

Appendix E
Work Risk Assessment

Job Risk Assessment

Document Control No.: RA-07-2	Date Assessment Completed: 6/18/2010	Location: Yerington Mine Site	 
Job Name: Cover Materials Characterization Sampling	Job Description: Collection of samples by backhoe from various mine waste units for chemical and geotechnical characterization (South Waste Rock, W-3 Leach Dump, S-32 Sulfide Dump, VLT Tails, Sulfide Tails, Arimetco Heap Leach Piles).	Risk Assessment Leader: Penny Bassett Risk Assessment Team: SIMOPS: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designated PIC:	

Work Plan (List Job Steps) <small>List the jobs required to complete the project scope in the sequence they are carried out.</small>	Any tools or heavy equipment needed? <small>If YES, What Type</small>	Is this a SIMOP? <small>If YES, Include in Mitigation Plan.</small>	Do any of the Golden Rules of Safety apply? <small>If YES, Which of the 8?</small>	Which of the 8 energy or biological root sources could possibly be involved in this job?	What would be the result of exposure to a biological or energy source? (e.g., Bites, Slips, trips, falls, exposures, electrocution, injury, death, etc.); and How, where, or when could an uncontrolled release or unwanted contact with a biological or energy source occur? <small>Note: Humans are biological sources, and their physical abilities, competency, and training should also be considered here.</small>	Environmental Impacts <small>Could there be a release to the air, soil or water, and/or, will a waste be generated? If YES, What?</small>	Pre-Mitigation Risk Evaluation				Permit(s) Required? <small>If YES, What kind?</small>	Energy / Biological / Waste Management Plan <small>List control measures required to eliminate, control, or protect against unwanted contact with an uncontrolled biological or energy source to minimize the risk of injury or environmental impact. Hierarchy of Controls: Elimination, Substitution, Isolation, Engineering/ Administrative, PPE</small>	Who is responsible for Hazard Mitigation? <small>Name or Title</small>	Post-Mitigation Risk Evaluation			
							Frequency	Consequence	Likelihood	Risk Score				Frequency	Consequence	Likelihood	Risk Score
General Hazard: Biological - Stinging insects - Scorpions, snakes - Other wildlife	No	No	No	Biological	Insects: Insect stings can cause allergic reaction, even in those not previously known to be allergic. Can cause respiratory distress, itching, pain, rash. Scorpions/snakes: Scorpion sting is a lot like a wasp sting, very painful; can be very hard to see until you are right on them; tend to be most active a dawn & dusk.	No	Unusual Exposure	Serious Consequence	Unusual but possible	Low Risk	No	All	Unusual Exposure	Important Consequence	Conceivable but unlikely	Minimal Risk	
General Hazard: Driving - Mine site roads - Public roads in town (low speeds) - Public highways (high speeds)	No	No	Yes Driving Safety	Motion Biological	Mine roads: Areas with steep embankments; potential heavy equipment on roads; loss of traction if driving too fast; rock chips on windshield. Town roads: Low speed collision with other drivers or pedestrians; drunk drivers. Highways: High speed collision or loss of control with v. serious consequence; drunk, reckless, or distracted drivers.	No	Occasional Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk	No	All	Occasional Exposure	Important Consequence	Remotely possible	Minimal Risk	
General Hazard: Weather - Heat stress (hot summer weather) - High wind conditions & dust storms - Rain & electrical storms	No	No	No	Thermal Motion Electrical	Heat stress: Thermal hazard in summer months, workers can become dehydrated, disoriented, less aware of hazards if overheated. Wind: Wind speeds of 20-40 mph are not uncommon, can blow loose items to strike workers, dust can cause limited visibility or irritants in the eyes. Rain/electrical storm: Lightning strike to person or equipment could cause burn or electrocution; rain can make walking surfaces slippery and contribute to cold stress.	No	Occasional Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk	No	All	Occasional Exposure	Important Consequence	Remotely possible	Minimal Risk	
Mobilize equipment to site and unload.	Yes Backhoe Flatbed truck	No	Yes Driving Safety	Motion Gravity	Motion - During loading/unloading of equipment, operator could be struck by or caught between equipment and transport truck or ground. Transport of equipment on highway could be subject to vehicle collision or loss of control. Gravity - Operator could fall from flatbed truck or equipment.	No	Occasional Exposure	Serious Consequence	Unusual but possible	Low Risk	No	Equipment operator	Occasional Exposure	Important Consequence	Remotely possible	Minimal Risk	
Mobilize between cover material sample locations <small>Requires driving on rough terrain and near areas with steep embankments, remote areas of mine site that are not frequently accessed.</small>	Yes Backhoe Work truck	No	Yes Driving Safety	Motion Gravity	Motion - Driving on rough uneven terrain could cause property damage to vehicle if it is not suitable for the terrain or if driver is not trained for offroad driving. Carrying sampling supplies to location may require walking on rough terrain with a heavy load and with limited visibility, could cause tripping hazard. Gravity - Vehicles driven on/near steep slopes risk losing traction or driving off steep embankment, potential for roll-over or property damage.	No	Occasional Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk	No	Equipment operator, Sample Technician	Occasional Exposure	Important Consequence	Remotely possible	Minimal Risk	
Cover Material sample collection to depths of 1 to 5 ft bgs - Backhoe, shovel or hand auger to dig excavation - Sample collected by geotech from bucket or pile on surface	Yes Backhoe	No	Yes Ground Disturbance	Motion Gravity	Motion - During excavation, bucket may strike worker if in swing radius. Worker using hand auger could get blisters on hands, muscle fatigue, back strain or knock self or partner with handle of auger. Underground utilities are not expected to be present in th emine waste units. Gravity - Worker could fall into open excavation; operator could fall from equipment while entering/exiting; soil/rocks could fall from bucket onto person or equipment; trench wall could collapse causing nearby persons or equipment to be engulfed.	No	Occasional Exposure	Very Serious Consequence	Unusual but possible	Substantial Risk	Yes Ground Disturbance	Equipment operator, Sample Technician	Occasional Exposure	Serious Consequence	Unusual but possible	Low Risk	
Pack and ship samples to laboratories	No	No	No	Motion Gravity	Motion/Gravity - Buckets or coolers of samples may be heavy and could result in back strain.	No	Rare Exposure	Important Consequence	Remotely possible	Minimal Risk	No	Sample Technician	Rare Exposure	Important Consequence	Conceivable but unlikely	Minimal Risk	