



**RHYOLITE  
RESOURCES**

TSX.V: RYE

# TRANSFORMING AN INDUSTRY THAT IS DUE FOR CHANGE

Technical innovation, operational excellence  
and ESG focus





## **FORWARD-LOOKING INFORMATION**

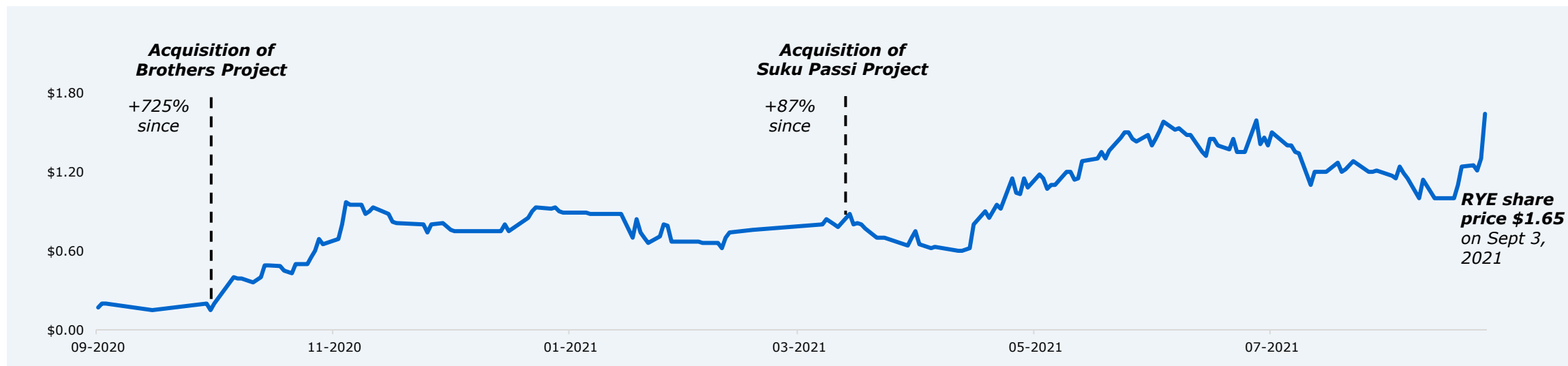
This Presentation contains certain forward-looking information and forward-looking statements (collectively “forward-looking statements”) within the meaning of applicable securities legislation. All statements, other than statements of historical fact, are forward-looking statements. Forward-looking statements are frequently identified by such words as “may”, “will”, “plan”, “expect”, “anticipate”, “estimate”, “intend”, “indicate”, “scheduled”, “target”, “goal”, “potential”, “subject”, “efforts”, “option” and similar words, or the negative connotations thereof, referring to future events and results. Forward-looking statements in this Presentation include, but are not limited to: statements regarding the business, operations, outlook and performance of the Company (including, without limitation, following completion of the acquisition of Muckahi Inc.); potential benefits from the acquisition of Muckahi Inc.; plans, objectives and advancement of the technology and mining systems developed by Muckahi Inc. (the “Technology”); anticipated returns from development of the Technology; ability to leverage existing mining infrastructure in the exploitation of the Technology; exploration plans for the existing plans for the Company’s projects in Suriname; results of exploration, development and operations; timing, type and amount of capital and operating and exploration expenditures; treatment under regulatory regimes; ability to realize value from the Company’s assets; any other statements regarding the business plans, expectations and objectives of the Company; and any other information contained herein that is not a statement of historical fact.

