



SheffieldResources
LIMITED

ASX and Media Release

22 September, 2015

NEW MINERAL SANDS DISCOVERY AT NIGHT TRAIN

KEY POINTS

- Mineralisation at Night Train prospect extended to over 1.6km in the down-dip direction, with mineralised widths up to 24m
- Previous exploration results indicate a high value mineral assemblage with 92% VHM, comprising 15% zircon, 53% leucoxene, 8% HiTi leucoxene and 16% ilmenite¹
- Night Train is just 2km from the proposed Thunderbird Project haul road
- Substantial new discovery augments Sheffield's already established prime position in this emerging mineral sands province
- Results from 2015 regional exploration and Thunderbird drilling programs due Q4 2015

Sheffield Resources Limited ("Sheffield" "the Company") (ASX:SFX) today announced results from exploration aircore drilling at its 100% owned Dampier Mineral Sands Project, located near Derby in northwest Western Australia (Figure 5).

The results relate to four holes drilled at the Night Train Prospect, as part of a short regional exploration drilling program completed in August. Significant results include:

- **13.5m @ 5.25% HM** from 46.5m (DAAC094), including **7.5m @ 8.23% HM** from 48m
- **24m @ 3.33% HM** from 37.5m (DAAC093), including **12m @ 5.48% HM** from 37.5m
- **9m @ 2.48% HM** from 31.5m (DAAC092), including **3m @ 3.44% HM** from 31.5m

(refer to Table 1 and Appendix 1 for full details)

These are immediately down-dip from the discovery drill hole intersections announced on 25 February 2015, and extend the Night Train mineralisation by a further 1km to over 1.6km width across strike (Figures 1 & 2).

Mineral assemblage for the recent drilling is yet to be determined, however visual examination of the HM, and proximity to previously announced results, suggest it is likely these latest samples will have a similar high value mineral assemblage to that obtained from the earlier drilling, i.e. 15% zircon, 53% leucoxene, 8% HiTi leucoxene and 16% ilmenite (total 92% VHM)¹ (see ASX announcement dated 25 February, 2015 for details). The heavy mineral is similarly well sorted, free from coatings and low in aluminosilicate trash minerals.

Sheffield's Managing Director Bruce McQuitty said Night Train was emerging as a substantial new discovery.

"Night Train stands out from our other regional prospects with its very high value mineral assemblage, high HM grade, and substantial mineralised widths.

"We have only just scratched the surface so far with our regional exploration efforts, however this is further evidence that the Canning Basin is an emerging mineral sands province.

"Sheffield is well positioned, with substantial tenement holdings over the prospective formations."

¹ The following TiO₂ content ranges were used in the classification of the titanium minerals: HiTi leucoxene (includes rutile) >90%TiO₂; leucoxene 70-90% TiO₂; ilmenite <70% TiO₂.

