



MINERALS CORP

August 31, 2007  
3.393 – GO/02

Phyllis Beaulieu  
Licensing Administrator  
Nunavut Water Board (NWB)  
P.O Box 119  
Gjoa Haven, Nunavut X0B 1J0

Re: Waste Rock and Ore Storage Management Plan for NWB license #2BB-MEL0709

Dear Ms. Beaulieu,

As per the NWB request in their Decision Letter dated August 2, 2007 regarding the above license for the Meliadine West underground exploration and bulk sampling program, Comaplex and its consultants have compiled the attached waste rock and ore storage management plan. This document outlines in detail how we will conduct the program with respect to the rock coming out of the portal, decline, and mineralized zones. The plan has been designed in conjunction with the site water management plan, which will be forwarded to your office in the near future.

The plan consists of the text document and two figures. The plan and figures have been reviewed, approved, and stamped by a qualified mining engineer. Copies of the waste rock and ore management plan will also be forwarded to KIA and NIRB. If you have any questions, please contact me in Calgary.

Yours truly,

Mark Balog  
Comaplex Minerals Corp.



# **MELIADINE WEST GOLD PROJECT**

## **UNDERGROUND MINERAL EXPLORATION**

And

## **BULK SAMPLE PROGRAM**

## **WASTE ROCK and ORE STORAGE MANAGEMENT PLAN**

COMAPLEX MINERALS CORP.  
CALGARY, ALBERTA

**August 2007**

## Introduction

This Waste Rock and Ore Storage Management Plan is called for by clause E6 of Nunavut Water Board License No. 2BB-MEL0709 to Comaplex Minerals Corp. for the Underground Exploration and Bulk Sample Program at the Meliadine West Gold Project.

## Plan Objectives

The objectives of this plan include the following precautionary provisions of the underground exploration program:

- to assess and document the geochemical characteristics of the materials brought to surface in the course of the exploration program;
- to document the physical parameters of the storage pads that will hold development rock and ore at the underground exploration site;
- to document the drainage and runoff pattern in the area of these storage pads and describe related site management strategies (see also Site Water Management Plan);
- to document the long term storage and ore disposal of materials in response to their geochemical characteristics, in particular their ARD properties.

## Geology and Mine Plan

### GEOLOGY

The Meliadine area is underlain by a combination of Archean greenstone called the Rankin Inlet Group. A major break, the Pyke Fault, runs through this regional geological platform from Hudson Bay in the east to Peter Lake, some 40 kilometers inland to the west. Iron rich rock (iron formation) is associated with the Pyke Fault and is also associated with the occurrence of gold. Several gold bearing zones have been identified in the general area of this exploration program. The “ore” zone in this underground exploration program (the Tiriganiaq gold deposit) is in a shear off of the Pyke Fault. This gold deposit includes a series of mineralized sheets of varying thickness dipping north and plunging east and west. The minerals in the ore zones include both carbonate bearing rock (basic) and sulphide bearing (acidic) rock.

A typical cross section of the stratigraphic sequence in the deposit is as follows:

- The structural hanging wall is comprised of clastic turbidite sediments of variable grey coloured greywacke-siltstone-mudstone beds from the **Sam Formation**, ranging in thickness from centimetres to decimetres. This unit also contains minor amounts of argillite.

- The Sam Formation overlies a diverse package of iron-rich rocks with interbedded magnetite, chert, chloritic mudstone and greywacke from the **Upper Iron Formation**. The top of this unit is marked by a laterally continuous iron formation. Portions of this unit are often mineralized.
- The **Tiriganiaq Formation** is comprised of finely laminated siltstone. It is commonly altered to a yellowish grey colour by iron carbonate and sericite alteration, particularly near the contact with the Lower Fault. Graphitic argillite occurs sporadically near the base of this sequence, and is often coincident with the Lower Fault zone, which demarks the contact with the underlying Wesmeg Formation.
- The **Wesmeg Formation** is comprised mafic volcanoclastics, comprising the structural footwall of the deposit. These rocks are chlorite-rich near the Lower Fault, and can be highly schistose and sericite-carbonate altered.<sup>1</sup>

