

December 14, 2007 3.393 – GO/01

Attn: Dave Hohnstein Nunavut Water Board

Re: notes on primary containment at Meliadine West underground exploration site

## Overview

Comaplex has completed detailed GPS controlled topographic survey in the area of the decline and primary containment area to better define the watershed and estimate runoff storage capacity provided by the road serving the site. This survey shows an overall capacity of 20,000 m<sup>3</sup> is provided by the barrier created by the road at 67 m asl.

Data from baseline studies conducted by AMEC includes spring snow courses in 2000 through this basin to assess snowmelt runoff volumes (see report attached). A liberal estimate of runoff from snowmelt and spring precipitation would yield 13,000 m<sup>3</sup>. The capacity of primary containment therefore should be adequate to handle snowmelt runoff.

## **Details**

The new survey data provides a more accurate watershed boundary than the previous contour data and shows that water can be contained to the 67 meter elevation level in the Primary Containment Area without any additional infrastructure. The primary containment area is bounded by the existing road, the waste rock storage pads (both with geo-textile liners), and natural topographic highs at 67 m asl. This containment provides capacity for about 20,000 cubic meters of water (previous capacity was 13,000 cubic meters to the 66.75 meter elevation (see Figure 1).

Attached also is Chapter 4 from the 2000 Water Balance Study completed for the project by AMEC Earth and Environmental Ltd. The chapter details the water balance work completed for sub-basin A37 (Peanut Lake, Figure 1), which is the basin in which the decline, waste pads, and water containment areas are located. Included in this study are comprehensive snowpack surveys (snow depth and density) and an assessment of the snowmelt runoff. The study indicates that snowpack (snow water equivalent) plus spring precipitation over the sub-basin yields 97 mm. Discharge occurs in a narrow window in June during which time all of the snow melt plus spring precipitation is discharged to Pump Lake. Discharge after this period is effectively nil.

Figure 1 indicates the sub-area of the basin that will drain towards the pad and road. This area is 133,600 m<sup>2</sup>. Rounding the expected 97 mm yield up to 100 mm suggests a spring SUITE 901, 1015 4TH STREET SW, CALGARY, CANADA T2R 1J4 © TEL [403] 265-2846 © FAX [403] 232-1421

runoff volume of 13,360 cubic meters of water will accumulate in the primary containment area. The existing road, pad, and natural height of land configuration has a capacity of 20,000 m<sup>3</sup>. If required, the addition of water berms or a rock berm of only 0.5 meters in height on the north end of the containment area would up the capacity of the primary containment area to over 40,000 m<sup>3</sup> (3 times the measured yield of spring water expected from this portion of the basin).

Accumulated water from spring runoff would be held in the primary containment area and tested to confirm compliance prior to release to Peanut Lake and ultimately to Pump Lake. Water samples taken from Peanut Lake in October, 2007 showed no anomalous readings when compared to pre development Peanut Lake water quality data.

Comaplex requests that the adequacy of the primary containment offered by the existing road, pad, and natural height of land be reviewed. If found adequate, considerable terrain disturbance in building and reclamation on closure could be avoided. Thank you.

Yours truly,

Mark Balog

Comaplex Minerals Corp.