

# ASX ANNOUNCEMENT

## QUARTERLY ACTIVITIES REPORT

### FOR THE PERIOD ENDED 30 September 2020

30 October 2020

#### Quarterly Highlights

##### Galalar Silica Project, Qld

- Diatreme advances environmental approvals, with release of Initial Advice Statement and draft terms of reference for Galalar Silica Project's Environmental Impact Statement (EIS) for public comment.
- Drilling program in August highlights expansion potential; program comprised 44 air-core drill holes for 835m, with 2,000kg of bulk samples collected for detailed mine planning.

##### Corporate

- Annual General Meeting held 30 July, followed by appointment of new Non-Executive Director, experienced mining engineer, Mr Michael Chapman.
- **Post-quarter:** Placement to new and existing sophisticated and institutional investors secures \$4.64m (before costs) to advance Galalar Project, with new institutional investor welcomed to register
- Share Purchase Plan launched on same terms as placement, providing equal opportunity for all DRX shareholders to participate in Company's future growth.

#### COMING DECEMBER QUARTER ACTIVITIES

Diatreme's operational focus for the December quarter 2020 comprises the following:

AUSTRALIAN SANDS. UNIVERSAL DEMAND.

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- **Galalar Silica Project**

- Planned installation of surface water and groundwater monitoring network to establish baseline water quality and water resources for EIS technical studies;
- Further detailed terrestrial and marine studies in preparation for the lodgement of environmental approvals (EIS);
- Further bulk product testing and product development targeting high end premium silica products;
- Further transshipment and logistics studies targeting most economical options for project with minimal environmental impact;
- Further engagement with project partners, Hopevale Congress and relevant regulatory/government agencies to advance project approvals and preferred logistics solution;
- Progression towards formalised offtake agreements;
- Further bulk sampling and testing for resource upgrades and mine planning for definitive feasibility study (DFS).

- **Cyclone Zircon Project**

- Assemble optimum mix of commercial parties to facilitate project's development, amid rising demand for zircon and constrained supply.

## **GALALAR SILICA PROJECT, QLD**

Diatreme's Galalar Silica Project made further advances towards development in the September quarter 2020, highlighted by the release of the Initial Advice Statement (IAS) and draft terms of reference (DToR) for the project's environmental impact statement (EIS).

This followed acceptance by the Queensland Department of Environment and Science (DES) of the Company undertaking a voluntary EIS process under the *Environmental Protection Act 1994 (Qld)* (EP Act) (refer ASX release dated 6 February 2020).

The Commonwealth Department of Agriculture, Water and the Environment (DAWE) has provided guidelines setting out its requirements for the EIS and these will complement the final Queensland ToR.

The DToR was made available for public review and comment from 27 July 2020 to 14 September 2020, as part of the consultation and engagement process.



Diatreme subsequently is preparing a detailed report setting out information concerning all comments received and recommendations for any necessary changes to the DToR. DES will then review these recommendations and issue the final ToR, at which point the EIS process will formally commence.

The EIS will be informed by a program of detailed technical studies designed to address the ToR and guidelines. Many of these studies have already commenced and are well advanced, as part of Diatreme's aim of speeding the project's development and reducing any uncertainties.

Once the draft EIS has been deemed to be satisfactory by DES and DAWE, another round of public input will commence and if necessary, the draft EIS will be revised or supplementary studies undertaken. At that time, assessment of state and Commonwealth matters will be undertaken under the Queensland/Commonwealth bilateral agreement.

Following approval of the EIS, Diatreme will then proceed to finalise the Environmental Authority (EA) which, together with the mining lease (ML) that was applied for in December 2019 and various operational works approvals, will permit the project to commence.

Further information regarding the project's EIS is available via Diatreme's website.

The Galalar project's potential for further expansion was demonstrated by exploration drilling undertaken in late August and the subsequent receipt of related sample tests. The drilling program comprised 44 air-core drill holes for 835m, with some 2,000kg of bulk samples collected from the preliminary mine footprint (years one to five) (refer ASX release 22 September 2020). The bulk sample is intended for use in detailed mine planning in anticipation of mining commencement.

