

ASX

ANNOUNCEMENT

ASX:DRX 

QUARTERLY REPORT

HIGHLIGHTS

EXPLORATION ACTIVITIES REPORT QUARTER ENDED 30 JUN 2015

HIGHLIGHTS

- **Cyclone mineral resource upgraded to 211 million tonnes**
- **Submission of Cyclone Project – Public Environmental Review (PER)**
- **Regulatory approval for initial Tick Hill drilling program commencement**

CYCLONE ZIRCON PROJECT (WA)

Diatreme announced a revised Mineral Resource estimate for the Cyclone Project of 211 million tonnes at 2.3% HM (1% HM cut-off grade), containing 4.8 Mt HM, of which zircon comprised 1.27 Mt. This resource upgrade followed the acquisition from Image Resources NL of the Cyclone Extended HM Resource, and the subsequent integration of relevant exploration data.

The Public Environmental Review (PER) for the Cyclone Zircon Project was released on the 29 June, with the WA EPA setting a public review period of 5 weeks followed by a 4 month consultation period with the EPA. An assessment report for final approvals is anticipated in December 2015.

Completion of the PER process is expected to result in a positive recommendation to the Minister of Environment by the EPA for approval of the Cyclone Project. This recommendation will cover the mining operation, support services, and all infrastructure, including the haul road from Cyclone to the Forrest rail siding.

TICK HILL GOLD PROJECT (QLD)

Planning for assessment of potential gold associated with alluvial, colluvial and tailings material within the project area was undertaken, including preparation of a 12 month Plan of Operations for exploration and rehabilitation activity.

Final regulatory approval for exploration was obtained in mid-July, and a reconnaissance drilling program was undertaken in late July.

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

Key Projects:

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

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 – CFO & Co. Secretary
Ian Reudavey – Chief Geologist

Registered Office:
Level 2, 87 Wickham Terrace
Spring Hill, QLD 4000

Postal Address:
PO Box 10288
Brisbane Adelaide Street
QLD 4000

Diatreme Resources Limited Contact:
Neil McIntyre – Chief Executive
Phone: +61 7 3832 5666
Email: manager@diatreme.com.au

CYCLONE ZIRCON PROJECT (WA)

The Public Environmental Review (PER) was released on the 29 June, following an extensive review process by relevant WA Government Decision Making Authorities (DMAs). WA's Environmental Protection Authority (EPA) has set the public review period at five weeks. This will be followed by a four-month consultation period with the EPA which will result in preparation of an assessment report for final approvals, expected by December 2015.

Following the public review period and Lost Sands' responses to public comments, the EPA will prepare an assessment report and recommendations for the Minister of Environment. The Minister will then determine whether the project should be implemented and the environmental conditions that will be applied.

Completion of the PER process is expected to result in a positive recommendation to the Minister of Environment by the EPA for approval of the Cyclone Project. This recommendation will cover the mining operation, support services, and all infrastructure, including the haul road from Cyclone to the Forrest rail siding.

Diatreme confirmed a significant expansion of the mineral resource at the Cyclone Zircon Project with the compilation of a resource estimate that incorporated data from the recently acquired Cyclone Extended deposit. The Mineral Resource for Diatreme's flagship Cyclone Zircon Project is now estimated at 211 million tonnes (Mt) at 2.3% heavy minerals (HM) containing 4.8 Mt HM, increasing contained HM by 60%. Approximately 75% of the resource tonnes and 80% of the HM tonnes are classified as Measured, with the remainder classified as Indicated.

The Zircon content of the HM is estimated at 27% (comprising 1.27 Mt of zircon in the mineral resource), an increase of 40% from previously reported estimates – confirming Cyclone's status as one of the highest zircon grade projects awaiting development. The estimate again highlights the low levels of slimes (<53um) at 4.2% and oversize (>2mm) at 4.9% within the Cyclone mineralisation. These characteristics are conducive to simple, low cost, mining, processing and tailing operations.

Cyclone Resource Estimate

Category	HM cut-off %	Material Mt	HM %	HM Mt	Slime %	OS %	Head Grade				Zircon Kt
							Zircon %	HiTi %	Alt Ilm %	Si TiOx %	
MEASURED	2.0	69	3.7	2.55	3.6	3.8	1.05	1.17	0.48	0.82	729
MEASURED	1.5	102	3.1	3.13	3.9	4.4	0.87	0.96	0.40	0.67	891
MEASURED	1.0	156	2.4	3.79	4.2	5.1	0.69	0.77	0.32	0.53	1,072
INDICATED	2.0	13	3.2	0.41	3.8	4.3	0.64	1.05	0.73	0.59	81
INDICATED	1.5	24	2.5	0.61	3.9	4.8	0.50	0.82	0.55	0.45	123
INDICATED	1.0	55	1.8	0.99	4.1	4.5	0.36	0.61	0.37	0.31	201
TOTAL	2.0	82	3.6	2.96	3.6	3.9	0.99	1.15	0.52	0.79	809
TOTAL	1.5	127	3.0	3.74	3.9	4.5	0.80	0.94	0.43	0.63	1,013
TOTAL	1.0	211	2.3	4.78	4.2	4.9	0.60	0.72	0.34	0.47	1,273
Mineral Assemblage							27%	32%	15%	21%	

DRX plans to engage a recognised mineral sands engineering firm during the second half 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. One key 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.

During the quarter DRX re-engaged with suppliers regarding updated pricing for logistics and services. This work is part of the preparations for completing the DFS as soon as an agreement for funding is finalised. Indications are for more competitive pricing from suppliers than was the case when the PFS was prepared.

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.

QUARTERLY REPORT

EUCLA BASIN HM PROJECT (WA)

No field work was undertaken during the quarter, and no exploration field work is planned for the September 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.

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 12 month Plan of Operations for exploration and rehabilitation activity was prepared during the quarter, with final regulatory approval obtained in mid-July.

A reconnaissance drilling program of the tailings dam and an area of alluvial potential (as defined by historical soil surveys) occurred in late July 2015, results are awaited. The exploration program utilised the company's aircore drilling rig which was relocated from the Eucla Basin in May 2015 to allow a cost efficient exploration program to be undertaken using 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 project tenement area that could be relinquished. A series of partial relinquishments for all three Clermont EPM's have been lodged with the Qld DNRM.

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. A partial relinquishment for 50% of EPM25117 has been lodged with the Qld DNRM.

PROJECT TENEMENT RATIONALISATION

Diatreme's tenement holdings and applications have been re-assessed with numerous non-core tenement holdings either relinquished or abandoned. The sale of the Glenthompson tenement in Victoria to Stavely Minerals was finalised in April.

Since launching its strategic divestment process, Diatreme has systematically consolidated its tenement portfolio from 29 exploration properties (including 13 applications and no mining leases) in early 2014, to just nine high value exploration properties (including one application) and four mining leases at the Company's flagship Cyclone Zircon Project and the Tick Hill Gold Project.

This action has reduced tenement administration costs and will allow Diatreme to focus activity on its core projects.

QUARTERLY REPORT

CASH POSITION

The Company's cash position at 30 June 2015 (Appendix 5B) was \$441K.

APPENDIX 1

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

Dated 30 July 2015

Neil J McIntyre

Chief Executive

Company contact details:

Tel : +61 7 3832 5660

Email : manager@diatreme.com.au

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
-	-	-	-	-	-	-

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
-	-	-	-	-	-

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	Victoria	Exploration Licence	
EPM(A)	Queensland	Exploration Permit for Minerals (Application)	
EPM	Queensland	Exploration Permit for Minerals	
ML	Queensland	Mining Lease	