



SheffieldResources
LIMITED

ASX and Media Release

25 November 2013

RECORD GRADES FROM WORLD CLASS THUNDERBIRD DEPOSIT

KEY POINTS

- **Extremely high grade results from infill and extension drilling, such as 19.5m @ 21.0% HM**
- **Thick, high grade mineralised zone outlined over 6km x 2.5km area, and remains open down-dip**
- **70% of Thunderbird assay results now received from 2013 drill programme**
- **Scoping Study will focus on initial production from thick and extensive high grade zone**

Mineral sands explorer Sheffield Resources ("Sheffield") (ASX:SFX) today announced the latest high grade drill results, the highest yet, from its world class Thunderbird heavy mineral sand (HMS) deposit near Derby in the Canning Basin region of Western Australia.

The third batch of assay results reported from the 2013 aircore drilling programme returned thick, very high grade intervals. The results relate to 63 infill and extension drill holes (Figure 1) and include:

- **55.5m @ 10.0% HM** from 4.5m (THAC352), including **19.5m @ 21.0% HM** from 12m
- **46m @ 12.4% HM** from 30.5m (THAC404), including **28m @ 17.9% HM** from 32m
- **52.5m @ 8.37% HM** from 9m (THAC348), including **18m @ 17.2% HM** from 16.5m
- **40.5m @ 11.7% HM** from 24m (THAC403), including **24m @ 16.1% HM** from 25.5m
- **58m @ 9.61% HM** from 27.5m (THAC400), including **32.5m @ 14.5% HM** from 29m
- **46.5m @ 9.73% HM** from 3m (THAC370), including **27m @ 14.3% HM** from 12m
- **62.5m @ 9.14% HM** from 33.5m (THAC401), including **29.5m @ 13.3% HM** from 36.5m (>2% HM cut-off, including >7.5% HM cut-off, refer to Table 1 for full details).

These latest results confirm the presence of a thick continuous zone of high grade mineralisation (>7.5% HM) trending in a north-south direction through the deposit. This thick high grade zone is at least 6km long and 2.5km wide (Figures 1 and 2).

Managing Director, Bruce McQuitty said the latest results confirmed earlier indications of this very high grade zone at Thunderbird.

"The Thunderbird drill results continue to significantly exceed our expectation, which is highly encouraging for our scoping study and further exploration work."

"These results delineate a large, thick accumulation of high grade mineralisation which is a pleasing new development from this year's drilling."

"The Thunderbird deposit currently extends over an area of 7km x 4km. The broad high grade zone is now defined over an area of 6km x 2.5km and contains some extremely high grade material."

"Our scoping study will focus on optimising this substantial zone of high-grade mineralisation during the early production years."