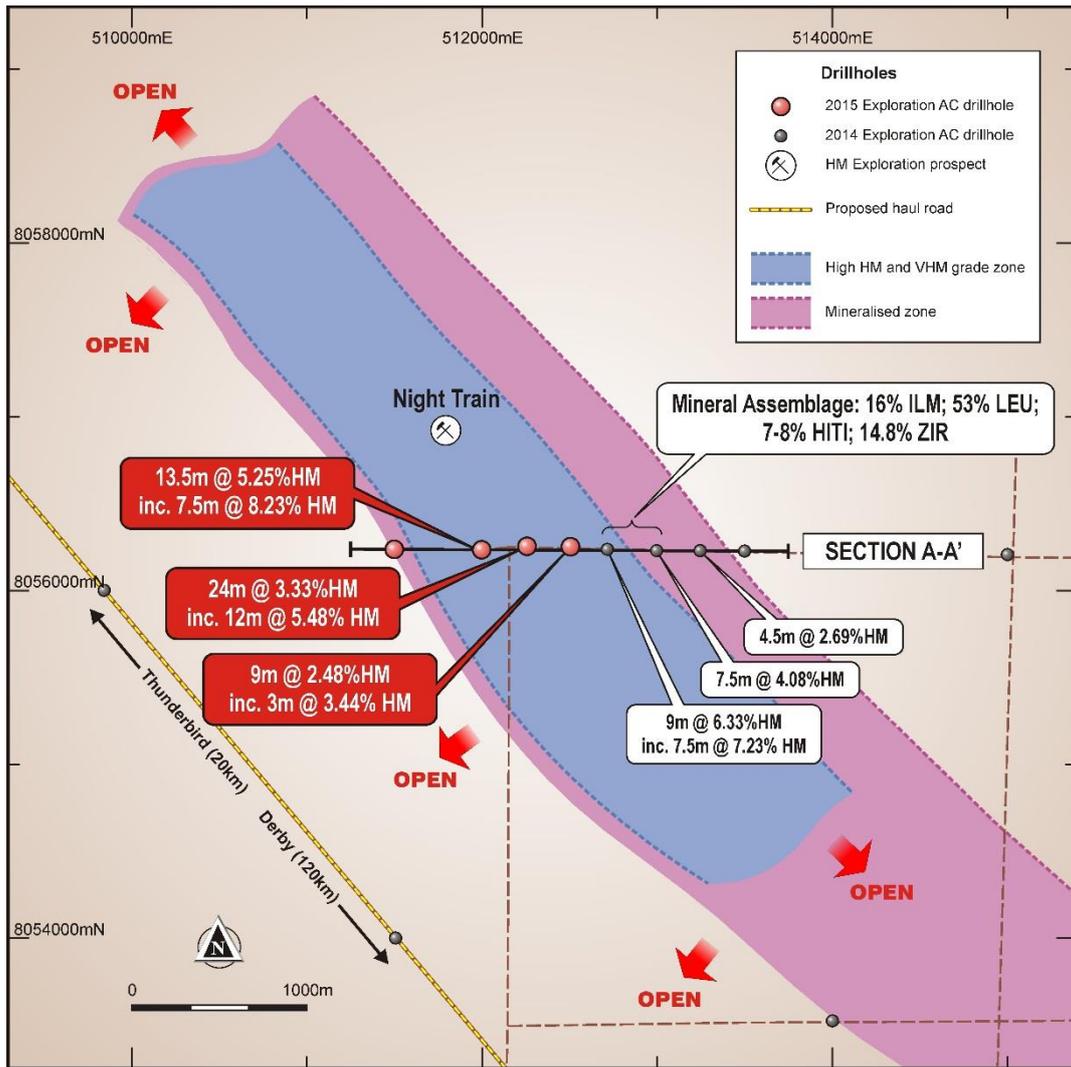


Figure 1: Plan view of the Night Train prospect with significant intervals

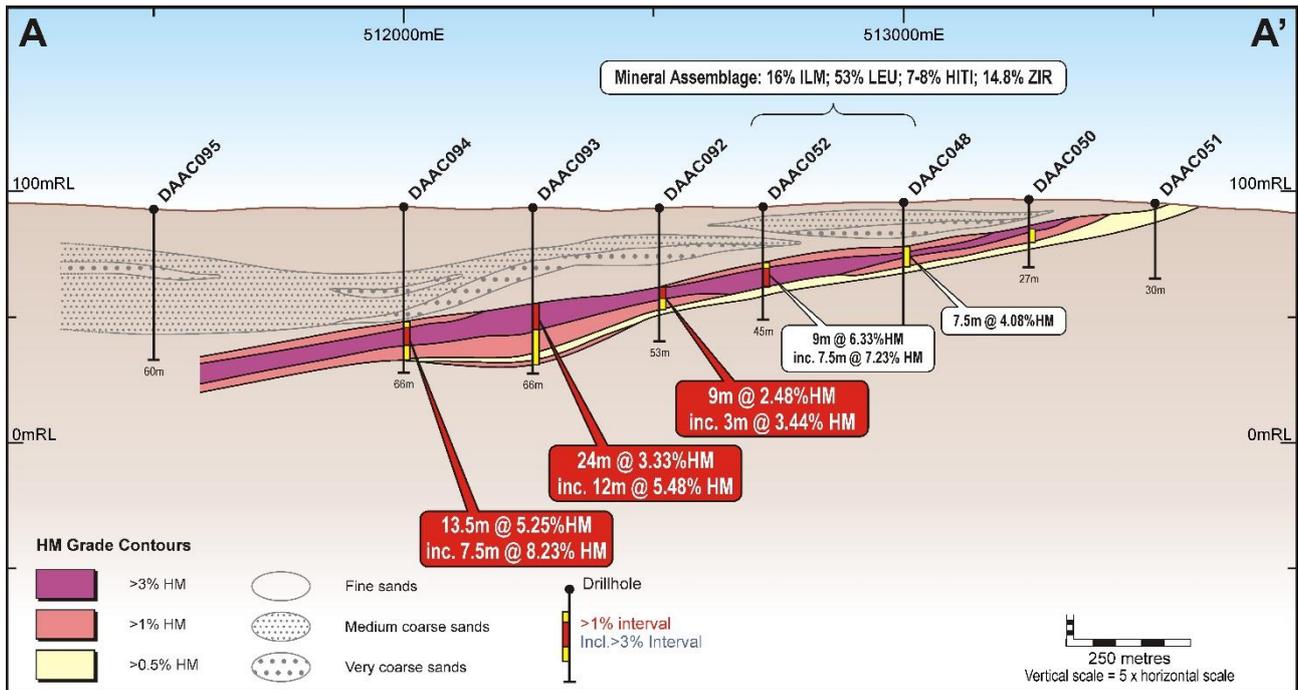


Figure 2: Night Train prospect cross-section

These results are the first to be reported from a regional exploration program comprising 34 holes drilled for a total 1,803.5m completed in August (Figure 3). This followed a resource infill drilling program at Thunderbird completed in July. The drilling at Night Train comprised a single line of 4 holes drilled to the west of the discovery drill holes, while strike extensions to the north and south remain untested.

Sheffield recently announced an updated Mineral Resource for the world class Thunderbird deposit of **3.240Bt @ 6.9% HM** (Measured, Indicated and Inferred), including a coherent high grade zone of **1.09Bt @ 11.9% HM** (at 7.5% HM cut-off) (Measured, Indicated and Inferred) with very high in situ grades of 0.91% zircon, 3.3% ilmenite, 0.25% leucoxene and 0.28% HiTi leucoxene (see resources tabulation in Appendix 2 and ASX announcement of 31 July, 2015 for details).

