ASX and Media Release

23 June, 2015

COMPELLING NEW DRILL TARGET IDENTIFIED FROM GROUND EM SURVEY AT RED BULL NICKEL PROJECT

KEY POINTS

- **Coincident bedrock conductor and nickel geochemical target identified at Stud prospect:**
  - **Modelled bedrock conductor of 500m x 500m, depth to top 150-200m**
  - **Significant nickel anomalism in shallow aircore drill holes coincident with up-dip projection of conductor: e.g. 12m @ 0.32% Ni from 37m (REAC272)**
  - **1km trend of IP anomalism (possible disseminated sulphide source) extends south from conductor and coincides with >0.1% Ni anomalism in aircore drill holes, e.g. 5m @ 0.73% Ni from 33m in hole REAC240**
  - **Traces of nickel and copper sulphides in end-of-hole aircore samples**
- **Scout aircore drilling results enhance prospectivity of Big Bullocks project in Northern Fraser Range**

Sheffield Resources Limited ("Sheffield" "the Company") (ASX:SFX) today announced the identification of a new, high-priority Ni-Cu drill target following completion of high-powered, moving loop EM surveys at its 100% owned Red Bull Nickel Project, located in the Fraser Range region of Western Australia (Figure 3).

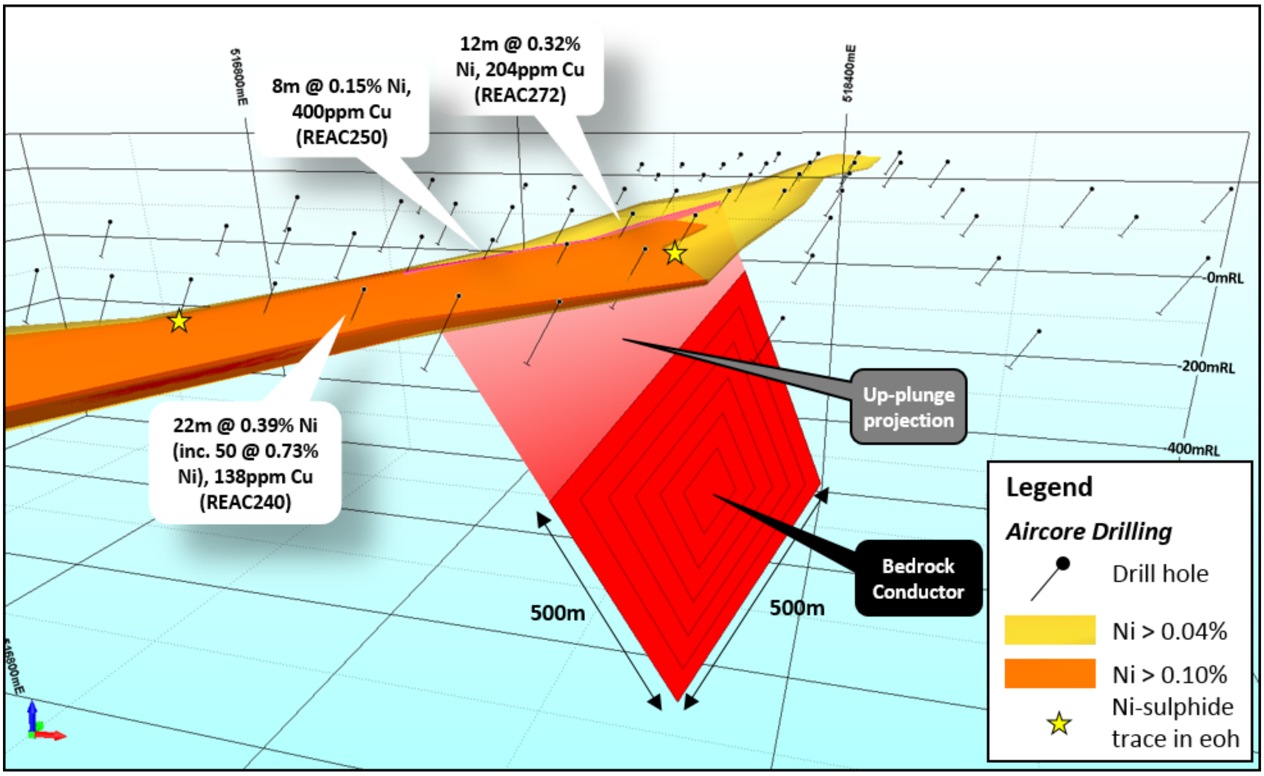

Figure 1: Stud prospect showing modelled bedrock conductor beneath extensive nickel geochemical anomalism in shallow aircore drill holes

Red Bull MLTEM

The recently completed systematic high-powered MLTEM survey covered the Northern Targets region at Red Bull, where previous aircore drilling and soil sampling outlined several areas of Ni-Cu-Co anomalism along an 8km strike length of a folded and faulted mafic/ultramafic complex (see ASX release dated 18 February 2015).

The most significant result from the survey is the discovery of a new bedrock conductor of moderate intensity located beneath significant Ni-Cu anomalism in shallow aircore drill holes at the Stud prospect. Stud was originally defined from two phases of exploration aircore drilling undertaken by Sheffield in the second half of 2013, outlining a coherent anomaly of >0.2% maximum Ni-in-hole over a strike length of 1.8km.

