

Mines Act Permit

Annual Reclamation Report - Format Requirements

Updated January, 2012

NOTE: One hard copy and one digital copy of the Annual Reclamation Report will be required. Hard copies of reports should be printed double sided whenever possible, with the exception of the cover page and maps.

COVER PAGE

- “Annual Reclamation Report for 2011” *Mines Act* Permit Number: _____
- Name of Property:
- Company Name:
- Names and Phone Numbers of Mine Manager AND Person Responsible for Reclamation/Environment:
- Company and Authors of Reclamation Report (if different from above)
- Date:

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EXECUTIVE SUMMARY

- Summarize the essential information in less than a page.

1.0 INTRODUCTION

Provide a brief history of the project. List the *Mines Act* Permit reclamation conditions and any recent amendments. Identify the Goals and Objectives of the reclamation program, including approved end land use(s). Summarize reclamation activity prior to that undertaken in the past year and discuss how the current program fits into the concept of “progressive and ongoing reclamation”.

2.0 MINING PROGRAM

Describe:

- 2.1 Surface development to date.
- 2.2 Surface development in past year.
- 2.3 Surface development projected over next five years.

Areas must be depicted graphically, either on a contour map, or airphoto overlay, and in digital format if possible (at a scale of 1:10,000 or better).

Discuss:

- areas disturbed (location, aspect, size in hectares),
- disposal locations and volumes of tailings, waste rock, overburden, coarse reject/low grade ore, other,
- stockpiling of surface soil materials (location, volume, characteristics),

3.0 ENVIRONMENTAL PROTECTION AND RECLAMATION PROGRAM

The “Summary of Areas Disturbed and Reclaimed” (**Table 1**) **MUST** be submitted as part of the Annual Reclamation Report for all metal and coal mines.

3.1 Briefly describe the past year’s reclamation program, including where applicable:

- stability of dumps, dams, impoundments, etc.,
- treatment of structures and equipment,
- waste dump reclamation (include location, size of area, slope angle, aspect, height),
- watercourse reclamation,
- pit reclamation,
- tailings impoundment reclamation,
- road reclamation,
- securing of mine openings,

- revegetation research including plant species selection and metal uptake in vegetation,
- invasive plant management,
- revegetation treatments and fertilizer applications,
- monitoring of revegetation success, include, where possible, geotagged photographs of representative locations.
- chemical, reagent or special waste disposal,
- a summary of programs for the prediction, prevention and/or treatment of metal leaching and acid rock drainage (ML/ARD) including:
 - ML/ARD prediction data, including acid base accounting, mineralogical and elemental composition for all materials excavated, exposed, created or disturbed during mining. Include raw, cumulative and summary data,
 - a summary of existing and proposed ML/ARD (or any other water quality problem) prevention, control and treatment methods, and,
 - complete **Table 2** which documents the volumes and ML/ARD classification of waste rock, tailings, low grade ore, coarse reject and other mine waste,
- a summary of the drainage monitoring program, including flows, and water quality. Surface and groundwater data (if applicable) on, or directly downstream, of the mine property must be included. The data summary should include both the range and central tendencies, with a map depicting hydrologic features and sampling sites. Include figures illustrating trends over several years. The parameters reported should include pH, sulphate, alkalinity/acidity, base cations, major metals, trace elements and major nutrients, and,
- any other environmental monitoring.

Reports to the Ministry of Environment (MOE) may also include some of the information required for ML/ARD and drainage monitoring. If so, the **MOE report can be included with the Annual Reclamation Report under separate cover, or as part of a combined report.**

Reclamation areas must be shown on a map or airphoto overlay at the same scale as the surface development map. Digital GIS files may also be submitted. Please contact us for format instructions.

3.2 Detailed research programs conducted during the previous year may be submitted under separate cover.

4.0 FUTURE RECLAMATION PROGRAMS

4.1 Describe, the nature and scope of, research and reclamation programs planned for the next 5 years.

5.0 RECLAMATION LIABILITY COST ESTIMATES

5.1 Estimate the total costs of outstanding reclamation liabilities over the mine life.

Complete the Ministry's **Excel Costing Spreadsheet** (Version 3.5.1) to provide a detailed estimate of the total expected costs of outstanding reclamation obligations over the current planned life of the mine, including long-term costs for monitoring, maintenance and water treatment (if required). **This costing information can be filed as a separate confidential report.**