



23 July, 2014

DRILLING UNDERWAY AT THUNDERBIRD MINERAL SANDS PROJECT

KEY POINTS

- Drilling to target potential extensions to world-class Thunderbird deposit
- Discovery of additional shallow high grade mineralisation in up-dip region could significantly enhance already outstanding project economics
- In addition, infill drilling will be undertaken to seek to upgrade areas of Inferred Resource excluded from the current Scoping Study*
- Results expected during Q3 2014

Sheffield Resources Limited (“Sheffield” “the Company”) (ASX:SFX) today announced the commencement of drilling at its 100% owned, world-class Thunderbird Mineral Sands Project, located near Derby in northwest Western Australia.

Thunderbird has total mineral resources of **2.62Bt @ 6.5% HM** (Measured, Indicated and Inferred) for **170Mt of contained HM**, including a high grade component of **740Mt @ 12.1% HM** (see full resources tabulation Appendix 1 and ASX release dated 19 March 2014).

The Thunderbird Scoping Study, released on 14 April 2014, showed the project has the potential to generate consistently strong cash margins from globally significant levels of production over an initial 32-year mine life.

The 2014 drilling programme at Thunderbird will target extensions to shallow high-grade mineralisation open up-dip, with the aim of expanding the current resource and improving the project’s already outstanding economics.

In addition, infill drilling will target those areas of the resource which are currently classified as Inferred and were therefore excluded from consideration for the current Scoping Study pit optimisation (see Figures 1 & 2 and ASX release dated 14 April, 2014). Positive results from this drilling could enable a resource upgrade and potentially enhance the project’s economics and mine life.*

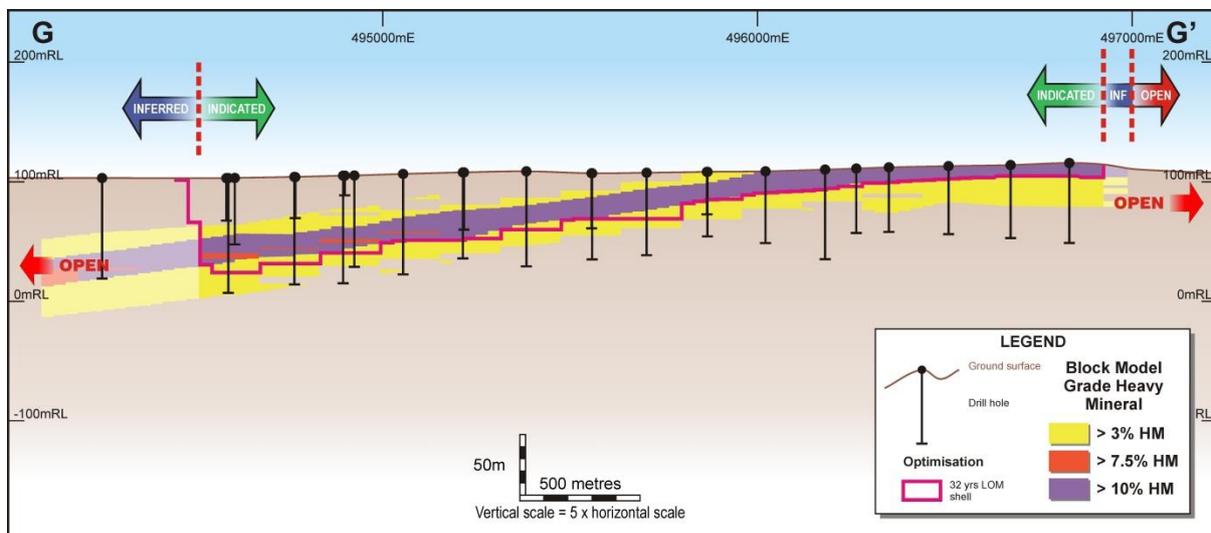


Figure 1: Cross-section G-G' through the Thunderbird resource block model showing the 32 Year pit shell outline, resource classifications and exploration potential beyond current drilling

*There is, however, no certainty that further exploration work will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources.

Sheffield's Managing Director Bruce McQuitty said: "With the commencement of our field programs as planned, we are on-track to deliver the Thunderbird Pre-feasibility Study in Q1 2015, followed by the Definitive Feasibility Study for targeted initial production in 2017."

