





Mineralogical samples were selected from the across the mineral resource and analysed by SGS Australia Pty Ltd using the "QEMSCAN" method. Results are presented below in Table 1. SGS have now analysed 103 samples from throughout the deposit with the majority of samples taken from the Tertiary Beach Sands (70 samples) which is the main mineralised zone. Additionally, 12 samples from the mineralised overburden and a further 21 samples from within the mineralised nearshore sediments directly beneath the beach sands were analysed. The results from this work highlight the deposit as being particularly valuable in terms of its mineral species.

Mass %	Overburden	Tertiary Beach	Tertiary Nearshore	Average
<b>Zircon</b>	24	31	34	31
<b>Rutile</b> (TiO <sub>2</sub> : >=95%)	10	11	9	11
<b>Leucoxene</b> (TiO <sub>2</sub> : 85% - <95%)	2	2	1	2
<b>Hi Ti oxide</b> (TiO <sub>2</sub> : 70 - <85%)	12	15	20	15
<b>Altered ilmenite</b> (TiO <sub>2</sub> : >55% - <70%)	16	11	13	12
<b>Ilmenite</b> (TiO <sub>2</sub> : <55%)	5	0	0	1
<b>Other Minerals (Trash)</b>	31	30	23	28

**Table 1: Mineralogical determinations of Cyclone Deposit by SGS using QEMSCAN.**

This recent work has been more extensive than previous work. This analysis covers a larger area of the resource including different stratigraphic levels of the deposit and the lower grade overburden.

The majority of the mineral within the primary mineralized zone is free of clay coatings and is therefore expected to attract higher prices. The overburden minerals are mostly coated with clay but are believed to be amenable to acid washing for removal of the coating to produce marketable products.

Previous mineral assemblage testwork by SGS Australia Pty Ltd used a different classification for the mineral species. The latest data uses much more stringent classifications, particularly with reference to the TiO<sub>2</sub> and SiO<sub>2</sub> content within Leucoxene and other altered ilmenite products.

Cyclone has a JORC compliant resource of 98.4 million tonnes at 2.88% HM (Table 2) which only includes the primary mineralisation within the older Tertiary Sands (Beach and some Nearshore). The resource currently excludes the overlying lower grade "overburden" which is also mineralised, averaging approximately 0.9%HM. On finalisation of all the assay results from this section of the deposit and further geological interpretation the entire Cyclone Deposit will be remodeled and the resource estimate updated. This update is expected to significantly increase the size of the resource.



CLASSIFICATION (JORC)	Tonnes	HM %	Oversize %	Slimes %
INFERRED	2,513	2.38	4.08	3.53
INDICATED	84,366	2.82	5.91	4.40
MEASURED	11,522	3.44	4.72	4.51
TOTAL	<b>98,402</b>	<b>2.88</b>	<b>5.72</b>	<b>4.39</b>

**Table 2: Cyclone Resource Estimate.**

Bulk sample testwork on the Cyclone Deposit is also underway which will help with mineral/product classification and characterisation to be used in the pre-feasibility study.

### **Potential to increase Resources**

The Company believes that there is high potential to increase the size of the current Cyclone Deposit resource and a strong possibility of establishing further mineralisation to the north and east within the Company's tenements. There is also potential for extension to the south of the deposit since the deposit extends across the tenement boundary into ground held by Image Resources NL (ASX:IMA).

DRX geologists have identified a low grade strand line 3km to the north of the Cyclone Deposit with the heavy mineral component comprising over 80% zircon. Further drilling will focus on defining this mineralisation along with any other satellite deposits within the immediate area.

Cyclone represents one of the largest undeveloped deposits of zircon in the world. The current development timeframe would see production commencing in 2014 and the operation would be capable of supplying significant quantities of high value mineral for more than 10 years. Market forces have resulted in recent increases to the Zircon price and further price increases are expected in the near future.

### **Geology of Cyclone Deposit**

The Cyclone Deposit is made up of numerous mineralised strand systems which are believed to represent ancient beach placer deposits with associated dunal deposits and nearshore mineralisation between the stacked beach systems. The sands are generally free flowing with very little induration (rock) and low slimes contents, thus favourable to traditional sand mining techniques. The overburden, averaging 14 metres in thickness, is mineralized to a lesser degree than the underlying mineralisation and is generally coated with clay minerals.

The deposit lies within 25km of the WA/SA state border approximately 220km north of the transcontinental railway.

All drilling undertaken to date has been by contracted drill rigs using the NQ aircore system and samples taken at 1.5m intervals within vertical drill holes. Samples were submitted to the company operated pre-preparation laboratory in Ceduna for wet screening at 2mm and 53 micron (oversize and slimes analyses respectively).

Sub-samples were submitted to a contract laboratory, *Diamantina Laboratories*, for heavy media separation using TBE (tetrabromoethane), with a density of 2.9 grams per cubic centimetre. The QAQC data assessed as part of the drilling programme returned very acceptable results and included duplicate samples as a primary check on the laboratory and secondary check samples using a different contract laboratory, *Western Geolabs Pty Ltd*.



Drill holes were located using handheld GPS equipment with sub-five metre resolution and later surveyed by Differential GPS with sub metre resolution.

### **Mineralogy Methodology**

Samples were micro-riffled, and representative aliquots of each mixed with graphite and mounted in permanent epoxy resin. 103 polished blocks were prepared in total for the analysis. The samples were carbon-coated prior to analysis using the QEMSCAN system.

The samples were analysed using Particle Mineralogical Analysis (PMA). A PMA measurement is performed on a particle by particle and pixel by pixel basis. This results in an X-ray map of each particle analysed.

QEMSCAN data is classified using a very detailed chemical-based mineral list. A simplified mineral grouping was applied to these analyses for the bulk mineralogy.

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The information in this report, insofar as it relates to Exploration Results and Mineral Resources is based on information compiled by Mr David Jelley, of David Jelley Pty Ltd, who is 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.