

ASX

ANNOUNCEMENT

10 June 2021

Mining Lease Application lodged for Nob Point export solution

- **Mining Lease Application (Infrastructure) for Nob Point barge ramp and haulage road lodged with regulator in latest advance for Diatreme's flagship Galalar Silica Sand Project**
- **Co-operation agreement signed with Hopevale Congress Aboriginal Corporation RNTBC and Native Title holders, confirming mutually desired mine and marine infrastructure development exporting product via Nob Point**
- **Final DFS process underway, targeting further improvement to Galalar's projected economic outcomes amid continued demand growth for Galalar's premium-quality silica product.**

Emerging silica sands developer and explorer, Diatreme Resources Limited (ASX: DRX) has further advanced its flagship Galalar Silica Project, lodging a Mining Lease Application (Infrastructure) encompassing the associated Nob Point Barge Ramp (NPBR), Hopevale Community boat ramp and temporary stockpile area to facilitate the export of high purity silica sand.

Significantly, the NPBR option minimises community and environmental impacts as well as reducing transport costs compared to the alternate Scoping Study option (refer ASX release 9 September 2019), which anticipated road transport and barging via Cooktown. The NPBR option has been strongly backed by local stakeholders, most importantly Native Title holders directly affected by the mine's development.

The Nob Point Mining Lease Application adjoins the Galalar Mining Lease Application (MLA) minimising product transport to 3.5km along a Haulage Access Road. Trucks or an alternate conveyor system would be loaded at the stockpile area located in the south-western corner of the Galalar mine, with dry product delivered onto awaiting barges moored at the end of the NPBR. Barges would then transport product to a designated transhipment point for export.

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Meanwhile, Diatreme has recently executed a Memorandum of Co-operation (MOC) with Hopevale Congress Aboriginal Corporation (Congress), together with the Thiithaarr and Gamaay People, who have established a committee of the Native Title holders.

The parties to the MOC have highlighted that Nob Point is their preferred export solution and are working together towards favourable approval outcomes with the various State and Commonwealth regulatory agencies. This ensures the project development is consistent with the aspirations of the Native Title holders as traditional custodians of matters related to the land and sea.

Under an agreement with Diatreme, the Native Title holders have a 12.5% 'free carried' project interest, ensuring mutual benefits are delivered through maximising the project's economic outcomes.

This agreement does not replace the Mining Project Agreement (MPA) which is progressing well with an expected conclusion late third quarter 2021, following additional on-site community meetings and briefings. Completion of the MPA is required prior to grant of both MLA's.

The process involves final Native Title consents for mine development, outlining all related issues including compensatory arrangements and will include a detailed Cultural Heritage Management Plan. The agreement also aligns Caring for Country environmental obligations with anticipated conditioning on Environmental Management over Galalar and Nob Point.

Diatreme's CEO, Neil McIntyre commented: *"We welcome this agreement with the traditional owners and their strong support for our mutually preferred transport and marine infrastructure solution at Nob Point. Diatreme has long maintained our preference for the use of Nob Point given its beneficial economic, environmental and community outcomes compared to the alternative option of Cooktown."*

"We look forward to continue working closely with our project partners and broader community in advancing the approvals with relevant regulatory agencies to ensure the best project possible is delivered for the benefit of all stakeholders."

Nob Point Barge Ramp and Haulage – Mining Lease Application (Infrastructure)

The application for a Mining Lease (Infrastructure) is made under section 234(1)(b) of the *Mineral Resources Act 1989*. The purposes include construction of infrastructure, truck haulage or conveying, barge loading, stockpiling, transport and other related activities.

The infrastructure lease would allow for the transport of washed coarse silica sand (final product) from stockpiles located at Galalar (within MLA100235) to a 150m long rock and concrete capped barge ramp, located on the landward side of Nob Point.

There would be no mining of silica sand within the area of the infrastructure lease. The NPBR was included as one of the transport options in the original MLA and is now the MOC - DRX preferred transport option.

Cultural Heritage surveys and environmental studies have covered the entire area from mine to Nob Point, including offshore marine and shipping impact studies.

A Hopevale Aboriginal Council-managed gravel road connects the gazetted sealed bitumen Elim Beach Road, located to the northwest of the MLA. This gravel road is also the Designated Access Road to Galalar and then connects to the Nob Point Haulage Access Road. Diatrema will be working with Hopevale Council to ensure the maintenance of roads and also maintain access for the Hopevale Community to beach areas.

