Sheffield Resources Ltd
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30 July 2014

QUARTERLY REPORT FOR PERIOD ENDING 30 JUNE 2014

HIGHLIGHTS

Corporate

- Completion of $11.5 million placement to fund Thunderbird project exploration and pre-feasibility, exploration of Red Bull nickel and Mt Vettel iron projects

Thunderbird HMS project

- Field programs commenced subsequent to end of quarter, including drilling of potential updip extensions of high grade mineralisation
- Pre-feasibility work is progressing on schedule

Red Bull Nickel project

- Large, strong bedrock conductor identified from Moving Loop and Fixed Loop TEM surveys
- Modelled conductor plate has dimensions 350m x 1,200m, depth to top 550m
- Conductor to be drilled during Q3 2014

East Kimberley Nickel project

- New tenement applications totaling 815km^2 in prospective East Kimberley Nickel Province

Pilbara Iron project

- Initial RC drill program of 34 holes completed at Mt Vettel – awaiting assay results

Moora Talc project

- Beneficiation testwork on talc from large Fowlers deposit yields products with potential commercial specifications

Oxley Potash project

- Scoping metallurgical testwork outlines processing options for Oxley potash
- Comminution and beneficiation testwork successful in upgrading K_2O in "feed" material by 33% to 12-13% K_2O

As at 30/06/14:

Issued Shares	**133.4M**	ASX Code	**SFX**	Closing Price	**$0.86**
Market Cap	**$114.7M**	Cash Reserves	**$10.9M**		

SUMMARY

During the quarter, Sheffield completed a $11.5 million capital raising through the placement of 14,197,531 million shares at an issue price of 81 cents per share. Sheffield's directors contributed $320,000 to the placement (395,062 shares issued subsequent to the end of the quarter). The funds will be used to complete pre-feasibility studies and exploration at the Thunderbird mineral sands project, for exploration of the Red Bull nickel-copper and Mt Vettel iron projects and for general working capital.

Ground EM surveys undertaken at Red Bull located a large, strong bedrock conductor which the Company plans to drill in Q3 2014.

An RC drilling program of 34 holes for 2,146m was completed at the Mt Vettel iron project. Assay results are awaited.

Metallurgical testwork programs were completed on drill samples from the Moora Talc and Oxley Potash projects.

Subsequent to the end of the quarter, drilling and other field based activities commenced at Thunderbird.

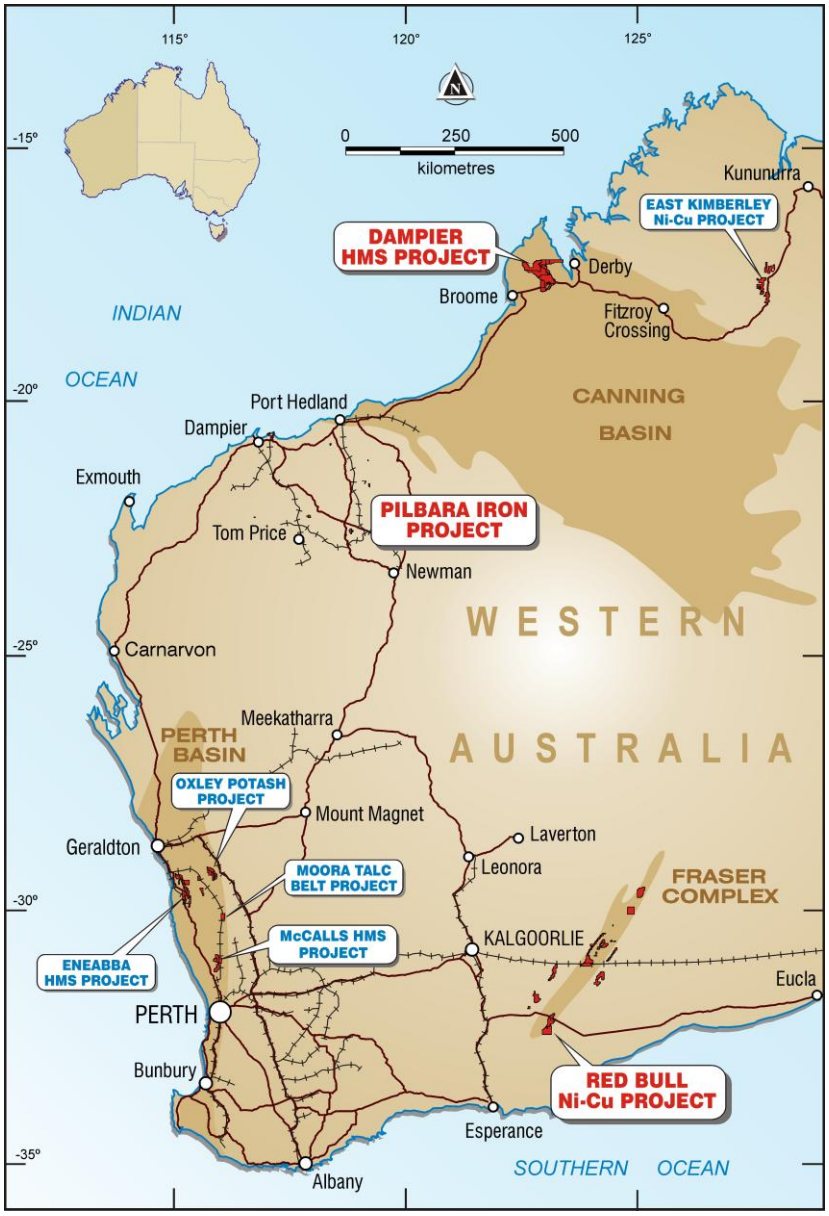

Figure 1: Location of Sheffield's Projects

Exploration expenditure for the quarter is $1,305,000.

THUNDERBIRD MINERAL SANDS

Sheffield's flagship Thunderbird mineral sands project is located near Derby in Western Australia (Figures 1 & 2).

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 in Appendix 1 and ASX release dated 19 March 2014).

The Thunderbird Scoping Study, released on 14 April 2014 and reported in the March 2014 quarterly, 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.

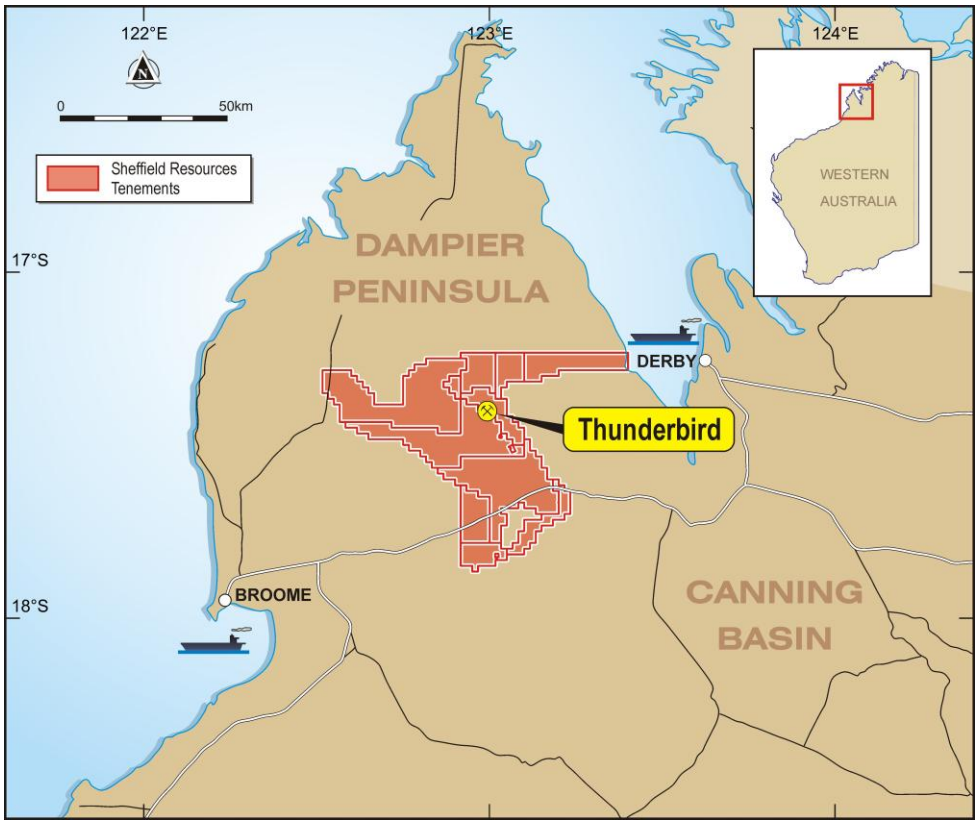

Figure 2: Location of Thunderbird HMS project

During the quarter, Aboriginal Heritage surveys were completed ahead of the 2014 field programs.

Subsequent to the end of the quarter, drilling commenced at Thunderbird. The drilling 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 3 & 4 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.*

Infill drilling in the up-dip portion of the deposit will also be undertaken to assist with the optimization of mining schedules in early production years. Sample material from both infill and extension drilling will be collected for enhancing metallurgical testwork during feasibility.

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

- pit slope stability analyses and pit design;

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

- 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.

Results of a tile opacity test on Thunderbird Primary Zircon were received and have physically confirmed that Thunderbird zircon is suitable for the premium ceramic market. The testwork was undertaken by Ferro Corporation (Australia) and involved milling the zircon to flour followed by firing to make a test tile. This test indicated a firing whiteness suitable for ceramic use and is comparable with premium zircon currently in the marketplace.

Work continues on several other aspects of the Thunderbird pre-feasibility, including port and infrastructure studies, power requirements, metallurgical optimisation on full-scale equipment and regional environmental baseline studies.

