ASX:DRX

Time to shine.

Advanced, high grade, low-cost silica project located adjacent to the world's largest silica mine

Noosa Mining & Exploration Investor Conference
14 July 2021

DIATREME Resources | AUSTRALIAN SANDS. UNIVERSAL DEMAND.

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Cautionary Statement

Whilst Diatreme Resources has concluded that it has a reasonable basis for providing the forward looking statements included in this presentation, Diatreme Resources advises that given the current price of zircon and the company's current market capitalisation (compared to the capital expenditure required in connection with the Cyclone Zircon Project), the production targets and forecast financial information contained in this presentation do not provide an absolute assurance of economic development at this stage. The stated production targets and forecast financial information contained in this presentation are based on detailed PFS studies and Diatreme Resources' current expectations of future results or events, including sourcing of project development finance within the targeted timeline and/or attracting suitable project major financial partners and should not be relied upon by investors when making investment decisions.

The Resource Estimates and Production Targets were reported by the Company on 17 March 2021 and 9 September 2019, continue to apply and have not materially changed. Diatreme confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Additional Information

This presentation should also be read in conjunction with the DRX Annual Report for 2020 and the December 2020 and March 2021 Quarterly Activities reports, together with any announcement made by Diatreme in accordance with its continuous disclosure obligations under the Corporations Act including but not limited to the following ASX releases:

- 10 June 2021 – Mining Lease Application lodged for Nob Point export solution
- 19 May 2021 – Offtake MOU advances development of Galalar Silica Project
- 22 April 2021 – Positive initial testwork results received for Galalar DFS
- 8 April 2021 – Final metallurgical testwork underway for Galalar project
- 17 March 2021 – Galalar silica resource expands 30% to 61.9Mt
- 23 February 2021 – Canberra meetings highlight community support for Galalar
- 11 February 2021 – Diatreme advances community engagement for Galalar
- 25 January 2021 – Diatreme eyes further silica sand resource expansion
- 22 January 2021 – Galalar EIS study progresses with water monitoring underway
- 26 November 2020 – Environmental studies advance for Galalar project
- 9 October 2020 – Capital Raising to Progress Galalar
- 22 September 2020 – Drilling program highlights Galalar expansion potential
- 24 July 2020 - Diatreme advances Galalar Environmental Approvals
- 12 May 2020 - Galalar silica resource expanded 25%
- 8 April 2020 - Galalar regional economic study
- 20 February 2020 - Galalar silica resource expanded 26%
- 6 February 2020 – EIS application lodged for Galalar
- 27 January 2020 – Application to conduct voluntary EIS lodged for Galalar Silica Project
- 23 December 2019 – Mining Lease Application lodged for Galalar Silica Project
- 29 November 2019 – Product upgrade potential for Galalar
- 19 September 2019 – Second MOU signed for Galalar silica offtake
- 9 September 2019 – Galalar scoping study emphasises high return potential (ASX release of Scoping Study)
- 7 August 2019 – Regional support builds for Galalar silica mine
- 16 July 2019 – Offtake MOU on Galalar Silica Project Signed With Fengsha Group
- 20 June 2019 – Boost for Galalar with sampling of regional exploration targets confirming continuity of high silica grades
- 14 May 2019 – Galalar Silica Project further expands with maiden Indicated Resource

Diatreme introduction.

- Public, ASX-listed company focused on minerals exploration and development (ASX:DRX)
- Current market cap ~ $54m
- Flagship project - Galalar Silica Project, Far North Queensland
- Over 1,200 supportive shareholders including Ilwella P/L (Flannery Family Office) (approx.17%), Deutsche Balaton (approx. 8%) and directors and management (approx. 7%)
- Experienced Board and management who have successfully implemented and managed many projects through to mining, with specific Nth Qld mining project implementation and management experience from greenfield to production.

Diatreme Board
Chairman
Gregory Starr

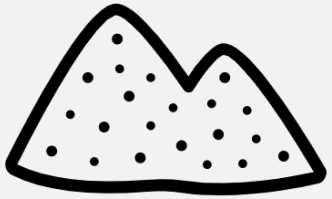
Directors
Michael Chapman
Daniel Zhuang
William Wang

DRX Management
CEO Neil McIntyre
COO Peter Brown
Project Manager Phil McMurtrie
Geologist Neil Forbes
CFO Tuan Do

World Class Silica Sands Project

Our vision is to become a near-term producer of high purity, “low iron” silica sands for use in growing global solar PV and specialty glass markets.

1



One of the world’s purest silica sands projects.

Total Mineral Resource

61.9Mt @99.2% SiO_2

2

Proximity to the world’s largest silica sands project at Cape Flattery.

(Mitsubishi-owned) operating 30 years+

3

Global silica consumption growing fast.