Southern Geoscience Consultants (SGC) have modelled the source of the conductive anomaly as large (~500m x 500m), striking NNE-SSW, with a vertical to 85 degree plunge to the ESE and a depth to top of ~150-200m (Figure 1).

Significant results from aircore drilling in the area immediately up-plunge from the modelled bedrock conductor include:

- **22m @ 0.39% Ni**, 138ppm Cu, 272ppm Co, 7ppb Pt, from 32m (REAC240)
  *including **5m @ 0.73% Ni**, 168ppm Cu, 466ppm Co from 33m*
- **12m @ 0.32% Ni**, 204ppm Cu, 337ppm Co, 8ppb Pt from 37m (REAC272)
- **8m @ 0.15% Ni**, 400ppm Cu, 261ppm Co, 14.5ppb Pd, 14.5ppb Pt from 22m (REAC250)
- **12m @ 0.15% Ni,** 152ppm Cu, 145ppm Co from 30m, 14.3ppb Pd (REAC239)
  *including **4m @ 0.22% Ni**, 192ppm Cu, 227ppm Co from 38m*

(see ASX releases dated 12 September 2013 and 27 November 2013 for details)

In addition to the anomalous geochemical results, trace amounts of the nickel-sulphide mineral violarite ($FeNi_2S_4$) were observed in end-of-hole samples from two drill holes at Stud (Figure 1) (REAC273 and REAC238 - see ASX release dated 27 November 2013).

Further, a previous MLTEM survey identified three localised zones of induced polarisation (IP) anomalism, immediately south along strike from the new bedrock conductor (Figure 2) (see ASX release dated 7 July, 2014). The IP anomalism may be related to the presence of disseminated sulphide in the bedrock. Its location along strike from the bedrock conductor may represent a transition from a disseminated to semi-massive sulphide source.

Sheffield's Managing Director Bruce McQuitty said the Stud prospect was shaping up as a compelling drill target due to the combination of bedrock conductor, strong nickel anomalism near surface and observed trace amounts of nickel sulphide.

"Our Fraser Range tenements continue to demonstrate high prospectivity and potential, and to deliver shareholder value we will continue to assess whether self-funded exploration and /or joint venture or divestment across parts of our Fraser Range package is best.

"Sheffield's current focus is on delivering an updated PFS on the Thunderbird mineral sands project that will pave the way for commencement of a definitive feasibility study."

