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11 January 2013

Mineral Sand Projects Update

Diatreme continues to maintain its focus on exploration and development of heavy mineral ("HM") sands projects within Australia. Two new highly prospective exploration tenement applications have recently been secured:

- **Exploration Licence Application "Serpentine" (E69/3113) has been applied for covering 292km² contiguous to, and in a south-easterly direction from, the Cyclone Zircon Project in Western Australia. The licence hosts a number of strandline zones for further evaluation.**
- **Exploration Licence Application "Elliston" (ELA2012/327) has been applied for covering 994km² at the southern extremity of the Eucla Basin in the Eyre Peninsular of South Australia. A 35km long potential strandline zone may host accumulations of heavy minerals.**

Both tenement applications cover known HM mineralisation and present prime opportunities to expand the Company's existing portfolio of quality mineral sand projects.



Eucla Basin Project, Western Australia – Serpentine Application E69/3113

Through its wholly owned subsidiary, Lost Sands Pty Ltd, Diatreme Resources Limited (ASX:“DRX”) has secured exploration licence application E69/3113 “Serpentine” covering 292km² contiguous to, and in a south-easterly direction from, the Company’s Cyclone Zircon Project in the Eucla Basin. The area trends along the Barton shoreline which hosts the Cyclone Deposit (see Figure 1).

Although successfully explored in recent years for heavy mineral (“HM”) sands by a third party, an internal Company review indicates that the area retains significant exploration potential for the discovery of further HM mineralisation. A number of untested targets are open to drill testing and thus may result in future satellite deposits to support any mining operations that develop over the Cyclone Project. The application area includes the zircon rich “Monsoon” mineralisation zone discovered by Image Resources NL late in 2008. The Monsoon zone is approximately 800 m wide and remains open to both the north and south.