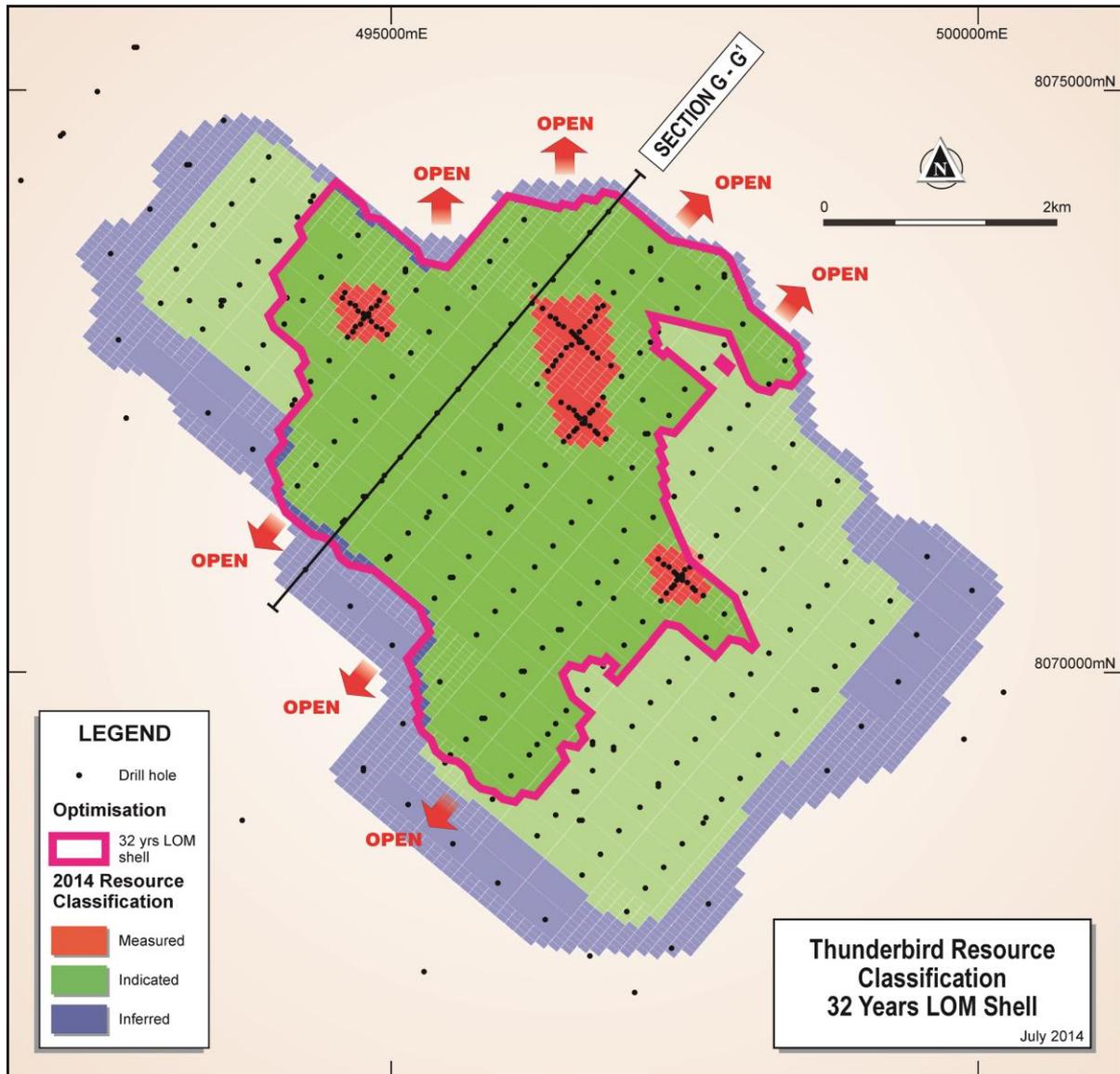


Figure 2: Plan view of Thunderbird Deposit 32-year pit shell outline on Mineral Resource Classifications showing exploration potential beyond current drilling

A program of geotechnical drilling using sonic coring has also commenced. The purpose of this drilling is to obtain sufficient geotechnical information for:

- pit slope stability analyses and pit design;
- assessment of the excavatability of the mineralised zone and other materials (soils and overburden) in the modelled pit shell, and
- in-situ density measurements.

In addition, a program of hydrogeological test bores has commenced. This program will provide information on the aquifer underlying the Thunderbird deposit and allow the effects of potential processing water abstraction to be modelled.

Work continues on several other aspects of the Thunderbird pre-feasibility, including port and infrastructure studies, zircon opacity tests, metallurgical optimisation on full-scale equipment and regional environmental baseline studies, results of which will be reported in coming weeks.