#### MINE PLAN

The bedrock of the area will be penetrated by way of a 100 metre access ramp, 1,000 metres of decline and drift and 60 metres of raise in zones of known gold mineralization. The mineral deposit will be examined and sampled. A total of 26,500 m<sup>3</sup> (solid; approx. 40,000 m<sup>3</sup> expanded) of country rock (“waste”) and 4,545 m<sup>3</sup> (solid; approx. 6,820 m<sup>3</sup> expanded) of mineralized rock will be brought to surface. The ore will be crushed and representative samples of each lode or zone in the gold deposit will be submitted to a southern laboratory for assaying and metallurgical testing. Total material shipped south will be approximately 2 tonnes.

Rock with no ARD potential will be used for site and road development. All rock and ore with known ARD potential will be managed to mitigate potential environmental effects of ARD. Please see Figure 1 for the configuration of the portal and underground workings of this underground exploration program.

Rock volumes brought to surface will be as follows:

| Source                                | Volume (m <sup>3</sup> ) | Destination               |
|---------------------------------------|--------------------------|---------------------------|
| Bedrock from surface to access portal | 3,600                    | contractor’s lay down pad |
| Underground decline                   | 26,000                   | rock storage pad          |
|                                       | 14,000                   | local road upgrades       |
| Ore                                   | 6,820                    | ore storage pad           |

#### Potential Risks, Related Mitigation Measures, and Monitoring

##### GEOCHEMICAL RISK

Core collected during the diamond drilling exploration phase has provided a large sample

<sup>1</sup> 2005. Strathcona Mineral Services Ltd report to WMC International.

of all rock types that will be encountered in the course of the underground exploration program. All rock types have been assayed and tested for risk of acid production and neutralization potential. They have also been tested for their potential to release dissolved metal contaminants in natural runoff from the exposed development rock forming the storage pads.

Assays and solubility tests on the host country or waste rock that will be used for construction and storage pads show a strong neutralization potential with generally low solubility for metals; therefore, the risk of acid generation and contamination from dissolved metals is low.

NP/AP ratios for ore are generally positive but show a modest risk for acid generation.

#### Mitigation Measures

- Rock types that are mined during this underground exploration program which were not encountered in the course of diamond drilling will be assayed, shake-flask tested for metal solubility, and tested for acid production and neutralization potential.
- Runoff from the pads will be contained and the contained water quality monitored prior to release.

#### Monitoring

- Rock types not encountered in the course of diamond drilling will be assayed, shake-flask tested for metal solubility, and tested for acid production and neutralization potential.
- Water quality of the contained runoff will be monitored with samples collected as set out in the Site Water Management Plan, which include collections at the toe of the rock and ore storage pads.

#### WASTE and ORE STORAGE RISK

The ore storage pads will be constructed of waste rock that has a strong neutralizing potential. It is important that the buffering capacity of this rock is available to any runoff that could originate from exposed ore in storage. The pads will be configured and constructed as shown in Figure 2 attached. All surfaces will be graded to drain into primary containment sumps (see Site Water Management Plan).

#### Mitigation Measures

- Placement of the ore on the storage pad will allow ample exposure of all runoff to the buffering capacity of the pad as shown in Figure 2 attached. A minimum border of 5 meters width of waste rock will be maintained all around the stored ore to ensure no runoff occurs from the ore directly to the toe of the pad. This border will also allow ample space for equipment to work along the edges of the pad if required.

#### Monitoring

- Water quality in the area of the waste rock and ore storage pads will be monitored as set out in the Site Water Management Plan.

#### CONTAMINATED WATER RISK

The risk from contaminated water is addressed in the Site Water Management Plan. It provides for primary and secondary containment of runoff from the rock and ore storage pads.

#### Mitigation measures

- Keep the potential runoff from the pads to a minimum by pushing as much accumulated snow from the pads as possible before spring snow melt.
- Keep water use for drilling and mining underground to a minimum.

#### Monitoring

- Water quality in the area of the rock and ore storage pads will be monitored as set out in the Site Water Management Plan.

