MINE EMERGENCY RESPONSE PLAN (MERP)

MAX Molybdenum Mine



CARE & MAINTENANCE (2013/14) (During this period there will be <u>no</u> <u>underground access</u> / <u>no personnel</u> <u>allowed underground</u>)



Updated January 2014

Important Telephone Contacts

Scott Broughton (Mine Manager)	
Wes Hermansen (Caretaker)	
R.C.M.P.: Nakusp	
Fire: Nakusp	
Trout Lake Volunteer Fire Department	
Ambulance : Nakusp	
DFO	
MOE spill reporting, Nelson	

Mine Emergency Response Plan (Rev. January 2014)

This Mine Emergency Response Plan (MERP) is for FortyTwo Metals – MAX Molybdenum Mine in Trout Lake, BC.

The MERP describes how to respond to and manage an emergency, in accordance with HSR code section 3.7.1

This MERP is for Care and Maintenance Periods (no production) and applies to all Care and Maintenance, and monitoring activites.

Note: This document will be continually revised and updated to reflect pertinent changes as the project progresses and the mine develops.

Corporate Safety Policy Statement

Roca Mines / FortyTwo Metals intends to provide a safe, healthy and productive workplace for all employees and contractors. In addition to this, the company is fully committed to mitigating the impact of our workplace on the environment, a responsibility to be taken seriously by all persons authorized to be on the mine site.

All persons entering the site must comply with all company directives, and wear personal protective equipment (PPE) as appropriate to their task. As a minimum, site PPE consists of a hardhat, steel-toed safety shoes and reflective vest. Site PPE must be worn when outside the camp perimeter, or when outside of a vehicle such as a pickup truck, if required to disembark on the site other than at the camp or when opening and closing the main gate.

A primary goal of our company is to eliminate known and potential safety and health hazards our employees may face on the job. In order to do so we must adhere to the following guidelines:

- SAFETY IS EVERYBODY'S JOB!
- Safety and health are a shared responsibility. Everyone from management to supervisors to each and every worker must take ownership of his or her own safety and that of co-workers.
- Maintaining a safe and healthful work environment is not just an idea it is a top priority.
- It is everyone's job to spot hazards and to correct them or report them in a timely manner.
- Where hazards cannot be completely eliminated, they must be reduced through engineering or administrative controls, or as a final precaution, through the proper use of personal protective equipment.
- Every individual will be trained to perform work safely. Should an individual feel inadequately trained to perform a certain task, he or she will immediately discuss the problem with his or her supervisor.
- As a condition of employment, each employee must consistently work in a safe manner.

MAX MINE SITE - FIRST AID PROCEDURE

- 1) In the event of serious injury: contact first aid attendant <u>first</u>, mine management <u>second</u>. Describe extent/nature of injury.
- 2) Remain with injured worker and provide emergency care to your level of capacity/scope.
- 3) Observe all signs and symptoms of injuries and remain with injured worker until first aid attendant arrives.
- 4) First aid attendant in consultation with the mine manager shall determine best transport method to nearest medical facility if necessary.
- 5) When transport method and route chosen, contact medical facility and police.

CONTACT INFORMATION

FIRST AID ATTENDANT – Wes Hermansen **TEL 250-369-6868 or SITE RADIO**

SITE CARETAKER - Wes Hermansen TEL 250-369-6868 or SITE RADIO

MINE MANAGER – HEAD OFFICE, TEL 604-684-2900

HIGHLAND HELICOPTERS - NAKUSP - 1-250-265-3434

PHIL PASCUZZI – MINE INSPECTOR TEL. 1-250-426-1537

HOSPITAL NAKUSP - 1-250-265-3622 RCM POLICE - 1-250-265-3677

OUR LOCATION: 4 Km North West of Trout Lake Town Site,

<u>LAT</u> - 50°38′35 N <u>LONG - 117°34′33 W</u>

UTEM COORDINATES: 0458503/5610572

NO COMMENT IS TO BE MADE IN/TO PUBLIC OR TO MEDIA!!