The program also completed exploration drilling to the north and east of the current resource. Significantly, new holes at the southern section encountered deeper sections of silica sand than anticipated, indicating the potential for an increased resource in this area.

Diatreme concentrated bulk sampling within the year one to five mine plan at the southern end of the resource, with early exploration redrilled to confirm historic drilling and collect samples on 1m intervals to better define the resource envelope. Drill spacing was closed to 50m centres in this area to increase confidence in the geological interpretation and continuity of resource in the initial years of mining.

As part of the EIS study process, a comprehensive LIDAR survey was also completed over the Galalar and Galalar Extended areas to provide increased resolution of the surface topography. This imagery is able to see through the



vegetation and reveal the sand dune structure and outline the different phases of dune formation to better reconcile the stratigraphy and future mine plan, particularly where dune formation and relative age has been identified as a factor in targeting low iron, low contamination dune structures.

Preliminary review of the results of the infill drilling and twinning of older holes confirmed the resource quality with respect to SiO<sub>2</sub> percentage and the contaminants Fe<sub>2</sub>O<sub>3</sub> and Al<sub>2</sub>O<sub>3</sub>. The results indicated a sand quality which meets the quality requirements for inclusion into future resource estimations and should contribute to a significant increase in resource tonnages.

The program utilised Diatreme's air-core drill rig managed and operated by Diatreme personnel, with added labour to help sampling provided by traditional owners from Hopevale Congress acting also as cultural heritage monitors under strict on-site activity supervision guidelines.

Highlighting the potential demand for Galalar's product, photovoltaics (solar power) dominated as by far the main new power-generating technology source in 2019, accounting for 45% of all new capacity added with a record 118 gigawatts constructed, according to data compiled by BloombergNEF.

Subject to Queensland Government approval, the Company is seeking to ship the product to export markets via a purpose-built barge ramp near Nob Point, potentially with joint community and commercial use with transshipping activity occurring within the designated Cape Flattery port area. This would minimise community impacts and disturbance to the Great Barrier Reef Marine Park areas.



