CAD-TSXV: HMR **USA-OTC: HMRFF** GDR-WKN: 5ZE / A3CYRW



**CORPORATE PRESENTATION NOVEMBER 2023** 

## **HPQ SILICA SOLUTIONS PROCESSING TO MANUFACTURING**

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# **OUR VISION & MISSION**

#### VISION

Our vision is to be a leading materials company in the high-purity (HPQ) silica energy and industrial verticals.

### MISSION

Our mission is to provide our customers with the highest quality materials, using sustainable and responsible practices, and to continuously improve our offerings through innovation based on customer feedback, while fostering a culture of safety, teamwork, and social and environmental respect.



# COMPANY ROADMAP

#### Phase 1 – HPQ Silica Supply

Q1 2023

Homerun recently announced that the Company has successfully secured a substantial supply of HPQ Silica in Brazil. This exceptional resource can be efficiently processed to serve the premium end-markets for HPQ Silica. The strategic imperative under Phase One, was to secure a steady and reliable source of HPQ Silica against a backdrop of increasing global demand in sustainable industrial and green energy applications. The Company is now positioned in a massive critical minerals market and will benefit from the increasing demand for both HPQ Silica and the products and solutions produced from HPQ Silica.

#### **Phase 3 – Revenue and Vertical Integration**

Homerun is driving toward revenue. Initial revenues will be tied to the delivery of sand in its natural form while we develop the infrastructure and logistics required to service the balance of those organizations requiring processed HPQ Silica. At the same time, we are executing research and development plans to secure competitive advantage either directly or via partnership in HPQ Silica verticals serving the Energy Transition. Announcements in this area will be forthcoming over the balance of 2023 and beyond.

> Q4 2023

Q3-4 2023

#### **Phase 2 – Infrastructure and Logistics**

HPQ Silica can be sold in its natural form, but to access many end-uses the raw sand is processed (washed, sized and upgraded) prior to its use in most industries. Under Phase Two of the Company's Strategic Plan, Homerun, has been focused on integrating infrastructure and logistics for the mining, transportation, storage and processing of its HPQ Silica. Announcements in this area will be forthcoming over the balance of the 3rd and 4th guarters of 2023.



#### **OUR GOAL**

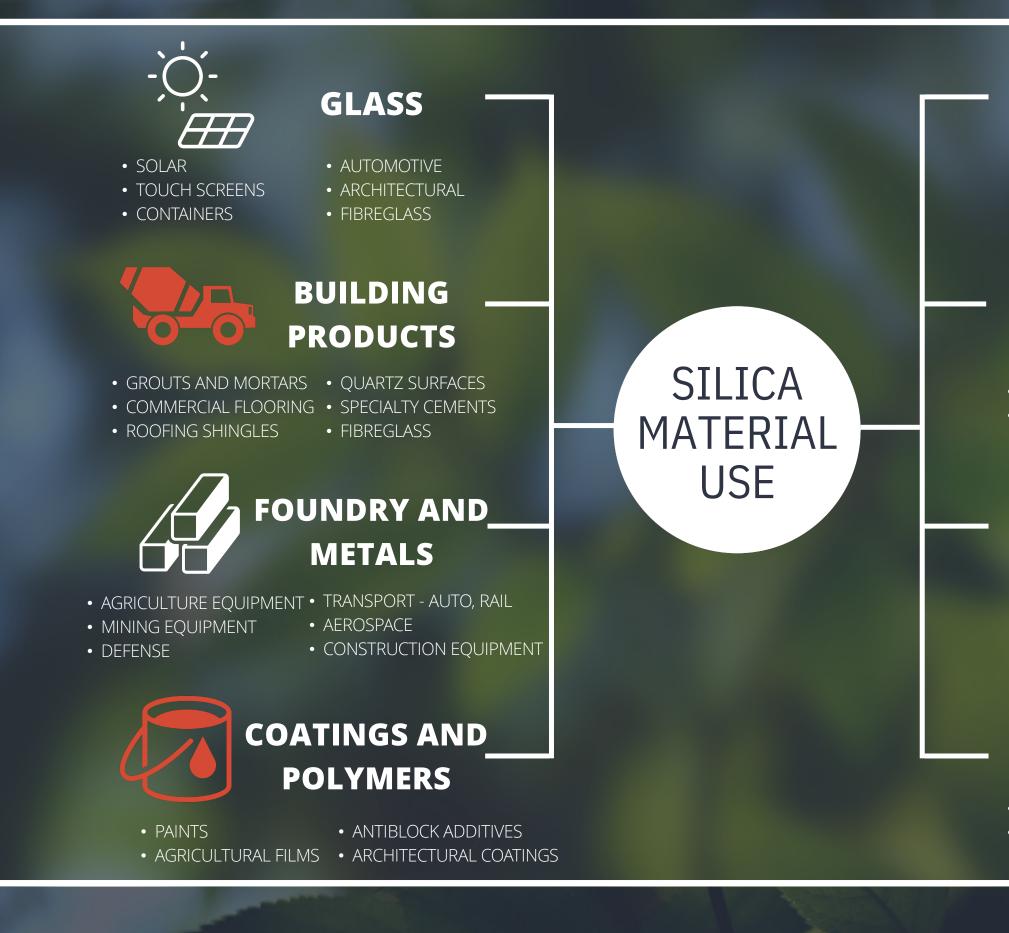
- We will be a top supplier of silica and manufactured silica products in the Energy Transition Verticals.
- We will create jobs and support the local people of Brazil, The Brazilian Government, and solidify their mark as a world leader in the Energy Transition.