Forward-looking statements are based on management’s reasonable estimates, expectations, analyses and opinions at the date the information is provided and are based on a number of assumptions and subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information. Assumptions upon which such forward-looking information are based include, without limitation, that no significant event will occur outside the ordinary course of business of the Company; legislative and regulatory environment; impact of increasing competition; current technological trends; price of gold and other metals; costs of development and advancement; anticipated results of exploration and development activities; the ability to operate in a safe and effective manner; the ability to further develop and advance the Technology and the ability to obtain financing on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive. Further, the aforementioned assumptions may be affected by the negative disruptive effect of the novel coronavirus (“COVID-19”) pandemic, which has resulted in a widespread health crisis that has already affected the economies and financial markets of many countries around the world. The international response to the spread of COVID-19 has led to significant restrictions on travel; temporary business closures; quarantines; global stock market and financial market volatility; a general reduction in consumer activity; operating, supply chain and project development delays and disruptions; and declining trade and market sentiment, all of which have and could further affect commodity prices, interest rates, credit ratings and credit risk. The continuing and additional business interruptions, expenses and delays relating to COVID-19, could have a material adverse impact on the Company’s plans, operations, financial condition and the market for its securities; however, as at the date of this Presentation, such cannot be reasonably estimated. Although the Company believes that the current opinions and expectations reflected in such forward-looking statements are reasonable based on information available at the time, undue reliance should not be placed on forward-looking statements since the Company can provide no assurance that such opinions and expectations will prove to be correct.

- With the acquisition of a license for the Muckahi Mining System, Rhyolite plans to acquire mineable assets that are currently of low value if mined with conventional technology, and deploy this proprietary technology to turn them into high ROI assets, thus creating asymmetric returns.
- Rhyolite will also apply its technical strength and entrepreneurial drive to enhance shareholder value through exploration programs, with the intention of discovering future mineable assets.

### STRATEGIC APPROACH

- 1 Identify and acquire** low ROI mining assets in established mining districts that have been using conventional mining technology.
- 2 Deploy** proprietary Muckahi Mining System and boost ROI.
- 3 Explore** to discover new deposits in established mining districts. Success will reduce the need to acquire mineable assets in the future.





Leverage  
proprietary  
technical  
innovation in  
underground  
mining



Leverage  
Systems,  
Leadership,  
ESG  
innovation



Leverage cost  
containment  
opportunities  
of vertical  
integration



Invest in  
training for  
good  
judgement



Apply these  
advantages to  
build high ROI  
mines in existing  
mining districts



Unique opportunity to source mining assets that are undervalued due to the cost of mining with conventional mining technologies. Convert them into high ROI assets by applying our proprietary Muckahi Mining System technology.



*\*If viewing this presentation in PDF format, please see video at <https://rhyoliteresources.com/muckahi-mining-system/overview/>*



Rhyolite understands that earned trust is the essential ingredient to establishing and maintaining a social license to operate. We will apply the principles of Systems Leadership Theory to earn the trust of all stakeholders. Trust that we will do what we say we are going to do, and will do the right things.

1. Apply Systems Leadership Theory to build a productive company-wide culture that results in enhanced returns by doing things right
2. Apply Systems Leadership Theory to build positive and mutually beneficial relationships with external stakeholders
3. Consume less energy and water by utilizing the Muckahi Mining System
4. Utilize the Muckahi Mining System to eliminate the use of diesel and the associated greenhouse gases in the underground mines

***Culture is a product of management behaviour, management systems, and symbols***

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We will capture the 'pre-mining' margins traditionally paid to external companies by designing and building our own mines and our own equipment.


**A Muckahi mine is a simple mine with fewer processes. It basically consists of tunnels with a monorail network:**

- Simple mine design, which can be replicated with minor adjustments for varying deposit geometries.
- Very little construction needed and no EPCM contractor required.

**We have the equipment designs and will continue to enhance those designs:**

- Assembling the equipment is not complex, nor does it require expensive facilities.
- Apart from capturing OEM margins on equipment and parts, assembling the equipment ourselves helps to protect the intellectual property (IP).
- The inventory system for manufacturing will also be the inventory system for spare parts.
- The design engineers will be the back-up experts for troubleshooting unusual maintenance issues.
- The test track for commissioning the equipment will also serve to train the Muckahi miners.



 Invest heavily in training to optimize functional skills, team leadership, teamwork and motivation.