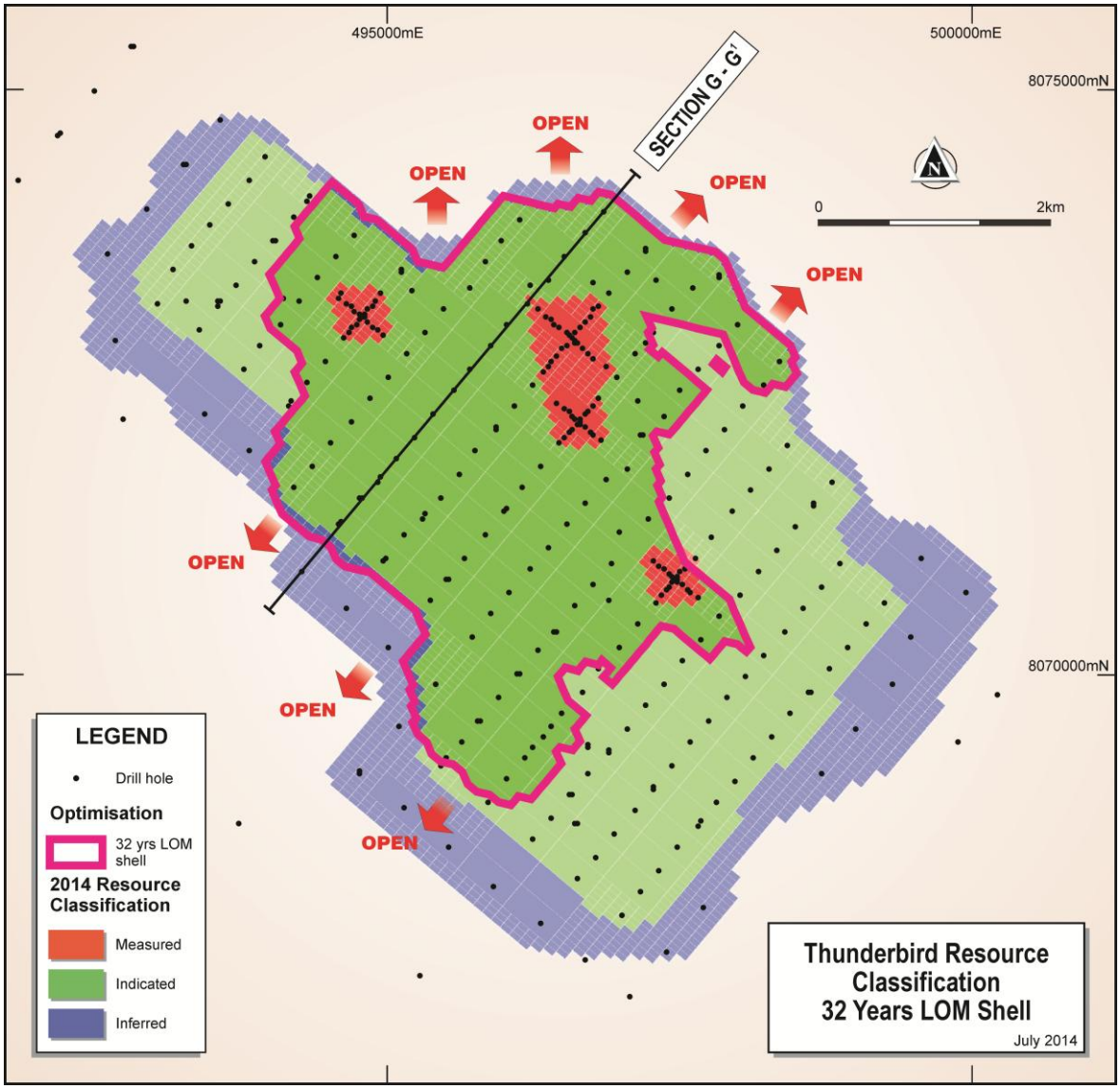

Figure 3: Plan view of Thunderbird Deposit 32-year pit shell outline on Mineral Resource Classifications showing exploration potential beyond current drilling

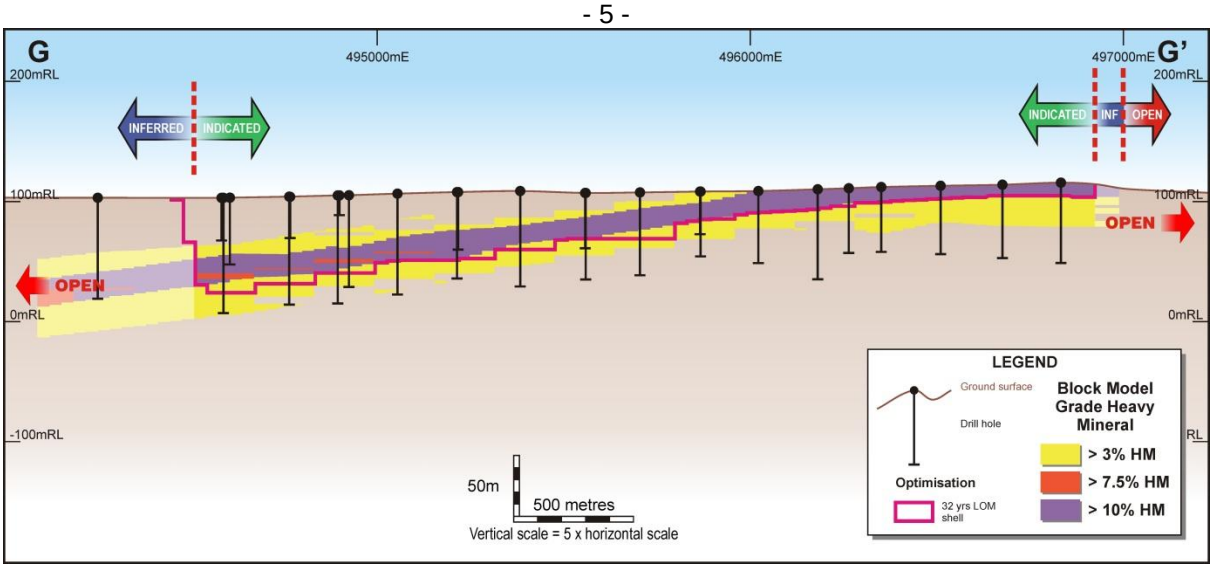

Figure 4: Cross-section G-G' through the Thunderbird resource block model showing the 32 Year pit shell outline, resource classifications and exploration potential beyond current drilling

RED BULL NICKEL

The Red Bull project comprises two tenements with a total area of 525km^2 located 120km east of Norseman in WA. The northern tenement E69/3052 lies within 20km of Sirius Resources NL's (ASX:SIR) Nova and Bollinger Ni-Cu deposits and covers mafic and ultramafic rocks of the Fraser Complex which are prospective for magmatic Ni-Cu deposits.

During the quarter, high-powered Moving Loop and Fixed Loop Transient Electromagnetic (MLTEM & FLTEM) ground geophysical surveys were undertaken on E69/3052.

A total of 24 high powered (~80-100A) MLTEM survey lines were performed over two blocks (382 stations, 34.6kms) covering target areas at Stud and Earlobe where previous aircore drilling had identified significant Ni-Cu-Co anomalism associated with an interpreted mafic/ultramafic complex (see ASX release dated 11 February, 2014). A previous VTEM survey over this region was not effective due to the presence of conductive overburden.

The MLTEM survey identified a broad, deep conductive anomaly immediately to the west of the Earlobe Prospect (anomaly "RBD1"), and several local zones of strong polarisation coincident with drill hole geochemical anomalies at the Stud prospect (see Figures 5 & 6 and ASX release dated 7 July 2014). A single FLTEM survey was then completed over RBD1 to better define the conductor and provide for more robust drill target design.

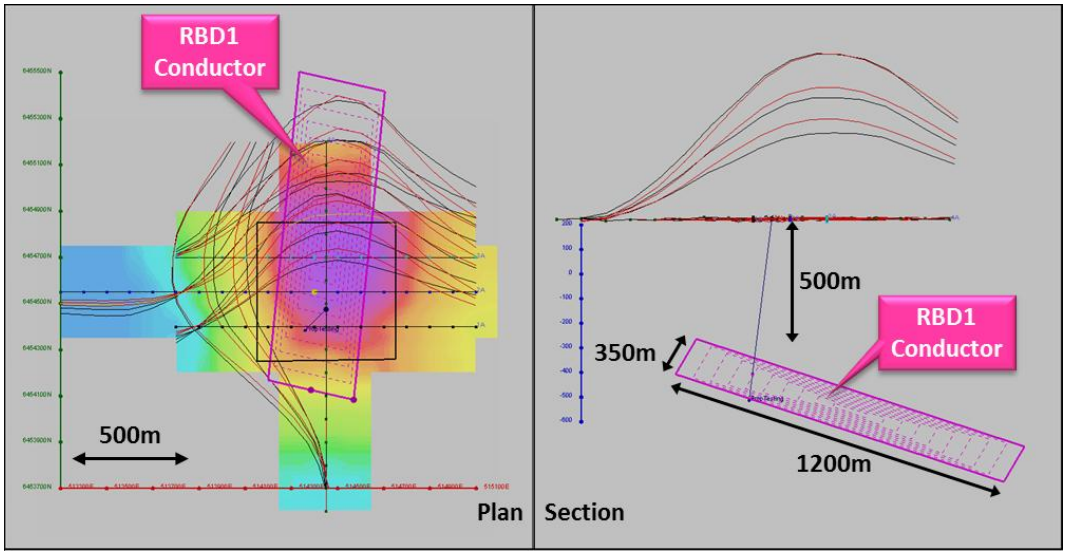

Figure 5: RBD1 Conductor FLTEM model result

Sheffield's geophysical consultants have modelled the RBD1 conductive source as large (350 x 1,200m), with moderate NNE plunge and a depth to top of about 550-600m (Figure 5). Conductance levels are high at ~5,000-7,000S+ indicating potential for the geological source to be strongly sulphidic.

RBD1 is located at the junction of three interpreted faults and Sheffield's main target mafic/ultramafic domain. Significantly, the modelled conductive plate is discordant to the geological strike, as interpreted from magnetic images. Although deep, the strongly conductive bedrock source makes for a compelling "Nova"-style target for priority drill testing.

The MLTEM grid over the Stud prospect did not identify any anomalous bedrock conductors; however it did identify three localised zones of induced polarisation (IP) anomalism. This is thought to have been a result of using the high-powered MLTEM system, and may be related to the presence of concentrations of disseminated sulphide in the bedrock. The IP anomalies are in an area of significant Ni-Cu-Co anomalism identified from aircore drilling, with one anomaly coincident with hole REAC240 (5m @ 0.73% Ni, 168ppm Cu, 466ppm Co from 33m – see ASX releases dated 11 February, 2014 and 27 November, 2013). Low concentrations of disseminated sulphide have also been identified in these areas from end-of-hole aircore sample petrology (see ASX release dated 27 November, 2013).

