

Lisbon Valley Mining District (B818)

ERRS Operations Plan and Work Order

Operational Period: 02 October 17-23, 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 Draft 1900-55 RCMS Report and a Draft 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;
- c) and 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. ***Develop Equipment Access:*** A temporary access road for heavy equipment will be constructed across the face of the waste pile and down to the ephemeral drainage.
2. ***Secure the Toe of the Waste Pile:*** The toe of the waste pile will be pulled back from the ephemeral drainage and secured with rip rap to the extent practical.
3. ***Manage Excavated Mine Waste:*** Mine waste excavated to develop equipment access and to secure the toe of the pile will be deposited along several benches that were constructed at the abandoned facility.
4. ***Secure Abandoned Metal and Debris:*** Metal and other debris from the former facility dumped down the face of the waste pile will be pulled back from the ephemeral drainage, secured with rip rap and covered with mine waste to the extent practical.
5. ***Install Erosion Control Features:*** Construct erosion control structures on unvegetated waste deposits and revegetate as practical to break up the velocity of runoff and limit off-site migration of contaminated material.

6. **Restrict Vehicle Access:** The historic mine access trail to the waste pile will be closed at the County Road with large boulders, ditches and/or berms.

Authorized Activities

- The crew will maintain the response infrastructure and Site set-up features that were established during Ops Period 1.
- The toe of the waste pile will be pulled back from the ephemeral drainage and fortified with rip rap as appropriate. The face of the waste pile will be regraded in areas to support this task.
 - ERRS will utilize a large excavator and an off-road haul truck for this task. Truck loads will be counted to establish a production rate.
 - The top layer of soil will be removed and stockpiled in the area where the waste rock will be staged.
 - Waste rock removed from the pile will be placed between the old foundations up the hill from the pile and on top of the pile itself. The material will be compacted and graded with a bulldozer away from the crest of the slope and back toward the culvert and access road.
 - ERRS will start the waste rock removal at the crest of the slope, removing as much material in the first 40-50 feet from the crest back as is efficient.
 - ERRS will then construct a ramp across the face of the waste rock pile, starting on the far west end and traversing the face to the drainage bottom. The road should intercept the drainage 30-40 feet down drainage from where the metal and debris are located.
 - The metal and debris in the drainage will be removed and buried with the waste rock that is excavated. The disturbed area will be regraded and protected from future erosion.
 - A turnaround area for the haul truck will be constructed in the ephemeral drainage.
 - 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 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 as appropriate.
 - As the ERRS crews move up the drainage along the toe of the waste pile, the slope of the waste pile will be re-graded and the ramp will be removed.
 - The stockpiled topsoil will be spread over the disturbed area. Other revegetation efforts may be considered.
- Rock needed to rip-rap the waste pile toe and create the rock channel will be collected from along the historic access road leading to the mine site and other nearby areas.
- The culvert that drains the basin above the site will be left in place and the outfall will be armored. The disturbed parts of the site will be graded to drain surface water toward the culvert intake.
- The historic access road to the mine will be permanently closed with large boulders, ditches, and berms. Boulders and non-contaminated soil for this activity will be obtained from nearby sources.
- All PPE waste with hi levels of radiation will be buried on-Site. Used PPE that is not contaminated will be disposed of at a landfill.

Goals

Radon Mine

Day #	Date	Goals
Day 1	10/10/2022	Mobilization
Day 2 & 3	10/11/22 - 10/12/22	Set-up and orientation
Day 4 - 12	10/13/22 - 10/22/22	Remove material from the top
Day 13 - 18	10/24/22 - 10/29/22	Build road down into drainage
Day 19 - 31	10/31/22 - 11/14/22	Remove material from the toe; install riprap
Day 32 - 35	11/15/22 - 11/18/22	Clean-up, road closure, other tasks
Day 36	11/19/2022	Demobilization for Thanksgiving

Authorized Resources

PERSONNEL	QUANTITY	COMMENTS
Response Manager	1	
Equipment Operator	3	
Truck Driver	1	
Laborer	1	May be used as Equipment Operator as necessary.
Field Accountant	1	
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	
2" Water Pump	1	
Water Truck	1	Includes transport costs. Track as pending costs through November 19 and draw down as appropriate.
Excavator (large)	2	
Excavator (small)	1	
Bulldozer	1	
Off-road haul truck	1	
Fuel Tank	1	
Hoe Ram	1	
FCA Rental Vehicle	1	Track as pending costs through October 22 and draw down as appropriate.

Data Collection

- ERRS will deliver the before, during, and after photo-documentation photos to the OSC.
- ERRS will conduct multiple UAV flights for site aerial photographs and topography, as coordinated with the OSC.

Health and Safety Monitoring

- Respirator cartridges will be tested with the Ludlum device to determine level of radioactive dust in the breathing zone.
- Decontamination activities will be tested with the Ludlum device to determine level of radioactive dust in coveralls, boots, street clothes, etc.

- Dust levels in the air will be monitored with Dust Trackers provided by EPA. Locations will be determined on-site, but will likely include the area around the comms trailer and the area outside the decontamination area.

Approvals:

EPA On Scene Coordinator



10/17/22

ERRS Response Manager