Solar PV panels whose primary component is glass sheeting

4

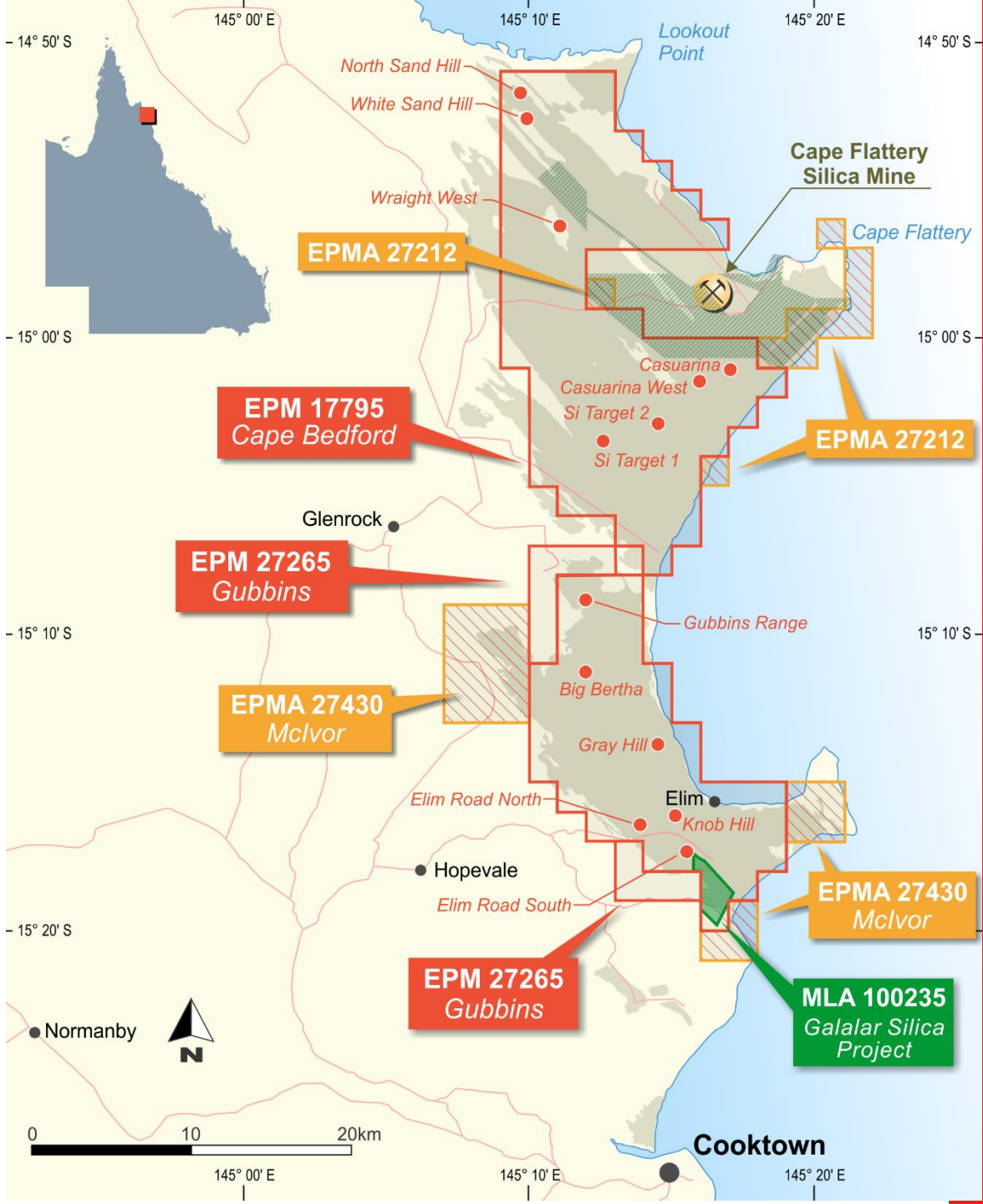
Robust economics, advancing fast.

Low CAPEX | OPEX
First production target 2022

Galalar Silica Project

Premium quality silica.

- Project located 20km north of Cooktown, FNQ adjacent to world's largest silica sand mine at Cape Flattery (Mitsubishi-owned) operating 30 years plus
- Diatreme holds dominant exploration position in known silica province at over 500 sq km
- Further exploration upsides underway
- High purity silica resource identified (61.9Mt)
- Short-term pathway identified to cashflow via low capex project, targeting production by late 2022
- Offtake MOU's with potential to supply up to 750,000 tonnes for solar PV market
- 2019 Scoping Study showed favourable economics, including pre-tax NPV $231m, IRR 150% and capital payback in 8 mths
- Further Scoping Study update and DFS studies underway, targeting mine life extension and production increase at start-up



Note: Refer to ASX announcement on 9 September 2019 –"Galalar scoping study emphasizes high return potential". Diatreme confirms it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Key upcoming company value catalysts 2021

July/Aug 2021	Northern tenement exploration - Potential for significant new resource discovery
August 2021	Mining reserve established for ML area – to support scoping study improvements
Aug/Sept 2021	Updated scoping study - reinforcing strong project fundamentals & improvements
Q4 2021	Finalise DFS Study
2H 2021	Assemble project level debt/ offtake / finalise finance support
Q1 2022	Final approvals targeted for Mining Lease
Q1 2022	Final environmental approvals targeted

Note: *Timing expectations are based on current best estimates and may be subject to change*

Strong stakeholder support.

- Project being developed with support of traditional owners. Hopevale Congress Aboriginal Corporation is the RNTBC entity, representing the interests of native title holders
- Memorandum of Co-operation (MOC) for preferred infrastructure development approach at Nob Point signed with Hopevale Congress, and native title holders the Thiithaarr and Gamaay People
- Thiithaarr and Gamaay People have established negotiation committee, with aim of delivering substantial benefits, business programs and direct community involvement - benefits include a 12.5% direct “free carry” stake in Project
- Independent economic study* (Cummings Economics) shows project would inject $23-24m in construction phase and up to $42m in operation for benefit of Hopevale/Cooktown region, while generating 110 (FTE) jobs and $1.475m p.a. in state royalties

* Refer ASX release dated 8 April 2020 – “Galalar regional economic study” for detail on full economic report.