MEDICAL AID at Surface

Immediately Life-Threatening Injury or Illness

- 1. Radio immediately, send someone to get first aid attendant, and follow the posted First Aid procedure. Give:
 - a. Location
 - b. Number of injured
 - c. Nature of injury
- 2. Assess hazards and do not put yourself at risk.
- 3. Initiate, or provide for, first aid.
 - a. Stay within your skill level.
 - b. Relinquish control only to equal or higher medically skilled people.
- 4. Do not move victim unless absolutely necessary.
- 5. Inform management of situation and have someone ready to direct outside emergency response, if required.
- 6. If driving is the chosen transport method, designate someone to start the ambulance, and have it brought as close as possible to injured person. Have someone else start and bring the van as an emergency back up should snow or mud be a problem along the route.
- 7. A pickup and the van should accompany the ambulance to the hospital, with the pickup truck driver having the responsibility to go to the mine office and take the portable satellite phone along in addition to a radio.
- 8. Victim's supervisor or designee, and the First Aid attendant must accompany victim to the medical facility.
- 9. First Aid attendant to complete an incident report.

MEDICAL AID at Surface (cont'd)

Minor Injury or Illness

- 1. Contact first aid personnel, via site radio or telephone lower camp.
- 2. Follow posted First Aid procedure
- 3. Report situation to victim's supervisor.
- 4. Follow up actions as necessary:
 - a. Use outside emergency services as required.
 - b. Victim's supervisor or designee must accompany victim to medical facility.
 - c. First Aid attendant to complete an incident report.

Immediately Life-Threatening Injury or Illness

- 1. Send another person for help and First Aid supplies, which are available in the refuge stations, follow posted First Aid procedure.
- 2. Assess hazard, do not put yourself at risk.
- 3. Check airway, breathing and circulation (ABC) and respond appropriately to your level of expertise.
- 4. If no other person is available, call Mine Office on mine phone Ext 208, report "medical emergency..." and give location. Follow posted First Aid procedure.
- 5. If required, mine management will contact Dan Blondeau, Mine Manager, Imasco Minerals Inc. at (250) 866-5292 and request a mine rescue team. (see attached mutual aid agreement).
- 6. Get First Aid supplies from refuge station and return to victim.
- 7. Monitor injured person's ABCs and keep victim warm and dry.
- 8. Do not move victim unless absolutely necessary.
- 9. Other mine personnel should monitor phones unless they can help (move medical gear, help with transportation, etc.)
- 10. If driving is the chosen transport method, designate someone to start the ambulance, and have it brought as close as possible to portal area. Have someone else start and bring the van as an emergency back up should snow or mud be a problem along the route.
- 11. A pickup and the van should accompany the ambulance to the hospital, with the pickup truck driver having the responsibility to go to the mine office and take the portable satellite phone along in addition to a radio.
- 12. Uninvolved people should stay clear.
- 13. Those involved should help First Aid attendant with the incident report.

No underground access during the Care & Maintenance Period MEDICAL AID Underground (cont'd)

Minor Injury or Illness

- 1. Contact supervisor and explain situation.
- 2. Contact surface First Aid personnel, through office at Ext 208 and contact underground Level 1 First Aid person to provide first aid.
- 3. Supervisor and a Level 1 First Aid person shall provide escort to surface for victim.
- 4. First Aid personnel shall determine disposition of victim and complete incident report, as per posted First Aid procedure.

FIRE on Surface (Mill site, Offices, Shops, Camps or bush)

Upon discovering fire or smoke:

- 1. Investigate source, but do not put yourself at risk. If possible attack fire with a hand held fire extinguisher located at strategic positions in structures or from vehicle.
- 2. If fire is not manageable, MOVE away from area.
- 3. If (during care & maintenance), other personnel are on site alert them and have them move toward safety, see mustering station location below.
- 4. Alert others in Trout Lake by radio and/or contact the Trout Lake volunteer fire department to attend.
- 5. If conditions permit, close doors and windows to contain fire.
- 6. Contact Caretaker from a safe place and say:
- "I am reporting a fire" (or smoke)
- Give location or building
- Your name
- Phone number
- Stay on line
- 7. If an evacuation is necessary, supervisor will account for his/her employees, using mandatory daily sign-in sheets. In the event of a missing person, supervisor will coordinate a search, and contact responding emergency agencies if required.
- 8. Assembly area is always away from possible collapse zones. If fire is in camp bunkhouse or kitchen, assemble at Mine Office, if fire is in Mine Office area, assemble in camp kitchen.
- 9. Fire crews will use fire pumps and hoses stored at the lab building to extinguish the blaze if possible. In no circumstances must personnel risk their safety by entering a burning building. If the fire is in the mine office area, pumps can draw water from the mine settling pond. For a fire in the camp area use the hydrant opposite the kitchen.
- 10. Fire crews can use the Mill water supply line (piping and valves throughout the mill building) to attach fire hoses if necessary. In the event that a fire in the Mill, Crusher or Powerhouse building is not safely

