

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
North Star Mill Tailings - Iron Springs Mining District - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VIII

Subject: POLREP #2
Mobilization and Initiation of Removal Action
North Star Mill Tailings - Iron Springs Mining District
08QM01
Ophir, CO
Latitude: 37.8585850 Longitude: -107.8157580

To:
From: Steven Merritt, On-Scene Coordinator
Date: 8/31/2009
Reporting Period: 8/17/2009 - 8/30/2009

1. Introduction

1.1 Background

Site Number:	08QM	Contract Number:	68-W-07-052
D.O. Number:	036	Action Memo Date:	8/13/2009
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	01
Mobilization Date:	8/17/2009	Start Date:	8/19/2009
Demob Date:		Completion Date:	
CERCLIS ID:	CO0001916360	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Inactive Production Facility - Mining Ore Processing Mill

1.1.2 Site Description

The CERCLIS ID number of the Site is CO0001916360 – Iron Springs Mining District. The SSID is 08QM (Carbonero Mine) and the Operable Unit is OU01 (North Star Mill Tailings). The five acre North Star Mill Claim is currently owned by Mr. David Wolf, who resides there year-round with his family, including an adolescent child, in a yurt. There is another yurt on the property that is used as a recreational dwelling during the summer. The property is surrounded on all sides by U.S. Forest Service land, with recreational use year-round. Additionally, there is uncontrolled access to the mill tailings and mine waste rock piles on the site by recreational visitors and residents (See Site Map PDFs in Documents).

The Rutilla-Brown Leasing Company ran the mine from 1919-1921, expanding production to \$75,000 per year, despite being handicapped by the lack of a mill to concentrate the ore and reduce transportation costs. In 1923, the Tejon Investment Company of Colorado Springs leased the Carbonero. In 1924, Tejon Investment Company constructed the 50-ton-per-day North Star Mill and a new bunkhouse on the mill claims downhill from the Carbonero Mine, which constitute the present day North Star Mill Tailings Site. The North Star Mill was serviced by a two-bucket aerial tramway that ran a length of 3,300 feet and lowered the ore 1,300 vertical feet from the primary Carbonero Mine portal. The mill used comminution and froth-flotation processes to concentrate the valuable silver, lead, gold and copper metal from the gangue.

The construction of the North Star Mill dramatically enhanced production at the Carbonero Mine, yielding \$160,000 in 1925 and nearly \$190,000 in 1926. A lease-to-own arrangement was made between Carbonero Mines and Reduction Company and two local miners Carlo Girardi and Martin Anderson in 1927. Girardi and Anderson increased production to over \$700,000 annually for the next three years with a crew of up to 40 miners. This was the peak production for the Carbonero Mine and two-thirds of the value was in lead with most of the remainder in silver. The partnership failed in the midst of the Great Depression and the Carbonero Mine was shut down in 1931, when the price of lead dropped to less than \$0.04 per pound, a 40% reduction over 1930 prices. When Girardi closed the Carbonero Mine, he had paid \$80,000 of the agreed upon \$100,000 purchase price, but he could not continue payments and the ownership reverted to Carbonero Mines and Reduction Company.

Between 1931 and 1942, the Carbonero Mine rarely operated. When it did, as in 1934 and 1936, only small-scale mining operators, such as Rutilla, leased the mine with crews of four or five miners. Production in these years was minimal, amounting to only a handful of tons of ore per year. Western Mines, Inc., leased the Carbonero in 1942, but did not work the mine or mill during the lease. The Carbonero Mine was

shuttered from 1942 until 1951, when Carbonero Mines and Reduction Company sold the mine to the Silver Bell Mining Company of Milwaukee, Wisconsin. Silver Bell Mining Company demolished the North Star Mill and the aerial tramway, burned the old mine buildings near the portal, improved the road leading to the portal, and hauled extracted ore by truck to their Silver Bell Mine and Mill, near the Ophir Station, for concentrating prior to onward shipment by rail to the smelters.