Local backing.

Canberra delegation, including representatives of affected native title holders (Thiithaarr steering committee), Hopevale Congress Aboriginal Corporation, and DRX CEO at Parliament House, Canberra

Galalar sand mine increases

PETE MARTINELLI

SILICA sands developer and exporter Diatreme Resources Limited has announced another increase in the total JORC Mineral Resource estimate for its Galalar Silica Project near Cape Bedford in Cape York.

Resource estimate has risen to 61.9 million tonnes, up 30 per cent on the previous estimate announced last year

The total resource covers about 335ha with an average thickness of 18.8m, of which 99 per cent falls within the Mining Lease Application area.

"This is another welcome boost for our Galalar project, demonstrating its potential to become a long-term silica sand operation that generates valuable new jobs and investment for the benefit of the local community, including the directly affected native title holders," Diatreme chief executive Neil McIntyre (above) said.

"Galalar will be transformational for Hope Vale and Cooktown, and together with potential downstream processing opportunities in Townsville has the potential to give the whole region a boost in its post-pandemic recovery."

The latest resource expansion follows the release of an economic study showing the project's potential to generate more than 110 full-time jobs, delivering a significant boost to regional household incomes.

It could inject about $23m-$24m in the construction phase and up to $42m in the operational phase for the benefit of Hope Vale, Cooktown and the surrounding region, with estimated total revenue of $80m per year.

Located about 200km north of Cairns and 20km north of the port of Cooktown, the Galalar Silica Project lies within the same sand dune system and in proximity to the world's largest operating silica sand mine at Cape Flattery.

Townsville silica bid

TONY RAGGATT

BRISBANE-based and China-backed mineral and silica sands developer Diatreme Resources is evaluating opportunities for downstream processing of premium quality silica in Townsville.

Diatreme Resources plans to mine high-grade silica sand at the Hope Vale Aboriginal Community's Cape Bedford area north of Cooktown in its Galalar Silica Project.

The company told the Australian Securities Exchange on Friday it had undertaken site visits in Townsville with the help of the State Department of Regional Development, Manufacturing and Water and Townsville City Council.

The site visits examined potential available land and supporting infrastructure, including access to power, water and gas, for potential downstream processing or manufacturing opportunities.

The company said it was actively examining the potential for a portion of its planned mine product, a low iron (sub 100 ppm Fe) silica product, to undertake further beneficiation. It said this would likely be through a hot acid immersion process to produce an

Diatreme Resources CEO Neil McIntyre said they were working as hard as they could to deliver the best project possible for the people of North Queensland.

"Demand for Galalar's product continues to rise on the back of the solar energy boom and with the clean energy revolution accelerating, our project has the right product at the right time," Mr McIntyre said.

An economic study has estimated the mining project has the potential to create up to 110 full-time equivalent jobs and inject up to $42 million into the region during its operation.

Affected native title holders will have a 12.5 per cent project stake.

A draft EIS is under way for the mine and Diatreme is targeting receiving environmental approvals and Mining Lease in the fourth quarter of this year with first mining production in 2022.

The company said it would update the market as discussions progressed with parties considering onshore glass manufacturing operations.

SAND MINE HEADS MEET LOCALS

EMERGING miner Diatreme Resources has kicked off stakeholder engagement meetings ahead of the proposed extraction of 21.6m tonnes of silica from a remote Cape York deposit.

An office in Hope Vale has opened with the aim of engaging the local community and a delegation to Canberra met Minister for Indigenous Australians Ken Wyatt and Environment Minister Sussan Ley. The Galalar Silica Project would mine 950,000 tonnes of silica sand a year during a proposed mine life of 15 years.

Diatreme chief executive Neil McIntyre said the meetings were key to earning a "social licence to operate".

Diatreme CEO Neil McIntyre

"It is impossible to stress enough the significance of such stakeholder engagement," he said.

Two weeks ago the company held community meetings at Hope Vale aimed at informing affected native title holders including regional clan groups and town residents about the project.

Hopevale Aboriginal Congress chairman Wilie Gordon said feedback must be "carefully listened" to in order to ensure development is sensitively undertaken.

