Taking the Heap(s) Out of the Carmacks Copper Project

Addressing Environmental Concerns

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Aligning Economic and Environmental Objectives

Moving away from "we can't afford that"

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Forward Looking Statements

This presentation includes certain forward-looking information or forward-looking statements for the purposes of applicable securities laws. These statements address future events and conditions and, as such, involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements to differ materially from those anticipated in such statements.

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In making the forward-looking statements, the Company has applied several material assumptions including, but not limited to, the assumptions that the proposed exploration and development of the mineral projects will proceed as planned, market fundamentals will result in sustained metals and mineral prices, and any additional financing needed will be available on reasonable terms. The Company expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise except as otherwise required by applicable securities legislation.

The technical report entitled "Preliminary Economic Assessment of Copper, Gold, and Silver Recovery" (the "July 2014 PEA") is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves and there is no certainty that the PEA will be realized. Refer to the July 2014 PEA, filed on SEDAR under the Company's profile on July 14, 2014, for a discussion of the applicable qualifications and assumptions and the impact on the results of the previous studies on the Carmacks Project.

National Instrument 43-101
Dr. Harlan Meade, PGeol., President and CEO of the Company, is the Qualified Person who has reviewed and approved the content herein, for compliance with National Instrument 43-101

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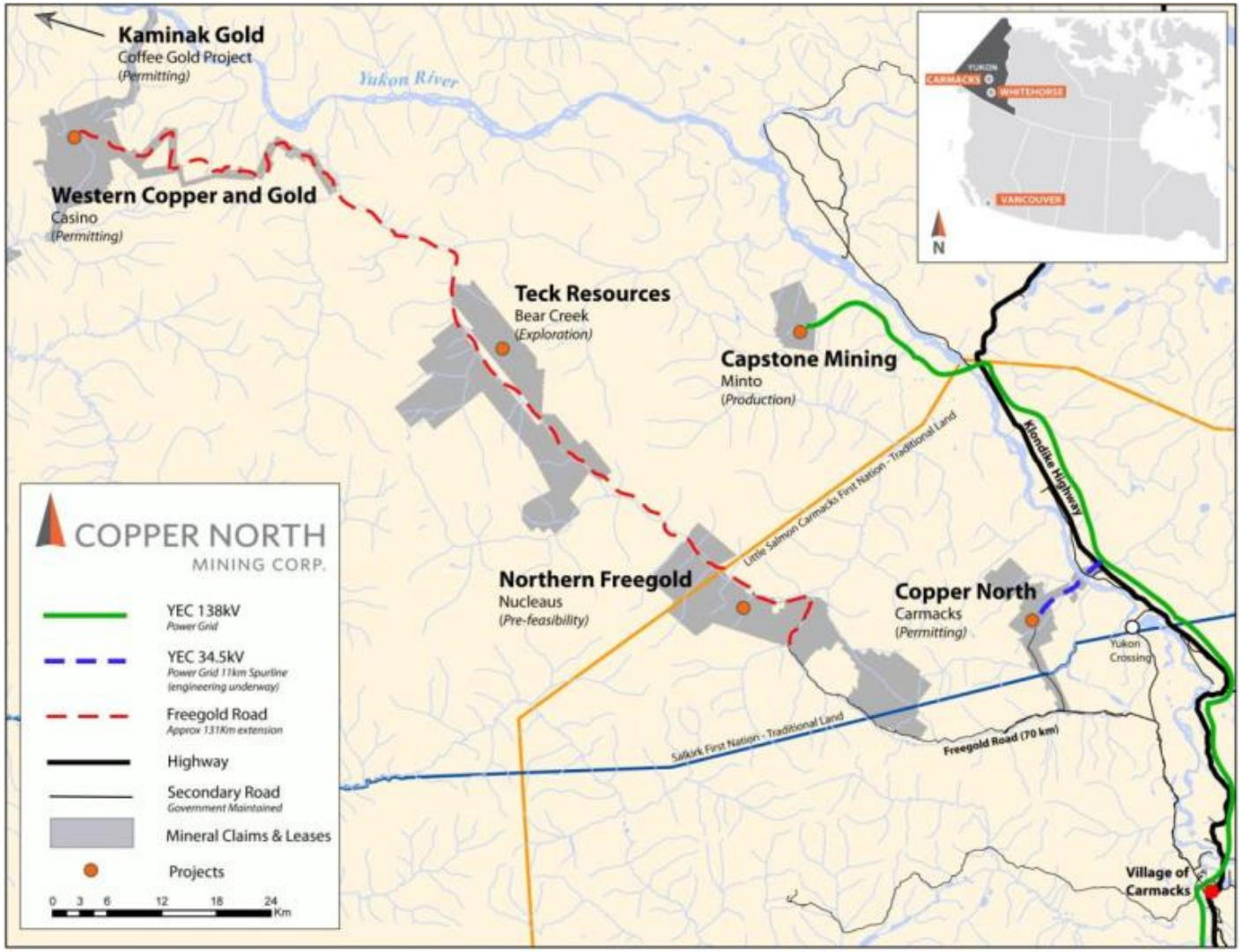
The Project

