

January 19, 2004

Nunavut Water Board

P.O. Box 119

Gjoa Haven, NU X0B 1J0

Attention: Rita Becker, Manager of Finance, Licensing, and Admin.
and

Department of Indian and Northern Development

Box 100

Iqaluit, NU X0A 0H0

Attention: Carl McLean, Manager, Lands Administration

Dear Rita and Carl;

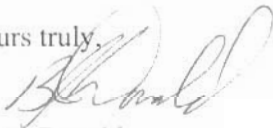
Re: Polaris Mine Decommissioning and Reclamation - 3rd Quarter Report

Please find enclosed the 3rd Quarter 2003 report for the Polaris Mine Decommissioning and Reclamation Project. Updates of the major site activities are reported as well as providing updated project schedules, monitoring/inspection results, cost expenditures and cost forecasts.

Please note that John Knapp, the site manager has resigned from Teck Cominco effective January 17, 2004. John's replacement will be name shortly but I will be the primary contact for environmental regulatory issues related to site decommissioning and reclamation activities.

If you have any questions regarding this report or other project issues please don't hesitate to contact me.

Yours truly,



Bruce Donald,
Reclamation Manager

Enclosures (2)

cc: John Lees, Cascade Management
Bob Hutchinson, Teck Cominco Limited
Site Manager, Polaris Mine



POLARIS MINE

DECOMMISSIONING AND RECLAMATION ACTIVITIES

QUARTERLY REPORTING – 3rd QUARTER 2003

SUBMITTED TO

THE NUNAVUT WATER BOARD

AND TO THE

DEPARTMENT OF INDIAN AND NORTHERN AFFAIRS CANADA

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1. EXECUTIVE SUMMARY IN INUKTITUT

Refer to Appendix 1 for an executive summary of plans, reports and studies conducted under this licence during the period July 1, 2003 to September 30, 2003 that has been translated into Inuktitut.

2. INTRODUCTION

This is the third quarterly Decommissioning and Reclamation progress report submitted in relation to the Polaris Mine's Decommissioning and Reclamation Plan ('Closure Plan') and in compliance of the Water Licence NWB1POL0311 issued on April 24, 2003 with and effective date of March 1, 2003.

The Polaris Closure Plan dated March 2001 received its initial conditional approval April 15, 2002. The Closure Plan was jointly conditionally approved by the Nunavut Water Board ('NWB') and the Department of Indian and Northern Affairs Canada ('INAC'). The Closure Plan has subsequently received further approvals. The approvals contain reporting requirements and this document has been prepared to consolidate all of the reporting requirements into one document. This report is being submitted to both NWB and INAC on a quarterly basis with an annual report completed by March 31st of the subsequent year.

3. STATUS OF AUTHORIZATIONS AND/OR APPROVALS

As of September 30, 2003, the status of project approvals received during the quarter was as follows:

1. Closure Plan Approvals:
 - a. The proposal for decommissioning the Frustration Lake Freshwater System was approved in a letter from the NWB and INAC dated July 4, 2003.
 - b. The approval for the decommissioning of Garrow Lake dam by the NWB and INAC has been received.
 - c. The approval for the decommissioning of the marine dock and adjacent shoreline by the NWB and INAC has been received.
2. Application for an Authorization under the Fisheries Act to decommission Garrow Lake dam and to decommission the marine dock was submitted to DFO in October 2001. Approval of the application by DFO was granted in July 2003.
3. Application to the NWB and INAC for additional underground storage locations for disposal of hydrocarbon contaminated soils was submitted on September 16, 2003. Approvals for this application were outstanding at the end of the reporting period.

4. UNAUTHORIZED DISCHARGES AND SUMMARY OF FOLLOW UP ACTIONS

There were no unauthorized discharges of water or effluent during the 3rd Quarter of 2003.

5. PROGRESS REPORT OF STUDIES / PLANS REQUESTED

The routine monitoring required as part of the Closure Plan approvals and the Water Licence are included in other sections of the report and so are not duplicated in this section of the report.