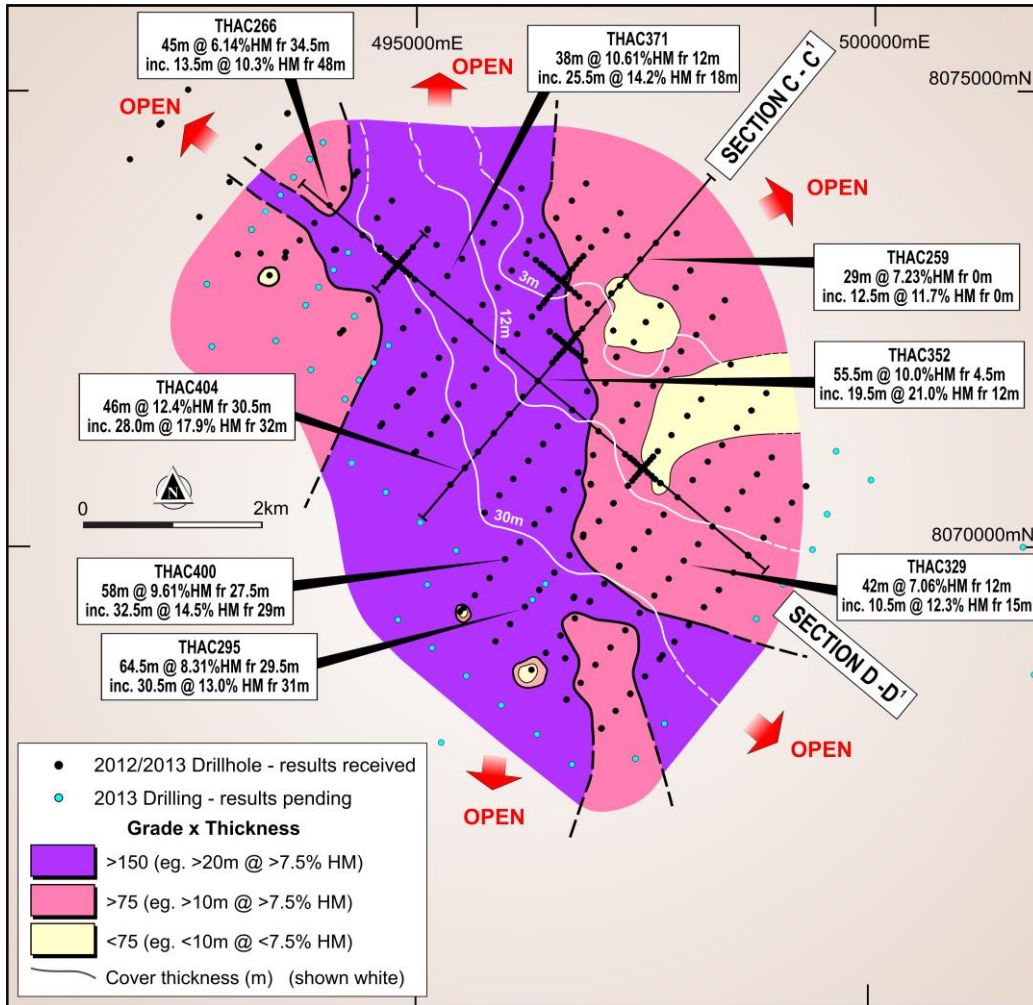


Figure 1: Thunderbird collar plan with HM grade x thickness contours, using a 7.5% HM cut off

