

Preliminary economic assessment of porphyry Cu-Au-Moly deposit, Dowager Island, British Columbia.

Department of Civil and Resource Engineering

Date: 10 April 2018

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Scope of Work

The Huntress mining company was tasked with conducting a preliminary economic assessment of the potential copper-gold-moly deposit in Dowager Island, British Columbia by interpreting the size, shape and grade of the mineralized zone.

Information Provided

- Drill hole dataset
 - ✓ 5km x 5km claim block
 - ✓ 36 drill hole information & 2 trenches
 - ✓ Geological contour map
 - ✓ UTM location

Project Location

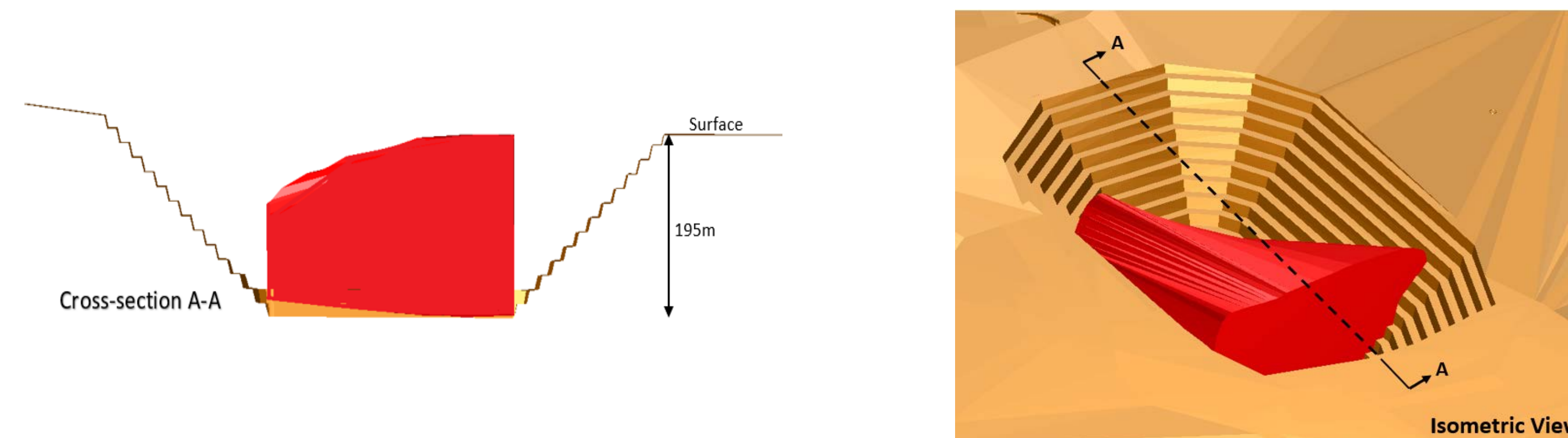


- Dowager Island is located 350km NW of Vancouver island, BC.
- Closest community: Bella Bella, 30km NE from Dowager Island.