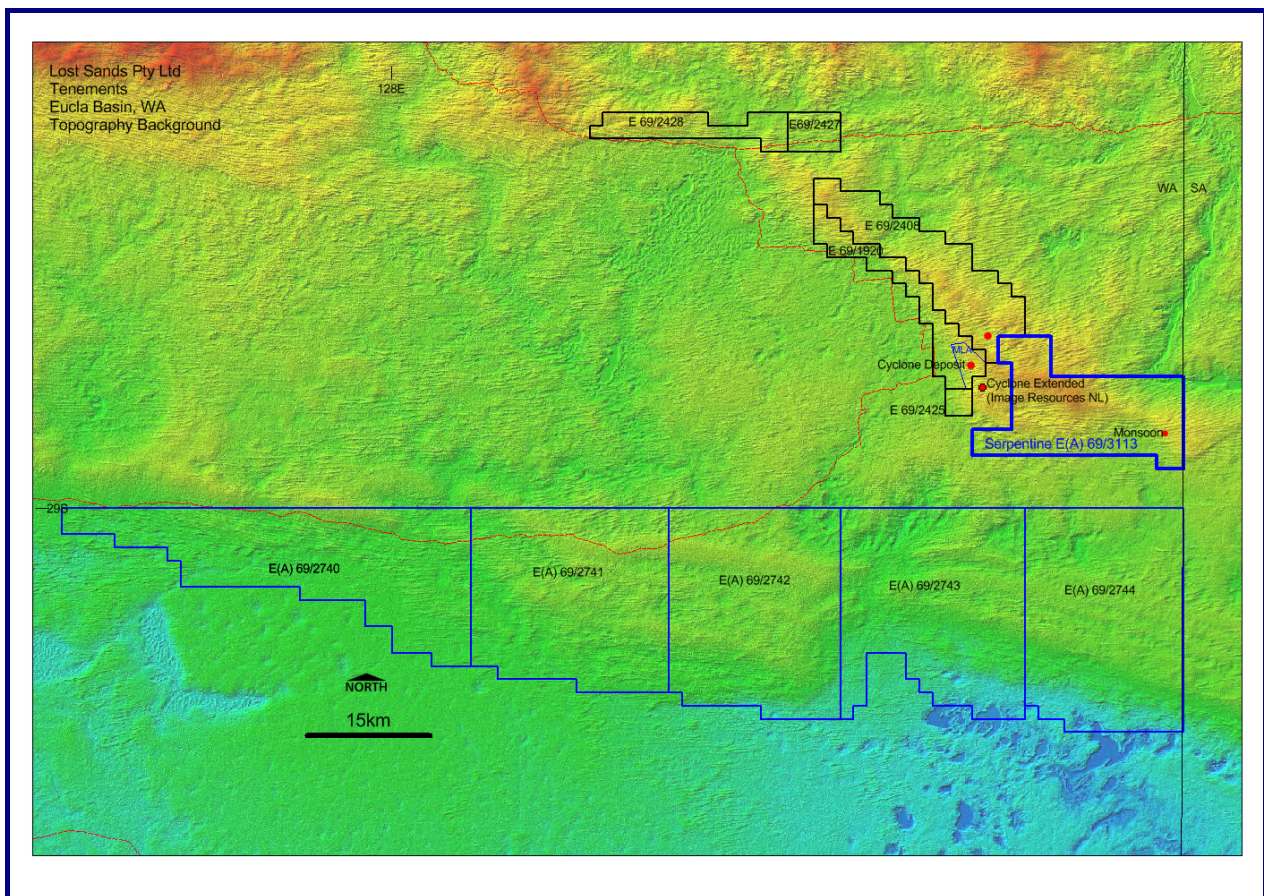


Figure 1: Eucla Basin Project (WA) exploration licences and applications showing the location of E69/3113 Serpentine southeast of Cyclone HM Deposit.

Elliston Project, South Australia (SE section of the Eucla Basin)

Diatreme Resources Limited has applied for an exploration licence (ELA 2012/327) covering 994km² in an area immediately behind the Flinders Highway, and stretching from Talia in the north to Elliston in the south. Elliston is approximately 200km SE of Ceduna and 150km NW of Port Lincoln (see Figure 2).



The area is prospective for HM sands along a ridge 35km long and 5km wide. In 1990, as part of an early assessment of the Eucla Basin, BHP conducted widely spaced drill holes targeting rutile, but only intersected low grade HM.

Diatreme's primary area of interest is in the zircon potential within the 35km long, 5km wide, broadly arcuate N-S trending Digital Elevation Model (DEM) high, with a maximum elevation around 150m RL and within 10km of the current coastline. Only one traverse by BHP of 1km spaced, shallow (<30m) drill holes along the Talia-Mt Dampier Road at the far northern end of the DEM feature occurs. However, the low grade HM results reported were as follows:

BHP vertical drill hole No.	True thickness intercepts
TA0010	14m at 0.4% HM from 16m (open at depth)
TA0011	9m at 0.3% HM from 18m (open at depth)
TA0012	10m at 0.3% HM from 16m (open at depth)

Three composite samples were submitted by BHP for mineralogy (magnetic separation and grain count) with an average mineral assemblage result as follows:

25% Zircon (23-27%)
5% Rutile (4-7%)
17% Leucoxene (12-23%)
31% Ilmenite (26-37%)

BHP surrendered their exploration ground in 1991, citing "the low rutile content in the heavy mineral assemblage and other negative factors such as the thickness of overlying Quaternary strata and the widespread development of calcrete".

Diatreme believes that further mineral sand exploration, particularly for zircon, is warranted on the following basis:

- The DEM feature is interpreted as Garford Formation (Miocene) and/or Pidinga Formation (Eocene), both of which are known to contain HM bearing units. The feature could represent reworking of material from the Narlaby or Robinson paleochannels with mineral accumulation in a SW facing bay.
- The DEM feature has only experienced very limited drill testing in the past. The BHP drilling was both too widely spaced and shallow to adequately test the mineral sands potential of the feature. Target mineralisation would need to be in the order of 5km strike, 500m wide and 20m thick to result in an 80Mt resource. This appears possible based on current knowledge (DEM feature is 35km long, 5km wide).
- With the presence of low grade HM from 1km spaced drilling, there is potential to both define high grade mineralisation in strandlines or as basal accumulations (as the BHP holes remain open at depth).
- With high value mineral assemblage containing 25% zircon and with the reported mineral assemblage, a deposit of 2% HM could be viable.
- The area has favourable infrastructure and logistics and there appears to be an adequate road / farming network to allow reconnaissance drilling.