#### LONG TERM RISK of WASTE ROCK and “ORE” STORAGE

The ultimate objective of the underground exploration and bulk sample program is to demonstrate the feasibility of a profitable gold mine at the Meliadine West property. In that case, all “ore” at the surface would be processed and the tails disposed of as approved in the mine’s licenses and permits. If profitability is not demonstrated, the “ore” will be returned underground.

Assessing the feasibility of a mine will involve kinetic testing of ore and any potentially problematic waste rock that may occur in the volume of rock to be mined over the life of proposed operations. The time required for reliable kinetic testing exceeds the planned duration of this underground exploration program.

#### Mitigation measures

- Assay and test all rock types for potential contaminants.
- Keep detailed records of where rock with potential contaminants is placed.
- On closure, return all rock with risk of releasing potential contaminants underground.

#### Monitoring

- Water quality in the area of the waste rock and ore storage pads will be monitored as set out in the Site Water Management Plan.

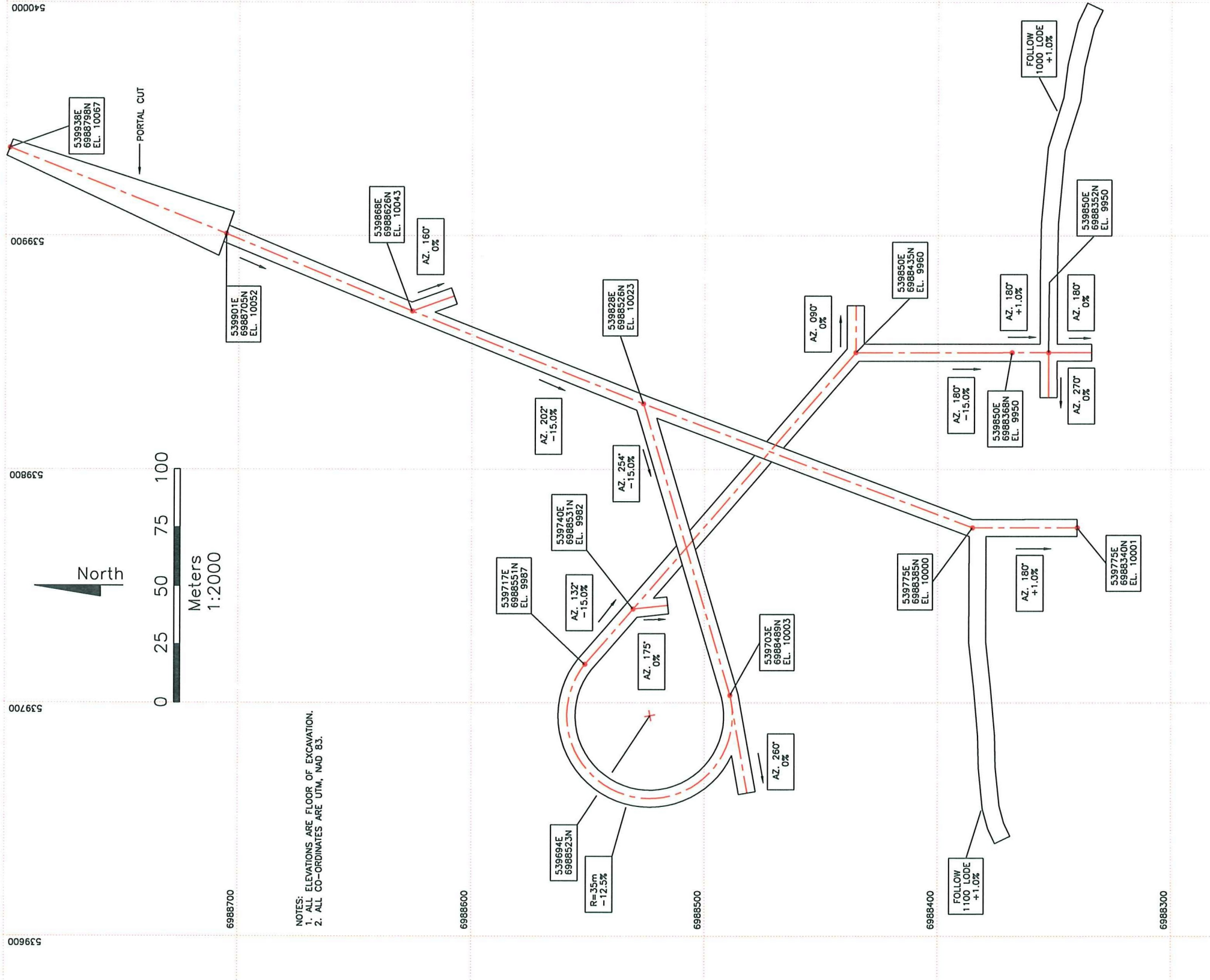
#### **Waste Rock Geochemistry Monitoring Results**

