ASX and Media Release
29 December 2010

Sheffield Acquires Advanced Exploration Projects from Iluka

KEY POINTS

- Sheffield to purchase four Heavy Mineral Sands (HMS) tenements from Iluka Resources
- Advanced exploration targets on granted tenure near Eneabba mine
- Acquisition will further consolidate Sheffield's large tenement holding in North Perth Basin
- High priority targets for further drilling

Bulk minerals explorer Sheffield Resources ("Sheffield") (ASX:SFX) today announced that it has entered into an agreement to acquire three mining leases and a retention licence from Iluka Resources Limited ("Iluka")(ASX:ILU).

The tenements comprise the West Mine North (M70/872, M70/965 and M70/1153) and Ellengail (R70/35) exploration projects which are located near Eneabba in Western Australia's mid-west region (refer to Figure 1 for locations). The purchase further consolidates Sheffield's 2,500km^2 tenement holding in the North Perth Basin HMS province.

Sheffield will purchase 100% interest in the tenements for a consideration of $150,000 and a 1.5% gross sales royalty. In addition, Sheffield has agreed to continue discussions with Iluka in relation to the sale of synthetic rutile ilmenite extracted from the tenements.

The tenements may also be prospective for coal. The West Mine North tenements are situated just 4km to the north of the Coolimba thermal coal project. A third party, Sword Nominees Pty Ltd, retains the right to a coal royalty if coal is produced from tenements M70/872 and M70/965.

Commenting on the transactions, Sheffield's Managing Director Bruce McQuitty said,

"The acquisition of these tenements provides Sheffield with advanced exploration projects on granted mining tenure near existing infrastructure, offering opportunity for near-term development."

"These projects are more suited to development by a junior company and fit Sheffield's strategy to build multiple HMS projects in the district capable of supporting a flexible mobile mining plant."

The company intends to undertake initial drilling of the projects as soon as possible after transfers of title, access and regulatory approvals have been obtained.

West Mine North

West Mine North is situated immediately along strike to the north of Iluka's Eneabba West mine and is essentially a continuation of the high grade strand mineralisation that was dredge mined at Eneabba West in the 1990's. The project lies wholly within cleared freehold land.

Extensive drilling (598 RC air core holes for 15,000m) has been completed on a 50m x 30m pattern in the southern half, and on a 200m x 30m pattern in the northern half, of the West Mine North project. This drilling has outlined a mineralised zone at 2% HM cut-off with approximate dimensions 100-170m wide x 10-15m thick (locally up to 20m thick), extending over a strike length of 3km. A high grade zone of strand mineralisation is surrounded by a lower grade (1-2% HM) halo which, in turn, is overlain by 10-15m of unmineralised overburden (refer to Figure 2).

A total of 105 mineralogical analyses on the project indicate a mineral assemblage comprising 5.6% zircon, 6.3% rutile, 54.3% ilmenite (@ 60.7% TiO_2) and 1.6% leucoxene. The high TiO_2 ilmenite may be suitable as feed for chloride process or synthetic rutile production.

Ellengail

Ellengail is located 3km along strike to the north of West Mine North. A total of 271 air core drill holes (for 4,231m) on a 200m x 30-60m pattern have outlined a zone of mineralisation at 1.5% HM cut-off with approximate dimensions 2.5km long x 200-350m wide and between 10-15m thick (locally up to 20m thick). Near surface lower grade dunal mineralisation covers the strand mineralisation in the northern half of the deposit. Laterite and cemented overburden occur on the margins of the deposit but do not affect the central portion of the deposit (refer to Figure 3).

A total of 19 mineralogical analyses have been completed on the project which indicate mineral assemblage of 10% zircon, 3.4% rutile, 58.6% ilmenite (@ 54.7% TiO_2) and 9.2% leucoxene.

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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 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", "target", "scheduled", "intends", "potential", "prospective" and similar expressions.