# **HIGH-PURITY SILICA SAND SHORTAGE**

"Our entire society is built on sand. Sand is the primary substance used in the construction of roads, bridges, highspeed trains and even land regeneration projects. Sand, gravel and rock crushed together are melted down to make the glass used in every window, computer screen and smart phone. Even the production of silicon chips uses sand."

"Yet, the world is facing a shortage..." CNBC - 2021

# HPQ SILICA MARKETS







• TILES

- BATHTUBS
- SANITARY WARE
- SINKS



- SILICA-BASED CHEMICALS SILICON CARBIDE
- SODIUM SILICATES



- POOL FILTRATION
- PET LITTER
- ACCIDENTS AND SPILLS
- COMMERCIAL FILTRATION



#### **MISC / OTHER**

- GOLF AND VOLLEYBALL SANDS 
  FORENSIC TESTING
- CUSTOM TURF BLENDS
- FILTERS

# **High-Purity Silica** is Critical for the World's ENERGY Transition

Global supplies of silica sand are being exhausted much faster than they are being discovered, and if shoring up the supply of the world's second-most used commodity after water is not already front of mind for investors, governments, and regulators around the world, it will be.





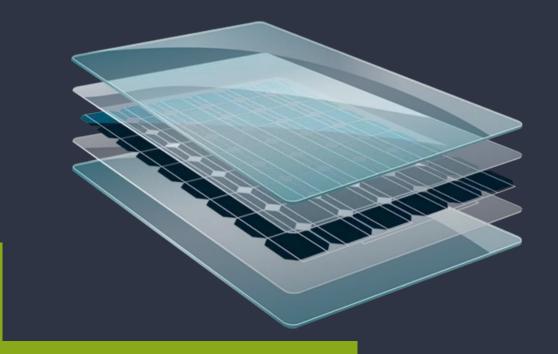


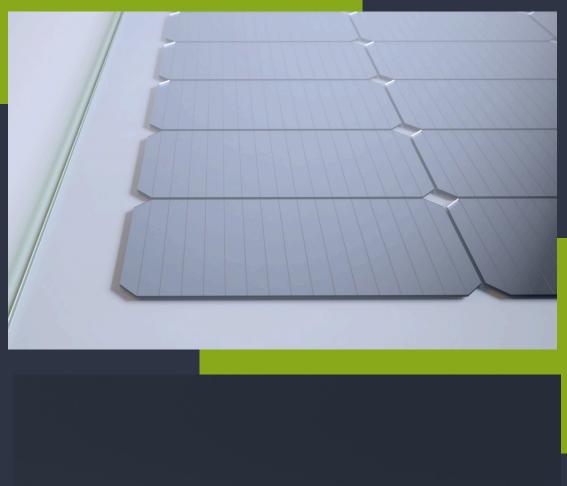
Silica sand is a primary component of glass, providing the structural integrity and transparency that make it ideal for use in windows, mirrors, and other glass products. The global solar power market size was valued at USD 167.83 billion in 2021. The market is projected to grow from USD 234.86 billion in 2022 to USD 373.84 billion by 2029, exhibiting a CAGR of 6.9% during the forecast period.



The global silica sand market size alone stood at a value of USD 21.6 billion in 2022. The market is further expected to grow at a CAGR of 5.8% in the forecast period of 2023-2028, reaching a value of USD 30.29 billion by 2028.







