Highland Valley Copper

September 5, 2019
Geoff Brick
General Manager, Highland Valley Copper
Peter Martell
Superintendent, Environment and Community Affairs
Shane Green, Manager, Mill Operations





Highland Valley Copper Overview and Site Initiatives

September 5, 2019
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General Manager, Highland Valley Copper



Caution Regarding Forward-Looking Statements

Both these slides and the accompanying oral presentations contain certain forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 and forward-looking information within the meaning of the Securities Act (Ontario) and comparable legislation in other provinces (collectively referred to herein as forward-looking statements). Forward-looking statements can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variation of such words and phrases or state that certain actions, events or results "may", "could", "should", "might" or "will" be taken, occur or be achieved. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Teck to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements include statements relating to: management's priorities for Highland Valley Copper; all production guidance; possible mine life extensions for Highland Valley Copper; expected production, grades and recoveries at our Highland Valley operations; the business case for HVC 2040 and projections and timelines related thereto; the projected impacts of innovation, technology and analytics at our operations, including the potential opportunities associated with autonomous haul trucks, the value potential of smart shovels and the value potential of artificial intelligence at our operations and the plans for future use and development thereof; the benefits of our D3 Ball Mill installation project; our sustainability strategy and goals and our goals for relationships with Indigenous Peoples and inclusion and diversity; and statements regarding our strategy and our priorities and expectations going forward.

The forward-looking statements involve numerous assumptions, risks and uncertainties and actual results may vary materially. These statements are based on a number of assumptions, including, but not limited to: general business and economic conditions; the supply and demand for, deliveries of, and the level and volatility of prices of copper; the timing of the receipt of regulatory and governmental approvals; our production and productivity levels, as well as those of our competitors; our anticipated costs of development and production and production and productivity levels, as well as those of our competitors; the implementation and effectiveness of technology; power prices; the accuracy of our reserve and resource estimates (including with respect to size, grade and recoverability) and the geological, operational and price assumptions on which these are based; conditions in financial markets generally; the future financial performance of the company; our ability to attract and retain skilled staff; our ability to procure equipment and operating supplies in sufficient quantities and on a timely basis; our ongoing relations with our employees and business partners; interest rates, acts of foreign or domestic governments; and the impact of changes in Canadian-U.S. dollar and other foreign exchange rates on our costs and results. The foregoing list of assumptions is not exhaustive.

Factors that may cause actual results to vary materially include, but are not limited to: changes in commodity prices; changes in market demand for copper; changes in interest and currency exchange rates; acts of domestic and foreign governments and the outcome of legal proceedings; inaccurate geological and metallurgical assumptions (including with respect to the size, grade and recoverability of reserves and resources); unanticipated development or operational difficulties (including failure of plant, equipment or processes to operate in accordance with specifications or expectations, cost escalation, unavailability of materials and equipment, government action or delays in the receipt of government approvals, industrial disturbances or other job action, adverse weather conditions and unanticipated events related to health, safety and environmental matters); union labour disputes; political risk; social unrest; consequences of climate change; changes in laws and governmental regulations or enforcement thereof; development and use of new technology; changes in our credit ratings or the financial market in general; difficulty in obtaining permits or securing transportation for our products; inability to address concerns regarding permits of environmental impact assessments; changes in tax benefits or tax rates; resolution of environmental and other proceedings or disputes; and changes or deterioration in general economic conditions.

We assume no obligation to update forward-looking statements except as required under securities laws. Further information concerning assumptions, risks and uncertainties associated with these forward-looking statements and our business can be found in our most recent Annual Information Form, as well as our management's discussion and analysis of quarterly results and other subsequent filings, all filed under our profile on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov).

