

DRILLING COMMENCES AT WORLD CLASS DAMPIER HMS PROJECT

KEY POINTS

- 3 month aircore drilling programme to target Thunderbird and Argo
 - Objectives at Thunderbird are to further increase size of resource and to increase component in Indicated Resource category
 - Objective at Argo is to test exploration target
- Thunderbird scoping study on schedule for completion Q3 2013

Sheffield Resources ("Sheffield", "the Company") (ASX:SFX) today announced it has commenced drilling at its Dampier heavy mineral sand (HMS) Project, located near Derby in the Canning Basin region of Western Australia (Figure 1).

The aircore drilling programme, which is expected to take three months to complete, will comprise infill and extension drilling at the large Thunderbird deposit and an initial test of the zircon and leucoxene-rich Argo prospect, located 12km to the west of Thunderbird.

The infill drilling at Thunderbird is designed to increase the component of the deposit in the Indicated Resource category.

Managing Director, Bruce McQuitty said the drilling programme will underpin the next important phase of work on the Dampier project.

"Thunderbird is one of the largest and highest grade mineral sands deposits to be discovered in the last decade and has received only one substantial drill programme. The mineralisation remains open in several directions."

"We are confident the current drill programme will further enhance what is already a world-class discovery."

"We also look forward to testing the exploration potential in the immediate district, including the Argo prospect."

"Importantly, following the recent exercise of IPO options, the Company has a strong cash balance of \$8.5 million to fund its activities, including those aimed at increasing the value of the Dampier project."

Scoping study update

The Thunderbird Scoping Study is progressing and is scheduled to be completed mid-Q3 2013.

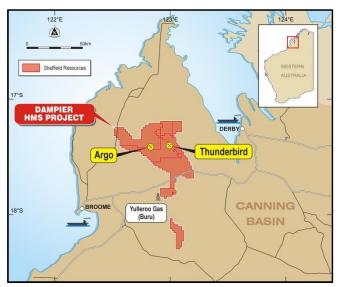


Figure 1: Location of Dampier Project

The study includes investigation of mining, infrastructure and marketing options. Further enhancing metallurgical testwork is underway on a five tonne bulk sample composited from the 2012 drilling programme.

This work is aimed at optimising the processing flowsheet, and determining the preferred markets for products.

Level 2 baseline environmental survey work to support the environmental approvals process is also being undertaken and is expected to be completed in 1H 2014.

Thunderbird HMS deposit

The Thunderbird deposit has Indicated and Inferred mineral resources totalling **1.37Bt @ 6.1% HM** for 83Mt of contained HM (at 2% HM cut-off), including 5.7Mt of zircon, 1.3Mt of rutile, 3.6Mt of leucoxene and 24Mt of ilmenite (refer to ASX release of 18 December, 2012 for full resource details).

The resource includes a coherent high grade core of **517Mt @ 10.1% HM** (Indicated and Inferred), containing 3.6Mt of zircon, 0.8Mt of rutile, 2.2Mt of leucoxene and 15.2Mt of ilmenite (at 7.5% HM cut-off). This zone, which averages 20m thickness, is the focus of initial development studies.

The deposit has favourable geometry, occurring as a thick, shallowly-dipping sheet 7km x 5km in area, extending from surface and open in most directions. Due to the shallow dip of the deposit, approximately 40% of the total resource area has less than 3m of overburden.

Metallurgical testwork confirms Thunderbird will generate high quality, marketable products, including premium grade zircon, using conventional processing technology (see ASX release of 25 March 2013).

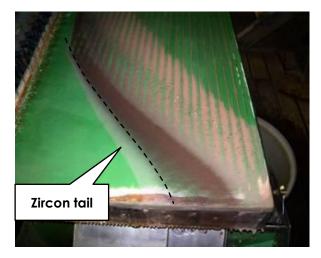
Thunderbird is located on crown land (pastoral lease) in the central part of the Dampier Peninsula, close to existing ports, sealed highways, recent gas discoveries and abundant sources of unallocated fresh groundwater suitable for processing (Figure 1).

Argo prospect

Argo is located 12km to the west of Thunderbird. Mineralisation is defined by a single scout aircore drilling traverse by a previous explorer which obtained best intersections of 12m @ 3.49% HM from 42m depth (JD036) and 7.5m @ 3.44% HM from 27m depth (JD037).

The mineralisation is zircon and leucoxene rich, as determined by bulk sample and scanning electron microscope testwork (see ASX release of 7 September 2011).

ends



Cleaner stage gravity separation of HM undertaken by Mineral Technologies Pty Ltd on bulk sample from the Argo prospect. Source: Combined Annual Report (C96/2003 Mt Jowlaenga) for the Period 21 July 2007 to 20 July 2008 Rio Tinto Exploration Pty Ltd. For further information please contact:

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COMPETENT PERSONS' STATEMENT

The information in this announcement that relates to exploration results is based on information compiled by David Boyd. Mr Boyd is a full time employee of the Company. Mr Boyd is a Member of the Australasian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity to which they are undertaking to qualify as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code")'. Mr Boyd consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

FORWARD LOOKING STATEMENTS

Some statements in this announcement regarding estimates or future events are forward-looking statements. They involve risk and uncertainties that could cause actual results to differ from estimated results. Forward-looking statements include, but are not limited to, statements concerning the Company's exploration programme, outlook, target sizes and mineralised material estimates. They include statements preceded by words such as "expected", "planned", "target", "scheduled", "intends", "potential", "prospective", "strategy" and similar expressions.

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ABOUT SHEFFIELD RESOURCES

Sheffield Resources Limited (**Sheffield**) is a rapidly emerging heavy mineral sands (HMS) company.

ASX Code – SFX	Market Cap @ 37.5cps - \$44.4m
Issued shares – 118.3m	Cash - \$8.5m (approx.)

The Company has over 6,000km² of highly prospective tenure, all situated within the state of Western Australia.

HEAVY MINERAL SANDS

The Dampier project, located near Derby in WA's Canning Basin region, contains the large, high grade zircon-rich Thunderbird HMS deposit.

The Eneabba project comprises multiple HMS deposits and is located near Eneabba approximately 140km south of the port of Geraldton in WA's Mid-West region.

Sheffield is also evaluating the large McCalls chloride ilmenite project, located 110km to the north of Perth.

NICKEL-COPPER

Sheffield's 525km² Red Bull project is located in the highly prospective Fraser Complex within 20km of Sirius Resources NL's (ASX:SIR) Nova Ni-Cu discovery.

IRON

Sheffield holds four exploration licences prospective for iron in the North Pilbara region, all near existing iron ore mine sites or major development projects and within potential trucking distance of Port Hedland. Following its recent sale of the South Pilbara Iron tenements, Sheffield continues to seek to unlock value on its remaining Pilbara iron tenements through consolidation and/or further exploration.

POTASH

The Oxley potash project is located in the northern part of the Proterozoic Moora Basin, approximately 38km northeast of Three Springs. Sheffield is exploring the Oxley Potash project for unconventional hard rock potash mineralisation suitable for open pit mining.