

APPENDIX P

Preliminary OIL and HAZARDOUS MATERIAL SPILL PREVENTION AND PREPAREDNESS PLAN

Attachment 4

Mines Management, Inc.
905 W. Riverside Suite 311
Spokane, Washington 99201

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1.0 INTRODUCTION

1.1 BASIC DATA

The following information is provided as a summary and quick reference:

Owner / Operator:	Mines Management, Inc. 905 W. Riverside Suite 311 Spokane, Washington 99201 (509) 838-6050
Emergency Contacts:	(Emergency Coordinators) <ol style="list-style-type: none">1. Property Manager, TBD2. Environmental Safety Coordinator, TBD3. Safety Director, TBD
Location of Project:	The Montanore Project is located in Lincoln County, Montana on the eastern slopes of the Cabinet Mountains approximately 25 miles south of Libby. See Figure 1.
Type of Project:	The Project is an underground mine and processing facility designed to recover copper and silver from the ore zone. Various reagents used in the process are transported to the site and stored at the processing facility.

1.2 BACKGROUND

The Montanore Project involves the mining and milling of approximately 140 million tons of ore. Facilities for the recovery of metals include associated roads, waste dumps, processing facilities, and ancillary support facilities.

2.0 REAGENTS UTILIZED FOR PROCESSING

Reagents stored and used at the site are listed below as well as the methods of handling these reagents.

DESCRIPTION AND CONSUMPTION OF REAGENTS

<u>Reagent</u>	<u>Purpose</u>	<u>Additional Points</u>	<u>Lbs/Ton</u>	<u>Pounds/year</u>
Potassium	Collector	Ball Mills	.04	280,000
Amyl Xanthate		Regrind Mills Flotation Cells		
MIBC	Frother	Flotation Cells	.02	140,000
Percol 352	Flocculant	Concentrate and Tailings Thickener	.02	140,000

HANDLING OF REAGENTS

<u>Reagent</u>	<u>Delivery</u>	<u>Storage</u>	<u>Mixing</u>	<u>Feeding</u>
Potassium Amyl Xanthate	Truck	250 lb drums	8 ft dia x 10 ft Mix Tank. 10 ft dia x 10 ft Stock Tank	Control Valves and Magnetic Flow Meters
MIBC	Tank Truck	9,000 gal. Tank	----	Control Valves and Magnetic Flow Meters
Percol 352	Truck	50 lb bags	6 ft dia x 10 ft deep Mix Tank	Control Valves and Magnetic Flow Meters

In addition to the reagents listed above there are various acids, bases and chemicals utilized in small amounts by the analytical laboratory at the site. These reagents,

typically in small quantities, arrive at the site by various modes (i.e. parcel post, UPS, etc.)

Propane and fuel oil are used for equipment and heating at the site. Approximately 5,000 gallons of propane and 10,000 gallons of diesel are stored on site.

Appendix A contains chemical property fact sheets on the various chemicals listed above.

3.0 DESCRIPTION OF STORAGE FACILITIES

3.1 MILL

All chemicals and reagents are delivered to the mill and stored in the plant. This plant has been constructed for the storage of these materials. It is well lighted and has a curb constructed around it.

3.2 YARD

Propane is stored in pressurized storage tanks on the yard. They will be marked and provided with barriers to prevent vehicle impact.

3.3 SHOP / WAREHOUSE

Oil and hazardous materials are stored in specially designated areas in the warehouse.

4.0 OPERATION, MAINTENANCE AND SAFETY PROCEDURES

4.1 OPERATING PROCEDURES

Operating procedures primarily relate to on-site movement and use of chemicals. Employees involved in this work receive instruction on safe handling. This includes:

1. Driving vehicles (trucks and forklifts) carefully to avoid collisions or ruptures to storage containers.
2. Making sure there is adequate clearance when positioning a truck or equipment adjacent to storage or distribution points.
3. Checking to make sure all pallets or containers are securely placed to prevent tipping and spilling.

All trucks and vehicles delivering chemical reagents are required to pass inspection for leakage and stability when entering the Montanore Project property. This inspection is performed by security personnel with the assistance of maintenance when requested. The inspections include:

1. Check for any viable leakage.
2. General condition of the vehicle and transfer equipment.

Contractors to Mines Management, Inc. are required to conform with applicable codes and safe practices. They are provided copies of this plan and receive instruction on its contents.

4.2 MAINTENANCE AND SAFETY

A comprehensive maintenance and safety program supplements this plan. Inspection of storage facilities is completed on a regular basis.