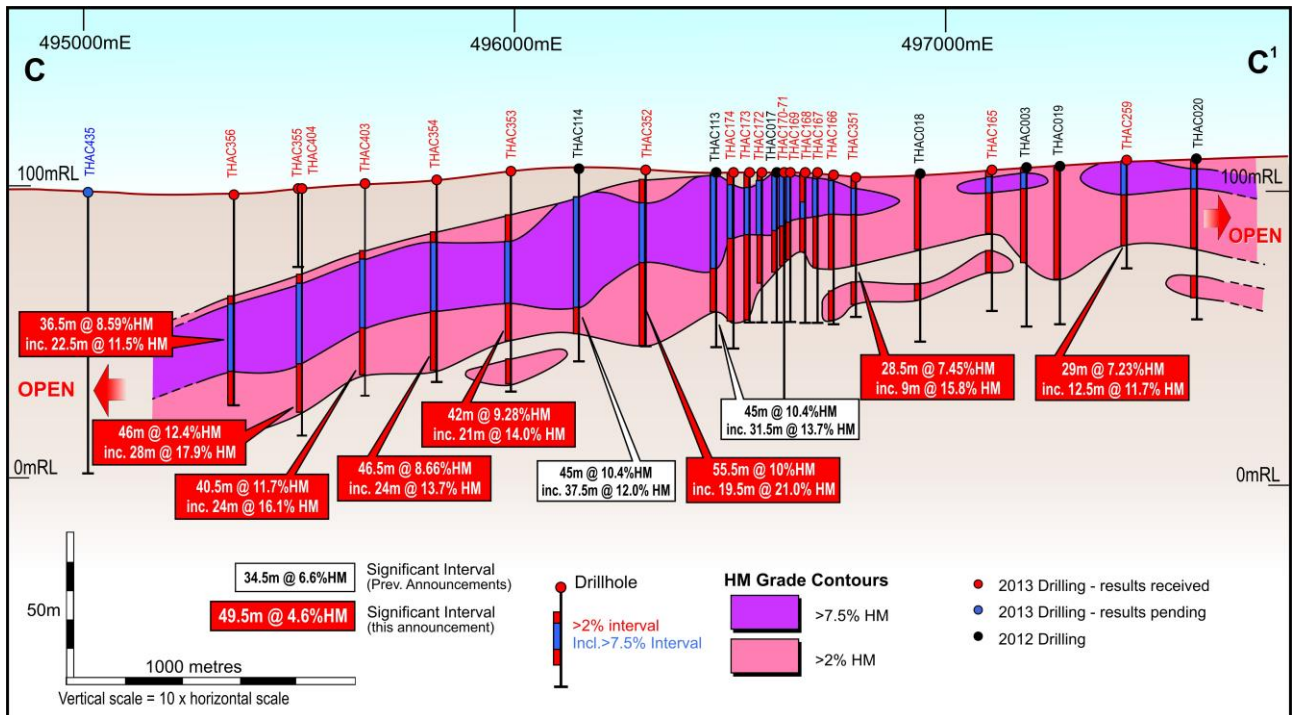


Figure 2: Section C-C', looking northwest, showing excellent continuity of the mineralised envelope (>2% HM), and the very high grade zone (>7.5% HM)

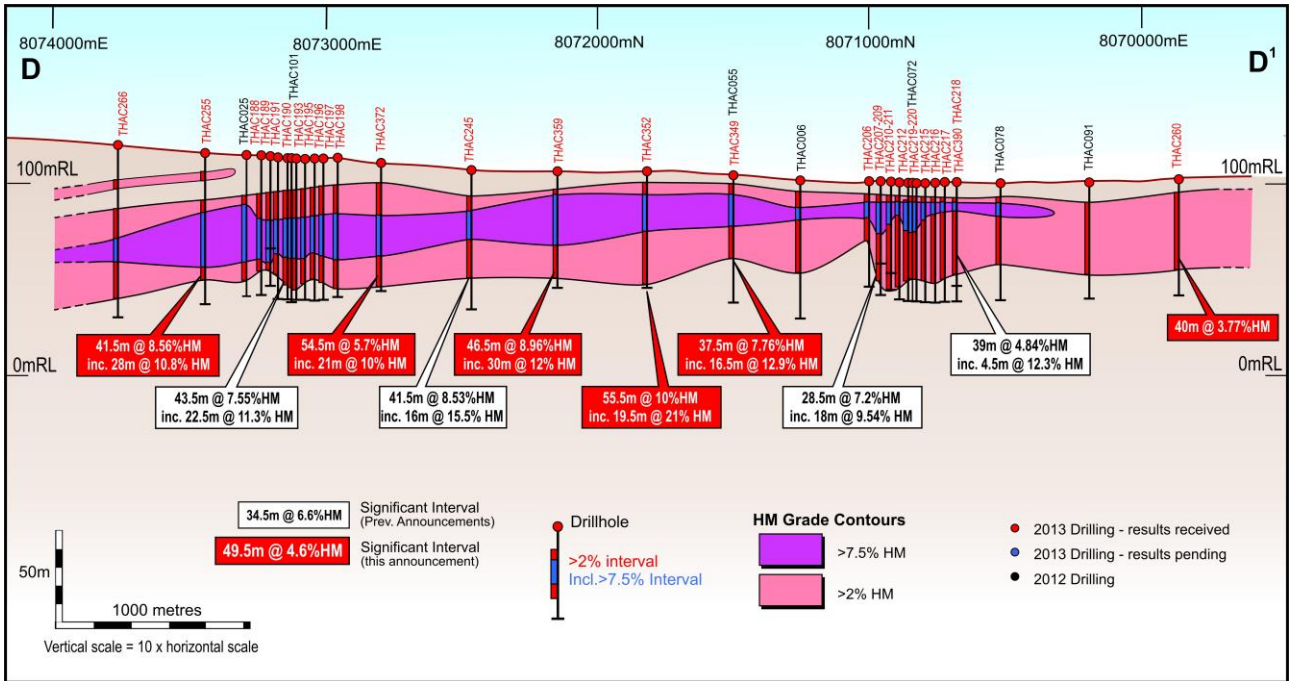


Figure 3: Section D-D', looking northeast, showing the areal extent of mineralisation, note width of section is approximately 5km

2013 drilling programme

These results are the third batch of assays reported from the 2013 aircore drilling programme at Thunderbird which comprised 281 holes for 18,841m. Results for approximately 70% of samples submitted from the programme have been received (see Sheffield's ASX releases of 21 October 2013 and 11 November 2013 for results from previous batches). The 30% of the results which are still outstanding relate to extensional and exploration drill holes and are expected in coming weeks. Following receipt of outstanding HM analyses and mineralogical work, an updated resource estimate will be completed.