Safety Orientation

- Be consciously present whilst on the mine site
 - Unfamiliar environment
 - Hidden hazards; slips, trips and falls
 - Constantly changing conditions
 - Lots of distractions and moving parts
- Be consciously aware of your tour guide

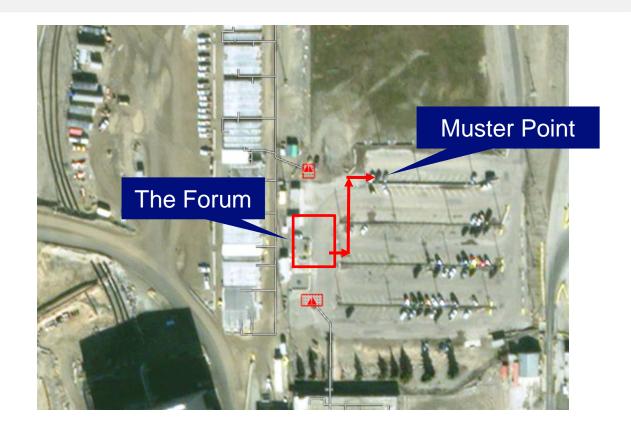


Everyone going home safe and healthy everyday

2018 Provincial Mine Rescue Champions



Evacuation Muster Point/Administration



Agenda - Thursday, September 5, 2019 At Highland Valley Copper

TIME	TOPIC	PRESENTER
9:00am-9:15am	Welcome and Introductions; Safety Orientation Administration Building	Geoff Brick, General Manager Highland Valley Copper
9:15am-10:00am	Highland Valley Overview and Site Initiatives Administration Building	Geoff Brick, General Manager Highland Valley Copper
10:00am-11:30am	Dam Overview; Geotechnical Monitoring and Risk Dam Viewpoint	Chris Anderson, Manager Tailings and Water
11:30am-12:30pm	Lunch and Sustainability Overview Trojan Pond	Peter Martell, Superintendent Environment and Community Affairs
12:30pm-2:30pm	Mine Tour	Paul Dixon, Superintendent Mine Operations
2:30pm-2:45pm	Refresh at Administration Building	
2:45pm-3:15pm	Mill Overview Administration Building	Shane Green, Manager Mill Operations
3:15pm-4:00pm	Mill Tour	Shane Green, Manager Mill Operations
4:00pm-4:15pm	Debrief and Wrap Up Administration Building	Geoff Brick, General Manager Highland Valley Copper, and HVC team



Executive Summary - 2019 YTD

Highlights

- YOY more employees are returning home safe and healthy
- Ahead on all primary KPI's across all areas for production and cost
- Pioneering transformation and technology initiatives across the site
- New management team that is actively engaging the workforce

Priorities

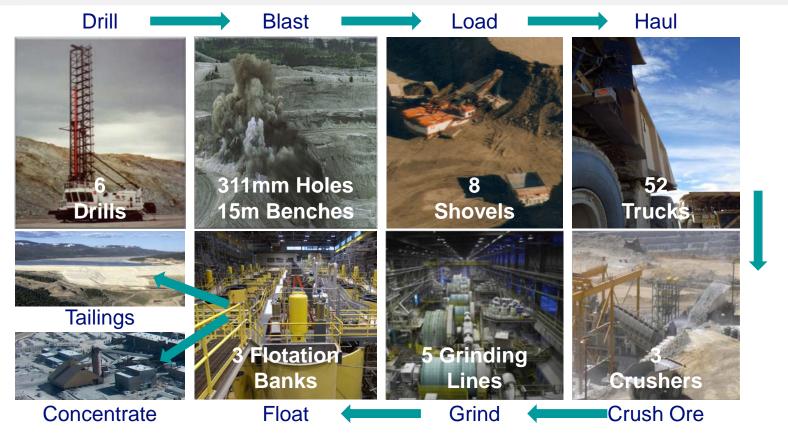
- Safety: Hazard Identification Training and Competency
 - Teck-wide initiative
- Relationship between HVC's three stakeholders: Teck, USW and First Nation Bands
- Leadership and development of front-line supervision
- A step change in performance to set the site up for another 20 years of safe operation

The Highland Valley Story at a Glance

- 115-120 kt of copper planned for 2019
- 105 Mt total material movement in 2019
- 1,400 employees
- Low head grade, high throughput operation
 - 145,000 tonnes processed/day
 - 0.278% copper head grade
- Heavy reliance on technology and innovation to remain competitive