1.1.2.1 Location

The Site is located approximately one-half mile east of the town of Ophir, Colorado, which has a population of about 150. It is situated just south of the former access road to the Carbonero Mine which was washed out by portal blowouts. The Site legal description identifies it as a historical 5-acre patented mill claim for the North Star Mill, Survey Number 20302, which has been converted to residential use by the current property owner. The site is situated on the lower southern slope of a spur originating at the 13,000' peak of Silver Mountain, between Spring Gulch to the west and what has become "Carbonero Gulch" due to the heavy erosion from the mine drainage to the east. The site itself sits at approximately 10,500' and is about 1000' above the valley floor and the town below. There is another patented mining claim that has also been converted to residential use approximately 450' southeast of the Site. Ophir is 15 miles due south of Telluride in southwestern Colorado; approximately 145 miles south of Grand Junction, Colorado and approximately 350 miles southwest of Denver, CO.

1.1.2.2 Description of Threat

The sampling data from the site has been reviewed by an EPA Toxicologist, who has determined that areas with lead concentrations greater than 400 ppm and arsenic concentrations ranging from 0.39 - 39 ppm pose a potential risk to residential populations exposed at the Site. Based upon sample results and composite samples, nearly half of the surface area of the Site has metal contamination exceeding these two suggested maximum concentrations. Although the scope of the pending Removal Action will be aimed at protecting the residential population at this Site, sample results and composite samples exceeded the recommended maximum concentrations for recreational users as well. Thus, there is a significant portion of the property that presents a risk to the residents, those recreating on the Site, and the residents living on an unrelated claim 450' southeast of the Lower Mill Tailings Pile.

The sampling and analyses conducted to date consistently indicate the presence of hazardous substances at the Site. Of particular concern are the presence of high concentrations of the heavy metals lead and arsenic in the tailings material and surrounding Site soils. Lead and arsenic are listed hazardous substances per 40 C.F.R. §302.4. These contaminants are found at and below the ground surface and are being continuously eroded due to poor grading and the lack of run-on and run-off drainage controls. This results in subsequent migration of the contamination throughout the Site and to adjacent areas. Contaminated soils at the ground surface present a risk to human populations due to the potential for inadvertent ingestion of site soils by residents of the area.

Children, including the one living at the Site and the two living at the adjacent mining claim that has also been converted into residential property, appear to be the segment of the population at greatest risk from toxic effects of lead and arsenic. Exposure, either by inhalation or ingestion pathways, to the lead and arsenic contaminated soils at the Site can cause severe and irreversible health effects. The release of these hazardous substances (heavy metals) into the environment poses an imminent threat to public health.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

▣ The results of the Removal Site Evaluation showed elevated concentrations of lead and arsenic in soils at the Site that pose a potential risk to human health in exposed residents and the immediate environment, including the Howards Fork of the San Miguel River. START analyzed the samples collected from the Site using an XRF instrument and laboratory sample preparation protocols. Some of these samples were sent for confirmatory analysis at a commercial laboratory. Soil samples taken from the Lower Mill Tailings Pile ranged in concentration from 45 ppm arsenic to as much as 8,400 ppm arsenic (LM17 – South End of Pile Tail), and from 2200 ppm lead to as much as 143,000 ppm lead, or over 14% lead by weight (LM17 – South End of Pile Tail). Composites of samples from the Lower Mill Tailings Pile showed concentrations over 200 ppm arsenic and over 8,000 ppm lead. Lead and arsenic contamination appear to be most pronounced at the southern edge of the Lower Mill Tailings Pile, where eroded material has migrated down slope.

Soil samples from the Upper Mill Tailings Pile, nearest the former North Star Mill and residential structures, ranged in concentration from 102 ppm arsenic to as much as 7,600 ppm arsenic (UM20 – Flume Loading Area), and from 6,800 ppm lead to as much as 106,000 ppm lead (UM20 – Flume Loading Area), or over 10% by volume. In the Upper Mill Tailings Pile, lead and arsenic contamination appear to coincide with a surface drainage channel in the center of the pile that leads away from the former tailings flume loading area and toward the road at the toe of the slope. Composites of samples from the Upper Mill Tailings Pile showed concentrations over 2,700 ppm arsenic and over 60,000 ppm lead. Samples collected from the ore and crushed rock stockpiles adjacent to and inside the former North Star Mill ranged in concentration from 968 ppm arsenic to as much as 4,200 ppm arsenic (MU04 – Mill Chute), and from 41,000 ppm to as much as 118,000 ppm lead (MU04 – Mill Chute), or nearly 12% by weight. Composites of samples from stockpiles adjacent to and inside the former North Star Mill showed concentrations over 2,000 ppm arsenic and over 72,000 ppm lead. All of the 27 samples taken from visually impacted areas of the property had elevated concentrations of both lead and arsenic.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

