



SheffieldResources
LIMITED

ASX and Media Release

9 August 2011

HMS DRILLING SUCCESS AT WEST MINE NORTH

KEY POINTS

- **Excellent infill drilling results confirm 3.5km high-grade HMS mineralised zone at West Mine North**
- **The deposit is held under three granted mining leases - potential for near-term development**
- **Drilling results follow Sheffield's acquisition of the West Mine North and Ellengail projects from Iluka and reinforce its strategy to develop multiple HMS projects in the North Perth Basin**
- **Resource estimation underway and scoping studies on schedule to commence in October 2011**

Bulk minerals explorer Sheffield Resources ("Sheffield") (ASX:AFX) today announced results from a 90 hole drilling program at its West Mine North heavy mineral sand (HMS) project 6km west of Eneabba in Western Australia's Mid West region (Figure 1).

Drilling results are shown in Tables 2 & 3; significant intersections include:

**22.5m @ 6.87% HM from 16.5m (WMA0077),
12m @ 8.2% HM from 18m (WMA0064),
7.5m @ 10.9% HM from 24m (WMA0071), and
15m @ 4.05% HM from 13.5m (WMA0034).**

The results confirm a zone of high grade mineralisation (>2.5% HM) approximately 3.5km long by 250m wide and up to 22m thick (Figure 2). The high-grade mineralisation is variably overlain and enveloped by a halo of lower grade (1-2% HM) mineralisation (Figure 3).

West Mine North is one of two advanced projects near Eneabba acquired by Sheffield from Iluka Resources Ltd earlier this year, the other being the Ellengail deposit, 3km to the north of West Mine North.

West Mine North is on granted Mining Leases and lies wholly within cleared freehold land. It is one of several projects within Sheffield's large tenement portfolio in the world class North Perth Basin mineral sands province.

Managing Director, Bruce McQuitty said the excellent drill results reinforce the Company's strategy to develop multiple HMS deposits in the Eneabba region of the North Perth Basin.

"Sheffield purchased West Mine North because of its potential for near-term development. The deposit is on granted Mining Leases and is an extension of the large high grade Eneabba West deposit that was mined by Iluka in the 1990s."

Iluka recently announced that it will resume mining activities at Eneabba and restart a Synthetic Rutile kiln in direct response to the supply constrained titanium dioxide and zircon markets.

West Mine North has a relatively high value mineral assemblage, comprising 5.6% zircon, 6.3% rutile, 54.3% ilmenite (at 60.7% TiO₂) and 1.6% leucoxene, based on a total of 105 mineralogical analyses performed by Iluka. The high TiO₂ content of the ilmenite indicates potential suitability as feed for chloride process or synthetic rutile production.

Sheffield will select representative composite samples from its recent drilling for additional mineral assemblage testwork. Resource estimation work is scheduled to begin in August.

Sheffield's ongoing resource estimation and scoping study schedule is provided in Table 1 below, and includes resource estimation work scheduled for the West Mine North and nearby Ellengail deposits.

Table 1 Drilling and Resource Estimation Schedule

Project	Drilling status	Assay timetable	Resource Estimation	Scoping Study
Yandanooka	130 holes completed	Results received (see ASX release 16 May 2011)	Commenced, results due mid-August 2011	Commence October 2011
Ellengail	Compilation of historic drilling completed	Not applicable	Commenced, results due August 2011	Commence October 2011
West Mine North	90 holes completed	Results received (see this release)	Commence August, results due September 2011	Commence October 2011
McCalls	30 holes completed	Results due early August, 2011	Commence August, results due October 2011	Commence October 2011
Irwin	31 holes completed	Results due September, 2011	N/A	N/A
Drummond Crossing	30 holes completed	Results due September 2011	N/A	N/A
Other projects	Rig secured to drill new targets in October /November 2011	N/A	N/A	N/A

Note – these dates are indicative only and remain subject to possible delays arising from laboratory assay and other factors

ENDS

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COMPETENT PERSONS' STATEMENT

The information in this announcement that relates to exploration results is based on information compiled by Bruce McQuitty. Mr McQuitty is a full time employee of the Company. Mr McQuitty is a Member of the Australasian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity to which they are undertaking to qualify as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code")'. Mr McQuitty consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