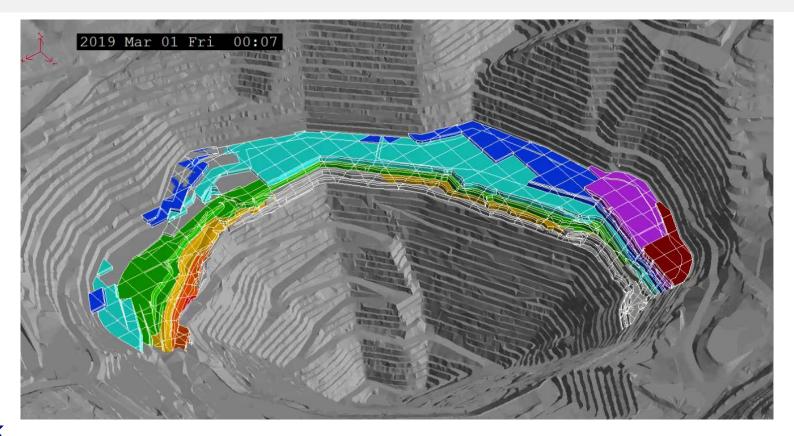


Simplified Mining and Milling Process



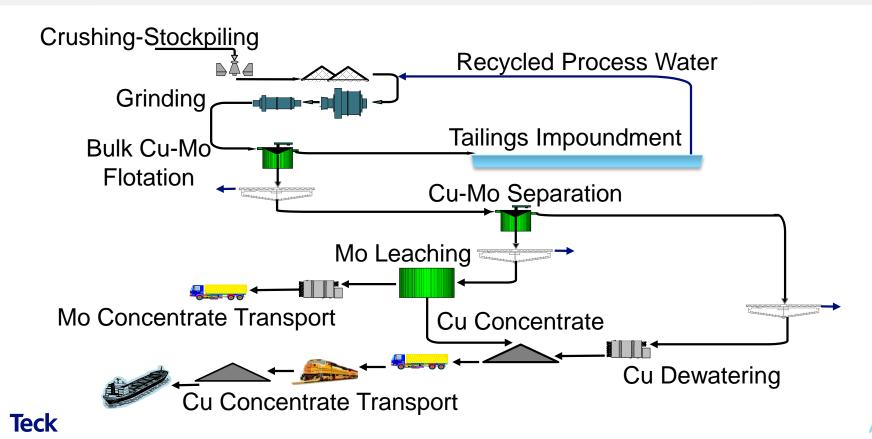
Teck

2019 Valley Sequence

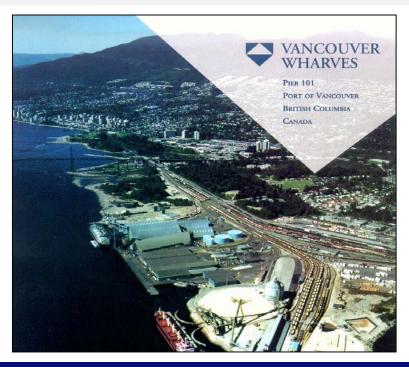




Generalized Process Flowsheet



Products to Market



High quality, clean copper concentrates

• 30+% Cu

High quality molybdenum concentrates

• 51-52% Mo

Concentrate transport

- Trucked from the mine site to Ashcroft
- Rail from Ashcroft to Vancouver for shipping