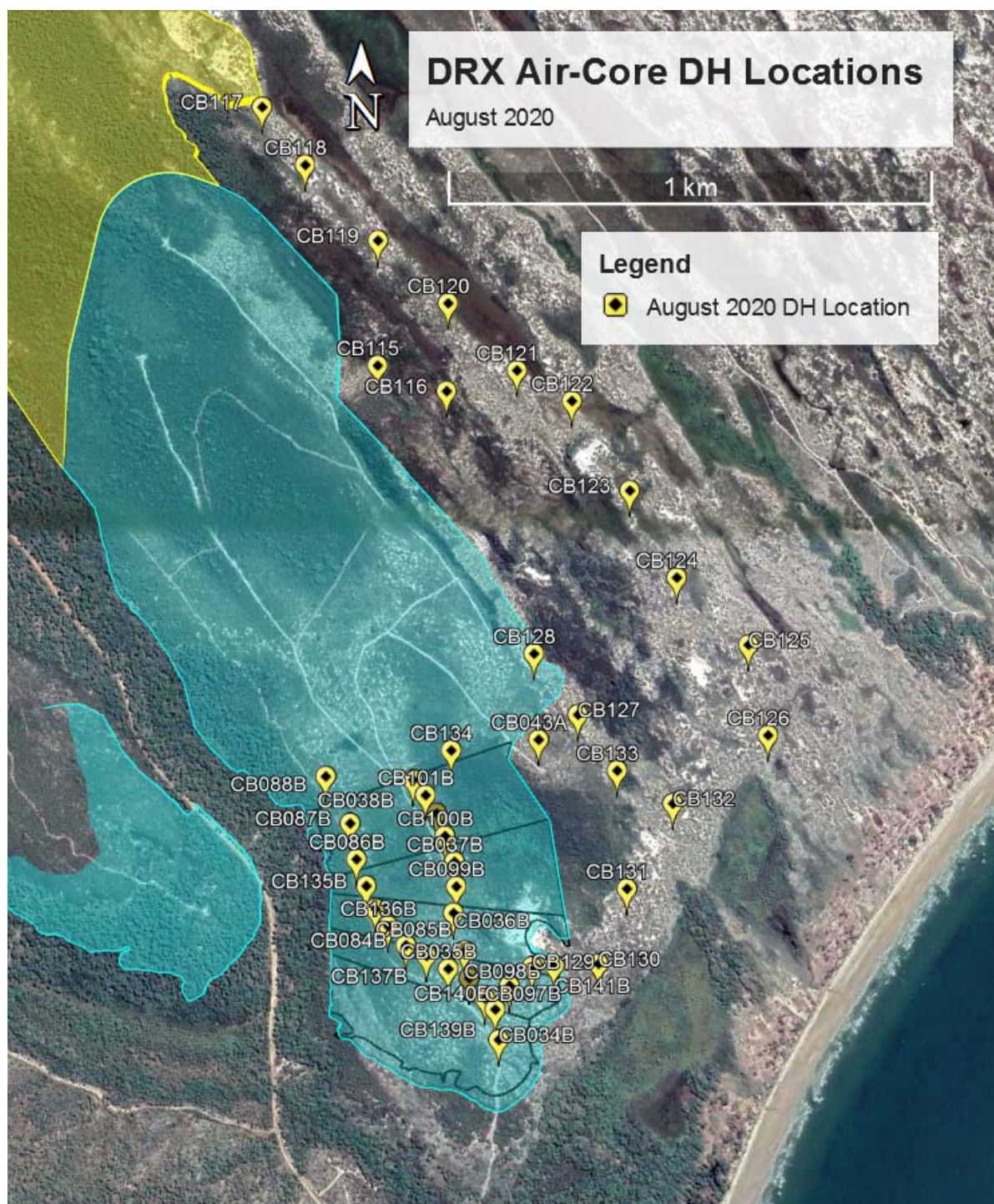




Figure 2: Bulk Sample Locations

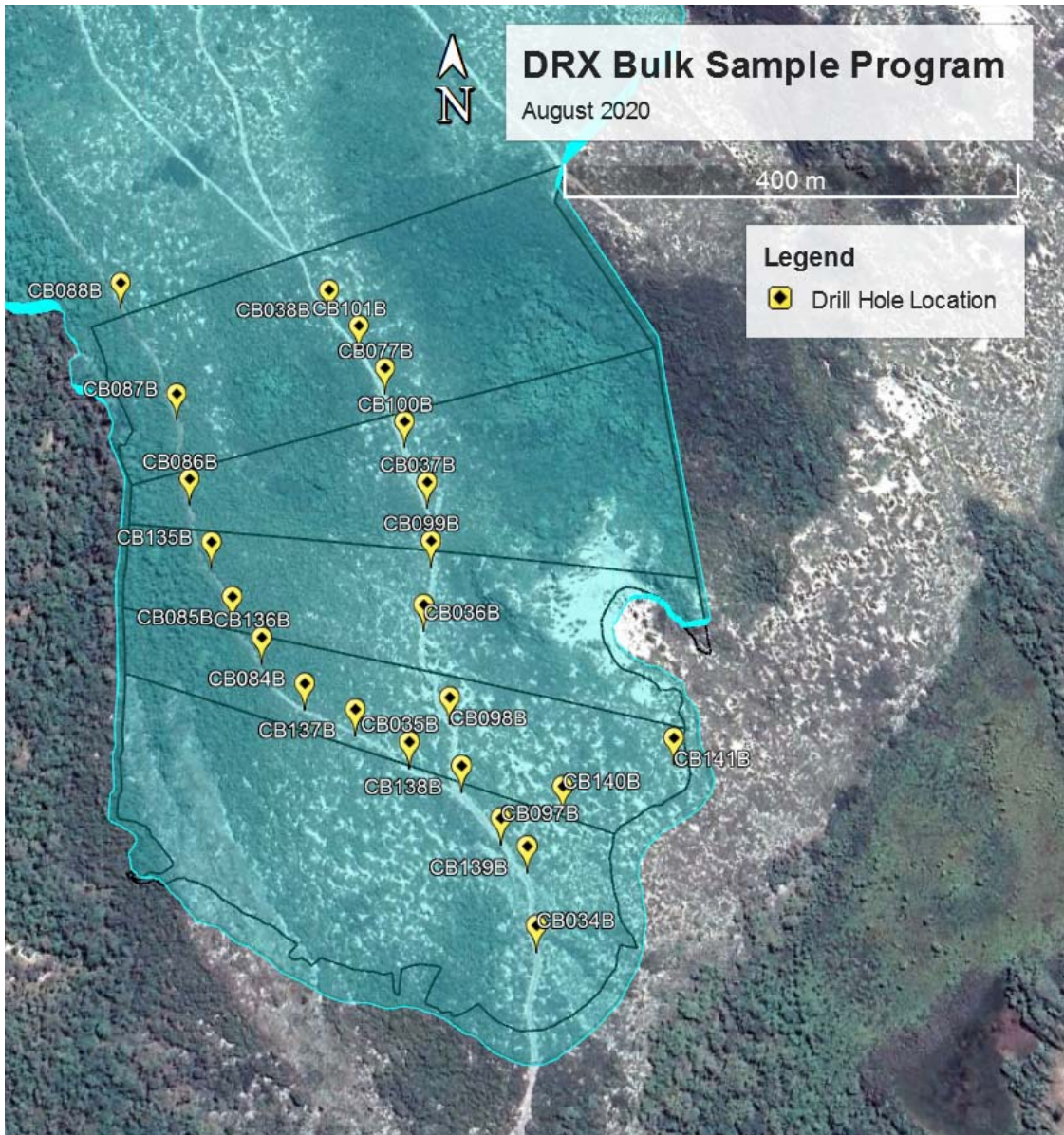