During this reporting period, EPA mobilized equipment and personnel to the site and begin the removal action, which included improving access to the site for heavy equipment, clearing the area for the repository, excavating contaminated soils throughout the site, constructing the footprint for the repository, segregating clean fill for use as cover material, and beginning to fill the repository.

2.1.2 Response Actions to Date

On August 17, 2009, ERRS mobilized all heavy equipment to the site along with a Foreman, a Truck Driver, and a Laborer. The equipment brought to the site was a 35-Ton Articulated Off-Road Dump Truck, a 4000-gallon Water Truck, an Excavator, a Dozer, a Skid-Steer Loader, and a Generator. EPA OSC Merritt arrived at the site as equipment was being unloaded.

On August 18, 2009, ERRS mobilized two additional crew members, both Equipment Operators. ERRS spent the day gathering supplies needed for the removal action in Montrose and getting lodging arranged for the crew. START mobilized one Scientist to the site to provide technical assistance, air monitoring, and field sampling to support the removal. EPA OSC spent most of the day coordinating with the property owner, CDPHE, USFS, and the SHPO at the beginning of the removal action. The updated Access Memo was signed by the property owner during these coordinations. EPA OSCs Merritt and Andrews, and START attended the Town of Ophir General Assembly meeting to provide an overview of the removal action to community members present and answer any questions related to the site.

On August 19, 2009, the removal action commenced and EPA, START, and ERRS conducted an extensive site walk with the property owner. ERRS began clearing trees and vegetation in areas to be excavated, around the repository, and along roads at the site. ERRS installed erosion control and runoff prevention fencing around the area to be excavated. ERRS mobilized and setup the office trailer in an area affording cellular communication and interaction with local community members. START began perimeter air monitoring for dust and simultaneous air sampling to determine a correlation between total airborne dust and airborne metals contamination. EPA signed and accepted the ERRS Work Plan and Site Health and Safety Plan for the removal action.

On August 20, 2009, ERRS continued clearing and grubbing around the repository and Lower Mill Tailings Area, improving roads on the site, and providing access for heavy equipment. ERRS filled the water truck and began using it for dust suppression at the site where construction activity was heaviest. All equipment was moved onto the site. START continued perimeter air monitoring and sampling. EPA drafted a Public Notice about the removal action and discussed it and the Administrative Record with the EPA Community Involvement Coordinator in Denver. EPA, ERRS and START conducted a site walk at the Chapman Gulch borrow site and determined the feasibility of using it as cover for the repository. EPA began coordinating with USFS and San Miguel County about developing the borrow site and using the Ophir Pass Road.

On August 21, 2009, ERRS completed final clearing of the repository area and began excavation of the tailings at the southern end of the Lower Mill Tailings Pile, outside the repository footprint. START provided in-situ XRF analysis of soils in the excavation area to determine when all contaminated soil had been removed. START also continued perimeter air monitoring and sampling to ensure dust suppression was adequate and there was minimal exposure to workers and residents at the site.

On August 22, 2009, ERRS continued excavation of the tailings at the southern end of the Lower Mill Tailings Pile, outside the repository footprint. Excavated tailings were loaded into the dump truck and hauled to the upper area of the repository, where they were dumped. START provided in-situ XRF analysis of soils in the excavation area to determine when all contaminated soil had been removed. START also continued perimeter air monitoring and sampling, although intermittent rains during the day were sufficient to minimize dust on the site. ERRS installed extra runoff prevention fencing to control any erosion due to forecast rainfall and to prevent clean soils from being recontaminated.