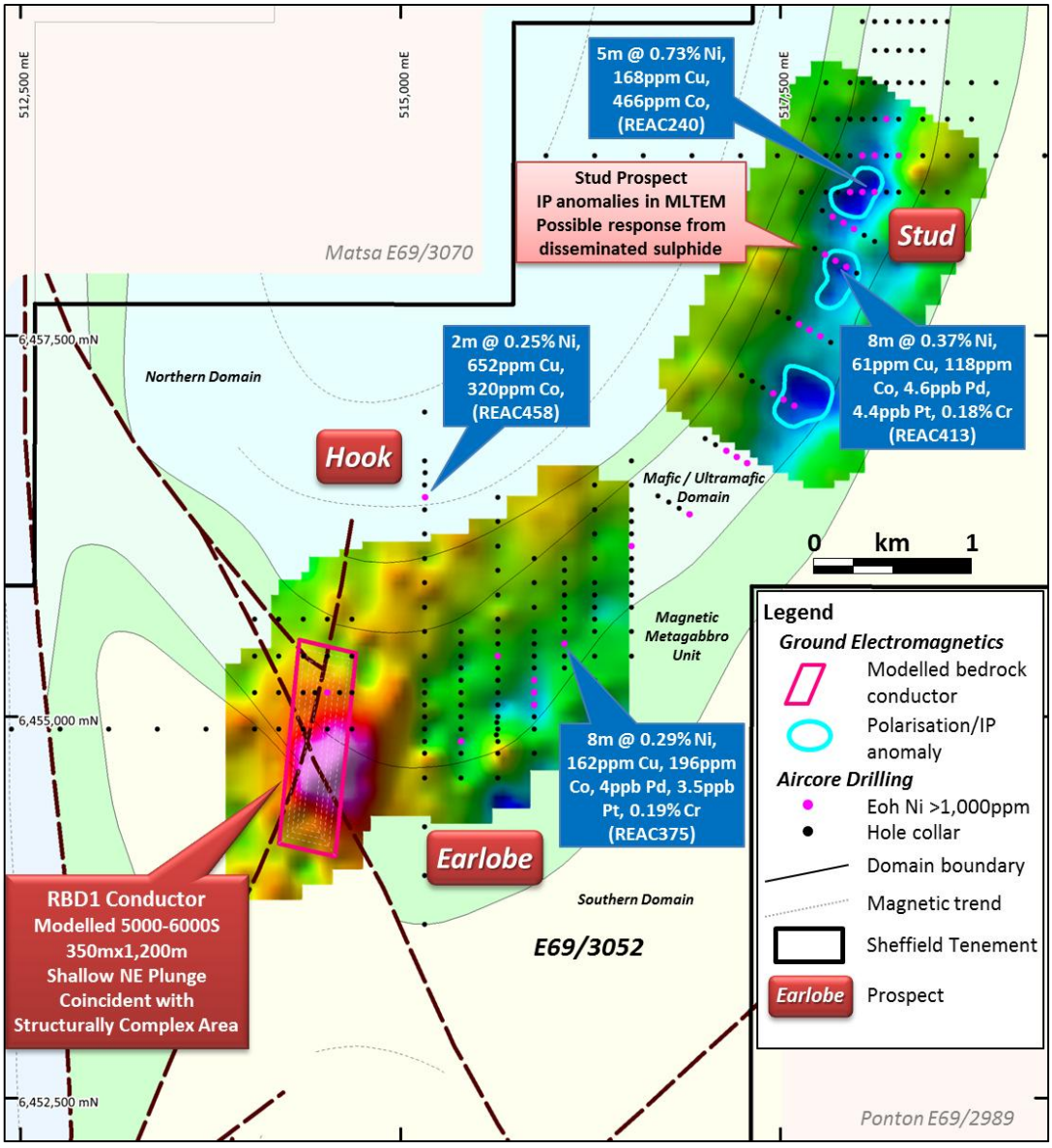

Figure 6: Location of RBD1 conductor and Ch35 B-field Z component conductivity images from MLTEM surveys at Earlobe and Stud prospects, and selected drill intersections from previously reported aircore drilling

An infill auger soil sampling program was also completed at Red Bull during the quarter. The program was designed to provide better definition of Ni-Cu-Co anomalies identified from previous soil sampling programs (see ASX release 27 November, 2013). In total 280 samples were collected to complete coverage of nominally 320m x 160m in areas where surface cover is interpreted to be thin, along the north-western tenement boundary.

The program identified a number of anomalies, several of which are coincident with interpreted faults and magnetic trendlines, including along one of the faults coincident with the RBD1 Conductor. These anomalies will be considered for future drill testing (see ASX release dated 7 July 2014).

Sheffield plans to drill the RBD1 conductor following receipt of necessary permits and approvals. Further ground geophysical surveys and regional-scale aircore drilling have been scheduled for H2 2014.

Elsewhere in the Fraser Range, Sheffield has engaged a contractor to undertake a low level, 100m-spaced airborne magnetic and radiometric survey of its Big Bullocks project for target generation, this is expected to be completed during July.

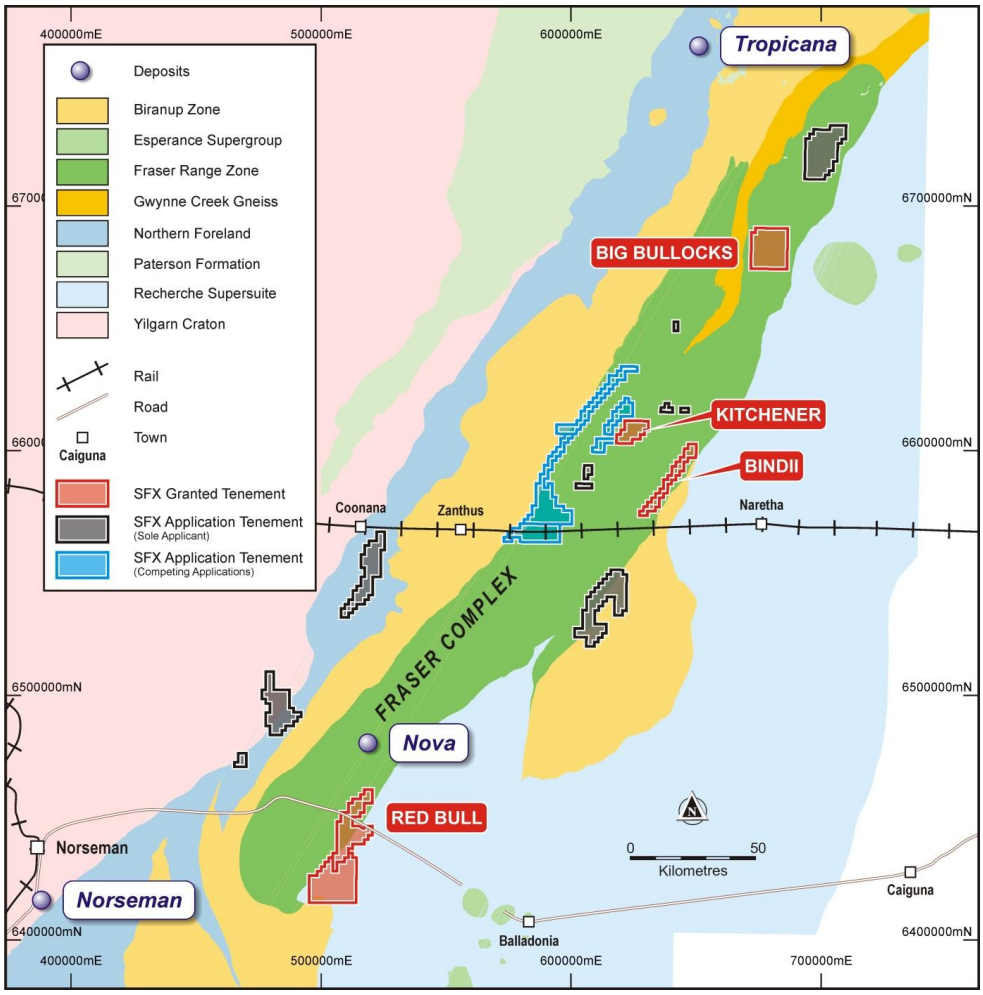

Figure 7: Location of Sheffield's tenements in the Fraser Range region

During the quarter exploration licence E28/2374 "Bindii" became Sheffield's fifth tenement in the Fraser Range to be granted. Bindii is located on the eastern margin of the Fraser Complex (Figure 7). Sheffield has a further 15 applications in the Fraser Range region of which 7 are subject to ballot.

Subsequent to the end of the quarter, the ballots were held, with Sheffield placing first on three occasions. Two of the first placed tenements (E28/2430 & E28/2431) are of substantial size (total 92km^2) and lie immediately to the west of Sheffield's Kitchener project in the central portion of the Fraser Complex, while the third tenement (E28/2428) is small (single sub-block) and located near the western margin of the Complex.

EAST KIMBERLEY NICKEL

During the quarter, Sheffield applied for four exploration licences totalling 815km^2 near Halls Creek in the East Kimberley region of Western Australia. The tenements cover several mafic-ultramafic intrusions that are considered prospective for magmatic Ni-Cu-Co sulphide and Platinum Group Element (PGE) mineralisation (Figure 8).

The northern tenement application, E80/4866, is within 10km of Panoramic Resources Ltd's (ASX:PAN) Savannah Ni-Cu-Co deposit. Savannah is largest Ni-Cu-Co sulphide deposit within the East Kimberley and is of a similar style to the world class Voisey's Bay deposit in Labrador, Canada and the Nova-Bollinger deposit in the Fraser Range Nickel Province in Western Australia.

