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EPA REGION VIII
HEARING CLERK

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 8

IN THE MATTER OF:)
)
Bonita Peak Mining District Superfund Site)
Bonita Peak Groundwater System)
Operable Unit 3,)
San Juan County, Colorado.)
)
Sunnyside Gold Corporation,)
)
Respondent.)
)
Proceeding under Section 106(a))
of the Comprehensive Environmental)
Response, Compensation, and Liability)
Act, 42 U.S.C. § 9606(a).)
)
_____)

Docket No. CERCLA-08-2018-0005

**UNILATERAL ADMINISTRATIVE
ORDER FOR REMEDIAL
INVESTIGATION
FIRST MODIFICATION**

TABLE OF CONTENTS

I.	JURISDICTION AND GENERAL PROVISIONS.....	1
II.	PARTIES BOUND	1
III.	DEFINITIONS.....	2
IV.	FINDINGS OF FACT.....	4
V.	CONCLUSIONS OF LAW AND DETERMINATIONS.....	6
VI.	ORDER	7
VII.	OPPORTUNITY TO CONFER.....	7
VIII.	EFFECTIVE DATE.....	8
IX.	NOTICE OF INTENT TO COMPLY	8
X.	DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS	8
XI.	WORK TO BE PERFORMED	10
XII.	SUBMISSION AND APPROVAL OF DELIVERABLES	12
XIII.	QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS	14
XIV.	PROPERTY REQUIREMENTS	16
XV.	ACCESS TO INFORMATION	17
XVI.	RECORD RETENTION.....	18
XVII.	COMPLIANCE WITH OTHER LAWS.....	19
XVIII.	EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES	20
XIX.	PAYMENT OF RESPONSE COSTS.....	20
XX.	ENFORCEMENT/WORK TAKEOVER	22
XXI.	RESERVATIONS OF RIGHTS BY THE UNITED STATES	22
XXII.	OTHER CLAIMS	22
XXIII.	INSURANCE.....	23
XXIV.	FINANCIAL ASSURANCE	23
XXV.	MODIFICATION	27
XXVI.	DELAY IN PERFORMANCE	27
XXVII.	NOTICE OF COMPLETION OF WORK.....	28
XXVIII.	ADMINISTRATIVE RECORD	28
XXIX.	SEVERABILITY.....	28

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order (Order) is issued under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order No. 12580, 52 Fed. Reg. 2923 (Jan. 23, 1987), and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14A and 14-14B. The authority in Delegation No. 14-14-A was redelegated by the Regional Administrator of EPA Region 8 to the Assistant Regional Administrator, Office of Ecosystem Protection and Remediation on April 30, 2002. The authority in Delegation No. 14-14-B was redelegated by the Regional Administrator of EPA Region 8 to the Assistant Regional Administrator, Office of Enforcement, Compliance and Environmental Justice on January 30, 2017. Section 106(a) authority, as well as CERCLA Section 104 authority, has also been delegated to the Secretary of the Department of the Interior (Interior) by Executive Order No. 12580, as amended by Executive Order No. 13016, 61 Fed. Reg. 45871 (Aug. 30, 1996), with respect any release or threatened release of hazardous substances affecting property subject to Interior's custody, jurisdiction, or control. Exercise of Interior's Section 106 authority is subject to the concurrence of EPA.

2. This Order pertains to Operable Unit 3 (OU3), the Bonita Peak Groundwater System, of the Bonita Peak Mining District Site (Site) in San Juan County, Colorado. This Order requires Respondent to prepare and perform a remedial investigation (RI) to determine the nature and extent of contamination at OU3 in order to abate an imminent and substantial endangerment to the public health or welfare or the environment that may be presented by the actual or threatened release of hazardous substances at or from OU3.

3. EPA has notified the State of Colorado (the State) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

II. PARTIES BOUND

4. This Order applies to and is binding upon Respondent and its successors and assigns. Any change in ownership or control of the Site or change in the corporate or partnership status of Respondent, including, but not limited to, any transfer of assets or real or personal property, shall not alter Respondent's responsibilities under this Order.

5. Respondent shall provide a copy of this Order to each contractor hired to perform the Work required by this Order and to each person representing Respondent with respect to the Site or the Work, and shall condition all contracts entered into under this Order upon performance of the Work in conformity with the terms of this Order. Respondent or its contractors shall provide written notice of the Order to all subcontractors hired to perform any portion of the Work required by this Order. Respondent shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work in accordance with the terms of this Order.

III. DEFINITIONS

6. Unless otherwise expressly provided in this Order, terms used in this Order that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in appendices to or documents incorporated by reference into this Order, the following definitions shall apply:

“Affected Property” shall mean all real property at the Site and any other real property where EPA determines, at any time, that access, land, water, or other resource use restrictions are needed to implement the RI.

“BLM” shall mean the United States Bureau of Land Management and its successor departments, agencies, or instrumentalities

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

“Day” or “day” shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

“Effective Date” shall mean the effective date of this Order as provided in Section VIII.

“Engineering Controls” shall mean constructed containment barriers or systems that control one or more of the following: downward migration, infiltration, or seepage of surface runoff or rain; or natural leaching migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.

“EPA” shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“CDPHE” shall mean the Colorado Department of Public Health and Environment and any successor departments or agencies of the State.

“Institutional Controls” or “ICs” shall mean Proprietary Controls and state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (a) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (b) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the protectiveness of the response action pursuant to this Order; and/or (c) provide information intended to modify or guide human behavior at or in connection with the Site.

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at <https://www.epa.gov/superfund/superfund-interest-rates>.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Non-Respondent Owner” shall mean any person, other than Respondent, that owns or controls any Affected Property. The clause “Non-Respondent Owner’s Affected Property” means Affected Property owned or controlled by Non-Respondent Owner.

“Order” shall mean this Unilateral Administrative Order, all appendices attached hereto. In the event of conflict between this Order and any appendix, this Order shall control.

“Operable Unit 3” or “OU3” shall mean the Bonita Peak Groundwater System. The Bonita Peak Groundwater System generally includes the saturated and unsaturated workings of the Sunnyside Mine, associated drainage and haulage tunnels, nearby mines not known to be connected to the Sunnyside Mine by workings (e.g. Red & Bonita Mine and Gold King Mine), and the surrounding geographic area that may be hydraulically connected or influenced by current and/or historical releases from or management of these mines.

“Paragraph” shall mean a portion of this Order identified by an Arabic numeral or an upper or lower case letter.

“Parties” shall mean EPA and Respondent.

“Proprietary Controls” shall mean easements or covenants running with the land that (a) limit land, water, or other resource use and/or provide access rights and (b) are created pursuant to common law or statutory law by an instrument that is recorded in the appropriate land records office.

“RCRA” shall mean the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

“Respondent” shall mean Sunnyside Gold Corporation.

“Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in monitoring and supervising Respondent’s performance of the Work to determine whether such performance is consistent with the requirements of this Order, including costs incurred in reviewing any deliverable submitted pursuant to this Order, as well as costs incurred in overseeing implementation of this Order, including, but not limited to, payroll costs, contractor costs, travel costs, and laboratory costs.

“Section” shall mean a portion of this Order identified by a Roman numeral.

“Site” shall mean the Bonita Peak Mining District Superfund Site, located in San Juan County, Colorado.

“State” shall mean the State of Colorado.

“Statement of Work” or “SOW” shall mean the document describing the activities Respondent must perform to develop the RI for OU3, as set forth in Appendix A to this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order as are any modifications made thereto in accordance with this Order.

“Transfer” shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA and BLM.

“Waste Material” shall mean: (a) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); and (c) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

“Work” shall mean all activities and obligations Respondent is required to perform under this Order, except those required by Section XVI (Record Retention).

IV. FINDINGS OF FACT

7. The source areas of the Site are located within the headwaters of the Animas River watershed in the San Juan and Silverton calderas, which were subject to intensive hardrock mining beginning in the 1870s. The release of hazardous substances, primarily heavy metals, from the source areas at the Site are due to the operation and abandonment or discontinued operation of mines in the Upper Animas, Cement Creek and Mineral Creek drainages of the Animas River.

8. Mining at the Site began in the 1870s and the last significant mine to operate at the Site, the Sunnyside Mine, closed in 1991. The Sunnyside Mine, located within OU3, was the largest and most productive mining operation in the Site. The Sunnyside Mine is situated at the headwaters of the Eureka Gulch in the area of the historic Lake Emma at an elevation of approximately 12,320 feet. Mining at the Sunnyside Mine began with the discovery of gold on the Sunnyside claim in 1873 and ceased in 1991. SGC operated the Sunnyside Mine from 1985 to 1991 and acquired ownership of the Sunnyside Mine in 1992.

9. Years of mining and the installation of bulkheads have significantly influenced groundwater elevations within OU3. Historically, groundwater flowed along fractures and faults, with minimal leakage through bedrock, likely due to low primary permeability. With the advent of underground mining, bedrock groundwater that once followed natural fractures instead

followed the new path of least resistance, the networks of tunnels in the underground mine workings. Thus, drainage and haulage tunnels formed preferential flow paths for bedrock groundwater, leading to mine influenced water (MIW—water that is contaminated or influenced by mining-related activities) formation when water and air interact with these mineralized source areas within the tunnels.