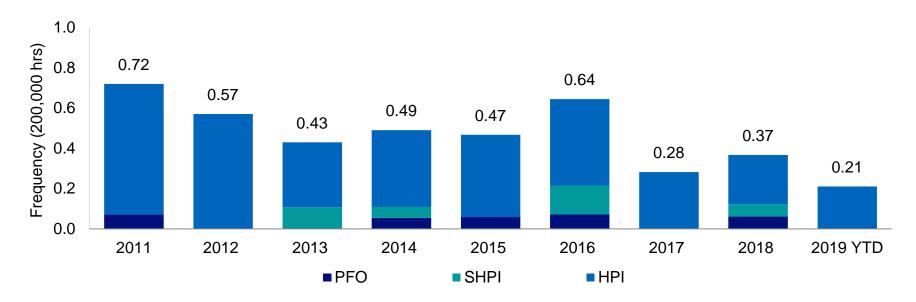
Quality focus

Safety Performance

High Potential Incident Performance

High Potential Incident Performance (HPI) (Frequency 200,000 hours)

2019 lowest HPIF in last 9 years, and continued positive trend

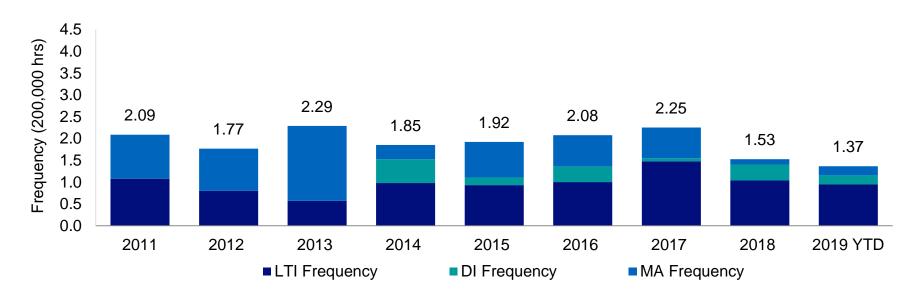




Reportable Injury Performance

Reportable Injury Performance (TRI) (Frequency 200,000 hours)

2019 lowest TRIF in last 9 years, and continued positive trend





HVC Mine Plan

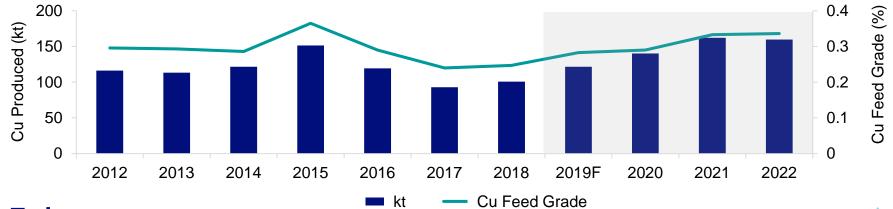
Life of Mine (LOM) 2027/2028



Copper Production in HVC Mine Plan

Copper Production (kt) and Feed Grade (%)

- Increasing copper production as head grade increases over remaining mine life
- Production guidance of 115,000-120,000 tonnes in 2019
- Three-year production guidance (2020-2022) of 135,000-155,000 tonnes
- Post-2022, expect average production around the high end of current three-year guidance range to the end of mine life at the end of 2027



HVC 2040 Update

Copper Production in HVC 2040

~13 Years Mine Life Extension to 2040

- Expand Valley and Highmont pits, and commence Bethlehem pit
- Mill expansions to increase throughput
- Commence operation in 2024

Increased Copper Production

- No change to our 3-year production guidance of 135,000-155,000 tonnes from 2020 to 2022
- From 2024 to 2040, expect average production to be 15 to 20% higher than our next 3-year guidance range
 - In the early years of expansion, at the lower end of range due to stripping requirements and mine sequencing



HVC Extension/Expansion Context

The next chapter in the evolution of HVC

Valley Pit South Extension

- +5 years mine life
- Crusher moves

MOP & Lornex Extension

- +5 years mine life
- New flotation building
- ↑ throughput

D3 Ball Mill

- Add a 9th ball mill
- † throughput and recovery





Valley West Wall Extension

- +6 years mine life
- Highmont extension included

Valley Crusher Move

- Crusher move
- +2 years mine life

HVC 2040 Decision

2020 2021

Mine closure in 2028 or

Proceed with HVC 2040

- ~13 years mine life
- Expand @ Valley,
 Highmont & Bethlehem
- Mill expansions ↑ TP