There was no work performed at the site on August 23, 2009. As forecast, it rained periodically at the site throughout the day. However, rains did not breach runoff prevention fencing and erosion of the stockpiled tailings on the repository footprint was minimal.

On August 24, 2009, ERRS completed the excavation of the migrated tailings at the southern end of the Lower Mill Tailings Pile and consolidated these materials at the upper portion of the repository footprint. This consolidation was designed to enable the excavation of clean soil and rock from the engineered bench at the toe of the repository. START collected composite soil samples from the clean soil beneath the excavation area to confirm that there was no contamination present using on-site analysis via XRF. ERRS also began clearing trees and debris from around the Upper Mill Tailings Pile and the former North Star Mill site to enable future excavation work to proceed. EPA posted the Public Notice and confirmed the location of the Information Repository at the Ophir Town Hall with the Town Manager and the Community Involvement Coordinator.

On August 25, 2009, ERRS began excavating the bench at the toe of the repository and stockpiling the clean dirt and rock from the excavation near the repository footprint for later use as cover. START collected samples of the clean fill for bench analysis using the XRF to confirm that all material was clean. ERRS excavated approximately 500 cubic yards of clean fill from the bench at the toe of the repository by the end of the day. START continued air monitoring for airborne respirable dust due to the construction activity. At no time did the dust levels exceed the permissible exposure levels. ERRS utilized the water truck to maintain sufficient moisture content on roads throughout the site to keep the dust down. A START subcontractor completed a full survey of the property, which revealed that some of the excavated tailings from the Lower Mill Tailings Pile were located on USFS land.

On August 26, 2009, ERRS began excavating contaminated soil at the south end of the former North Star Mill. During the excavation two wooden pipes were uncovered running along the west side of the mill foundation. These pipes were filled with process waste and high levels of both lead, arsenic, and zinc. ERRS traced and excavated the length of the pipes downhill from the mill and also unearthed an adjacent settling basin foundation which was highly contaminated. ERRS and START worked together to screen and remove all contaminated soil around the foundation of the mill. Debris from the mill was piled in an adjacent area of the site that had been found clean and will be incorporated into the restoration effort. EPA had several visitors to the site, including the ERRS management, EPA resource management personnel, and USFS. EPA and USFS Linda Lanham conducted a site walk of the Chapman Gulch borrow site to confirm the plan for developing approximately 1,000 cubic yards of clean fill and rock for the repository cap,

drainage features, and other restoration work. The USFS approved the plan and made the necessary coordination with San Miguel County for use of the roads on September 9-11, 2009.

On August 27, 2009, ERRS continued working to excavate the area around the south side of the mill and to haul excavated materials to the repository. In the process of excavation, portions of the mill foundation began to collapse and ERRS continued to dismantle the lower two steps of the structure, which were fractured and unstable. Beneath portions of the cracked foundation some tailings deposits were found and excavated. ERRS also excavated a 1:1 slope on the bench inside the repository footprint, per the engineering specification, recovering another 50 cubic yards of clean fill. Once this work was complete, ERRS began compacting loads of material excavated on August 26th and newly received material inside the repository footprint. START continued collecting in-situ XRF data to support the excavation and monitoring for respirable dust. At the end of the day, the Dump Truck began to malfunction and hauling was suspended as ERRS attempted to determine what was wrong with the equipment. The vendor was contacted, a mechanic requested, and a part was ordered based upon the error codes displayed in the truck.

On August 28, 2009, without the Dump Truck, ERRS spent the day removing the tailings within the ruins of the upper levels of the North Star Mill, where the flocculation basins and ore bins were located. Debris that was free of contamination was added to the growing debris pile for later use, and contaminated materials were stockpiled to haul to the repository. ERRS also demolished the last remaining intact structure of the mill, the southern wall and floor of the 10' x 10' ore bin at the top of the mill. The Colorado State Historic Preservation Office had been contacted previously for a Section 106 Determination on the structure and they provided the EPA with a copy of a 1994 report which showed the Carbonero Mine and all associated structures, including the North Star Mill, as being ineligible for inclusion on the National Register of Historic Places. The mechanic for the vendor supplying the Dump Truck visited the site and determined that there was a faulty dip tube in the fuel tank which was causing the truck to run out of fuel on slopes when the fuel level was below 3/4 tank. He recommended running the truck full of fuel until a replacement could be delivered to the site on Monday, August 31, 2009.

