization's Quality System: Either ___ QMP developed in accordance with R-2 or ___ Other: _____

____ Combined documentation of an organization's Quality System and application of QA and QC to the single project covered by the contract: Either developed in accordance with ____ R-2 and R-5 or ____ Other: _____

____ Not applicable.

4. ____ Documentation of the application of QA and QC activities to applicable project(s): Either developed in accordance with ___ R-5; ____ A supplement to the following Programmatic QA Project Plan: _____ or ___ Other: _____

____ Programmatic QA Project Plan with supplements for each specific project: Developed in accordance with R-5.

____ Existing documents of the application of QA and QC activities will be used: Either ____ Documentation developed pre-award; ____ Documentation will be identified in individual Statements of Work; or ____ Documentation identified in Section ___ of the Statement of Work.

c. **Reports:** Are quality reports or reports containing assurance information (for example, status of quality system implementation, review of a quality system, quality control data, etc.) required? [ ] Yes [ ] No

If yes, identify the required reports and the time frame for submission:

_____

d. **Assessments:** Select all quality assessments that will be performed either pre-award or post-award:

	Pre-Award	Post-Award
On-site evaluation of offeror's/contractor's facility		
Assessment of the offeror's/contractor's Quality System (e.g., quality system audits, management system reviews, etc.)		
Project –specific assessments (e.g., technical systems audits, surveillance, performance evaluations, data quality assessments, peer reviews, readiness reviews)		

For each assessment, specify type, date to perform, and who will perform it (if known):

1. _____
2. _____
3. _____

e. **Procedures to Update Documentation:** Identify any procedures/requirements for updating EPA approved quality-related documentation:

f. **Other Requirements:** Identify any other pertinent quality related requirements (as identified in your organization's Quality Management Plan):

IV. **The signatures below verify that the Statement of Work has been reviewed to ascertain if quality assurance or quality control activities are needed and that the appropriate quality requirements have been established.**

Jill Sandara 6/25/14 Linda J. Hirsch 7/10/14

Contracting Officer's Representative **Date** **Quality Assurance Manager** **Date**

Task Order Statement of Work
EPA Region 8 ERRS Contract No. EP-S8-13-02
Environmental Restoration, L.L.C.
06/25/14

Name: Gold King Mine
Task Order No. 051

On-Scene Coordinator: Steve Way (303-312-6723)

Site Name: Gold King Mine
Superfund Site ID (SSID): 085M (OU01)
Federal Project Number (FPN): Not Applicable
City/County/State: Twp. 42N, R7W, NMPM, San Juan County, Colorado

Removal Type: Time Critical Removal
Funding Source: Removal Assessment
Anticipated Start Date: 07/07/2014
Anticipated End Date: 12/01/2014

The conditions at the Gold King Mine present an endangerment to human health and the environment and meet the criteria for initiating a removal action under 40 CFR section 300.415(b)(2). All activities directed by EPA's On-Scene Coordinator must remain consistent with The National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300).

Background

The Gold King Mine location in Twp. 42N, R7W, NMPM, San Juan County, Colorado is characterized by a mine discharge that is a significant contributor of manganese, copper, zinc and cadmium into the Cement creek drainage of the Animas River watershed.

The Gold King Mine has not had maintenance of the mine working since 1991, and the workings have been inaccessible since 1995 when the mine portal collapsed. This condition has likely caused impounding of water behind the collapse. In addition, other collapses within the workings may have occurred creating additional water impounding conditions. Conditions may exist that could result in a blow-out of the blockages and cause a release of large volumes of contaminated mine waters and sediment from inside the mine, which contain concentrated heavy metals.

The Division of Reclamation, Mining and Safety (DRMS) performed work under a bond to stabilize the existing adit opening to allow mine water drainage. The flow exits the mine through a culvert pipe and enters a concrete flume on the waste dump surface and flows to half pipe culvert eventually discharging to the North Fork Cement Creek. The existing conveyance channel shall be protected and maintained during the work. If it becomes necessary to remove these drainage features, then suitable measures must be installed to control flows during the work. A replacement conveyance system is required to be installed after the portal and

underground work are completed.

It is proposed to re-open the Gold King Mine portal and workings to investigate the conditions to assess the on-going releases. This will require the incremental de-watering and removal of such blockages to prevent blowouts. The work is intended to take place in September-October, 2014.

In addition, the secondary purpose of the work is to attempt to identify and characterize specific water flows into the mine and evaluate potential means to mitigate those flows if possible.

Objectives

The work will be conducted by qualified contractors with the assistance and cooperation of the landowner, San Juan Corp. In addition to compliance with applicable OSHA standards, the work is to be conducted in compliance with appropriate Mine Safety and Health Administration (MSHA) regulations inclusive of establishing a safe underground working environment for personnel and the rehabilitation of underground workings and escapeways. (Note: MSHA regulations are not applicable to inactive mines; however certain standards are relevant to the propose work.)

All work will be performed under the conditions as described in an approved Work Plan to be submitted to the OSC for approval that will be prepared by the Contractor and submitted to the Agency before mine rehabilitation work begins.

The purpose of this Removal Work is to complete the following tasks;

Site Preparation:

Roadways and staging areas will be prepared to allow for safe access to the work area for heavy equipment and vehicles. Building debris and structural hazards will be removed or secured to eliminate physical hazards associated with such.

Water management systems will be set up and operational before any construction work begins. Initial measures must include standard best management practices (BMPs) for stormwater run-off along roads requiring improvement. Mine water management is required to prevent additional impacts from release during performance of work under this scope. Appropriate plans to manage the water must be developed and included in the work plan.