HVC Tailings Storage Facility (L-L Dam)

Tailings and Water

Highland tailings storage facility (TSF) and L-L Dam



Design Assurance

- 1. Tailings Qualified Person at HVC
- 2. External Engineer of Record
- 3. Tailings Review Board (TRB)
- 4. External Dam Safety Reviews
- 5. Audits by Teck experts, MAC, and external parties



Teck

Tailings and Water

Dam safety program

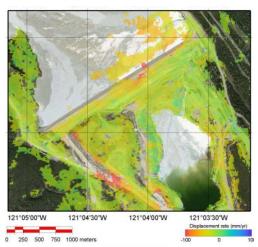


- Full-time dam safety inspection staff
- Formal site-wide training program
- State-of-the-art technology
 - Extensive network of geotechnical instrumentation
 - Automated data collection and alerts
 - Drone surveillance and survey
 - PhotoSAT monitoring
 - InSAR monitoring trials
- Formal review by Engineer of Record and TRB

L-L Dam Geotechnical Instrumentation







HH Dam InSAR Trial

Technology and Innovation at HVC

Technology and Innovation at HVC

Our imperative is to work smarter

- First operation in BC to pilot autonomous haulage trucks
- Pioneered the development and implementation of MineSense for dynamic ore sorting
- Partnering with industry technology groups to apply machine learning and advanced analytics to ore processing and material movement
- Extensive use of drones for survey work
- Enabling supervision in the field with wi-fi devices to execute work
- Grass roots innovation employee engagement
- RACE21[™] providing the framework to transition to the "mine of the future"



Pioneering
Shovel-Based
Ore Sorting
With MineSense

MineSense - 2019 Performance

Current Status

- Installed on 3 shovels
- Using 2nd generation ShovelSense "SX2"

System Performance

- Availability increasing after adopting a maintenance strategy
- Early results delivering good value and full ramp-up expected in 2020

Next Steps

- Updating copper algorithms to recognize different mineral assemblages
- Continued reliability and maintenance strategy work



Teck

Maximizing Haulage Efficiency

Autonomous Haulage

Autonomous Haulage Project Has Moved 13.2 Mt

Successes

- We have safely hauled >59,000 loads, driven 87,000 km and moved 13.2 Mt
- >600 individuals have been through AHS training
- Mine maintenance is helping build three new 793F autonomous trucks







HVC's Autonomous Haulage Project Business Case

Business Case

CATEGORY	IMPACT	STATUS
Utilization	+20%	√
Travel Speed	+5%	√
Fixed Times	-35 sec	✓
Fuel Consumption	-5%	In Progress
Tire Life	+500 hrs	In Progress
Maintenance Cost	-5%	In Progress

Early but promising data to realize base case and explore upside

Highland Valley Copper Overview and Site Initiatives



Highland Valley Copper Sustainability Overview: Focus on Communities

September 5, 2019
Peter Martell
Superintendent, Environment and Community Affairs



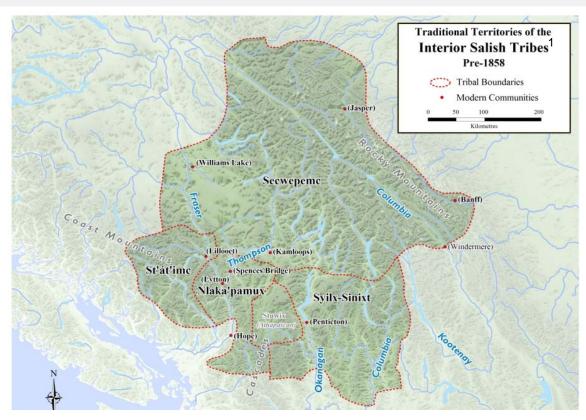
Acknowledgement

We are on the unceded territory of the Nlaka'pamux Nation.

"HVC recognizes that Indigenous Peoples have used and occupied the t'mixw (land) for thousands of years. The nature of our mining activities has impacts to the surrounding environment. HVC is committed to incorporating Indigenous Peoples values, culture and resources into environmental planning through all stages of the mining lifecycle."