FORWARD LOOKING AND EXPLORATION TARGET STATEMENTS

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

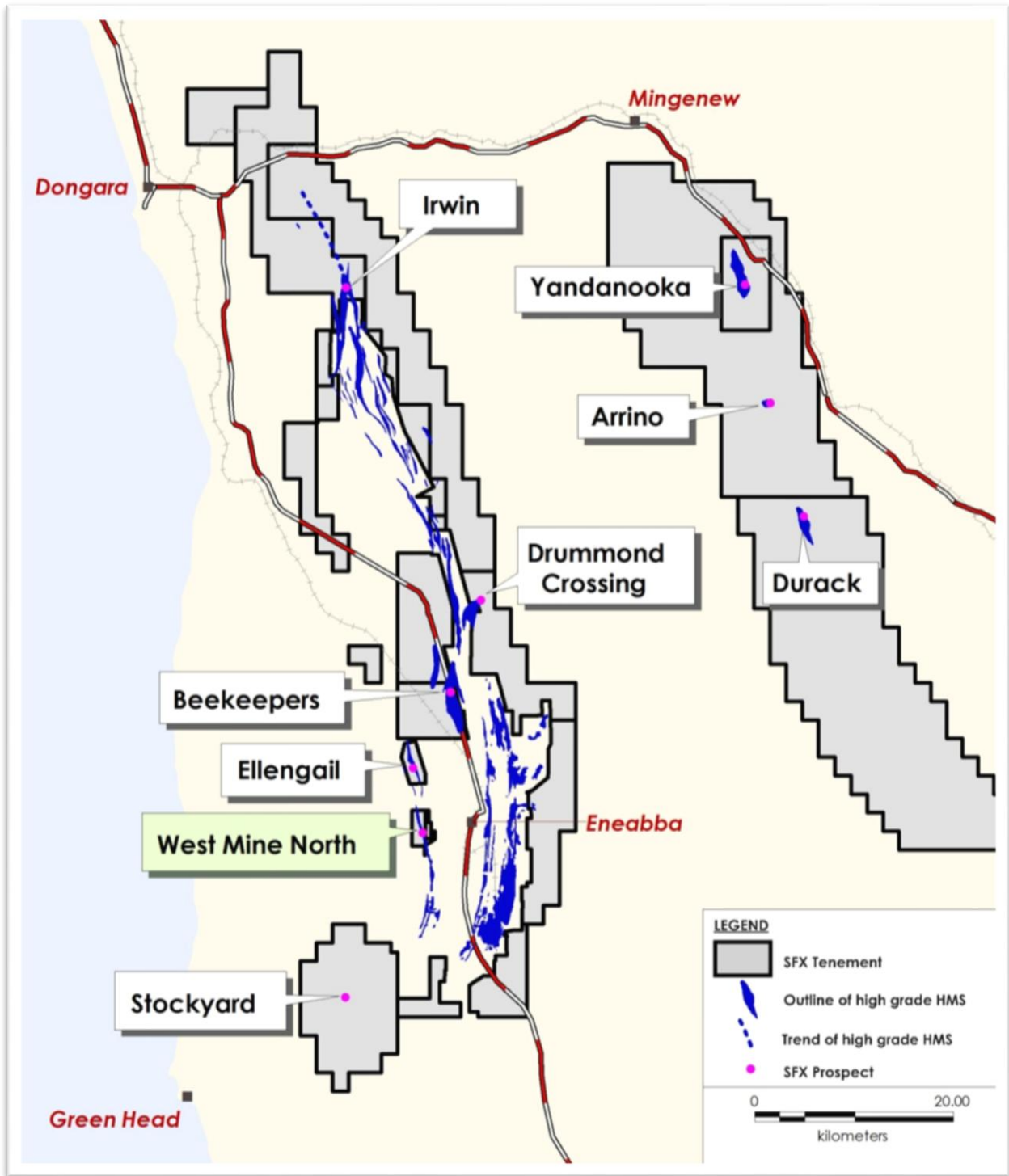


Figure 1: Location of West Mine North and Sheffield's other HMS Projects in the Eneabba Region