On August 29, 2009, with the Dump Truck once again operational, ERRS worked to excavate the stockpiles from both sides of the former North Star Mill. The large diameter waste rock stockpile was the first material to be delivered to the repository and placement of this material was expected to strengthen the toe of the repository and improve its overall stability significantly. ERRS continued clearing tailings and spilled ore from around the former tramway terminal above the North Star Mill. ERRS was dumping all the excavated material on the toe of the repository in the excavated bench and compacting it with both the loaded Dump Truck and the Dozer, getting much better compaction than specified in the design. However, during the latter part of the day, the Dozer broke a hydraulic hose and became inoperable.

On August 30, 2009, ERRS spent the morning working to repair the broken hydraulic hose on the Dozer. Following a trip to Montrose to get the part replaced, the new hose was installed and work on hauling tailings and other waste materials to the repository continued. ERRS continued excavating the upper portion of the North Star Mill, near the terminal for the old tram and the ore bins. START continued monitoring for airborne hazards and providing in-situ XRF data to the excavator operator to ensure all contaminated soil was hauled to the repository. EPA went house to house to meet with residents of east Ophir and deliver copies of the second Public Notice to those who will be most impacted during the hauling of clean fill from Chapman Gulch.

By the end of the day on August 30, 2009, ERRS had hauled a total of 65 loads of contaminated material to the repository from various locations throughout the Site. Each load is estimated to contain between 15 and 20 cubic yards of material giving a total of approximately 1,300 cubic yards of contaminated material added to the repository to date. The design capacity for the repository is an additional 1,000 cubic yards beyond the material originally part of the Lower Mill Tailings Pile, but given the better than expected compaction, the material fit inside the repository footprint. Nevertheless, additional capacity will be added onto the toe of the repository by extending it approximately 25' toward the property boundary with the USFS land to the west.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The property owner signed the revised Access Memorandum requested by the Site Attorney on August 18, 2009. The Site Enforcement Specialist mailed the 104(e) Information Request letter to the current property owner and to Fleet Resources to determine their ability/responsibility to contribute to the planned remediation on the same day. EPA expects to enter into an Administrative Order on Consent with the current property owner, which will outline potential liability, material contributions to be made to the remediation effort, and long-term environmental covenants/deed restrictions to be placed on the property to ensure the constructed repository is left undisturbed, even if the property changes ownership in the future.

2.1.4 Progress Metrics

During this reporting period, the removal action made significant progress toward mitigating the hazards associated with the Site. Values in the table below provide an estimate of the volumes associated with different piles at the site that will be consolidated and capped as part of the final remedy and the amount of material that has been moved into the repository. Since the repository will be constructed atop a large portion of the Lower Mill Tailings Pile, over half of the material from that location is already inside the repository footprint.

Wastestream Location	Contaminants	Quantity	Amount Hauled	Amount in Repository	Percent Complete
Lower Mill Tailings Pile	Lead and Arsenic	2,500 cu. yd.	1,000 cu. yd.	2,500 cu. yd.	100%

<i>Upper Mill Tailings Pile</i>	<i>Lead and Arsenic</i>	<i>500 cu. yd.</i>	<i>0 cu. yd.</i>	<i>0 cu. yd.</i>	<i>0%</i>
<i>Tailings in Mill</i>	<i>Lead and Arsenic</i>	<i>500 cu. yd.</i>	<i>150 cu. yd.</i>	<i>400 cu. yd.</i>	<i>30%</i>
<i>Mill Stockpiles</i>	<i>Lead and Arsenic</i>	<i>1,000 cu. yd.</i>	<i>150 cu. yd.</i>	<i>400 cu. yd.</i>	<i>15%</i>