HVC Environmental Policy, March 2018

Nlaka'pamux Unceded Territory





Indigenous Communities

		AGREEMENT
NNTC	Boothroyd Lytton Oregon Jack Creek Skuppah Spuzzum	Impact Benefit Agreement
CNA	Ashcroft Boston Bar Coldwater Cooks Ferry Nicomen Nooaitch Shackan Siska	Impact Benefit Agreement
LNIB		Impact Benefit Agreement
Kanaka Bar		Impact Benefit Agreement
SSN	Skeetchestn Tk'emlups	Cooperation Agreement

15 Nlaka'pamux bands4 Impact Benefit Agreements

Agreement Objectives

- Cooperative and respectful long-term relationships
- Consensus based decisions
- Working collaboratively to address impacts to the Land, Environment and Cultural Heritage
- Robust regulatory engagement processes
- Creation of sustainable benefits for Indigenous communities to build capacity



Traditional Plant Study

Study of Mine Dust and Traditional Plants in the Highland Valley Area



Indicator Plant – Sxwusm (Soapberry)



Community Engagement





Traditional Plant Study



Analysis was completed on all of the following for both washed and unwashed samples to determine the metal concentrations:

- Berries
- Leaves
- Juice made from the berries
- Tea made from the leaves

Business Development

- \$47,094,230 in Local Indigenous businesses in 2018
- Equity Matching Program
- Indigenous Women's Incubator Pilot





Employment and Training

- 44% of all entry level hires were Nlaka'pamux
- Workplace Mentoring Program
- \$250,000 for employment readiness training





Reconciliation and UNDRIP

Ultimately, the implementation of such agreements supports both business and Indigenous requirements to reconcile interests, opportunities and challenges going forward.



Kwukwscemxw



Teck /46



Mine Tour

3 Breakout Groups:

- AHS dispatch and tour of AOZ
- Valley pit lookout mine overview
- Visit MineSense shovel

Highland Valley Copper Mill Overview

September 5, 2019
Shane Green, Manager, Mill Operations



Increasing Throughput and Recovery

New D3 Ball Mill and Advanced Analytics

D3 Ball Mill Installation

Benefit

- Increase throughput (~6%)
- Increase recovery over life of mine (~2%)
- Improves site performance and value of HVC 2040

