

Lisbon Valley Mining District - Columbia Shaft (B818)

ERRS Operations Plan and Work Order

Operational Period 12: January 2, 2022 – January 8, 2023

Open and honest team discussions that involve EVERYONE are critical to understanding hazards, mitigating risks, preventing accidents, and ensuring a successful response.

Top Priority is Site Safety and Security

- Always watch out and protect yourself and the people around you from physical hazards and exposure to radioactive dust.
- Prevent contamination from spreading beyond footprints of waste piles.
- Conduct daily safety checks on equipment and general site conditions.
- Remove, mark or remedy hazards when you see them. Notify crew of all hazards.

Emergency Contacts:

- San Juan County Sheriff Dispatch - 435-587-2237 (911 if it is an emergency).
- San Juan County Fire Department - 435-587-3225 (911 if it is an emergency).
- Moab Regional Hospital - 435-719-3500 (450 Williams Way, Moab, Utah 84532)

Site Objectives

1. Regrade the waste pile and install erosion control features.
2. Restrict camping and access to the waste pile.

Deliverables

Operations Periods are Mondays-Sundays. OSC will issue weekly Work Orders before the beginning of each Operations Period to include authorized activities and resources.

- ER will conduct pre and post UAV flights that provide site topography and 30-second videos for public information.
- ER will deliver daily photos documenting progress and Site conditions to mccomb.martin@epa.gov.
- ER shall provide a Progress Report at the end of each Operations Period including:
 - summary of activities accomplished.
 - deviations from the authorized activities and resources.
 - summary of equipment/personnel utilized. The equipment utilization summary should include equipment that is working/available for use on each day.
- ER shall submit a 1900-55 RCMS Report at the end of each Operations Period.

Authorized Activities

- The toe of the waste pile will be left in place and may be armored with rock generated on-site.
- Mine waste will be removed from the natural drainage on the NW side of the waste pile. Water from above and around the site will be channeled into this drainage. This drainage will be lined and armored with rock generated on-site where needed to prevent erosion and infiltration into the waste rock. It will also be lined, where needed. The remaining waste rock pile and the waste rock repository will be graded to largely drain to this point.
- The lower two slope cuts on the waste rock pile will drain to the NW side of the pile. This area will be armored, if needed.
- The waste pile will be regraded at a 3:1 slope, if possible, depending on the amount of waste excavated. Slope breaks will be built into the slope, where feasible.

- ERRS will start the waste rock removal at the crest of the slope, building several broad benches that bulldozers can regraded into a uniform slope. The 3:1 slope will begin at the toe of the existing slope. Excavation will not be required after native material is encountered.
- ERRS will utilize a large excavator, a bulldozer, and an off-road haul truck to regrade the perform this task. Truck loads will be counted to establish a production rate.
- Mine waste that is excavated during this process will be transported to the top of the pile.
- Excavated waste rock will be transported to the top waste rock repository pile and against the cliff face. ERRS will use a bulldozer to grade and compact the material against the rock outcrop that was quarried when the mine was developed.
- The slope adjacent to the waste rock pile to the east along the access road will be cleaned of discolored waste rock and metal debris.
 - ERRS will excavate the waste rock with a combination of an excavator and a loader or a haul truck, or other methods.
 - ERRS will make efforts to preserve the vegetation at the toe of the slope, with special consideration to minimize the disturbance to the drainage channel along the road.
 - Material excavated from the slope will be transported to the repository area via a ramp constructed on the slope.
- The stockpiled topsoil will be spread over the disturbed area. Other revegetation efforts (i.e., hydroseeding) may be considered.
- The access road to the top of the waste rock pile will be permanently closed with large boulders, ditches, and berms.
- Signage will be installed at the site as directed by EPA.
- All waste with potential radiation contamination will be buried in the waste pile and disposed of on-site.

Goals/Schedule

Work Day #	Date	Goals	Status
Day 1 & 2	11/21/2022, 11/28/22	Mobilization and site set-up	Complete
Day 3 - 15	11/29/22 -12/13/22	Excavate out the top bench	Complete
Day 4	11/30/22	Cover/close adit	Complete
Day 16 - 24	12/14/22 – 12/22/22	Excavate out the second bench	Complete
Day 25	12/23/22	Demobe for Holiday Break	
Day 26	1/2/23	Remobe for Holiday Break	
Day 27 & 28	1/3/23 - 1/4/23	Clean up grades on first two tiers	
Day 29 - 36	1/5/23 – 1/14/23	Excavate out third bench	
Day 31	1/7/22	Complete drainage channel installation	
Day 37 - 40	1/16/23 – 1/19/23	Excavate out the final bench;	
Day 39	1/18/22	Complete adjacent slope excavation	
Day 41	1/20/23	Complete grading of the slope; block road	
Day 42	1/21/23	Decon machines; clean-up site	
Day 43	1/22/2023	Demobilization	

The removal on the adjacent slope and the construction of the drainage channel will run concurrently with the activities in this schedule.

Authorized Resources

PERSONNEL	QUANTITY	COMMENTS
Response Manager	1	
Equipment Operator	3	
Truck Driver	1	May be used as Equipment Operator as necessary.
Laborer	1	May be used as Equipment Operator as necessary.
Field Accountant	1	
EQUIPMENT	QUANTITY	COMMENTS
Truck, P/U	3	Includes transportation costs. Track as pending costs through January 22nd and draw down as appropriate. Water truck and pump are currently no on site, but may be needed for the decontamination of the equipment.
Decontamination Trailer	1	
Generator	1	
3" Water Pump	1	
Water Truck	1	
Excavator w/bucket	2	
Bulldozer	1	
Off-road haul truck	1	
Loader	1	
Fuel Tank	1	
Skidsteer	1	
Hoe Ram Attachment	1	

Health and Safety Monitoring

- Decontamination activities will be tested with the Ludlum device to determine level of radioactive dust in coveralls, boots, street clothes, respirator cartridges, etc.
- Dust levels in the air will be monitored with Dust Trackers provided by EPA. Location will be determined on-site and will likely include the area around the comms trailer and the area outside the decontamination area.

Approvals:

 1-12-2023
 EPA On Scene Coordinator

**Rob
Burton**

Digitally signed by
Rob Burton
Date: 2022.12.24
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ERRS Response Manager