Portal Rehabilitation:

Engineering specifications and geotechnical assessment of the structural requirements to stabilize the portal structure and underground support systems must be provided. The appropriate engineered specifications must be developed including typical designs for structural support systems (e.g., steel sets, and arch supports and timbers), identify the materials and construction requirements for structural supports. In addition, specify the anticipated approach for removing overburden, debris and re-establishing a safe structure that can be used for entry and egress and

secured when not in use. This includes installing a portal gate with a secured locking system.

Measures will be taken to control water and metal precipitate sludge and sediment that are impounded behind any blockage at the portal or in the mine. This will include the treatment of surge water discharge as necessary to prevent an uncontrolled release and impact to surface water.

Underground Work:

Adit rehabilitation includes removing the collapsed structures and colluvial overburden blocking the historic adit opening. This must be performed by an experienced contractor with required mine safety training for working underground. Standard measures for communication, ventilation and power will be provided for crews as necessary.

Collapse blockage material removal will be performed in a controlled manner in odor to control the rate of release of water and allow for appropriate treatment and sludge management. This is to include the ability to pump water from behind the blockage and lower the water level in a controlled manner before the blockage is destabilized by removal of material.

This scope includes the plan to rehabilitate as far in as 75 feet inby of the portal opening. Underground conditions are uncertain, and the amount of blockage is not known. The initial objective is to establish a portal shed structure for safe access to the underground workings and continue rehabilitating the workings as needed for 75 feet, if this is determined possible. Beyond that point, a determination will be made as to what additional work is required to allow safe access into the mine. As determined appropriate by the OSC, work may continue on an incremental basis to install the necessary structural supports as specified.

All materials and equipment necessary to implement this work will be present on site and inspected before operations are initiated.

Water Treatment:

A temporary water retention and sludge management pond must be prepared and operated, as necessary, on site to manage mine water and sludge removed from the adit. This will be used to manage impounded mine water and base flows and metal precipitate sludge from the mine workings during the construction activities. If necessary, water treatment may include pH adjustment and flocculent to assist precipitation/settling of elevated metals levels to meet existing water quality in the discharge from the mine. (The START contractor is responsible for overseeing the water treatment operations and for all environmental data, including sampling, associated with the water treatment objectives and activities.)

Site Stabilization:

The site work area must be graded and appropriate erosion control measures must be in place

before demobilizing. This will include appropriate BMPs for construction site stormwater controls and post construction stabilizations. These are to be specified in the Work Plan submitted to EPA.

Reporting

A final report is required to include a description of the work performed with detailed information on the distances underground accessed and the number of structures installed. A description of all materials used in the support structures and quantifies of material removed and locations where it is placed are required. List all the equipment use and personnel involved in the operation. A description of the water management system is also to be included. The report is to be provided within 60 days of demobilizing.

Data Requirements

All environmental data including site characterization and waste characterization, mitigation, and disposal that is collected, generated, and used will be documented by the START 4 contractor in accordance with the Weston Quality Management Plan (QMP) Sections 2.3 and 7.0 (May 2013). The ERRS contractor will not be gathering the environmental data.

Hazardous categorization of wastes? No.

Activities Under Contract Statement-of-Work: The contractor shall accomplish the following tasks as required under the Contract:

1. Project Planning (SOW II.A.1)

   - Provide a detailed work plan to accomplish the project in the most effective, efficient and safe manner based on existing information. This work plan shall, at a minimum, define the types and quantities of cleanup personnel, equipment and materials that will be needed, the proposed project schedule by sub-task, and the estimated cost.

   - Provide a detailed Health and Safety Plan to protect the workers on-site from the hazards with the contaminants and physical threats associated with the removal actions.

2. Containment, Countermeasures, Emergency and Removal Response (SOW II.A.2)

   NA.

3. Decontamination, Response Mitigation (SOW II.A.3)

   - Provide for appropriate removal of contamination if appropriate, in consultation with the OSC.

4. Treatment and Transportation and Disposal Operations (SOW II.A.4)

- Provide for appropriate disposal and transportation of all contaminated debris, if appropriate. Treatment of the water may be required, however will be overseen and managed by the START contractor.

5. Restoration and Soil Stabilization (SOW II.A.5)

- Provide for appropriate refurbishment of affected areas, as appropriate and in consultation with the OSC.

6. Analytical Services (SOW II.A.6)

- NA.

7. Demolition Services (SOW II.A.7)

- N/A

8. Construction and Support Facilities in Support of Removal Actions (SOW II.A.8)

- Provide for office trailer, including support equipment, communications, power, as needed.

9. Marine Operations (SOW II.A.9)

NA.

10. Trans-boundary Response (SOW II.A.10)

NA.

11. Response Times (SOW II.A.11)

NA.

12. Regional Cross-Over (SOW II.A.12)

NA.

Deliverables

Detailed Work Plan	08/22/2014
Health and Safety Plan	NLT the Date of Mobilization
Construction & Implementation	N/A
Daily Work Orders	Daily
Daily Cost Summary Reports (55s)	Daily
Removal Activities Report	NLT 30 days after Demobilization
Final Daily Cost Summary Report (55s)	NLT 90 days after Demobilization

Schedule

The work plan preparation is expected to begin on July 7, 2014, and the current estimated schedule is to begin work onsite is September 3, 3014. A work plan must be submitted to EPA by August 22, 2014. The Task Order expiration is set for December 1, 2014.

Other Task Order Requirements

1. Provide for application of Service Contract Act Labor rates and David-Bacon Labor rates in consultation with the R8 ERRS Contracting Officer.

2. Provide all site cost documentation within 90 days after demobilization date, with the exception of 'pending costs.' Use RCMS Windows Version 2.0 for Site cost accounting purposes.