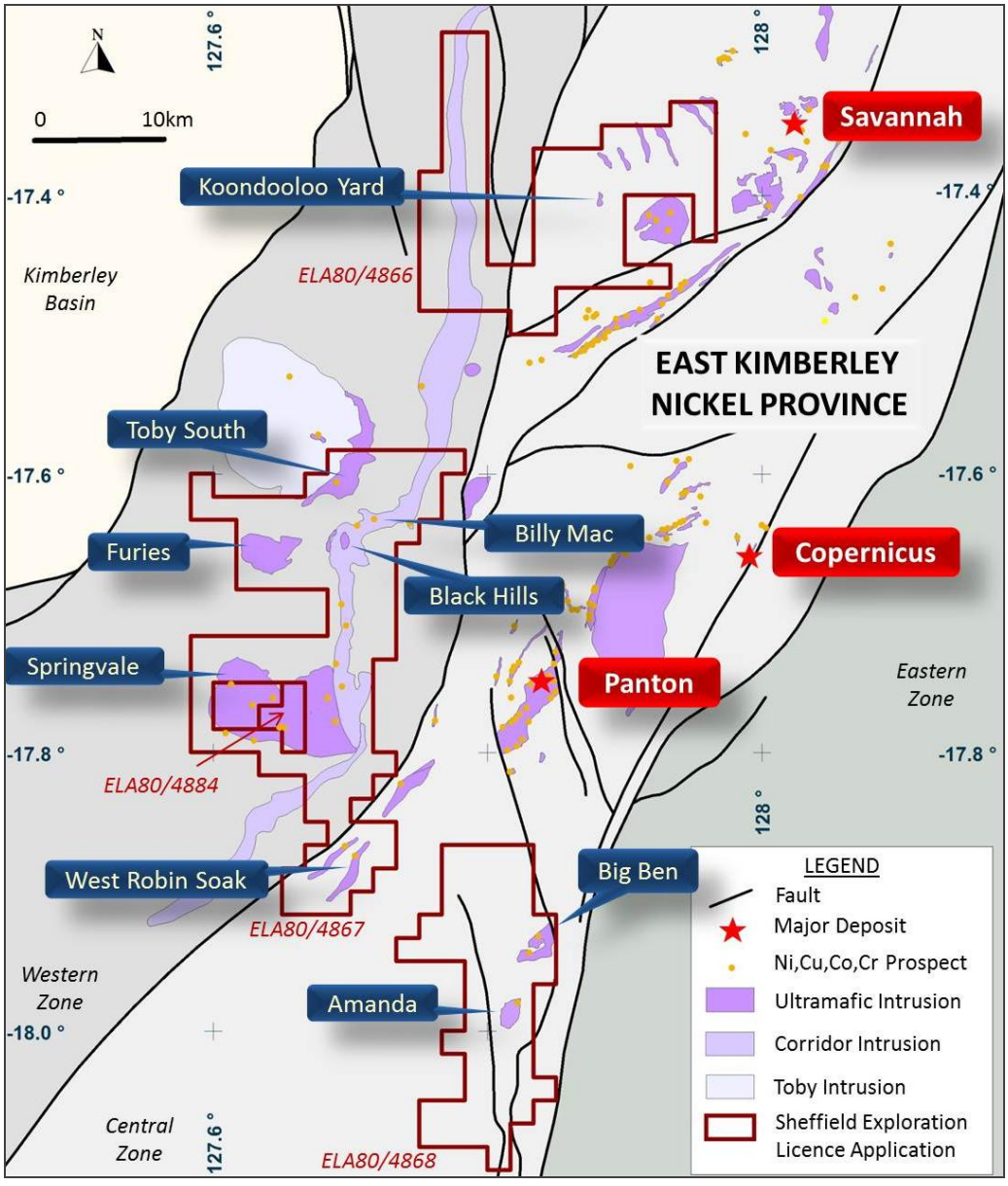

Figure 8: East Kimberley Nickel Province – new tenement applications and regional geology

Sheffield's tenement applications cover a complex Proterozoic terrain comprising low to high grade metasedimentary, metavolcanic rocks, and numerous mafic and mafic-ultramafic intrusions. The package as a whole can be divided into the Western Zone, Central Zone and Eastern Zone (Figure 1). The Western and Central Zones, collectively known as the East Kimberley Nickel Province, contain numerous nickel-copper and PGE occurrences associated with the intrusive suites.

PILBARA IRON

The Company completed a maiden RC drilling programme of 34 holes for 2,146m at Mt Vettel (E45/4029). The prospect was also mapped in detail. Results of the drilling are expected in the near future.

Mt Vettel lies 20km to the west of Atlas Iron's (ASX:AGO) Mt Webber iron project, within potential trucking distance of Port Hedland.

ENEABBA HEAVY MINERAL SANDS

The Eneabba project comprises five mineral sands deposits: West Mine North, Ellengail, Yandanooka, Durack and Drummond Crossing with combined resources of 6.76Mt of HM (Appendix 1). Sheffield's strategy is to evaluate these deposits with a view to developing a sequential mining operation, whilst actively exploring the region for further deposits.

During the quarter, composite drill samples were selected from the West Mine North, Drummond Crossing and Durack deposits for the preparation of heavy mineral concentrates. Mineral characterization studies will be undertaken on the concentrates during Q3 2014.

MCCALLS HEAVY MINERAL SANDS

The McCalls project, located 110km north of Perth, has an Inferred Resource of 4.4Bt @ 1.2% HM containing 53Mt of HM (Appendix 1). Of this, 43 million tonnes is chloride grade ilmenite (66% TiO_2) ranking McCalls as one of the largest undeveloped chloride ilmenite deposits in the world.

Sheffield is evaluating McCalls as a potential dredging project. A mineral resource update is planned for Q3 2014.

During the quarter, exploration licence E70/4584 "Mindarra Springs" was granted. E70/4584 is contiguous with the McCalls project tenements and covers the Mindarra Springs mineral sands occurrence to the south of McCalls.

During the early 1990s BHP undertook exploration for mineral sands at Mindarra Springs. Approximately 150 aircore holes were drilled on the area now covered by E70/4584. The historic drilling data will be collated and interpreted during Q3 2014.

OXLEY POTASH

The Oxley potash project is located near Morawa in Western Australia's Mid-west region. Oxley has an unconventional, hard rock style of potash mineralisation, hosted by a series of ultrapotassic microsyenite lavas, which typically contain over 90% sanidine (potash) feldspar. Sheffield controls the entire 32km strike extent of the prospective units within the northern Moora Basin.

Sheffield's maiden drilling programme at Oxley returned thick, high grade potash intervals averaging 8.4% K_2O over 36m width with higher grade intervals averaging 9.9% K_2O over 15m width. (Refer to ASX release of 19 July 2013 for full details).

During the quarter, AMEC Australia Pty Ltd (AMEC) completed an exploratory investigation of processing and product marketing options for the Oxley potash mineralisation. The objective of the study was to provide a high-level understanding of potential options available to develop the project. As part of this work AMEC undertook ore characterisation, comminution tests and beneficiation testwork.

Results of ore characterisation indicate that the Oxley mineralisation contains a high potassium grade relative to other reviewed non-evaporite potassium salt projects. Furthermore, chemical analysis of the available drilling data indicates weathering has improved the potassium grade.

Comminution testing results completed indicate increasing rock competency and ball mill energy demand with increasing depth from surface. Abrasion potential of the weathered sample tested was low. Collectively, a large cost differential is predicted in comparing the comminution demand for weathered and fresh rock.

Beneficiation testwork based on gravity and magnetic processes indicates the potential to upgrade potassium by rejecting iron, silica and carbonates. Preliminary testwork has demonstrated that the near surface weathered material can be upgraded from feed material with 9 to 10% K_2O to feed containing between 12 to 13% K_2O (with iron reduced to 6.24% Fe_2O_3, see Table 1). The initial beneficiation testwork has delivered a substantial increase (approximately 33%) in grade of the feed material.

Table 1: Product chemistry for the best magnetic separation results achieved. Three-stage WHIMS Scavenging – Non Magnetic Product Quality

(%)	K_2O	Al_2O_3	SiO_2	LOI^{1000}	CaO	Fe_2O_3	TiO_2	Cr_2O_3	MgO	NaO
Weathered	12.3	16.1	61.7	1.22	0.27	6.24	0.68	0.01	0.79	0.2
Fresh	10.2	15.2	53.1	5.68	3.03	5.73	0.71	0.01	5.02	0.5

Chemical analysis was carried out at Intertek-Genalysis, Maddington, Western Australia. The analysis was by XRF Spectrometry code FB1/XRF55. A total LOI (1000) is analysed by Thermal Gravimetric Analyser.

Microscopic analyses of heavy liquid separates indicate the potential for producing a potash feldspar product for the ceramic/glass market. With further improvement in the iron mineral liberation and rejection, potential to achieve a product quality suitable for sale as feldspar used in the ceramics industry (<1.5% Fe_2O_3) may exist. Tests so far indicate iron is locked finely in the feldspar restricting a high quality product outcome.

AMEC's conclusions based on the exploratory investigation of processing and product marketing options were that there are reasonable grounds for further exploration and testwork which should focus on the near surface weathered material due to higher K_2O grades, a lower mine strip ratio and lower process comminution costs.

This exploratory metallurgical study has identified five potential product options for the potassium-rich mineralisation known within the Project. The following potential mine gate product options are listed in the likely order of increasing value, development time, process capital and operating cost intensity:

1. Ground "rock dust" for direct agricultural application as a slow release fertiliser
2. K-feldspar for the ceramic/glass market
3. Low potassium grade calcined product sold as a slow release fertiliser
4. Granular KCl (muriate of potash (MOP))
5. Granular K_2SO_4 (sulphate of potash (SOP)) with a potential sulphate of ammonia by-product.

At this stage, no option has sufficient proof of concept or detail to be effectively assessed from a practicality or financial perspective. AMEC has recommended a follow-up phase of investigations to assess some key process and/or product market aspects identified. These include:

- Geological mapping and sampling to outline low iron, high K_2O grade weathered zones which offer potential processing cost benefits
- Mineralogical liberation studies to better understand the occurrence of iron
- Test finer grinding (P80 32 to 10µm) and magnetic and/or flotation separation ± acid leaching of iron aimed at achieving a refractory grade potassium feldspar quality
- Further market research on:
  - Potential for a feldspar product with higher than typical Fe_2O_3 (0.5 to 5% range)
  - Thermo potash-type product value
- K dissolution kinetic tests on the weathered material (proxy test for direct agricultural use)
- Basic lime roast batch tests with product leach testing (proxy test for direct agricultural use)
- Acid leach testing at bench scale to explore selective Fe or K dissolution
- Pressure ammonia leach testing at bench scale to explore selective K and Al dissolution

Further testing and marketing investigation will determine a framework for comparing the economics of each option. Singular options or combinations thereof (potentially staged) may hold merit for development of the project. Sheffield plans to progress further metallurgical testwork during H2 2014 and may introduce a joint venture partner to progress the Oxley Potash project.

