

QUARTERLY REPORT

HIGHLIGHTS

EXPLORATION ACTIVITIES REPORT QUARTER ENDED 31 MARCH 2015

CYCLONE ZIRCON PROJECT (WA)

Diatreme Resources significantly expanded its flagship Cyclone Zircon Project via the settlement of an agreement with Image Resources to acquire its Eucla Basin tenement R69/1, including the Cyclone Extended Heavy Mineral Resource. The published Cyclone Extended resource represents a 50% expansion of the Cyclone Project HM resource and will allow for a wider range of options in mine planning and mine design, including an increase to proposed mine life.

Work has commenced on the incorporation of the Cyclone Extended exploration data in to Diatremes Cyclone Project database, with a Mineral Resource estimate expected to be reported early in April, and an Ore Reserve estimate later in Q2.

The Public Environmental Review (PER) process for the project made good progress during the quarter. Following a request for additional information from various government authorities, the PER will be revised and submitted to the Office of the Environmental Protection Authority by 31 May 2015 after which the PER will be advertised for public comment.

TICK HILL GOLD PROJECT (QLD)

Final regulatory approval was received from the Queensland Department of Natural Resources and Mines for the transfer of Mining Leases (ML's) 7094, 7096 and 7097 from Mount Isa Mines Limited (MIM) to Diatreme on the 24th March 2015.

Internal planning has commenced for immediate activity on transfer of license including assessment of potential gold associated with alluvial, colluvial and tailings material within the mine leases.

A reconnaissance drilling program is proposed for May 2015, utilising the company's aircore drilling rig which will be relocated from the Eucla Basin.

TENEMENT REVIEW

The review of Diatreme's tenement holdings is nearing completion, with action taken to ensure the exploration portfolio satisfies the Company's new and rigorous commercial, geological and geographic parameters.

Diatreme Resources Limited is an Australian based diversified mineral explorer with significant projects in WA and QLD.

The Company seeks to develop the Cyclone Zircon Deposit in WA, through a joint venture arrangement, and conducts exploration over a number of project areas prospective for heavy mineral sands, silica sand, gold and copper.

The Board and senior personnel exhibit wide experience, ranging through the exploration, development and financing phases of resource project management.

Australian Securities Exchange
Codes: DRX, DRXO

Board of Directors
Non-executive:
William Wang - Chairman
Andrew Tsang
Daniel Zhuang

Executive:
Neil McIntyre – Chief Executive
Tuan Do – Chief Financial Officer
Ian Reudavey – Chief Geologist

Joint Company Secretaries:
Leni Stanley and Tuan Do

Key Projects:

- Cyclone Zircon Project
- Tick Hill Gold Project
- Cape Bedford Silica/HMS Project
- Clermont Copper Project

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CYCLONE ZIRCON PROJECT (WA)

Diatreme Resources settled a purchase agreement with Image Resources NL in March 2015 to acquire its Eucla Basin HM tenement R69/1, including the Cyclone Extended Heavy Mineral Resource. The key commercial terms involved total payment of \$435,000 with an FOB production royalty of 1% retained by Image on all heavy mineral production within the area of the transferred tenement. Diatreme has the option to acquire the royalty at an agreed value of \$435,000, exercisable by 16 February 2017. Should Diatreme choose not to exercise the option, the royalty will remain in place.

The addition of Cyclone Extended to the Cyclone Project has increased the resource of Diatreme's flagship mineral sands project in Western Australia from 137 million tonnes at 2.2% heavy minerals (containing 3.0 Mt of HM) to 223 Mt at 2.1% HM (containing 4.6 Mt of HM), an effective increase of 53% in contained heavy minerals (refer DRX ASX Release "Acquisition Expands Cyclone Resource" 11th November 2014).

Cyclone Extended represents the strike extension of Diatreme's Cyclone mineralisation across a tenement boundary, allowing for the seamless extension of mining and processing. The acquisition has the potential to extend mine life by five years or more, based on Diatreme's existing mine design plans, and is a significant increase to the project's known HM resource. It also allows for a wider range of options in mine planning and design. Work on a combined Cyclone Project mineral resource is being undertaken, and work on a revised mine plan and mine design will follow immediately upon completion of a mineral resource estimate.

The Public Environmental Review (PER) process for the project made good progress during the quarter. The PER documentation was distributed to all relevant WA Government Decision Making Authorities (DMAs) for review before being advertised for public comment. The DMAs have requested that additional information is included in the PER and DRX is now in the process of preparing this additional information. The PER will be revised and submitted to the Office of the Environmental Protection Authority by 31 May 2015 after which the PER will be advertised for public comment.