About the Thunderbird Deposit

The Thunderbird deposit is located on crown land in the central part of the Dampier Peninsula, close to existing ports and sealed highways (Figure 4).

Thunderbird 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 (Appendix 1).

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,

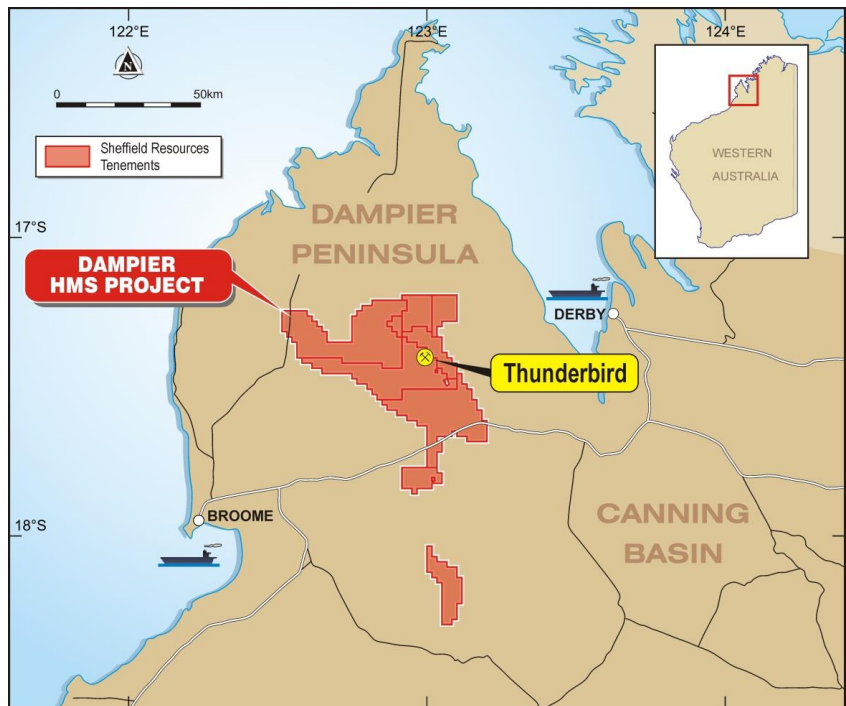


Figure 4: Location of Sheffield's Dampier HMS Project and the Thunderbird deposit

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 4km 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 using conventional processing technology (see ASX release of 25 March 2013). Product assessment by TZ Minerals International (TZMI) confirms Thunderbird zircon as premium grade and suitable for the ceramic sector; while the primary ilmenite is suitable for sulphate TiO₂ pigment manufacture and sulphate or chloride slag. The secondary ilmenite, rutile and high TiO₂ leucoxene are suitable for the welding electrode sector (see ASX release of 1 August 2013).

Thunderbird Scoping Study

Work continues on the Thunderbird Scoping Study which is scheduled for completion in Q1 2014, incorporating results from an updated mineral resource due in the same quarter.

ENDS

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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.

The information in this announcement that relates to resource estimation is based on information compiled by Mr Trent Strickland. Mr Strickland is a full time employee of QG Pty Ltd and a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Strickland has sufficient experience in the minerals industry to satisfy the requirements to act as the competent person for this estimate as defined in the 2004 Edition of the Australasian Code for Reporting of Mineral Resources and Ore Reserves. Mr Strickland consents to the inclusion in this report of the Thunderbird Mineral Sands resource estimate.

The information in this announcement that relates to reporting of resource results is based on information compiled under the guidance of Mark Teakle. Mr Teakle is a full time employee of the Company. Mr Teakle is a Member of the Australasian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy 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 Teakle 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 AND EXPLORATION TARGET 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" and similar expressions. The terms "Target" and "Exploration Target", where used in this report, should not be misunderstood or misconstrued as an estimate of Mineral Resources and Reserves as defined by the JORC Code (2004), and therefore the terms have not been used in this context. Exploration Targets are conceptual in nature and it is uncertain if further exploration or feasibility study will result in the determination of a Mineral Resource or Reserve.

Results Tabulation - Thunderbird

Table 1: Thunderbird aircore drill results (25 November, 2013).