 **GOOD JUDGEMENT COMES FROM EXPERIENCE.**

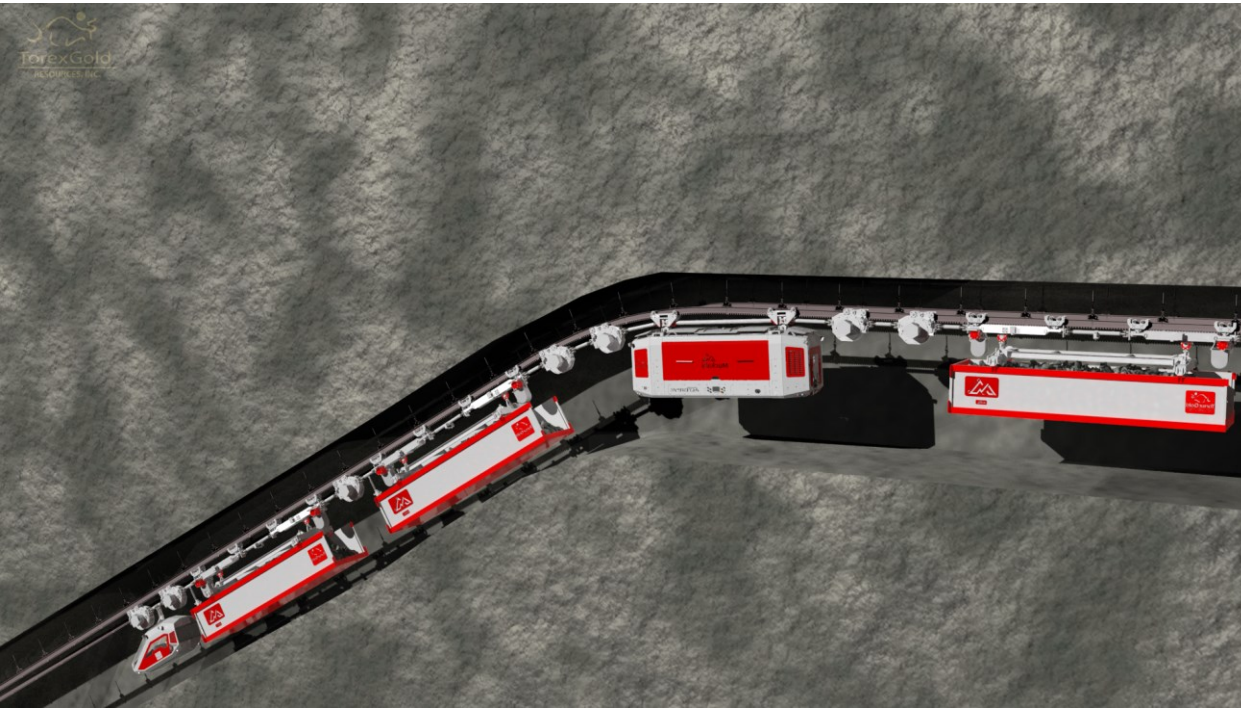
**EXPERIENCE IS LARGELY NON-TRANSFERABLE.** 

- Physical skills training of the operating team enhanced by synergies with the assembly facility
- Training for leadership and team membership complements physical skills training
- Accelerate the development of good judgement by applying case-study learning at the front-line





Rhyolite plans to identify and acquire concession rights which are currently economically unfeasible and apply the Muckahi Mining System to develop them into high ROI mines.



**In established camps, the assets most likely to have an optimal mix of low purchase price and ROI opportunity are:**

- Mines that have been mined to the elevation of shaft bottom, but the deposit continues.
  - 'Ramping down' below shaft bottom is much better suited to the steep ramps and low ventilation requirements of Muckahi.
- Deposits that dip or plunge at less than 45°.
  - These deposits are well suited to the Muckahi ore transport system, since it does not use ore-passes, which becomes expensive when the deposit angle is below 70°.

***We have identified many opportunities with these characteristics in Tier 1 jurisdictions***



In the past, underground hard rock mining used to be much less complex than it is now. Rhyolite plans to return to simplicity, predictability, reliability, and consequently higher ROI by deploying the Muckahi Mining System.