MWH Environmental Consultants are providing environmental expertise to finalise the PER for public review. Completion of the PER process is expected to result in the environmental approval of the project by the EPA. This approval will cover the mining operation, support services, and all infrastructure including the haul road from Cyclone to the Forrest rail siding.

DRX plans to engage Mineral Technologies (MT) during the second quarter of 2015 to undertake a value engineering study of the mining units and wet concentrator plant planned for the Cyclone mine site. The study will review the current engineering design to identify opportunities to reduce the capital and operating cost estimates that were prepared for the PFS. MT will ensure current "best practice" technologies are applied to the project including opportunities provided by advances spiral separator design. The objective is to design a compact relocatable wet concentrator which would allow significant reductions in pumping costs from the mining units to the concentrator and from the concentrator to the tailings disposal areas.

The Cyclone Project has now entered a new phase of evaluation for production of heavy mineral concentrate (HMC) rather than zircon and HiTi final products. The DFS plan has been reviewed on the basis of the new project strategy and a revised budget is being prepared as part of the current discussions with Chinese investors. There is surplus capacity in Chinese mineral separation plants and a shortage of opportunities in China for supplying these plants with HMC. High priority activities for the DFS have been identified and these activities are expected to be initiated in the coming quarter on completion of the funding agreement currently being finalised.

EUCLA BASIN HM PROJECT (WA)

A positive departmental review and assessment of Rehabilitation Reports lodged with the WA Mines Department for relinquished WA Eucla Basin tenements (i.e. E69/2222, E69/2426, E69/2427, E69/2428, E69/2429) resulted in refund of outstanding environmental bonds attached to the listed tenements under the new MRF regime in WA.

No field work was undertaken during the quarter, and no exploration field work is planned for the June quarter as the company will be focussed on the Cyclone Project and Tick Hill Gold Project.

TICK HILL GOLD PROJECT (QLD)

The Tick Hill Gold Project comprises three granted Mining Lease No's 7094, 7096 and 7097 (totaling 390ha). The Tick Hill Gold Deposit was mined between 1991 and 1995 by Carpentaria Gold Pty Ltd (a subsidiary of MIM Holdings Limited) for the production of 513,333 ounces of gold from 705,000 tonnes of ore at a recovered grade of 22.6 g/t gold (source: MIM – Annual Reports). This makes it one of the highest grade gold deposits in Australia's recent gold producing history.

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The transfer of the three ML's to Diatreme Resources was confirmed by the Department in March 2015. This final assignment has satisfied certain conditions for the commencement of the DRX Farm-In and Joint Venture Agreement with Superior Resources Limited (ASX:SPQ) over the Tick Hill Gold Project. Under the Joint Venture Agreement, Superior Resources has the right to earn a 50% interest in the project by:

- Completing \$750,000 of exploration expenditure, including substantial drilling;
- Making a payment to DRX of \$100,000; and
- Lodging 50% of the Queensland Government security bond on the tenements.

SPQ will initially concentrate its exploration focus on areas containing possible offset extensions of the mined lode. Further additional exploration to be completed by SPQ/DRX includes an assessment of the tailings from the previous mining to determine if these contain sufficient gold to warrant reprocessing, assessment of potential alluvial resources and investigation of the grade of the old mine dumps - with particular focus on short term opportunities to facilitate positive revenue generation.

A reconnaissance drilling program of the tailings dam and the primary area of alluvial potential (as defined by historical soil surveys) is proposed for May 2015. Exploration equipment and consumables, including the company's aircore drilling rig, is being relocated from the Eucla Basin to allow a cost efficient exploration program to be undertaken using solely in-house equipment and expertise.

CAPE BEDFORD SILICA/HMS PROJECT (QLD)

Discussions are ongoing with traditional land owners to facilitate an exploration agreement for the Cape Bedford area and a letter of support for grant of EPM. This project has been identified as an important company priority to allow exploration activities to commence as soon as possible on site.

CLERMONT COPPER PROJECT (QLD)

A review of the Clermont project, and in particular the Rosevale Porphyry Corridor, is continuing – with development of a proposed exploration program and identification of lower priority prospects and project tenement area that could be relinquished.