Results of analyses for waste rock assays, shake flask tests for metal solubility and neutralization potential will be added to this plan as these are compiled.

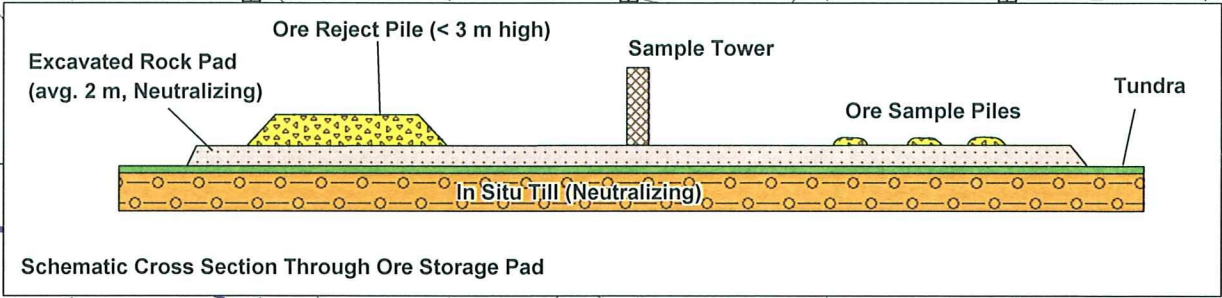
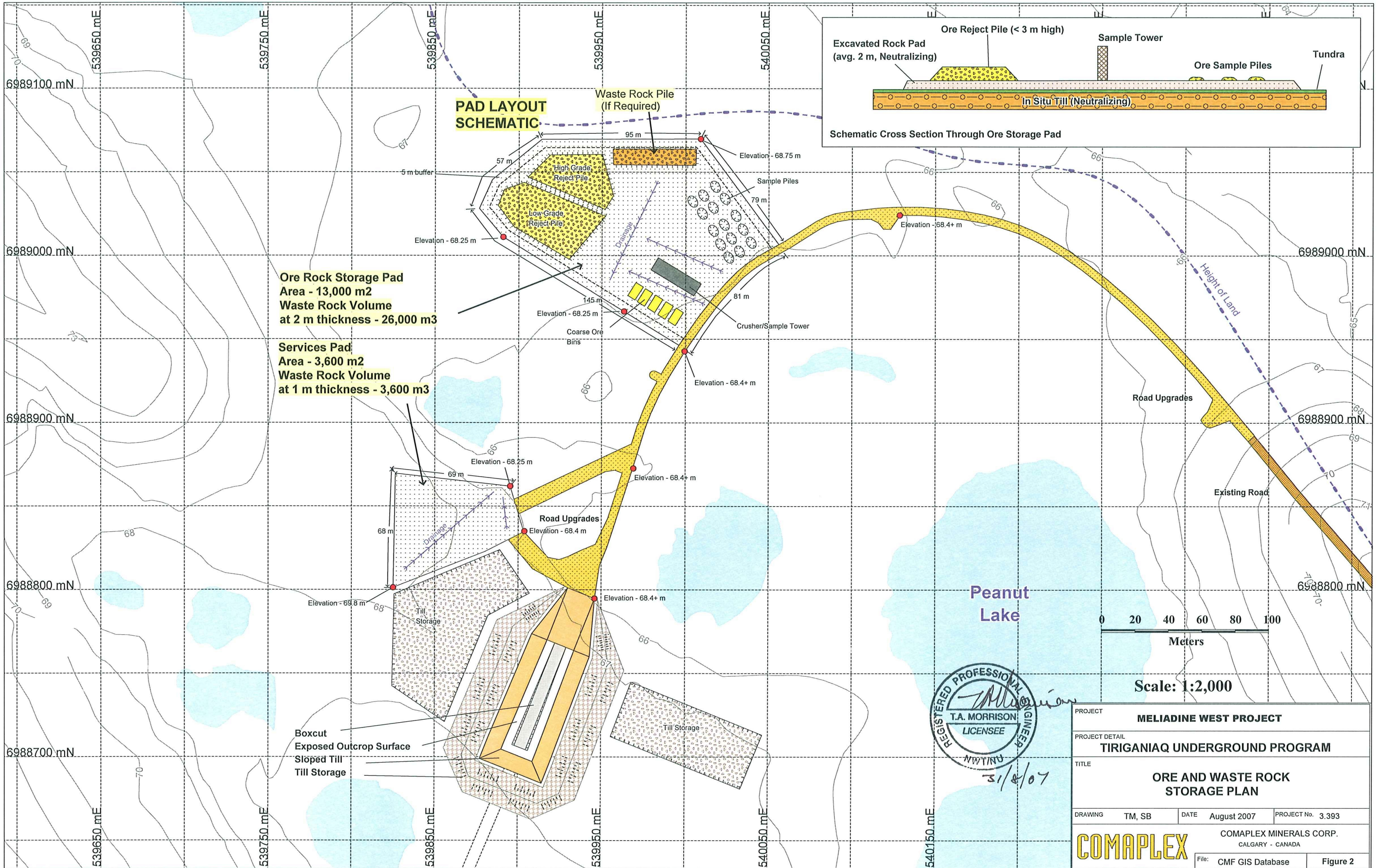
**Figure 1. Mine Plan of Meliadine West Underground Exploration Program.**