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
THAC239	7.5	35.5	28.0	3.15	20.2	10.4	498641.8	8071479.3	110.3	43.0	
THAC253	48.0	93.0	45.0	5.65	20.5	10.3	493533.1	8073168.9	119.2	96.0	
<i>including</i>	51.0	55.5	4.5	9.84	16.6	27.7					
<i>including</i>	69.0	79.5	10.5	8.22	20.8	3.1					
THAC254	25.5	30.0	4.5	3.92	12.9	1.1	493854.9	8073550.9	120.0	96.0	
THAC254	40.5	96.0	55.5	5.66	22.9	7.4					
<i>including</i>	54.0	72.0	18.0	8.83	20.8	7.2					
THAC255	9.5	14.0	4.5	2.80	18.4	2.7	494399.2	8073418.5	115.7	78.0	
THAC255	24.5	66.0	41.5	8.56	22.3	6.1					
<i>including</i>	30.5	58.5	28.0	10.8	21.2	6.6					
THAC256	18.5	61.5	43.0	8.86	24.1	8.5	494554.0	8073608.1	115.2	72.0	
<i>including</i>	21.5	48.0	26.5	11.7	24.1	8.1					
THAC257	14.0	52.5	38.5	10.4	22.8	10.3	494707.3	8073793.8	115.4	66.0	
<i>including</i>	21.5	48.0	26.5	12.8	22.3	11.4					
THAC258	0.0	32.0	32.0	7.88	22.6	12.9	497821.2	8073434.6	112.0	54.5	
<i>including</i>	2.0	11.0	9.0	14.0	23.4	22.1					
<i>including</i>	18.5	23.0	4.5	9.95	20.9	9.4					
THAC259	0.0	29.0	29.0	7.23	21.0	7.2	497428.9	8073143.0	110.2	36.5	
<i>including</i>	0.0	12.5	12.5	11.7	19.2	11.2					
THAC260	6.5	46.5	40.0	3.77	21.3	6.9	498608.2	8069879.7	103.0	60.0	
THAC261	no significant interval						498126.2	8069308.8	97.1	20.0	Hole abandoned above mineralised zone due to rig breakdown, redrilled as THAC262
THAC262	21.5	66.0	44.5	5.6	19.0	5.1	498117.9	8069300.6	97.2	66.0	
<i>including</i>	26.0	35.0	9.0	12.7	16.1	11.3					
THAC263	23.0	52.5	29.5	7.64	17.1	12.3	497956.5	8069103.0	93.7	78.0	

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
<i>including</i>	23.0	36.5	13.5	12.9	15.8	21.4					
THAC263	61.5	75.0	13.5	3.61	17.4	5.7					
THAC264	0.0	24.5	24.5	7.98	22.7	13.4	497048.5	8073469.9	111.8	48.5	
<i>including</i>	0.0	15.5	15.5	10.6	20.1	18.4					
THAC264	36.5	42.5	6.0	2.98	28.3	6.9					
THAC265	0.0	39.0	39.0	8.18	23.2	6.6	496354.3	8073409.9	112.1	54.0	
<i>including</i>	0.0	18.5	18.5	12.8	21.4	8.0					
<i>including</i>	26.0	30.5	4.5	7.97	23.3	15.0					
THAC266	34.5	79.5	45.0	6.14	21.4	9.8	494020.8	8073746.8	120.2	90.0	
<i>including</i>	48.0	61.5	13.5	10.3	23.3	9.9					
THAC267	14.0	20.0	6.0	2.50	10.7	0.9	494173.3	8073936.1	120.6	84.0	
THAC267	30.0	72.0	42.0	6.0	23.1	5.0					
<i>including</i>	42.0	57.0	15.0	9.83	22.3	7.2					
THAC268	15.5	58.5	43.0	7.81	23.5	3.9	494932.6	8073277.9	115.0	66.0	
<i>including</i>	26.0	49.5	23.5	11.9	22.8	4.5					
THAC269	22.5	66.0	43.5	7.30	20.0	5.0	494614.7	8072907.0	112.6	78.0	
<i>including</i>	36.0	58.5	22.5	11.2	19.3	5.3					
THAC287	16.5	21.0	4.5	4.60	12.9	5.3	497800.9	8068924.8	90.8	84.0	
THAC287	27.0	75.0	48.0	6.2	18.1	5.9					
<i>including</i>	28.5	45.0	16.5	11.6	16.4	5.0					
THAC288	31.5	84.0	52.5	5.87	15.7	5.6	497476.6	8068539.8	90.2	94.0	
<i>including</i>	39.0	63.0	24.0	8.34	15.0	6.7					
THAC289	35.5	85.5	50.0	4.97	13.5	2.5	497318.3	8068343.9	87.2	96.0	
<i>including</i>	46.5	60.0	13.5	9.01	13.3	2.3					
THAC290	37.5	88.5	51.0	6.85	14.7	2.5	496620.6	8068285.1	90.2	88.5	Hole ended in mineralisation, broken drill string
<i>including</i>	55.5	82.5	27.0	9.95	14.3	3.0					
THAC291	31.5	94.5	63.0	6.00	13.3	5.1	496607.8	8068735.7	89.2	96.0	
<i>including</i>	52.5	72.0	19.5	9.72	11.3	9.4					