MOORA TALC

During the quarter the Company completed scoping stage beneficiation test work on drill core samples from the Fowlers talc deposit, located near Marchagee. Fowlers has a large Exploration Target[1] of 5-8 million tonnes of talc (refer to Sheffield's June 2013 Quarterly Report for full details).

The Fowlers talc has extremely low calcium content but the elevated iron content and low brightness of the raw talc limit commercial applications (see ASX release dated 4/10/2011). The beneficiation testwork, undertaken by Bureau Veritas Minerals Pty Ltd, investigated innovative ways of reducing the iron content and increasing the brightness of the talc, including crushing, screening and washing.

Final products were tested for marketable specifications including chemistry, brightness, mineralogy (Qemscan and SEM) and a suite of additional physical attributes.

The testwork was undertaken on core samples from diamond drill hole MODD008, drilled by Sheffield in 2011. Much of the iron in the talc occurs as films along fracture planes, and as fine iron-rich clays, whereas the massive, competent talc has a lower iron content. Samples were taken from three discrete zones as listed below and shown in Figure 9;

Zone 1	Upper	3.00 to 44.76m
Zones 2 & 3	Transition	44.76 to 61.00m
Zone 4	Lower	61.00 to 71.00m

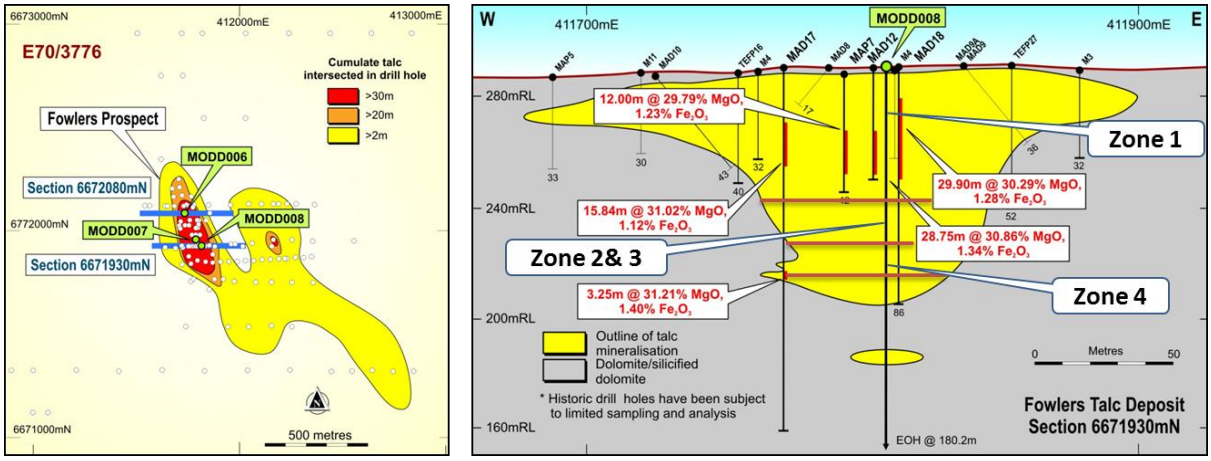

Figure 9: Plan view and cross section through the Fowlers talc deposit, showing location of drill hole MODD008 and mineralised Zones 1-4

Crushing and screening testwork showed that there was significant reduction of iron in the +16 mm size fractions and concentration of iron in the -16 mm size fractions, particularly for Zones 1 and 4. In addition water washing of the +16 mm and -16 mm fractions of each composite indicated that further iron impurities could be removed from both size fractions (Table 2).

Figure 10: Wet screened lump (+16mm), Zone 1 (left), Zone 2 & 3 (centre) and Zone 4 (right)

[1]Sheffield Resources has not yet reported Mineral Resources for Fowlers and any discussion in relation to targets and Mineral Resources is conceptual in nature. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

Table 2: Zone Composite Washed Lump (+ 16mm) Assays

Zone	Fe_2O_3		MgO		SiO_2	
	Grade	Wt %	Grade	Wt %	Grade	Wt %
Fowlers Upper	1.21	77.78	30.5	97.37	62.45	95.85
Fowlers Transition	1.69	98.87	30.3	82.87	61.47	82.60
Fowlers Lower	1.30	88.30	30.8	90.43	62.41	91.16

Chemical analysis was by XRF Spectrometry.

Brightness tests were carried out at the Ian Wark Institute in Adelaide, SA, on selected size fraction samples from the screening and washing testwork. Brightness values of over 80 were achieved in the washed sized fractions for Zone Composites 1 and 4. With all composites, washed samples gave higher brightness values than unwashed samples (Table 3).

Table 3: Lump (+16mm) wet brightness results

Sample ID	D65/10 Illuminant								
	CIE			Hunterlabs			457nm	YI E313	WI E313
Lump (+16mm) Wet Brightness	X	Y	Z	L	a	b	Brightness	E313	E313
Fowlers Upper	86.4	91.3	90.8	95.5	-0.2	4.6	**85.3**	8.6	69.6
Fowlers Transition	68.7	70.8	61.2	84.1	3.4	10.9	57.6	26.7	8.2
Fowlers Lower	90.2	94.9	95.8	97.4	0.4	3.8	**89.7**	7.5	77.0

Talc intervals were analysed for optical properties including Brightness as 457nm brightness (equivalent to GE brightness or TAPPI 457nm) and CIE XYZ – also reported as Hunter L, a, b where L = lightness (100=white and 0=black), a = redness or greenness and b = yellowness or blueness. WI E323 – equivalent to CIE and YI – equivalent to E313 or DIN6167. Data was captured using both the C/2 and D65/10 illumination sources (two different types of equivalent sunlight) on the Hunterlab instrument by the Ian Wark Institute in Adelaide, SA.

Each of the Zone Composites was submitted for mineralogical characterization by both Scanning Electron Microscopy (SEM) and QEMSCAN and also for asbestiform mineral detection. Mineralogical examination of each composite showed that all three samples were made up of >98% by mass talc with minor amounts of Fe Ox/OH, clays, quartz and other silicates. The talc in the samples was substantially liberated and presented as mainly laminar or fluffy particles. Examination for asbestos by polarised light microscopy dispersion staining confirmed that no asbestiform minerals were detected in any of the composites.

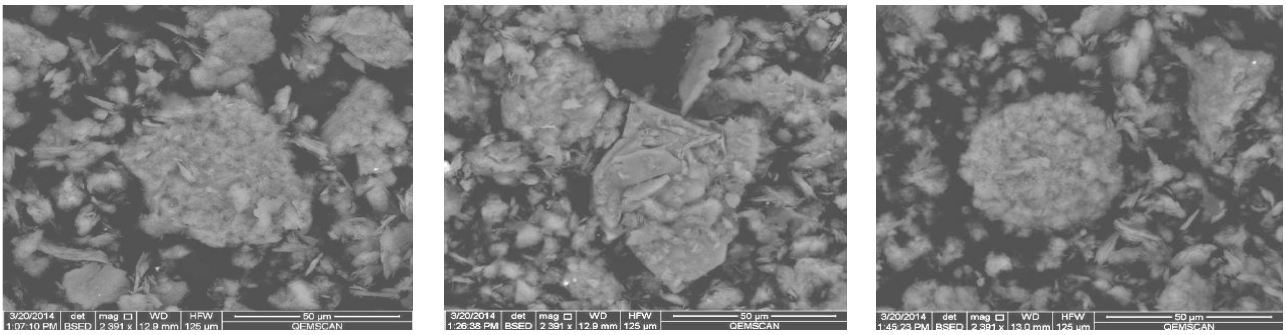

Figure 11: Scanning electron microscope (SEM) BSE (backscattered electrons) image of microcrystalline talc , Zone 1 (left), Zone 2 & 3 (centre) & Zone 4 (right)

The metallurgical testwork undertaken on the three mineralised zones at the Fowlers talc deposit yielded initial product specifications on the +16mm washed lump product (Table 4).

Table 4: Summary of product specifications

Product Specifications		*Zone 1* **Fowlers Upper** *'+ 16 mm Wet*	*Zone 2 & 3* **Fowlers Transition** *'+ 16 mm Wet*	*Zone 4* **Fowlers Lower** *'+ 16 mm Wet*
Weight Recovery	Weight (%)	47.14	42.51	44.78
Chemistry	MgO (%)	30.50	30.30	30.80
	SiO_2 (%)	62.45	61.47	62.41
	CaO (%)	0.00	0.01	0.02
	Al_2O_3 (%)	0.74	0.30	0.30
	Fe_2O_3 (%)	**1.21**	1.69	**1.30**
	P_2O_5 (%)	0.01	0.01	0.01
	LOI_{1000} (%)	4.86	4.80	4.83
Brightness	457nm	**85.3**	57.6	**89.7**
QEMSCAN Mineral Mass (%)	Talc	98.40	98.40	99.92
Oil Adsorption	g	46	43	42
Hardness	Mohs	1.5	1.5	1.5
Moisture Content	%	0.21	0.22	0.27
Water Solubility	% Mass Loss	1.54	1.67	2.17
Acid Solubility	% Mass Loss	1.59	0.78	1.38
Asbestiform Minerals		No	No	No
True Specific Gravity (SG)	g/cm^3	2.54	2.60	2.61
Un-compacted Bulk SG	g/cm^3	1.39	1.65	1.62
Compacted Bulk SG	g/cm^3	1.63	1.91	2.02

The beneficiation testwork was successful in producing a pure microcrystalline talc lump (+16mm) product from Zones 1 and 4 with iron content below 1.4% Fe_2O_3, brightness above 85 (457nm) and with exceptionally low CaO values below 0.02%.

Further communition and micronizing of the lump product with associated beneficiation process will potentially further upgrade the product quality. Sheffield will undertake market research and product soundings to determine interest in the Fowlers talc lump product during H2 of 2014.

CASH POSITION

As at 30 June 2014, the Company had cash reserves of approximately $10.9 million.