The Closure Plan approvals and/or the Water Licence require submission of the following plans and/or reports:

- a) Certified landfill cover design specifications and plans:
 - These were submitted for review during the quarter.
- b) Certified design drawings and specifications for Garrow Lake Dam Decommissioning:
 - These were submitted for review during the quarter.
- c) Certified specifications and design drawings for sealing the mine entrances:
 - These were submitted for review during the quarter.
- d) Certified specifications and design drawings for Decommissioning the marine dock and adjacent shoreline:
 - These were submitted for review during the quarter.
- e) During August, the first phase of the Environmental Effects Monitoring (EEM) program was conducted as required under the new Metal Mining Effluent Regulations. Sampling of Garrow Lake effluent discharge was undertaken and field data characterizing Garrow Creek and Garrow Bay were collected. The data collected during the August field program will be used to refine the proposed 2004 field season program. The results of the field program will be discussed with the Technical Advisory Committee of Environment Canada prior to year end.
- f) During August, the field work for study program required under the Fisheries Authorization (from the Department of Fisheries and Oceans) related to Garrow Lake was undertaken. Water quality data was collected, sediments sampled and sculpins collected for analysis. At the end of the quarter, the samples collected had all been forwarded to various laboratories for analysis with results pending.
- g) Approval of the Melt Water Disposal Protocol required weekly inspections of the area of the mine being used for melt water disposal, logging of the filling of the storage area, and the requirement to take at least one sample of the melt waters being disposed. The mine underground workings were in active use during the melt water disposal period. Regular inspections of the area were conducted as required and a log of the rate of filling of the storage area was recorded (and filed at Polaris). Several water samples were taken and are presented in Appendix 2.
- h) An Annual Geotechnical inspection of the Garrow Lake Dam and the Operational Landfill are required in the Water Licence. Both of these areas were inspected by EBA Engineering Consultants and their reports are included in Section 12.3.1 and Section 12.3.2 of this report.
- i) Both the Landfill Operating Protocol approval and a site inspection report by INAC in July 2003 requested a review of the subsidence of the Reclamation Landfill area. Refer to Section 12.3.3 of this report for a review conducted Mr. T. Feduniak, P.Eng.
- j) Part B (5) of the Water Licence requires a cost estimate to be provided for the re-construct Garrow Lake Dam in the event that the water quality of Garrow Lake deteriorates. This estimate is provided in Section 8.2 of this report.

6. DECOMMISSIONING AND RECLAMATION PROGRESS REPORT

Manpower levels increased substantially during the period as the return of daylight and warmer weather permitted more outside activities. Manpower on site at beginning of the period was 39 and increased steadily. By the end of the reporting period there were 126 people on site.

6.1. Building Demolition

6.1.1. Mill / Offices / Warehouse Facilities / Barge

- By end of July, the Barge superstructure demolition was 100% complete, the hull tank top was removed and hull fuel tank cleaning was in progress and nearing completion.
- By the end of August the barge fuel tanks had been fully cleaned by the specialized tank cleaning contractor (Smitts).
- The barge berthing area was dewatered to allow completion of cutting up the barge hull.
- As of September 18th the barge hull / mill / office structures had been completely demolished and transported to LRD quarry for burial. The only remaining structure is the access ramp which supports site service lines (water lines, power lines, sewer line) which are still active. This will remain in place until next year.
- Backfilling of the barge hull excavation had not started at the end of the quarter as excavation of contaminated soils around the barge area was in progress.

6.1.2. Product Storage Building

- The remainder of the siding was removed from the building and preparations for structure demolition continued during July.
- The building skeleton was collapsed on August 2nd.
- Structural steel, cladding, conveyor gallery and the majority of the building components were removed from the site and placed into LRD for burial. Only the stub columns and partial foundations remain in place at the end of September. The contractor (SNC) estimates that work is 98% complete in this area.

6.1.3. Thickener Building

- Foundation removal has been completed and re-grading of the foundation areas essentially complete.
- Re-grading of the spills containment area adjacent to the thickener is complete (after removal of metals contaminated soils which have been placed underground as per the approved protocols).
- Approximately ½ shift of re-grading work remains to complete work in this general area as of the end of the 3rd quarter.

6.1.4. CRF Plant

- Hydrocarbon contaminated soils removed.
- Demolition and site grading has been completed in this area.

6.1.5. Tank Farm

- The tank farm has three tanks. Cleaning of Tank #1 was completed on July 20th and was partially re-filled with new fuel from the supply ship. It was cleaned this

year so that in 2004 when it is time to decommission the tank, there will be essentially no sludge to remove.

- The other two tanks remain to be cleaned.

6.1.6. Accommodations Building

- No demolition activities in this area have been initiated as the facility will remain in active use until the summer of 2004.