10. Between 1996 and 2004, Respondent installed 11 bulkheads within the Sunnyside Mine workings to stop the uncontrolled flow of water from the Sunnyside Mine, including three locations in the American Tunnel (the primary drainage tunnel from the Sunnyside Mine) and one location in the Mogul Mine. The bulkheads modified the bedrock hydrogeology and resulted in changes in water flowing from surrounding mines. Prior to this installation of the bulkheads, MIW flowed from the Sunnyside Mine workings through the American Tunnel to Cement Creek. During this period, most of the surrounding mines showed little or no flow of MIW. After closure of the bulkheads, flow of MIW from the American Tunnel decreased substantially, but flow of MIW from the surrounding mines increased substantially. EPA installed a bulkhead at the nearby Red and Bonita Mine in 2015 with a flow through control valve that was left open due to uncertainty about how it would affect groundwater elevations and discharging adits.

11. Surface water sampling data from Cement Creek, Eureka Gulch, mine portals--including Mogul Mine, Red & Bonita Mine, and Gold King Mine—as well as seeps and springs in OU3 have shown elevated concentrations of mining-related CERCLA hazardous substances, as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14). The CERCLA hazardous substances identified at OU3 include: beryllium, cadmium, copper, lead, manganese, silver, and zinc.

12. The MIW flowing from the mine portals in OU3 has been measured to be as high as 1,500,000 gallons a day. These releases have resulted in pH depression and increases in dissolved toxic metal concentrations in surface water, including, but not limited to, cadmium, copper, zinc and manganese. Surface water sampling data from the early 2000s demonstrate that since installation of the bulkheads in the Sunnyside Mine workings, concentrations of hazardous substances, such as cadmium, copper, zinc and manganese, have increased substantially in Cement Creek and the Animas River below the confluence with Cement Creek.

13. EPA's 2015 Draft Baseline Ecological Risk Assessment concluded that the benthic invertebrate community is measurably impaired in most sections of the Animas River approximately 30 miles downstream to Bakers Bridge due to metals concentrations in surface water due to natural and mining-related sources at the Site. In addition, toxic metals concentrations in the Animas River below Cement Creek have eliminated virtually all fish down to Elk Creek (6 miles downstream) and all cutthroat and rainbow trout down to Cascade Creek (19 miles downstream), where only a small community of brook trout and brown trout exist. Due to natural processes, it is unlikely that Cement Creek ever supported fish communities. However, mining-related metals contamination in Cement Creek is a major source of contamination in the Animas River.

14. The Site was listed on the National Priorities List (NPL) by EPA pursuant to CERCLA Section 105, 42 U.S.C. § 9605, on September 9, 2016, 81 Fed. Reg. 62402.

15. Respondent is a corporation, incorporated in Delaware and authorized to do business in Colorado. Respondent is the present owner of mining claims in OU3 and previously operated the Sunnyside Mine, the largest mine in OU3.

16. No prior enforcement actions have been taken by EPA for OU3. However, Respondent has performed mine reclamation projects in the OU3 portion of the Site pursuant to a voluntary Consent Decree agreement with the Colorado Water Quality Control Division (WQCD) effective May 8, 1996 and pursuant to its mine permits.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

17. Based on the Findings of Fact set forth above and the administrative record, EPA has determined that:

a. OU3 of the Site is a “facility” as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. Respondent is a “person” as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

c. Respondent is a liable party under one or more provisions of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

(1) Respondent is the “owner” and/or “operator” of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

(2) Respondent was the “owner” and/or “operator” of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

(3) Respondent arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

d. The metals contamination found at the Site, as identified in the Findings of Fact above, includes “hazardous substances” as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

e. The conditions described in Paragraphs 11 and 12 of the Findings of Fact above constitute an actual and/or threatened “release” of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The conditions at the Site may constitute a threat to public health or welfare or the environment, based on the factors set forth in Section 300.415(b)(2) of the NCP. These factors include, but are not limited to, the following:

- (1) actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances; this factor is present at the Site due to the existence of heavy metals released from the mine portals and seeps and springs in OU3 which adversely affect aquatic receptors in downstream receiving waterbodies. EPA's 2015 draft Baseline Ecological Risk Assessment for the watershed indicates adverse ecological risks to aquatic receptors in Cement Creek. The 2015 draft Baseline Ecological Risk Assessment found that the water quality in Cement Creek would cause lethal stress to fish and would be acutely toxic to juvenile rainbow trout; and
- (2) the unavailability of other appropriate federal or state mechanisms to respond to the release; this factor supports the actions required by this Order at the Site because EPA is the lead agency at the BPMD Site. There are no other appropriate federal or state entities that have the funding resources to perform the remedial investigation at OU3.

g. The conditions at OU3 of the Site may constitute an imminent and substantial endangerment to public health or welfare or the environment.

h. The actions required by this Order are necessary to protect the public health, welfare, or the environment.

VI. ORDER

18. Based upon the Findings of Fact, Conclusions of Law and Determinations set forth above, and the administrative record, Respondent is hereby ordered to comply with all provisions of this Order and any modifications to this Order, including all appendices to this Order and all documents incorporated by reference into this Order.

VII. OPPORTUNITY TO CONFER

19. No later than 5 days after this Order is signed by the Regional Administrator or his delegatee, Respondent may, in writing, a) request a conference with EPA to discuss this Order, including its applicability, the factual findings and the determinations upon which it is based, the appropriateness of any actions Respondent is ordered to take, or any other relevant and material issues or contentions that Respondent may have regarding this Order, or b) notify EPA that they intend to submit written comments or a statement of position in lieu of requesting a conference.

20. If a conference is requested, Respondent may appear in person or by an attorney or other representative. Any such conference shall be held no later than 5 days after the conference is requested. Any written comments or statements of position on any matter pertinent

to this Order must be submitted no later than 5 days after the conference or 10 days after this Order is signed if Respondent does not request a conference. This conference is not an evidentiary hearing, does not constitute a proceeding to challenge this Order, and does not give Respondent a right to seek review of this Order. Any request for a conference or written comments or statements should be submitted to:

Richard Sisk, Attorney, Legal Enforcement Program,
Office of Enforcement, Compliance and Environmental Justice
U.S. Environmental Protection Agency Region 8
1595 Wynkoop Street
Denver, CO 80202-1129
Mailcode 8ENF-L
303-312-6638
Sisk.richard@epa.gov

VIII. EFFECTIVE DATE

21. This Order shall be effective 5 days after the Order is signed by the Regional Administrator or his delegatee unless a conference is requested or notice is given that written materials will be submitted in lieu of a conference in accordance with Section VII (Opportunity to Confer). If a conference is requested or such notice is submitted, this Order shall be effective on the 10th day after the conference, or if no conference is requested, the 10th day after written materials, if any, are submitted, unless EPA determines that the Order should be modified based on the conference or written materials. In such event, EPA shall notify Respondent, within the applicable 10-day period, that EPA intends to modify the Order. The modified Order shall be effective 5 days after it is signed by the Regional Administrator or his delegatee.

IX. NOTICE OF INTENT TO COMPLY

22. On or before the Effective Date, Respondent shall notify EPA in writing of Respondent's irrevocable intent to comply with this Order. Such written notice shall be sent to EPA as provided in Paragraph 20. Respondent's written notice shall describe, using facts that exist on or prior to the Effective Date, any "sufficient cause" defense(s) asserted by Respondent under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(b) and 9607(c)(3). The absence of a response by EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondent's assertions. Failure of Respondent to provide such written notice within this time period shall, as of the Effective Date, be treated as a violation of this Order by Respondent.

X. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

23. **Selection of Contractors, Personnel.** All Work performed under this Order shall be under the direction and supervision of qualified personnel. Within 30 days after the Effective Date, and before the Work outlined below begins, Respondent shall notify EPA in writing of the names, titles, addresses, telephone numbers, email addresses, and qualifications of the personnel, including contractors, subcontractors, consultants, and laboratories to be used in carrying out

such Work. If, after the commencement of Work, Respondent retains additional contractors or subcontractors, Respondent shall notify EPA of the names, titles, contact information, and qualifications of such contractors or subcontractors retained to perform the Work at least 30 days prior to commencement of Work by such additional contractors or subcontractors. EPA retains the right, at any time, to disapprove of any or all of the contractors and/or subcontractors retained by Respondent. If EPA disapproves of a selected contractor or subcontractor, Respondent shall retain a different contractor or subcontractor and shall notify EPA of that contractor's or subcontractor's name, title, contact information, and qualifications within 30 days after EPA's disapproval. With respect to any proposed contractor, Respondent shall demonstrate that the proposed contractor demonstrates compliance with ASQ/ANSI E4:2014 "Quality management systems for environmental information and technology programs – Requirements with guidance for use" (American Society for Quality, February 2014), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)," EPA/240/B-01/002 (Reissued May 2006) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review for verification based on objective assessment criteria (e.g., experience, capacity, technical expertise) and that they do not have a conflict of interest with respect to the project.

24. Within 15 days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of the Work required by this Order and shall submit to EPA the designated Project Coordinator's name, title, address, telephone number, email address, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on-Site or readily available during the Work. EPA retains the right to disapprove of a designated Project Coordinator who does not meet the requirements of Paragraph 23 (Selection of Contractors, Personnel). If EPA disapproves of the designated Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, title, contact information, and qualifications within 10 days following EPA's disapproval. Respondent shall have the right to change their Project Coordinator, subject to EPA's right to disapprove. Respondent shall notify EPA 10 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notification. Communications between Respondent and EPA, and all documents concerning the activities performed pursuant to this Order, shall be directed to the Project Coordinator. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by Respondent.