Figures 1 and 2 below show the layout of the Mine Access Roads, the existing MLA100235 and the proposed MLA to the NPBR. Figure 1 – Infrastructure Lease Access

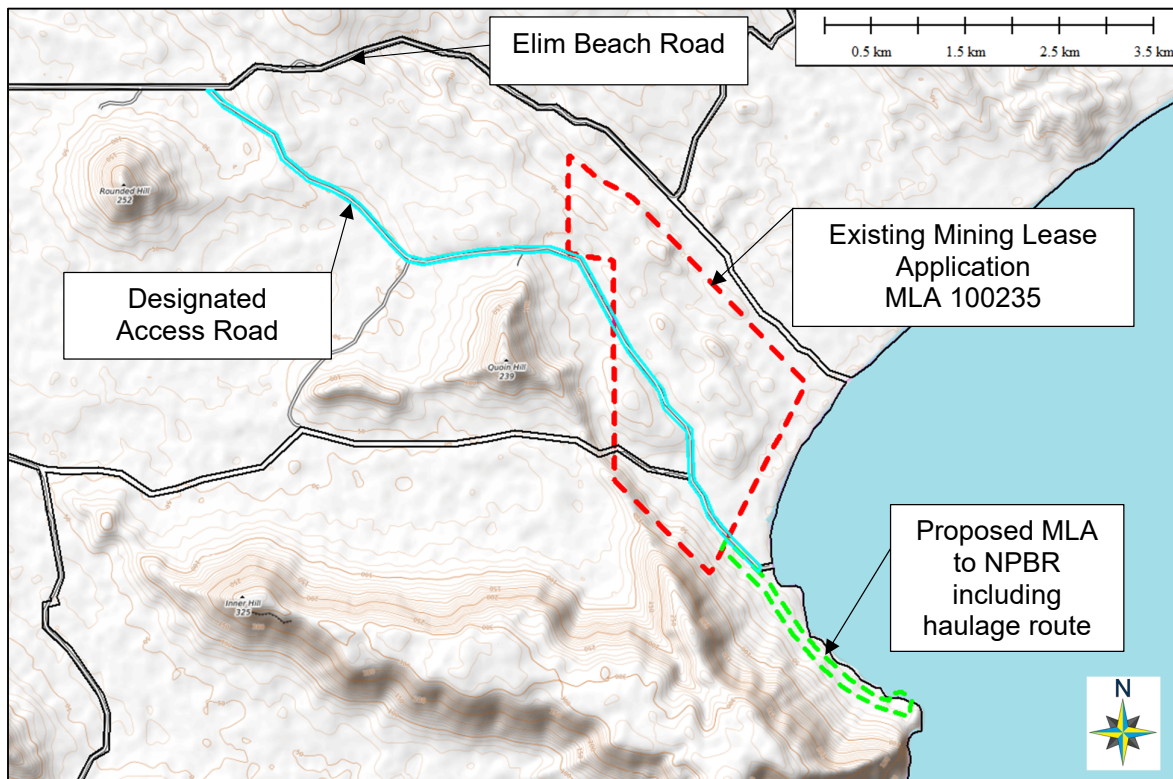
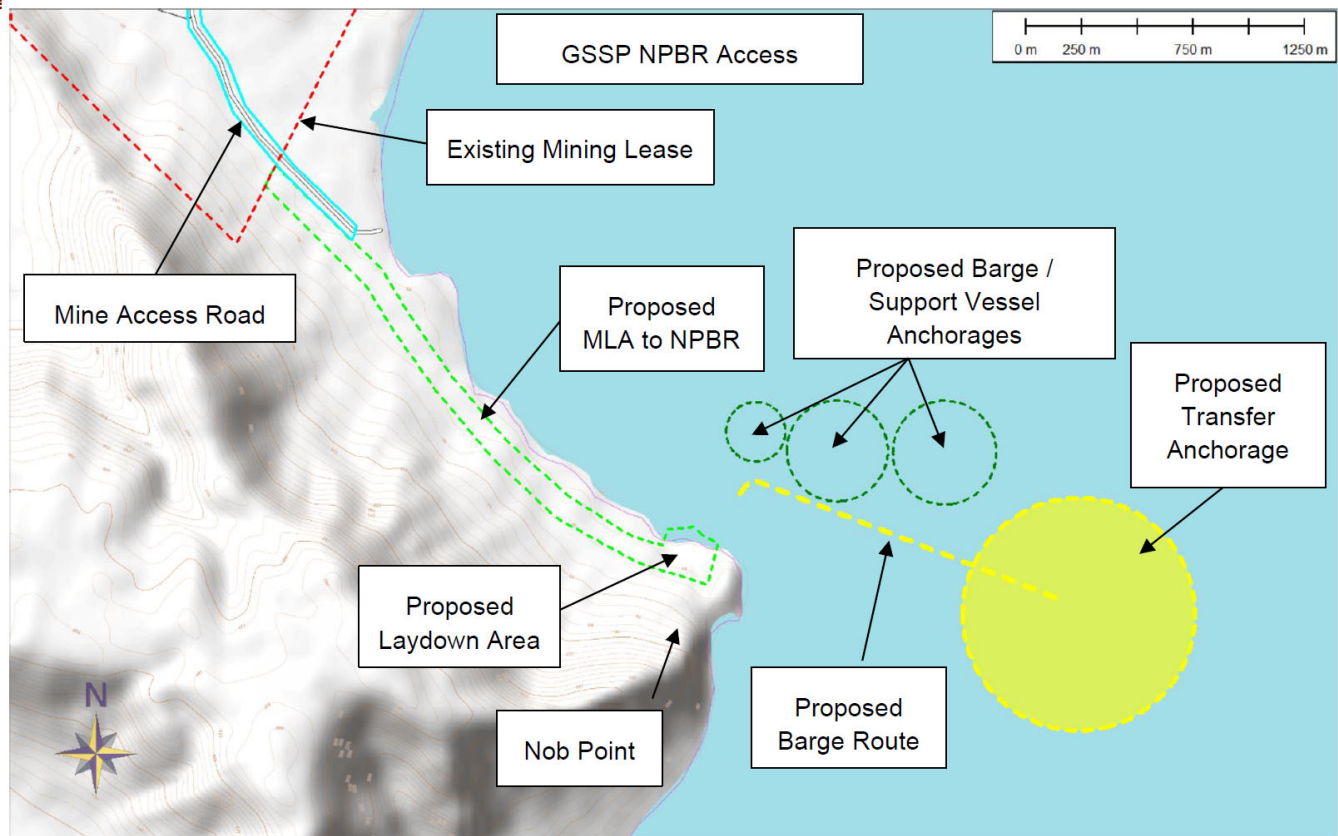