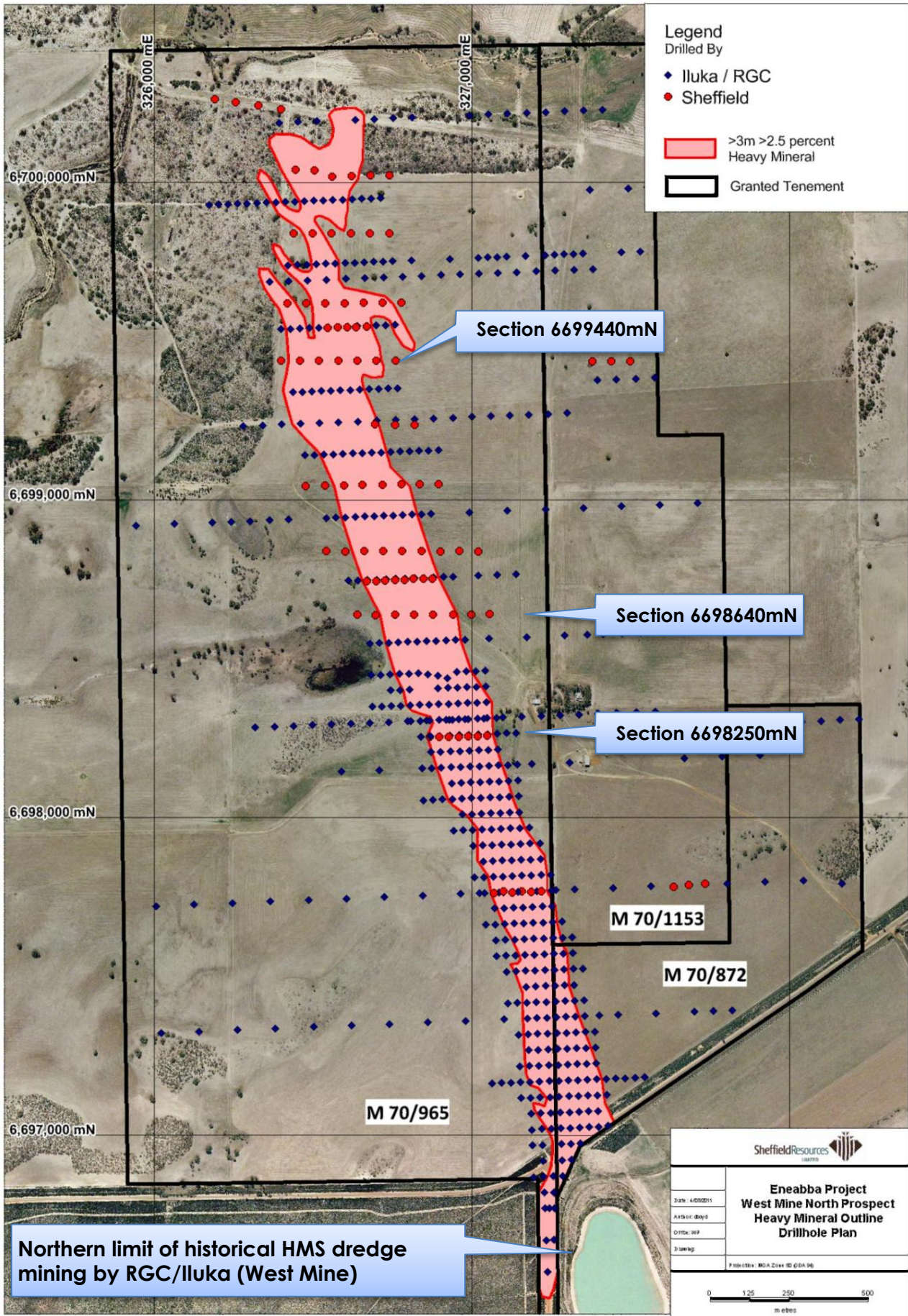


Figure 2: Location of drill holes and high grade mineralised zone at West Mine North