ENDS

For further information please contact:

Bruce McQuitty
Managing Director
Tel: 08 6424 8440

bmcquitty@sheffieldresources.com.au

Media: Luke Forrestal /Annette Ellis
Cannings Purple
Tel: 08 6314 6300

aellis@canningspurple.com.au

Website: www.sheffieldresources.com.au

COMPLIANCE STATEMENTS

PREVIOUSLY REPORTED INFORMATION

This report includes information that relates to Exploration Results which were prepared and first disclosed under the JORC Code 2012. The information was extracted from the Company's previous ASX announcements as follows:

- *"SHEFFIELD DOUBLES TOTAL MINERAL RESOURCES AT WORLD CLASS THUNDERBIRD HMS DEPOSIT"* 19 March 2014
- *"SCOPING STUDY HIGHLIGHTS THUNDERBIRD'S EXCEPTIONAL FINANCIAL RETURNS"* 14 April, 2014

These announcements are available on Sheffield Resources Ltd's web site www.sheffieldresources.com.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of reporting of Exploration Results, estimates of Mineral Resources or results of Scoping Studies, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which any Competent Person's findings are presented have not been materially modified from the original market announcement.

FORWARD LOOKING STATEMENTS

Some statements in this report 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 "anticipated", "expected", "target", "scheduled", "intends", "potential", "prospective" and similar expressions.

ABOUT SHEFFIELD RESOURCES

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

ASX Code – SFX

Market Cap @ 87cps - \$116.4m

Issued shares – 133.8m

Cash - \$11m (approx.)

Sheffield's projects are all 100% owned and are situated within the state of Western Australia.

HEAVY MINERAL SANDS

The Dampier project, located near Derby in WA's northwest, contains the large, high grade zircon-rich Thunderbird Mineral Sands Project. Sheffield is targeting first production from Thunderbird in 2017.

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

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. The recently discovered Mt Vettel DSO deposit is the Company's current exploration focus in this region.

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.

APPENDIX 1: THUNDERBIRD MINERAL RESOURCE 19 MARCH 2014

Table 1: Thunderbird deposit Mineral Resource¹

Resource Category	Cut off (HM%)	Mineral Resources					In-situ HM (Mt)	Mineral Assemblage ²			
		Material (Mt)	Bulk Density	HM %	Slimes %	Osize %		Zircon %	HiTi Leuc %	Leuc %	Ilmenite %
Measured	3.0	75	2.1	7.5	19	11	6	9.1	2.7	2.4	30
Indicated	3.0	1,805	2.1	6.8	17	9	122	8.3	2.7	2.9	28
Inferred	3.0	740	2.0	5.7	15	9	42	8.5	2.9	3.5	29
Total	3.0	2,620	2.1	6.5	17	9	170	8.4	2.8	3.0	28
Measured	7.5	30	2.2	12.2	18	14	4	8.7	2.6	2.2	30
Indicated	7.5	545	2.1	12.5	16	11	68	7.5	2.3	2.0	28
Inferred	7.5	165	2.0	10.9	14	10	18	7.6	2.5	2.2	29
Total	7.5	740	2.1	12.1	16	11	89	7.6	2.4	2.1	28

Table 2: Thunderbird deposit contained Valuable HM (VHM) Resource Inventory¹

Resource Category	Cut off (HM%)	Zircon (kt)	HiTi Leucoxene (kt)	Leucoxene (kt)	Ilmenite (kt)	Total VHM (kt)
Measured	3.0	510	150	140	1,660	2,450
Indicated	3.0	10,170	3,350	3,550	34,110	51,170
Inferred	3.0	3,600	1,230	1,470	12,110	18,420
Total	3.0	14,280	4,730	5,150	47,880	72,040
Measured	7.5	330	100	80	1,130	1,640
Indicated	7.5	5,090	1,590	1,380	18,790	26,850
Inferred	7.5	1,360	440	400	5,160	7,360
Total	7.5	6,790	2,130	1,860	25,080	35,860

¹ All tonnages and grades have been rounded to reflect the relative uncertainty of the estimate, thus sum of columns may not equal.

² Estimates of Mineral Assemblage are presented as percentages of the Heavy Mineral (HM) component of the deposit, as determined by screening, magnetic separation, QEMSCAN and XRF. Magnetic fractions were analysed by QEMSCAN for mineral determination as follows: Ilmenite: 40-70% TiO₂ >90% Liberation; Leucoxene: 70-94% TiO₂ >90% Liberation; High Titanium Leucoxene (HiTi Leucoxene): >94% TiO₂ >90% Liberation; and Zircon: 66.7% ZrO₂+HfO₂ >90% Liberation. The non-magnetic fraction was submitted for XRF analysis and minerals determined as follows: Zircon: ZrO₂+HfO₂/0.667 and High Titanium Leucoxene (HiTi Leucoxene): TiO₂/0.94.