Figure 2 – Mining Lease Access and Shipping Options (subject to EIS permitting)



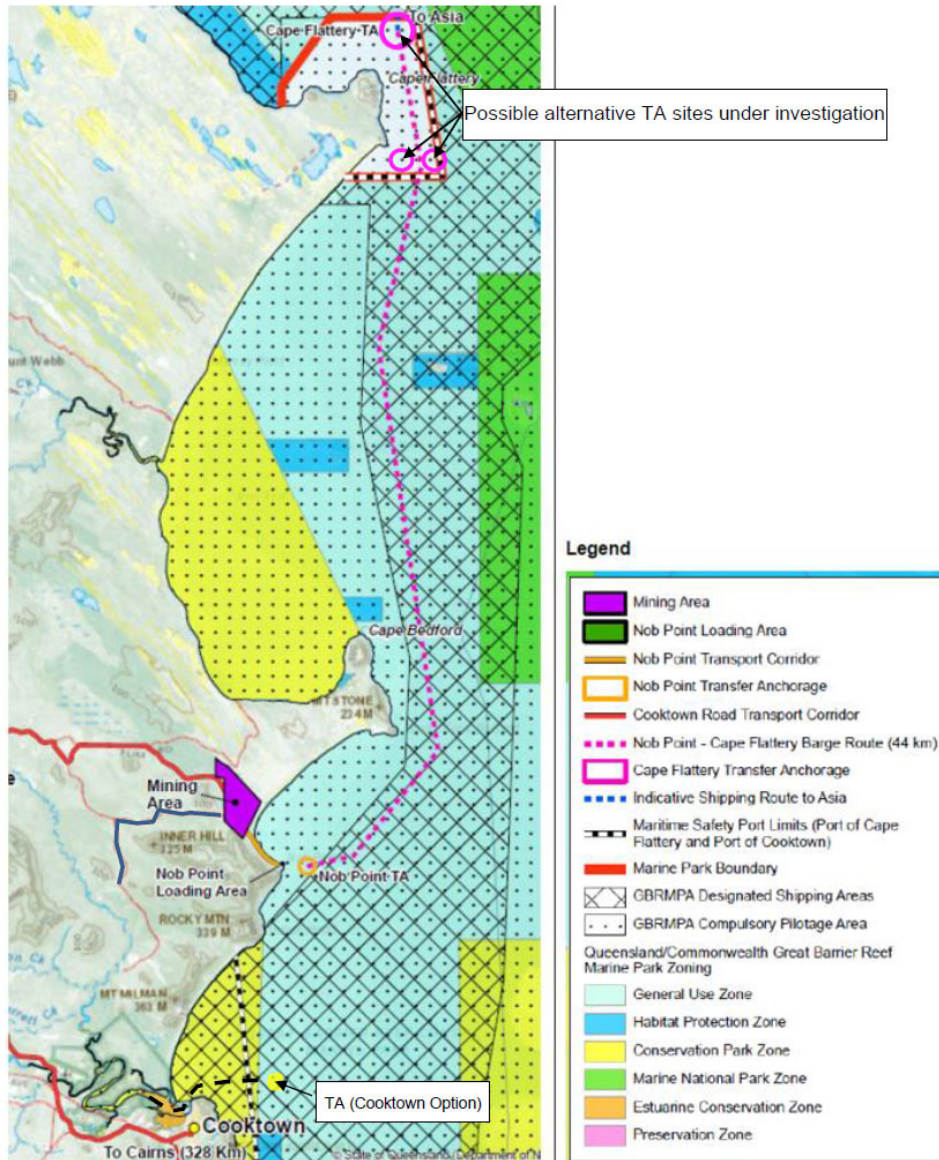


Figure 3 – Logistics Options

As the site is greenfield, no existing infrastructure or plant is on-site and it is assumed all necessary items will be mobilised to site during the construction phase. The site layout is divided into the following areas:

- Mine
- Stockpile
- Administration and services

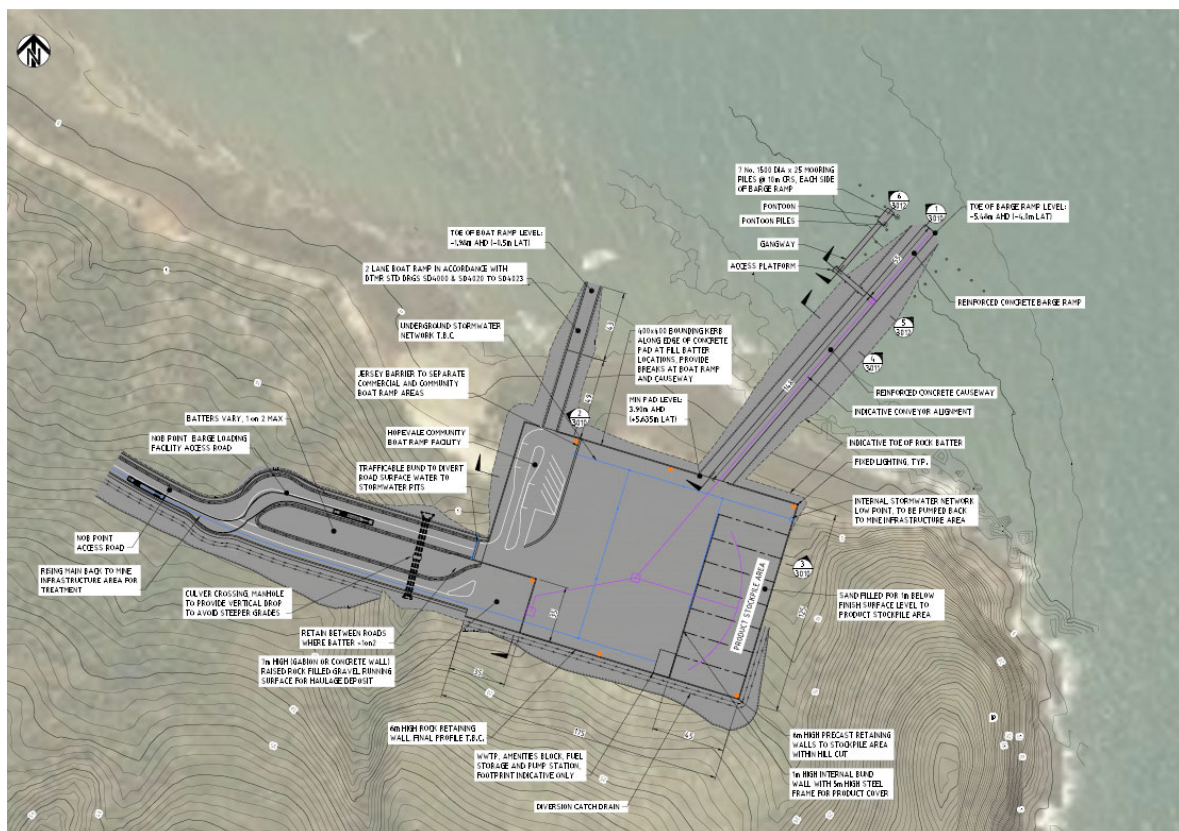




Figure 5 – Mine and Infrastructure MLA's and NPBR Overview Map





To allow sufficient flexibility for intended development of the Nob Point Haulage Access Road, a 100m wide corridor has been selected on terraces located away from beach areas. The potential for Cultural Heritage artefacts along the alignment has been considered and final alignment will be adjusted if required. The selected road surface is anticipated to be 10m wide with additional areas for table drains and shoulders. Culverts will be installed in numerous locations to limit the impact of sediment in local run-off during storm events.

The infrastructure lease has a total surface area of 29.9ha. However, the proposed disturbance for the life of the mine infrastructure is limited to approximately 49% of the lease surface area (14.7ha). The area fully encompasses Freehold Land owned by Congress. The areas proposed are listed in Table 1.

Table 1: Mining Lease Boundary

Element	Area	Comment
Roads	<ul style="list-style-type: none">7.1 ha	To facilitate truck, vehicle and conveyors from Galalar to the NPBR
Barge Loading Facility	<ul style="list-style-type: none">4.05 ha	To facilitate the transfer of material from stockpiles to the barges for export
Balance Area	<ul style="list-style-type: none">12.2ha	Remaining area for temporary stockpiling if required and other infrastructure, including Hopevale Community boat ramp

Public Interest Benefit

Diatreme considers the Galalar project is in the public interest due to a number of key strategic benefits:

- Remote regional economic development, “new economy mineral” development, “close the gap” specific Indigenous Project benefits (employment, training and revenues from equity held in GSSP);
- New long-life business development for Far North Queensland (Cape York), commencing as a medium-scale silica operation with potential to expand and grow as the markets and local infrastructure are developed. This is inclusive of potential supply to domestic manufacturing facilities if developed in locations such as Townsville;
- New infrastructure and commercial benefits for the Hope Vale and Cooktown communities;
- Increased employment and business activity for the Hope Vale and Cooktown communities;
- Workforce to be predominantly local and travel daily to work, promoting expenditure and reinvestment in the Cooktown and Hopevale communities;
- Mineral Royalties for Hope Vale Congress and Qld State Government;
- New business opportunities for local contractors and service industries;
- Aligns to Regional Development initiatives for Cape York;
- Aligns with the Economic Recovery and Reconstruction Strategy initiative of the Regional Development Australia (RDA) to deliver crucial infrastructure projects to provide the greatest stimulus to kick start the economy, post Covid-19;



- Aligns with the Queensland Government's strategy and plan: *Advancing North Queensland - advance and diversify North Queensland's economy*.

DFS studies underway, targeting mine life extension and production increase at start-up

The Galalar project's initial scoping study (refer ASX release 9 September 2019) projected a mining operation processing 950,000 tonnes of "raw" silica product per annum for annual production of 750,000t of marketable silica product, assuming a recovery rate of approximately 79%.

However, Diatreme has allowed for processing of "raw" silica material of up to 1.5 Mtpa under its current EIS Application (environmental permitting) process, which would facilitate a significant increase in annual production from the original scoping study parameters.

Additionally, subsequent resource upgrades have boosted the potential for mine life extension, with the latest resource estimate announced in March 2021 totalling 61.9 Mt (Inferred, Indicated and Measured), of which 35.5 Mt was in the higher confidence category of Measured (refer Table 2 below). Diatreme notes both current ML applications are for standard terms of 20 years.