#### High-Purity Silica for Solar Glass and Silicon in Solar Cells & Batteries

Silica sand is a key component in the production of solar panels. Specifically, HPQ silica sand is used to make the solar glass and is the raw material for silicon wafers that are the primary component of solar cells. The silica sand is purified and then melted at high temperatures to form ingots, which are then sliced into thin wafers. These wafers are then processed and assembled into solar cells, which are combined into modules with solar glass to create a solar panel.

## Because solar panels require high purity silicon, *the demand for HPQ silica sand has increased significantly in recent years as the global demand for solar energy has grown.*

HPQ silica sand is used in multiple capacities in the production of lithium-ion batteries, which are commonly used in portable electronic devices, electric vehicles, and energy storage systems. Specifically, silica is used as a coating material for the electrodes in the battery. The silica coating helps improve the stability and performance of the battery, leading to increased efficiency and longer lifespan. In addition to the electrode coating, silica is also used as a separator material in lithiumion batteries. Silica to silicon is now being utilized in hybrid and pure silicon anodes.

As the demand for electric vehicles and renewable energy storage systems continues to grow, so does the demand for high quality silica sand for use in lithium-ion batteries. Therefore, *silica sand is becoming an increasingly important resource in the transition to a more sustainable energy future.* 

# Silica Sand & Energy Storage

High purity silica sands play a crucial role in advancing the field of energy storage, offering significant importance and benefits. Homerun will work to be part of the solution to support renewable integration for future carbonfree energy supply. "Sand and concrete silos with refractory insulation are very inexpensive materials that can lead to low-cost energy storage. Traditional four-hour storage technologies don't scale well to the grid or city scale. Now that we are in need of large-scale energy storage, this technology makes a lot of sense." - Patrick Davenport, NREL Researcher

# "We Are In a Global Energy Crisis"

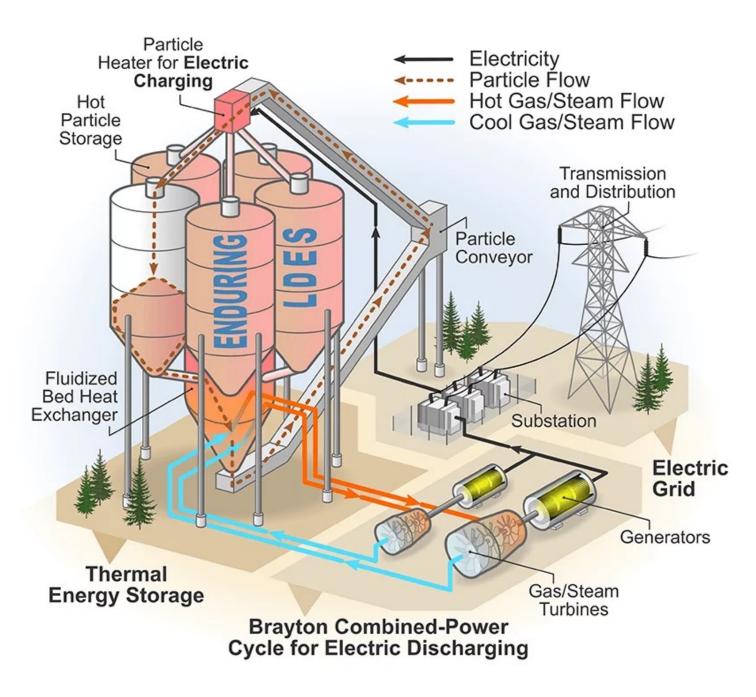


Silica, with its exceptional chemical and physical properties, serves as a key component in various energy storage systems. Its high surface area and porous structure enable efficient electrolyte penetration and enhanced ion conductivity, leading to improved battery performance and increased energy storage capacity.



#### CARBON FREE ENERGY SUPPLY





## **NREL - ENDURING SYSTEM**

Economic Long-Duration Electricity Storage Using Low-Cost Thermal Energy Storage and High-Efficiency Power Cycle (ENDURING) is a scalable, dependable, and costeffective system that may be located anywhere.

## **RESEARCH & DEVLOPMENT <u>AGREEMENT</u>**

In November of 2023, Homerun Resources announced that the Company has signed a Multi-Party Shared Resource/Funds-In Cooperative Research and Development Agreement (CRADA) with the **U.S. Department of Energy's National Renewable Energy Laboratory** (NREL) and The Babcock & Wilcox Company (B&W).