managed from within the buildings, the Trout Lake fire department should be contacted immediately. The TLFD has a pumper truck, hoses and other fire fighting equipment located 10 minutes from the mine. Personnel should meet the FD at the mine gate and guide crews directly to the area of concern.

- 11. (Following does not pertain to Care & Maintenance Periods) Should there be a danger of smoke movement toward the underground vent fans, or fire progressing to the portal. Immediately initiate the stench warning system, and shut off the fan intakes to underground.
- 12. Follow up with incident report.

No underground access during the Care & Maintenance Period

FIRE Underground (Does not pertain during Care & Maintenance Period)

Discovery of minor fire

Upon detection of fire or smoke, the person discovering it should:

- 1. Attempt to put out the fire using a hand held fire extinguisher if it is safe to do so.
- 2. If the fire is on a piece of equipment and a hand held extinguisher fails to put it out, the ansul system on the equipment should be activated.
- *3. If the fire has been extinguished contact others working in the vicinity and make them aware of the situation.*
- 4. Phone the mine office at #208 to make an initial report of the incident, and to have the stench fire warning initiated. Report :
 - a. fire situation,
 - b. where you are,
 - c. where you are going,
 - d. who you are with,
 - e. direction of smoke, if any and thickness,
- 5. Immediately after this, all employees underground should proceed to walk or be transported out the 960 adit drift to surface using self rescuers if there is the possibility of a danger posed by smoke. If retreat to surface is not possible enter a refuge station and follow the refuge station procedure.
- 6. No one shall re-enter the mine until the air has been tested and deemed to be free of all products of combustion.

FIRE Underground (cont'd)

Discovery of major fire, or escalation of minor fire

- 1. Warn others to evacuate in your immediate vicinity.
- 2. Advance toward fresh air, escape route to surface, or refuge station as appropriate.
- *3. Call office on mine phone Ext. 208 and indicate "Fire Emergency" and inform management of:*
 - a. fire situation,
 - b. where you are,
 - c. where you are going,
 - d. who you are with,
 - e. direction of smoke and thickness,
 - f. material that is burning, etc.
- 4. Upon reaching surface, be sure to tag out or otherwise establish accountability.
- 5. If unable to reach surface, retreat to a refuge station and follow the refuge station procedure.
- 6. Pass along information to the Mine Manager (or designate) and prepare to assist with other evacuation operations.
- 7. Only mine rescue teams trained for fire fighting should attempt to fight larger fires underground.
- 8. Should a mine rescue team be required, contact Dan Blondeau, Mine Manager, Imasco Minerals Inc. at 1-250-866-5292 and request a mine rescue team and contact Provincial authorities.

Underground Refuge Station Procedure

Upon entry into a Refuge Station in THE EVENT OF A FIRE or OTHER EMERGENCY:

- 1. An experienced worker will list the names of those present. [Refer to list sheet]
- 2. Use the phone **only to contact** the mine office at Ext 208.
- *3. Keep the phone lines clear otherwise the mine office cannot reach the Refuge Stations in order to ascertain the names of those present.*
- 4. If the Refuge Station phone does not work post the names of the occupants on the outside of the door, prior to sealing the door.
- 5. The Mine Office will contact each Refuge Station on a regular basis throughout the emergency
- 6. Prior to sealing the entry door gather up all smoking and open flame materials and deposit them outside the door.