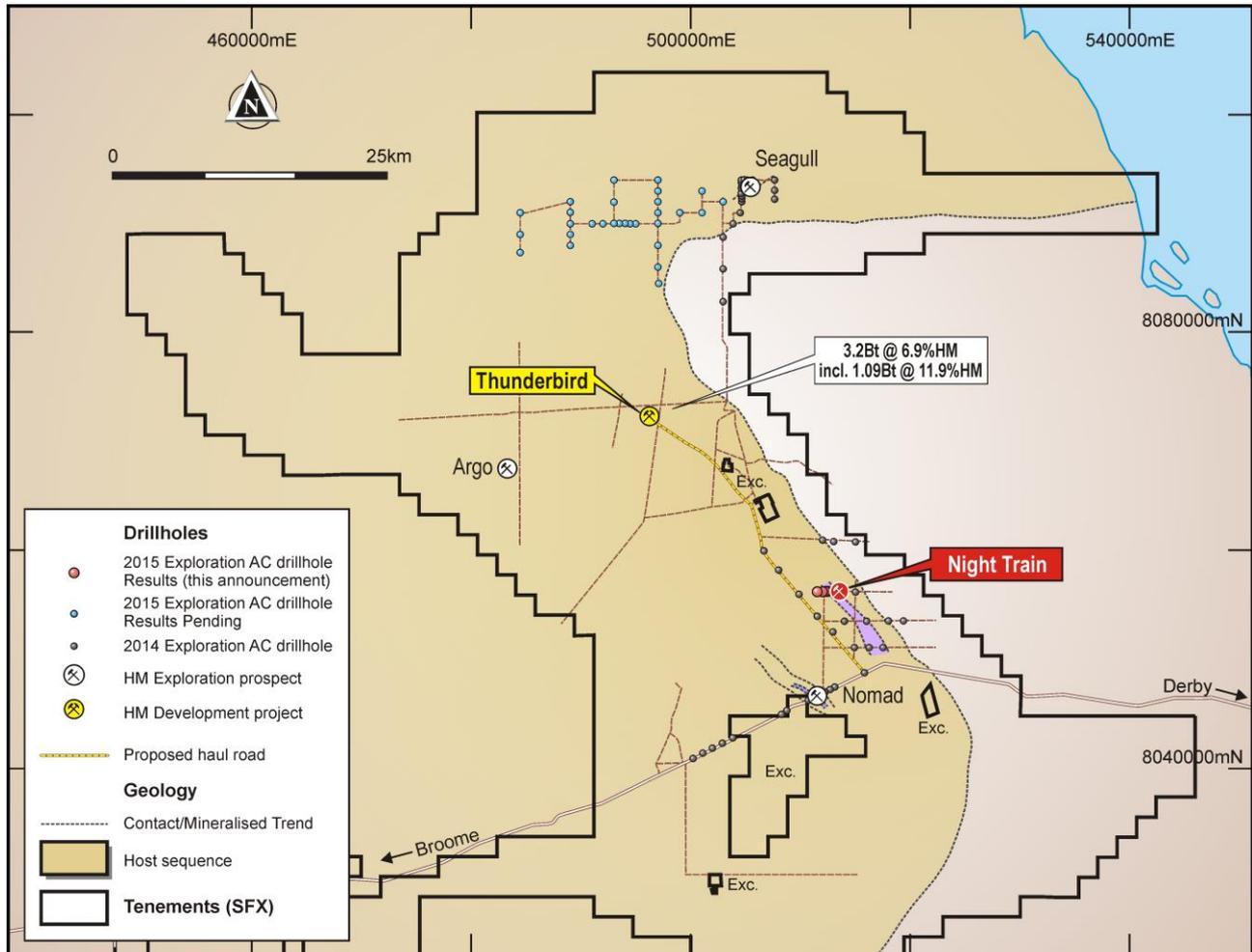


Figure 3: Dampier Mineral Sands Project with location of Night Train and regional exploration drill holes recently completed

Prospect Details

Night Train is located 20km to the southeast of the Thunderbird deposit and just 2km from the proposed Thunderbird access/haul road.

The prospect is now defined by 10 drill holes along an 8km strike length, with most of these located on a single line of drilling at the northern end.

At a 1% HM cut-off, mineralisation is 1.6km wide, ranges from 4.5m to 24m thickness (average 11m), with an average HM grade of 4.04%. At a 3% HM cut-off, mineralisation is 1.0km wide, ranges from 3 to 12m thickness (average 7.5m), with an average grade of 6.40% HM. At this early stage of evaluation, the strike direction of the mineralisation is interpreted from sparse

data points. Further drilling is required to determine the orientation and strike extent of the mineralisation.

