

Lisbon Valley Mining District (B818)

ERRS Operations Plan and Work Order

Operational Period: 06 November 14 – 20, 2022

Activity: Removal

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

Site Safety and Security is the Top Priority

- Always watch out for yourself and the coworkers/public around you.
- Always protect yourself, coworkers and public from exposure to radiation and 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)

Deliverables

Operations Periods are Mondays-Sundays.

OSC will issue weekly Work Orders before the beginning of each Operations Period. Work Orders shall include activities and resources authorized by the OSC.

ER shall provide a 1900-55 RCMS Report and a Progress Report at the end of each Operations Period. Progress Reports shall include

- a) a summary of activities accomplished;
- b) deviations from the authorized activities and resources; and
- c) a summary of equipment/personnel utilized. The equipment utilization summary should include equipment that is working/available for use on each day.

Site Objectives

Radon Mine

1. **Regrade Pile / Control Erosion:** The waste pile will be regraded to control erosion. Certain areas of the pile, especially along its west edge will not be accessible. A temporary access ramp for heavy equipment will be constructed down to the ephemeral drainage. Waste that is removed from the pile will be deposited along several benches that were constructed at the abandoned facility. Erosion control features will be constructed on the regraded waste and the pile will be revegetated.
2. **Secure the Toe of Pile:** The toe of the waste pile will be pulled back from the ephemeral drainage and secured with rip rap to the extent practical and as necessary.
3. **Remove Metal Debris:** Metal and other debris from the former facility that was dumped down the face of the waste pile will be removed from the slope and buried in the waste pile. **(COMPLETED)**
4. **Restrict Access:** The historic mine access road to the waste pile will be closed with a gate at its intersection with the County Road. Large boulders, ditches and/or berms will be used to prevent access around the gate. Warning and information signs will be placed around the Site.

Authorized Activities

Radon Mine

- The crew will maintain and modify, as needed, the response infrastructure and Site set-up features that were established during Ops Period 1.
- The waste pile will be regraded to create a more suitable slope for erosion control.
 - Truck loads will be counted to establish a production rate.
 - Waste removed from the pile will be placed between the old foundations up the hill from the existing pile and on top of the pile itself. Waste material will be compacted and graded with a bulldozer from the crest of the final slope and back toward the culvert inlet and access road.
 - The toe of the slope will be removed by the excavator without undermining the slope. The material will be loaded into the haul truck and relocated. ERRS will re-construct the toe of the slope as far out of the drainage as is feasible starting at the furthest point downstream. Ideally more than 10 feet vertical of native material will be exposed between the drainage and the toe of the slope.
 - The toe of the slope will be armored with riprap/rock gathered from the site in areas where exposing the 10 feet of native material is not feasible.
 - As the crew moves up the drainage along the toe of the waste pile, the slope of the waste pile will be re-graded and part of the ramp the ramp will be removed. Approximately 6 feet of the ramp will be left in place as a break in the slope. The width will be graded to drain toward the uphill side and the length will drain down toward the drainage. Rock bars will be installed along the length to slow the flow of water.
 - The stockpiled topsoil will be spread over the regraded pile prior to reseeding.
- Rock needed to rip-rap the waste pile toe and create the rocked drainage channel will be collected from the ledges on the east edge of the waste pile that were constructed when the mine was developed. That area will be covered with waste rock as part of the final grading effort.
- The regraded waste pile will be reseeded. At a minimum, the area will be hand-seeded. Depending on conditions, revegetation efforts may include hydroseeding.
- The historic access road to the mine will be closed with a gate as well as large boulders, ditches, and berms. Boulders and non-contaminated soil for this activity will be obtained from nearby sources.
- All PPE waste with high levels of radiation will be buried on-Site. Used PPE that is not contaminated will be disposed of at a landfill.
- Upon completion of tasks and an EPA inspection, equipment will be decontaminated and transported to the Columbia Shaft.

Goals

Radon Mine

Day #	Date	Goals	Status
Day 1	10/10/2022	Mobilization	Complete
Day 2 & 3	10/11/22 - 10/12/22	Set-up and orientation	Complete
Day 4 - 18	10/13/22 - 10/29/22	Remove material from the top	Complete
Day 19 - 20	10/31/22 - 11/1/22	Build ramp down into drainage	Complete
Day 21 - 33	11/2/22 - 11/16/22	Remove material from the lower slope; install riprap	
Day 34 - 35	11/17/22 - 11/18/22	Clean-up, road closure, other tasks	
Day 36	11/19/2022	Demobilization	

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	Off-site
EQUIPMENT	QUANTITY	COMMENTS
Truck, P/U	3	Track as pending costs through November 19 and draw down as appropriate.
Water Tank with Pump	1	
Decontamination Trailer	1	
40kW Generator	1	
3" Water Pump	1	
Water Truck	1	Includes transport costs. Track as pending costs through November 19 and draw down as appropriate.
Excavator w/bucket	2	
Bulldozer	1	
Off-road haul truck	1	
Loader	1	
Fuel Tank	1	
Skidsteer	1	
Hoe Ram excavator attachment	1	
FCA Rental Vehicle	1	

Data Collection

- ERRS will deliver photos documenting progress and Site conditions to mccomb.martin@epa.gov on a daily basis.

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. Locations will be determined on-site and will likely include the area around the comms trailer and the area outside the decontamination area.

Approvals:

EPA On Scene Coordinator

ERRS Response Manager