25. EPA designated Jamie Miller of the Superfund Remedial Program, Region 8, as its Project Coordinator or Remedial Project Manager (RPM). EPA will notify Respondent of a change of its designated RPM. Communications between Respondent and EPA, and all documents concerning the activities performed pursuant to this Order, shall be directed to the EPA RPM in accordance with Paragraph 34.a.

26. EPA's RPM shall have the authority lawfully vested in a RPM and On-Scene Coordinator (OSC) by the NCP. In addition, EPA's RPM shall have the authority, consistent with the NCP, to halt, conduct, or direct any Work required by this Order, or to direct any other response action when s/he determines that conditions at the Site constitute an emergency situation or may present a threat to public health or welfare or the environment. Absence of the

EPA RPM from the area under study pursuant to this Order shall not be cause for stoppage or delay of Work.

XI. WORK TO BE PERFORMED

27. For any regulation or guidance referenced in the Order, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the Work only after Respondent receives notification from EPA of the modification, amendment, or replacement.

28. Respondent shall conduct the RI and prepare all plans in accordance with the provisions of this Order, the attached SOW, CERCLA, the NCP, and EPA guidance, including, but not limited to, the “Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA” (RI/FS Guidance), OSWER Directive # 9355.3-01 (October 1988), available at <https://semspub.epa.gov/src/document/11/128301>, “Guidance for Data Useability in Risk Assessment (Part A), Final,” OSWER Directive #9285.7-09A, PB 92-963356 (April 1992), available at <http://semspub.epa.gov/src/document/11/156756>, and guidance referenced therein, and guidance referenced in the SOW. The RI shall consist of collecting data to characterize OU3 conditions, determining the nature and extent of the contamination at or from the Site.

29. All written documents prepared by Respondent pursuant to this Order shall be submitted by Respondent in accordance with Section XII (Submission and Approval of Deliverables). With the exception of progress reports and the Health and Safety Plan, all such submittals will be reviewed and approved by EPA in accordance with Section XII (Submission and Approval of Deliverables). Respondent shall implement all EPA approved, conditionally approved, or modified deliverables.

30. Modification of the RI Work Plan

a. If at any time during the RI process, Respondent identifies a need for additional data, Respondent shall submit a memorandum documenting the need for additional data to EPA’s RPM within 10 days after identification. EPA in its discretion will determine whether the additional data will be collected by Respondent and whether it will be incorporated into deliverables.

b. In the event of unanticipated or changed circumstances at the Site, Respondent shall notify EPA’s RPM by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In the event that EPA determines that the unanticipated or changed circumstances warrant changes in the RI Work Plan, EPA shall modify the RI Work Plan in writing accordingly or direct Respondent to modify and submit the modified RI Work Plan to EPA for approval. Respondent shall perform the RI Work Plan as modified.

c. EPA may determine that, in addition to tasks defined in the initially approved RI Work Plan, other additional work may be necessary to accomplish the objectives of the RI. Respondent shall perform these response actions in addition to those required by the initially approved RI Work Plan, including any approved modifications, if EPA determines that such actions are necessary for a thorough RI.

d. Respondent shall complete the additional work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the RI Work Plan or written RI Work Plan supplement. EPA reserves the right to conduct the work itself, to seek reimbursement from Respondent for the costs incurred in performing the work, and/or to seek any other appropriate relief.

e. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions at the Site.

31. **Off-Site Shipments**

a. Respondent may ship hazardous substances, pollutants, and contaminants from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent will be deemed to be in compliance with CERCLA § 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondent obtains a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b).

b. Respondent may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, they provide written notice to the appropriate state environmental official in the receiving facility's state and to EPA's RPM. This notice requirement shall not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The written notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondent shall also notify the state environmental official referenced above and EPA's RPM of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondent shall provide the written notice after the award of the contract for the RI and before the Waste Material is shipped.

c. Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), 40 C.F.R. § 300.440, EPA's "Guide to Management of Investigation Derived Waste," OSWER 9345.3-03FS (Jan. 1992), and any IDW-specific requirements contained in the SOW. Wastes shipped off-Site to a laboratory for characterization, and RCRA hazardous wastes that meet the requirements for an exemption from RCRA under 40 C.F.R. § 261.4(e) shipped off-Site for treatability studies, are not subject to 40 C.F.R. § 300.440.

32. **Meetings.** Respondent shall make presentations at, and participate in, meetings at the request of EPA during the preparation of the RI. In addition to discussion of the technical aspects of the RI, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion.

33. **Progress Reports.** In addition to the deliverables set forth in this Order, Respondent shall submit written monthly progress reports to EPA by the 10th day of the following month. At a minimum, with respect to the preceding month, these progress reports shall:

- a. describe the actions that have been taken to comply with this Order;
- b. include all results of sampling and tests and all other data received by Respondent;
- c. describe Work planned for the next two months with schedules relating such Work to the overall project schedule for RI completion; and
- d. describe all problems encountered in complying with the requirements of this Order and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

XII. SUBMISSION AND APPROVAL OF DELIVERABLES

34. Submission of Deliverables

a. General Requirements for Deliverables

- (1) Except as otherwise provided in this Order, Respondent shall direct all submissions required by this Order to EPA's RPM, Jamie Miller, Mail Code: 8EPR, EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202, 303-312-6519, miller.jamie@epa.gov, to the State at Mark Rudolph, mark.rudolph@state.co.us, and to BLM at Krista Doebbler, kdoebbler@blm.gov. Respondent shall submit all deliverables required by this Order, the attached SOW, or any approved work plan in accordance with the schedule set forth in such plan.
- (2) Respondent shall submit all deliverables in electronic form. Technical specifications for sampling and monitoring data and spatial data are addressed in Paragraph 34.b. All other deliverables shall be submitted in the electronic form specified by EPA's Project Coordinator. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5 x 11 inches. Respondent shall also provide paper copies of such exhibits.

b. Technical Specifications for Deliverables

- (1) Sampling and monitoring data should be submitted in standard regional Electronic Data Deliverable (EDD) format as specified in the U.S. EPA Region 8, Superfund Remedial Data Management Plan, as amended. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.
- (2) Spatial data, including spatially-referenced data and geospatial data, should be submitted: (i) as specified in the U.S. EPA Region 8, Superfund Remedial Data Management Plan, as amended; and (ii) as unprojected geographic coordinates in decimal degree format using North American Datum 1983

(NAD83) or World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at <https://edg.epa.gov/EME/>.

- (3) Each file must include an attribute name for each site unit or sub-unit submitted. Consult <https://www.epa.gov/geospatial/geospatial-policies-and-standards> for any further available guidance on attribute identification and naming.
- (4) Spatial data submitted by Respondent does not, and is not intended to, define the boundaries of the Site.

35. Approval of Deliverables

a. Initial Submissions

- (1) After review of any deliverable that is required to be submitted for EPA approval under this Order or the attached SOW, EPA shall:
 - (i) approve, in whole or in part, the submission;
 - (ii) approve the submission upon specified conditions;
 - (iii) disapprove, in whole or in part, the submission;
 - (iv) any combination of the foregoing.
- (2) EPA also may modify the initial submission to cure deficiencies in the submission if:
 - (i) EPA determines that disapproving the submission and awaiting a resubmission would cause substantial disruption to the Work;
 - (ii) previous submission(s) have been disapproved due to material defects and the deficiencies in the initial submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

b. **Resubmissions.** Upon receipt of a notice of disapproval under Paragraph 35.a(1) (Initial Submissions), or if required by a notice of approval upon specified conditions under Paragraph 35.a(1), Respondent shall, within 5 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the deliverable for approval. After review of the resubmitted deliverable, EPA may:

- (a) approve, in whole or in part, the resubmission;
- (b) approve the resubmission upon specified conditions;
- (c) modify the resubmission;
- (d) disapprove, in whole or in part, the resubmission, requiring Respondent to correct the deficiencies;
- (e) any combination of the foregoing.

c. **Implementation.** Upon approval, approval upon conditions, or modification by EPA under Paragraph 35.a (Initial Submissions) or Paragraph 35.b (Resubmissions), of any deliverable, or any portion thereof:

- (i) such deliverable, or portion

thereof, will be incorporated into and enforceable under the Order; and (ii) Respondent shall take any action required by such deliverable, or portion thereof. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for penalties under Section XX (Enforcement/Work Takeover) for violations of this Order.

36. Notwithstanding the receipt of a notice of disapproval, Respondent shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA.

37. In the event that EPA takes over some of the tasks, but not the preparation of the Remedial Investigation Report (RI Report), Respondent shall incorporate and integrate information supplied by EPA into those reports.

38. Respondent shall not proceed with any activities or tasks dependent on the following deliverables until receiving EPA approval, approval on condition, or modification of such deliverables: RI Work Plan; Sampling and Analysis Plan; and draft RI Report. While awaiting EPA approval, approval on condition, or modification of these deliverables, Respondent shall proceed with all other tasks and activities that may be conducted independently of these deliverables, in accordance with the schedule set forth under this Order.

39. For all remaining deliverables not listed in Paragraph 38, Respondent shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval of the submitted deliverable. EPA reserves the right to stop Respondent from proceeding further, either temporarily or permanently, on any task, activity, or deliverable at any point during the Work.