The Montanore Project has an active security/safety system. Access to the project is through a gate which is manned at all times. Yard lighting is also sufficiently adequate to prevent vandalism and to allow detection of storage facilities that may be leaking. The remoteness of the project also helps to prevent vandalism.

Warning signs are also part of the hazardous material spill prevention program and have been posted at all material storage and use areas. These signs are posted to remind people of the hazardous nature of the materials and to promote safe practices. Copies of the "Oil and Hazardous Material Spill Prevention and Preparedness Plan" are posted in numerous highly visible locations and are maintained by the Safety Department. The Worker Safety Program supplements the above mentioned emergency plan. Workers are instructed by the Safety Department and their supervisors as to the actions that must be taken if a spill occurs.

4.3 TAILINGS SLURRY LINE

Tailings effluent drains by gravity from the mill tailings pond feed box to the sand cyclone plant located at the tailing pond. The effluent is carried in a twenty-inch diameter, high density polyethylene pipeline on grade. The pipeline is routed in part along the existing road. A road has been constructed along portions of the pipeline that diverge from the existing road. The pipeline has been fitted with air release/vacuum valves to insure a continuously monitored operation of the line.

This sensing system includes the installation of magnetic flowmeters on the tailings line at the mill and at the tailings pond. If a low differential signal is received at the control room, an alarm sounds and the mill is systematically shut down, starting with the feed conveyors to the grinding mills. A valve on the tailings line at the mill then closes. The tailings pump box and other sumps will be large enough to contain slurry which is in the system prior to shutdown. In addition to the leakage sensing system, the pipeline between the mill and tailings pond is visually inspected each shift by workers going to and coming from the cyclone plant operation.

A ditch parallels the entire length of the pipeline to contain and transport the tailing slurry in the event of any leakage. Any tailing leakage will flow by gravity to the tailing impoundment. The ditch will run of grade from the mill to the tailings pond and will cross the trestle structure at Poorman Creek as a lined flume section. In the unlikely event of the leakage ditch becoming plugged, a dike will be placed between the leakage ditch and the upstream interceptor drainage ditch. The dike will ensure that flow is contained within the tailings/reclaim pipeline right-of-way to prevent the possibility of any leakage entering Poorman or Ramsey Creeks.

Water is reclaimed from the tailings pond and pumped to the mill reclaim water tank for reuse within the mill and to the cyclone cluster within the sand plant. Reclaim pumps are located on a floating pump barge and transport the water through a pipeline routed

parallel to the tailings pipeline. Booster pumps are used in conjunction with the barge mounted pumps to transport return water to the mill.

5.0 ACTIVITIES IN THE EVENT OF AN EMERGENCY

5.1 PROCEDURES FOR COUNTERACTING SPILLS OR LEAKS

A spill of oil or hazardous material requires immediate and judicious action. The abbreviated “Oil and Hazardous Material Spill Prevention and Preparedness Plan” at the end of Section 5, is presented as a quick guide for mitigation activities. It does not present the only measures to be taken.

Coordination of the actions and activities outlined in this plan are the responsibility of the Emergency Coordinator. A list of individuals designated as Emergency Coordinators will be developed prior to implementing the plan. Section 5.6, Duties of the Emergency Coordinator, specifies responsibilities and actions.

5.2 ADMINISTERING FIRST AID AND MEDICAL TREATMENT

Appropriate first aid and supplies will be monitored at all mine facility locations where oil and hazardous materials are stored. Project personnel will be trained in first aid methods appropriate to the nature of materials to be used at the project site.

5.3 REPORTING SPILLS

Mines Management will keep all affected agencies informed about any accidents that may occur. This notification will include, but not limited to, the agencies involved with preparation of this plan as listed in Appendix C.

If the Mines Management personnel determine that the facility has had a release, fire, or explosion which could threaten human health or the environment outside of the facility, the findings shall be reported as follows:

1. The Emergency Coordinator shall immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under Part 1510, Title 40, Code of Federal Regulations), or the National Response Center using their 24-hour toll free number: 800-424-8802). The report shall include:
 - a. Name and telephone number of reporter;
 - b. Name and address of facility;
 - c. Time and type of incident (e.g., release, fire);
 - d. Name and quantity of material(s) involved, to the extent known;
 - e. The extent of injuries, if any; and
 - f. The possible hazards to human health, or the environment, outside the facility.
2. Appropriate local authorities shall be notified immediately. The Safety Supervisor or Emergency Coordinator will be available to help appropriate officials decide whether local areas should be evacuated.

Notification procedures will include contact with residents in the immediate vicinity of a spill, including as many downstream residents as possible. This will be performed by a Mines Management employee designated by the Safety Supervisor or Emergency Coordinator.