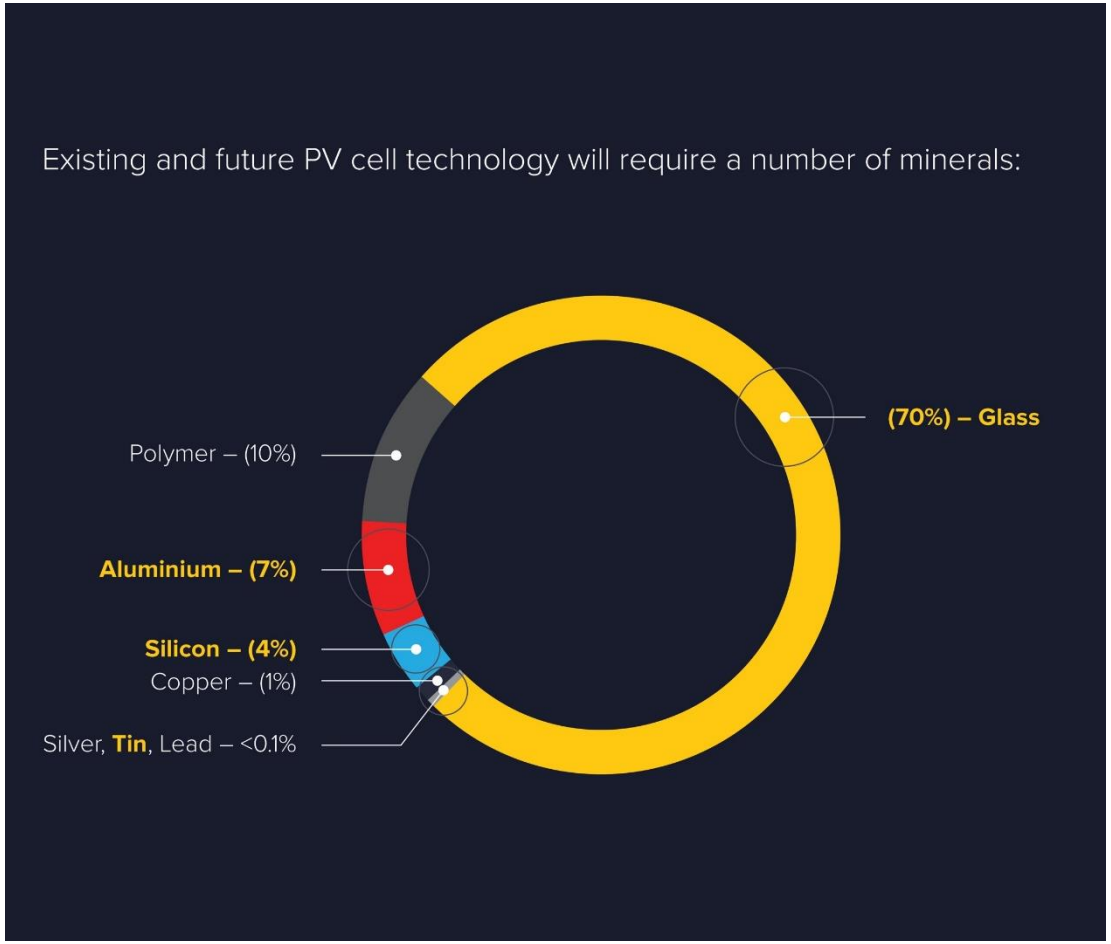
"There are many positive benefits for the affected native title holders and broader Hope Vale community from this mining project, including jobs, revenue and economic opportunities," he said.

Leichhardt MP Warren Entsch supported the mine.

"(The mine) will be transformational for Hope Vale and Cooktown, an area of high unemployment," he said.

Solar market consuming more sand for panel manufacturing.

- Solar panel PV market forecast to reach US$48.2 billion by 2025, with a CAGR of 34.7%*
- World Bank estimates global renewable capacity will grow by over 1TW from 2018 to 2023, up 46%, with solar PV accounting for more than half of this growth
- Galalar project confirmed capable of supplying solar PV market with premium product
- Solar panel manufacturers' feed stock requires >99% purity silica with less than 100ppm iron oxide levels
- Est. 70% of each 'typical' commercial solar panel comprises glass sheeting made from 'low iron' high purity silica

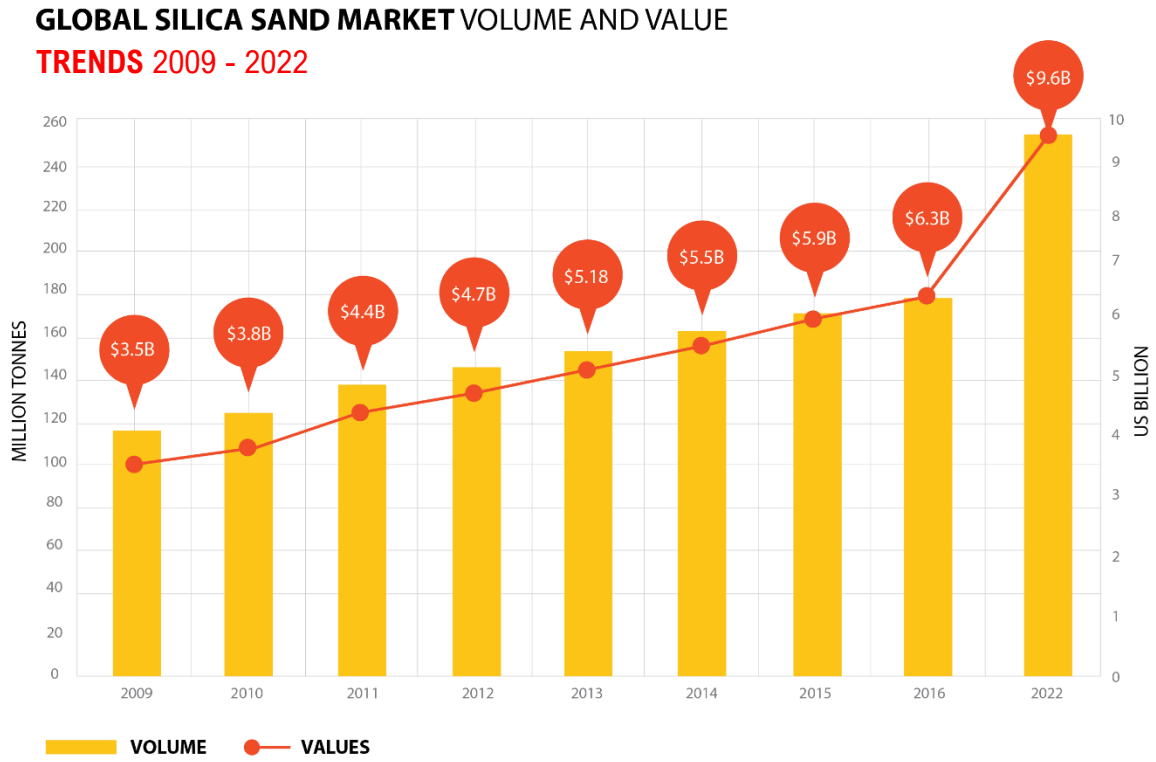


Source: "Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition," World Bank, 2020

** Source: Bizwit Research & Consulting*

Growing global demand.