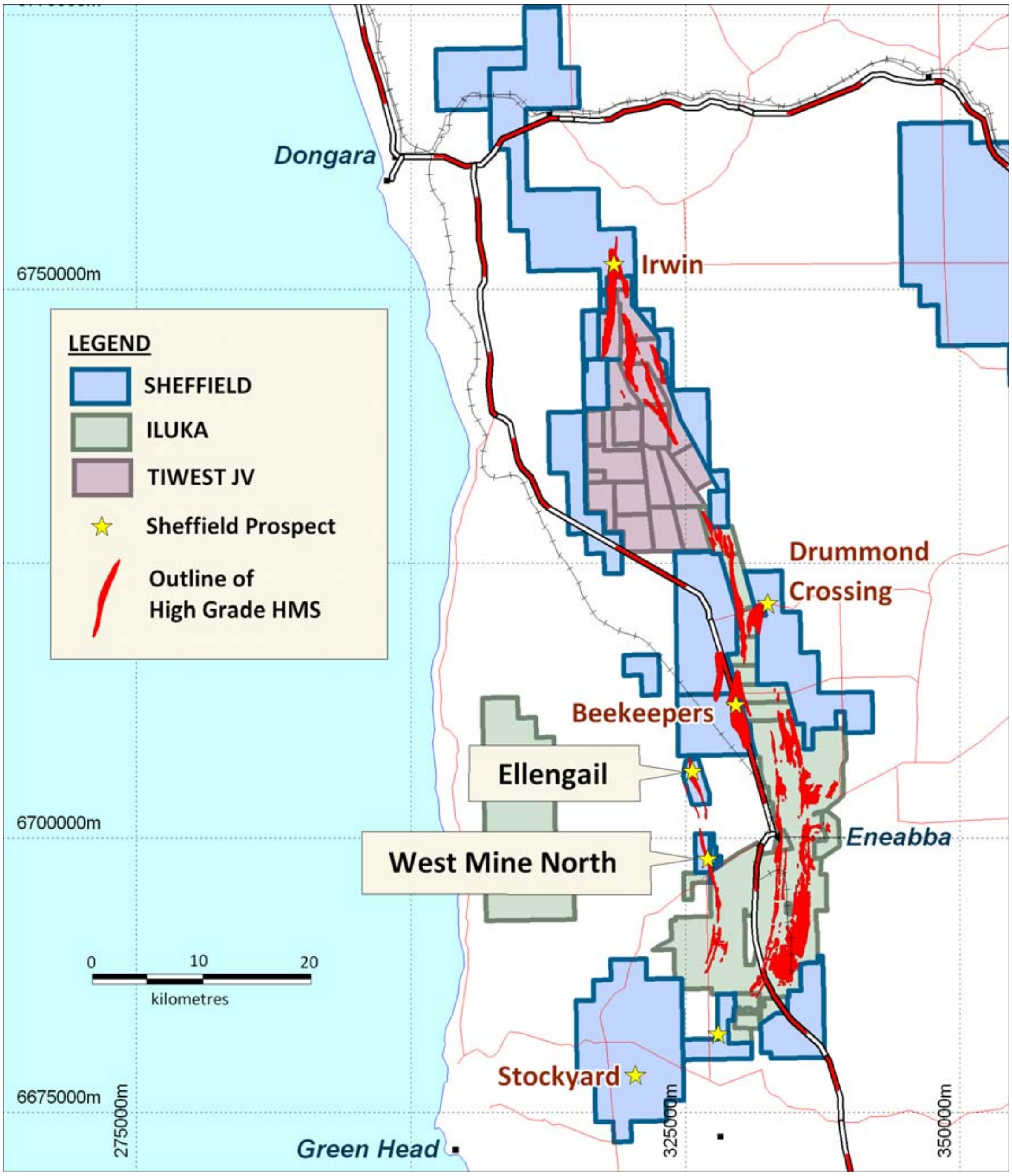

Figure 1: Sheffield's exploration projects in Eneabba region showing location of Ellengail and West Mine North