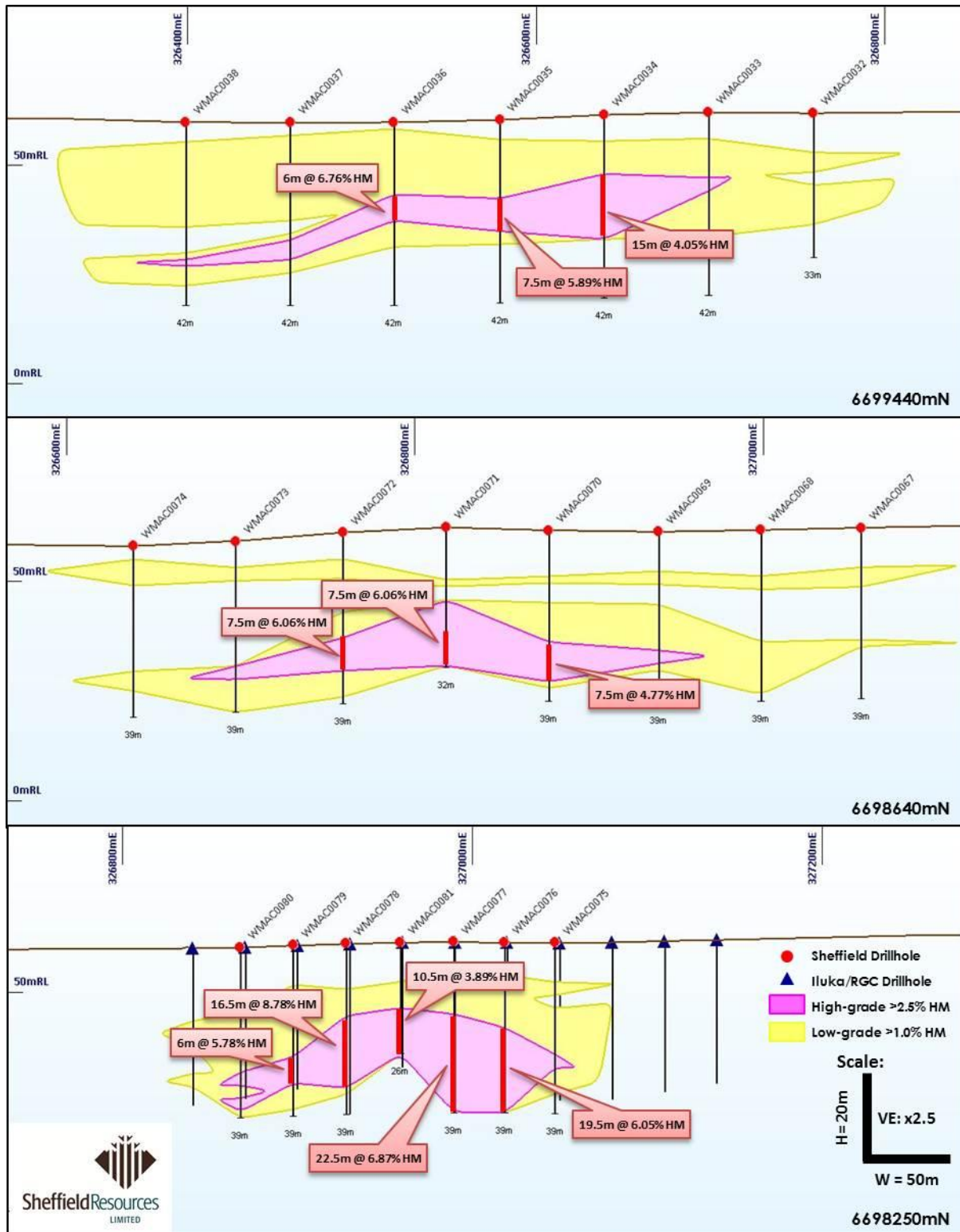


Figure 3: Typical drillhole sections through West Mine North (vertical exaggeration x2.5). Several sections were drilled to confirm grades and intervals in historic drilling, e.g. 6698250N

Results Tabulation

Results of heavy liquid separation (HLS) are tabulated below. HLS using TBE, screen sizes: slimes -53um, oversize +1mm. Coordinates used throughout are MGA Zone 50 (GDA94).

Table 2: West Mine North aircore drill results. Intervals calculated using 2.5% HM cut, 6m minimum width, maximum 1.5m internal waste.