The mineralogical character and stratigraphic setting of Night Train is very encouraging. The heavy mineral is dominated by VHM, is free from coatings, has a very high zircon content and little weathering overprint. The mineralisation is hosted by fine, clean, predominantly quartz sand, below a stacked sequence of medium to very-coarse grained, clean quartz sands (Figures 2, 4 & 5). The heavy mineral is has a median diameter (d_{50}) in the range 80-100 μm .

These characteristics are interpreted to represent an offshore depositional setting similar to that of Thunderbird, but at a higher stratigraphic level. This suggests Thunderbird and Night Train may be just the first of a number of stacked mineralised sequences in the region, opening significant scope for further discoveries.



Figure 4: Panned HM from Night Train drill hole DAAC093

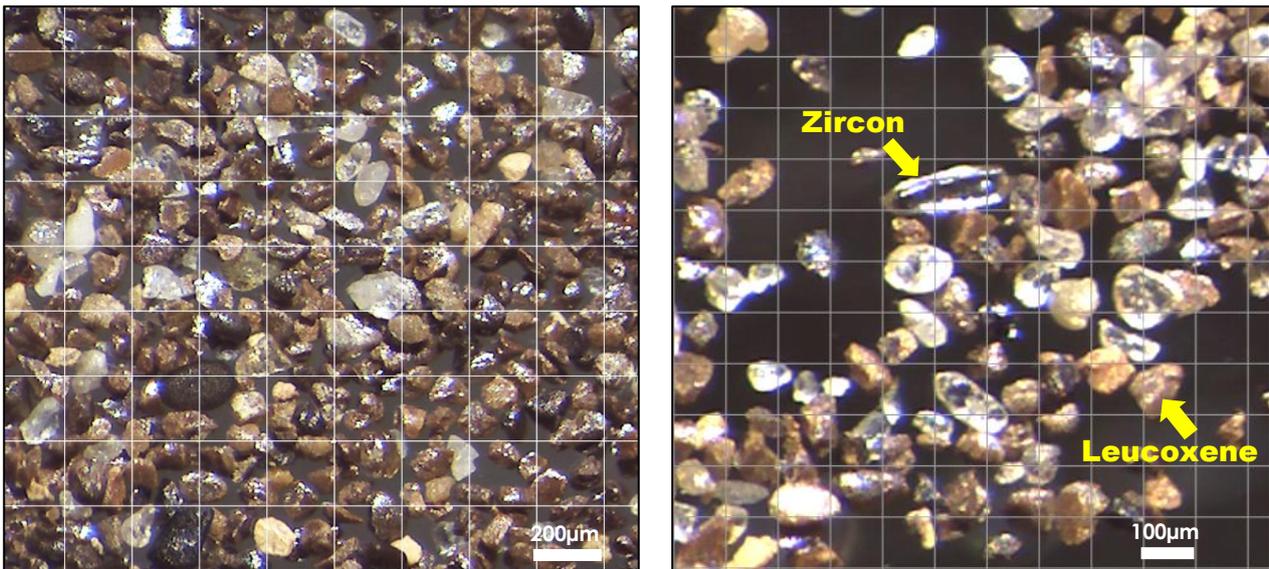


Figure 5: Photomicrographs of HM concentrate from Night Train drill hole DAAC093 (40.5-42m)