- Silica sand has many uses, the market is experiencing increasing demand from emerging consumers such as China and India from foundry, automotive and construction industries including the solar PV market
- Silica described as the ‘next lithium’ due to boom in solar PV; IEA estimates 162GW of extra capacity by 2022, 50% higher than 2019 level
- IMARC estimates global silica sand market could grow from US$8B in 2019 to US$20B by 2024; Asia-Pacific the fastest growing region with potential to reach US$8B by 2026
- Supply is diminishing as a lot of the sand used in Asia comes from rivers where environmental concerns are increasingly restricting extraction
- No direct substitutes in majority of applications



Expanding mineral resource.

- Scoping Study production target derived from 2018 JORC Resource (@ 30.2m total tonnes as at March 2019)
- Planned further drilling in 2021 to expand and upgrade the size of the existing resource, further define mineable reserves and lower the overall waste-to-ore ratio for the project
- Significant JORC Exploration Target* highlights potential to expand resource

**Note: The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration completed to date to estimate a Mineral Resource in accordance with the JORC 2012 Edition Guidelines. It is uncertain if further exploration will result in the estimation of a Mineral Resource.*

JORC Resource Estimate
17th March 2021

Inferred	Indicated	Measured	Total
5.8Mt Silica sand	20.6Mt Silica sand	35.5Mt Silica sand	61.9Mt Silica sand
>99.21% SiO_2 grade	>99.20% SiO_2 grade	>99.27% SiO_2 grade	>99.24% SiO_2 grade

High quality silica product.

- The sand from the Galalar project is some of the world's purest
- Bulk sample testwork confirms ability to produce premium grade silica product for high-end glass & solar panel manufacturing (which demands minimum iron content)
- Positive results from initial metallurgical testwork by industry specialist, Mineral Technologies
- Solar panel manufacturers' feed stock requires >99% purity silica with "low iron" less than 100ppm iron oxide levels

Galalar expected quality – From bulk product testing

Iron oxide	Silicon dioxide	Particle size distribution	Titanium dioxide	Aluminium oxide
=< 100ppm	=> 99.7%	109-700 Microns 24-140 mesh	< 140ppm	< 500ppm
International required specifications **<100ppm**	International required specifications **>99%**	International required specifications **109-700microns**	International required specifications **<400ppm**	International required specifications **<1000ppm**
100% in range	100% in range	98% in range	100% in range	100% in range

Positive results.

- Pre-tax NPV $231m, IRR 150% and estimated capital payback within 8 mths
- Estimated development capex $24.4m based on trucking product for transhipment outside Cooktown
- Product price estimate US$75/t (A$107); annual cash costs $43.5m, cash margin $36.8m
- Potential for significant improvement to project economics including logistical solution with purpose-built barge ramp at Nob Point, which could cut $20-$25/t (trucking and transhipment costs) from operating costs
- Additional improvement from developing ultra-low iron silica sand, currently trading at significant price multiple
- 15-year mine life with annual mining rate of 950,000t, producing 750,000t low-iron silica product (79% recovery rate)
- Exploration targets identified within 1km of Mineral Resource, offering potential to expand project
- Potential to generate 30-40 jobs in construction phase and 60 (plus) in production; drive-in, drive-out workforce

Note: *Refer to ASX announcement on 9 September 2019 –"Galalar scoping study emphasises high return potential" and* 17 March 2021 – "Galalar silica resource expands 30% to 61.9Mt" . *Diatreme confirms it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.*

Original Scoping Study snapshot – Next Step is to Improve Fundamentals.

Annual ore feed
950,000tpa

Annual production
750,000tpa

Silica price
US$75/t*

Annual gross revenue
A$80m

x 15 years
Project life

Gross revenue
A$1.2b

*The price assumption is for a 'low iron' silica sand product suitable for solar PV

+Capital development costs include a 20% contingency

CAPEX+
A$24m

Payback period
8 months

Annual operating costs
A$42m

Pre-tax NPV8%
A$231m

IRR (pre-tax)
150%

Annual operating margin
A$37m

x 15 years
Project life

Total project EBITDA
A$555m

Note: *Refer to ASX announcement on 9 September 2019 –"Galalar scoping study emphasises high return potential". Diatreme confirms it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.*

Export solution: Nob Point.

- Mining Lease Application lodged **June 2021** for Nob Point barge ramp, haulage road and temporary stockpile area
- Minimises community and environmental impacts as well as reducing transport costs (lower opex)
- Strongly backed by local stakeholders including Hopevale Congress and other affected native title holders
- Construction of new 3.6km road from mine site to purpose-built barge ramp at Nob Point
- Barging 750,000t of silica product per year over open water to ship transfer site (5,000t barges)
- Transhipping activity undertaken within the Cape Flattery designated port defined area (in GBRMP exclusion zone)

Visual impact.

