Notes from the Inter-Agency Coordinating Team April 6th, 2001 Meeting

Participants:

John Witteman BHP
Derek Chubb BHP
Chris Hanks BHP

Roxanne Beavers DIAND Water Resources Francis Jackson DIAND Water Resources Sevn Bohnet DIAND Water Resources

Tamara Hamilton DIAND Environment & Conservation

Darren Unrau DIAND Operations

Marc Lange Department of Fisheries and Oceans (DFO)

Anne Wilson Environment Canada

Laurie BrunoMackenzie Valley Land and Water Board (MVLWB)Greg SmithMackenzie Valley Land and Water Board (MVLWB)Zabey NevittIndependent Environmental Monitoring Agency (Agency)Robin StaplesIndependent Environmental Monitoring Agency (Agency)

Meeting began at 1:30

Round Table Updates:

Marc began by giving an update on the Carrie and Desperation ponds associated with the Misery pipe development. He noted that after much discussion within the department, it is the view of DFO that BHP will require additional authorization for the loss of Carrie and Desperation ponds as these small water bodies were not addressed in the 1995 Environmental Impact Statement (EIS). South Fox Lake was also noted as another small lake/pond that will require additional authorization, as it is not included under the current authorization. In order to facilitate the preliminary screening process, DFO has requested BHP to submit an information package on Carrie and Desperation ponds similar to that submitted for the preliminary screening of King Pond.

Chris noted that in the 1995 EIS these lakes (i.e. Carrie and Desperation) were indeed reviewed, and he indicated that DFO personnel were aware of the ponds that were to be impacted and at that time it was determined that fisheries authorizations were not required.

Marc responded to Chris by noting that in volume IV of the EIS it clearly states that only seven lakes would be impacted and Carrie and Desperation Lakes were not among these seven. Marc then continued his update and noted that "fish out" data are still being analyzed and that the report will be finished and sent to BHP shortly. The data required from the "fish out" will be similar to previous years with some minor changes to the methodology in order to ensure consistency of the data collected. Marc mentioned that

BHP could move forward with contracting for the "fish out" work. Marc also enquired if there was any "fish out" information for West Panda Lake and if ArcView maps of the mine site would be available.

John noted that the logistics of hiring a contractor for the "fish out" and arranging for adequate housing at the camp is a timely process and thus BHP would like to receive the "fish out" report as soon as possible. In response to Marc's other inquires, John mentioned that no data were collected for the West Panda Lake "fish out" and individual ArcView maps can be prepared as requested.

A general discussion then took place over "fish out" requirements and it was noted that a meeting between DFO and BHP personnel is needed to discuss this issue further.

Laurie noted that the public hearing dealing with the amendment to allow dewatering and subsequent mining of Fox Pit has been scheduled for May 14 & 15. Interventions are to be filed 10 days before the hearing (i.e. before May 4). Laurie also noted that BHP's Operating Environmental Management Plan (OEMP) has been reviewed by the MVLWB and a report has been sent to BHP. As well, a legal opinion has been received by the MVLWB regarding land treatment at Misery, and is being reviewed internally at this time. Laurie also indicated that the various seepage reports have been reviewed and she looks forward to the upcoming seepage meeting. In addition, it was noted that a BHP land use permit extension would be going before the MVLWB at their next board meeting.

John began his update by distributing the Panda Waste Rock Storage Area Beartooth – Bearclaw drainage 2000 Seepage and Waste Rock Survey report. John also noted that summaries of program refinements for the 2000 aquatic and wildlife effects monitoring program have been distributed. It was also mentioned that the wildlife effects monitoring program would begin on April 16th and that more monitoring of the haul roads would occur. Electric fences will also be put around the Misery camp and skirting around buildings to discourage wildlife at the camps. The snow survey will also be beginning shortly.

It was mentioned that at the upcoming seepage meeting, time would be allocated for Kevin Morin to make a presentation on behalf of the Agency. John noted that the cost variance and progress report, which is a requirement of the environmental agreement, would be submitted May 1st. A presentation on the Monte Carlo Simulation (MCS) reclamation model will take place on April 19th. This particular reclamation model has been developed to replace the RECLAIM model and is a similar approach to that used in the petroleum industry.

The wastewater and tailings management plan is being rewritten to incorporate land treatment and John noted that land treatment would be defined at Fox and Misery. As well, John mentioned that everyone at the meeting should have received the summaries from work being carried out at the mine site by environmental university students. In regards to dissolved oxygen, John noted that aeration has been stopped at Little Lake and cut back to two aerators at Kodiak Lake. Dissolved oxygen at Kodiak has dropped

slightly as a result, but does appear to be stable. Dr. Welch, a leading arctic limnologist, is writing a report on dissolved oxygen conditions under ice and it will be sent to Anne and Marc for review before it is sent to everyone else. It is also BHP's intention to have a presentation of this report sometime in May.

