Tailings Recovery Assessment — Comfort Mine, TM Milling Area

Location

Approximately 21km from the proposed processing site

Project Overview

Laboratory analysis was conducted on historical vat leached tailings obtained from the Comfort Mine, TM milling area to assess the remaining gold recovery potential within previously processed dump material. The tailings had already undergone conventional cyanide vat leaching methods commonly used by artisanal and small-scale milling operations within the region.

The purpose of the assessment was to evaluate the opportunity for additional gold recovery through advanced processing systems, including Ball Mill and Carbon-in-Pulp (CIP) recovery technology.

Laboratory Test Results

Test Method	Gold Grade
Bottle Roll Test	0.04 g/t Au
Fire Assay	0.33 g/t Au

Technical Interpretation

The bottle roll result of **0.04 g/t Au** represents the estimated cyanide-soluble and potentially recoverable gold under standard leaching conditions, while the fire assay result of **0.33 g/t Au** represents the total gold content remaining within the tailings material.

The variance between the bottle roll and fire assay results suggests that a portion of the gold may remain locked within the material and not fully recoverable through conventional cyanide leaching alone. This is a common characteristic associated with historical artisanal mining tailings and may indicate the presence of:

- Coarse gravity gold
- Quartz-associated gold
- Sulphide-hosted gold
- Gold encapsulated within oxidized or refractory material

These characteristics may provide additional recovery opportunities through advanced processing and regrinding systems.

Estimated Tailings Resource

Estimated Dump Size

Approximately 30,000 Tons

Estimated Total Gold Content

Using the fire assay result:

0.33 g/t × 30,000 tons

= **9,900 grams of gold**
= **Approximately 9.9 kilograms of contained gold**

Preliminary Revenue Estimate

Estimated Gold Price

Approximately USD $155 per gram
(Subject to market fluctuations)

Estimated Gross Gold Value

9,900g × $155

= **Estimated gross value of approximately USD $1,534,500**

Preliminary Processing Cost Estimate

Operating Cost Category	Estimated Cost
Labor	$3,000
Diesel / Power	$12,273
Cyanide & Chemicals	$15,000
Transport & Logistics	$40,890
Activated Carbon	$5,000
Maintenance	$3,000
Security	$400
Consumables	$700

Estimated Total Processing Cost

Approximately USD $80,263

Preliminary Recovery & Economic Assessment

Based on preliminary laboratory analysis and internal recovery evaluations, the dump material demonstrates potential economic viability for further processing through advanced recovery systems.

Although the bottle roll recovery result is relatively moderate, the scale of the dump resource combined with the identified residual gold values highlights potential long-term value recovery opportunities associated with historical tailings reprocessing.

Actual recovery performance, operational economics, and profitability will ultimately depend on:

- Metallurgical recovery efficiency
- Plant configuration
- Throughput capacity
- Material characteristics
- Operational conditions
- Gold market pricing

Advanced Recovery Potential

The relationship between the fire assay and bottle roll results suggests that a portion of the gold may remain unrecovered through conventional cyanide leaching methods. In certain operations, additional recovery from historical tailings may be enhanced through:

- Ultra-fine grinding
- Flotation and leaching systems
- Gravity concentration methods
- Concentrate smelting techniques

The project continues to evaluate suitable recovery technologies to optimize recovery efficiency from historical dump material.

Strategic Importance

This dump assessment forms part of the broader regional tailings recovery strategy supporting the proposed centralized 200TPD Gold Recovery Processing Plant. Ongoing sampling, laboratory testing, and partnership discussions continue across multiple milling centers within the surrounding artisanal mining region to support long-term feedstock supply and future operational expansion opportunities.