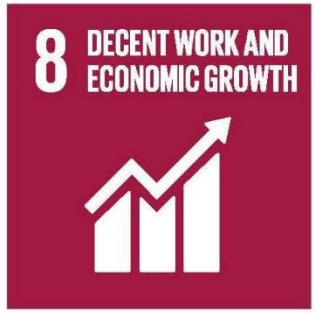
Preliminary Visualisation (conceptual) – Yr 15

Potential to move downstream.

- Potential for further downstream processing or manufacturing – sites being examined in Townsville, Qld
- Potential for further beneficiation process to produce ultra-low iron (sub 50ppm Fe) silica product used in high-end, high value electronics
- Diatreme consulting with potential parties to examine economics of establishing onshore glass manufacturing operations to supply solar PV market
- Move would capture added value for benefit of Qld, regional investment and jobs, supporting Qld Govt renewable energy drive and “new economy minerals” initiatives

ESG benefits and environmental principals to be established at mine inception.

Renewable solar power to supply operation



110 FTE jobs + up to $42m yr economic injection

Downstream processing option for Townsville

Traditional owners hold 12.5% direct project stake and high indigenous employment targets at start-up

Small development footprint – no chemicals - with sustainable rehabilitation

'Net zero' emissions target for mining operation to be established

Supplying solar energy market with essential commodity to panel manufacturing

Sustainable rehabilitation – no disturbance to reef habitat

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DIATREME
Resources

APPENDIX

DIATREME
Resources

Corporate Overview

Share price

A$0.021

At close trading 9 July 2021
52 week high $0.030, low $0.009

Market capitalisation

A$54m

At 9th July 2021

Shares on issue

2,575m

Cash

A$4.07m

At 31 Mar 2021

Options

219.2m

179.2m – Exp *4/2/22 @ $0.020*
13.3m – Exp 27/5/26 @ $0.025
13.3m – Exp 27/5/26 @ $0.030
13.4m – Exp 27/5/26 @ $0.035

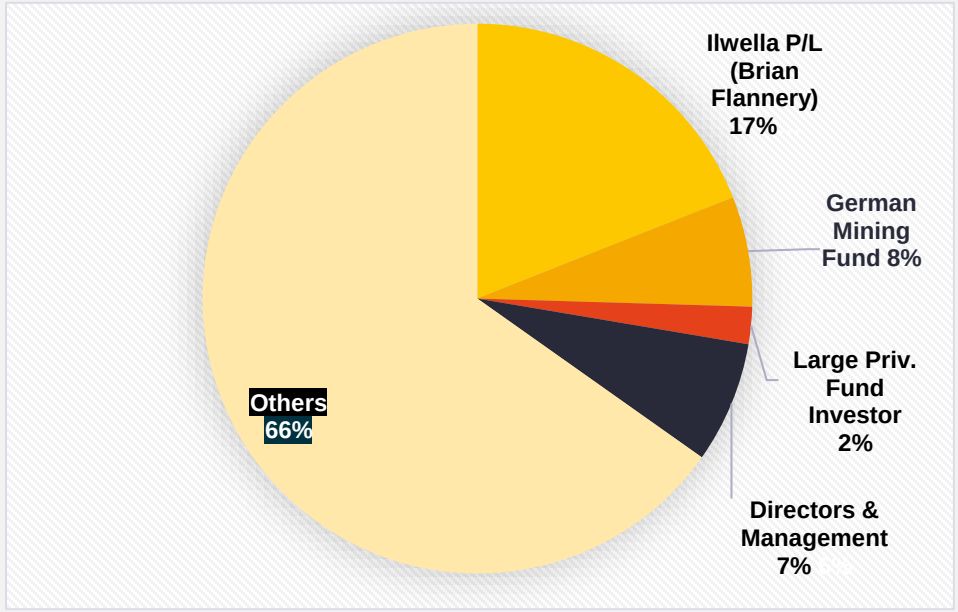
Debt facility (unsecured)