**Figure 2. Waste rock and Ore placement configuration during Meliadine West Underground Exploration Program (inset Road and Pad construction profile)**

|           |               |  |      |                                       |                    |   |  |   |
|-----------|---------------|--|------|---------------------------------------|--------------------|---|--|---|
| PROJ. NO. | REF. DWG. NO. | REFERENCE DRAWING TITLE                        | REV. | DESCRIPTION                           | DATE: Mar. 20/2007 | THIS DRAWING MAY BE REDUCED FROM ORIGINAL SIZE. DO NOT SCALE. | <div> <div> REGISTERED PROFESSIONAL ENGINEER<br/>T.A. MORRISON<br/>LICENSEE<br/>NWTNU </div> <div>31/8/07</div> </div> | <div> <div>PROJECT: MELIADINE WEST PROJECT</div> <div>TITLE: LAYOUT OF DECLINE AND DRIFTS</div> <div> <div>SCALE:</div> <div>PROJ. NO. 3.393</div> <div>DWG. NO. Figure 1</div> <div>REV. NO.</div> </div> </div> |
| REV. NO.  |               | MELIADINE WEST GOLD PROJECT UNDERGROUND LAYOUT | 0    | PLAN OF PROPOSED UNDERGROUND WORKINGS |                    |   |  |   |
|           |               |  |      |                                       |                    |   |  |   |
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|---|--------|------------------|-------------|
| PROJECT                                     |        |                  |             |
| MELIADINE WEST PROJECT                      |        |                  |             |
| PROJECT DETAIL                              |        |                  |             |
| TIRIGANIAQ UNDERGROUND PROGRAM              |        |                  |             |
| TITLE                                       |        |                  |             |
| ORE AND WASTE ROCK STORAGE PLAN             |        |                  |             |
| DRAWING                                     | TM, SB | DATE             | August 2007 |
|   |        | PROJECT No.      | 3.393       |
| COMAPLEX MINERALS CORP.<br>CALGARY - CANADA |        |                  |             |
| File:                                       |        | CMF GIS Database |             |
|   |        | Figure 2         |             |