The general purpose of the CRADA is a collaborative effort to jointly evaluate integrating a silica sand refinement process into the **ENDURING Energy Storage Application**. NREL, Homerun and B&W have recognized the potential of using the novel energy storage technology to process upgrade Homerun's silica sand while providing clean reliable energy. This initiative supports Homerun's goal of refining their silica sand to serve various industrial sectors.

The project is designed to support an advanced energy solution in long duration energy storage using particle-based thermal energy storage and overcome market hurdles for using this technology in broad decarbonization applications. It will help define a technology commercialization pathway that currently lacks first-of-its-kind use and lay groundwork for ongoing technology developments capable of enhancing U.S. industry and manufacturing jobs. If the particle thermal energy storage is realized by this collaboration, it can be deployed to train U.S. workers working on this energy solution for long term economic competitiveness. Additionally, particle thermal storage may enhance energy security and resilience by providing a potential low-cost and longduration ability to overcome blackouts or weather events that may crumple local electric grids.

## HOMERUN HPQ SILICA IN THE NREL ENDURING SYSTEM EXPLAINED

The National Renewable Energy Laboratory (NREL) is in the late stages of prototype testing a new thermal energy storage technology that uses inexpensive silica sand as a storage medium. Economic Long-Duration Electricity Storage by Using Low-Cost Thermal Energy Storage and High-Efficiency Power Cycle (ENDURING) is billed as a reliable, cost-effective, and scalable solution that can be sited **ANYWHERE**!

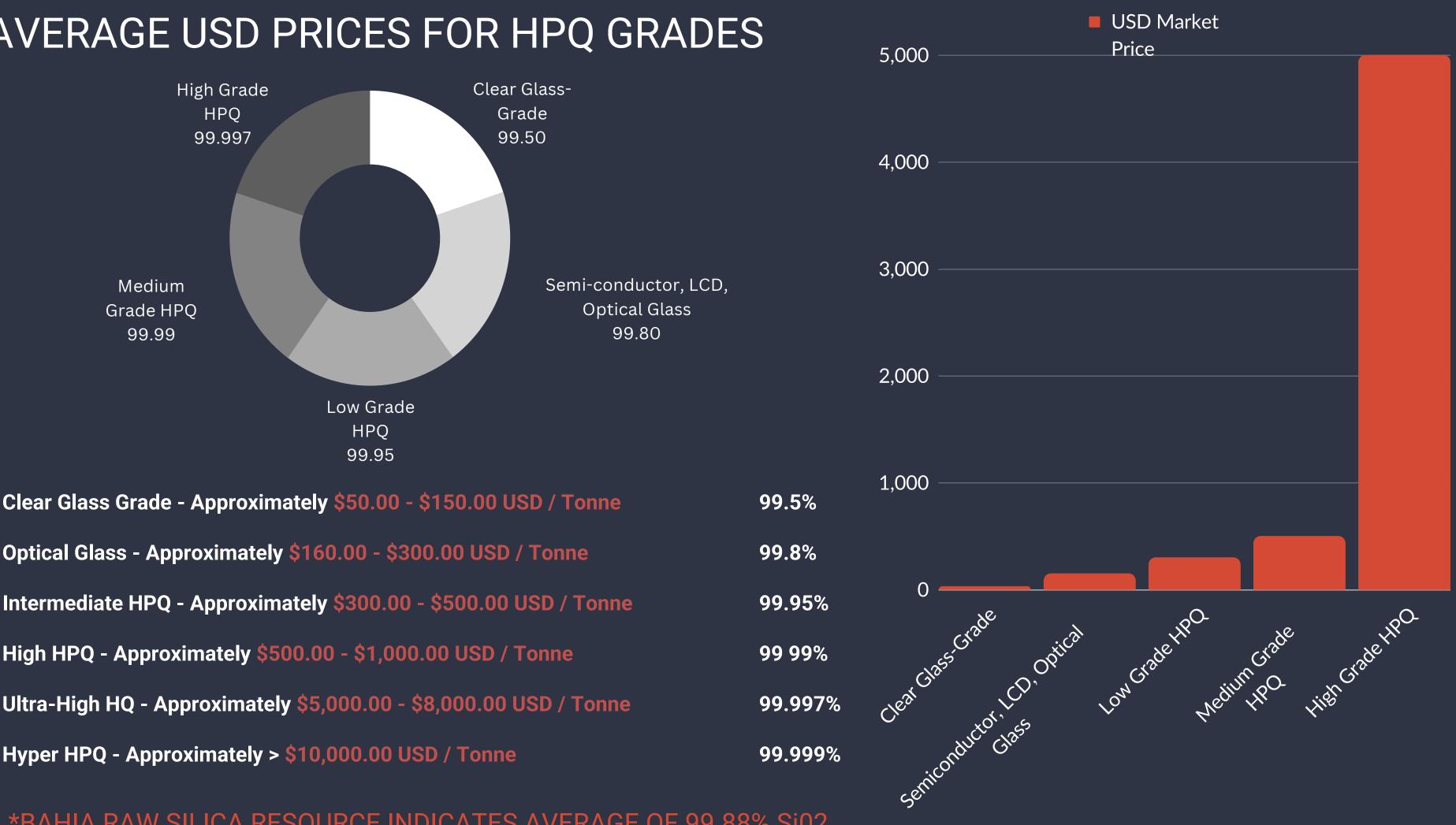
**ENDURING** heats a thermal storage medium — **silica sand** — with excess solar or wind energy. Particles are heated to 1,200°C by passing them through an array of electric resistive heating devices. The heated particles are then gravity-fed into insulated concrete silos to be stored for thermal energy. One of the most attractive features of the ENDURING system is its ability to be installed as part of the grid network. Furthermore, this system could help phase out traditional coal and natural gas plants and could even be placed on existing infrastructure on decommissioned sites respectively. NREL believes that a single baseline, ENDURING system can store up to 26,000 MWh of thermal energy; equivalent to the annual energy consumption of more than 400 households. Furthermore, the technology could be rolled out at costs ranging between 2 to 4 USD per kWh, making it a low-cost thermal energy storage solution.

