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Arviat Assistant Diamond Driller Training Program

Background

The Hamlet of Arviat is proceeding with an Assistant Diamond Driller Training Program. The first intake is scheduled for September 6th, 2011, with a second course planned for January 2012. Thereafter, it is expected that the program will run twice yearly.

This program has support of the Hamlet, government and industry and is funded by Government of Nunavut - Economic Development and Transportation, the Kivalliq Inuit Association, the Kivalliq Mine Training Society, the Contaminants Remediation Training Organization of Canada, Agnico-Eagle Mines, Orbit Garant Drilling Services and Boart Longyear Canada.

The program will be delivered in Arviat by Northern College (Kirkland Lake) and Nunavut Arctic College.

Part of the training will include hands-on practice with a diamond core drill, requiring field site(s) for this purpose.

The site(s) would be used intermittently for approximately 5 weeks during the latter half of each program.

Environmental Considerations

Fuel - The drill, drill shack, generator, water pumps and water heaters are powered by Diesel fuel. The estimated diesel fuel consumption is a maximum 600 litres per shift = 15,000 litres per course = 30,000 litres per year. (Courses in milder weather would use less fuel for heating).

Water - The drilling process uses a maximum of 25 cubic metres of water per 12 hour shift = 625 cubic metres per course = 1,250 cubic metres per year.

Drilling waste – Holes are approximately 80 mm diameter and cores are approximately 50mm in diameter. Drilling produces rock floor mixed with drill water as a waste product. The rock flour content will be in the range of 5% of the volume (about 1 cu m per shift)

Other Waste - There will be a requirement for sanitary facilities and the use of lubricants and disposal of wastes (sewage, garbage, lubricant containers)

Noise – the operation will produce noise consistent with operation of the drill, generator and water pumps.

Proposed Locations

The Hamlet is proposing two locations in the same general area and is seeking permits to use either or both, depending on weather conditions and other considerations:

Site 1 - An area of approximately 60 x 100 metres, adjacent to an existing road East of the South end of the Arviat runway. This is shown on the attached map and illustrated in the attached photo.

Site 2 - An area in the floor of the existing gravel pit shown on the attached map. The area in use at any time would be approximately 30 x 30 metres and would be adjusted to accommodate other operations in the gravel pit.

Both areas are within the Hamlet municipal boundary and outside the airport reserve. The area is near solid waste and sewage disposal sites and within good proximity to several freshwater ponds.

Proposed Management Plan

Fuel – During operations, fuel will be stored in a double walled ‘sloop tank’ on skids, with a capacity of approximately 5,000 litres. It will be filled by fuel delivery truck. Fuel will be dispensed to the drill tank and other facilities by hose and may be transported by gerry cans to water pumps. The tank will be removed to a secure location after each course.

Water – Weather permitting, water will be obtained from local ponds and pumped to the drill location. If water is not available due to weather conditions it will be delivered by water truck.

Drilling Waste – For operation at proposed Site 1, drilling waste will be pumped into a sump adjacent to the drill. Rock flour will settle and drill water will drain. In colder temperatures this separation may no take place until spring thaw. For operations at Site 2, drilling waste will be pumped onto the gravel pit floor.

Other Waste - Sanitary waste will be collected and disposed of in the sewage lagoon. Other wastes (garbage, lubricant containers) will be disposed in approved municipal sites

Noise – The areas are not close to any housing, recreation or commercial areas. All personnel on site will be required to use appropriate ear protection, as well as other safety equipment.

Site 1 – Looking North