40. **Material Defects.** If an initially submitted or resubmitted plan, report, or other deliverable contains a material defect, and the plan, report, or other deliverable is disapproved or modified by EPA under Paragraph 35.a (Initial Submissions) or 35.b (Resubmissions) due to such material defect, Respondent shall be deemed in violation of this Order for failure to submit such plan, report, or other deliverable timely and adequately. Respondent may be subject to penalties for such violation as provided in Section XX (Enforcement/Work Takeover).

41. Neither failure of EPA to expressly approve or disapprove of Respondent's submissions within a specified time period, nor the absence of comments, shall be construed as approval by EPA.

XIII. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

42. Respondent shall use quality assurance, quality control, and other technical activities and chain of custody procedures for all samples consistent with "EPA Requirements for Quality Assurance Project Plans (QA/R5)," EPA/240/B-01/003, March 2001 (reissued May 2006), "Guidance for Quality Assurance Project Plans (QA/G-5)," EPA/240/R-02/009 (December 2002), and "Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3," EPA/505/B-04/900A-900C (March 2005).

43. **Laboratories**

a. Respondent shall ensure that EPA, State, and BLM personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondent pursuant to this Order. In addition, Respondent shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the Quality Assurance Project Plan (QAPP) for quality assurance, quality control, and technical activities that will satisfy the stated performance criteria as specified in the QAPP and that sampling and field activities are conducted in accordance with the Agency's "EPA QA Field Activities Procedure" CIO 2105-P-02.1 (9/23/2014), available at <https://www.epa.gov/irmpoli8/epa-qa-field-activities-procedures>. Respondent shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Order meet the competency requirements set forth in EPA's "Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions," available at <https://www.epa.gov/measurements/documents-about-measurement-competency-under-acquisition-agreements>, and that the laboratories perform all analyses using EPA-accepted methods. Accepted EPA methods consist of, but are not limited to, methods that are documented in the EPA's Contract Laboratory Program (<https://www.epa.gov/superfund/programs/clp/>), SW 846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (<https://www.epa.gov/hw-sw846>), "Standard Methods for the Examination of Water and Wastewater" (<http://www.standardmethods.org/>), and 40 C.F.R. Part 136, "Air Toxics - Monitoring Methods" (<https://www.epa.gov/ttnamti1/airtox.html>).

b. Upon approval by EPA, after a reasonable opportunity for review and comment by the State and BLM, Respondent may use other appropriate analytical methods, as long as (i) quality assurance/quality control (QA/QC) criteria are contained in the methods and the methods are included in the QAPP, (ii) the analytical methods are at least as stringent as the methods listed above, and (iii) the methods have been approved for use by a nationally recognized organization responsible for verification and publication of analytical methods, e.g., EPA, ASTM, NIOSH, OSHA, etc.

c. Respondent shall ensure that all laboratories they use for analysis of samples taken pursuant to this Order have a documented Quality System that complies with ASQ/ANSI E4:2014 "Quality Management Systems for Environmental Information and Technology Programs – Requirements With Guidance for Use" (American Society for Quality, February 2014), and "EPA Requirements for Quality Management Plans (QA/R-2)" EPA/240/B-01/002 (March 2001, reissued May 2006), or equivalent documentation as determined by EPA. EPA may consider Environmental Response Laboratory Network (ERLN) laboratories, laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP), or laboratories that meet International Standardization Organization (ISO 17025) standards or other nationally recognized programs as meeting the Quality System requirements.

d. Respondent shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Order are conducted in accordance with the procedures set forth in the approved QAPP.

44. **Sampling**

a. Upon request, Respondent shall provide split or duplicate samples to EPA, the State, and BLM or their authorized representatives. Respondent shall notify EPA, the State, and BLM not less than 14 days in advance of any sample collection activity. In addition, EPA, the State, and BLM shall have the right to take any additional samples that EPA, the State, or BLM deem necessary. Upon request, EPA, the State, and BLM shall provide to Respondent split or duplicate samples of any samples they take as part of EPA's oversight of Respondent's implementation of the Work, and any such samples shall be analyzed in accordance with the approved QAPP.

b. Respondent shall submit to EPA, the State, and BLM, in the next monthly progress report as described in Paragraph 33 (Progress Reports) the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondent with respect to the Site and/or the implementation of this Order.

XIV. PROPERTY REQUIREMENTS

45. **Agreements Regarding Access and Non-Interference.** Respondent shall, with respect to any Non-Respondent Owner's Affected Property, use best efforts to secure from such Non-Respondent Owner an agreement, enforceable by Respondent and by EPA, providing that such Non-Respondent Owner, and Respondent shall, with respect to Respondent's Affected Property: (i) provide EPA, the State, and BLM, and their representatives, contractors, and subcontractors with access at all reasonable times to such Affected Property to conduct any activity regarding the Order, including those listed in Paragraph 45.a (Access Requirements); and (ii) refrain from using such Affected Property in any manner that EPA determines will interfere with or adversely affect the implementation or integrity of the Work. Respondent shall provide a copy of such access agreement(s) to EPA, the State, and BLM.

a. **Access Requirements.** The following is a list of activities for which access is required regarding the Affected Property:

- (1) Monitoring the Work;
- (2) Verifying any data or information submitted to EPA, the State, or BLM;
- (3) Conducting investigations regarding contamination at or near the Site;
- (4) Obtaining samples;
- (5) Assessing the need for, planning, implementing, or monitoring response actions;
- (6) Assessing implementation of quality assurance and quality control practices as defined in the approved QAPP;

- (7) Implementing the Work pursuant to the conditions set forth in Paragraph 65 (Work Takeover);
- (8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondent or their agents, consistent with Section XV (Access to Information);
- (9) Assessing Respondent's compliance with the Order;
- (10) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Order; and
- (11) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions regarding the Affected Property.

46. **Best Efforts.** As used in this Section, "best efforts" means the efforts that a reasonable person in the position of Respondent would use so as to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, as required by this Section. If Respondent is unable to accomplish what is required through "best efforts," they shall notify EPA, and include a description of the steps taken to comply with the requirements. If EPA deems it appropriate, it may assist Respondent, or take independent action, in obtaining such access. EPA reserves the right to seek payment from Respondent for all costs, including cost of attorneys' time, incurred by the United States in obtaining such access.

47. In the event of any Transfer of the Affected Property, unless EPA otherwise consents in writing, Respondent shall continue to comply with their obligations under the Order, including their obligation to secure access regarding the Affected Property.

48. Notwithstanding any provision of this Order, EPA, the State, and BLM retain all of their access authorities and rights, as well as all of their rights to require land, water, or other resource use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statute or regulations.

XV. ACCESS TO INFORMATION

49. Respondent shall provide to EPA, the State, and BLM, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as Records) within Respondent's possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondent shall also make available to EPA, the State, and BLM, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

50. **Privileged and Protected Claims**

a. Respondent may assert that all or part of a Record requested by EPA, the State, or BLM is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondent complies with Paragraph 50.b, and except as provided in Paragraph 50.b.

b. If Respondent asserts a claim of privilege or protection, they shall provide EPA, the State, and BLM with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondent shall provide the Record to EPA, the State, and BLM in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that they claim to be privileged or protected until EPA, the State, and BLM or a court determines that such Record is privileged or protected.

c. Respondent may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Order. Provided, however, Respondent may assert a claim of privilege or protection subject to the requirements of Paragraph 50.b, as it applies to sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site, generated solely for the purpose of current litigation (i.e. *State of New Mexico v. United States Environmental Protection Agency*, Lead case: 1:18-md-02824-WJ).

51. **Business Confidential Claims.** Respondent may assert that all or part of a Record provided to EPA, the State, and BLM under this Section or Section XVI (Record Retention) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this Order for which Respondent asserts business confidentiality claims. Records claimed as confidential business information will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, the State, and BLM, or if EPA has notified Respondent that the Records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent.

52. Notwithstanding any provision of this Order, EPA, the State, and BLM retain all of their information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XVI. RECORD RETENTION

53. During the pendency of this Order and for a minimum of 10 years after Respondent's receipt of EPA's notification pursuant to Section XXVII (Notice of Completion of

Work), Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control, or that come into its possession or control, that relate in any manner to its liability under CERCLA with respect to the Site, provided, however, that Respondent who is potentially liable as an owner or operator of the Site must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above, all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractors and agents) must retain, in addition, copies of all data generated during performance of the Work and not contained in the aforementioned Records required to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

54. At the conclusion of this document retention period, Respondent shall notify EPA, the State, and BLM at least 90 days prior to the destruction of any such Records, and, upon request by EPA, the State, or BLM, and except as provided in Paragraph 50 (Privileged and Protected Claims), Respondent shall deliver any such Records to EPA, the State, or BLM.

55. Within 30 days after the Effective Date, Respondent shall submit a written certification to EPA's Project Coordinator that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Site since notification by the United States or the State, and that it has fully complied with any and all EPA, BLM, and State requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, and state law. If Respondent is unable to so certify, Respondent shall submit a modified certification that explains in detail why it is unable to certify in full with regard to all Records.

XVII. COMPLIANCE WITH OTHER LAWS

56. Nothing in this Order limits Respondent's obligations to comply with the requirements of all applicable state and federal laws and regulations, except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws.