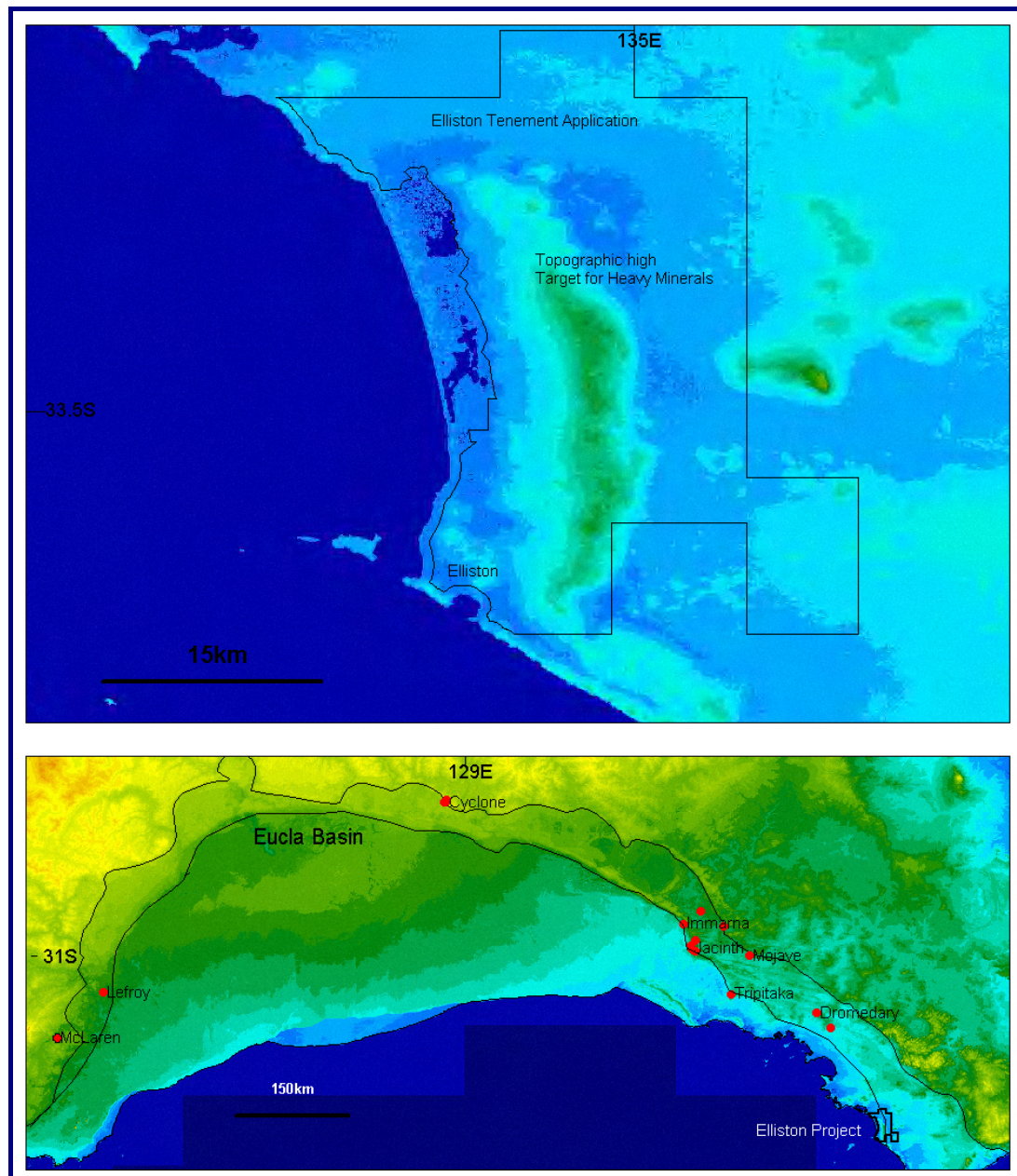


Figure 2: Elliston Project (SA) tenement application in the southeastern section of the Eucla Basin overlaid on DEM background showing the topographic high target for mineral sands.

The Company is encouraged by the quality of the ground secured and on grant of the tenements will commence exploration using its own aircore drill rig and laboratory pre-preparation facilities based out of Ceduna, SA.

For further information please contact: **Anthony J Fawdon**
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Competent Person Statement

The information in this report, insofar as it relates to Exploration Results is based on information compiled by company personnel under the supervision of Mr David Jelley, who is a full time employee of Diatreme Resources Limited and a Member of the Australasian Institute of Mining and Metallurgy. Mr Jelley 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jelley consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.