Location



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Carmacks Copper Project

Deposit Overview

- Approximately 12 million tonnes of oxide copper mineralization
  - grading 1.07% Cu, 0.45 g/t Au, and 4.5 g/t Ag
- Oxide mineralization is not potentially acid generating
- 60 million tonnes waste rock produced, not potentially acid generating

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Carmacks Copper Project

Project History

- Planning
  - 1991 to 2012 – Copper-only heap leach project
    - Heap leaching using a sulphuric acid-based lixivant
    - Leached copper recovered from solution by Solvent Extraction/Electrowinning (SX/EW) to produce cathode copper – a finished metal product
    - No concentrate hauling or smelting required
    - 3 Feasibility Studies indicated project economics
      - Kilborn (1995)
      - M3 (2007 and 2012)
  - Economic but small project
    - $1.62/lb C1 cash cost (based on M3 2012)
    - Near median of future project cost curve
- Permitting
  - Environmental Assessment – completed September 2008
  - Quartz Mining License – issued April 2009
  - Yukon Water License – denied 2010

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Carmacks Copper Project

Project History – Water Licensing Concerns

- Questioned ability to leach in cold climate conditions
  - Leaching takes longer in cold, as it does for gold, but doesn't otherwise affect ability to leach copper
- Effect of ore decrepitation
  - Ore begins to "fall apart" on exposure to acid, producing clay-sized particles that can clog the heap under increasing load
    - Heap stability concerns due to poor drainage
    - Worst case being a failed heap
  - Can be managed through engineering controls on heap height under leach
- Uncertainty of heap closure
  - Spent copper heap a source of acidic drainage even after rinsing
    - Heap neutralization proposed but not seen as feasible due to heap clogging with precipitate
  - Closure using store and release cover and long term passive treatment of seepage

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The Project

Problems to Solve

- **Project Economics**
  - Reduce cost of copper production through project design
  - Add mineral resources (longer term objective)

- **Environmental**
  - Address (real/perceived) uncertainty of:
    - cold-climate copper heap leaching
    - heap stability
    - heap closure

    Or
  - Replace heap leach with another process, if economic

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Project Economics

Recover Precious Metals – A Start

First Approach – Two-stage heap-leaching (Merit PEA July 2014)

- Acid leach copper using On/Off pad (200+ days)
- Rinse and neutralize leached ore
- Stack on second heap for cyanide leaching of gold and silver

- Economic Benefits
  - Increase project net income by approx. 40% (Merit PEA 2014)
  - Reduce C1 cash cost of copper production to $1.07/lb
- Environmental Benefits
  - Eliminates decrepitation concerns
  - Eliminate acidic seepage
  - Conventional gold heap closure
- Remaining Concerns
  - Heap leach in cold climate
  - Lots of material handling!

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Project Economics

Recover Precious Metals

Second Approach – Vat Leach Copper/Heap Leach Au/Ag

- Vats replace copper on/off pad
  - Reduce copper leaching time to 19 days from 200+
  - Improved process control and recovery certainty
- Benefits
  - Eliminates cold climate copper heap leach uncertainty
  - Improved project cash flow
- But
  - Still lots of material handling!
  - Gold heap to close at end of mine

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Project Economics

Recover Precious Metals – Taking out the Heaps

Round Three

- Tested benefits of grinding to 1 mm after crushing
  - Bottle roll tests (copper leaches in 16 to 18 hours, gold in 24 to 48 hours)
  - Indicate agitated tank leaching can replace heap leaching for both copper and precious metals
- Benefits
  - Simplifies material handling (pumping)
  - Reduced leach time = reduced reagent consumption
  - Improved process control and more consistent recovery
  - Complete process containment
  - Eliminates heap leach pads
  - Final tailings suitable for dry stack disposal – proven closure methods

Project Economics

Taking out the Heaps – Use some Waste

Round 3.1

- Tested effect of heating leaching tanks on leach time and recovery in locked cycle tests
  - Waste heat available from acid plant – heat tanks to 40°C
  - Reduced copper leach time to 4 hrs with 88% recovery
  - Reduced gold leach time to 12 hours with 82% recovery
- Benefits
  - Reduced reagent consumption
  - Reduced energy consumption
  - Reliable increase in recovery