Reporting to the Montana Department of Environmental Quality

Mines Management shall note in the operating record the time, date, and details of any incident that requires actions outlined in the Spill Prevention and Preparedness Plan. Within 30 days after the incident, a written report on the incident will be submitted to the Montana Department of State Lands. This report shall include:

1. Name, address, and telephone number of the owner or operator;
2. Name, address, and telephone number of the facility;
3. Date, time and type of incident (e.g., fire, explosion);
4. Name and quantity of material(s) involved;
5. The extent of injuries, if any;
6. As assessment of actual or potential hazards to human health or the environment, where this is applicable; and
7. Estimated quantity and disposition of recovered material that resulted from the incident.

5.4 CLEAN-UP AND DETOXIFICATION

The spill prevention and preparedness program includes a trained clean-up team at the mine. If a spill of oil or hazardous material occurs, this team will be dispatched to clean-up and decontaminate the affected area. The team has all appropriate equipment available and the ability to transport any spilled material ultimate disposal.

5.5 ARRANGEMENTS WITH LOCAL AGENCIES

Fire Departments

Arrangements will be made with local Fire Department(s) and the U.S. Forest Service to respond as needed to fires at the mine site. Structural fires would be coordinated by the Forest Service. Tours are given to both agencies to maintain readiness and compatibility of equipment.

Policy Agencies

The Lincoln County Sheriff will respond to the site in case of emergency. Their responsibilities are defined by law. The Sheriff's Department will visit the site and, as new officers come into the area, are given tours to familiarize them with the site.

Ambulance Service

The Libby Volunteer Ambulance Service will respond to the mine site. Mines Management will attend their meetings and give training concerning the operation. Tours to familiarize their personnel with the site will also been given.

Health Care Providers

Libby is serviced by St. John's Community Hospital. This facility will be given training concerning the operation and will continually be updated on progress and changes at the site and new methods of treatment. They will also be given tours to help them understand the operation.

5.6 DUTIES OF THE EMERGENCY COORDINATOR

Whenever there is an imminent or actual emergency situation, the Emergency Coordinator (or designee when the Emergency Coordinator is absent) shall:

1. Immediately activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
2. Immediately notify appropriate state or local agencies with designated response roles if their help is needed.

Whenever there is a release, fire, or explosion, the Emergency Coordinator immediately identifies the character, exact source, amount, and areal extent of any released materials. This is done by observation or review of facility records or manifests and, if necessary, by chemical analysis.

Concurrently, the Emergency Coordinator assesses possible hazards to human health or the environment that may result from release, fire, or explosion. This assessment considers both direct and indirect effects of the release, fire or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).

During an emergency the Emergency Coordinator takes all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility.

These measures include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers. If the facility stops operations in response to a fire, explosion or release, the Emergency Coordinator

monitors for leaks, pressure build-up, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

Immediately after an emergency, the Emergency Coordinator provides for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

In the affected area(s) of the facility, the Emergency Coordinator insures that all emergency equipment listed in the Spill Prevention and Preparedness Plan is cleaned and fit for reuse.

**OIL AND HAZARDOUS MATERIAL
SPILL PREVENTION AND PREPAREDNESS PLAN
(ABBREVIATED)**

This plan is an outline of procedures to be followed in the event of an accident or spill related to the handling of hazardous material. Workers are to use discretion, but must remember that a spill of hazardous materials, oil, petroleum products, or chemicals is a serious safety and environmental matter.

PROCEDURES IN CASE OF ACCIDENT, SPILL OR LEAK

1. Attempt to stop the flow of material and/or contain it using appropriate safety equipment.
2. Administer first aid and medical treatment in accordance with the procedures outlined in the “Oil and Hazardous Material Spill Prevention and Preparedness Plan”.
3. Notify immediate supervisor or the Safety Supervisor. Supervisors are to report directly and without delay to the Project Manager or acting Duty Officer. The Project Manager will take further corrective action in accordance with the “Oil and Hazardous Material Spill Prevention and Preparedness Plan” and sound judgment.
4. Secure the area to help treatment of injured people and protect others.
5. Begin clean-up activities promptly. Chemicals should be cleaned up to minimize exposure to people and the environment. Shovel and sweep spilled material into a drum or suitable container. Keep spilled material dry. If

raining, covering the spill will reduce the dissolving and runoff of the chemical.

PROCEDURES FOR COUNTERACTING FIRES

In the event of a fire, workers should attempt to extinguish it with hoses or portable extinguishers. At the same time, security should be notified so that other employees on-site can respond, and if necessary off-site help can be summoned.

The above outline does not represent a complete list of actions, and incident-specific responses will be required.