2.2 Planning Section

2.2.1 Anticipated Activities for Next Reporting Period

During the next reporting period, EPA should complete the excavation and consolidation of all contaminated materials at the site. This should be completed before Thursday, September 3, 2009, when EPA will demobilize all personnel from the site for the Labor Day holiday weekend due to the unavailability of lodging in the area at that time. EPA will re-mobilize all personnel to the site on Tuesday, September 8, 2009 and will begin developing the Chapman Gulch borrow site to produce the cover and fill required to construct the cover and final cap on the repository. The disturbed areas of the site will then be graded, vegetated, and all erosion control features will be installed. The EPA OSC will provide a final briefing to the Town of Ophir General Assembly on September 15, 2009 at 7:00 PM to discuss the completion of the Removal Action. September 20, 2009 is expected to be the final day of work at the site. The next reporting period will contain a summary of activities conducted during the final three weeks of the Removal Action and demobilization.

2.2.1.1 Planned Response Activities

Specific actions described below are being implemented at the Site to address contaminated waste rock from the Upper Mill Tailings Pile, the Lower Mill Tailings Pile, and the ore and crushed rock stockpiles adjacent to the former North Star Mill. The priority is to excavate and consolidate the Upper Mill Tailings Pile and the stockpiles at an on-site repository to be constructed at the Lower Mill Tailings Pile area, which will be approximately 4,000 cubic yards of tailings material total.

Description of some of the proposed removal activities is itemized below:

- *Clearing and Grubbing:* Routes for new access to waste piles will be cleared of trees and grubbed by removing undergrowth and duff. The repository footprint and associated features will also need to be cleared of trees and vegetation to facilitate construction. (COMPLETED)
- *Excavate, Load, and Haul Waste:* Site waste will be removed and loaded by conventional excavation equipment and transported to the on-site repository. Excavation depth will generally be to natural grade or approximately one foot below grade. (IN-PROGRESS)
- *Waste Treatment (if needed):* If waste treatment is needed it will be done onsite with either a phosphate or pozzolanic based agent. At this time, no treatment is planned. (NOT REQUIRED)
- *Place and Compact Waste in Repository:* Waste will be placed and compacted in the repository. Repository construction will involve preparing engineering designs, site preparations, grading, waste placement and consolidation, capping and installing appropriate drainage controls for run-on and run-off. The selected repository location will avoid groundwater and surface water and minimize ecological disturbance. Cap design detail will be consistent with typical mine waste capping standards consisting of a multi-layer soil cover with a vegetative cover. If a low permeability cover using a geo-membrane is determined to be necessary, it is possible to include that in this action. However, findings to date do not indicate a need for a synthetic liner. (IN-PROGRESS)
- *Re-grade/Cover/Re-vegetate Disturbed Areas:* All disturbed areas within the construction boundaries will be re-graded and re-vegetated after construction is completed. Re-vegetation prescriptions may include amount and types of organic matter, fertilizer, seeding, mulching, erosion control blankets, and soil cover. Generally, cover soil will be placed to replace soils in excavation areas such that appropriate grades are created to facilitate drainage and prevent erosion. Where wastes are left in place, cover soil will be placed to a depth of approximately one foot as necessary to prevent human exposure and reduce contaminant migration and still preserve sensitive ecosystems. (PLANNED FOR SEPTEMBER 13-16, 2009)

The scope of this Removal Action is to reduce and/or eliminate the threats posed to residential populations through contact with surface soils. EPA will excavate and consolidate all tailings and waste rock at the Lower Mill Tailings area. The consolidated wastes will be capped and perimeter control channels will be constructed to direct run-off around the repository cell. All of which will greatly reduce the exposure risk present at the Site.

Excavation of tailings will be based initially on visual observation; the tailings are primarily a yellow-orange color and are devoid of any vegetation. Specific clean-up targets for the Site have been developed and are based upon background metals concentrations and the particular chemical species of metals in the tailings. Throughout the Removal Action, in-situ XRF analyses will be used to determine metals concentrations in the excavation zones. EPA will seek to meet the risk based soil screening levels defined above; however the Site conditions mentioned (i.e. steep slopes, shallow, fractured bedrock) may limit the ability to meet those risk levels. Thus, there may be instances where lead and/or arsenic concentrations exceed the recommended levels. Where this occurs, the area will be demarcated and noted for the record and additional clean, backfill material/soils will be brought in to create appropriate cover over the area.