Bruce McQuitty
Managing Director
30 July 2014

Schedule 1: Interests in Mining Tenements at the end of the quarter as required under ASX Listing Rule 5.3.3

Project	Tenement	Holder	Interest	Location[3]	Status
Mineral Sands	E04/2081	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2083	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2084	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2159	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2171	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2192	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2193	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2194	Sheffield Resources Ltd	100%	Canning Basin	Granted
Mineral Sands	E04/2348	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2349	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E04/2350	Sheffield Resources Ltd	100%	Canning Basin	Pending
Mineral Sands	E70/3762	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3812	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3813	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3814	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3846	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3901	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3929	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3931	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3967	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3970	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4190	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4292	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4313	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4314	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4434	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4484	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/4584	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/872[1]	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/965[1]	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	M70/1153[1]	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	R70/35[1]	Sheffield Resources Ltd	100%	Perth Basin	Granted
Mineral Sands	E70/3859	Sheffield Resources Ltd	100%	Perth Basin	Pending
Mineral Sands	L70/150	Sheffield Resources Ltd	100%	Perth Basin	Pending
Nickel	E69/3033	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E69/3052	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2270	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E39/1733	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E28/2374	Sheffield Resources Ltd	100%	Fraser Range	Granted
Nickel	E69/3181	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2323	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2426	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2427	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2428	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2429	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2430	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2431	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2432	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2448	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2449	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel	E28/2450	Sheffield Resources Ltd	100%	Fraser Range	Pending
Nickel/Gold	E28/2481	Sheffield Resources Ltd	100%	Tropicana Belt	Pending
Nickel	E80/4866	Sheffield Resources Ltd	100%	East Kimberley	Pending
Nickel	E80/4867	Sheffield Resources Ltd	100%	East Kimberley	Pending
Nickel	E80/4868	Sheffield Resources Ltd	100%	East Kimberley	Pending
Nickel	E80/4884	Sheffield Resources Ltd	100%	East Kimberley	Pending
Gold	E28/2453	Sheffield Resources Ltd	100%	Tropicana Belt	Pending
Gold	E63/1696	Sheffield Resources Ltd	100%	Tropicana Belt	Pending
Iron	E45/3662-I	Ironbridge Resources Pty Ltd[2]	100%	Pilbara	Granted
Iron	E47/2642-I	Sheffield Resources Ltd	100%	Pilbara	Granted
Iron	E45/3822-I	Sheffield Resources Ltd	100%	Pilbara	Granted
Iron	E45/4029	Sheffield Resources Ltd	100%	Pilbara	Granted
Iron	E47/2793-I	Sheffield Resources Ltd	100%	West Pilbara	Pending

Project	Tenement	Holder	Interest	Location	Status
Iron	E47/2794-I	Sheffield Resources Ltd	100%	West Pilbara	Pending
Iron	E47/2861-I	Sheffield Resources Ltd	100%	West Pilbara	Pending
Iron	E47/3031-I	Sheffield Resources Ltd	100%	Pilbara	Pending
Iron	E47/3032-I	Sheffield Resources Ltd	100%	Pilbara	Pending
Iron	E47/3033-I	Sheffield Resources Ltd	100%	Pilbara	Pending
Iron	E47/3083	Sheffield Resources Ltd	100%	Pilbara	Pending
Talc	E70/3776	Moora Talc Pty Ltd[2]	100%	Moora	Granted
Talc	E70/4004	Moora Talc Pty Ltd[2]	100%	Moora	Granted
Potash	E70/3777	Moora Talc Pty Ltd[2]	100%	Morawa	Granted
Potash	E70/4318	Sheffield Resources Ltd	100%	Morawa	Granted
Potash	E70/4319	Sheffield Resources Ltd	100%	Morawa	Granted
Potash	E70/4320	Sheffield Resources Ltd	100%	Morawa	Granted
Potash	E70/4378	Sheffield Resources Ltd	100%	Morawa	Granted

Notes:
[1]Iluka Resources Ltd (ASX:ILU) retains a gross sales royalty of 1.5% in respect to tenements R70/35, M70/872, M70/965 & M70/1153.
[2]Moora Talc Pty Ltd and Ironbridge Resources Pty Ltd are 100% owned subsidiaries of Sheffield Resources Ltd.
[3]All tenements are located in the state of Western Australia.

Details of tenements and/or beneficial interests acquired/disposed of during the June 2014 Quarter are provided in Section 6 of the Company's Appendix 5B notice for the June 2014 Quarter.

COMPLIANCE STATEMENTS

The information in this report that relates to Exploration Results for Talc and Potash is based on information compiled by Mr David Archer, a Competent Person who is a Member of Australian Institute of Geoscientists (AIG). Mr Archer is a full-time employee of Sheffield Resources Ltd and has sufficient experience that is relevant to the styles of mineralisation and types 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 Archer 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 which were prepared and first disclosed under the JORC Code 2012. The information was extracted from the Company's previous ASX announcements as follows:

- Thunderbird Resource Update: "*SHEFFIELD DOUBLES TOTAL MINERAL RESOURCES AT WORLD CLASS THUNDERBIRD HMS DEPOSIT*", 19 March 2014
- Thunderbird Scoping Study: "*SCOPING STUDY HIGHLIGHTS THUNDERBIRD'S EXCEPTIONAL FINANCIAL RETURNS*", 14 April, 2014
- Red Bull Results: "*LARGE Ni-Cu-Co ANOMALIES IDENTIFIED IN THE FRASER RANGE*", 11 February, 2014
- Red Bull EM Conductor: "*LARGE BEDROCK CONDUCTOR IDENTIFIED AT RED BULL Ni-Cu PROJECT, FRASER RANGE*", 7 July 2014

This report also includes information that relates to Exploration Targets, Exploration Results and Mineral Resources which were prepared and first disclosed under the JORC Code 2004. The information has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. The information was extracted from the Company's previous ASX announcements as follows:

- Fowlers Talc Drilling Results: "*ASSAY RESULTS CONFIRM HIGH QUALITY TALC INTERSECTIONS*", 4 October 2011.
- Ellengail Mineral Resource: "*1MT CONTAINED HM INFERRED RESOURCE AT ELLENGAIL*", 25 October 2011.
- West Mine North Mineral Resource: "*WEST MINE NORTH MINERAL RESOURCE ESTIMATE EXCEEDS EXPECTATIONS*", 7 November 2011.
- McCalls Mineral Resource: "*4.4 BILLION TONNE MAIDEN RESOURCE AT MCCALLS HMS PROJECT*", 20 February 2012.
- Durack Mineral Resource: "*ENEABBA PROJECT RESOURCE INVENTORY EXCEEDS 5MT HEAVY MINERAL*", 28 August 2012.
- Yandanooka Mineral Resource: "*YANDANOOKA RESOURCE UPGRADE AND METALLURGICAL RESULTS*", 30 January 2013.
- Oxley Potash Drilling Results: "*MAJOR NEW POTASH DISCOVERY IN WA'S MID-WEST*", 19 July 2013.
- Oxley Potash Drilling Results: "*QUARTERLY REPORT FOR PERIOD ENDING SEPTEMBER 2013*", 31 October 2013.
- Fowlers Talc Exploration Target: "*QUARTERLY REPORT FOR PERIOD ENDING JUNE 2013*", 31 July 2013.

- Drummond Crossing Mineral Resource and Sampling Results from Dunal-Style HM Targets, Eneabba Project: "*1Mt HEAVY MINERAL RESOURCE ADDED TO ENEABBA PROJECT*", 30 October 2013.
- Red Bull Nickel Targets from Soil Sampling and Petrography Results: "*AIRCORE DRILLING UNDERWAY AT RED BULL NICKEL PROJECT*", 27 November 2013.

These announcements are available to view 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, 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 AND EXPLORATION TARGET 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.

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 2012, 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.

APPENDIX 1: MINERAL RESOURCES

Table 1: Sheffield's contained Valuable HM (VHM) Resource inventory at 19 March 2014

Deposit	Resource Category	Zircon (kt)*	Rutile (kt)*	HiTi Leuc. (kt)*	Leuc. (kt)*	Ilmenite (kt)*	**Total VHM (kt)***
Thunderbird	Measured	510	-	150	140	1,660	**2,450**
Thunderbird	Indicated	10,170	-	3,350	3,550	34,110	**51,170**
Thunderbird	Inferred	4,270	-	1,230	1,470	12,110	**18,420**
Yandanooka	Measured	13	2		3	87	**105**
Yandanooka	Indicated	240	81		83	1,440	**1,840**
Yandanooka	Inferred	4	1		2	23	**29**
Durack	Indicated	144	29		52	703	**928**
Durack	Inferred	26	5		13	121	**164**
Drummond Crossing	Indicated	143	101		37	542	**823**
Drummond Crossing	Inferred	7	5		1	28	**41**
Ellengail	Inferred	92	90		19	658	**859**
West Mine North	Measured	18	33		42	200	**293**
West Mine North	Indicated	71	87		46	506	**709**
McCalls	Inferred	3,490	1,060		2,580	42,910	**50,040**
Total	Measured	540	35	150	180	1,950	**2,850**
Total	Indicated	10,770	300	3,350	3,760	37,300	**55,470**
Total	Inferred	7,220	1,160	1,230	4,080	55,850	**69,550**
Total	**All**	**18,530**	**1,500**	**4,730**	**8,020**	**95,100**	**127,870**

All tonnages have been rounded to reflect the relative uncertainty of the estimate, thus sum of columns may not equal. The contained VHM tonnages in the above table are derived from Mineral Resource Estimates for the Yandanooka, Ellengail , West Mine North, McCalls, Durack deposits (estimated using a 0.9% HM cut-off), the Drummond Crossing deposit (estimated using a 1.1% HM cut-off) and the Thunderbird deposit (estimated using a 3% HM cut-off) as detailed in Table 2.

* Valuable Heavy Minerals are classified as zircon, rutile, HiTi leucoxene, leucoxene and ilmenite.