Fire Clay: Stored in the Emergency Cache Box in the rear of the Refuge Station:

- 1. Use the fire clay to seal cracks and openings in and around the door.
- 2. Use the fire clay to seal the water drain hole and any other openings in the entry wall.
- *3. Open the compressed air line to create a positive pressure inside the Refuge Station.*
- 4. Observe the water level in the plastic tube [water gauge] located on the inside of the entry wall: The water level should recede from the marked line on the tube. This indicates a positive pressure within the Refuge Station.
- 5. While the compressed air is blowing, self-rescuers should continue to be worn until the stench gas has dissipated.
- 6. Sit down and remain calm, knowing that help is on the way.
- 7. Conserve and ration food and water.
- 8. Water is available from the Emergency Cache Box. Use it sparingly.

- 9. In the event of a power failure conserve cap lamps and spares turning on only one cap lamp at a time and repeat as necessary.
- 10. A Porta-Pottie is available for use within the Refuge Station.
- 11. DO NOT SMOKE in the Refuge Station during an emergency.
- 12. If additional workers require entry into the Refuge Station after sealing the doors, immediately reseal the door with additional putty. The Putty will remain pliable for a considerable length of time after application.
- 13. Do not leave the Refuge Station for any reason unless contacted by Mine Management and you are instructed to do so.
- 14. Upon arrival on surface, be sure to tag out and report to your supervisor.

IF THE COMPRESSED AIR GOES OFF:

1. First Aid trained workers must be on the lookout for signs of oxygen deficiency in all occupants.

2. Turn off all electrical appliances and:

3 Be prepared to activate the bank of Oxygen Bottles as per the posted procedure.

4 Monitor the level of oxygen in the room and take appropriate measures according to whether the level is below 19.5% or above 23.5% i.e. turn oxygen on or off

Signs and Symptoms of Oxygen Deficiency:

- > Increased respiration rate, even at rest. [12 respirations are normal].
- > Increased pulse rate, even at rest. [72 to 80 beats per minute is normal]
- > Skin color may become grayish.
- > Skin temperature may become cool to the touch.
- > Earlobes, area around the mouth and fingernails appear bluish in color.
- > Decreased level of consciousness.

ASSISTANCE and COOPERATION is REQUIRED of EVERYONE to ENSURE

THE SAFETY of ALL OCCUPANTS

UNDERGROUND EMERGENCY FIRE PROCEDURE

LOCATIONS OF MEN UNDERGROUND

	EMPLOYEE NAME	Mine Rescue Trained	LIST LOCATION WORKER ARRIVED FROM
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

ROAD ACCIDENT on Site

All employees, contractors and site visitors must obey all signs. The posted maximum speed limits of 40 km/hr, both on site and through Trout Lake. During winter and when there are adverse conditions slow down below 20 km/hr and be aware that control may be diminished. Vehicles traveling up the mine road should be given the right of way, particularly in winter conditions.

If an accident occurs:

- Check for injuries, contact first aid if necessary, and follow posted First Aid procedure, and spill response procedure if required.
- Contact Caretaker or mine management on the site radio to report the accident, provide:
 - Names of parties involved
 - Details of injuries, if any
 - Company or private vehicles
 - Circumstances surrounding incident
 - Damages to vehicles

ROAD ACCIDENT off Site

Call police and report incident. Wait for their attendance on the scene.

Treat any injuries to the best of you capabilities, yielding only to someone with higher level first aid abilities.

Exchange insurance information and contact ICBC.

Take photographs, write notes and don't make admissions of guilt or fault.

MAX Mine Site - Fuel and Hazardous Material

Spill Response Action Plan

- Any worker on site who discovers **any** spill shall immediately ensure his or her own safety before attempting to stop or contain the leak or spill.
- All fuel or hazardous material spills will be immediately reported to the Mine Manager or designate, site managers and the environmental co-coordinator at the site office radio frequency, or at #'s below

Mine Managment	Wes Hermansen Scott Broughton	(250) 369-6868 Caretaker
		(604) 684-2900 Vancouver Office

- The responding manager will ensure that the appropriate equipment is mobilized and measures are implemented to control and contain the spill.
- All construction activity should be suspended in the immediate vicinity of the spill until permission to resume work is given by the responding manager.
- The responding manager will deploy on-site personnel and/or equipment as needed to build containment dykes or pump spilled contaminant into marked storage drums.
- Absorbent pads and booms should be applied as necessary.
- All contaminated soil and vegetation will be removed to a depth where no detectable contaminants remain, and this material will be stored in an approved on-site containment berm along with any cleaning materials and absorbent pads. The responding manager will determine the appropriate method for removing the contaminated material.
- Locations where spills occur will be flagged or marked to ensure the site can be effectively monitored.
- Small spot spills will be cleaned up immediately by the person responsible. A shovel and pail will be used and the contaminated material will be removed to an approved disposal area. Immediate action will be taken to prevent further leaks or spills. (ie: application of absorbent pads and initiating repairs).