57. No local, state, or federal permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work that is not on-site requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Order is not,

and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XVIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

58. **Emergency Response.** If any event occurs during performance of the Work that causes or threatens to cause a release of Waste Material on, at, or from the Site that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release. Respondent shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety Plan. Respondent shall also immediately notify EPA's Project Coordinator or, in the event of his/her unavailability, the Regional Duty Officer at 303-312-6510 of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, EPA reserves the right to pursue cost recovery.

59. **Release Reporting.** Upon the occurrence of any event during performance of the Work that Respondent is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-To-Know Act (EPCRA), 42 U.S.C. § 11004, Respondent shall immediately orally notify EPA's Project Coordinator, or, in the event of his/her unavailability, the Regional Duty Officer at 303-312-6510 and the National Response Center at (800) 424-8802. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103 of CERCLA, 42 U.S.C. § 9603, and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

60. For any event covered under this Section, Respondent shall submit a written report to EPA within 7 days after the onset of such event, setting forth the action or event that occurred and the measures taken, and to be taken, to mitigate any release or threat of release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release or threat of release.

XIX. PAYMENT OF RESPONSE COSTS

61. Upon EPA's written demand, Respondent shall pay EPA all Response Costs incurred or to be incurred in connection with this Order. On a periodic basis, EPA will send Respondent a bill requiring payment of all Response Costs incurred by the United States with respect to this Order that includes a SCORPIOS Report, which includes direct and indirect costs incurred by EPA, its contractors, and the Department of Justice.

62. Respondent shall make all payments within 30 days after receipt of each written demand requiring payment. Payment shall be made to EPA by Fedwire Electronic Funds Transfer (EFT) to:

Federal Reserve Bank of New York
ABA = 021030004
Account = 68010727

SWIFT address = FRNYUS33
33 Liberty Street
New York NY 10045
Field Tag 4200 of the Fedwire message should read “D 68010727 Environmental Protection Agency”

and shall reference Site/Spill ID Number A8-M5 and the EPA docket number for this action.

For ACH payment:

Respondent shall make payment to EPA by Automated Clearinghouse (ACH) to:

500 Rivertech Court
Riverdale, Maryland 20737
Contact – John Schmid 202-874-7026 or REX, 1-866-234-5681
ABA = 051036706
Transaction Code 22 - checking
Environmental Protection Agency
Account 310006
CTX Format

and shall reference Site/Spill ID Number A8-M5 and the EPA docket number for this action.

For online payment:

Respondent shall make payment at <https://www.pay.gov> to the U.S. EPA account in accordance with instructions to be provided to Respondent by EPA.

63. At the time of payment, Respondent shall send notice that payment has been made to EPA's RPM, to Mike Rudy, Enforcement Specialist, U.S.EPA Region 8, Mailcode ENF-RC, 1595 Wynkoop, Denver, CO 80202-1129, and to the EPA Cincinnati Finance Office by email at cinwd_acctsreceivable@epa.gov, or by mail to

EPA Cincinnati Finance Office
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268

Such notice shall reference Site/Spill ID Number A8-M5 and the EPA docket number for this action.

64. In the event that the payments for Response Costs are not made within 30 days after Respondent's receipt of a written demand requiring payment, Respondent shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the written demand and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section. Respondent shall make all payments required by this Paragraph in the manner described in Paragraphs 62 and 63.

XX. ENFORCEMENT/WORK TAKEOVER

65. Any willful violation, or failure or refusal to comply with any provision of this Order may subject Respondent to civil penalties of up to \$55,907 per violation per day, as provided in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1), and the Civil Monetary Penalty Inflation Adjustment Rule, 81 Fed. Reg. 43,091, 40 C.F.R. Part 19.4. In the event of such willful violation, or failure or refusal to comply, EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C. § 9606. In addition, nothing in this Order shall limit EPA's authority under Section XXIV (Financial Assurance). Respondent may also be subject to punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such failure to comply, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3).

XXI. RESERVATIONS OF RIGHTS BY THE UNITED STATES

66. Nothing in this Order shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Order shall prevent EPA or the United States from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA and the United States reserve the right to bring an action against Respondent under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order or the Site and not paid by Respondent.

XXII. OTHER CLAIMS

67. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

68. Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

69. Nothing in this Order shall be deemed to constitute preauthorization of a claim within the meaning of Section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2), or 40 C.F.R. § 300.700(d).

70. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIII. INSURANCE

71. No later than 10 days before commencing any on-site Work, Respondent shall secure, and shall maintain for the duration of this Order, commercial general liability insurance with limits of liability of \$1 million per occurrence, automobile liability insurance with limits of liability of \$1 million per accident, and umbrella liability insurance with limits of liability of \$5 million in excess of the required commercial general liability and automobile liability limits, naming EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Order. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Order, Respondent shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing Work on behalf of Respondent in furtherance of this Order. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in a lesser amount, then, with respect to that contractor or subcontractor, Respondent need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor. Respondent shall ensure that all submittals to EPA under this Paragraph identify the Site, county, state, and the EPA docket number for this action.

XXIV. FINANCIAL ASSURANCE

72. In order to ensure completion of the Work, Respondent shall secure financial assurance, initially in the amount of \$5,000,000.00 (Estimated Cost of the Work). The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available from EPA or under the "Financial Assurance - Orders" category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>, and satisfactory to EPA. Respondent may use multiple mechanisms if they are limited to trust funds, surety bonds guaranteeing payment, and/or letters of credit.

a. A trust fund: (1) established to ensure that funds will be available as and when needed for performance of the Work; (2) administered by a trustee that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; and (3) governed by an agreement that requires the trustee to make payments from the fund only when the Assistant Regional Administrator Office of Ecosystems, Protection and Remediation advises the trustee in writing that: (i) payments are necessary to fulfill the Respondent's obligations under the Order; or (ii) funds held in trust are in excess of the funds that are necessary to complete the performance of Work in accordance with this Order;

b. A surety bond, issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury, guaranteeing payment or performance in accordance with Paragraph 78 (Access to Financial Assurance);

c. An irrevocable letter of credit, issued by an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency, guaranteeing payment in accordance with Paragraph 78 (Access to Financial Assurance);

d. A demonstration by a Respondent that it meets the relevant financial test criteria of Paragraph 75; or

e. A guarantee to fund or perform the Work executed by a company (1) that is a direct or indirect parent company of a Respondent or has a “substantial business relationship” (as defined in 40 C.F.R. § 264.141(h)) with a Respondent; and (2) can demonstrate to EPA’s satisfaction that it meets the financial test criteria of Paragraph 75.

73. **Standby Trust.** If Respondent seeks to establish financial assurance by using a surety bond, a letter of credit, or a corporate guarantee, Respondent shall at the same time establish and thereafter maintain a standby trust fund, which must meet the requirements specified in Paragraph 72.a, and into which payments from the other financial assurance mechanism can be deposited if the financial assurance provider is directed to do so by EPA pursuant to Paragraph 78 (Access to Financial Assurance). An originally signed duplicate of the standby trust agreement must be submitted, with the other financial mechanism, to EPA in accordance with Paragraph 74. Until the standby trust fund is funded pursuant to Paragraph 78 (Access to Financial Assurance), neither payments into the standby trust fund nor annual valuations are required.

74. Within 30 days after the Effective Date, Respondent shall submit to EPA proposed financial assurance mechanisms in draft form in accordance with Paragraph 72 for EPA’s review. Within 60 days after the Effective Date, or 30 days after EPA’s approval of the form and substance of Respondent’s financial assurance, whichever is later, Respondent shall secure all executed and/or otherwise finalized mechanisms or other documents consistent with the EPA-approved form of financial assurance and shall submit such mechanisms and documents to CERCLA Financial Assurance, Mail Code: 8ENFRC, EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202.

75. If Respondent seeks to provide financial assurance by means of a demonstration or guarantee under Paragraph 72.d or 72.e Respondent must, within 30 days after the Effective Date:

a. Demonstrate that:

(1) Respondent or guarantor has:

i. Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

- ii. Net working capital and tangible net worth each at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and
 - iii. Tangible net worth of at least \$10 million; and
 - iv. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; or
- (2) Respondent or guarantor has:
- i. A current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and
 - ii. Tangible net worth at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and
 - iii. Tangible net worth of at least \$10 million; and
 - iv. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; and

b. Submit to EPA for the Respondent or guarantor: (1) a copy of an audited independent certified public accountant's report of the entity's financial statements for the latest completed fiscal year, which must not express an adverse opinion or disclaimer of opinion; and (2) a letter from its chief financial officer and a report from an independent certified public accountant substantially identical to the sample letter and reports available from EPA or under the "Financial Assurance – Orders" subject list category on the Cleanup Enforcement Model Language and Sample Documents Database at <https://cfpub.epa.gov/compliance/models/>.

76. If Respondent provides financial assurance by means of a demonstration or guarantee under Paragraph 72.d or 72.e Respondent must also:

a. Annually resubmit the documents described in Paragraph 75.b within 90 days after the close of Respondent's or guarantor's fiscal year;

b. Notify EPA within 30 days after Respondent or guarantor determines that it no longer satisfies the relevant financial test criteria and requirements set forth in this Section; and

c. Provide to EPA, within 30 days of EPA's request, reports of the financial condition of the Respondent or guarantor in addition to those specified in Paragraph 75.b; EPA may make such a request at any time based on a belief that the Respondent or guarantor may no longer meet the financial test requirements of this Section.