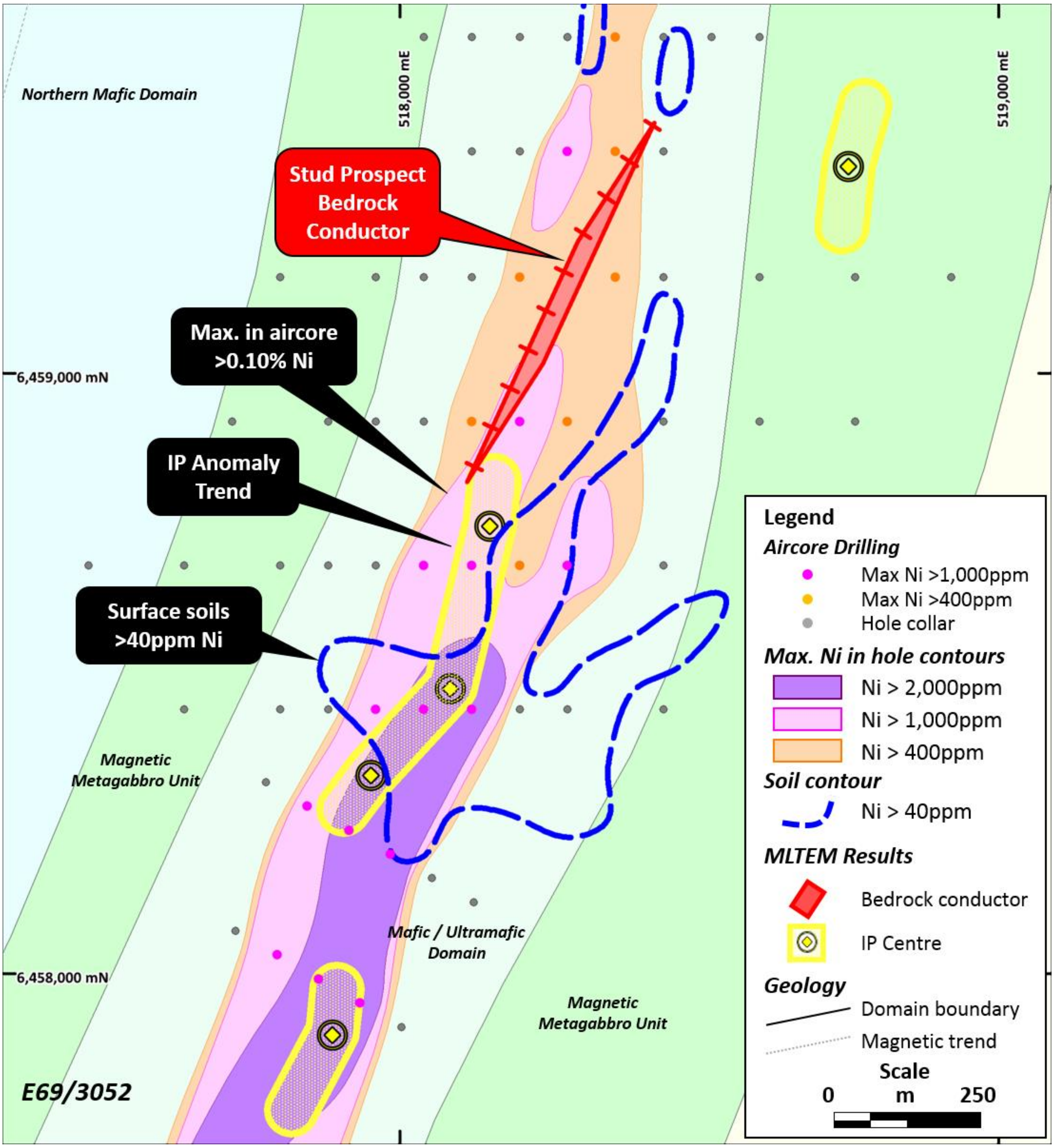

Figure 2: Plan of the Stud prospect showing nickel anomalism in aircore drilling and soils along strike from the new bedrock conductor

The MLTEM survey identified a number of other IP anomalies worthy of further evaluation, along with a subtle conductor trend in the central-north of the area surveyed. This conductor, although of weak intensity is located in a structurally complex region of folded and faulted interlayered mafic intrusive and sedimentary rocks. These second order targets would initially require follow-up testing with aircore drilling.

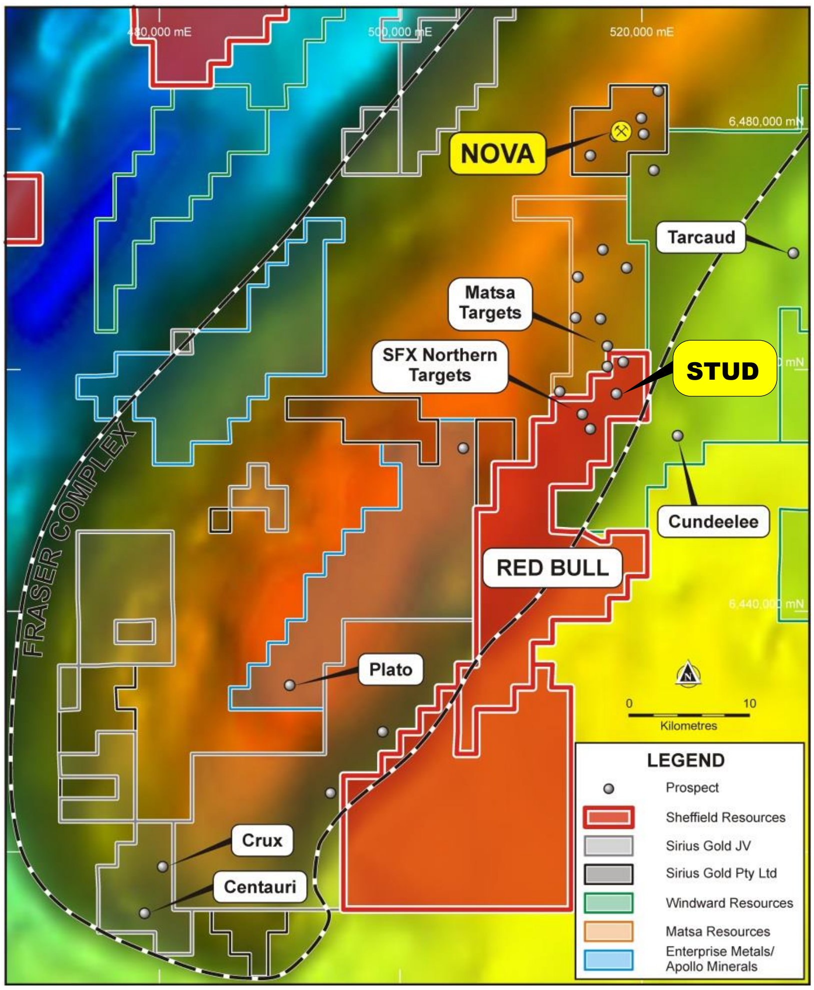

Figure 3: Location of Red Bull project in southern Fraser Range over gravity image