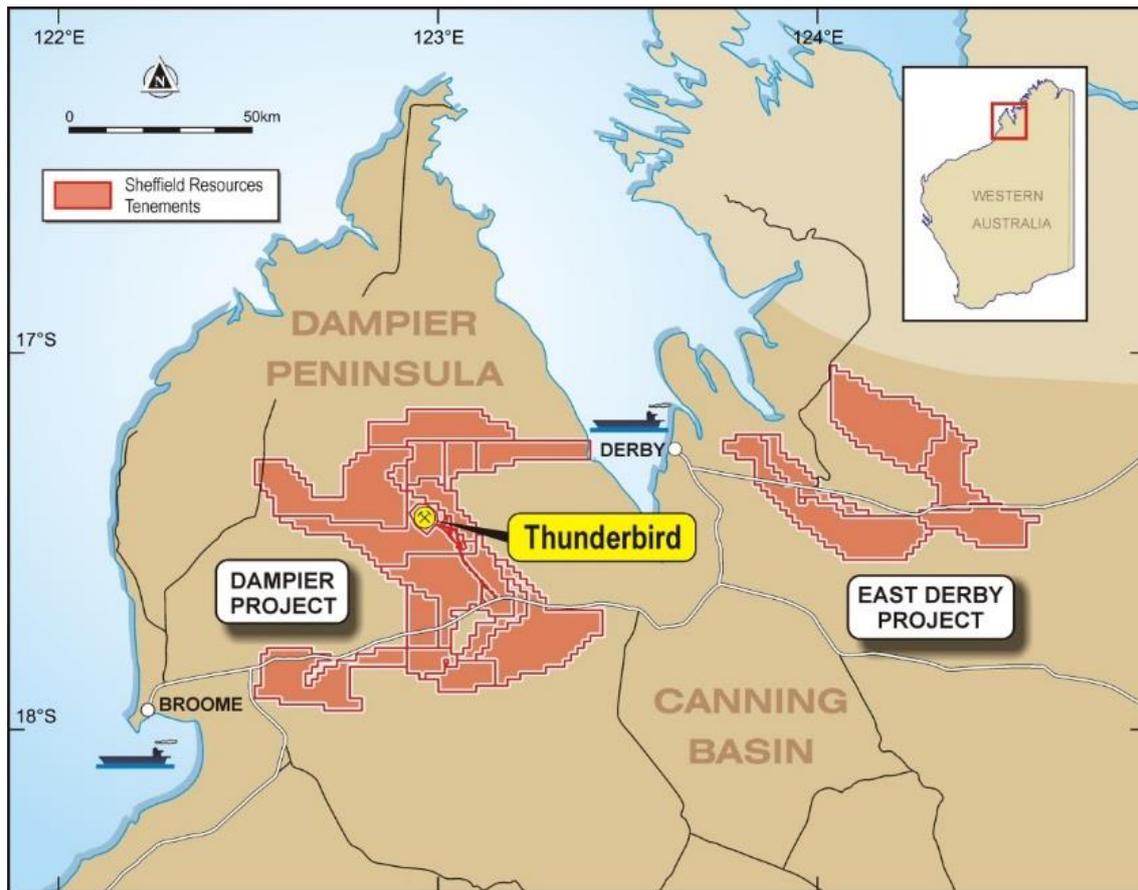


Figure 6: Location of Sheffield's tenements in the Canning Basin

ENDS

For further information please contact:

Bruce McQuitty
 Managing Director
 Tel: 08 6424 8440

bmquitty@sheffieldresources.com.au

Website: www.sheffieldresources.com.au

Media: Michael Vaughan
 Cannings Purple
 Tel: 08 6314 6300

mvaughan@canningspurple.com.au

COMPLIANCE STATEMENTS

EXPLORATION RESULTS

The information in this report that relates to Exploration Results is based on information compiled by Mr David Boyd, a Competent Person who is a Member of Australian Institute of Geoscientists (AIG). Mr Boyd is a full-time employee of Sheffield Resources Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Boyd consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