This effective doubling of the project's total resource estimate (30.2Mt to 61.9Mt) post the original scoping study has allowed Diatreme to undertake further detailed mining and operational planning as it prepares to finalise the project's Definitive Feasibility Study (DFS). Diatreme anticipates finalisation of these studies early fourth quarter 2021 and looks forward to the release of these revised business case targets and economic data to the market.

Table 2: Galalar silica resource estimate, as at 15 March 2021

JORC Resource Category	Silica Sand (Mt)	Silica Sand (Mm ³)	Cut-off SiO ₂ %	SiO ₂ %	Fe ₂ O ₃ %	Al ₂ O 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

Note: Resource estimate remains current as at June 2021



Cautionary Note: *Conversion from a measured resource to a mine reserve is currently underway as part of the DFS study process. There remains uncertainty regarding conversion from a mineral resource to a mine reserve sufficient to support a mining operation of up to 20 years or more.*

Further evaluation work and appropriate studies are still required before the Company will be in a position to complete the definitive feasibility study, to estimate any Ore Reserve or provide any assurance of a final economic development case. There remains a degree of uncertainty that further work will result in any increases in a production target for the Galalar project.

This potential for a production target increase at proposed mine start up is supported by strong Asian offtake demand for premium-quality silica used in the production of solar panels for the booming solar PV industry, as reflected by Diatreme's offtake MOUs with a range of potential Asian buyers (refer ASX release 19 May 2021).

Mr McIntyre added: "As we advance through the project's DFS and further upgrade the project's fundamental economics, we look forward to sharing these results as they become available over the coming quarter on what will truly be a transformational project for the region."

This announcement was authorised for release by the Board.

Neil McIntyre

Chief Executive Officer

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ASX releases referred to in this release:

- "Offtake MOU advances development of Galalar Silica Project" – 19 May 2021
- "Positive initial testwork results received for Galalar DFS" – 22 April 2021
- "Galalar silica resource expands 30% to 61.9Mt" – 17 March 2021
- "Diatreme eyes further silica sand resource expansion" – 25 January 2021
- "Galalar scoping study emphasises high return potential" – 9 September 2019.



About Diatreme Resources

Diatreme Resources (ASX:DRX) is an emerging Australian producer of mineral and silica sands based in Brisbane. Our key projects comprise the Galalar Silica Project in Far North Queensland, located next to the world's biggest silica sand mine, together with the Cyclone Zircon Project in Western Australia's Eucla Basin, considered one of a handful of major zircon-rich discoveries of the past decade.

For more information, please visit www.diatreme.com.au

About Galalar Silica Project

Located around 200km north of Cairns and 20km north of the port of Cooktown, the Galalar Silica Project (EPM 17795) lies within the same sand dune system and in close proximity to the world's largest operating silica sand mine at Cape Flattery. The Cape Flattery silica sand product is recognised as a global benchmark for quality silica sand and is widely used for industrial purposes throughout Asia.

The global silica sand market is seen reaching nearly US\$10 billion in annual revenues by 2022, with a compound annual average growth rate of 7.2% (source: IMARC Group), while the global solar PV glass market is estimated to reach US\$48.2 billion by 2025, up from US\$3.3 billion in 2016 (source: Bizwit Research & Consulting).

An independent economic study has shown the Galalar project's potential to deliver a sizeable economic injection into the Hope Vale/Cooktown region, including \$23-\$24 million in the construction phase and up to \$42m in operation, creating up to 110 full-time equivalent jobs and contributing \$1.475m in annual state royalties.

In March 2021, Diatreme announced a total Mineral Resource of 61.9 million tonnes (Mt), with the potential for further expansion (refer ASX release 17 March 2021). Bulk sample testwork has shown the project's ability to produce a premium grade silica product suitable for high-end glass and solar panel manufacturing, with more than 99% silica dioxide and low iron levels of less than 100 parts per million.

Diatreme is currently progressing a draft EIS, targeting final lodgements for the necessary environmental approvals and Mining Lease by the fourth quarter of 2021 and potential first production in 2022.

Positive initial metallurgical results have further enhanced the Company's confidence in the project's ability to produce a premium-quality product for the fast-growing solar PV market, with continued strong demand from potential Asian buyers as highlighted by offtake MOU's.