Spill Reporting Procedures

In the event of a significant spill the following information will be recorded by the responding manager or environmental co-coordinator. This information will satisfy the applicable *Spill Reporting Regulations* in the *Waste Management Act*. (The following information **must** be recorded and submitted to the Mine Manager for **all** or **any** spills in excess of 100 litres.)

- The reporting person's name and telephone number;
- The name and telephone number of the person who caused the spill;
- Location and time of detection of spill or leak;
- The type and quantity of the substance spilled;
- The source and duration of the spill;
- The cause and effect of the spill;
- Details of action taken or proposed;
- Description of the spill location and area surrounding the spill;
- Weather condition at the time of the spill;
- Ground condition at the time of the spill;
- Details of further action contemplated or required;
- Names of the agencies on the scene; and,
- Names of other persons or agencies advised on the spill.

The responding manager and environmental coordinator are responsible for coordinating clean-up and collecting all pertinent information. All significant spills must be reported immediately to the Provincial Emergency Program by telephoning **1-800-663-3456** or **1-250-387-5956**.

In addition the following important numbers should be noted:

R.C.M.P.: Nakusp	(250) 265-3677
Fire: Nakusp	(250) 265-3532
Trout Lake Volunteer Fire Department	(250) 369-2284
Ambulance : Nakusp	(250) 265-4877
DFO	1-800-465-4336
MOE spill reporting, Nelson	(250) 354-6333

The site of any spill will be monitored for additional cleanup as required.

HAZARDESS SPILL IN LABORATORY OR MILL

If you recognize a hazardous spill:

- 1. Move away.
- 2. Alert others and guard access.
- 3. Close doors and windows to control ventilation. Turn off fans, heaters, etc.
- 4. Alert mine management of situation.
- 5. Do not attempt to contain material unless you are trained and equipped to do so.
- 6. Identify material only if you can do so safely.
- 7. Follow spill response reporting procedure.
- 8. Follow up with incident report.

DEMONSTRATION OR CIVIL DISTURBANCE

- 1. Stay in the building or behind mine gate. Do not become part of the problem.
- 2. Advise mine management of situation; continue business as usual.
- 3. Call Nakusp RCM police at **(250) 265-3677** and inform them of the situation.
- 4. Obtain as much useful information as possible about the events in order to fill in an incident report.
- 5. Do not talk to media.

CRIME, ASSAULT, WEAPONS

- 1. Do not alert the subject to your awareness.
- 2. Seek cover or escape from the area.
- 3. Warn mine management and others.
- 4. Call Nakusp RCM Police (250) 265-3677 from a safe distance and report:
 - a. What happened
 - b. Description of person and type of weapon (if any)
 - c. Subject's present location and status
 - d. Give your call back number
 - e. Stay on the phone until subject leaves
- 5. Send someone to meet law enforcement.
- 6. Consider if evacuation is necessary.
- 7. Supervisors will account for their employees.
- 8. In the event a person is missing, supervisors will contact responding law enforcement.
- 9. Assembly point is the front of the mine office unless an alternate site is required this alternate location will be the camp kitchen.