Hole ID	Easting	Northing	Depth From (m)	Depth To (m)	Interval Width (m)	HM Wt%	Slimes Wt%	Osize Wt%
WMAC0021	326538	6699619	16.5	27.0	10.5	5.85	15.01	0.56
WMAC0024	326547	6699541	16.5	24.0	7.5	4.20	6.78	1.46
WMAC0027	326636	6699544	19.5	25.5	6.0	3.95	4.89	0.33
WMAC0034	326639	6699437	13.5	28.5	15.0	4.05	7.32	0.47
WMAC0035	326579	6699437	18.0	25.5	7.5	5.89	7.48	0.13
WMAC0036	326518	6699437	16.5	22.5	6.0	6.76	6.97	0.62
WMAC0044	326777	6699048	25.5	33.0	7.5	4.22	8.23	2.34
WMAC0045	326718	6699047	19.5	34.5	15.0	4.76	4.95	2.69
WMAC0052	326660	6698838	25.5	31.5	6.0	13.04	6.24	4.12
WMAC0053	326721	6698838	21.0	27.0	6.0	2.58	10.63	0.36
WMAC0054	326781	6698838	18.0	27.0	9.0	3.91	4.60	2.07
WMAC0059	326876	6698752	25.5	31.5	6.0	5.93	9.98	0.09
WMAC0060	326848	6698751	25.5	31.5	6.0	6.43	9.08	0.49
WMAC0061	326816	6698751	22.5	33.0	10.5	5.81	6.46	2.13
WMAC0064	326727	6698745	18.0	30.0	12.0	8.20	10.40	1.14
WMAC0070	326877	6698637	25.5	33.0	7.5	4.77	8.10	2.34
WMAC0071	326818	6698638	24.0	31.5	7.5	10.88	8.79	3.95
WMAC0072	326759	6698639	24.0	31.5	7.5	6.06	5.69	0.69
WMAC0076	327018	6698256	19.5	39.0	19.5	6.05	11.75	2.38
WMAC0077	326989	6698255	16.5	39.0	22.5	6.87	11.60	1.56
WMAC0078	326928	6698254	16.5	33.0	16.5	8.78	14.12	4.52
WMAC0079	326897	6698254	25.5	31.5	6.0	5.78	10.16	6.09
WMAC0081	326959	6698254	15.0	25.5	10.5	3.89	19.29	3.88
WMAC0083	327099	6697768	27.0	33.0	6.0	9.54	16.97	8.57
WMAC0084	327127	6697764	21.0	34.5	13.5	8.23	7.88	3.50
WMAC0086	327683	6697787	16.5	30.0	13.5	3.35	23.92	7.14
WMAC0088	327158	6697767	15.0	33.0	18.0	7.18	16.85	2.17
WMAC0089	327186	6697766	21.0	30.0	9.0	6.58	14.74	0.26
WMAC0090	327218	6697768	24.0	30.0	6.0	5.44	12.17	0.39

Table 3: West Mine North aircore drill results. Intervals calculated using 1.0% HM cut, 3m minimum width, maximum 1.5m internal waste.