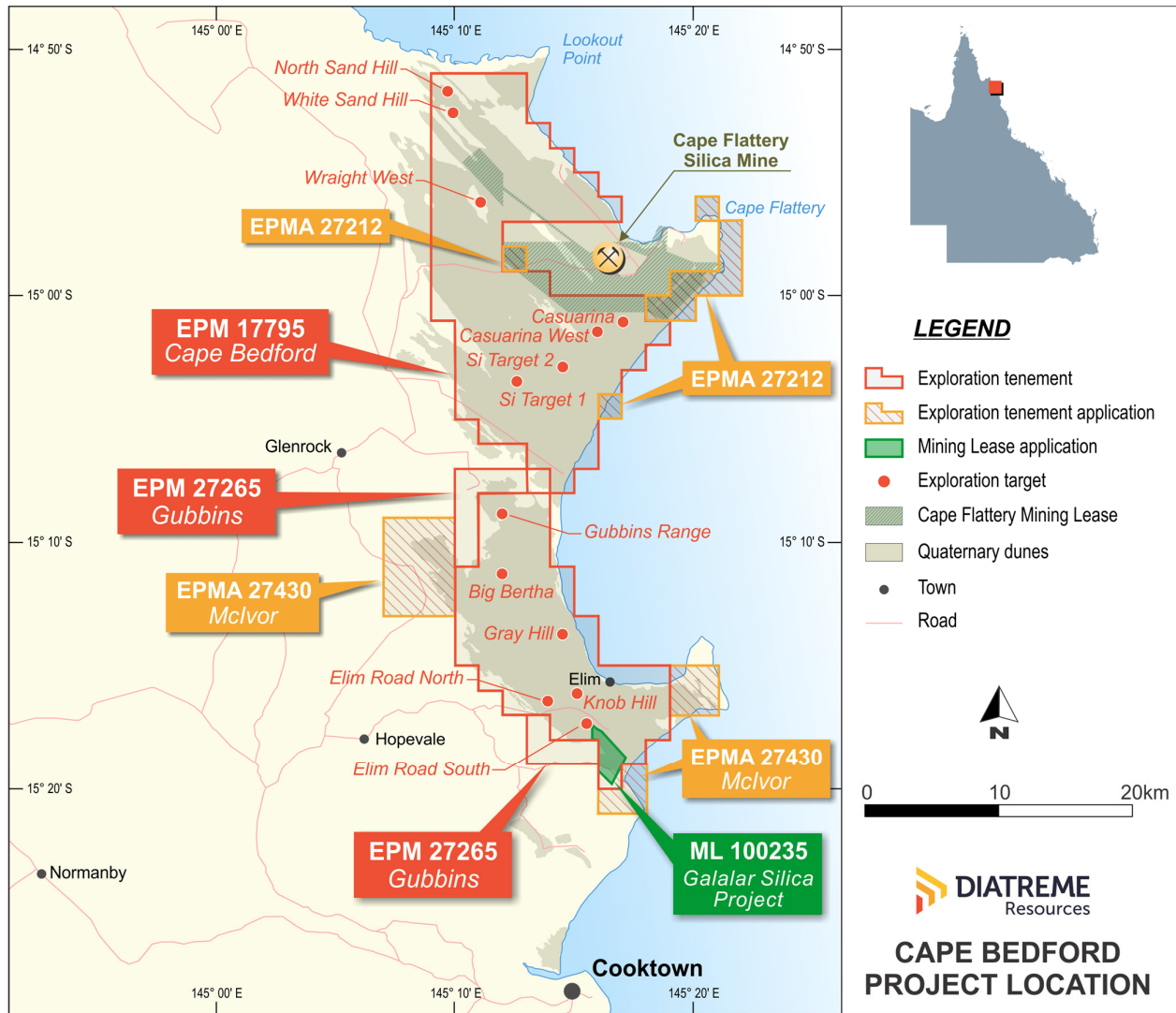


Figure 6: Galalar Silica Project, North Qld



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MINERAL SANDS AND SILICA - COMPETENT PERSON STATEMENTS

Diatreme confirms that it is not aware of any new information or data that materially affects the estimates of mineral resources and production target previously announced to ASX on 17 March 2021 and 9 September 2019 respectively, and that all material assumptions and technical parameters underpinning the estimates above continue to apply and have not materially changed.