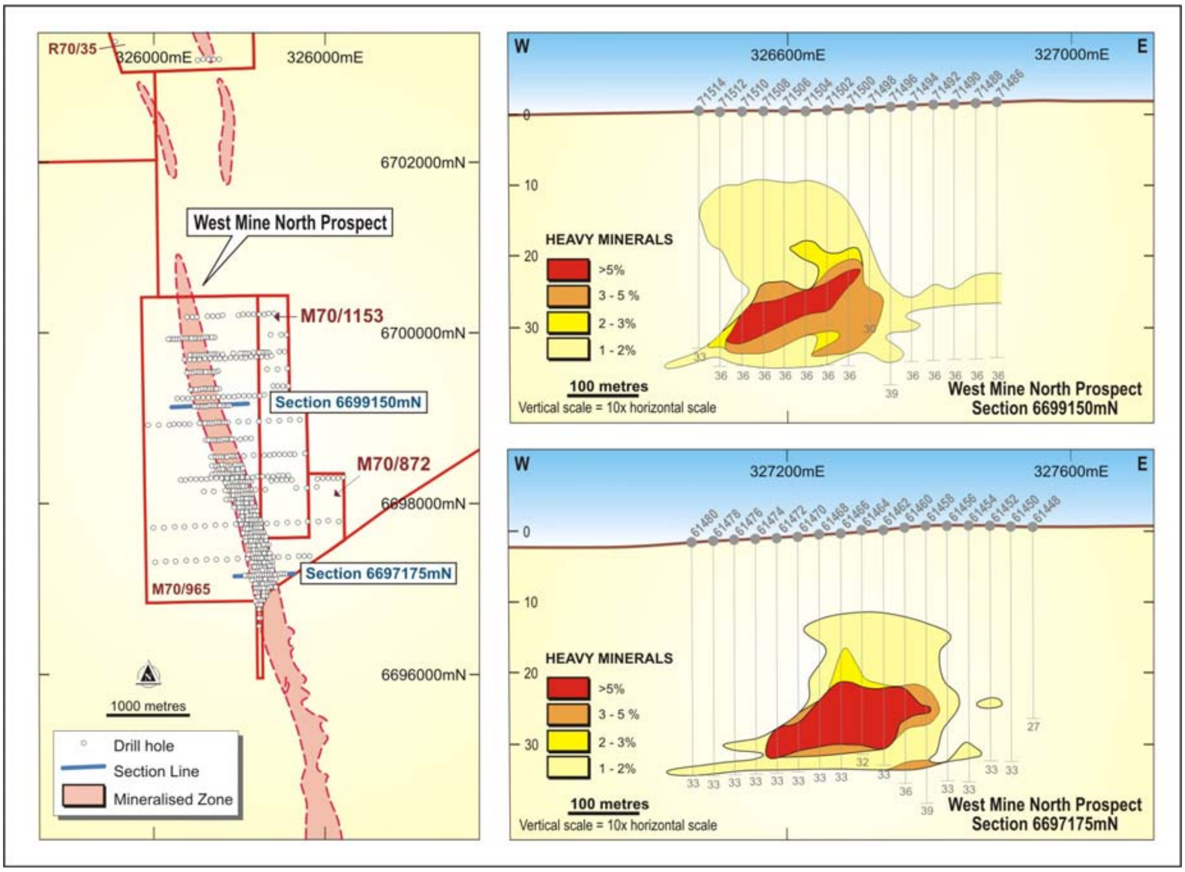

Figure 2: West Mine North plan and cross sections

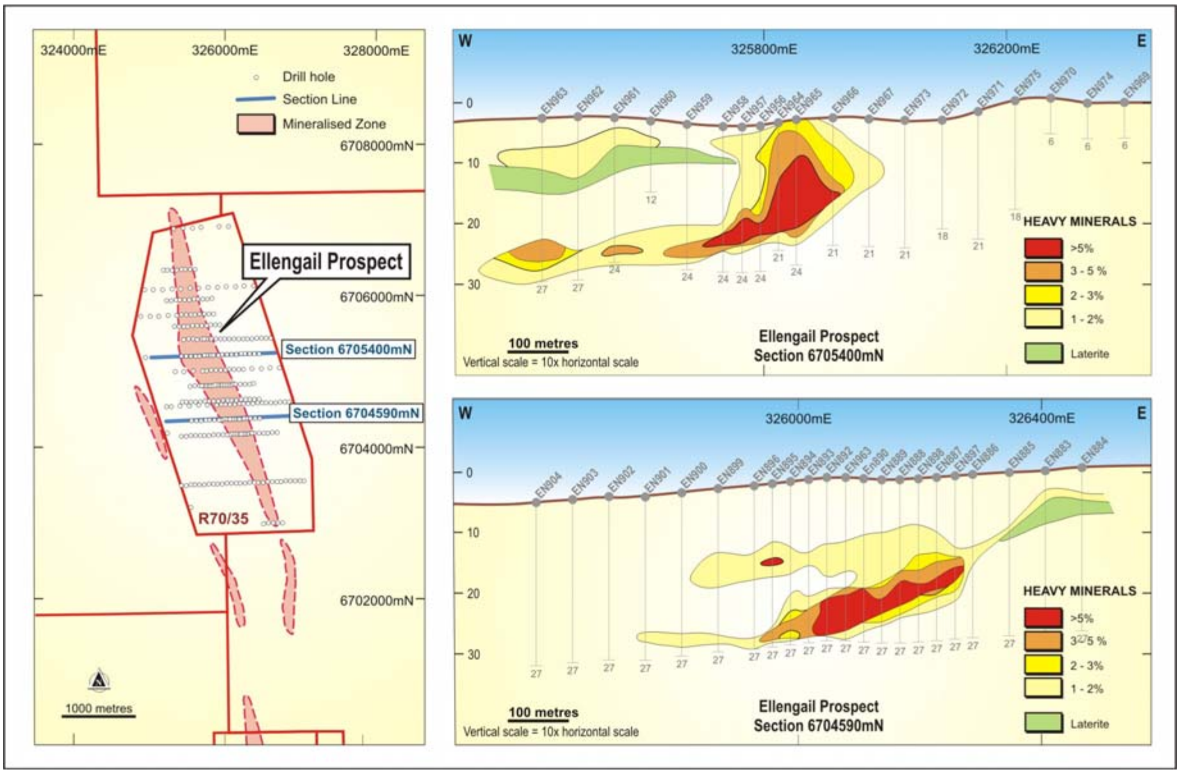

Figure 3: Ellengail plan and cross sections

ABOUT SHEFFIELD RESOURCES

Sheffield Resources Limited (**Sheffield**) is a dynamic 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 - $14.8m
Issued shares – 56.9m	Cash - $6.5m

The Company has over 6,000km^2 of highly prospective tenure, all situated within the state of Western Australia.

TALC

Sheffield has 1,152km^2 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.

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

HEAVY MINERAL SANDS

Sheffield controls over 5,000km^2 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 2,500km^2 contains seven advanced exploration projects: West Mine North, Ellengail, Yandanooka, Durack, Beekeepers, and Irwin which are located near Eneabba and the large McCalls deposit (under option to purchase) - 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.

IRON

Sheffield's Pilbara iron ore projects consist of one granted tenement and 16 tenement applications, of which three (the Millstream project) are second-in-time applications and five 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. Reconnaissance mapping has so far identified iron enrichment on three of the Company's tenement applications.

TUNGSTEN

Sheffield has two projects in the Halls Creek Mobile Belt which the Company considers to be a highly prospective region for tungsten and tin-tantalum-REE mineralisation.