The Parties will analyze the economic benefits of using Homerun's silica sand for energy storage, including energy arbitrage from energy storage and grid service, processing of the silica sand by using low-cost electricity in energy storage, and generating potential income from processed materials after its use for energy storage

This collaboration between Homerun, NREL and Babcock & Wilcox is that the sand-based ENDURING energy storage system is already converting excess renewable electricity into heat (which is then stored in the sand for long durations), which in turn may also effectively "process" Homerun's raw sand into an even higher quality product, especially when combined with acid leaching. By this, Homerun could get its raw sand processed to higher purity levels – to achieve much higher sales prices – without having to finance and built its own processing facility.



## AVERAGE USD PRICES FOR HPQ GRADES



Intermediate HPQ - Approximately \$300.00 - \$500.00 USD / Tonne

- High HPQ Approximately \$500.00 \$1,000.00 USD / Tonne
- Ultra-High HQ Approximately \$5,000.00 \$8,000.00 USD / Tonne

Hyper HPQ - Approximately > \$10,000.00 USD / Tonne

\*BAHIA RAW SILICA RESOURCE INDICATES AVERAGE OF 99.88% Si02

# Our Target Markets







# Our Answer To The Global Silica Shortage

Homerun has entered into an interim supply agreement with a Brazilian company for raw HPQ silica sand from its resources in the Bahia Silica Sand District in the Bahia State of Brazil. Homerun is working to finalize lease or ownership relationships with the two Brazilian companies that share ownership of the large HPQ silica resources in the District. The supply agreement is backed by a fully permitted operation with an annual allowance of up to 2.5M tonnes and an Indicated Resource of **94,894,847 tonnes** with an average grade of **99.88% SiO2**, 48ppm Fe, 160ppm Ti, and 102ppm Ca and a Measured Resource of 1,836,631 tonnes with an average of 99.75% SiO2, 158ppm Fe, 521ppm Ti and 93ppm Ca. **This HPQ silica will be Homerun's initial supply from the District** and will be processed and shipped from port facilities located in Ilheus and / or Salvador, Bahia.

## BAHIA SILICA DISTRICT **HIGHLIGHTS**

#### Enormous Demand

A study by World Bank revealed that the silicon sand industry has been contracting for the past two years due to a lack of silica. This shortage is likely to continue as China's demand for silicon sand grows exponentially. In fact, the country consumes around 50% of the global silica sand. Manufacturers have also been forced to switch to other materials, such as glass and aluminum, which may have an adverse effect on their performance.



- reselling it for over \$150 USD/tonne.
- shipping.
- Class.
- Local landowners support the development.