Hole ID	Easting	Northing	RL (AHD)	Hole Depth	Depth From(m)	Depth To(m)	Interval Width(m)	HM Wt%	Slimes Wt%	Osize Wt%
WMAC0001	326741	6700022	63	36	10.5	15.0	4.5	1.14	10.60	5.42
WMAC0002	326680	6700022	62	36	9.0	13.5	4.5	1.10	16.35	5.52
WMAC0002	326680	6700022	62	36	19.5	30.0	10.5	1.22	6.79	0.56
WMAC0003	326621	6700020	61	36	7.5	13.5	6.0	1.10	8.04	9.41
WMAC0003	326621	6700020	61	36	19.5	34.5	15.0	1.77	5.50	14.27
WMAC0004	326560	6700017	61	36	7.5	13.5	6.0	1.24	7.85	3.81
WMAC0004	326560	6700017	61	36	18.0	25.5	7.5	2.63	2.33	0.08
WMAC0005	326505	6700038	60	36	9.0	12.0	3.0	1.29	12.81	2.44
WMAC0005	326505	6700038	60	36	15.0	24.0	9.0	2.40	2.58	0.20
WMAC0006	326400	6700230	63	36	21.0	31.5	10.5	3.38	17.17	1.77
WMAC0007	326328	6700241	62	36	No Significant Result					
WMAC0008	326256	6700253	61	36	19.5	24.0	4.5	1.28	23.57	0.31
WMAC0008	326256	6700253	61	36	28.5	36.0	7.5	1.81	27.21	8.16
WMAC0009	326191	6700263	60	36	15.0	18.0	3.0	1.39	19.69	1.50
WMAC0009	326191	6700263	60	36	25.5	33.0	7.5	1.56	15.57	2.59
WMAC0010	326439	6699839	60	36	7.5	15.0	7.5	1.06	10.48	1.65
WMAC0011	326499	6699839	59	36	7.5	24.0	16.5	2.09	6.79	0.80
WMAC0012	326558	6699839	60	36	4.5	13.5	9.0	1.29	17.48	3.33
WMAC0012	326558	6699839	60	36	16.5	24.0	7.5	1.70	2.88	0.47
WMAC0013	326445	6700040	60	36	12.0	24.0	12.0	3.13	9.24	1.38
WMAC0014	326619	6699839	60	36	7.5	15.0	7.5	1.43	13.38	1.80
WMAC0014	326619	6699839	60	36	18.0	22.5	4.5	2.13	3.47	0.07
WMAC0014	326619	6699839	60	36	28.5	31.5	3.0	5.74	6.02	12.70
WMAC0015	326679	6699839	61	36	6.0	15.0	9.0	1.41	17.16	4.02
WMAC0015	326679	6699839	61	36	24.0	34.5	10.5	1.61	7.91	9.26
WMAC0016	326740	6699839	61	24	12.0	15.0	3.0	1.07	17.05	5.36
WMAC0017	326778	6699621	63	36	7.5	19.5	12.0	1.74	5.13	1.73
WMAC0017	326778	6699621	63	36	30.0	36.0	6.0	1.43	4.85	9.90
WMAC0018	326718	6699620	63	30	7.5	30.0	22.5	1.80	7.19	2.94
WMAC0019	326659	6699620	62	39	6.0	28.5	22.5	1.96	8.74	1.87
WMAC0020	326599	6699620	61	39	4.5	25.5	21.0	1.99	13.99	2.16
WMAC0021	326538	6699619	60	39	4.5	27.0	22.5	3.61	19.39	1.92
WMAC0022	326478	6699619	60	39	4.5	18.0	13.5	1.15	19.20	3.43
WMAC0022	326478	6699619	60	39	24.0	28.5	4.5	1.61	3.22	1.78
WMAC0023	326419	6699618	59	39	9.0	22.5	13.5	1.13	16.25	1.07
WMAC0023	326419	6699618	59	39	25.5	30.0	4.5	2.52	3.39	2.26
WMAC0024	326547	6699541	61	42	4.5	25.5	21.0	2.40	10.35	4.69
WMAC0025	326578	6699543	61	42	6.0	27.0	21.0	1.70	12.28	3.23
WMAC0026	326607	6699544	61	42	6.0	25.5	19.5	1.86	15.45	3.69
WMAC0027	326636	6699544	61	42	9.0	27.0	18.0	2.27	14.91	2.41
WMAC0028	326669	6699545	62	42	9.0	12.0	3.0	1.23	24.73	8.37
WMAC0028	326669	6699545	62	42	15.0	18.0	3.0	1.22	18.74	3.15
WMAC0028	326669	6699545	62	42	22.5	28.5	6.0	4.41	6.63	0.17