In addition, John mentioned that cores have been taken from Cell B and are being studied for the tailings characterization study. This report will be finished and distributed later in the year. John also noted that water was observed under the frozen layers. Thermisters have been placed in the Misery waste rock dump and temperatures out of the Panda waste rock dump show that super cooling is taking place and that permafrost is developing. John also noted that a toe berm is being constructed around the east side of the Panda waste rock dump to contain seepage of the waste rock. It was also noted that personnel from the Department of Resources Wildlife and Economic Development (RWED) made a surprise visit to the mine site to remove a number of foxes, and were using firearms on site. John found this approach to be dangerous to on site workers and noted that this concern would be brought up with RWED. John concluded his update by noting that BHP's Annual report will be distributed shortly, as soon as a software problem is corrected and the CD's are available.

Derek noted that the Fox amendment application is moving to the next regulatory phase and that the upcoming hearing would be focusing on aspects of the proposed land treatment process. He also mentioned that BHP is still awaiting the Minister's response to the Mackenzie Valley Environmental Impact Review Board's (MVEIRB) environmental assessment report. In addition, Derek noted that work continues with DFO on authorization for lakes potentially impacted by the proposed Sable, Pigeon and Beartooth development.

Anne noted that Environment Canada staff have been reviewing the various seepage survey reports and that Glenn Grokopf, the primary reviewer, may attend the April 23rd seepage meeting. Anne also noted that Environment Canada staff did manage to get to the mine site soon for benthic and sediment sampling at Long Lake, which is part of the ongoing research on the facility. She also mentioned that she is continuing to review information on Fox in preparation for the upcoming hearing on the Fox amendment.

Darren began his update by noting that he recently visited the site and had a number of observations to pass along. At Misery, pre-stripping has begun and water management remains an issue. The King Pond dam is being constructed and should be completed by freshet. In contrast, the seepage dam will probably not be completed by freshet and seepage monitoring will be a big priority for BHP this spring. Darren also noted that there is still water left in the Misery pit and eventually this will have to be pumped out. The pit water remains high in total suspended solids (TSS) and will have to be treated in the treatment plant.

Other activities at the mine site include the construction of a berm around the Panda waste rock dump. The berm is being built out of till from Koala and is intended to contain seepage from the waste rock. A few of the drainage areas around Panda will remain open. The low pH's that are being monitored are still of concern. At Fox,

geotechnical drilling of the Nero-Nema stream crossing is ongoing to determine the stability of the crossing. The use of a bridge or culverts for the crossing still needs to be determined. Bulk drilling at Fox should be finishing up shortly as well. Geotechnical drilling has also taken place in Cell B of the Long Lake Containment Facility to obtain core samples and information for the tailings characterization study. Fine tailings are still being discharged into Cell C and sometime in the summer Cell B will be topped up. Darren also noted that dyke B may be extended in the near future to create Cell A. Darren concluded his update by noting that ABA testing will be presented in BHP's annual report and that he looks forward to reviewing the report when it becomes available.

Roxanne introduced Sevn Bohnet and Francis Jackson from DIAND Water Resources and noted that the BHP file is being transferred to them, as she will now be involved in policy and guideline development. Roxanne also noted that Peri Mehling, DIAND Water Resources' seepage expert, has reviewed the seepage reports and will be attending the April 23rd seepage meeting. She also mentioned Water Resources is looking forward to Monte Carlo report on reclamation.

Zabey noted that the Agency has reviewed the seepage reports and the supplementary information package for the Fox amendment. Kevin Morin, the Agency's geotechnical expert will also be presenting at the upcoming seepage meeting. The Agency is currently drafting this year's annual report and is currently undergoing its annual audit. Zabey also noted that the Agency looks forward to receiving BHP's annual report as soon as possible.

Robin briefly mentioned that the update of the Agency's resource library has been completed and that the website is being currently updated.

Tamara began by noting that DIAND will submit comments on the seepage reports shortly. In regards to the Sable, Pigeon and Beartooth environmental assessment report, DIAND has sent a consultation initiation letter to the MVEIRB. Tamara noted that her department is still working on a ministerial decision letter in response to the environmental assessment report and it should be distributed by the end of April. Tamara also noted that she is looking forward to attending both the upcoming reclamation and seepage workshops and Fox public hearing. In addition, she mentioned that phase one of a reclamation report from John Brodie, DIAND's reclaim consultant, has been received and is being reviewed within the Department. Phase two of the study will be carried out in the near future.

A general discussion on reclamation and the two reclamation models then took place and differences were noted between the two models in regards to security deposits and the timing of reclamation.

Next meeting will be at the Independent Environmental Monitoring Agency's Boardroom at 1:15pm on May 11, 2001.

Meeting finished at 2:30pm