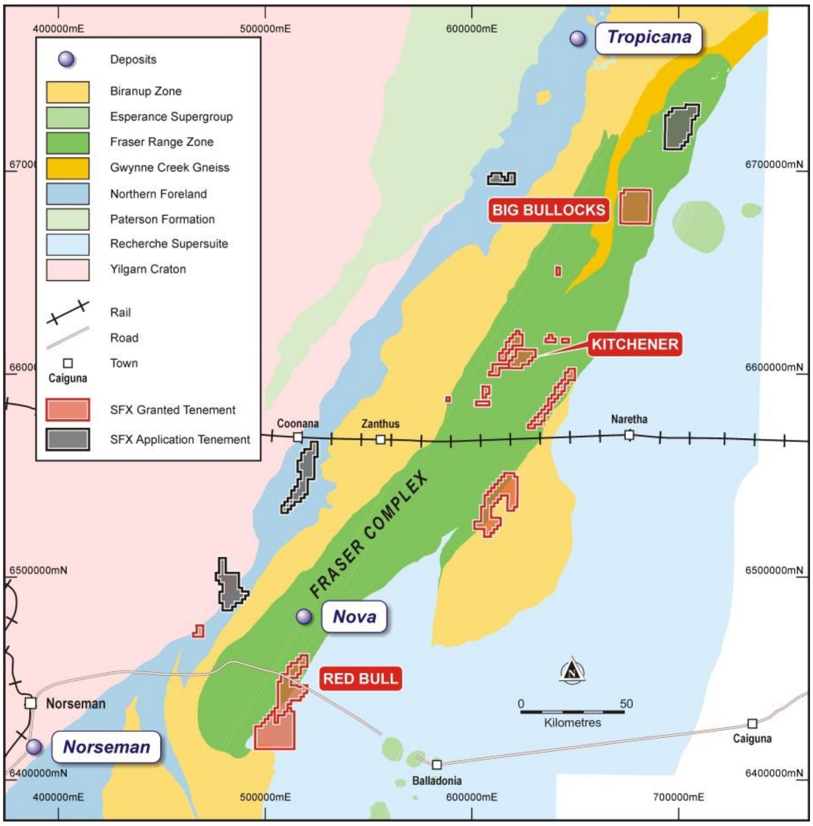

Figure 4: Sheffield's tenement holding in Fraser Range

Big Bullocks Aircore Drilling Program

Results have also been received from aircore drilling at Sheffield's Big Bullocks tenement E39/1733, located 85km south of the Tropicana gold mine in the northern Fraser Range (Figure 4). The program comprised 110 broadly-spaced aircore holes drilled to bedrock for a total 3,432m, providing a first pass test of the subsurface geology (Figure 5).

Significantly, mafic/ultramafic intrusive complexes were identified, confirming the presence of rock types suitable for formation of magmatic Ni-sulphide deposits.

In addition, two felsic intrusive units with sulphidic and potassic alteration and anomalous copper values were identified (BBAC027 and BBAC 049). Anomalous drill results are shown in Figure 5 and are discussed below.

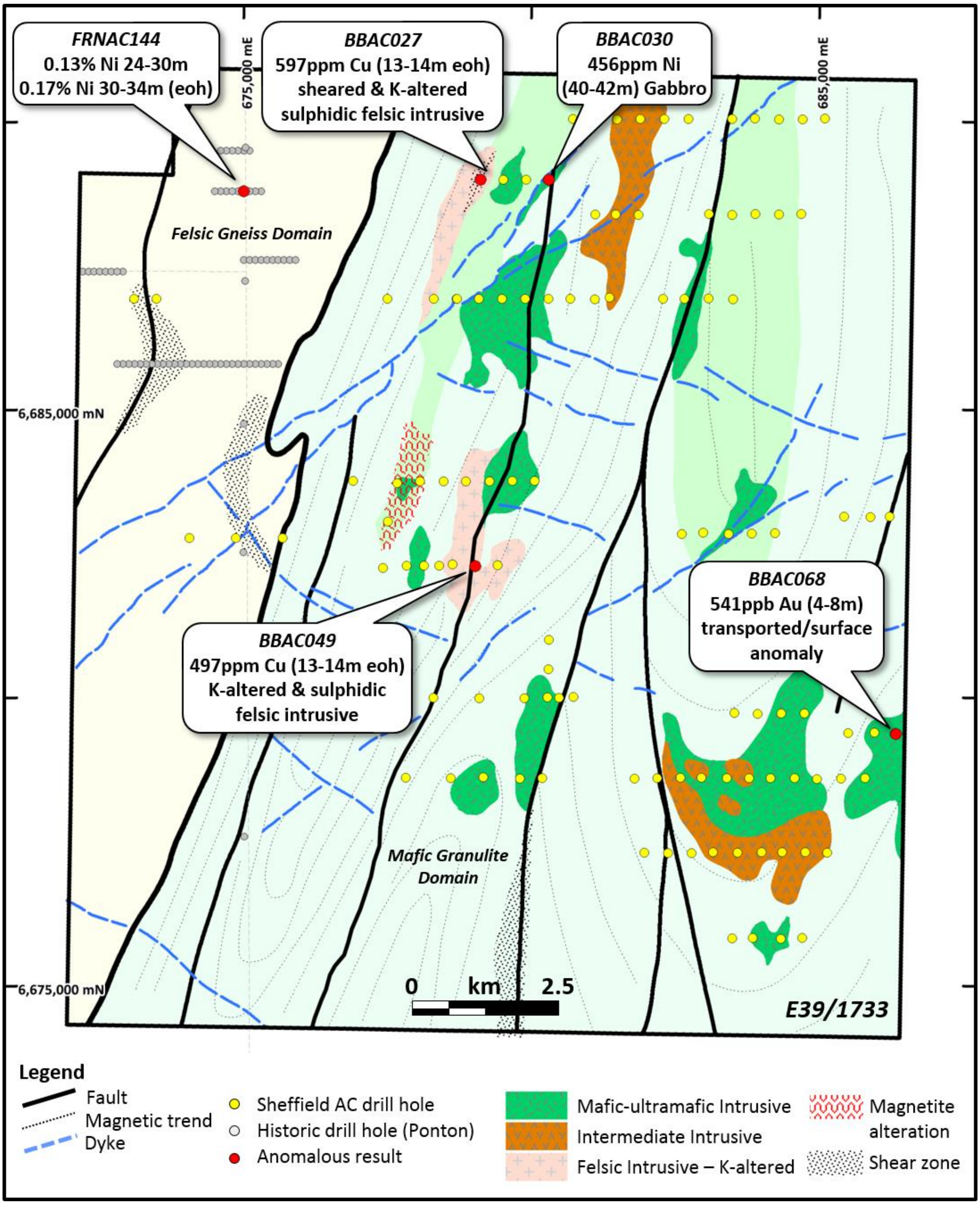

Figure 5: Big Bullocks geological interpretation and drill hole locations showing anomalous results

BBAC030 returned highest nickel values of **456ppm Ni** (40-42m), and **336ppm Ni** (42-43m, eoh) in a gabbro adjacent to an interpreted fault.