• **Operator 1: permitted indefinitely** for full-scale production up to **2.5M tonnes** annually over 5 concessions with opportunity to expand, to 9 concessions. • Operator 1 has been in limited production via a third-party mining contractor since April 2021 selling raw material with no processing at an EBITDA of +60%. • Cost to extract approximately 1 tonne of material is below \$10 USD/tonne. • Operator 1 has a single customer that is based in Sao Paulo and purchasing raw

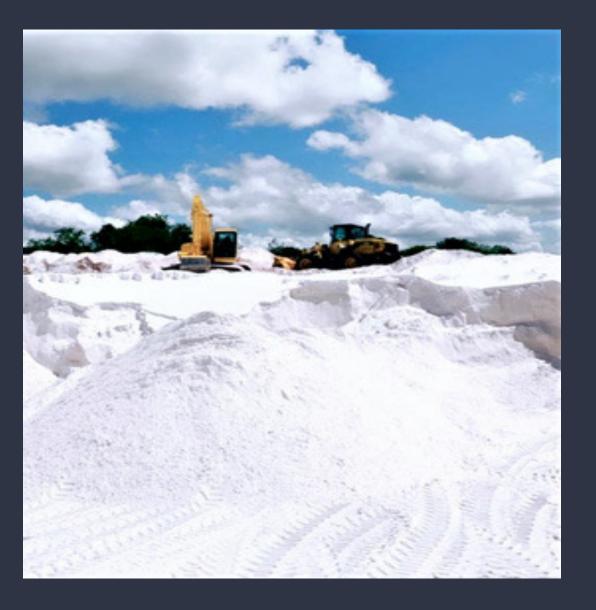
material for \$20 USD/tonne and processing the raw silica in Sao Paulo, where it is

• **Operator 2:** is a Bahia State government organization with a 20 million tonne resource of similar grade that is covering only 10% of their holdings. It is Homerun's view that this resource will eventually be +200 million tonnes. • The District is located only ~50km from shoreline and in close proximity to several active nearby ports with direct road access and capability for additional product

• The Bahia Silica District has a +100 year LOM resource with low iron content and other impurities are extremely low which is why the District is considered World

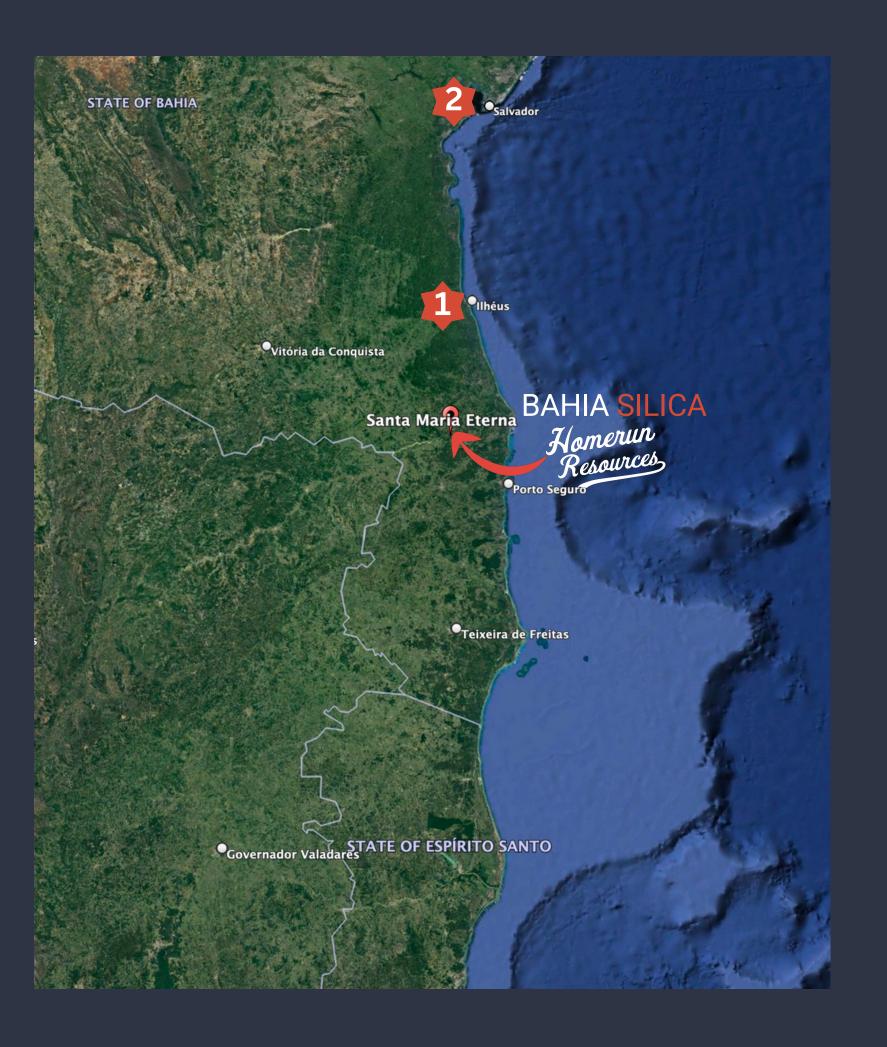
• A reputable German engineering firm has conducted extensive testing and will be engaged when required to engineer the processing facility.