Hole ID	Easting	Northing	RL (AHD)	Hole Depth	Depth From(m)	Depth To(m)	Interval Width(m)	HM Wt%	Slimes Wt%	Osiz Wt%
WMAC0029	327499	6699437	66	33	No Significant Result					
WMAC0030	327439	6699437	66	33	7.5	19.5	12.0	1.56	26.72	4.54
WMAC0031	327380	6699436	66	33	No Significant Result					
WMAC0032	326759	6699438	62	33	9.0	13.5	4.5	1.17	24.64	4.88
WMAC0032	326759	6699438	62	33	16.5	25.5	9.0	1.35	11.38	0.67
WMAC0033	326699	6699437	62	42	6.0	28.5	22.5	1.97	16.18	4.13
WMAC0034	326639	6699437	62	42	6.0	28.5	22.5	3.30	7.98	1.26
WMAC0035	326579	6699437	60	42	4.5	28.5	24.0	2.99	11.13	1.00
WMAC0036	326518	6699437	60	42	1.5	28.5	27.0	2.83	7.34	2.13
WMAC0037	326459	6699438	60	42	3.0	22.5	19.5	1.67	9.70	2.57
WMAC0037	326459	6699438	60	42	25.5	34.5	9.0	10.3 5	6.94	1.70
WMAC0038	326399	6699439	60	42	4.5	24.0	19.5	1.82	11.07	2.73
WMAC0038	326399	6699439	60	42	30.0	37.5	7.5	1.25	20.31	20.13
WMAC0039	326819	6699236	62	42	21.0	27.0	6.0	1.04	10.75	0.39
WMAC0040	326759	6699236	62	42	19.5	33.0	13.5	1.27	15.40	0.69
WMAC0041	326695	6699237	62	26	16.5	24.0	7.5	1.59	12.08	1.79
WMAC0042	326895	6699049	62	42	18.0	21.0	3.0	1.18	15.11	0.51
WMAC0043	326836	6699049	62	42	27.0	30.0	3.0	1.27	12.21	1.52
WMAC0044	326777	6699048	62	42	19.5	40.5	21.0	2.23	7.74	4.85
WMAC0045	326718	6699047	61	35	9.0	34.5	25.5	3.43	12.42	3.93
WMAC0046	326656	6699047	61	42	15.0	31.5	16.5	1.78	11.64	2.74
WMAC0047	326597	6699045	60	42	7.5	22.5	15.0	1.41	22.77	1.60
WMAC0047	326597	6699045	60	42	25.5	36.0	10.5	3.45	12.98	3.88
WMAC0048	326538	6699045	60	42	7.5	21.0	13.5	1.47	23.07	3.14
WMAC0048	326538	6699045	60	42	31.5	34.5	3.0	8.12	10.55	7.90
WMAC0049	326477	6699044	60	39	31.5	34.5	3.0	1.15	8.44	14.01
WMAC0050	326541	6698838	60	42	No Significant Result					
WMAC0051	326601	6698838	60	39	7.5	10.5	3.0	1.12	27.39	2.36
WMAC0051	326601	6698838	60	39	30.0	37.5	7.5	1.69	5.88	19.49
WMAC0052	326660	6698838	61	39	16.5	37.5	21.0	4.96	7.84	9.70
WMAC0053	326721	6698838	61	39	7.5	12.0	4.5	1.38	25.46	5.07
WMAC0053	326721	6698838	61	39	15.0	33.0	18.0	2.15	10.02	4.29
WMAC0054	326781	6698838	61	27	9.0	27.0	18.0	2.64	10.76	4.54
WMAC0055	326841	6698838	62	39	9.0	31.5	22.5	2.03	15.36	3.02
WMAC0056	326900	6698838	62	39	24.0	31.5	7.5	1.40	8.19	0.55
WMAC0057	326960	6698838	63	39	27.0	30.0	3.0	1.92	11.18	1.22
WMAC0058	327019	6698838	63	39	18.0	30.0	12.0	1.56	12.89	1.01
WMAC0059	326876	6698752	62	39	18.0	34.5	16.5	3.07	12.90	3.44
WMAC0060	326848	6698751	62	39	16.5	31.5	15.0	3.52	13.61	0.36
WMAC0060	326848	6698751	62	39	34.5	39.0	4.5	1.66	5.43	3.51
WMAC0061	326816	6698751	61	39	18.0	39.0	21.0	3.80	11.98	3.25
WMAC0062	326788	6698748	61	27	13.5	27.0	13.5	2.20	6.00	2.30
WMAC0063	326758	6698747	61	29	10.5	28.5	18.0	2.71	9.74	3.88
WMAC0064	326727	6698745	61	33	9.0	31.5	22.5	4.94	14.32	5.02
WMAC0065	326698	6698744	62	39	19.5	36.0	16.5	5.76	10.10	5.23