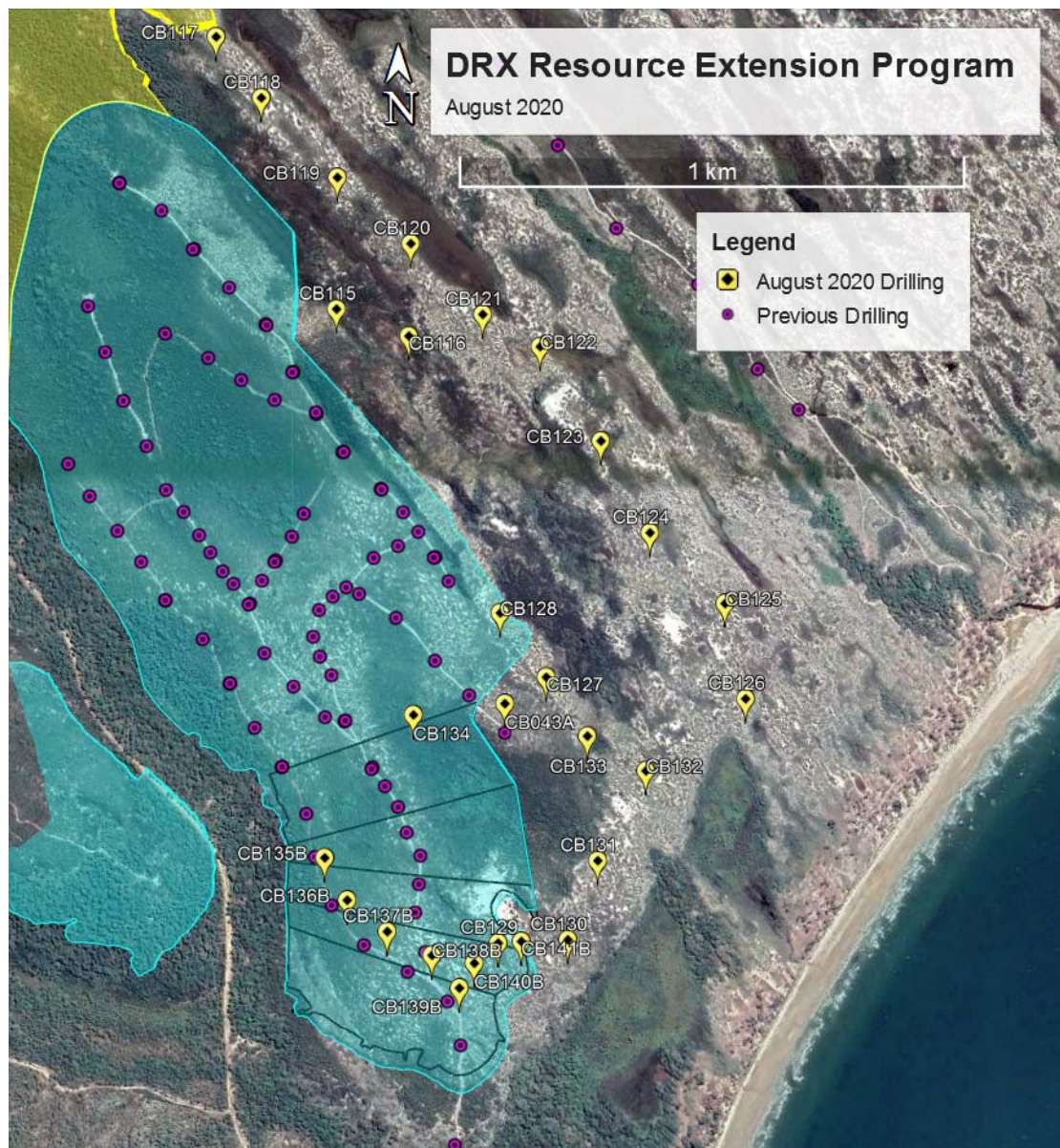