BOMB THREAT INFORMATION SHEET

If a Bomb Threat Call is received, the following information should be obtained. Listen carefully. Do not interrupt caller except to ask:

When is it set to explode?	Where is it?	
What building is it in?	What kind is it?	
What does it look like?	Who are you?	
Why are you doing this?		
Exact language of threat:		
Date:	Time:	
Received by:	Phone #:	
Location:	Supervisor:	
Description of caller (circle as appro ~ Male ~ Female ~ Adult		
<u>Voice Characteristics</u> : ~ Loud ~ Raspy ~ Pleasant ~ Intoxicat	~ Soft ~ High-Pitched ~ Deep ed ~ Other	
<u>Speech</u> : ~ Fast ~ Slow ~ Distinct ~ Distorted ~ Stutter ~ Nasal ~ Slurred ~ Precise		
<u>Manner:</u> ~ Calm ~ Angry ~ Rational ~ Irrational ~ Laughing ~ Coherent ~ Incoherent ~ Deliberate ~ Emotional		
	nes ~ Street traffic ~ Factory machinery ty noises ~ Animals ~ Other	
Language: ~ Excellent ~ Good ~ ~ Use of particular words or phrases	Fair ~ Poor ~ Foul 5	
Accent: ~ Local ~ Not loc	cal ~ Foreign ~ Race ~ Specify	

BOMB SEARCH

Institute the employee search immediately after the receipt of a threat. While the employee search is progressing, employees will search their area's evacuation routes in order to assure safe passage of occupants from the building in the event evacuation is necessary.

BUILDING SERVICES PERSONNEL

Building services personnel will search those areas assigned to the Building Manager (maintenance and equipment storage areas, and the outside rooftop areas of the building).

OCCUPANT SEARCH BY EMPLOYEES

All employees will search their immediate work areas and report the results of their search to their supervisor.

TEAM SEARCH

Employee groups will search all public areas, to include lobbies, restrooms, hallways, stairwells, closets, storage rooms and evacuation routes, and report findings to Emergency Coordinator.

RCMP/LOCAL LAW ENFORCEMENT AGENCIES

Explosive Ordinance Disposal Technicians are immediately available from RCMP or local law enforcement agencies by telephone to assist and direct search activities.

A special bomb team will respond to Bomb Threat and Search emergencies.

WHAT TO LOOK FOR (SUSPICIOUS OBJECT)

Remember you are looking for something that should not be there! Explosives can he packaged in a variety of containers. Most likely, they will be camouflaged. The container is likely to be a common article, such as a box (e.g. shoe, tissue, etc., grocery bag, athletic bag, airline flight bag, suitcase, briefcase, etc.).

Look for the unusual, or something that appears out of place. It is important that someone familiar with the area assist in the search in order to note something that is unusual or alien to the surroundings. Anything that does not belong, or whose nature and presence cannot he adequately explained, is a suspicious object.

SUSPICIOUS OBJECT LOCATED

DO NOT TOUCH MOVE OR DISTURB THE OBJECT IN ANY MANNER

- 1. Call Mine Management on site radio or by telephone for further instructions.
- 2. Mine management will notify appropriate law enforcement personnel.
- 3. Clear all people from the immediate vicinity and the areas directly above and below the object.
- 4. Remove flammables from the area. Shut off gas and fuel lines.
- 5. Cordon off the area to prevent re-entry.
- 6. Await further instructions.

INUNDATION OR FLOODING

(Underground)

- 1. Immediately seek surface access. Do not use refuge Stations.
- 2. Contact surface at Ext 208 and explain situation when possible (water volume, direction of flow, etc.)
- 3. Explain where you are, where you were, who is with you, etc.
- 4. Follow evacuation procedure.
- 5. Seek out, or initiate, accountability procedures.

(Surface – Tailings Area or other valley)

- 1. Seek high ground, if possible.
- 2. Contact Mine Manager via site radio or by telephone.
- 3. Explain where you are, where you were, who is with you, etc.
- 4. Stay on high ground until it is safe to leave, and then report to mine office.
- 5. In the event of dam instability and/or dam breach the Mine Manager shall coordinate and isolate all downstream impact areas and inform Trout Lake townsite leadership, local highway contractor (HMC based in Trout Lake), and then notify other authorities, ensuring immediate public safety at and around the site.

GENERAL INFORMATION

This plan is designed to be used with training and preplanning. It should be updated any time a change is made to buildings or mine facilities. It should be reviewed every six months. Management welcomes constructive comments.

Direct any questions or comments to the Safety Committee.

Your Safety Committee is:

Wes Hermansen (Caretaker) Scott Broughton (Mine Manager) Chris Foster (Controller)