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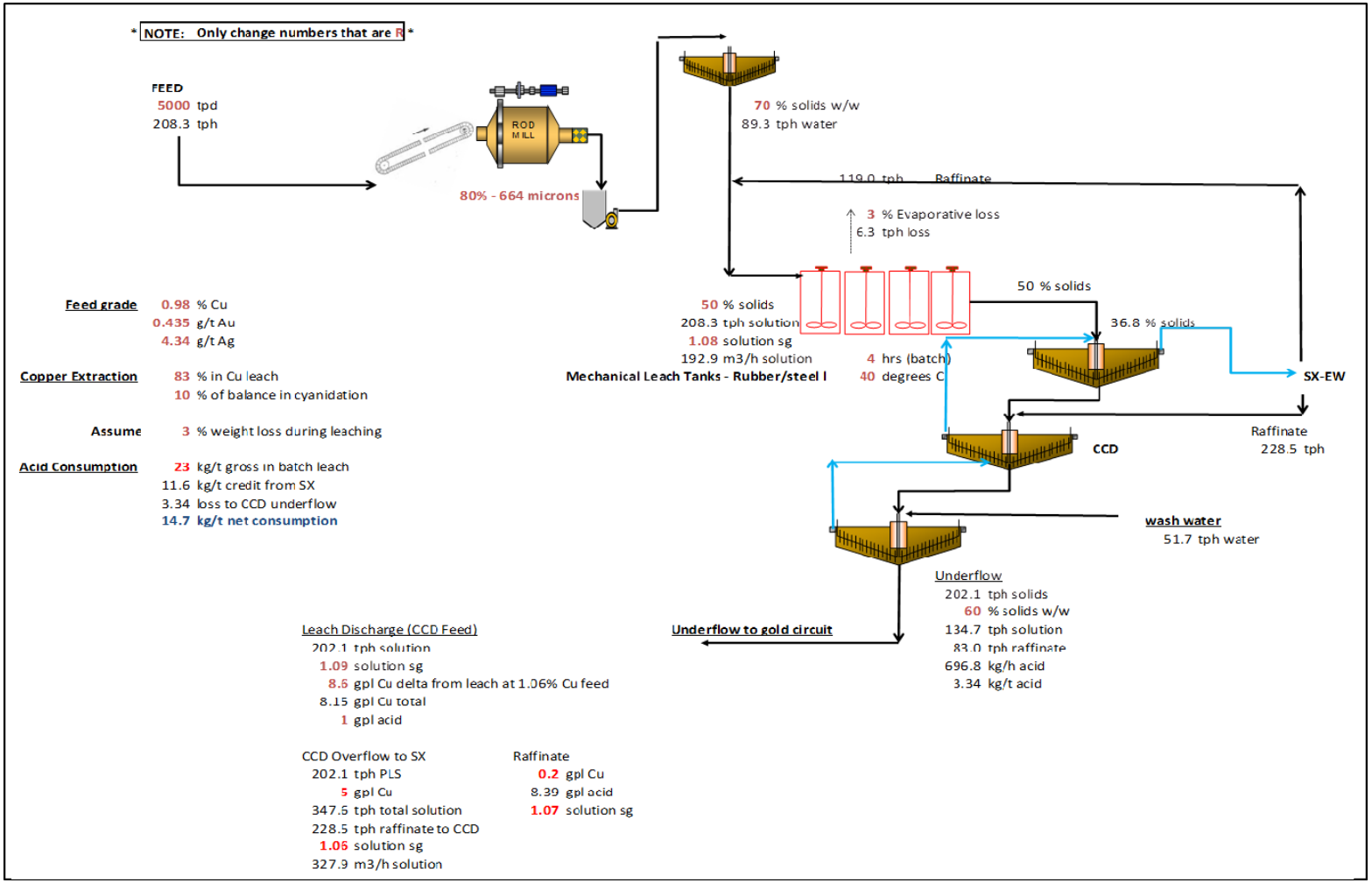
Process Summary