PREVIOUSLY REPORTED INFORMATION

This report includes information that relates to Exploration Results, Mineral Resources and Pre-Feasibility Study 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:

- *"THREE NEW MINERAL SANDS DISCOVERIES IN CANNING BASIN"* 25 February, 2015
- *"PRE-FEASIBILITY STUDY CONFIRMS THUNDERBIRD AS NEXT MAJOR MINERAL SANDS PROJECT IN GLOBAL DEVELOPMENT PIPELINE"* 14 May, 2015
- *"THUNDERBIRD HIGH GRADE RESOURCE UPDATE"* 31 July, 2015

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 estimates of Mineral Resources, Scoping and Pre-Feasibility studies, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the 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", "likely", "should", "scheduled", "intends", "potential", "prospective" and similar expressions.

Table 1: Night Train exploration aircore drill results 22 September, 2015**Night Train Prospect**

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)*	HM wt%	Slimes wt%	Osize wt%	Drill Hole Information				
							Easting	Northing	RL	Depth (m)	
DAAC092	31.5	40.5	9.0	2.48	16.0	0.7	512,509	8,056,253	93	52.5	
<i>including</i>	31.5	34.5	3.0	3.44	17.7	0.3					
DAAC093	37.5	61.5	24.0	3.33	11.7	1.5	512,257	8,056,255	93	66.0	
<i>including</i>	37.5	49.5	12.0	5.48	13.7	0.8					
DAAC094	46.5	60.0	13.5	5.25	12.8	1.7	511,998	8,056,235	93	66.0	
<i>including</i>	48.0	55.5	7.5	8.23	15.0	1.1					
DAAC095	No significant interval							511,500	8,056,236	93	60.0

*All intervals calculated using 1% HM lower cut, 3m minimum width, maximum 3m internal waste; "*including*" intervals >3% HM, 3m minimum width, maximum 3m 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. Drill hole collar locations were determined by handheld GPS with expected accuracy of +/- 15m horizontal. RL determined by projection to a regional DTM model created from SRTM data. Easting and Northing coordinate system is MGA Zone 51 (GDA94), RL is AHD. All holes were drilled vertically.

Appendix 1: JORC (2012) Table 1 Report (22 September, 2015 Night Train drilling results)

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> 90mm diameter aircore drilling used to collect 2-3kg samples at 1.5m intervals down-hole. Mineral Sands Industry-standard drilling technique.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> Aircore system approx. 90mm diameter holes. Blade drill bit used Where hard rock layers were intersected and unable to drill with blade bit, a Reverse Circulation (RC) hammer was used. Drill system used as an industry standard.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Sample quality (including wet vs. dry and qualitative recovery) is logged at the drill site. Orientation process undertaken at the beginning of program to set up sampling system to collect 2-3kg sub-sample from 1.5m intervals. Sample weight recorded at laboratory Drill system is optimised for HMS. Duplicate samples are collected at the drill site (see below) to enable analysis of data precision. The sample quality is considered appropriate, for example, to establish context of exploration results and support Mineral Resource estimation.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or 	<ul style="list-style-type: none"> Every drill sample is washed and panned, then geologically logged on-site in 1.5m intervals, recording primary, secondary and oversize lithology, qualitative hardness, grainsize, rounding, sorting, and washability, visual estimates of HM%, SL%