## SRD PARTY TESTING VERIFIES UPGRADE POTENTIAL



	A	Fe	Na	к	Li	Ti	Zr	Ca	Mg	Cr	Mn	Cu	Sum
	[ppm]	[ppm]	[ppm]	[ppm]									
Chemical analyses of raw quartz sand													
Raw quartz sand	17.5	5.5	2.7	1.3	0.08	150	5.2	90	33	0.13	0.12	< 0.05	306
Physical processing													
Fraction 0.1 - 0.5 mm	10.6	3.3	1.5	0.9	0.12	23.5	8.7	98	35.1	< 0.05	< 0.05	< 0.05	182
After scrubbing	12.4	2.4	1.7	1.3	0.08	21.5	0.59	98	36.1	< 0.05	< 0.05	< 0.05	174
Flotation F1	12.2	1.7	2.2	1.4	0.17	16.4	0.44	97	35.7	<0.05	<0.05	0.12	167
NonMag 3	11.0	1.8	1.6	1.7	0.08	25.8	0.52	94	34.6	0.05	< 0.05	< 0.05	172
NonMag 4	13.1	1.7	1.6	1.6	0.29	19.4	0.51	91	34.5	0.05	0.08	0.4	164
NonMag 5	11.0	1.6	1.7	1.6	0.10	17.5	0.74	88	33.1	0.05	< 0.05	<0.05	155
Flotation F2 of NonMag 5	12.7	1.6	2.1	1.2	0.19	18.8	0.62	85	33.9	< 0.05	< 0.05	< 0.05	156
Chemical processing after scrubbing													
Acid washing AW1 (HF std.)	10.3	1.3	1.7	0.86	<0.1	13.5	0.30	86	34.8	< 0.05	< 0.05	<0.05	149
Acid washing AW 2 (HCI)	10.4	1.6	1.6	1.1	<0.1	21.3	0.45	89	35.4	< 0.05	< 0.05	< 0.05	161
Typical products													
Optical glass Type I		<1		•		•	•			< 0.005	< 0.005	<0.005	
Optical glass Type II		<5								<0.1	<0.1	<0.1	

Our product has very low impurities in its raw form, making processing to high purity siO2 a standard and cost-effective initiative while substantially increasing profit margins.



## **BAHIA SILICA SAND DISTRICT**

world.

- on port use.

- - **Facilities**

## Nearby ports allow for economic storage and shipping to customers in Brazil and around the

• Expected cost to extract 1 tonne of material and process for customers will range from \$40.00 USD to \$50.00 USD pending

• Ports have immediate capabilities for product storage and shipping in mass tonnage. Ilhéus stands to be the primary bulk port while Aratu is both a bulk and container port facility.

> • Ilhéus – Ilheus, Bahia, Brazil Port for storage and primary processing • Aratu – Camacari, Bahia Brazil Port and planned Materials

# Our North American Early-Stage Asset

The **Tatooine Silica Project (the "Project")** covers an area of approximately **3,019 hectares** (7,460 acres), located directly adjacent to the community of Brisco, British Columbia and BC Highway 95, and approximately 65 kilometres southeast of Golden, BC, which is home to the Moberly Mine, a past-producing high-purity silica mine in the same lithological unit as the Tatooine Silica Project. The historical Brisco Silica Deposit located in the western part of Tatooine Silica Project, 30 metres from Highway 95, was actively mined in 1964 and 1990, producing 2,450 tonnes and 60,000 tonnes, respectively, for a total of 62,450 tonnes of quartzite silica. Randomly selected pieces taken in 1964 from the Brisco Pit assayed 98.66% SiO2, 0.47% Al2O3, 0.06% Fe2O3 and 0.08% CaO.

