

Tailings Recovery Assessment — Hlohlo Mine, Tshokotshe Milling Area

Location

Approximately 9km from the proposed processing site

Project Overview

Laboratory analysis was conducted on historical vat leached tailings obtained from the Hlohlo mine, Tshokotshe milling area to evaluate 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 objective of the assessment was to determine the potential for additional gold recovery through advanced processing systems, including Ball Mill and Carbon-in-Pulp (CIP) technology.

Laboratory Test Results

Test Method Gold Grade

Bottle Roll Test 0.68 g/t Au

Fire Assay 2.34 g/t Au

Technical Interpretation

The bottle roll result of **0.68 g/t Au** represents the estimated cyanide-soluble and potentially recoverable gold under standard leaching conditions, while the fire assay result of **2.34 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 significant portion of the gold may remain locked within the material and not fully recoverable through conventional cyanide leaching alone. This is a common characteristic observed in historical artisanal mining tailings and may indicate the presence of:

- Coarse gravity gold
- Gold associated with quartz material
- Sulphide-hosted gold

- Gold encapsulated within oxidized or refractory material

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

Estimated Gold Content

Estimated Dump Size

1,500 Tons

Estimated Total Gold Content

Using the fire assay result:

2.34 g/t × 1,500 tons

= 3,510 grams of gold

= Approximately 3.51 kilograms of contained gold

Preliminary Revenue Estimate

Estimated Gold Price

Approximately USD \$155 per gram

(Subject to market fluctuations)

Estimated Gross Gold Value

3,510g × \$155

= Estimated gross value of approximately USD \$544,050

Preliminary Processing Cost Estimate

Operating Cost Category Estimated Cost

Labor	\$3,000
Diesel / Power	\$1,125
Cyanide & Chemicals	\$500
Transport & Logistics	\$1,360
Activated Carbon	\$250
Maintenance	\$200
Security	\$400

Operating Cost Category Estimated Cost

Consumables \$300

Estimated Total Processing Cost

Approximately USD \$7,135

Preliminary Recovery & Economic Assessment

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

The relatively low estimated operating costs combined with the identified residual gold values highlight the potential opportunity associated with historical tailings reprocessing within the region. Final recovery performance, operational economics, and profitability will ultimately depend on:

- Plant configuration
- Recovery efficiency
- Throughput capacity
- Metallurgical behavior
- Operational conditions
- Gold market pricing

Advanced Recovery Potential

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 gold extraction efficiency from historical dump material.

Strategic Importance

The Hlohlo Mine tailings assessment forms part of a broader regional tailings recovery strategy focused on securing long-term feedstock supply for the planned centralized 200TPD Gold

Recovery Processing Plant. Multiple additional dump sites within the surrounding artisanal mining region remain under evaluation for future partnership and recovery opportunities.