Copper Circuit



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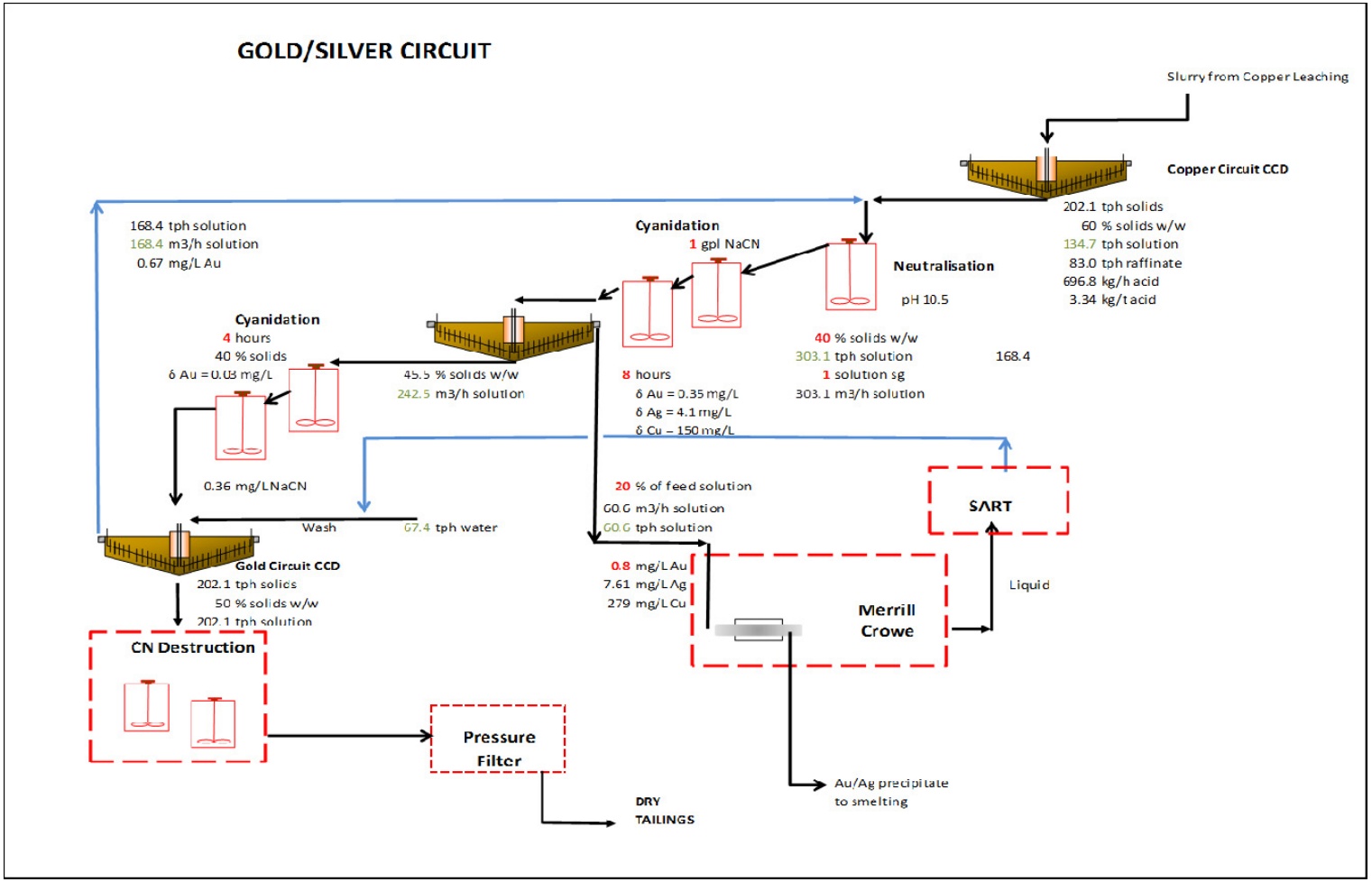
Process Summary

Precious Metals Circuit



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Improved Waste Seepage Quality

Dry Stack Tailings vs Closed Copper Heap

Shake Flask Extraction Comparison

		Agitated Tank - Locked Cycle Tailings	Spent Rinsed Column Residue (Simulated Closed Heap)
pH		8.18	5.96
Dissolved Metals			
Aluminum	mg/L	0.0212	0.195
Cadmium	mg/L	0.000142	0.00061
Chromium	mg/L	0.00011	0.0007
Copper	mg/L	0.0111	0.213
Nickel	mg/L	0.0002	0.0053
Thallium	mg/L	0.000017	0.00013

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The New Carmacks Cu-Au-Ag Project

Taking out the Heaps

Environmental Benefits

- Eliminated heaps and related environmental concerns
  - More complete recovery of contained metals
  - No long term management of slightly acidic drainage
  - Final waste product stable, neutral drainage, simplified closure using proven methods
  - Reduced reagent use

Operational Benefits

- Improved process control
- Improved material handling

Economic Benefits

- Increased net income
- Accelerated cash flow
- Reduced closure costs

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Questions?

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