Project Layout

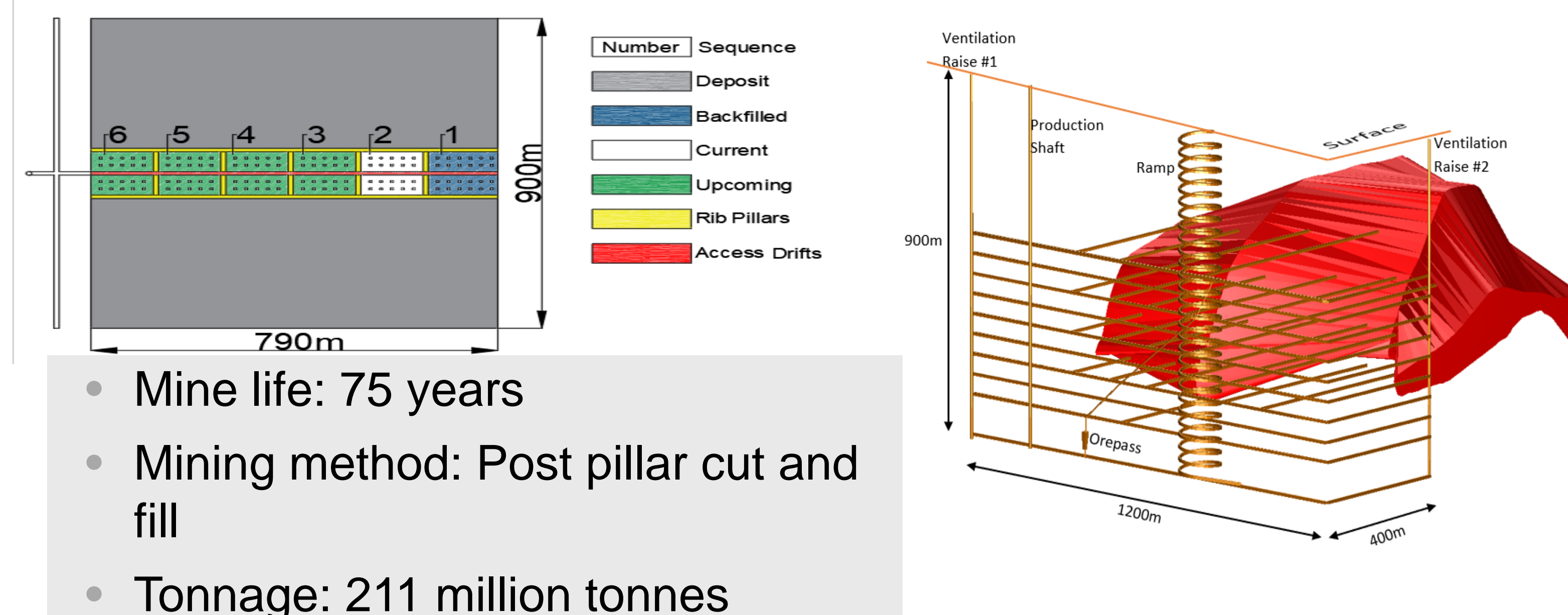


Open Pit



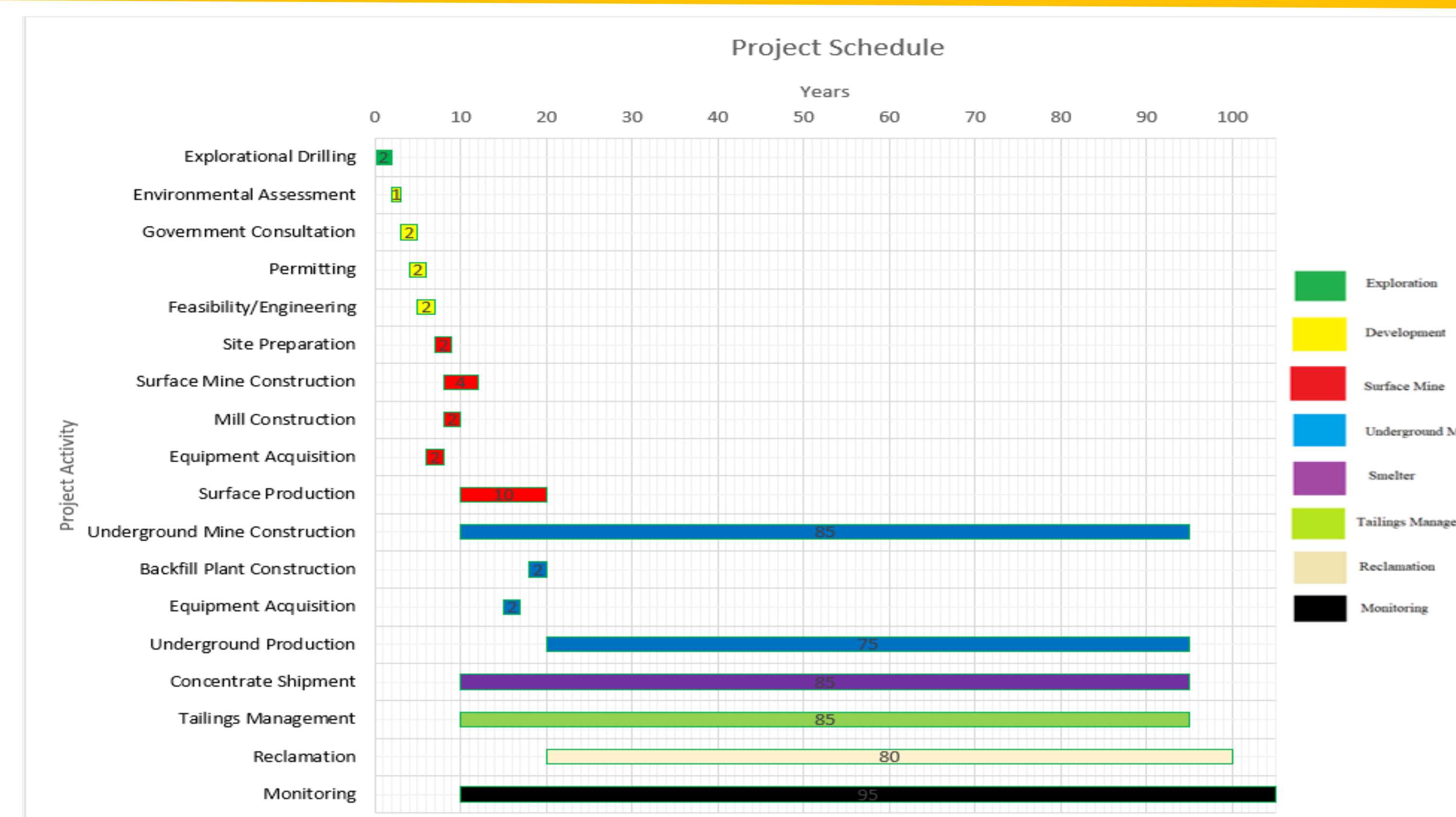
- Mine life: 10 years
- Production rate: 8000 t/d
- Tonnage: 27 million tonnes
- Pit slope angle: 45°
- Dimension: 840m x 580m x 195m

