Field Monitoring Report -- Pebble Copper/Gold Exploration Project --

ite Contact: Jeff Norberg PMA #: A126118 Wildlife Observed: • Bear: • Caribou: • Caribou: • Moose: • Waterfowl: • Fish: • Other: Ground Squirrels
Wildlife Observed: o Bear: o Caribou: o Moose: o Waterfowl: o Fish:
 o Bear: o Caribou: o Moose: o Waterfowl: o Fish:
 o Bear: o Caribou: o Moose: o Waterfowl: o Fish:
 Caribou: Moose: Waterfowl: Fish:
 Moose: Waterfowl: Fish:
o Waterfowl:o Fish:
o Fish:
o Other: Ground Squirrels

Comments: Ear plug in sump, one handful of Linseed soap lubricant on ground a few feet away from mat. Drill mud not present, water in sump.

Recommendations: Better housekeeping needed on this site.

■ Actions Needed: See above recommendations.

Drill Hole/Site No.: 12547	Date: 7/17/2012
Rig No.: 3	Time: 1:05 pm
Activity: Cementing and casing for water	
Condition of Drilling Site:	Sump Pit (continued):
o Distance from water body: .2 mi	 Location and extent of discharged material: About 30' from drill.
 Location of fuel storage: Just east of mat 	 Topsoil, muck, tundra stockpiled: on liners
 Sorbent pads present: yes 	 o Hose color:
o Tundra mat: good	
○ Pipe off tundra: yes	Drill Water Supply:
o Litter:	 Stream, lake/pond: Lincoln Lake (final:DDH12-547-W)
 Trash containment: metal dumpster 	■ Location: 59 53.29 N/155 16.55 W
 Sanitary facilities: yes 	 Adequate water flow and depth for fish passage in streams: Yes
 Any spills or staining: approx. a quart of linseed lube on tundra 	 Evidence of significant impacts to riparian vegetation or stream banks: No
o General impression:	 General impression of water body (i.e. clear, turbid, tannic): Clear
	 Intake description: Mesh screen
Drilling Activity:	○ Structure clear of debris: yes
o Drill additives in use: Water only.	o Mesh size: standard
\circ Recirculation tank: No - just put on line	○ Submerged: Yes
o Water discharged: To 3 sumps.	 Fuel/generator location to source: 120 ft from source
o Artesian zone encountered:	\circ Catch basin for fuel supply: yes
	 Sorbent pads: yes
Sump Pit:	○ Hose color: yellow
 Location: Just north of pad 	
o Discharge trench: yes	
o Dimensions of pit:	
o In use: Yes	

Other Comments: Water source is showing Signs of approximately 1 foot drawdown on bank. Water inflow to lake from stream and seeps is estimated by visual observation to exceed the 25 gpm pump rate. Norberg stated pumping began night of July 13, 2012, so continuous pumping could only have caused about 0.5-inch drawdown of the lake, assuming no other inflow to the lake. Norberg subsequently reported existence of a beaver dam upstream of this lake that contributed to lowered lake level.



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Wildlife Observed:
• Wildlife Observed.
∘ Bear:
∘ Caribou:
o Moose:
o Waterfowl:
o Fish:
o Other: Ground Squirrels

Drill Hole/Site No.: 12545	Date: 7/17/2012
Rig No.: 2	Time: 2:15 PM
Activity: Moving grouting hole, just finished grout.	
Condition of Drilling Site:	Sump Pit (continued):
o Distance from water body: .2 mi	$_{\odot}$ Location and extent of discharged material:
o Location of fuel storage: On pad.	$_{\odot}$ Topsoil, muck, tundra stockpiled: on liners
 Sorbent pads present: yes 	$_{\odot}$ Hose color: White (to discharge)
o Tundra mat: good	
○ Pipe off tundra: yes	Drill Water Supply: Stream
o Litter: No	
o Trash containment: metal dumpster	■ Location: .25 mile from rig
o Sanitary facilities: yes	 Adequate water flow and depth for fish passage in streams: appears yes, based on hover over water intake site. Bear sighting the evening before (reported by drilling crew) and fresh bear scat along route of water intake line (near brushy area) prevented observation from ground.
o Any spills or staining: No	 Evidence of significant impacts to riparian vegetation or stream banks: No
o General impression: Site clean/good condition	 General impression of water body (i.e. clear, turbid, tannic): Clear
	o Intake description: Mesh screen
Drilling Activity:	o Structure clear of debris: yes
 Drill additives in use: Extreme # one and quik-trol-gold. 	o Mesh size: standard
 Recirculation tank: Yes, recirculating 	◦ Submerged: Yes
 Water discharged: yes, about 200 feet to uplands. 	 Fuel/generator location to source: over 100 f from source
 Artesian zone encountered: no 	\circ Catch basin for fuel supply: yes
	 Sorbent pads: yes
Sump Pit:	○ Hose color: yellow
 Location: Just south of pad 	
o Discharge trench: yes	Other Comments: broken glass tube (about 1 inch diameter by 1-foot long) found on tundra, unknown origin.
$_{\odot}$ Dimensions of pit: standard, 3 in use.	
o In use: Yes	





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Personnel: Gay Harpole (DEC/SPAR), Mike	Inspection Date: 7/17/2012
Walton (DNR/MLW), Jeff Norberg (Manager,	Site Contact: Jeff Norberg
Site Compliance & Reclamation, PLP)	APMA #: A126118
■ Inspection Type:	■ Wildlife Observed:
 Complete: 	o Bear:
○ Partial: X Flyover	o Caribou:
 o Follow-up: 	o Moose:
 Response to Public Complaint: 	o Waterfowl:
	o Fish:
Weather Conditions:	o Other:
 ○ Temperature: 50°F + 	
 Wind: Slight breeze 	
o Precipitation: None	
o Visibility: Clear	
 Sky Conditions: Scattered Clouds 	
o Ground Conditions: Dry	
Comments:	
Recommendations:	
Actions Needed:	

Drill Hole/Site No.: GH12-304S (S = Sonic)	Date: 7/17/2012
Rig No.: 5	Time: 2:25 PM
Activity: None – down for repairs.	
Condition of Drilling Site:	Sump Pit (continued):
o Distance from water body:	o Location and extent of discharged material:
 Location of fuel storage: 	$_{\odot}$ Topsoil, muck, tundra stockpiled: on liners
 Sorbent pads present: yes 	o Hose color: Yellow
o Tundra mat: good	
 Pipe off tundra: yes 	Drill Water Supply: Stream
o Litter: No	
o Trash containment: metal dumpster	■ Location:
 Sanitary facilities: yes good 	$_{\odot}$ Adequate water flow and depth for fish passage in streams: appears yes
 Any spills or staining: No 	 Evidence of significant impacts to riparian vegetation or stream banks: No
\circ General impression: Site clean/good condition	 General impression of water body (i.e. clear, turbid, tannic): Clear
	o Intake description: Mesh screen
Drilling Activity: None at the time	o Structure clear of debris: yes
 Drill additives in use: 	o Mesh size: standard
o Recirculation tank:	\circ Submerged: No – drill rig down for repairs.
o Water discharged:	 Fuel/generator location to source: 100 ft from source
o Artesian zone encountered: no	 Catch basin for fuel supply: yes
	 Sorbent pads: yes
■ Sump Pit:	 Hose color: yellow
o Location:	
o Discharge trench: yes	Other Comments:
o Dimensions of pit: standard	
o In use:	