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
THAC292	21.0	31.5	10.5	3.26	9.5	1.4	496556.7	8068995.2	89.0	96.0	
THAC292	37.5	79.5	42.0	6.13	14.3	8.9					
<i>including</i>	42.0	64.5	22.5	7.93	10.2	14.9					
THAC293	36.0	96.0	60.0	6.12	13.0	6.2	496392.4	8068801.8	91.2	96.0	
<i>including</i>	52.5	67.5	15.0	10.2	9.6	8.0					
THAC294	45.0	51.0	6.0	2.58	11.3	3.7	496229.1	8068610.1	92.7	84.0	Hole ended in low grade mineralisation, broken drill string
THAC294	54.0	84.0	30.0	4.81	11.2	9.0					
<i>including</i>	72.0	76.5	4.5	10.7	9.1	13.0					
THAC295	29.5	94.0	64.5	8.31	15.8	6.5	496159.1	8069315.1	90.0	94.0	
<i>including</i>	31.0	61.5	30.5	13.0	12.3	11.2					
THAC296	no significant interval						495996.0	8069124.0	90.7	34.0	Hole abandoned above mineralisation, redrilled as THAC297
THAC297	35.5	96.0	60.5	8.96	14.9	3.1	495997.7	8069124.1	90.7	96.0	Redrill of THAC296
<i>including</i>	37.0	43.0	6.0	14.5	17.1	6.7					
<i>including</i>	48.0	66.0	18.0	13.2	12.1	4.2					
THAC298	45.0	96.0	51.0	8.73	14.3	4.4	495844.3	8068927.4	93.5	96.0	Hole ended in low-grade mineralisation
<i>including</i>	49.5	54.0	4.5	10.0	14.4	2.0					
<i>including</i>	60.0	94.5	34.5	10.1	15.2	2.4					
THAC299	21.5	76.5	55.0	7.54	15.9	8.2	496110.3	8070030.0	96.6	78.0	Redrill of THAC340
<i>including</i>	35.0	51.0	16.0	16.2	14.5	13.3					
THAC347	13.5	57.0	43.5	9.38	14.9	9.7	496204.9	8070923.9	103.5	72.0	
<i>including</i>	25.5	40.5	15.0	15.7	13.6	15.4					
THAC347	63.0	69.0	6.0	7.90	14.4	9.9					
THAC348	9.0	61.5	52.5	8.37	16.1	6.6	496525.4	8071300.8	107.2	69.0	
<i>including</i>	16.5	34.5	18.0	17.2	13.9	6.1					
THAC349	4.5	42.0	37.5	7.76	16.8	6.9	496684.9	8071493.6	104.6	66.0	
<i>including</i>	9.0	25.5	16.5	12.9	14.1	7.6					
THAC350	1.5	36.0	34.5	8.62	17.2	9.6	496851.1	8071690.7	103.5	54.0	