In the event of an emergency, company protocol requires official communications and statements with the media, outside organizations and individuals to be handled by the Property Manager or those appointed by him.

Complete copies of the “Oil and Hazardous Material Spill Prevention and Preparedness Plan” will be found at the following (and other) locations:

1. Mill (Mine Site)
 - a. Property Manager’s Office
 - b. Mine Engineer’s Office
 - c. Safety and Training Supervisor’s Office
 - d. Plant Metallurgist Office
 - e. Maintenance Office

2. Tailings Impoundment
 - a. Sand Plant

REMEMBER, WORK SAFELY AND KEEP YOUR ENVIRONMENT CLEAN

6.0 PLAN IMPLEMENTATION AND AMENDMENT

6.1 PLAN IMPLEMENTATION

The Spill Prevention and Preparedness Plan will be implemented by placing it in strategic locations. These are:

1. Mill
 - a. Property Manager's Office
 - b. Mine Superintendent's Office
 - c. Safety Supervisor's Office
 - d. Purchasing Department
 - e. Metallurgist's Office
 - f. Maintenance Shop

Further, the abbreviated version of this plan can be found posted at the following locations: Administration Building and Process Area.

In conjunction with this, all employees will receive instructions on the content of the plan, along with periodic instruction on the nature, transportation, and handling of hazardous materials. This will be done as part of regular safety meetings and/or specially held meetings.

A record of these training meetings will be made and filed in the Safety Supervisor's Office. See Appendix D for a sample form.

The Safety Supervisor at the mine will conduct training for appropriate agencies and individuals concerning safe handling, clean-up, and emergency medical treatment. This training is performed throughout the life of the mining activity, as appropriate. Before operations begin at the mine site or shipments of chemicals occur, training will be provided to the mine and mill employees on clean-up and medical treatment procedures.

All contractors to Mines Management, Inc. are subject to the conditions and standards of this plan. They will receive copies of the plan and will be instructed to its contents. Compliance is part of their contractual arrangement.

6.2 AMENDMENT AND/OR UPDATE OF PLAN

It is the policy of Mines Management, Inc. to review and, if necessary, revise this plan annually. All appropriate agencies and organizations will be notified of any changes or modifications.

APPENDIX A

LIST OF MSDS AND OTHER PERTINENT SAFETY INFORMATION

A list of MSDS and other pertinent safety information will be placed in this section prior to implementation of the plan.

APPENDIX B
ORGANIZATIONS INVOLVED

Organization

Address

Phone Number

Fire Departments

Ambulance

Helicopter Services

APPENDIX C

CHECKLIST OF EQUIPMENT FOR CLEAN-UP TEAM

Description	Quantity	Check
30-gallon garbage can	1	
2-gallon plastic buckets	2	
Drager test kits	1	
First Aid kit	1	
O ₂ resuscitators	1	
Rubber Gear	10 sets	
Pull-on rubber boots	6 pairs	
Disposable coveralls	10 pairs	
Rubber gloves	10 pairs	
Scott Air Pack	6	
Openhead drums	2	
Block and Tackle set with cable	1	
Plastic sample bags	2 dozen	
Large plastic bags	50	
Visqueen	1 roll	
Square shovels	6	
Round shovel	1	
Push broom	1	
Straw broom	1	
Disposable dust masks	1 box	
Chemical goggles	6 pairs	
Rope, 1/2"	100 feet	
Sprinkler can	1	
Garden rake	3	
Portable CB radio	1	

Description	Quantity	Check
Tool Box:	1	
Flashlight	1	
Banding Cutter	1	
Vice Grips	2 pairs	
8" crescent wrench	1	
¼ x 3' bolts, nuts & locks	2 dozen	
¼ x 4' bolts, nuts & locks	2 dozen	
Water sample bottles	3	
Duct tape	2 rolls	
Adsorbent booms	200 feet	

APPENDIX D

**RECORD OF TRAINING SESSIONS
ON HAZARDOUS MATERIALS**

Mines Management, Inc.
Montanore Project

SAFETY/TRAINING MEETING

(Oil Spill Prevention and Handling Hazardous Materials)

Department: _____ Date: _____

Foreman of Instructor: _____ Shift: _____

Number of Participants: _____ Type of Meeting: Safety _____ Training _____

Length of Meeting: _____ min. (Not less than 30 minutes if used for Training)

Meeting / Training Subject(s): _____

Teaching Methods and Course Materials: _____

Brief Outline of Subject(s) covered: _____

Employee Name (PRINT): _____

Employee Signature: _____

Employee SS#: _____ Date: _____

Noted By: _____

Department Head

Instructor / Foreman

NOTE: Make a copy for employee's personnel file (if used for training).