BBAC027 returned **596.8ppm Cu** from 13-14m (eoh) in a sheared, quartz-rich felsic intrusive rock, with potassic alteration and ex-sulphide throughout. The association of anomalous copper with sulphides suggest the area may be a prospective copper-gold target.

BBAC049 returned **496.6ppm Cu** from 13-14m (eoh) in a coarse-grained felsic intrusive rock, with abundant interstitial networks of ex-sulphide and moderate potassic alteration. This area is similarly considered a prospective copper-gold target.

BBAC068 returned **541ppb Au** and **11ppm As** from a single 4m composite (4-8m) within transported silcrete immediately above the interface with weathered bedrock (upper saprolite). Although there were no other anomalous gold values from this or adjacent drill holes, the value is considered significant enough to warrant follow-up work.

Sheffield also sampled and assayed several spoil piles from historic holes drilled by Ponton Minerals in the northwest corner of the Big Bullocks project (Figure 5). An anomalous end-of-hole nickel result reported by Ponton from drill FRNAC144 (from 36-39m) was confirmed by Sheffield's sampling, returning values of **0.13% Ni** (24-30m) and **0.17% Ni** (30-34m) in a sheared anorthosite. This area is also considered worthy of follow-up work to investigate the extent of the anomalous nickel value.

Follow-up drilling to investigate the anomalies and targets identified from this very broadly-spaced first-pass drilling program will be prioritised along with other work in the Fraser Range.

ENDS

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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 which were prepared and first disclosed under the JORC Code 2012. The information was extracted from the Company's previous ASX announcements as follows:

- "LARGE Ni-Cu-Co ANOMALIES IDENTIFIED IN THE FRASER RANGE", 11 February, 2014
- "LARGE BEDROCK CONDUCTOR IDENTIFIED AT RED BULL Ni-Cu PROJECT, FRASER RANGE", 7 July, 2014
- "GROUND EM SURVEYS COMMENCE AT RED BULL NICKEL PROJECT", 18 February, 2015

This report also includes information that relates to Exploration Results 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:

- "THREE NEW NICKEL TARGETS FROM AIRCORE DRILLING AT RED BULL", 12 September, 2013
- "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 STATEMENTS

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

ABOUT SHEFFIELD RESOURCES

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

ASX Code:	SFX	Market Cap @ 49cps	$65.9m
Issued shares:	134.4m	Cash: $5.5m	

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 2,000km^2 of tenure in the Fraser Range region, including the Red Bull project which is within 20km of Sirius Resources NL's (ASX:SIR) Nova Ni-Cu deposit.

Table 1: Big Bullocks (E39/1733) aircore drill hole information and assay summary.