Safety Performance

- >236,000 hours worked
- Zero HPI's or LTI's



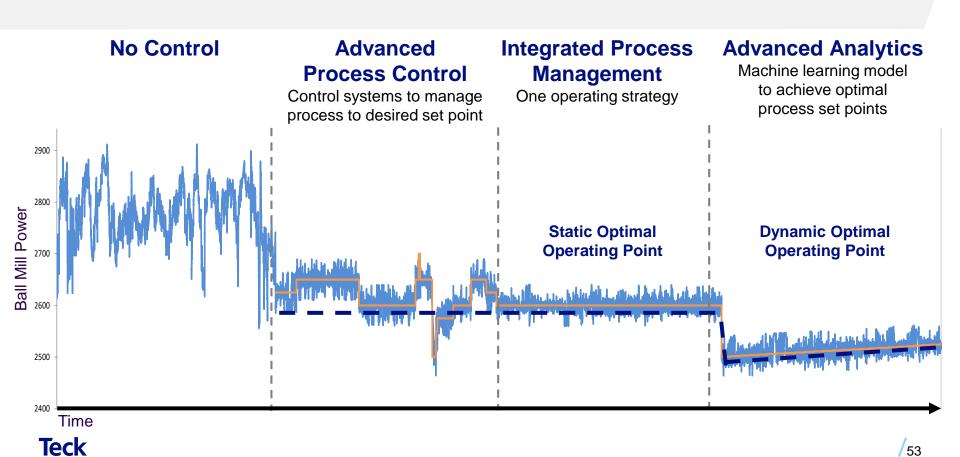


46 days ahead of forecasted start-up and \$11M under budget

Advanced Analytics

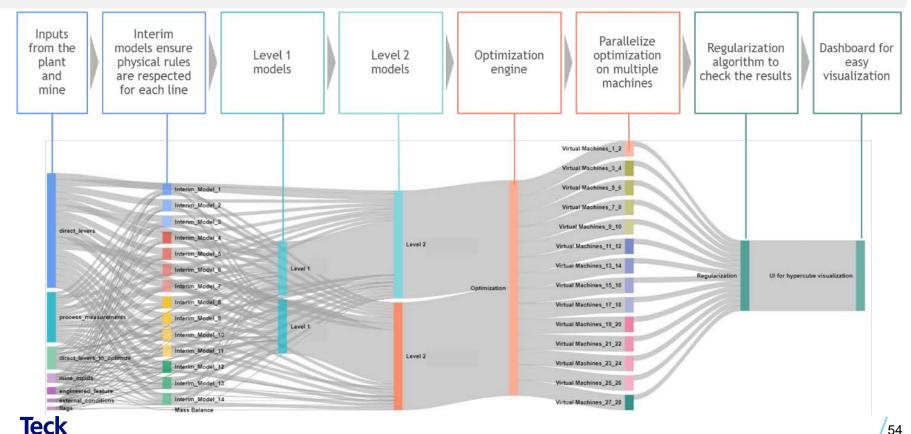


Mill Concentrator Projects



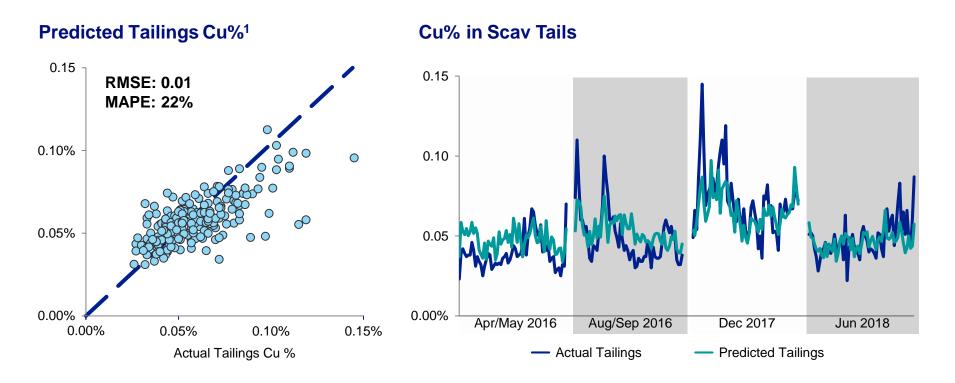
Example: Advanced Analytics Model Components