Criteria	JORC Code explanation	Commentary
	<p><i>quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <ul style="list-style-type: none"> <i>The total length and percentage of the relevant intersections logged.</i> 	<p>and OS%, and depth to water table.</p> <ul style="list-style-type: none"> The entire length of the drill hole is logged; minimum (nominal) interval length is 1.5m. Logging is suitable such that interpretations of grade and deposit geology can be used, for example, to establish context of exploration results and support Mineral Resource estimation.
<p>Sub-sampling techniques and sample preparation</p>	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p><u>HM%, SL% OS% Determination</u></p> <p>Drill Site</p> <ul style="list-style-type: none"> 2-3kg sample collected at 1.5m intervals in numbered bags at the drill site via rotary splitter at cyclone discharge point. Duplicate samples (field duplicates) collected at drill site 1 in every 40 samples. Reference standard and blank material samples inserted 1 each in every 40 samples. Sample submitted to external laboratory for heavy liquid separation (HLS) determination of weight per cent heavy mineral (HM), Slimes (SL) and Oversize (OS). <p>Laboratory</p> <ul style="list-style-type: none"> 2-3kg drill sample sub-split via rotary splitter to approx. 200g for analysis. HM, SL and OS calculated as percentage of total sample weight. Laboratory repeats are conducted 1 in every 20 samples, and laboratory reference standard inserted 1 in every 40 samples. <p>All</p> <ul style="list-style-type: none"> Spacing of duplicate, standard, blank and lab repeat samples are designed to identify sample misplacement or misallocation during sample collection and laboratory analysis. Sample representivity and data precision has been determined as acceptable through analysis of results from field duplicate samples and laboratory repeats. Visual estimates of HM, Slimes and OS logged at the drill site are compared against laboratory results to identify any major errors. Analysis of duplicates show the data has acceptable precision, indicating sampling techniques are appropriate for the deposit style. Techniques are considered appropriate for use in public reporting of exploration results and Mineral Resource estimation.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<p><u>HM%, SL%, OS% Determination</u></p> <ul style="list-style-type: none"> Assay and laboratory procedures are industry standard for HMS, although laboratories' methods and heavy liquid composition vary slightly. TBE (2.96g/ml) is used for these results. Method produces a total grade as weight per cent of the initial sample. Method does not determine the relative amounts of valuable (saleable or marketable) and non-valuable heavy mineral species. QAQC sample frequency is described above. The HM reference sample used is a field-homogenised bulk sample with expected values and ranges determined internally from assay results. Blank material used is commercially available builder's sand. Reference standards and blanks are examined for performance over time and within laboratory batches. Batches or sub-batches are re-analysed if unacceptable QAQC data are returned. Analysis of reference standards, blanks and laboratory repeats show the data to be of acceptable accuracy and precision for use in public reporting of exploration results and Mineral Resource estimation.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Significant intervals are reviewed by senior Sheffield personnel prior to release. Data is logged electronically using "validation at point of entry" systems prior to storage in the Company's drill hole database, which is managed by Company personnel and an external consultancy. Documentation related to data custody and validation are maintained on the Company's server. No assay data have been adjusted.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Drill hole collar locations were determined by handheld GPS with expected accuracy of +/- 15m horizontal. RL was determined by projection to a regional DTM model created from SRTM data. Coordinates are referenced to the Map Grid of Australia (MGA) zone 51 on the Geographic Datum of Australia (GDA94), RL are AHD. The quality and accuracy of the topographic control is considered sufficient for the reporting of exploration results.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. 	<ul style="list-style-type: none"> See figures in body of announcement for drill hole spacing. Significant intervals are reported as indicated in the relevant table(s) in the body of the announcement.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> Mineralisation is generally flat-lying, vertical drill holes therefore approximate true thickness and perpendicular intersection of mineralisation. Note sections in the body of the announcement are displayed with vertical exaggeration. The strike direction of the mineralisation is an interpretation only at this stage, and therefore across-strike widths of the mineralisation are approximations only. Additional work is required to define this further.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Sample security is not considered a significant risk given the location of the deposit and bulk nature of mineralisation. Nevertheless, the use of recognised transport providers, and sample dispatch procedures directly from the field to the laboratory are considered sufficient to ensure appropriate sample security.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No formal external audits or review of sample techniques or data have been conducted. Audits are not considered necessary at this stage, Industry-standard methods are being employed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Statement	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The exploration results reported are from Exploration Licence E04/2171, located on the Dampier Peninsula about 60km west of Derby, and 20km north of the sealed Great Northern Hwy joining Derby and Broome. E04/2171 was granted on 21/02/2013 and is due to expire on 20/02/2018. The tenement is held 100% by Sheffield Resources Ltd. There are no known or experienced impediments to obtaining a licence to operate in the area. Sheffield has been operating successfully in the region for more than 4 years to date.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Night Train is a new discovery made by Sheffield.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Dampier Project is within the Canning Basin in the Kimberley region of Western Australia. The Canning Basin is an intracratonic basin which contains Ordovician to Cretaceous deposits covered by Cenozoic sediments. Night Train is within deeply weathered Cretaceous-aged formations. Night Train is hosted by fine, clean, dominantly quartz sand, below a stacked

