

MEMORANDUM

State of Alaska

TO: Niblack LMPT

DATE: September 15, 2006

FROM: Bob Tsigonis,
Large Mine Coordinator

SUBJECT: Niblack meeting & site visit,
August 24, 2006

Attendees from the State of Alaska LMPT:

Bob Tsigonis, OPMP
Rick Fredericksen, ML&W
Steve McGroarty, ML&W
Andrea Meyer, OPMP
Kenwyn George, ADEC-AWQ
Ed Emswiler, ADEC-SW

Attendees from Niblack Mining Corporation:

Paddy Nicol, President
Darwin Green, VP Exploration
Frazier Adams
Rick Richins, Consultant

At a meeting in Ketchikan at the Cape Fox Lodge on the morning of August 24, 2006, Paddy Nicol and Darwin Green provided historic information on the Niblack property, results of exploratory drilling, and a presentation on Niblack Mining Company's (NMC) plans for underground exploration of the deposit. After lunch, all (except Frazier Adams) flew via two Beaver floatplanes out to Niblack and inspected the proposed development area on foot.

This trip report summarizes the observations and understandings of the Niblack LMPT based on this meeting and site inspection.

1. General understanding of the project:
 - a. Water problems in the historic Niblack Mine hampered mining in 1908.
 - b. Full permits for an underground exploration program, similar to the currently proposed plan, were granted in 1998.
 - c. Five or six massive sulfide zones have thus far been identified on the claim block.
 - d. Cook Inlet Corporation has a 15 percent net profits interest in the property.
 - e. Niblack is using ALS Chemex for assays.
 - f. A temporary tidelands permit is being processed by ADNR ML&W.
2. The access road to the proposed powder magazine location has been deleted and the powder magazine has been shifted to a location behind the rock quarry where a natural topographic feature provides appropriate safety.
3. A material site (quarry) has been added to the project to develop construction rock for the project.
4. The surface exploration drill holes completed to date have not resulted in any artesian holes. The rock is tight and drilling is good. The ground does not make water.

5. Carbonate mineralogy:
 - a. The core logging database only contains 18 records of observation of ankerite or Fe-carbonate vs. 1428 records of observation of calcite or carbonate.
 - b. Proximal to the massive sulfide zones, the carbonate is locally Mn rich.
 - c. Up to 20 percent of the rocks in the Lookout formation are highly neutralizing dikes.
6. There are 10 or more historic adits on the property. Several of these adits are located in the Lookout Formation and contain standing water.
7. The Operational Waste Rock Characterization Plan is being developed by Knight Piesold and reviewed by SRK.
8. The barge camp and the barge used to store drilling equipment and as a helicopter landing pad appeared neat and orderly. The barge camp has all necessary permits including an ADEC wastewater discharge permit and drinking water plan approval.
9. The “burn-barrel” for the burnable camp wastes appears to be well operated in that bears and other animals are not attracted to the burned portion of the waste. In this operation, food waste is not burned. A fire is made with wood and an efficient operating temperature is reached before incorporating waste to be burned. Metals from the burned remains are sorted and recycled. Only ash is disposed. A general permit from the ADEC Solid Waste Program is required for this operation.
10. Drill core for Hole LO-189 contained a fracture zone with oxidized sulfides at a depth of approximately 1000 feet. This suggests the flow of oxygenated surface waters.
11. Eight-year old drill core shows evidence of the oxidation of sulfide mineralization.
12. The core we saw appeared to have a fairly high RQD (“Rock Quality Designation”) which suggests fairly competent rock that might have relatively low permeability except in fracture zones.
13. The Blue Belle Fault Zone did not appear to contain sulfides in the core that we examined.
14. A traverse from the core shed area to the start of the access road crossed several small creeks. At one of these there was an outcrop of the Lookout Rhyolite Lithologic Unit. The rocks contained disseminated sulfides and showed evidence of oxidation.
15. Access Road:
 - a. Road construction is being done under the COE Nationwide Permit 14.
 - b. Tree cutting and surface disturbance has been kept to a minimum.
 - c. There is a well defined ditch on the up-slope side of the road.
 - d. The company has installed culverts at appropriate locations to transfer water down-slope.