Final product fed by several internal models and constraints/optimizers



Flotation Recovery Improvement

Prediction model created for Rougher/Scav circuit; Optimization model underway

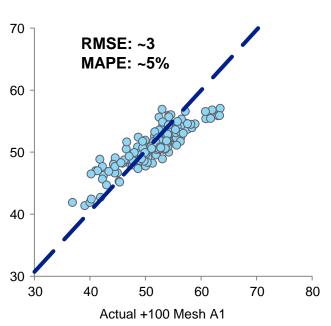




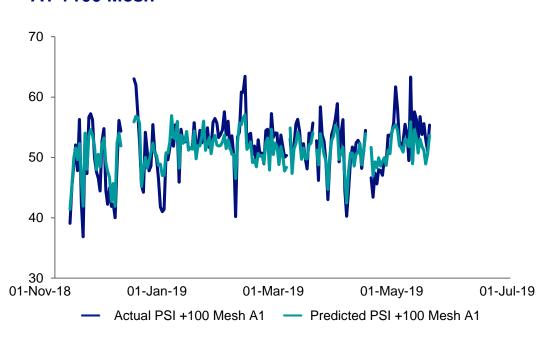
SAG Throughput Improvement

Preliminary prediction model showing promising results

Predicted +100 Mesh A1

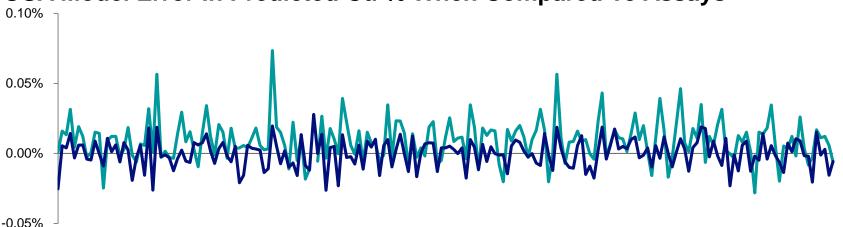


A1 +100 Mesh



ML OSA Model Provides More Accurate Reflection Of Reality For Operators

OSA Model Error In Predicted Cu % When Compared To Assays



	R ²	RMSE
ML OSA Model	0.66	0.010
Existing OSA Model	0.32	0.025

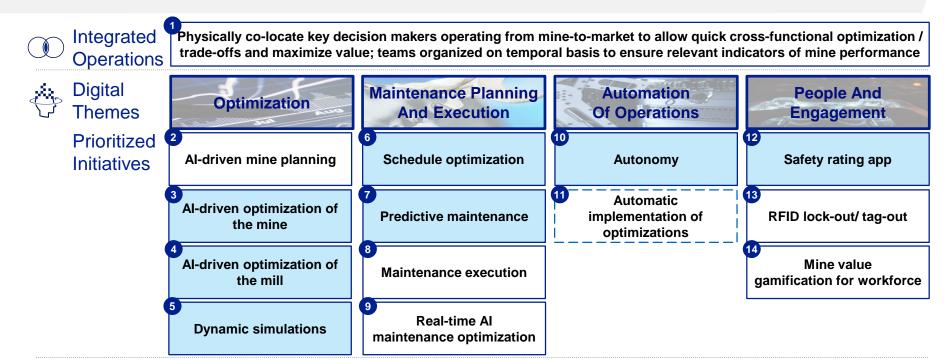
Next Steps

- Implement within flotation process
- Expand to all x-ray analysers

60% reduction

Advanced Analytics Initiatives Identified

Four Digital Themes And 15 Initiatives Identified



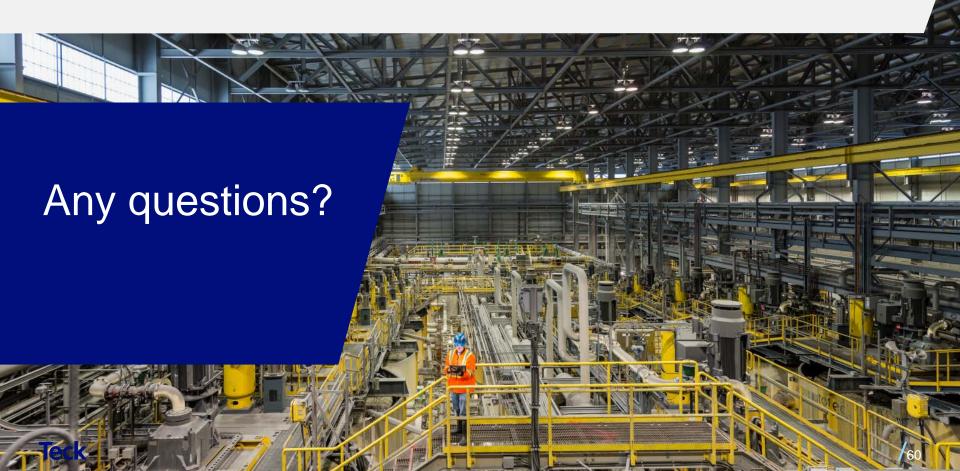


Additional data infrastructure, were identified as being required to support above applications (e.g., flow sensors, visualization dashboards, data aggregation systems, etc.)



First priority initiatives (next 12 months)

Highland Valley Copper Mill Overview



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