Hole ID	Easting	Northing	RL (AHD)	Hole Depth	Depth From(m)	Depth To(m)	Interval Width(m)	HM Wt%	Slimes Wt%	Osize Wt%
WMAC0066	326668	6698744	62	39	9.0	12.0	3.0	1.12	29.16	6.16
WMAC0066	326668	6698744	62	39	25.5	36.0	10.5	2.61	3.49	10.24
WMAC0067	327056	6698640	62	39	10.5	13.5	3.0	1.12	20.02	2.89
WMAC0068	326999	6698639	62	39	10.5	13.5	3.0	1.18	21.38	3.80
WMAC0068	326999	6698639	62	39	25.5	37.5	12.0	1.38	10.08	1.49
WMAC0069	326940	6698638	61	39	18.0	30.0	12.0	2.08	12.52	0.48
WMAC0070	326877	6698637	62	39	16.5	36.0	19.5	2.62	11.61	3.47
WMAC0071	326818	6698638	62	32	16.5	31.5	15.0	6.80	15.08	5.44
WMAC0072	326759	6698639	61	39	6.0	10.5	4.5	1.14	14.79	13.69
WMAC0072	326759	6698639	61	39	19.5	37.5	18.0	3.38	8.13	6.86
WMAC0073	326697	6698637	59	39	6.0	9.0	3.0	1.17	18.69	9.71
WMAC0073	326697	6698637	59	39	28.5	39.0	10.5	1.96	6.84	16.01
WMAC0074	326639	6698639	58	39	6.0	9.0	3.0	1.08	28.51	5.06
WMAC0074	326639	6698639	58	39	28.5	33.0	4.5	1.19	4.97	16.98
WMAC0075	327047	6698257	61	39	9.0	12.0	3.0	1.16	19.92	4.48
WMAC0075	327047	6698257	61	39	15.0	34.5	19.5	1.80	15.49	1.82
WMAC0076	327018	6698256	61	39	7.5	39.0	31.5	4.33	14.80	4.01
WMAC0077	326989	6698255	61	39	7.5	39.0	31.5	5.30	13.87	3.64
WMAC0078	326928	6698254	61	39	10.5	34.5	24.0	6.44	14.70	7.82
WMAC0079	326897	6698254	61	39	9.0	12.0	3.0	1.26	23.30	1.96
WMAC0079	326897	6698254	61	39	16.5	37.5	21.0	2.61	12.78	6.84
WMAC0080	326867	6698252	60	39	15.0	39.0	24.0	2.33	12.69	6.88
WMAC0081	326959	6698254	61	26	9.0	25.5	16.5	3.04	19.61	5.49
WMAC0082	327070	6697762	60	39	28.5	31.5	3.0	2.30	12.47	4.23
WMAC0083	327099	6697768	61	39	15.0	36.0	21.0	3.60	15.63	4.80
WMAC0084	327127	6697764	61	39	13.5	39.0	25.5	5.06	11.90	3.28
WMAC0085	327636	6697781	63	39	10.5	25.5	15.0	1.36	16.47	3.59
WMAC0086	327683	6697787	63	39	15.0	30.0	15.0	3.20	22.41	7.19
WMAC0087	327735	6697790	62	39	15.0	22.5	7.5	2.76	36.23	7.94
WMAC0087	327735	6697790	62	39	31.5	39.0	7.5	1.22	26.50	24.41
WMAC0088	327158	6697767	61	39	10.5	34.5	24.0	5.64	16.22	3.96
WMAC0089	327186	6697766	61	39	15.0	36.0	21.0	3.69	15.31	3.24
WMAC0090	327218	6697768	62	39	16.5	33.0	16.5	3.03	12.37	1.33

ABOUT SHEFFIELD RESOURCES

Sheffield Resources Limited (**Sheffield**) is a new exploration company with a bulk minerals focus. The Company's Projects are geared towards the steel industry feed cycle (iron ore and tungsten) and the emerging fillers-ceramics-pigments cycle (talc, zircon, titanium dioxide).

ASX Code – SFX

Market Cap @ 26cps - \$15.3m

Issued shares – 58.7m

Cash - \$4.1 (approx.)

The Company has over 6,000km² of highly prospective tenure, all situated in Western Australia.

HEAVY MINERAL SANDS

Sheffield controls over 5,000km² of mineral sands tenure in the established North Perth Basin mineral sands province and the emerging Carnarvon, Eucla and Canning Basin provinces.

Sheffield's North Perth Basin tenement package of over 2,500km² contains seven advanced exploration projects: West Mine North, Ellengail, Yandanooka, Durack, Beekeepers, and Irwin which are located near Eneabba and the large McCalls deposit - a former BHP project located near Gingin. These projects are well located close to existing mineral sands operations and to a network of highways and railway lines connecting to Geraldton and Fremantle/Kwinana ports. Sheffield's strategy is, subject to exploration success, to build multiple HMS projects capable of supporting a flexible mobile mining plant.

TALC

Sheffield has 1,152km² of tenure over the 175km-long Moora Talc Belt which represents a dominant ground position over a region that has, for the last 50 years, been exclusively controlled by major mining companies.

The Moora Talc Belt includes the large Three Springs mine which is owned by Rio Tinto Limited subsidiary Luzenac Australia Pty Ltd. Three Springs is renowned for producing high purity talc and is a relatively simple "dig-and-deliver" operation.

The existing infrastructure is excellent. A railway and a sealed highway transect the project and connect to Geraldton port approximately 170km to the northwest.

Sheffield's large tenement holding contains numerous talc occurrences and has the potential to become a strategic talc asset. Sheffield therefore represents a unique opportunity for investors to gain exposure to one of the few high-grade talc explorers in the world.

IRON

Sheffield's Pilbara iron ore projects consist of five granted tenements and 7 tenement applications, five of which are subject to ballot with multiple competing parties. Sheffield's strategy is to target hematite mineralisation adjacent to infrastructure in the world class Pilbara iron province and to build up consolidated tenement holdings over time. High grade iron mineralisation has been identified on three of the Company's tenements.