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
<i>including</i>	3.0	28.5	25.5	10.2	16.1	9.7					
THAC351	1.5	30.0	28.5	7.45	18.7	9.7	496793.4	8072392.3	104.6	48.0	
<i>including</i>	4.5	13.5	9.0	15.8	19.3	8.2					
THAC351	36.0	42.0	6.0	2.22	21.0	2.1					
THAC352	4.5	60.0	55.5	10.0	15.5	5.9	496309.6	8071807.7	106.4	60.0	
<i>including</i>	12.0	31.5	19.5	21.0	14.1	6.7					
THAC353	15.0	57.0	42.0	9.28	16.1	4.7	495988.3	8071433.4	105.5	75.0	
<i>including</i>	24.0	45.0	21.0	14.0	13.6	6.5					
THAC353	63.0	72.0	9.0	5.15	16.8	8.0					
THAC354	18.0	64.5	46.5	8.66	12.6	10.1	495818.9	8071226.0	102.5	69.0	
<i>including</i>	21.0	45.0	24.0	13.7	11.5	11.3					
THAC355	no significant interval						495501.3	8070835.7	99.4	27.0	Hole abandoned above mineralisation, redrilled as THAC404
THAC356	36.0	72.5	36.5	8.59	13.0	17.8	495346.6	8070659.9	97.7	72.5	Hole abandoned in low-grade mineralisation, broken drill string
<i>including</i>	37.5	60.0	22.5	11.5	10.6	23.2					
THAC357	22.5	79.5	57.0	10.3	13.1	5.4	495877.0	8070536.4	98.3	83.0	
<i>including</i>	22.5	76.5	54.0	10.6	12.3	5.6					
THAC358	no significant interval						495769.8	8069623.5	93.4	21.0	Hole abandoned above mineralisation, redrilled as THAC401
THAC359	9.0	55.5	46.5	8.96	18.9	9.3	495920.2	8072131.5	106.4	60.0	
<i>including</i>	10.5	40.5	30.0	12.0	18.9	6.7					
THAC360	21.0	64.5	43.5	10.0	12.9	12.0	495604.5	8071747.5	106.5	66.0	
<i>including</i>	22.5	58.5	36.0	11.4	13.5	12.6					
THAC361	15.0	67.5	52.5	8.44	15.1	7.7	495738.3	8071932.5	107.0	72.0	
<i>including</i>	18.0	48.0	30.0	12.4	14.4	8.4					
THAC362	25.5	78.0	52.5	9.08	14.4	6.7	495433.8	8071546.2	104.0	78.0	Hole ended in low-grade mineralisation
<i>including</i>	27.0	52.5	25.5	14.7	14.0	8.6					
THAC363	31.5	82.5	51.0	7.21	14.7	13.2	495282.4	8071366.4	102.8	84.0	

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
<i>including</i>	34.5	55.5	21.0	12.8	13.1	20.9					
THAC364	no significant interval						495138.3	8071216.0	101.7	24.5	Hole abandoned above mineralisation, redrilled as THAC406
THAC365	40.5	90.0	49.5	7.71	13.7	8.2	494947.6	8071003.0	100.9	93.0	
<i>including</i>	46.5	69.0	22.5	12.3	11.6	8.8					
THAC366	15.0	72.0	57.0	7.43	15.5	6.6	495213.7	8072057.5	107.9	72.0	
<i>including</i>	33.0	57.0	24.0	13.4	14.8	6.7					
THAC367	21.0	69.0	48.0	7.30	14.2	9.9	495058.5	8071863.8	106.5	84.0	
<i>including</i>	36.0	61.5	25.5	10.1	14.1	13.0					
THAC368	27.0	85.5	58.5	6.40	14.4	7.8	494897.6	8071673.3	105.0	90.0	
<i>including</i>	42.0	63.0	21.0	12.0	14.6	11.0					
THAC369	no significant interval						494765.7	8071524.5	104.0	34.5	Hole abandoned above mineralisation, redrilled as THAC408
THAC370	3.0	49.5	46.5	9.73	14.6	15.9	495473.6	8073148.6	111.8	63.0	
<i>including</i>	12.0	39.0	27.0	14.3	13.6	12.1					
THAC371	12.0	50.0	38.0	10.6	17.7	7.5	495311.2	8072958.8	110.3	50.0	
<i>including</i>	18.0	43.5	25.5	14.2	16.2	6.7					
THAC372	10.0	64.5	54.5	5.7	16.3	5.6	495153.3	8072765.9	110.7	66.0	
<i>including</i>	28.5	49.5	21.0	10.0	18.5	6.4					
THAC373	19.5	67.5	48.0	8.35	16.1	6.1	494989.2	8072577.2	111.7	72.0	
<i>including</i>	31.5	52.5	21.0	14.8	15.7	8.8					
THAC374	no significant interval						494830.3	8072383.3	109.9	18.5	Hole abandoned above mineralisation, redrilled as THAC409
THAC400	27.5	85.5	58.0	9.61	17.3	6.9	495949.6	8069833.6	93.4	96.0	
<i>including</i>	29.0	61.5	32.5	14.5	14.4	11.0					
THAC401	33.5	96.0	62.5	9.14	16.5	5.3	495773.4	8069624.5	93.4	96.0	Redrill of THAC358
<i>including</i>	36.5	66.0	29.5	13.3	14.4	5.7					
<i>including</i>	82.5	87.0	4.5	9.75	14.6	5.7					
THAC402	39.5	96.0	56.5	9.03	16.7	4.7	495613.7	8069448.0	92.3	96.0	