Figure 3: Resource Extension Drilling



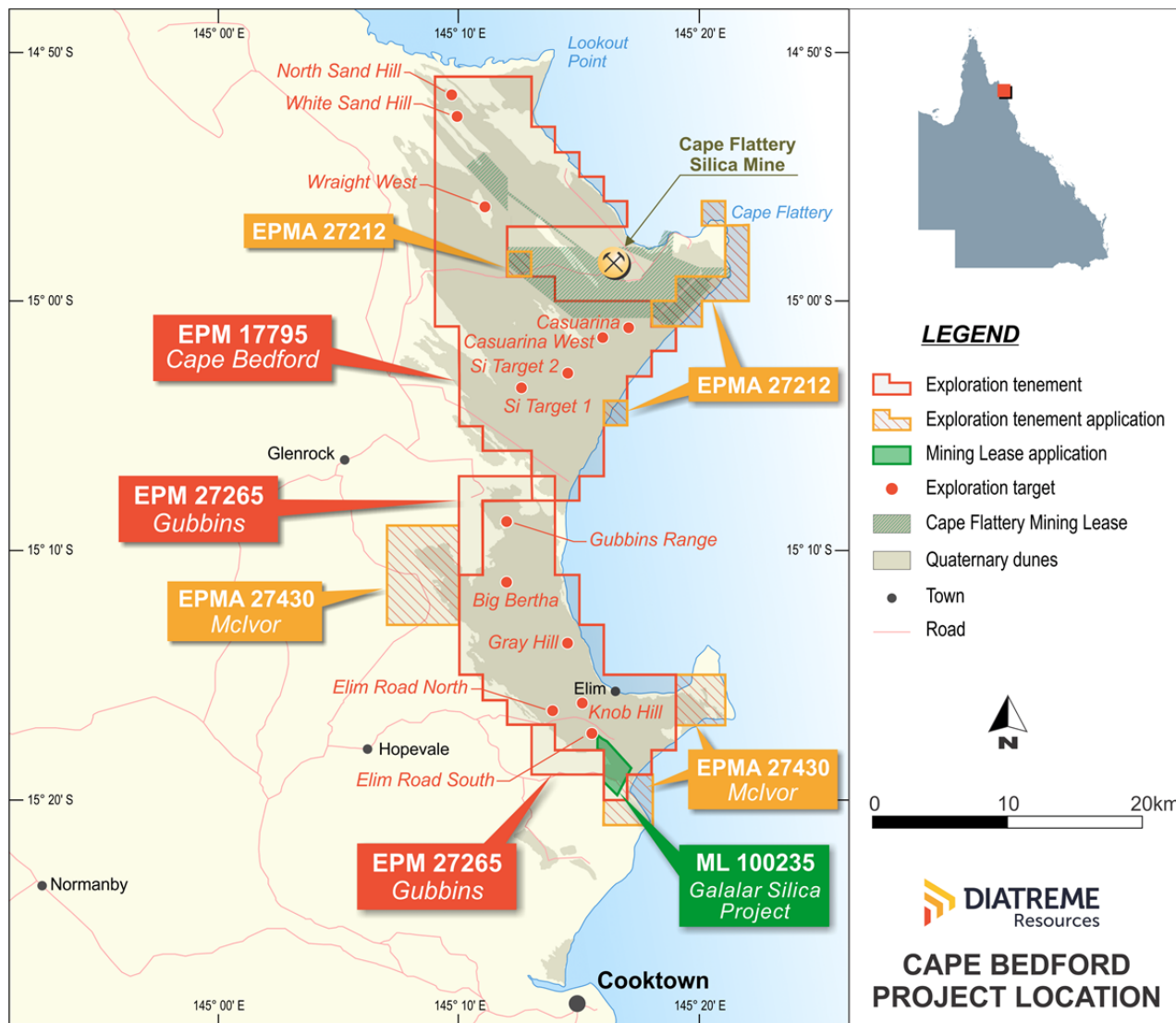


Figure 4: Galalar Silica Project location including exploration tenements and applications



## CYCLONE ZIRCON PROJECT, WA

Despite delays due to effects on negotiations during COVID-19 restrictions, Diatreme has continued to progress discussions with potential project participants with the aim of maximising shareholder value from the Cyclone Zircon Project.

Constrained supply of high-grade zircon and solid demand underpin the project's fundamentals, with China's emergence from the COVID-19 pandemic contributing to rising construction activity and hence demand for zircon.

Diatreme is advanced in discussions to assemble this project development option concurrently with its existing initiatives and will keep the market informed when these potentially transition to a formally documented process.