A$1.5m

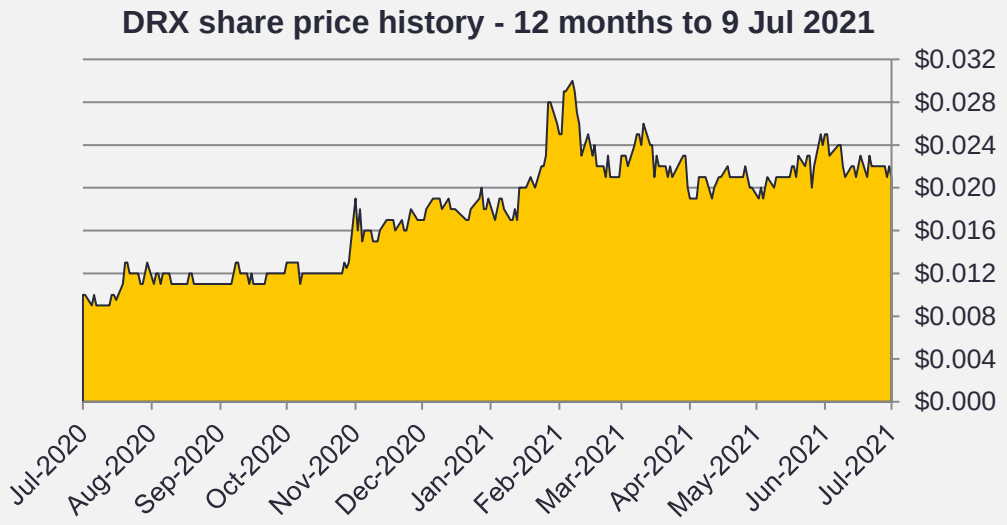
Repayment 30 Nov 2021

Performance rights

1.9m



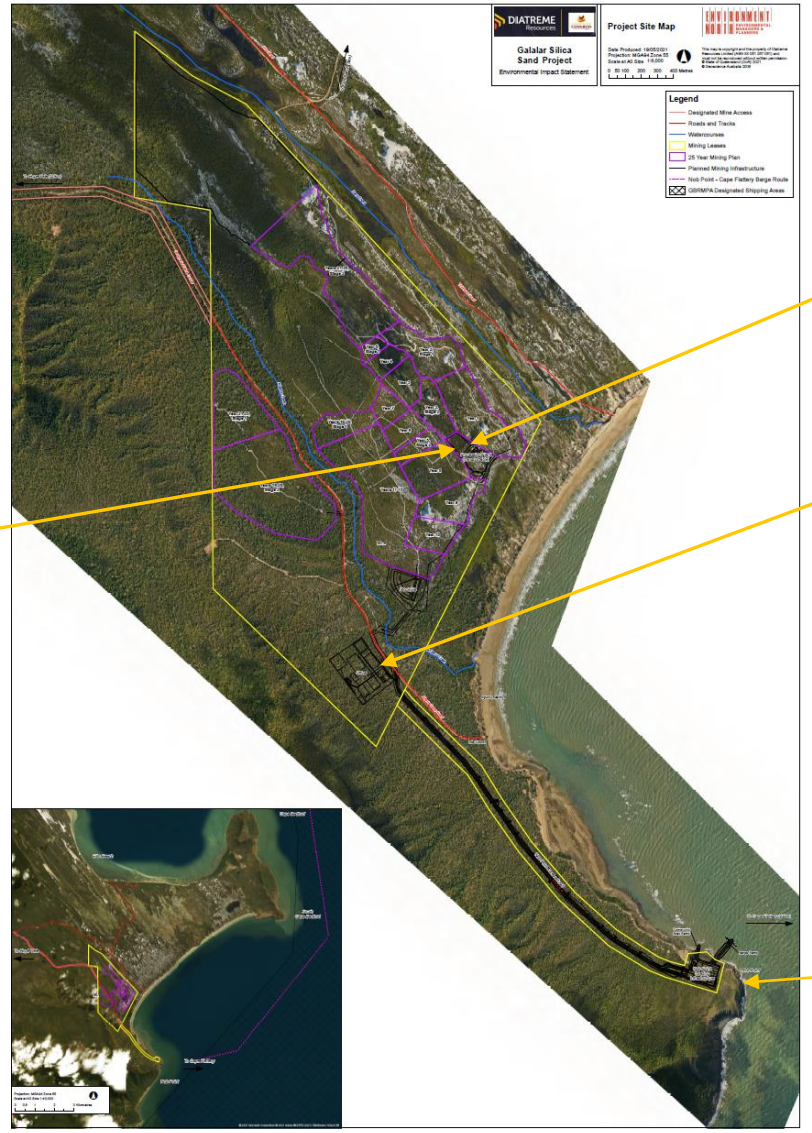
Shareholder interests as at 9 July 2021

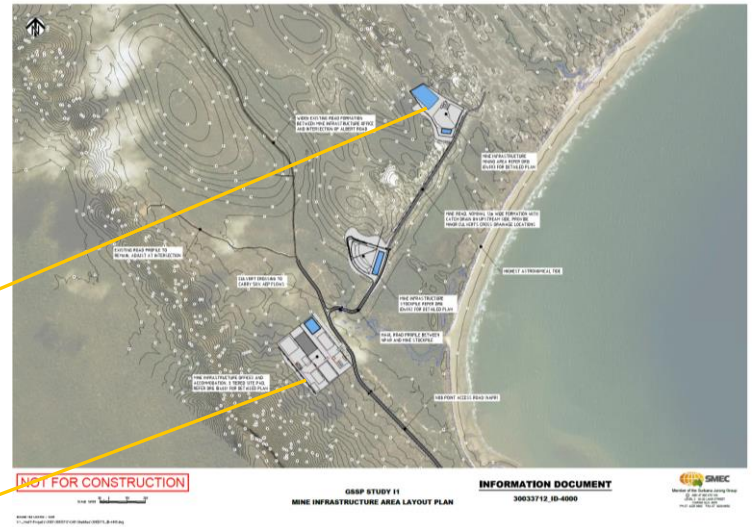


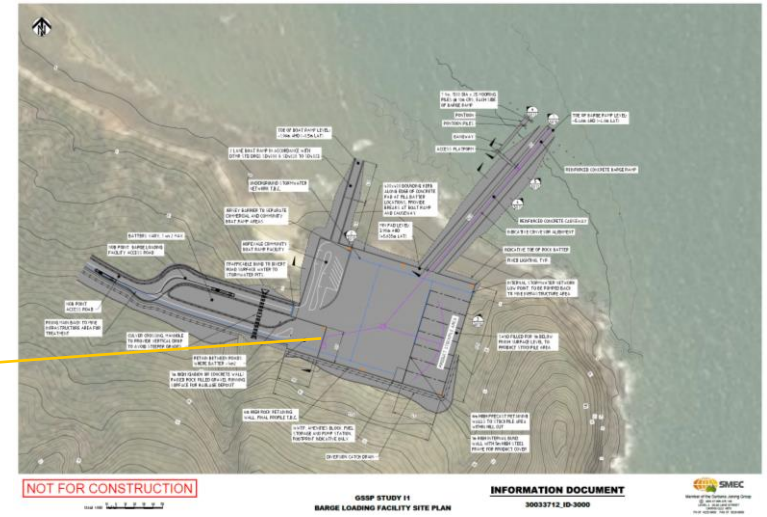
Project design.