Hole ID	Easting	Northing	Hole Depth (m)	Dip	Azi.	Maximum in hole (ppm)			End of hole (ppm)		
						Ni	Cu	Co	Ni	Cu	Co
BBAC001	673,110	6,686,930	40	-60	270	94	74.5	74	62.6	74.5	47
BBAC002	673,496	6,686,930	32	-60	270	56	29	29	21	5.9	14.2
BBAC003	677,510	6,686,930	36	-60	270	270	112	78	43.3	39.7	32
BBAC004	678,310	6,686,930	24	-60	270	12	13	3	9.4	5.7	2.5
BBAC005	678,710	6,686,930	26	-60	270	79.3	52	55.5	79.3	44.1	55.5
BBAC006	679,110	6,686,930	47	-60	270	119	59	58	49.8	33.9	43.6
BBAC007	679,510	6,686,930	42	-60	270	39	23	38	17.4	18.3	16.9
BBAC008	679,910	6,686,930	49	-60	270	312	78.7	76	215.6	78.7	52.9
BBAC009	680,310	6,686,930	44	-60	270	128	35	55	14.7	4.1	20.3
BBAC010	680,710	6,686,930	71	-60	270	85	41	59	18.7	26.8	34.9
BBAC011	681,384	6,686,950	58	-60	270	47	25	28	22	15.3	12.3
BBAC012	682,310	6,686,930	48	-60	270	147	55	71	80	47.4	54.5
BBAC013	682,680	6,686,930	56	-60	270	115	38	63	12	5.9	8.2
BBAC014	683,090	6,686,935	35	-60	270	94	51	70	67.5	30.8	40.5
BBAC015	683,508	6,686,920	21	-60	270	53	25	19	25	22.9	15.5
BBAC016	680,732	6,690,049	27	-60	270	93	33	90.8	82.4	33	90.8
BBAC017	681,120	6,690,064	51	-60	270	189	100	64	89.4	35.2	47.1
BBAC018	681,511	6,690,046	56	-60	270	135	83	56	133.7	40.1	41.4
BBAC019	681,907	6,690,049	31	-60	270	29	14	32.1	17.6	9.9	32.1
BBAC020	682,321	6,690,053	24	-60	270	45	47	54.5	45	47	54.5
BBAC021	682,746	6,690,055	42	-60	270	93	57.3	56.4	71.2	57.3	56.4
BBAC022	683,515	6,690,052	65	-60	270	108	40	58	30.2	32.5	39.5
BBAC023	683,906	6,690,059	53	-60	270	103	64	73	69.9	44.9	41
BBAC024	684,311	6,690,045	21	-60	270	65.4	55	40.5	65.4	39.3	40.5
BBAC025	684,717	6,690,041	17	-60	270	42.6	41	53	42.6	28.6	43.8
BBAC026	685,103	6,690,063	10	-60	270	68	38	39	66.9	38	37.9
BBAC027	**679,115**	**6,688,995**	**14**	**-60**	**270**	**34**	**596.8**	**14**	**34**	**596.8**	**4.8**
BBAC028	679,521	6,688,999	31	-60	270	276	57	116	235.8	35.7	52.3
BBAC029	679,921	6,688,997	41	-60	270	75	82	55	61.2	34.9	46.5
BBAC030	**680,298**	**6,688,995**	**43**	**-60**	**270**	**456**	**91.8**	**62**	**336.1**	**91.8**	**60.2**
BBAC031	681,126	6,688,394	48	-60	270	74	29	32.9	28.8	29	32.9
BBAC032	681,498	6,688,393	73	-60	270	123	37	53	12.1	9.7	6.8
BBAC033	681,885	6,688,390	55	-60	270	110	63	47	73.9	41.6	34.8
BBAC034	683,116	6,688,402	65	-60	270	87	40	32	41.8	31.1	26.5
BBAC035	683,918	6,688,400	63	-60	270	169	88	82	78.6	47.7	47.9
BBAC036	684,708	6,688,402	51	-60	270	107	51	55	35.8	30.8	23.4
BBAC037	677,675	6,683,732	17	-60	270	119	54	39.1	113.7	46.8	39.1
BBAC038	678,077	6,683,757	27	-60	270	26	324.3	13	22.9	324.3	7.6
BBAC039	678,487	6,683,760	35	-60	270	28	22.3	36	28	22.3	21.4
BBAC040	678,872	6,683,759	22	-60	270	24	17	5	2.6	1.5	2
BBAC041	679,286	6,683,763	32	-60	270	89	41	53	72.3	23.9	43.8
BBAC042	679,679	6,683,767	37	-60	270	274	175	85	167.8	38.1	48.1
BBAC043	680,065	6,683,768	32	-60	270	231	131	102	225.6	119.3	89.7

Hole ID	Easting	Northing	Hole Depth (m)	Dip	Azi.	Maximum in hole (ppm)			End of hole (ppm)		
						Ni	Cu	Co	Ni	Cu	Co
BBAC044	677,508	6,683,067	18	-60	270	34	33	47	27.1	25.5	43.9
BBAC045	677,833	6,682,298	6	-60	270	34.1	27	40	34.1	20.6	36.3
BBAC046	678,132	6,682,294	11	-60	270	85	40	42	76.2	28.1	37.9
BBAC047	678,396	6,682,297	4	-60	270	16	10	5.7	7	7.3	5.7
BBAC048	678,632	6,682,321	17	-60	270	26.1	13	12.7	26.1	8.5	12.7
BBAC049	**679,024**	**6,682,291**	**14**	**-60**	**270**	**53.9**	**496.6**	**12**	**53.9**	**496.6**	**12**
BBAC050	679,409	6,682,306	7	-60	270	12	8	10.1	9.1	2.2	10.1
BBAC051	681,796	6,678,597	13	-60	270	60	40	41	51.5	25.8	39.5
BBAC052	682,192	6,678,605	20	-60	270	77	77	44	71.5	37.1	41.3
BBAC053	682,598	6,678,613	18	-60	270	28	17	6	5.6	2.6	4.7
BBAC054	682,960	6,678,612	26	-60	270	19	13	10	7.6	2.1	6.5
BBAC055	683,398	6,678,607	18	-60	270	57	35.6	44	39.4	35.6	26.9
BBAC056	683,793	6,678,605	32	-60	270	111	39	69	107.9	39	67.9
BBAC057	684,176	6,678,605	49	-60	270	138	54	105	10.1	23.9	42.6
BBAC058	684,583	6,678,605	30	-60	270	95	34	42	79.9	25	38
BBAC059	684,987	6,678,594	59	-60	270	138	46	45	53	25.9	21.7
BBAC060	685,388	6,678,600	23	-60	270	75	49	52.5	68.4	48.6	52.5
BBAC061	685,805	6,678,611	18	-60	270	126.6	73.1	43	126.6	73.1	40.3
BBAC062	683,525	6,679,737	12	-60	270	43.1	36	39.3	43.1	36	39.3
BBAC063	683,944	6,679,722	32	-60	270	121	62	46	121	62	45
BBAC064	684,347	6,679,730	16	-60	270	111.7	27	37.1	111.7	27	37.1
BBAC065	684,748	6,679,731	10	-60	270	128	73.5	48.6	105.4	73.5	48.6
BBAC066	685,509	6,679,387	17	-60	270	71	37	22	11.4	20.8	11.6
BBAC067	685,962	6,679,402	13	-60	270	144	62	46	103.5	39.6	41.7
BBAC068	**686,327**	**6,679,379**	**42**	**-60**	**270**	**342**	**140**	**74**	**260.4**	**78**	**48.6**
BBAC069	683,514	6,675,826	59	-60	270	196	67	65	172.6	47	57.8
BBAC070	683,855	6,675,836	31	-60	270	92	53.9	60	84.7	53.9	42.5
BBAC071	684,328	6,675,815	5	-60	270	13.1	14.7	13.1	13.1	14.7	13.1
BBAC072	684,702	6,675,836	7	-60	270	74.7	36.6	43.8	74.7	36.6	43.8
BBAC073	681,964	6,677,313	13	-60	270	33	30	31.5	32.7	27.3	31.5
BBAC074	682,376	6,677,303	22	-60	270	50.6	50	46	50.6	46.4	40
BBAC075	682,785	6,677,307	9	-60	270	43.9	34.7	26.7	43.9	34.7	26.7
BBAC076	683,155	6,677,323	7	-60	270	7	4	3	4.2	3.3	3
BBAC077	683,583	6,677,313	12	-60	270	12	15	4	4.4	6.6	3.4
BBAC078	684,018	6,677,318	42	-60	270	27.5	20	15.5	27.5	5.2	15.5
BBAC079	684,374	6,677,323	38	-60	270	43	15	41	4.8	2.9	5.6
BBAC080	684,774	6,677,320	44	-60	270	60	29	33	17.1	15.8	13.9
BBAC081	685,160	6,677,313	48	-60	270	68	35	36	4.9	3.9	7.1
BBAC082	680,187	6,678,605	60	-90	0	63	27	32	14.8	9.6	10.8
BBAC083	679,794	6,678,602	39	-90	0	87	51	57	67.6	50.6	56.4
BBAC084	679,158	6,678,621	12	-90	0	28.5	13.9	13.3	28.5	13.9	13.3
BBAC085	678,595	6,678,605	35	-90	0	67	37	31	18.1	10.8	17.6
BBAC086	677,811	6,678,615	35	-90	0	77	43	90	49.6	25.5	43.6
BBAC087	678,313	6,680,001	42	-60	270	82.3	65.8	49.2	82.3	65.8	49.2