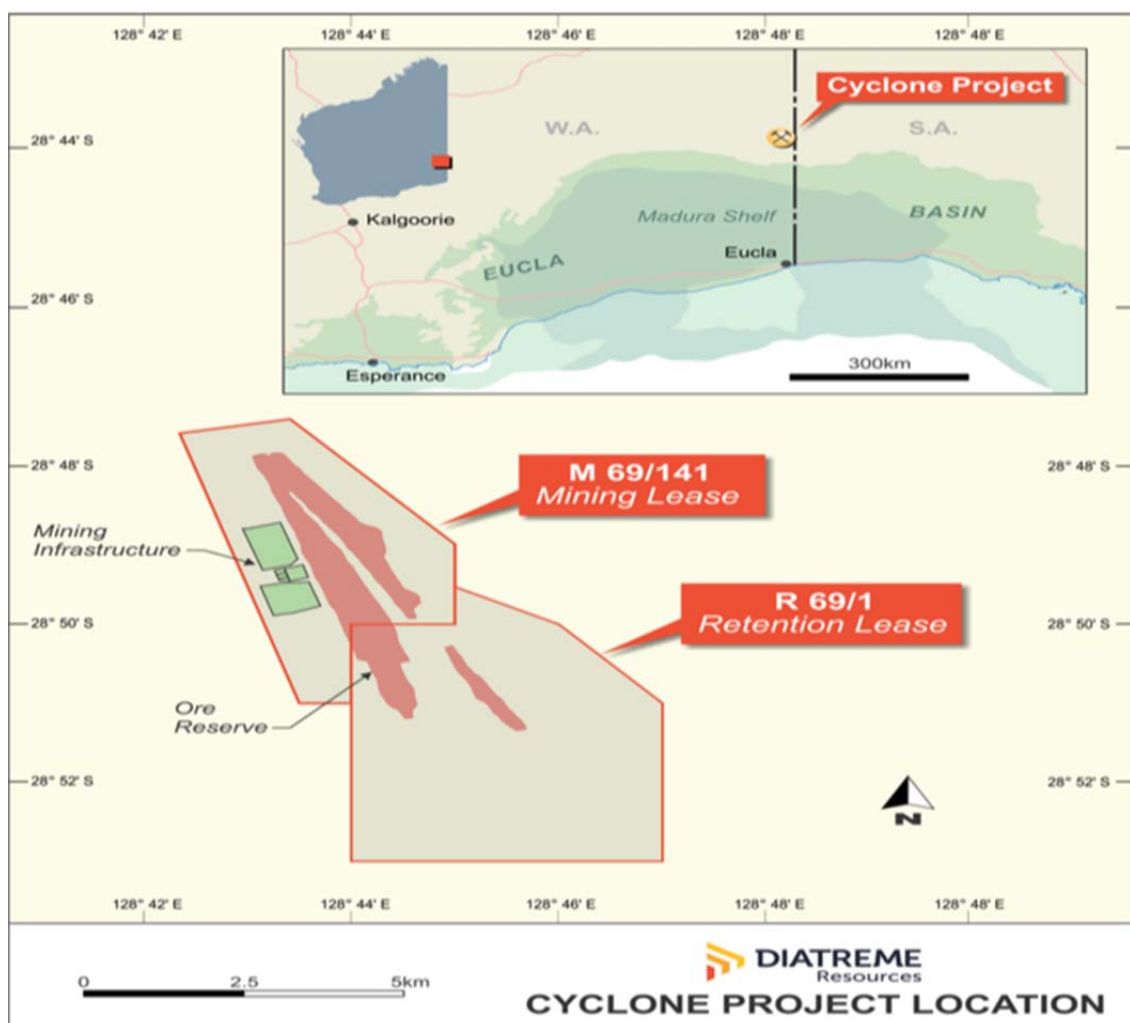


Figure 5: Cyclone project location



## **CLERMONT COPPER/GOLD PROJECT, QLD**

Diatreme management and external consultants continue to review the Clermont Copper/Gold Project, particularly the Rosevale Porphyry Corridor, to determine its potential for further exploration, disposal or joint venture.

Such review follows recent record high gold prices (over US\$2,700 per ounce) which have sparked a surge in investment into gold exploration projects in Australia.

Diatreme's EPM17968 was recently renewed and is not subject to any sub block "drop offs" within the EPM area.

## **CORPORATE**

Diatreme held its Annual General Meeting on 30 July 2020 at the Company's head office in Brisbane. In accordance with Listing Rule 3.13.2 and Section 251AA of the Corporations Act, all four resolutions were passed on a poll (refer results released 30 July 2020).

Strengthening the Company's Board, Diatreme appointed experienced mining engineer Michael Chapman as a Non-Executive Director, effective 1 August. Mr Chapman has more than 40 years' experience in the development, engineering, construction and management of open-cut and underground mining projects in Australia and internationally, with experience in commodities spanning coal, copper, iron ore and nickel.

His practical mining and mine management knowledge is expected to be extremely valuable as Diatreme progresses from exploration into production, with his expertise complementing the Board's existing mix of skills and experience.

Diatreme also advanced its engagement with investors through its participation in the Noosa Mining Virtual conference, with CEO, Neil McIntyre presenting on 16 July. A copy of his presentation is available via Diatreme's website. Diatreme will also be participating in the 11-13 November Noosa Mining & Exploration Investor Conference, with Mr McIntyre's presentation scheduled for 10.30am on Wednesday, 11 November (refer <https://www.noosaminingconference.com.au/>).

Post-quarter, on 9 October and 16 October, Diatreme announced a successful capital raising to advance the Galalar Silica Project, with a placement of 463.8 million fully paid ordinary shares at an issue price of \$0.01 per share to new and existing sophisticated and institutional investors raising \$4.64 million (before costs). The placement was strongly supported by existing cornerstone investor, Illwella Pty Ltd, which subscribed for approximately one third of the placement (refer ASX announcements 9 October 2020 and 16 October 2020).