6.1.7. Other Buildings / Structures

- The majority of the tailings lines have been removed and placed into the mine for disposal. Some lines remain in the area between the Barge and the Tank Farm area.
- Reclaim water lines have been removed. Some were temporarily used to assist in siphoning at Garrow Lake dam and for piping underground. All of the reclaim water lines were disposed of either in LRD quarry or underground at the end of the quarter.

6.2. Earthworks

6.2.1. Marine Dock and Adjacent Shoreline

- Removal of the ship loader was completed.
- Glycol freeze pipes in dock cells have been drained and removed.
- Excavation of clean fill above high tide level was initiated early in the period in cells 1 & 2 after removal of overlying metals contaminated fill. Unexpected hydrocarbon (diesel fuel) contamination was discovered during the excavation of the dock cells. Progress on cell excavation was substantially slowed during the removal of the hydrocarbon contaminated soils. The hydrocarbon contaminated soils were disposed of in the mine as per the Closure Plan protocols.
- The hydrocarbon contamination in cell 2 extended into the corner of cell 3. At the end of the quarter work was nearing completion on removing the remainder of this contamination. As planned, work on dock cells 3 and 4 were delayed awaiting completion of the annual sealift at the end of August so the supply ship could use the remaining portion of the dock. At the end of September, excavation of dock cells 3 and 4 were almost complete to just above high tide elevation. The contractor (SNC) estimates that the removal of the dock area is 60% complete at the end of the quarter.
- Prevention of sediments contaminating the ocean was done through a number of procedural methods as required by project approvals. Fill within the dock cells were excavated while the sheet piles remained in place so that the sheetpiles provided a barrier to contain sediment laden waters. Excavation of the adjacent shoreline was done while a berm was maintained between the work areas and the ocean. Water pumped from excavations in the dock area were directed to settling ponds and/or through filter fabrics prior to being allowed to discharge to the ocean. If observations or measurements indicated that sediment levels were of concern, work was stopped until either the weather improved or sediment controls were improved.
- It was decided in August to defer the final cutting of the sheet pile structures until April 2004 so that this activity could be done while the pack ice is still present.

- The area north of the dock has been re-graded to design elevations. At the end of September, the berm between the ocean and the shoreline was removed once there was ice coverage. The area north of the dock has been partially excavated to design depth and a berm remains in place between the ocean and the excavated area.

6.2.2. Garrow Lake Dam

- Additional siphons were installed at Garrow Lake dam to assist in lowering the lake level.
- Siphoning at Garrow Lake dam was active throughout most of July, August and September. Siphoning of the dam concluded on September 18th with the lake elevation at 1005.9 which is slightly (30mm) above the original elevation.
- Water quality testing continued to demonstrate that key parameters such as zinc levels and turbidity levels were well below permitted levels through out the discharge season as expected.
- The wave break structure is quite visible now that Garrow Lake has been lowered. TCL to consider what actions can be taken to improve the visual appearance without impacting the aquatic environment. No decision as to action was finalized at the end of the quarter.
- The shell of the dam is being removed before it freezes too hard for the winter. This allowed the underlying Styrofoam mixed with fill to be removed and hauled to Little Red Dog Quarry for disposal as per approved protocols.

6.2.3. Operational Landfill

- Drilling and blasting of cover cap material in the New Quarry was undertaken during the period for the lower 1200 mm of the cap. Hauling and placing of the material on the landfill was ongoing through the period.
- In July, blasting at LRD was conducted to produce limestone rock for the top 600 mm layer of the landfill cover cap. The blasting did not produce material that met the design requirements for the cap requirements so the fill will be used elsewhere (too much oversize material). Revisions to the blasting designs are being made to produce material that meets design requirements.
- Placement and compaction of the first two lifts (600 mm each) of the landfill were completed during the quarter. Placement of the final 600 mm lift of the landfill consisting of quarried limestone had not started at the end of September.

6.2.4. Little Red Dog Quarry Landfill ('LRDQL')

- Refuse disposal in LRDQL continued throughout the period with substantial demolition debris from the Barge and Concentrate Storage Shed being hauled there for disposal. Refer to Section 12.1.1 for An update of the materials placed in LRDQL and associated photographs.
- Melt water in LRDQL pit area was evident throughout most of the summer months assisting with minimizing void spaces in the fill. In early July, a dye used to colour Anfo was identified in the melt water. This was cleaned up and samples of the water taken as discussed in Appendix 7 of this report. The sample results are included in Appendix 8.