Hole ID	Easting	Northing	Hole Depth (m)	Dip	Azi.	Maximum in hole (ppm)			End of hole (ppm)		
						Ni	Cu	Co	Ni	Cu	Co
BBAC088	679,098	6,679,998	10	-60	270	16	12	8	3.8	6.6	3.4
BBAC089	679,881	6,679,995	16	-60	270	25	21	25.6	20.9	14.5	25.6
BBAC090	680,292	6,680,013	33	-60	270	93	38	55	27	28.9	26.7
BBAC091	680,501	6,680,000	45	-60	270	80	26	46	12.7	8	8.8
BBAC092	680,736	6,680,021	27	-60	270	65.6	34.4	26.6	65.6	34.4	26.6
BBAC093	680,311	6,680,496	37	-60	270	88.9	86	256.1	88.9	49.8	256.1
BBAC094	680,312	6,681,011	22	-60	270	23	25	23	14.2	15.9	14
BBAC095	677,421	6,682,258	13	-60	270	12	15	16.2	10.5	12.4	16.2
BBAC096	682,615	6,682,843	12	-60	270	24	19	21.4	22.7	16.3	21.4
BBAC097	682,986	6,682,873	14	-60	270	19	24.2	13.1	8.8	24.2	13.1
BBAC098	683,441	6,682,847	32	-60	270	119	108	57	77.1	55.5	38.4
BBAC099	683,836	6,682,852	30	-60	270	66	31	37	37.7	22.5	22
BBAC100	684,237	6,682,861	19	-60	270	28.8	32.9	15.6	28.8	32.9	15.6
BBAC101	685,445	6,683,147	30	-60	270	117	66	131	109.6	49.2	45.3
BBAC102	685,892	6,683,141	8	-60	270	59.8	44	37.9	59.8	29.4	37.9
BBAC103	686,240	6,683,145	46	-60	270	42	23	32	21.2	8.3	3.4
BBAC104	676,900	6,683,768	14	-90	0	42.5	29.8	81.5	42.5	29.8	81.5
BBAC105	675,677	6,682,777	12	-90	0	14	16	5	6.4	5.4	2.7
BBAC106	674,074	6,682,780	41	-60	270	77	67	54	61.1	49.9	54
BBAC107	674,881	6,682,773	35	-60	270	21	15	13	5.5	5.8	3.7
BBAC108	681,118	6,686,925	39	-60	270	64	31	59	52.1	22.6	53.3
BBAC109	683,486	6,688,388	60	-90	0	98	86	67	70.4	56	42.4
BBAC110	684,315	6,688,396	40	-60	270	93	28	39	49.2	20	22.4
FRNAC144	**675,000**	**6,688,800**	**39**	**-**	**-**	**1660**	**30**	**96**	**1660**	**16**	**96**

Appendix 1: JORC (2012) Table 1 Report.