Diatreme has also launched a Share Purchase Plan (SPP) on the same terms as the placement, with a target raise of \$500,000 (uncapped). Eligible shareholders who were registered on the Diatreme share registry at 7pm AEDT on 8 October 2020 can subscribe for up to A\$30,000 of new fully paid ordinary shares without incurring brokerage and subject to the terms and conditions of the offer (refer ASX announcement 15 October 2020).

The funds raised from the Placement and SPP will be used to advance the Galalar Silica Project, including further resource drilling and bulk product testing to assist in offtakes and mine planning for operational start up; further advancement of permitting and development approvals, development funding pathways and transshipment and logistics studies; costs of the capital raising and working capital.

Following the placement, on 20 October Diatreme also welcomed a new institutional investor, Germany-based Deutsche Balaton Aktiengesellschaft, a leading investment company listed on the Frankfurt Stock Exchange. Together with cornerstone investor Illwella, and other new entrants, Diatreme is pleased to now have a large institutional presence on the share registry as it advances its key Galalar project towards development.

During the quarter the Company made payments totaling \$68k to related parties and their associates representing Directors' remuneration.

The Company's cash and liquids positions as at 30 September 2020 totaled \$452k.

Immediately post the current quarter reporting period on 16 October 2020, the Company announced the successful completion of a placement to raise \$4.64 million (before costs).

This announcement was authorised for release by:

**Neil McIntyre**

Chief Executive Officer

**Greg Starr**

Chairman

Contact – Mr Neil McIntyre - Ph – 07 3397 2222

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## MINERAL SANDS AND SILICA - COMPETENT PERSON STATEMENTS

*The information in this report that relates to Mineral Resources at the Cape Bedford Project (including the Galalar Silica 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 the 2012 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.*

**Forward looking statements:** *This document may contain forward looking statements. Forward looking statements are often, but not always, identified by the use of words such as "seek", "indicate", "target", "anticipate", "forecast", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Indications of, and interpretations on, future expected exploration results or technical outcomes, production, earnings, financial position and performance are also forward-looking statements. The forward-looking statements in this presentation are based on current interpretations, expectations, estimates, assumptions, forecasts and projections about Diatreme, Diatreme's projects and assets and the industry in which it operates as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made. The forward-looking statements are subject to technical, business, economic, competitive, political and social uncertainties and contingencies and may involve known and unknown risks and uncertainties. The forward-looking statements may prove to be incorrect. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results expressed or implied by any forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements.*



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## APPENDIX 1

Appendix 1 provides information required under ASX listing rule 5.3.3 for mineral exploration entities.

### Interest in mining tenements at end of quarter

State	Tenement Name	Tenement ID	Status	Location	Interest	Holder
WA	Cyclone	M69/141	Granted	Eucla Basin	100%	LSPL
WA	Cyclone Extended	R69/1	Granted	Eucla Basin	100%	DRX
QLD	Clermont	EPM17968	Granted	Clermont	100%	CHAL
QLD	Cape Bedford	EPM17795	Granted	Hopevale	100%	DRX
QLD	Cape Bedford	EPM27265	Granted	Hopevale	100%	DRX
QLD	Cape Bedford	EPM27212 EPM27430	Applications	Hopevale	(Pending)	DRX
QLD	Cape Bedford	ML100235	Application	Hopevale	(Pending)	DRX

### Beneficial percentage interests held in farm-in or farm-out agreements at end of quarter

State	Project Name	Agreement Type	Parties	Interest held at end of quarter	Comments
WA	Cyclone Zircon Project	Farm-out Heads of Agreement	LSPL and Perpetual Mining Holding Limited	94%	HoA announced Jan 2014, initial 6% farm-out completed 18 Sept 2014 – Subject to dilutionary non-contribution clauses.

#### Abbreviations:

M	Western Australia	Mining Lease
R	Western Australia	Retention Licence
EPM	Queensland	Exploration Permit for Minerals
ML	Queensland	Mining Lease

DRX - Diatreme Resources Limited
CHAL – Chalcophile Resources Pty Ltd
LSPL – Lost Sands Pty Ltd