77. Respondent shall diligently monitor the adequacy of the financial assurance. If Respondent becomes aware of any information indicating that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, such Respondent shall notify EPA of such information within 30 days. If EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, EPA will notify the Respondent of such determination. Respondent shall, within 30 days after notifying EPA or receiving notice from EPA under this Paragraph, secure and submit to EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. Respondent shall follow the procedures of Paragraph 79 in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondent's inability to secure financial assurance in accordance with this Section does not excuse performance of any other obligation under this Order.

78. **Access to Financial Assurance**

a. If EPA determines that Respondent (1) has ceased implementation of any portion of the Work, (2) is seriously or repeatedly deficient or late in its performance of the Work, or (3) is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice (Performance Failure Notice) to Respondent and the financial assurance provider regarding the Respondent's failure to perform. Any Performance Failure Notice issued by EPA will specify the grounds upon which such notice was issued and will provide Respondent a period of 10 days within which to remedy the circumstances giving rise to EPA's issuance of such notice. If, after expiration of the 10-day period specified in this Paragraph, Respondent has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the relevant Performance Failure Notice, then, in accordance with any applicable financial assurance mechanism, EPA may at any time thereafter direct the financial assurance provider to immediately: (i) deposit any funds assured pursuant to this Section into the standby trust fund; or (ii) arrange for performance of the Work in accordance with this Order.

b. If EPA is notified by the provider of a financial assurance mechanism that it intends to cancel the mechanism, and the Respondent fails to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, EPA may, prior to cancellation, direct the financial assurance provider to deposit any funds guaranteed under such mechanism into the standby trust fund for use consistent with this Section.

79. **Modification of Amount, Form, or Terms of Financial Assurance.** Respondent may submit, on any anniversary of the Effective Date or following Respondent's request for, and EPA's approval of, another date, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to the EPA individual(s) referenced in Paragraph 74, and must include an estimate of the cost of the remaining Work, an explanation of the bases for the cost calculation, a description of the proposed changes, if any, to the form or terms of the financial assurance, and any newly proposed financial assurance documentation in accordance with the requirements of Paragraphs 72 and 73 (Standby Trust). EPA will notify Respondent of its decision to approve or disapprove a requested reduction or change. Respondent may reduce the amount or change the form or terms of the financial assurance mechanism only in accordance with EPA's approval. Within 30 days after receipt of EPA's approval of the requested modifications pursuant to this Paragraph, Respondent shall submit to the EPA individual(s) referenced in Paragraph 74 all executed and/or otherwise finalized documentation relating to the amended, reduced, or alternative financial assurance mechanism. Upon EPA's approval, the Estimated Cost of the Work shall be deemed to be the estimate of the cost of the remaining Work in the approved proposal.

80. **Release, Cancellation, or Discontinuation of Financial Assurance.** Respondent may release, cancel, or discontinue any financial assurance provided under this Section only: (a) after receipt of documentation issued by EPA certifying completion of the Work; or (b) in accordance with EPA's written approval of such release, cancellation, or discontinuation.

XXV. MODIFICATION

81. The EPA Project Coordinator may modify any plan or schedule or the SOW in writing or by oral direction. Any oral modification will be memorialized in writing by EPA within 10 days, but shall have as its effective date the date of EPA's Project Coordinator's oral direction. Any other requirements of this Order may be modified in writing by signature of the designees of EPA Region 8.

82. If Respondent seeks permission to deviate from any approved Work Plan or schedule or the SOW, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving approval from the EPA Project Coordinator pursuant to Paragraph 81.

83. No informal advice, guidance, suggestion, or comment by EPA's Project Coordinator or other EPA representatives regarding any deliverables submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

XXVI. DELAY IN PERFORMANCE

84. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone and email to the EPA Project Coordinator within 48 hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within 7 days after notifying EPA by telephone and email, Respondent shall provide

to EPA written notification fully describing the nature of the delay, the anticipated duration of the delay, any justification for the delay, all actions taken or to be taken to prevent or minimize the delay or the effect of the delay, a schedule for implementation of any measures to be taken to mitigate the effect of the delay, and any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

85. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondent under the terms of Paragraph 84 shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.

XXVII. NOTICE OF COMPLETION OF WORK

86. When EPA determines that all Work has been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including Payment of Response Costs, and Record Retention, EPA will provide written notice to Respondent. If EPA determines that any Work has not been completed in accordance with this Order, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the RI Work Plan, if appropriate, in order to correct such deficiencies within 10 days after receipt of the EPA notice. The modified RI Work Plan shall include a schedule for correcting such deficiencies. Within 30 days after receipt of written approval of the modified RI Work Plan, Respondent shall implement the modified and approved RI Work Plan and shall submit a modified draft RI Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified RI Work Plan shall be a violation of this Order.

XXVIII. ADMINISTRATIVE RECORD

87. EPA has established an administrative record that contains the documents that form the basis for the issuance of this Order. The administrative record may be reviewed upon request.

88. EPA will determine the contents of the administrative record file for selection of the remedial action. Respondent shall submit to EPA documents developed during the course of the RI upon which selection of the remedial action may be based. Upon request of EPA, Respondent shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports, and other reports. Upon request of EPA, Respondent shall additionally submit any previous studies conducted under state, local, or other federal authorities that may relate to selection of the remedial action, and all communications between Respondent and state, local, or other federal authorities concerning selection of the remedial action.

XXIX. SEVERABILITY


89. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order,

Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

It is so ORDERED.

BY:  DATE: 4/16/18
Suzanne J. Bohan,
Assistant Regional Administrator
Office of Enforcement, Compliance
and Environmental Justice

AND

BY:  DATE: 4/16/18
Betsy Smidinger
Assistant Regional Administrator
Office of Ecosystems, Protection
and Remediation

**Statement of Work
for Remedial Investigation
Bonita Peak Groundwater System**

**Bonita Peak Mining District Superfund Site, Operable Unit 3
San Juan County, Colorado**

March 15, 2018

1.0 INTRODUCTION

The purpose of the remedial investigation (RI) for the Bonita Peak Groundwater System (BPGS) of the Bonita Peak Mining District Superfund Site (Site) is to characterize groundwater and other media that have the potential to contaminate surface water within, at and near the former Sunnyside mine area. It is anticipated that the RI will be conducted as an iterative process using adaptive management principles. The adaptive management strategy being employed by EPA at the Site will allow EPA to tailor the investigation approach and look for opportunities for early or interim response actions as information and data is developed during the RI. This has been designated as Operable Unit 3 (OU3) of the Site. OU3 is described in the 2018 Unilateral Administrative Order for Remedial Investigation of the Bonita Peak Groundwater System (2018 Administrative Order) issued to Sunnyside Gold Corporation (Respondent) as follows:

The Bonita Peak Groundwater System, or OU 3, generally includes the saturated and unsaturated workings of the Sunnyside Mine, associated drainage and haulage tunnels, nearby mines not known to be connected to the Sunnyside Mine by workings (e.g. Red & Bonita Mine and Gold King Mine), and the surrounding geographic area that may be hydraulically connected or influenced by current and/or historical releases from or management of these mines.

2.0 PURPOSE OF THE STATEMENT OF WORK

This Statement of Work (SOW) sets forth requirements for conducting an RI at OU3. The Respondent shall conduct the RI in accordance with this SOW and the requirements in the 2018 Administrative Order, and consistent with the National Contingency Plan (NCP) (40 CFR Part 300) and “Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA” (OSWER Directive No. 9355.3-01, Oct. 1988) and any other guidance documents that EPA identifies as relevant to any aspect of conducting an RI for OU3. A list of the primary guidance documents is included as Attachment A to this SOW.

As specified in Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 104(a)(1), as amended by the Superfund Amendments and Reauthorization Act (SARA), EPA will oversee the Respondent's activities throughout the RI. The Respondent shall support EPA's initiation and conduct of oversight activities. EPA's determinations, approvals, and activities as provided for in the 2018 Administrative Order, this SOW, CERCLA, the NCP, and applicable guidance will be conducted in consultation with the State of Colorado (State), specifically, the Colorado Department of Public Health and Environment (CDPHE), and U.S. Bureau of Land Management (BLM), which has jurisdiction over public land located within OU3, as provided for in the 2018 Administrative Order, and by CERCLA, the NCP, and applicable guidance. Respondent shall provide copies of all deliverables and any other documents required to be submitted to EPA under the terms of this SOW to CDPHE and BLM simultaneously with submitting them to EPA. In particular, any documents or actions involving BLM-administered lands will be reviewed by BLM and EPA will consult with BLM. EPA is responsible for making final approvals, disapprovals, or requests for modification of all deliverables submitted pursuant to this SOW.

Work described in this SOW by the Respondent and EPA's review and approval of documents and activities described in this SOW shall be performed in accordance with the procedures described in the 2018 Administrative Order. The Respondent shall furnish all necessary personnel, materials, and services needed or incidental to, performing the Work described in this SOW.

3.0 SCOPING AND INITIAL PLANNING FOR THE REMEDIAL INVESTIGATION

A variety of existing reports that summarize sampling activities carried out during prior investigations of the geographic area identified as OU3 have been prepared and/or reviewed by EPA, CDPHE, BLM, the Respondent, and others. Based on this available information, EPA anticipates multiple phases of RI for OU3 including some or all of the following:

- project scoping;
- well installation and monitoring;
- other media sampling and analysis;
- hydrologic evaluations;
- mining influenced water (MIW) release prevention and contingency planning;
- geophysical investigations;
- workings, portals and bulkhead integrity assessments; and/or
- modeling.