Table 2: Sheffield's HMS Mineral Resource[2] Inventory at 19 March 2014

Project	Deposit	Resource Category	Cut-off (% HM)[3]	Material (Mt)*	Bulk Density	HM %	Slimes %[3]	Osize %	Insitu HM (Mt)*	Zircon[2] %	Rutile[2] %	HiTi [2] Leuc. %	Leuc.[2] %	Ilm.[2] %
Dampier	Thunderbird	Measured	3.0	75	2.1	7.5	19	11	6	9.1	-	2.7	2.4	30
	Thunderbird	Indicated	3.0	1,805	2.1	6.8	17	9	122	8.3	-	2.7	2.9	28
	Thunderbird	Inferred	3.0	740	2.0	5.7	15	9	42	8.5	-	2.9	3.5	29
	Total Dampier	**All**	**3.0**	**2,620**	**2.1**	**6.5**	**17**	**9**	**170**	**8.4**	**-**	**2.8**	**3.0**	**29**
Eneabba	Yandanooka	Measured	0.9	3	2.0	4.1	15	14	0.1	11	1.9	-	2.2	72
	Yandanooka	Indicated	0.9	90	2.0	2.3	16	15	2.1	11	3.9	-	3.9	69
	Yandanooka	Inferred	0.9	3	2.0	1.2	18	21	0.03	11	3.9	-	4.6	68
	Yandanooka	All	0.9	96	2.0	2.3	16	15	2.2	11	3.8		3.9	69
	Durack	Indicated	0.9	50	2.0	2.0	15	21	1.0	14	2.8		5.1	69
	Durack	Inferred	0.9	15	1.9	1.2	14	17	0.2	14	2.5		7.2	66
	Durack	All	0.9	65	2.0	1.8	15	20	1.2	14	2.8		5.6	68
	Drummond Crossing	Indicated	1.1	49	2.0	2.1	16	9	1.0	14	10		3.6	53
	Drummond Crossing	Inferred	1.1	3	2.0	1.5	16	8	0.05	13	10		2.8	55
	Drummond Crossing	All	1.1	52	2.0	2.1	16	9	1.1	14	10		3.5	53
	Ellengail	Inferred	0.9	46.	2.0	2.2	16	2	1.0	8.9	8.7		1.9	64
	Ellengail	All	0.9	46	2.0	2.2	16	2	1.0	8.9	8.7		1.9	64
	West Mine North	Measured	0.9	6	2.0	5.6	15	1	0.4	4.9	9.1		12	55
	West Mine North	Indicated	0.9	36	1.9	2.3	13	3	0.8	8.4	10		5.4	60
	West Mine North	All	0.9	43	1.9	2.8	13	3	1.2	7.9	10		6.4	59
	Total Eneabba	Measured	var.	9	2.0	5.2	15	5	0.5	6.7	6.8		8.7	60
	Total Eneabba	Indicated	var.	225	2.0	2.2	15	13	5.0	12	6.0		4.4	64
	Total Eneabba	Inferred	var.	68	2.0	1.9	15	6	1.3	10	7.2		3.2	64
	Total Eneabba	**All**	**var.**	**302**	**2.0**	**2.2**	**15**	**11**	**6.8**	**12**	**6.3**		**4.2**	**64**
McCalls	McCalls	Inferred	0.9	4,431	2.3	1.2	27	1.4	53	6.6	2.0		4.9	81
	Total McCalls	**All**	**0.9**	**4,431**	**2.3**	**1.2**	**27**	**1.4**	**53**	**6.6**	**2.0**		**4.9**	**81**

** All tonnages and grades have been rounded to reflect the relative uncertainty of the estimate and maintain consistency throughout the table, thus sum of columns may not equal.*

[1] See the compliance statements in this report for important information relating to the reporting of these Mineral Resources. [2] The Mineral Assemblage is represented as the percentage of the Heavy Mineral (HM) component of the deposit, determined by QEMSCAN for Eneabba & McCalls, with TiO_2 minerals defined according to the following ranges: Rutile >95% TiO_2; Leucoxene 85-95% TiO_2; Ilmenite <55-85% TiO_2; for Dampier the mineral assemblage was determined by screening and magnetic separation. Magnetic fractions were analysed by QEMSCAN for mineral determination as follows: Ilmenite: 40-70% TiO_2 >90% Liberation; Leucoxene: 70-94% TiO_2 >90% Liberation; High Titanium Leucoxene (HiTi Leucoxene): >94% TiO_2 >90% Liberation; and Zircon: 66.7% ZrO_2+HfO_2 >90% Liberation. Non-magnetic fractions were submitted for XRF analysis and minerals determined as follows: Zircon: ZrO_2+HfO_2/0.667 and High Titanium Leucoxene (HiTi Leucoxene): TiO_2/0.94. [3] West Mine North, Drummond Crossing, Durack and McCalls deposits are reported below 35% slimes cut-off.

Appendix 2: JORC (2012) Table 1 Report, Oxley Potash Metallurgical Results 30 July 2014.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Metallurgical samples composited from 5.5in RC bulk drill spoil and half-HQ drill core as follows: RC Drill holes OXRC001 (61 – 81m) - Fresh OXRC002 (58 – 78m) - Fresh OXRC015 (37 – 41m) - Weathered Diamond drill holes OXDD002 (19 – 26m) – Weathered OXDD002 (26 – 36m) – Semi-Weathered OXDD003b (71 – 83m) – Fresh • Refer to ASX announcement dated 19 July, 2013 and Sheffield's September 2013 Quarterly Report dated 31 October, 2013 for drillhole details.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• 5.5in RC drill spoil and half-HQ drill core.
Drill sample recovery	• *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.*	• Sample quality (including wet vs. dry and qualitative recovery) is logged at the drill site. • Duplicate samples are collected at the drill site (see below) to enable analysis of data precision. • Diamond drilling practices designed maximise sample recovery. • Recoveries and RQD's are measured during logging of the drill core.
Logging	• *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 quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• For RC drilling all samples are geologically logged to a minimum 1m downhole spacing using a coded system. • All diamond intervals are logged using a coded system and graphic logging system. • Geological logs are qualitative, end-of-hole samples are retained for additional (e.g. petrological) analysis. • Logging is suitable such that interpretations of grade and deposit geology can be used, for example, to establish context of exploration results.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	<u>Sample preparation: Core</u> • Representative core samples were selected for comminution testwork. The nominated metres of core were combined to form the three comminution composites. Each was crushed to -25 mm via a large laboratory jaw crusher. The crushed core was homogenised and split into test portions by a rotary sample divider. ▪ 15 kg for SMC Testing ▪ 10 kg for Bond BWi Testing ▪ 5 kg for Bond Ai Testing. <u>Sample preparation: RC</u> • Two RC composites prepared: 1) Fresh Composite (RC Master Composite) combined from OXRC001, 60-81m and OXRC002, 58-78m. 2) Weathered Composite (RC Weathered Composite) combined from OXRC015, 37-41m • Procedure for both as follows: 1) Combine all the nominated intervals together, i.e. approximately 30 kg. 2) Homogenise the composite and split out approximately 24 kg of material, and crush to -3 mm. The crushed material was split into 24 x 1 kg test portions. 3) The uncrushed material was retained for some head sizing tests. 4) Two test RC composites for metallurgical testing were prepared. Splits of the two composites were assayed in detail. <u>Comminution testwork comprised:</u> • Bond abrasion index determination - Splits of the three core samples were subjected to a Bond Ai determinations • Bond ball mill work index determination - Splits of the three core samples were subjected to Bond BWi determinations • SAG mill comminution testwork - Splits of the three core samples were subjected to SMC tests • Splits of the test residues from the comminution tests were assayed in detail <u>Gravity and magnetic (LIMS and WHIMS) processes</u> 1) Davis tube recovery testwork The two test RC composites were subjected to Davis tube separation at a nominal size of 75µm. 2) Grind establishment 3) LIMS The two RC test composites were subjected to LIMS test over a number of grind sizes. P80 250 .m, 900 gauss field P80 106 .m, 900 gauss field P80 75 .m, 900 gauss field P80 38 .m, 900 gauss field 4) WHIMS

Criteria	JORC Code explanation	Commentary
		The LIMS Non Magnetics were subjected to a number of WHIMS tests over a range of field strengths (and grind sizes ex LIMS tests) P80 250 .m, 900 gauss field P80 106 .m, 900 gauss field P80 75 .m, 900 gauss field P80 38 .m, 900 gauss field P80 250 .m, 2000 gauss field P80 106 .m, 2000 gauss field P80 75 .m, 2000 gauss field P80 38 .m, 2000 gauss field P80 250 .m, 5000 gauss field P80 106 .m, 5000 gauss field P80 75 .m, 5000 gauss field P80 38 .m, 5000 gauss field P80 250 .m, 10000 gauss field P80 106 .m, 10000 gauss field P80 75 .m, 10000 gauss field P80 38 .m, 10000 gauss field 5) Heavy liquid separation The LIMS Non-Magnetics were subjected to a HLS separation. Each composite was milled and then a coarse fraction screened out for HLS at 3.30, 3.00, 2.70 and 2.60 6) Mineralogy Products from HLS and WHIMS tests were subjected to XRD and optical mineralogy <u>Product chemistry</u> • Entire sample dry crushed ~10mm, and pulverised to nominal 85% passing 75µm. • Sub-sample split for analysis, weight determined by laboratory appropriate for element and analysis method. • Laboratory check assays completed as determined by laboratory appropriate for element and analysis method. <u>All</u> • Spacing of standard, blank and repeat samples are designed to identify sample misplacement or misallocation during sample collection and laboratory analysis. • Sample data precision has been determined as acceptable through analysis of results from field duplicates and laboratory repeats. • Techniques are considered appropriate for use in public reporting of exploration results.
Quality of assay data and laboratory tests	• *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)*	• Chemical analysis by XRF and LOI by Thermo gravimetric analysis. • Internal (laboratory) reference standard and blank material used. • 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

Criteria	JORC Code explanation	Commentary
	and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	results.
Verification of sampling and assaying	• *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.*	• Results are reviewed by senior Company personnel prior to reporting. • Documentation related to data custody and validation are maintained on the Company's' server. • No assay data have been adjusted.
Location of data points	• *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.*	• Refer to ASX announcement dated 19 July, 2013 and Sheffield's September 2013 Quarterly Report dated 31 October, 2013 for drillhole details. • Drill holes were located using a GPS system with expected accuracy of +/- 4m horizontal and +/- 10m vertical. • Height (RL) determined from projection to a DTM derived from SRTM data. • Coordinates are referenced to the Map Grid of Australia (MGA) zone 51 on the Geographic Datum of Australia (GDA94). • Vertical datum geoid model is AUSGEOID98 (Australia). • Location techniques considered suitable for public reporting of exploration results from regional-scale aircore drilling.
Data spacing and distribution	• *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.* • *Whether sample compositing has been applied.*	• The sample spacing is appropriate for reporting of Exploration Results. • A small number of composite samples have been used for metallurgical testwork. • Testwork has been completed on both weathered and fresh rock units which represent the two dominant geological domains present. • It is considered, given observations from surrounding drillholes, that the results are likely to be applicable throughout the deposit, however further work would be required in order to establish representivity such that the data could be used to inform, for example, an Ore Reserve.
Orientation of data in relation to geological structure	• *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.*	• Downhole widths quoted in the body of the announcement can be considered an approximation only of true width at this stage. • Given the purpose and context in which the exploration results are reported any difference between true and downhole width is not considered material.
Sample security	• *The measures taken to ensure sample security.*	• Sample security is not considered a significant risk given the location of the prospect. • Nevertheless, the use of recognised transport providers, sample dispatch procedures directly from the field to the laboratory, and interval QAQC procedures are considered sufficient to ensure appropriate sample security and identify whether this security has been compromised, or not.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No formal external audits or review of sample techniques or data have been conducted. • Audits are not considered necessary at this stage of the Project's development. 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	• 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.	• Data reported is from Exploration Licence E70/4318 which was granted on 14/05/2012 and is due to expire on 13/05/2017. 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 24 months to date.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The area was explored by Marymia Exploration Pty Ltd (1993 -1994) for talc mineralisation. • No previous exploration has been undertaken for potash in this region.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Oxley potash project is located near Morawa in Western Australia's Mid-west region. Oxley has an unconventional, hard rock style of potash mineralisation, hosted by a series of ultrapotassic microsyenite lavas, which typically contain over 90% sanidine (potash) feldspar.
Drill hole Information	• 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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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.	• Refer to ASX announcement dated 19 July, 2013 and Sheffield's September 2013 Quarterly Report dated 31 October, 2013 for drillhole details.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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	• Results refer to composited samples, see above for details.