Finally, the area will be recontoured to facilitate proper drainage and reduce erosion. In some instances, EPA may excavate to greater depths within the tailings piles if lead/arsenic concentrations are still greatly above the recommended risk based soil screening levels.

2.2.1.2 Next Steps

Complete the Removal Action as described above and demobilize from the site on or about September 20, 2009.

2.2.2 Issues

Completing this Removal Action before inclement weather and early seasonal snowfall is imperative. Given the elevation of the site and the relatively short construction season in the area, any delays to this project may require the EPA to temporarily close the site, cease work, and then resume the Removal Action next spring. Without any delays, the project is expected to be completed by September 20, 2009, which has historically been about two weeks before the first snowfall in the area.

2.3 Logistics Section

There are currently no resource needs associated with the Site.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

On August 19, 2009, the Site Health and Safety Plan (SHASP) was finalized and signed by all personnel working at the site. In accordance with the SHASP, START immediately began perimeter air monitoring and simultaneous air sampling with a DataRAM 4 to determine the amount of respirable dust and the percentage of that dust which contains airborne metals contamination. Air samples will be submitted to a commercial laboratory for analysis and perimeter air monitoring will continue whenever there is construction activity at the site. A water truck will be used to wet excavated soils and prevent respirable dust levels from exceeding the action level of 50 ug/m3.

2.6 Liaison Officer

No change.

2.7 Information Officer

EPA presented information about the removal project at the Town of Ophir General Assembly on August 18, 2009 at 7:00PM. A Public Notice about the removal action was posted locally on August 24, 2009. A second Public Notice about the hauling involved in the development of the Chapman Gulch borrow site was posted on August 28, 2009. The Administrative Record for the site will be available from Town Manager Jason Wells beginning on September 15, 2009, when EPA will provide a final update to the Town of Ophir General Assembly. The official EPA Public Notice about the removal action will be run in the Telluride Daily Planet on October 19, 2009.

3. Participating Entities

3.1 Unified Command

Not applicable.

3.2 Cooperating Agencies

U.S. Forest Service - Linda Lanham

Town of Ophir - Jason Wells

Colorado Department of Public Health and Environment - Mark Rudolph

Colorado Division of Reclamation, Mining and Safety - Camille Price

Colorado State Historic Preservation Office - Amy Pallante

The Trust for Land Restoration - Patrick Willits

4. Personnel On Site

Steven Merritt - EPA On-Scene Coordinator

Tim Bosco - START Scientist

Jason Hilgers - START Engineer

Chuck Jackson - ERRS Removal Manager

Rafa Aguero - ERRS Foreman

Miguel Lachere - ERRS Cost Accountant

Gilbert Mattson - ERRS Excavator Operator

Eric Lipscomb - ERRS Dozer Operator

Shelton Oberly - ERRS Dump Truck Operator

Joe Cordova - ERRS Truck Driver/Laborer

Brent McFayden - ERRS Laborer

5. Definition of Terms

ERRS - Emergency and Rapid Response Services - EPA's Construction Contractor
START - Superfund Technical Assessment and Response Team - EPA's Technical Contractor
NPL - Superfund National Priorities List
ATSDR - Agency for Toxic Substances and Disease Registry
CDPHE - Colorado Department of Public Health and Environment
USFS - U.S. Forest Service
SHPO - Colorado State Historical Preservation Office

6. Additional sources of information

6.1 Internet location of additional information/report

For additional information please refer to <http://www.epaosc.net/NorthStarMill>.

6.2 Reporting Schedule

The next POLREP will be submitted on Monday, September 21, 2009, detailing the conclusion of site activity and demobilization. The final POLREP will be submitted following ERRS' submission of final costs for the site and START's submission of a final report for the site.

7. Situational Reference Materials

[ATSDR Lead ToxFAQs](#)

[ATSDR Arsenic ToxFAQs](#)