Underground Mine



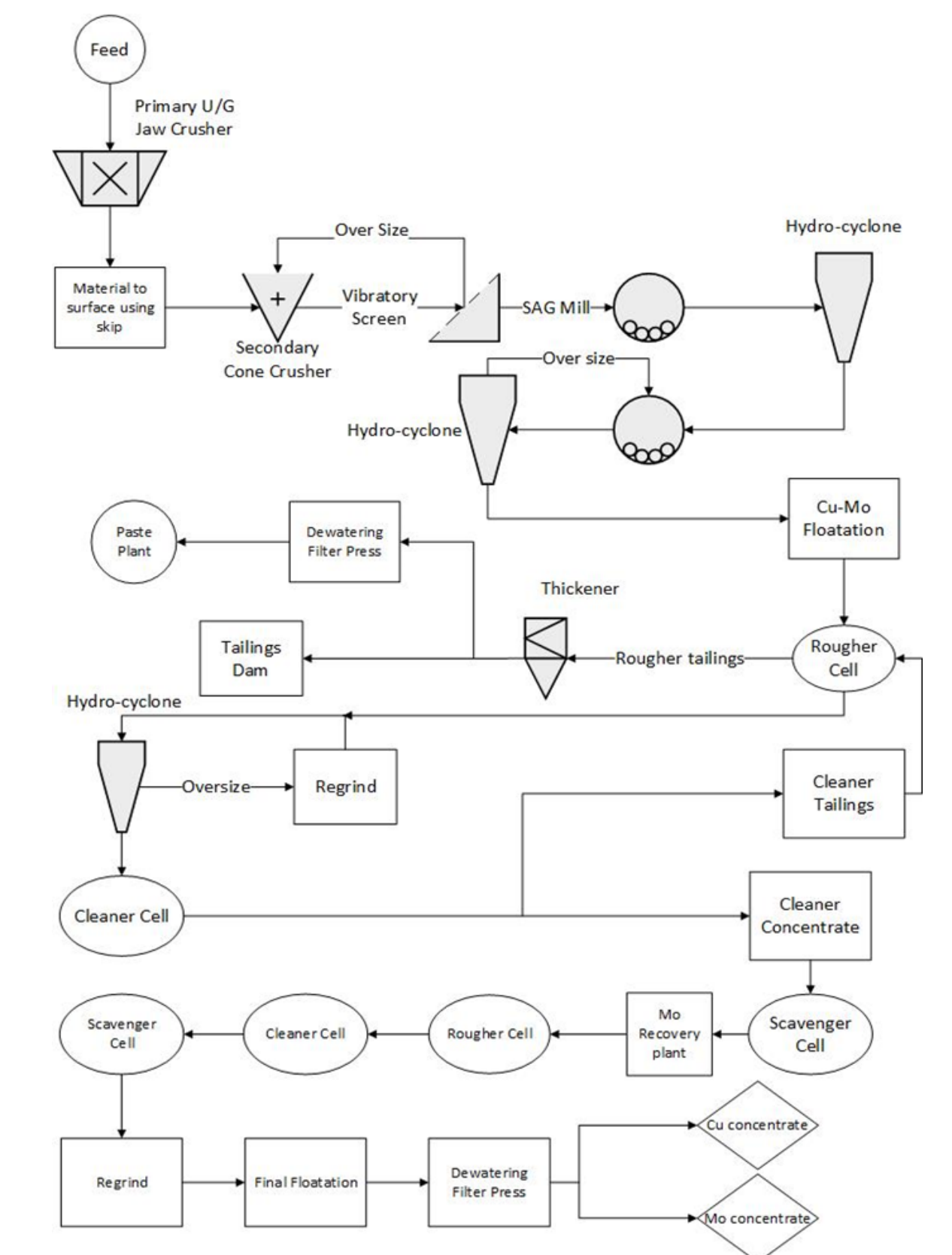
- Mine life: 75 years
- Mining method: Post pillar cut and fill
- Tonnage: 211 million tonnes

Project Schedule



Mill Design

- Feed Rate: 330 tph
- Concentrate: Copper & Molybdenum
- Grade: 2.16 wt% Cu, 0.23 wt% Moly
- Concentrate grade: 30% Cu & 55% Molybdenum
- Cu recovery: 90%
- Mo recovery: 70%



Reclamation & Closure

- Wet cover for tailings
- Open pit filled with waste rock, placed under a dry cover and revegetated
- Lime treatment plant will treat water throughout life of the mine
- Amend haul roads with pulverized limestone

Economics

- Net Present Value (NPV): 57 million
- Internal Rate of Return (IRR): 16 %
- Payback period: 8 years
- Metal price: Copper- \$5,000/t, Gold- \$35/g, Molybdenum- \$15,000/t

Reference

- Darling, Peter. (2011). SME Mining Engineering Handbook (3rd Edition) - 12.9.4.3.5 Tail Rope Loop Dividers. (pp. 1295-1301). Society for Mining, Metallurgy, and Exploration (SME).
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- Vergne, J. (2003). *Hard Rock Miner's Handbook*. 3rd ed. Arizona, USA: McIntosh Engineering.