**MUCKAHI MINES ARE NOT COMPLEX AND HENCE ARE LOWER COST**



**DESIGN AND BUILD OUR OWN MINES**



**VERTICAL INTEGRATION OF THE SUPPLY CHAIN FOR THE MONORAIL-BASED EQUIPMENT**

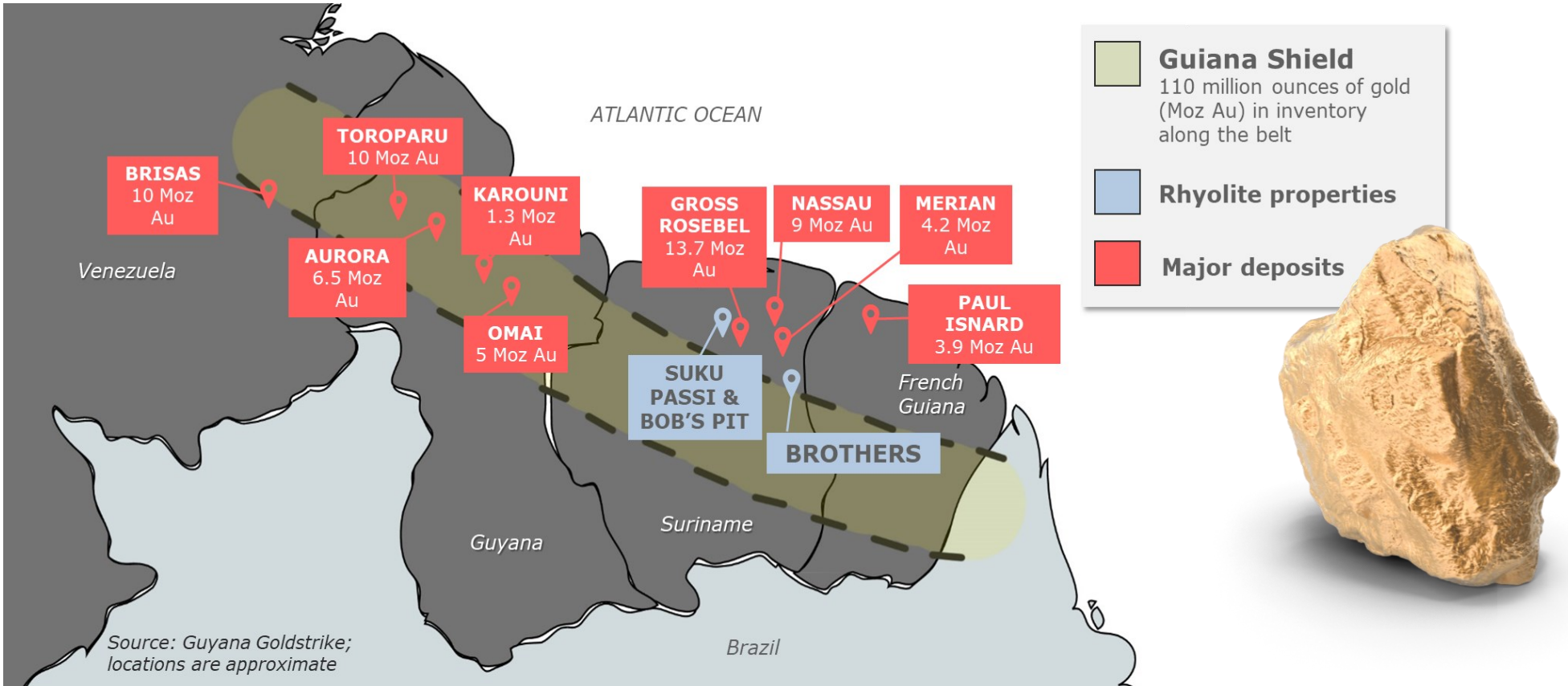


**EXTENSIVE TRAINING OF MINERS AND LEADERS**



**INTEGRATED MANAGEMENT SYSTEMS – INCLUDING SAFETY RULES, TASK PROCEDURES, COMPENSATION SYSTEMS, ETC.**

» In conjunction with our business model based on Muckahi deployment, Rhyolite will continue to consider unique greenfield exploration opportunities such as the concession rights it had identified and acquired in Suriname.



» Rhyolite's distinguished leadership is very well-suited to assemble the right team with the horsepower and competence, and drive best-in-class execution of the strategy.