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.*	• ~NQ diameter aircore drilling used to collect a ~10 kg sample per metre. • Drill cutting (chips) samples placed in 1m piles on the ground in order of downhole progress. • Industry-standard technique.
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 area was drilled on broadly-spaced traverses, 1 to 1.5km apart, with holes spaced nominally 400m along the sections (see figure in body of announcement for details). • Blade drill bit used for majority of drilling, where hard rock layers intersected (non-fresh rock) and unable to drill with blade bit a hammer was used to penetrate the layer, then return to blade, until blade refusal at base of weathering.
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. • Aircore system maximises sample recovery as opposed to open hole/RAB technique.
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*	• All samples are geologically logged to a minimum 1m downhole spacing using a coded system. • Geological logs are qualitative, end-of-hole samples are retained for additional (e.g. petrological) analysis.

Criteria	JORC Code explanation	Commentary
	quantitative in nature. Core (or costean, channel, etc) photography. • *The total length and percentage of the relevant intersections logged.*	• 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 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.*	Sub-sampling • A ~500g spear sample was taken every 1m downhole and composited into a maximum 4m sample (total ~2kg) and placed into uniquely numbered bags. • The last meter of each hole was sampled individually. • Duplicate samples (field duplicates) collected at drill site 1 in every 40 samples. • Certified Reference Material (standard) and blank material samples inserted 1 each in every 40 samples. Laboratory • 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. All • 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.*	• Multiple elements assayed by 4-acid digest with ICP-OES finish, Au, Pd, Pt by 25g fire assay, with MS finish. • QAQC sample frequency is described above. One reference standard is used from a certified provider. Quartz aggregate used as a blank material. • 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.
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.*	• Significant intervals are reviewed by senior Company 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.

Criteria	JORC Code explanation	Commentary
	• *Discuss any adjustment to assay data.*	• 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 sites were located using a GPS system with expected accuracy of +/- 5m horizontal, RL data was not recorded. • Coordinates are referenced to the Map Grid of Australia (MGA) zone 51 on the Geographic Datum of Australia (GDA94). • 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.*	• Anomalous results are reported as indicated in the relevant figure(s) and table(s) in the body of the announcement. • Regional-scale aircore drilling program designed primarily to inform geological interpretation. • Drill hole and sample spacing is appropriate for the purpose and context in which the exploration results are reported. • Additional data from any future closer-spaced (infill) drilling may change the shape and tenor of stated anomalies and geological interpretation.
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.*	• The angle at which the prevailing geology/mineralised structures have been intersected by the drillholes for each quoted interval is unknown at this stage. • Therefore the 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.
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. • See below for results of geophysical surveys.

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 is reported from Exploration Licence E69/3052 (Red Bull) which was granted on 27/07/2012 and is due to expire on 26/07/2017. The tenement is held 100% by Sheffield Resources Ltd. • Data is reported from Exploration Licence E39/1733 which was granted on 19/11/2013 and is due to expire on 18/11/2018. 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 3 years.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Red Bull Project area was explored by Gold Partners between 1995 and 1999. An aeromagnetic interpretation was completed showing the extent of magnetic units followed up by 3,943m of air core drilling exploring for base metal mineralisation potential. Further details are included in Sheffield's ASX release entitled 'New Nickel-Copper Discovery Near Sheffield's Red Bull Project' 20 July 2012 (available from the company's website: www.sheffieldresources.com.au). • The Big Bullocks areas was explored by Ponton Minerals for gold, base metal and mineral sands between 2007 and 2013. Other explorers include Placer Dome (2002-2003) chasing Bushveld-style precious metal targets, and Elmina (1987-1992) for chromite, base and precious metals then mineral sands associated with ancient strandlines. • Where relevant results have been included and discussed in the body of the announcement.
Geology	• Deposit type, geological setting and style of mineralisation.	• Sheffield is exploring primarily for magmatic-hosted Ni-Cu sulphide. Details are included in the body of the announcement.

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
		• Included in the body of announcement.

Criteria	Statement	Commentary
	detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
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.	• Assay results have not been aggregated because such treatment of the drill hole data is not considered appropriate given the initial/first-pass nature of the investigations to date. • Individual sample results have been reported, and reference to a drill hole and downhole depth included.
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').	• The angle at which the prevailing geology/mineralised structures have been intersected by the drillholes for each quoted interval is unknown at this stage. • Therefore the 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. • 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.
Other substantive exploration	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological	• The announcement contains results of ground geophysical surveys as follows:

Criteria	Statement	Commentary
data	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.	Moving Loop TEM (MLTEM) • Transmitter: ORE HP • Current: 90-130A Single Turn Loop • Receiver: SMARTem24 • Base Frequency: 1Hz • Sensor: Fluxgate B-field • Components: ZXY 3D Location of Data points • Handheld GPS used for receiver / transmitter locations, coordinates GDA94/MGA Zone 51 Data spacing and distribution • Line Spacing: 200m • Transmitter Loop Sizes: 200x200m (MLTEM) Audits and reviews • All geophysical data collected was reviewed by an independent consultant. • Several different sources of conductors in the bedrock are possible, including but not limited to: disseminated, semi-massive or massive sulphide, graphite, conductive clays, saline groundwater etc. If sulphide is present, there is no guarantee it contains economic concentrations of the target metals, eg. Ni or Cu. • A model of a conductive source is made from a combination of measured data and assumptions made according to industry best practice. The resultant model should therefore be considered a "best estimate" of the conductive source, and not a definitive characterisation.
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.