EPA will determine the number of phases necessary to complete the RI and the activities included in each phase, subject to the provisions of the 2018 Administrative Order.

3.1 Assemble Existing Information

The Respondent shall assemble existing information relevant to the RI for OU3 including, but not limited to:

- all documentation and reporting of historical operations activities and studies concerning the former mine and appurtenances and contaminants associated therewith pertinent to environmental impacts;
- all mine reclamation plans and reports;
- all environmental sampling and analysis plans;
- all environmental and other data, maps, and photos;
- all reclamation designs and results of reclamation design investigations;
- all as-built plans of reclamation work previously conducted;
- all inspection and maintenance reports of reclamation work previously conducted; and
- all reports describing data summaries, data evaluations; or interpretations of data.

This shall include available data relating to the types and quantities of hazardous substances, pollutants, or contaminants within OU3 and past material management and disposal practices at the Sunnyside Mine and other facilities within OU3.

The Respondent shall provide the information to EPA, with copies to CDPHE and BLM, in accordance with the schedule contained in Section 6 of this SOW.

3.2 Field Visit

The Respondent and EPA shall determine if a field visit is required during the project scoping phase. If required, the purpose of the field visit is to assist in developing a conceptual understanding of sources and areas of contamination as well as potential exposure pathways and receptors at OU3. The Respondent shall invite EPA, State of Colorado, and BLM to participate in the field visit and shall provide notice at least two weeks in advance (or more) of the proposed date. EPA may invite other interested agencies (e.g., Colorado Division of Mining and Safety, US. Fish and Wildlife Service, etc.) or interested non-agency stakeholders to participate in the field visit.

3.3 Remedial Investigation Work Plan

The Respondent shall develop a remedial investigation work plan (RI WP) for review and approval by EPA with copies to CDPHE and BLM. The RI WP will generally include the information gathered in Sections 3.1 and 3.2 of this SOW along with a general plan for conducting the RI. It is anticipated that the RI will be conducted as an iterative process using adaptive management principles and the scope of future phases (if any) is to be developed as site investigation progresses. The RI WP may be amended as needed.

The objectives of the RI are to:

1. Develop monitoring capability for water impounded by bulkheads throughout the lifespan of the bulkheads. Monitoring of water quality and water levels is required;
2. Determine the hydraulic and hydrologic connectiveness of the Sunnyside Mine workings with other mine workings and drainage tunnels, aquifers, fractured rock, and surface water;
3. Determine the nature and extent of mining related contaminants in groundwater and other media within OU3.
4. Evaluate the fate and transport of mining related contaminants in groundwater within OU3 and its effects on the surface water system;

EPA has developed a site-wide quality assurance project plan (QAPP) for the Site governing the data quality aspects of the RI. The RI shall be conducted consistent with the requirements of the site-wide QAPP. Following approval of the RI WP, the Respondent shall submit a Field Sampling Plan (FSP) in accordance with the most current version of the existing BPMD site-wide QAPP for initial investigation activities to be conducted as Phase 1. Additional information regarding FSP development is included in Section 5.

The largest data gaps involve impounded groundwater and groundwater conditions throughout OU3; however, related media also need to be investigated for impacts to human health and the environment. Related media includes any mining-derived solids, semi-solids, or liquids that can cause a release of contaminants to groundwater and/or surface water. Examples of related media include mine waste (e.g., waste rock, tailings, stockpiles, etc.), mineralized mine workings (e.g., tunnels, stopes, winzes, adits, high walls, etc.), mining influenced water (e.g., pore water, adit discharge), and contaminated sediment or soil.

Phase 1 shall include at a minimum:

- installation, development, and sampling of at least 1 monitoring well to evaluate groundwater conditions between bulkhead 2 and bulkhead 3 of the American Tunnel. An assessment of water levels in the American Tunnel between bulkhead 1 and bulkhead 2 shall be performed. If the existing well (NFPZ-1) is insufficient to meet this data need, an additional monitoring well shall be installed, developed, and sampled. Monitoring

well(s) will be installed in a manner to allow determination of hydraulic heads and water quality, conducting hydraulic tests, and injection and/or monitoring of tracers;

- installation and maintenance of two high elevation meteorological monitoring stations (Eureka Gulch and Ross Basin) to obtain local data on precipitation, evaporation, and related metrics;
- conducting an infiltration investigation to determine the rates and timing of infiltration and snowmelt in the area surrounding OU3 (especially within Eureka Gulch and Ross Basin); and
- evaluating the condition and safety of bulkheads at the Terry tunnel and Prince tunnel including investigations and construction needed to access the bulkheads for physical inspection.

Phase 1 shall be completed in 2018. Additional phases of work beyond Phase 1 may also be required to complete the investigation. Determination of additional work necessary will be made by EPA, in consultation with the State, and BLM.

4.0 COMMUNITY RELATIONS

EPA will develop and implement community relations activities for OU3. The Respondent shall, as requested by EPA, assist EPA by providing information regarding the Site and/or OU3 history, participating in public meetings, developing graphics, placing newspaper advertisements developed by EPA, or distributing fact sheets developed by EPA. All community relations activities conducted by the Respondent at EPA request will be subject to oversight by EPA.

5.0 SITE CHARACTERIZATION

The Respondent shall develop a comprehensive project life conceptual site model (CSM) of potential exposure pathways and potential human health and ecological receptors which shall be used to identify data gaps which serves, in part, as the basis for the scope of the RI. The CSM shall be updated to different project life stages as additional information becomes available. The Respondent shall perform activities as set forth in approved FSPs and described in this section including:

- Prepare and submit to EPA, with copies to CDPHE and BLM for review and EPA approval, or comment, in consultation with CDPHE and BLM, detailed FSPs which include standard operating procedures and other detailed information (e.g., identification of the Respondent's key project personnel) as requested by EPA, in consultation with CDPHE and BLM
- Implement the investigative elements of the EPA-approved FSPs;

- Perform the laboratory analysis of samples at EPA-approved laboratories and in accordance with the EPA-approved laboratory quality management plans (QMPs);
- Deliver laboratory data to EPA, with copies to CDPHE and BLM, in the format specified in the FSPs;
- Document field activities and deviations from FSP and QAPP requirements;
- Prepare draft, draft-final, and final data summary reports at the conclusion of each Phase or other milestone; and
- Prepare draft, draft-final, and final RI reports.

The Respondent shall identify data needed to conduct the RI including data gaps identified during initial project planning. EPA has provided the Respondent an initial list of data gaps in the memorandum dated March 3, 2017. A phased RI approach is anticipated to allow for identification and filling of additional data gaps based on newly gathered information. Use of an adaptive management strategy is recommended to refine the scope of each phase of investigation of the RI.

At the start of each phase of the RI, EPA and the Respondent shall review the CSM and discuss whether there are data gaps that need to be addressed before completing that stage of the RI. If EPA determines additional data gaps need to be addressed, EPA will issue a written determination confirming the data gap. As part of this process, EPA will confer with the Respondent regarding the scope of and the schedule for filling the data gaps. The deliverables schedule for that phase of the RI, as shown in Section 6 of this SOW, will be triggered from EPA's determination that the data gaps have been filled and final data have been received by the Respondent. Final data are data that have been validated and verified in accordance with EPA guidance set forth in the FSP.

Whenever EPA determines that a data gap exists and filling the data gap is necessary to progress and eventually complete the RI, the Respondent shall submit a draft FSP addendum within 60 days of EPA issuing the written determination or in accordance with an approved schedule (see Section 5.1 for development of FSPs). If multiple data gaps are identified as needing to be filled, thereby requiring multiple FSP addenda to be developed, the FSP addenda will be prioritized and conducted in accordance with an approved schedule (see Section 6).

The Respondent will perform all data validation and verification for the RI. The Respondent will provide copies of the data validation reports to EPA with copies to CDPHE and BLM.

5.1 Development and Implementation of Field Sampling Plans

The Respondent shall develop and submit to EPA, with copies to CDPHE and BLM, for review and EPA approval, or comment, in consultation with CDPHE and BLM, pursuant to the procedures in the 2018 Administrative Order, a detailed FSP for each phase of the RI that entails sample collection and field or laboratory analysis of the collected samples. Each FSP shall be

issued by the Respondent first in draft form to the EPA, with copies to CDPHE and BLM, for review. Following satisfactory revisions by the Respondent to address any EPA and/or CDPHE and BLM comments, the Respondent shall fully implement a Final FSP for each phase of the RI. EPA may require the Respondent to include detailed information in the Final FSP (for example, standard operating procedures (SOPs), analytical laboratory reporting limits, names and responsibilities of key project personnel, schedule). Each FSP shall include a Failure Mode Effects Analysis for MIW, a Contingency, Notification, and Emergency Action Plan (see guidance document in Attachment A), and an activity-specific Health and Safety Plan (HASP). EPA will approve all final FSPs.

The final EPA-approved FSP for each phase of the RI will include a description of the goals for the specific phase, a list of key personnel and responsibilities, DQOs, field sampling plans, and schedules. The site-wide QAPPs and data management plans shall be adhered to unless task-specific deviations are approved. Each final EPA-approved FSP will describe the sampling program including the rationale, number, type, and location of samples; the sample collection, handling and custody procedures; the required field documentation and the required analytical methods.