- e. Standard silt-fences have been installed below the road where culverts are located. Some of the silt-fences need to have the sediment removed.
 - f. Deep “sediment traps” have been excavated in the drainage ditch at the up-slope end of most culverts. Some of these need to be cleaned out.
 - g. The road is being constructed with an excavator and cut-fill methodology.
 - h. The “A-Horizon” of soil ranges from 8” to 24” and contains a significant percentage of cobble and larger sized rock. Given the steepness of the topography, topsoil salvage would be challenging.
 - i. To date, no topsoil has been salvaged. It is important for NMC to salvage topsoil from the larger areas that remain to be disturbed, if it is reasonably practicable and safe for the equipment operators to do so.
 - j. Examination of the rock from the construction rock quarry indicated minimal sulfides. We suggested that some representative samples be run for ABA so that the company has a record of the character of the rock utilized on the road.
16. Road cuts exposed a mixture of rubble or talus mixed with fine grained materials. At places, surface water flows disappear underground and reemerge some distance down the slope. There does not appear to be a clearly defined shallow groundwater system on the steeper slope and the shallow sub-surface flows appear to be highly chanelized into “conduits” of groundwater flow through well-washed rocks. This groundwater regime may make the establishment of groundwater monitoring locations challenging.
17. The proposed portal has been raised to a higher elevation in order to reduce the volume of AG material that will be excavated from the exploration adit. The new location puts the adit predominantly in the Hanging Wall Unit (NAG), however rock from the first blast round will be from the Lookout Unit (AG). Since this rock is at the surface and is probably weathered, it may be oxidized (and therefore NAG), but plans must be in place before the first blast to characterize this rock and handle it appropriately.
18. Because the portal will be at a higher elevation, the grade of the adit will be less than the originally proposed 6 percent incline.
19. The estimated time for the project is two years, comprised of six to eight months of adit excavation, six to eight months of drilling, then reclamation.
20. Most of the AG material is expected to come from near the end of the adit during the final phase of construction.
- a. In order to submerge the AG rock post-closure, the adit may be changed from an incline to a decline for the last section. A plug could be installed at the top of the incline/decline near the last section to seal off the underground AG rock disposal area.
 - b. It is expected that the bulk of the AG material will be put on the AG storage site late in the project.

- c. The AG storage/disposal site must meet the requirements of Title 18, Chapter 60 of the Alaska Administrative Code (18 AAC 60.410(a)), which prohibits a monofill from being constructed on slopes greater than 10 percent grade or on unstable soils that might cause the waste to slide or settle excessively. Under 18 AAC 60.410(c) a monofill must be designed to protect its integrity from damage caused by natural events that could be reasonably anticipated to occur at the facility such as floods, earthquakes and the effects of freezing and thawing.
 - d. A geosynthetic liner will be placed under the AG site. Rain/seepage water will flow by gravity (preferred) or be pumped to the treatment facility.
 - e. The reclamation bond will cover the cost of putting AG rock underground and installing a water tight adit plug. This may not be necessary if this becomes a working mine.
21. The AG waste storage/disposal facility will be required to meet specific requirements in 18 AAC 60, from which a bulleted list of application materials will be sent to Niblack Mining Company to communicate the items that must be provided prior to authorization and construction.
22. As currently proposed, the runoff/seepage water treatment system consists of two ponds with a rock berm between them (to allow filtration of treated water) followed by discharge to a constructed wetlands. There will be flocculation and settling of particles and pH adjustment in the first pond. These ponds must be constructed to standards set in 18 AAC 60.225(b)(2) that requires the construction and maintenance of a control system capable of containing and controlling the run-off from a 24-hour, 25-year storm event. The present proposal is for WQ standards to be met at the discharge point to the constructed wetlands.
23. The constructed wetlands is designed to have no surface discharge, but to act as an infiltration area.

LMPT Photos from the Niblack Inspection on August 24, 2006



Landing near barge camp



Barge camp



“The portal will be up there.”
(Use your imagination)



Scrap metal recycling bin and double-walled fuel tanks
(Helicopter is parked behind photographer)



Walkway from barge



Walkway from shore



Barge camp at temporary location



Incinerator (burn barrel) with secondary containment/fire safety tank



Gravelled trail from the barge to the old camp area



Core set out for our examination
(Core is stored under cover as behind)



Boarded-up decline from the early 1900s



New barge landing (very inconspicuous)



New barge landing



Road from new barge landing



Road from new barge landing



Where road to NAG rock dump will leave the portal access road



Road not yet graveled



Road to quarry, magazine, and AG rock storage



Seep in a "conduit" through the colluvium



Seeps



Close up of a seep



Sediment trap along road



Sediment trap along road



New location of proposed portal



Bridge across Camp Creek



Bridge across Camp Creek



Discussion along road near proposed water treatment pond location



Culvert along road to quarry



Quarry



Proposed location of AG rock storage pile as viewed from quarry



Trench between quarry and area of proposed AG rock storage pile



Evidence of rapid regrowth in a disturbed area near proposed AG rock pile