GRAYS HILL PROJECT (QLD)

The company has identified a number of topographic features within Quaternary sediments on the coastal plain in the eastern part of EPM25117 that may represent targets for HM accumulation. Discussions have commenced with the primary landholder to facilitate access for reconnaissance exploration.

The exploration opportunity for both structurally controlled epithermal mineralisation and porphyry mineralisation at the Wasp Prospect remains under review and is not currently a primary focus for DRX.

PROJECT TENEMENT RATIONALISATION

As part of a review of Diatreme's exploration strategy, Diatreme's tenement holdings and applications have been re-assessed with several non-core tenement holdings recommended for relinquishment. This will continue to reduce tenement administration costs and allow Diatreme to focus activity on its core projects. Appendix 1 provides details of the exploration tenements disposed during the quarter.

The Glenthompson tenement in Victoria was sold to Stavely Minerals during the quarter. Although EL5478 contains a potential fault offset of the Stavely Volcanic Complex (porphyry Cu – VMS potential), the depth of cover and early stage of exploration meant that the EL was not a good fit with Diatreme's new exploration strategy.

CASH POSITION

The Company's cash position at 31 March 2015 (Appendix 5B) was \$470K.

APPENDIX 1

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

Dated 30 April 2015

Neil J McIntyre

Chief Executive

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Competent Person Statements

The information in this report that relates to Exploration Results and Mineral Resources from the Cyclone Zircon Project is based on information compiled by Mr Ian Reudavey, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Reudavey is a full time employee of Diatreme Resources Limited. Mr Reudavey 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 Reudavey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

APPENDIX 1

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

Mining tenements held at the end of the quarter and their location

State	Tenement Name	Tenement ID	Location	Interest	Holder	Comments
WA	Wanna Lakes	E69/1920	Eucla Basin	100%	LSPL	Granted
WA	Wanna Lakes East	E69/2408	Eucla Basin	100%	LSPL	Granted
WA	Wanna South	E69/2425	Eucla Basin	100%	LSPL	Granted
WA	Cyclone	M69/141	Eucla Basin	100%	LSPL	Granted
WA	Cyclone Extended	R69/1	Eucla Basin	100%	DRX	Granted
QLD	Clermont	EPM17968	Clermont	100%	CHAL	Granted
QLD	Parapet	EPM19189	Clermont	100%	CHAL	Granted
QLD	Expedition Creek	EPM19544	Clermont	100%	CHAL	Granted
QLD	Grays Hill	EPM25117	Yeppoon	100%	DRX	Granted
QLD	Cape Bedford	EPM(A)17795	Cape Bedford	100%	DRX	Application
QLD	Tick Hill	ML7094	Duchess	100%	DRX	Granted
QLD	Tick Hill	ML7096	Duchess	100%	DRX	Granted
QLD	Tick Hill	ML7097	Duchess	100%	DRX	Granted

Mining tenements acquired and disposed of during the quarter and their location

State	Tenement Name	Tenement ID	Location	Interest	Holder	Comments
WA	Cyclone Extended	R69/1	Eucla Basin	100%	DRX	Acquired
QLD	Tick Hill	ML7094	Duchess	100%	DRX	Acquired
QLD	Tick Hill	ML7096	Duchess	100%	DRX	Acquired
QLD	Tick Hill	ML7097	Duchess	100%	DRX	Acquired
VIC	Glenthompson	EL5478	Glenthompson	100%	CHAL	Disposed

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

State	Project Name	Agreement Type	Parties	Interest held at end of quarter by exploration entity or child entity	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
QLD	Tick Hill Gold Project	Farm-out and Joint Venture Agreement	DRX and Superior Resources Limited	100%	Proposed JV announced Aug 2011, formal Agreement announced June 2013, Joint Venture commenced Jan 2015

Beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the quarter

State	Project Name	Agreement Type	Parties	Interest held at end of quarter by exploration entity or child entity	Comments
QLD	Tick Hill Gold Project	Option & Sale Agreement	DRX and MIM	100%	Acquired - Option exercised by DRX, Transfer of Title registered Mar 2015

Abbreviations:

E	Western Australia	Exploration Licence	DRX - Diatreme Resources Limited
M	Western Australia	Mining Lease	CHAL - Chalcophile Resources Pty Ltd
R	Western Australia	Retention Licence	LSPL - Lost Sands Pty Ltd
EL	South Australia, Victoria	Exploration Licence	
EPM(A)	Queensland	Exploration Permit for Minerals (Application)	
EPM	Queensland	Exploration Permit for Minerals	
ML	Queensland	Mining Lease	