### FRED STANFORD, P.ENG

- 40 years of mining industry experience, primarily in operations and company building
- 28 years with Inco/Vale, where he 'retired' in 2009 as the President of the Ontario Operations
- Went on to be the founding CEO of Torex Gold, a leading intermediate gold producer with \$1bn+ in market capitalization
- 'Retired' in 2021 from the role of Executive Chairman with a track record of success as an innovator and an implementer of innovation
- He is an expert in applying Systems Leadership Theory in the mining industry
- He is the lead designer of the Muckahi Mining System

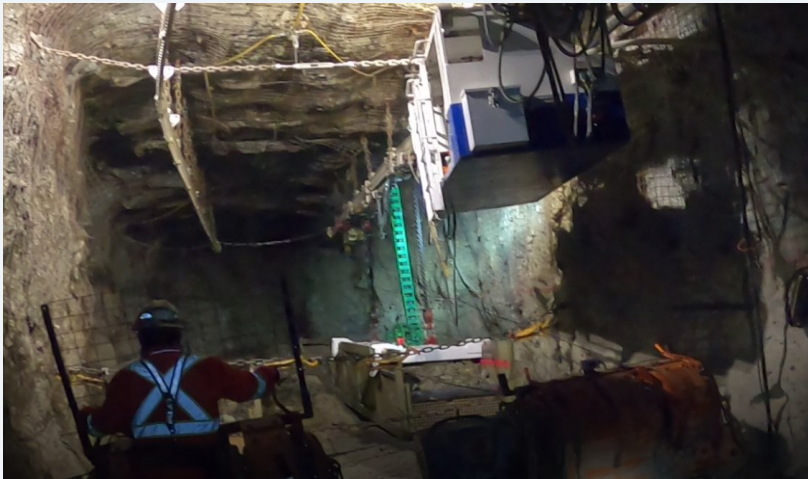




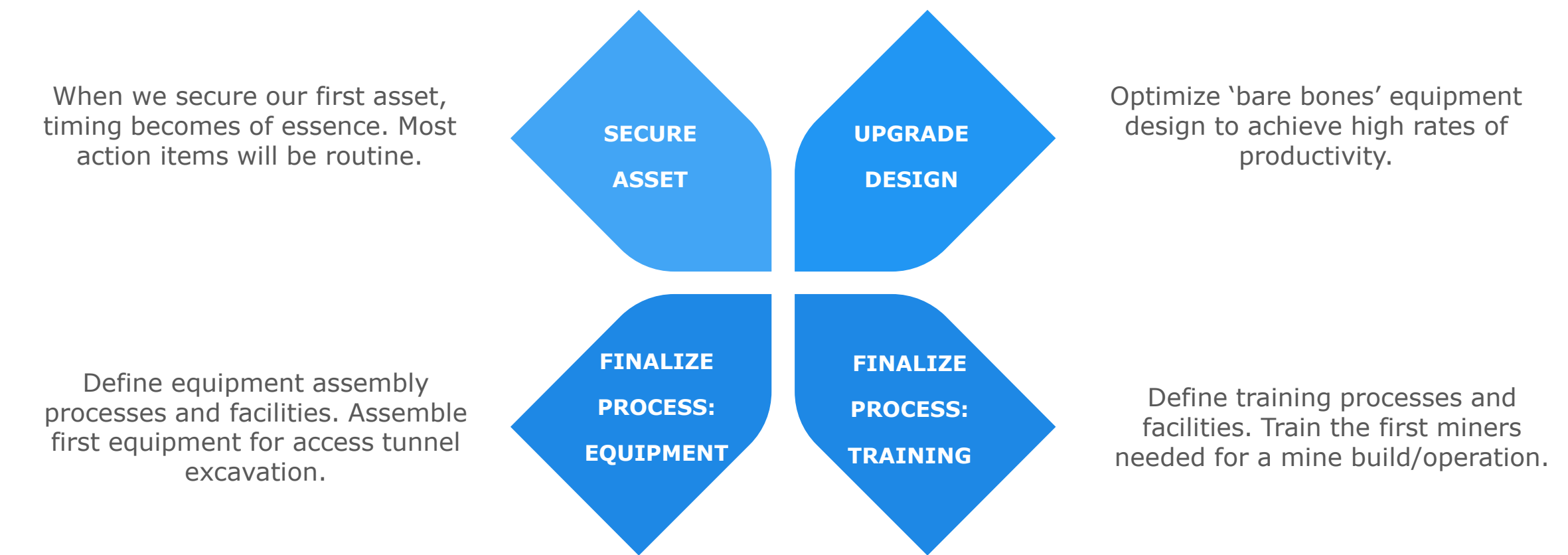


Underground testing has confirmed that monorail-based equipment works, but Rhyolite continues to optimize the equipment to maximize speed and efficiencies.

- Testing of the first generation of machines has been recently completed and the machines performed as designed
- Ongoing engineering to optimize the designs and to enable the machines to perform at the rates that will drive higher ROI
- Integrating the machine capabilities into the training systems



» Negotiations are underway for the first mining asset, with more to follow. In parallel, Rhyolite will start manufacturing the machines and train miners to use them. Following steps are critical while securing the first asset:



***Steps to be carried out simultaneously to avoid a long ramp-up time***



We expect to have the first mining asset secured by year end 2021. In the meantime, we will be advancing 2<sup>nd</sup> generation machine engineering and laying the groundwork for manufacturing, training, and financing.

### TESTING & TRAINING

Facility required for manufacturing and testing, incl. 30° test track, is planned to be set up in Lunenburg, Nova Scotia




### DESIGN

After designing the first generation Muckahi, MEDATech is also designing the 2nd generation production-quality machines and related planning

### EXPLORATION

Drill our two properties in Suriname to test whether the sources of gold are sufficient for a high-volume mine



 Rhyolite insiders own approx. 23% and are committed to creating shareholder value.

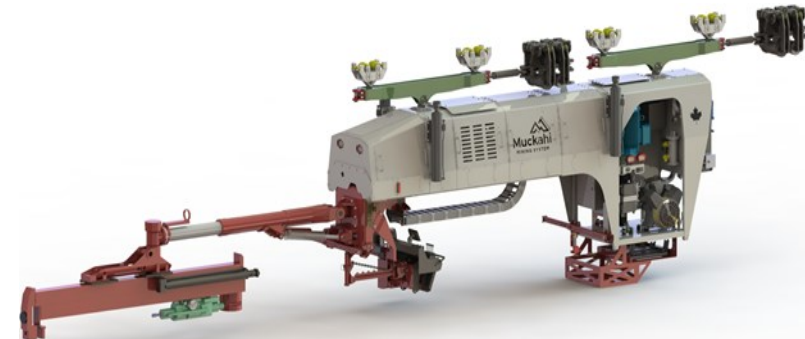
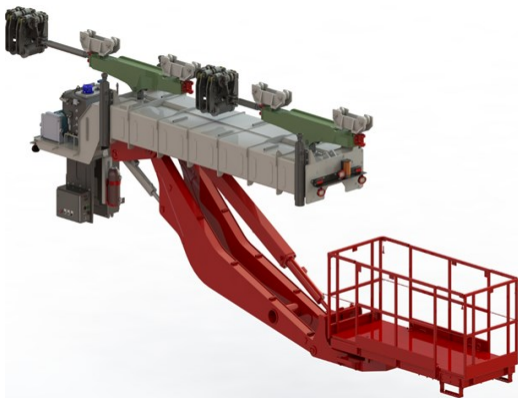
*As of September 20, 2021*

<b>Ticker</b>	TSX.V: RYE
<b>Shares Outstanding</b>	96,043,766
<b>Warrants</b>	-
<b>Options, RSUs, DSUs</b>	-
<b>Share Price</b>	\$1.10
<b>Market Capitalization</b>	\$95.2M
<b>Cash Position as of June 30, 2021</b>	~\$4.5M
<b>Debt</b>	\$-





We are looking for investors willing to back leadership that has been consistently successful in transforming the industry and has paved the way for a new strategy aiming to achieve high-ROI while delivering a better ESG impact.







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