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Collar Information				
							Easting	Northing	RL	Depth (m)	Comment
<i>including</i>	41.0	69.0	28.0	12.1	13.9	6.6					
<i>including</i>	84.0	93.0	9.0	7.83	16.5	3.4					
THAC403	24.0	64.5	40.5	11.7	17.8	6.1	495652.0	8071026.9	101.1	72.0	
<i>including</i>	25.5	49.5	24.0	16.1	15.8	7.0					
THAC404	30.5	76.5	46.0	12.4	17.1	6.6	495508.0	8070845.5	99.5	84.0	Redrill of THAC355
<i>including</i>	32.0	60.0	28.0	17.9	15.0	9.7					

*Intervals calculated using 2% HM lower cut, 4.5m minimum width, maximum 4.5m internal waste; "*including*" intervals >7.5% HM, 4.5m minimum width, maximum 4.5m internal waste. HM, Slimes and Oversize ("Osize") determined by Heavy Liquid Separation (HLS) using TBE (sg. 2.96g/cc); screen sizes: slimes 38µm and oversize ("Osize") +1mm. RTKGPS surveyed hole coordinates (+/- 0.02m X and Y accuracy), RL determined by projection to a DTM model created from regional (Landgate) spot heights. Easting and Northing coordinate system is MGA Zone 51 (GDA94), RL is AHD. All holes were drilled vertically.

Appendix 1: Thunderbird Mineral Resource at 18 December, 2012.

Table 1: Thunderbird Mineral Resource (at 2% and 7.5% HM cut-off)¹

Resource Category	Cut off (HM%)	Mineral Resources					In-situ HM (Mt)*	Mineral Assemblage ²			
		Material (Mt)*	Bulk Density	HM %	Slimes % ³	Osize %		Zircon %	Rutile %	Leuc. %	Ilmenite %
Indicated	2.0	299	2.1	7.2	19	14	21.5	6.9	1.6	4.3	29
Inferred	2.0	1,075	2.1	5.8	17	16	61.9	6.9	1.6	4.3	29
Total	2.0	1,374	2.1	6.1	17	15	83.4	6.9	1.6	4.3	29
Indicated	7.5	138	2.1	11.5	18	16	15.8	6.9	1.6	4.3	29
Inferred	7.5	379	2.1	9.6	16	19	36.5	6.9	1.6	4.3	29
Total	7.5	517	2.1	10.1	16	18	52.3	6.9	1.6	4.3	29

Table 2: Thunderbird prospect contained Valuable HM (VHM) Resource Inventory (at 2% and 7.5% HM cut-off)

Resource Category	Cut off (HM%)	Zircon (kt)*	Rutile (kt)*	Leuc. (kt)*	Ilmenite (kt)*	Total VHM (kt)*
Indicated	2.0	1,483	344	924	6,256	9,007
Inferred	2.0	4,270	990	2,661	18,007	25,927
Total	2.0	5,753	1,334	3,585	24,262	34,934
Indicated	7.5	1,089	252	678	4,592	6,611
Inferred	7.5	2,521	585	1,571	10,631	15,307
Total	7.5	3,609	837	2,249	15,223	21,918

*Tonnes have been rounded to reflect the relative uncertainty of the estimate.

¹ This estimate is classified and reported in a manner compliant with the JORC code and guidelines (JORC, 2004). ² The Mineral Assemblage is represented as the percentage of the Heavy Mineral (HM) component of the deposit, as determined by QEMSCAN. TiO₂ minerals defined according to the following ranges: Rutile >95% TiO₂; Leucoxene 70-95% TiO₂; Ilmenite 40-70% TiO₂.

ABOUT SHEFFIELD RESOURCES

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

ASX Code – SFX

Market Cap @ 57cps - \$67.4m

Issued shares – 118.3m

Cash - \$5.3m (at 30 September 2013)

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

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 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.