Criteria	Statement	Commentary
		<p>sequence of medium to very-coarse grained, clean quartz sands.</p> <ul style="list-style-type: none"> • An offshore depositional setting is interpreted, similar to that of the nearby Thunderbird deposit, but at a higher stratigraphic level. • The heavy mineral has a median diameter (d50) in the range 80-100µm, is dominated by VHM, is free from coatings, and has a high zircon and leucoxene content.
Drill hole Information	<ul style="list-style-type: none"> • A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> ◦ easting and northing of the drill hole collar ◦ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ◦ dip and azimuth of the hole ◦ down hole length and interception depth ◦ hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> • Information relating to the number of drill holes, assayed samples, location accuracy, orientation etc. is included in this table, and in the body of the announcement. • Diagrams in the body of the announcement show the location of and distribution of drill holes.
Data aggregation methods	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • Criteria for calculating significant intervals are included at the end of Table 1 in the body of the announcement. Minimum widths, maximum internal waste intervals and cut-off grades have been selected to most-appropriately represent the mineralisation, taking into account the early-stage, reconnaissance nature of the drill program. No "high" or "top-cuts" are applied. Higher-grade components of significant intervals are detailed in Table 1 preceded by the term "including".
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • Mineralisation is generally flat-lying to less than 4deg. dip, vertical drill holes therefore approximate true thickness. • Refer to diagrams in the body of the announcement for visual representation of drill hole orientation vs. deposit orientation, note the vertical exaggeration used.
Diagrams	<ul style="list-style-type: none"> • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> • See body of announcement for plan and cross section views and tabulation of results (Table 1).
Balanced	<ul style="list-style-type: none"> • Where comprehensive reporting of all 	<ul style="list-style-type: none"> • All current drill hole results are reported in

Criteria	Statement	Commentary
reporting	<i>Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	<p>this announcement. Where results do not meet the criteria of significant interval these are reported in Table 1 as "no significant interval".</p> <ul style="list-style-type: none"> • All information considered material to the reader's understanding of the exploration results have been reported.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • Where relevant this information has been referred to in the body of this announcement.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • Refer to the Further Work section in the body of announcement.

APPENDIX 2: THUNDERBIRD MINERAL RESOURCE 31 JULY 2015**Table 1: Thunderbird Deposit Mineral Resource**

Resource Category	Cut-off HM%	Mineral Resources		Valuable HM Grade (In-situ) ¹			
		Material Million Tonnes	HM %	Zircon %	HiTi Leucoxene %	Leucoxene %	Ilmenite %
Measured	3.0	230	9.4	0.74	0.21	0.20	2.5
Indicated	3.0	2,410	6.9	0.58	0.19	0.22	1.9
Inferred	3.0	600	5.6	0.47	0.16	0.20	1.5
Total	3.0	3,240	6.9	0.57	0.18	0.21	1.9
Measured	7.5	110	14.9	1.09	0.31	0.28	4.0
Indicated	7.5	850	11.8	0.90	0.28	0.25	3.3
Inferred	7.5	130	10.7	0.82	0.25	0.23	3.0
Total	7.5	1,090	11.9	0.91	0.28	0.25	3.3

Table 2: Thunderbird Deposit contained Valuable HM (VHM) Resource Inventory

Resource Category	Cut off (HM%)	Zircon (kt)	HiTi Leucoxene (kt)	Leucoxene (kt)	Ilmenite (kt)	Total VHM (kt)
Measured	3.0	1,700	500	500	5,800	8,400
Indicated	3.0	14,000	4,500	5,300	46,700	70,500
Inferred	3.0	2,800	900	1,200	9,300	14,200
Total	3.0	18,500	5,900	6,900	61,800	93,100
Measured	7.5	1,200	300	300	4,300	6,100
Indicated	7.5	7,700	2,400	2,200	27,800	40,000
Inferred	7.5	1,100	300	300	3,900	5,700
Total	7.5	9,900	3,000	2,800	36,000	51,700

¹ The In-situ grade is determined by multiplying the percentage of HM by the percentage of each valuable heavy mineral within the heavy mineral assemblage. All tonnages and grades have been rounded to reflect the relative uncertainty of the estimate, thus sum of columns may not equal. Refer to Sheffield's ASX announcement dated 31 July, 2015 for further details.

ABOUT SHEFFIELD RESOURCES

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

ASX Code – SFX	Market Cap @ 50cps - \$67.2m
Issued shares – 134.4m	Cash - \$5.1m (at 30 June 2015)

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 northwest, contains the large, high grade zircon-rich Thunderbird HMS deposit. Sheffield's pre-feasibility study shows Thunderbird can generate strong cash margins from globally significant levels of production over a 32 year mine life.

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 has over 2,000km² of tenure in the Fraser Range region, including the Red Bull project which is within 20km of the Nova Ni-Cu deposit.