Criteria	Statement	Commentary
	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.	
Relationship between mineralisation widths and intercept lengths	• 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 (eg 'down hole length, true width not known').	• Downhole widths quoted in the body of the announcement can be considered an approximation only of true width at this stage. • Given the purpose and context in which the exploration results are reported any difference between true and downhole width is not considered material.
Diagrams	• 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.	• Included in the body of announcement.
Balanced reporting	• Where comprehensive reporting of all 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.	• All new exploration results relating to the announcement are reported. • In the case of previously-announced results, the initial announcement is referenced. • Terms like "best", "strongest" or "significant" are used to highlight those results considered most important in the context of the announcement.
Other substantive exploration data	• 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.	• No data, other than that referred to or reported here, is considered relevant to the reporting of these exploration results.
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Included in the body of announcement.

Appendix 3: JORC (2012) Table 1 Report, Fowlers Talc Metallurgy 30 July 2014.

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• The metallurgical samples were PQ3 half core taken from diamond drill hole MODD008 • Three composite samples were selected, each representing geological zones with hypothesised differing processing characteristics, as follows: o Zone 1composite from 3.00 to 44.76m o Zone 2 composite from 44.76 to 61.00m o Zone 3 composite from 61.00 to 71.00m. • Refer to the Company's ASX announcement titled "*Assay results confirm high quality talc intersections*" dated 4 October, 2011 for drillhole details.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• The metallurgical samples were derived from diamond drill hole MODD008 (PQ3 half core)
Drill sample recovery	• *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.*	• Sample quality (including wet vs. dry and qualitative recovery) is logged at the drill site. • Diamond drilling triple tube system maximises sample recovery as opposed to open hole/RAB technique. • Recoveries and RQD's are measured during logging of the drill core
Logging	• *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 quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All samples and geological intervals are logged using a coded system and graphic logging system. • Geological logs are qualitative, half core samples are retained for additional (e.g. petrological) analysis. • Logging is suitable such that interpretations of grade and deposit geology can be used, for example, to establish context of exploration results.
Sub-sampling techniques	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	<u>Laboratory</u> • Core samples from each of the Zone

Criteria	JORC Code explanation	Commentary
and sample preparation	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Composites were jaw crushed at a CSS of 65 mm. The crushed samples were screened at 65 mm, with oversize materials being re-fed to the crusher in order to product crushed sample at 100% passing 65 mm. The crushed composites were then dry screened and the size fractions assayed. • Sub-sample split for analysis, weight determined by laboratory appropriate for element and analysis method. • Separate samples of the +16 mm (Lump) and -16 mm (Fines) fractions were collected and subjected to washing tests, followed by screening and assay work. • Laboratory check assays completed as determined by laboratory appropriate for element and analysis method. <u>All</u> • Spacing of standard, blank and repeat samples are designed to identify sample misplacement or misallocation during sample collection and laboratory analysis. • Sample data precision has been determined as acceptable through analysis of results from field duplicates and laboratory repeats. • Techniques are considered appropriate for use in public reporting of exploration results.
Quality of assay data and laboratory tests	• *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.*	• Chemical analysis by XRF and LOI by Thermo gravimetric analysis. Sample prep with ceramic or nonferrous tungsten carbide bowl ensures no iron contamination from preparation equipment • 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. • QAQC sample frequency is described above. One reference standard is used from a certified provider. Quartz aggregate used as a blank material. • 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. • Brightness tests were carried out at the Ian Wark Institute in Adelaide, SA, on selected size fractions samples from the screening and washing test work. The 457 nm brightness and colour measurements of the supplied talc samples were performed by employing procedures matching as closely as possible to those laid out in the TAPPI test method T 534 om-03, which is for the measurement of 'Brightness of clay and other mineral pigments' that have been pulverised under controlled conditions and made into uniformly compacted pigment plaques. This method is for use with minerals normally used in the manufacture of paper and is not intended for highly coloured pigments. • Water solubility (Deionised water) and acid solubility (5% HNO_3 solution) test work,

Criteria	JORC Code explanation	Commentary
		together with % moisture determination tests were carried out on each of the 3 Zone composites that had been crushed to a P80 of 45µm. • Each of the Zone Composites was submitted for mineralogical characterization by both Scanning Electron Microscopy (SEM) and QEMSCAN and also for asbestiform mineral detection. These tests were carried out at BV Minerals Mineralogy Laboratory in Adelaide. • The three Zone Composites were studied with Scanning Electron Microscope. • An oil adsorption test was carried out on each composite, following the Spatula Rub-out method outlined in ASTM D 281 -95. The test work was carried out at Microanalysis Australia. In the test, oil was added drop wise to a known mass of sample with mixing by a spatula to ensure thorough incorporation of the oil. This process was repeated until a stiff, putty like paste was formed. The mass of oil required to achieve this was determined and each test was conducted in duplicate and the mean reported. • The hardness of each of the composites were determined using the Mohs scale of Hardness. The Mohs scale of mineral hardness characterizes the scratch resistance of an ore through the ability of a harder material to scratch a softer material.
Verification of sampling and assaying	• *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.*	• Results are reviewed by senior Company personnel prior to reporting. • 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	• *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.*	• Drill hole collar locations are surveyed by licenced surveyors using a RTK GPS system with expected accuracy of +/- 0.02m horizontal and +/- 0.03m vertical. • Coordinates are referenced to the Map Grid of Australia (MGA) zone 50 on the Geographic Datum of Australia (GDA94). • Vertical datum geoid model is AUSGEOID98 (Australia). • Location techniques considered suitable for public reporting of exploration results.
Data spacing and distribution	• *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.* • *Whether sample compositing has been applied.*	• The sample spacing is appropriate for reporting of Exploration Results. • Three distinct geological zones from a single drillhole have been used for metallurgical testwork. • It is considered, given observations from surrounding drillholes, that the results are likely to be applicable throughout the deposit, however further work would be required in order to establish representivity such that the data could be used to inform, for example, an Ore Reserve.
Orientation	• *Whether the orientation of sampling*	• Downhole widths quoted in the body of the

Criteria	JORC Code explanation	Commentary
of data in relation to geological structure	*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.*	announcement can be considered an approximation only of true width at this stage. • Given the purpose and context in which the exploration results are reported any difference between true and downhole width is not considered material.
Sample security	• *The measures taken to ensure sample security.*	• Sample security is not considered a significant risk given the location of the prospect. • Nevertheless, the use of recognised transport providers, sample dispatch procedures directly from the field to the laboratory, and interval QAQC procedures are considered sufficient to ensure appropriate sample security and identify whether this security has been compromised, or not.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No formal external audits or review of sample techniques or data have been conducted. • Audits are not considered necessary at this stage of the Project's development. 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	• 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.	• Data reported is from Exploration Licence E70/3776 which was granted on 28/02/2011and is due to expire on 27/02/2016. The tenement is held 100% by Moora Talc Pty Ltd, a wholly owned subsidiary of 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 24 months to date.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Fowlers Talc project area was explored by Western Mining Corporation (1959-1995) and Unimin Australia Limited (1998 and 2001).
Geology	• Deposit type, geological setting and style of mineralisation.	• The Fowlers Talc project overlies a Middle Proterozoic sedimentary basin developed on the western margin of the Yilgarn Craton. The Moora Basin is a shallow on-lap basin of clastic sediments and dolomite, deposited on dominantly granitoid basement. The shallowly west dipping sediments of the Moora Group are bound to the west by the Darling Fault, beyond which is the much thicker clastic dominated Perth Basin. • Fowlers is a large, dolomite-hosted crystalline talc deposit with an elongate pipe geometry. The talc is variably weathered throughout the deposit, and is unusual in its exceptionally low CaO levels, and elevated iron levels primarily from fracture surface oxide coatings

Criteria	Statement	Commentary
		(refer to ASX announcement dated 4 October, 2011 for further details).
Drill hole Information	• 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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o 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.	• The metallurgical samples were collected from hole MODD008; refer to the Company's ASX announcement titled "*Assay results confirm high quality talc intersections*" dated 4 October, 2011 for drillhole details.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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.	• Results refer to composited samples, see above for details.
Relationship between mineralisation widths and intercept lengths	• 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 (eg 'down hole length, true width not known').	• Downhole widths quoted in the body of the announcement can be considered an approximation only of true width at this stage. • Given the purpose and context in which the exploration results are reported any difference between true and downhole width is not considered material.
Diagrams	• 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.	• Included in the body of announcement.
Balanced reporting	• Where comprehensive reporting of all 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.	• All new exploration results relating to the announcement are reported. • In the case of previously-announced results, the initial announcement is referenced. • Terms like "best", "strongest" or "significant" are used to highlight those results considered most important in the context of the announcement.
Other	• Other exploration data, if meaningful and	• No data, other than that reported here, is

Criteria	Statement	Commentary
substantive exploration data	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.	considered relevant to the reporting of these exploration results.
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Included in the body of announcement.