- Simple gravity plant
- No processing chemicals apart from inert flocculent to settle clay/fines

Conceptual Process Plant



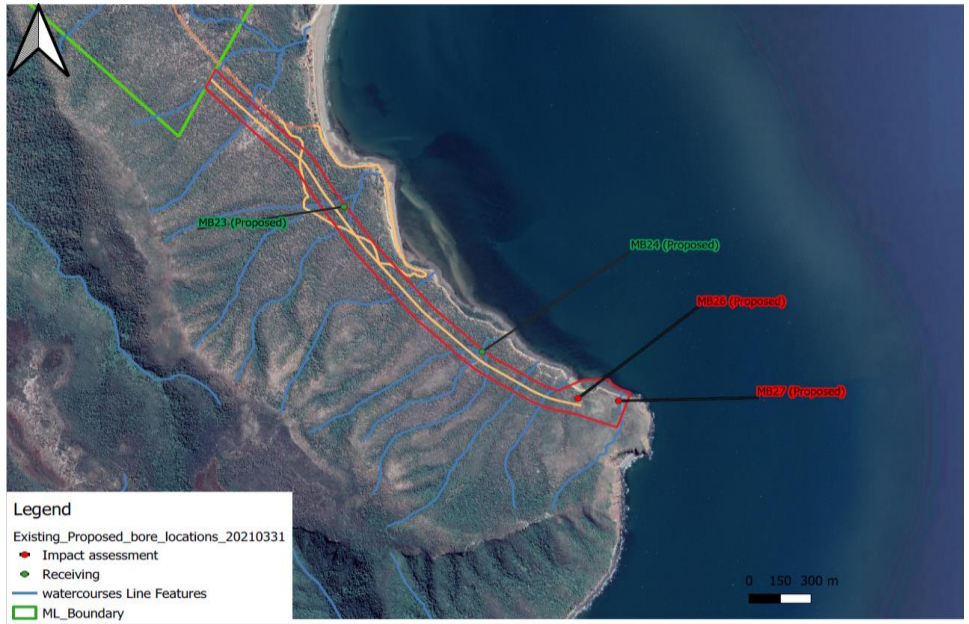




Environmental monitoring.

Upgrade to Baseline Monitoring

- Increased frequency of sampling during EIS-leads into EA conditions
- Reference and receiving sites established at Galalar (23 bores in total)
- Deep monitoring bore to basement
- All data is feeding into regional and mine groundwater models
- Sites established to Nob Point, though without sufficient road access (not all bores are in place)
- Water level monitoring commenced in December 2020
- Sediment and surface water sites established



Resource statement
Galalar Silica Project

Galalar Silica Sand Project – Resource Estimate – March 2021

JORC Resource Category	Silica Sand (Mt)	Silica Sand (Mm^3)	Cut-off SiO_2 %	SiO_2 %	Fe_2O_3 %	Al_2O_3 %	TiO_2 %	LOI %	Density (t/m^3)
Inferred	5.8	3.6	98.50	99.21	0.05	0.07	0.09	0.14	1.6
Indicated	20.6	12.9	98.50	99.20	0.05	0.08	0.07	0.14	1.6
Measured	35.5	22.2	98.50	99.27	0.09	0.12	0.10	0.10	1.6
Total Inferred + Indicated + Measured	**61.9**	**38.7**	**98.50**	**99.24**	**0.07**	**0.11**	**0.09**	**0.12**	**1.6**

**Resource Estimate current as of 15th of March 2021.*

Competent person's statement.

Statement in accordance with the Australasian code for reporting of exploration results, mineral resources and ore reserves (the JORC code)

The information in this report that relates to Mineral Resources at the Cape Bedford Project is based on information compiled by Bryce Mutton from Ausrocks Pty Ltd who has significant experience in Industrial Minerals and Quarry Resource assessments. Bryce Mutton has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code). Bryce Mutton consents to the inclusion in the report on the matters based on their information in the form and context in which it appears.

The information in this report that relates to Exploration Results and Exploration targets from the Cape Bedford Project is based on information reviewed and compiled by Mr. Neil Mackenzie-Forbes, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr. Mackenzie-Forbes is a director of Sebrof Projects Pty Ltd (a consultant geologist to Diatreme Resources Limited). Mr. Mackenzie-Forbes has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Mackenzie-Forbes consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report, insofar as it relates to Mineral Resources at the Cyclone Project is based on information compiled by Mr Ian Reudavey, who was a full-time employee of Diatreme Resources Limited and a Member of the Australian Institute of Geoscientists. Mr Reudavey has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the2012 Edition of 'The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Reudavey consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this report, insofar as it relates to Ore Reserves at the Cyclone Project is based on information compiled by Mr Phil McMurtrie, who is a director of Tisana Pty Ltd (a consultant to Diatreme Resources Limited), and a Member of the Australasian Institute of Mining and Metallurgy. Mr McMurtrie has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of 'The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr McMurtrie consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.