The Mount Wilson Formation has been regionally 545000 550000 555000 mapped as a structurally-repeated sequence appearing three to four times along-section from Mount Wilson Formation the western edge of the Property, paralleling the Highly pure, white quartzite. Middle to Upper Ordovician. Hard, massive, medium to fine-grained. highway, to the eastern edge of the Property, Repeated across the Tatooine Property through folding and faulting. which is traversed by a network of logging roads. (Combined regional mapping and interpretation) Homerun Resources Inc. The Tatooine Silica Project has **excellent** TSX.V: HMR access, nearby infrastructure, and resources. A August 30, 2022 230kV transmission line is located less than Brisco Silica Pit (BC MINFILE 082KNE012) Produced 62,450 tonnes of silica in 1964 and 1990. **Tatooine Silica** Two random grab samples from pit assayed: 5km from the Property along the Columbia 98.66% SiO2, 0.47% Al2O3, 0.06% Fe2O3, 0.08% CaO Project (Open File 1987-15) River, and a 69 kV transmission line passes Legend Brisco Silica Pit along the entire western edge of the ☆ Mineral Occurrence Property. BC Highway 95 also traverses the Town / Community Geology western edge of the Property and there is a Quartzite (Mount Wilson Fm.) rail line and railyard in the community of Brisco 4 km Brisco, which is directly adjacent to the **UTM Zone 11N** 545000 550000 555000 Property. NI 43-101 REPORT



SHARE STRUCTURE

## As of November 7, 2023

Exchange	TSXV						
Common Shares Outstanding	48,630,325						
Stock Options	6,100,000 Avg \$0.16						
Warrants	6,348,000 Avg \$0.20						
Fully Diluted	61,078,325						
Market Cap	\$34M CAD						
Fully Diluted Inside Ownership %	25%						



# MANAGEMENT

#### **BRIAN LEENERS – CEO/DIRECTOR**

Brian Leeners received both his B.Comm. and LL.B. degrees from the University of British Columbia in 1992 and since that time has been focused on the management of private and public venture companies. In 2002, he founded Nexvu Capital Corp. which is a venture capital firm focused on developing companies in the Materials and Technology Sectors. Nexvu provides hands-on business development strategy and expertise for start-up and growth phase companies. Focused on both private and public companies, Nexvu also insulates the operational management from the public company process and provides economies of scale in the regulatory/legal, accounting/audit and investor relations areas. Since formation in 2002, Nexvu has been directly responsible for raising in excess of US\$100 million for Nexvu transactions (not including any public market buy-side volumes).

#### **ANTONIO VITOR – COUNTRY MANAGER BRAZIL**

Antionio has vast experience in project management at large corporations, including Transpetro, PwC, Shell, along with 10 years of experience in mining. He was involved in the mining projects Zumbi Mineração Grafite de veio, AMA Gold, Hawking Graphite, 3 S Rare Earths and Copper, Palmeres Rare Earths. He graduated in Business Administration and holds an MBA. He is a Member of IBGC.

#### **DR. MAURO CESAR TERENCE - CTO**

Dr. Mauro Cesar Terence - Graduation in Chemistry from Universidade Presbiteriana Mackenzie (1994), Masters in Nuclear Engineering from Universidade de São Paulo (1996), Doctorate in Nuclear Engineering from Universidade de São Paulo (2002). Experienced in Material and Metallurgical Engineering, in the following subjects: Advanced Materials, Nano Materials, Biomaterials, Ceramics, Blends and Polymers.

#### **CARLOS BASTOS – GEO / QP BRAZIL**

Carlos has 37 years of experience as a geologist working in Brazil. He was the Technical responsible for Vale's largest kaolin project in Pará, as well as bauxite. He worked in project management and geology positions at CODELCO, Alcoa, Vale and Ferbasa. He has also consulted on research reports and measurement of recesses in multiple projects in Brazil. He graduated as Geologist from the Federal University of Rio de Janeiro and holds a Master's degree from the Federal University of Pará. He is registered as a Qualified Person at CBRR in Brazil.

#### ALASTAIR NEIL – BUSINESS DEV / MATERIALS CONSULTANT

Alastair is the President of Trinity Management, a consulting firm with more than 25 years of experience, specializing in business development and commercialization of technologies and specialty materials. He brings valuable expertise in international markets and business relations in Asia, North America and Europe, particularly in strategic metals and critical materials. He graduated in Materials Science Engineering from the University of Western Ontario and holds an MBA from the York University.

#### **ED LOWE - CFO**

Mr. Low has provided accounting services to public companies for the past 18 years and has been the CFO for several companies traded on the TSX Venture exchange. Previously, Mr. Low was the Controller for Nevada Geothermal Power Inc., an alternative energy company with an operating geothermal power plant in northern Nevada which had revenues of US\$20-million annually, and raised over \$280 million over an 8-year period 2003-2012.





# CONTACT US FOR MORE INFORMATION



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