The site-wide QAPP contains many required elements for completing field investigations, analyses of samples and data management. Data collection activities shall follow the requirements of the site-wide QAPP to the extent practicable. If needed, additions or alterations to the QAPP may be prepared for EPA review and approval. Site-wide QAPP procedures describe the measures necessary to generate data of sufficient quality to achieve the DQOs. The site-wide QAPP specifies any special training requirements and certifications, quality assurance/quality control (QA/QC) requirements for field activities and analytical processes, and data validation requirements. If any elements not included the site-wide QAPP are needed to complete the FSP work, a task-specific deviation shall be included in the FSP.

An FSP will not be implemented until approved by EPA. Each FSP shall include a schedule for, at a minimum, the start and end of field work. Respondent shall start the field work according to the EPA-approved schedule.

The Respondent shall notify EPA, the State, and BLM at least two weeks in advance of field work starting for each phase of the RI. The Respondent shall obtain written access to properties for sampling, including BLM administered public lands comprising both surface and subsurface. In addition, the Respondent shall notify by email the following BLM representative at least 14 days in advance of conducting any sampling on BLM administered public lands:

Krista Doebbler
Abandoned Mined Lands Program
Bureau of Land Management
kdoebbler@blm.gov

The Respondent shall provide monthly field progress reports and participate in meetings at EPA's request. The format of the monthly field progress reports shall be specified in the FSP for such work. The Respondent shall notify EPA, the State, and BLM in writing upon completion of field activities for each phase of the RI.

For any work conducted in OU3, Respondent shall prepare a HASP and submit it to EPA and the State. Respondent shall also submit a copy of a HASP to the BLM for any work conducted on BLM-managed lands. EPA, the State, and BLM will not approve the HASP. An updated HASP may be needed if later FSPs include activities not addressed by the HASP. The Respondent are solely responsible for ensuring the health and safety of their employees or contractors performing any of the work described in this SOW.

The Respondent shall implement each final EPA-approved FSP in accordance with the schedule described in the FSP. In the event that the EPA-approved schedule shall be changed due to inclement weather or other unpredictable site hazards (for example, high fire risk), the EPA will be notified immediately and a modified schedule will be presented for EPA review and approval. The Respondent shall arrange for analytical data from laboratories to be reported directly to EPA in the format specified by EPA in the FSP. The Respondent will perform all required data validation and verification described in the FSP.

The Respondent shall record and maintain field logs and laboratory reports information gathered during site characterization. The method(s) of documentation shall be consistent with those specified in the FSP, including use of hand-held electronic data collection systems. The Respondent shall use field logs to document observations, measurements, and significant events that occur during field activities. The Respondent shall ensure that laboratory reports document sample custody, analytical responsibility, analytical results, adherence to prescribed protocols, nonconformity events, corrective measures, and/or data deficiencies.

The Respondent shall maintain field reports and sample shipment records. Analytical results developed under the FSPs shall not be included in any site characterization summary reports or RI reports unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, the Respondent shall establish a data security system to safeguard field logs, field data sheets, laboratory reports, chain of custody forms and other project records to prevent loss, damage, or alteration of project documentation. The Respondent shall submit a written description of the data security system to EPA, the State, and BLM for review and EPA approval.

5.2 Data Summary Reports

Respondent shall prepare a data summary report describing the implementation of the FSP(s) or work plan(s), whichever is appropriate, at the conclusion of each phase of the RI. Each data summary report shall include the field documentation specified in the FSP(s), a description of the physical characteristics of the study area, results of all required field QA/QC procedures, and

results of all field and laboratory audits performed by the Respondent as specified in the FSP. The Respondent shall submit a data summary report for EPA review and approval, with copies to the State and the BLM in accordance with the Schedule in Section 6.

5.3 RI Report

After the FSP for the final phase of the RI has been implemented, the Respondent shall prepare and submit a draft RI report to EPA, with copies to the State and the BLM, in accordance with Section XII of the 2018 Administrative Order and the schedule contained in Section 6 of this SOW. The RI report shall analyze and evaluate the data and summarize results of field activities to characterize OU3, the contaminant of potential concern (COPCs), types and sources of contamination, the nature and extent of contamination, and the fate and transport of contaminants for each impacted medium. The Respondent shall refer to Table 3-13 in “*Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA*,” OSWER Directive No. 9355.3-01 (October 1988) for a recommended RI report format, with the exception that Section 6, Section 7.1.3, Section 7.2.2, and Appendix C be excluded as EPA will prepare the baseline human health risk assessment and the baseline ecological risk assessment.

The RI report shall include the measured and potential magnitude of releases from the sources, the horizontal and vertical distribution of contamination, and the mobility, toxicity and bioavailability, persistence of COPCs. Where mathematical modeling or 3-dimensional data visualization and analysis (3DVA) are appropriate, such models or visualization shall be identified in a letter submitted for EPA review and approval, with copies to the State and the BLM, prior to their use. Upon request, the Respondent shall make available all data and programming, including any proprietary programs unless considered to be confidential business information. If proprietary programs are used, the Respondent shall provide technical assistance to the Agencies to allow for review of the information and results. Also, this evaluation shall provide any information relevant to OU3 characteristics necessary for the development and evaluation of remedial alternatives.

Respondent shall respond to the consolidated comments of EPA, the State and BLM on the draft RI report and provide a revised draft final RI in accordance with the deliverable schedule in Section 6. Respondent’s response to comments may be provided in table or Microsoft Excel® format. Respondent shall respond to the consolidated comments of EPA, the State and BLM on the draft final RI report and submit a final RI report for EPA review and approval, with copies to the State and BLM, based on the schedule set forth in Section 6 of this SOW.

If new final data become available that support the RI, Respondent shall submit an RI report addendum (or multiple RI report addenda, as appropriate) for EPA review and comment, with copies to the State and BLM, within 60 days after being notified that such final data are available. The Respondent shall incorporate EPA comments, and finalize the addenda upon EPA approval in accordance with the schedule set forth in Section 6 of this SOW.

6.0 SCHEDULE OF DELIVERABLES

In general, the activities for completion of the RI shall be performed in parallel rather than sequentially. This will minimize the time to complete the RI and EPA's selection of a remedy in the Proposed Plan and ROD.

The Respondent shall deliver documents and perform activities described in this SOW in accordance with the following schedule. Comments from the reviewing agencies on draft documents will be submitted to Respondent in a mutually agreed upon format (for example, Microsoft Excel) to facilitate Respondent's expedient responses.

DELIVERABLES SCHEDULE		
SOW Reference	Document or Activity	Delivery Date
Section 3.1	Provide existing information	30 days after signing Order and thereafter, 2 weeks after becoming aware of new information
Section 3.2	Notification of field visit	2 weeks prior to field visit
Section 3.2	Conduct field visit	Not later than 45 days after signing Order
Section 3.4	Submit RI work plan	45 days after signing Order
Section 4	Community relations support	As requested by EPA
Section 5.1	Draft FSP for data collection	Within 45 days after EPA issues a written determination that a data gap(s) shall be filled; FSPs will be prioritized in the order which the field work will be conducted
Section 5.1	Final FSP for data collection	45 days after receiving EPA, the State, and BLM comments on the draft FSP or no later than 2 weeks before the anticipated start date set forth in the draft FSP
Section 5.1	Implement field work to fill EPA-determined data gap	Follow schedule for field work as specified in EPA-approved FSP
Section 5.1	Health and safety plan (HASP)	2 weeks prior to field visit
Section 5.1	HASP updates necessary for FSP implementation	30 days prior to start of field work
Section 5.1	Written description of data security system	30 days prior to start of field work
Section 5.2	Draft data summary reports	In accordance with the schedule specified in the EPA-approved FSP for that phase
Section 5.2	Draft final data summary reports	45 days after receiving EPA, the State, and BLM comments on the draft data summary report
Section 5.2	Final data summary reports	45 days after receiving EPA, the State, and BLM comments on the draft final data summary report
Section 5.3	Draft RI report	180 days after receiving EPA letter notifying Respondent that field work is complete for final phase of investigation
Section 5.3	Draft Final RI report	45 days after receiving EPA, the State, and BLM comments on the draft RI Report
Section 5.3	Final RI report	45 days after receiving EPA, the State, and

DELIVERABLES SCHEDULE

SOW Reference	Document or Activity	Delivery Date
		BLM comments on the draft final RI Report
Section 5.3	Draft RI report addendum	90 days after receipt of final data
Section 5.3	Draft Final RI report addendum	45 days after receipt of EPA, the State, and BLM comments on the draft addendum
Section 5.3	Final RI report addendum	45 days after receipt of EPA, the State, and BLM comments on the draft final addendum

ATTACHMENT A

List of Guidance Documents

Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA. OSWER Directive 9355.3-01

CERCLA Compliance with Other Laws Manual. Part I. Interim Final
EPA 540/G - 89/006, OSWER No. 9234.1-01

CERCLA Compliance with Other Laws Manual: CERCLA Compliance with the CWA and SDWA. OSWER No. 9234.2-06

Planning for Response Actions at Abandoned Mines with Underground Workings: Best Practices for Preventing Sudden, Uncontrolled Fluid Mining Waste Releases. Office of Land and Emergency Management 9200.3-118