

Substantial Resource Upgrade at Chilalo Graphite Project

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- 62% of high-grade Shimba Mineral Resource converted to Indicated status by recent drilling
- High-grade Mineral Resource (Indicated and Inferred) increased to 9.2 Mt grading 10.7% Total Graphitic Carbon (TGC), comprised of:
 - Indicated Resource of 5.1 Mt grading 11.9% TGC for 613,800 t of contained graphite
 - Inferred Resource of 4.1 Mt grading 9.1% TGC for 370,300 t of contained graphite
 - 984,100 t of contained graphite within the >5% TGC high-grade zone (613,800 t in Indicated)
 - 24% increase in contained graphite from the previous high-grade resource
- Indicated Mineral Resource grade of 11.9% TGC is a substantial improvement on previous resource estimate
- Shimba deposit is the highest grade Tanzanian graphite Mineral Resource reported according to the JORC Code (2012)
- Completion of additional metallurgical testwork is expected to enable conversion of the majority of the Indicated Resource to the Measured category, without any further drilling
- Results underpin the Pre-Feasibility Study due in November 2015

West Perth WA (FSCwire) - [IMX Resources Limited](#) (ASX: IXR) ('IMX' or the 'Company') is pleased to announce that it has taken a further step toward development of its Chilalo Graphite Project in south-eastern Tanzania, following the conversion of 62% of the high-grade Shimba Mineral Resource to the Indicated category and delivery of a substantial increase in total contained graphite.

The upgraded Mineral Resource estimate for the high-grade zone (>5% TGC) of the Shimba deposit of 9.2 million tonnes grading 10.7% TGC for 984,100 tonnes of contained graphite has increased total contained graphite by 24%.

IMX CEO Phil Hoskins said: "The conversion of 62% of the Shimba resource to the Indicated category is an important milestone for the Chilalo Project, confirming the robust nature of the deposit and further de-risking development, ahead of our PFS in November 2015. The higher grade Indicated Resource strengthens our belief that Chilalo can become a low-cost flake graphite producer. The quality of the Shimba deposit, highlighted by this upgraded resource and recently announced improvements in flake size distribution, further demonstrates that Chilalo has the characteristics of a world-class graphite project."

The high-grade resource is part of the total Indicated and Inferred Shimba Mineral Resource estimate of 25.1 Mt, which includes a low-grade Inferred Resource of 15.9 million tonnes grading 3.3% TGC for 523,000 tonnes of contained graphite. The Shimba Mineral Resource estimate is set out in Table 1 below, with drill-hole information and JORC 2012 Table 1 Reporting included as appendices.

"Whilst we don't believe resource size is important, and the Shimba resource is expected to be sufficient to underpin the proposed scale of development at Chilalo, the 24% increase in contained graphite is a welcome benefit of this revised resource estimate," Mr Hoskins added.

The upgraded Mineral Resource estimate confirms the exceptional quality of the Shimba deposit, which not only has the highest grade of any of the reported JORC resources in Tanzania, but also has a high percentage of large and jumbo flake sized material.

Table 1 – Shimba deposit Indicated & Inferred Mineral Resource Estimate

Domain	Classification	Tonnes (Mt)	TGC (%)	Contained Graphite (Kt)
High-grade zone	Indicated	5.1	11.9	613.8
	Inferred	4.1	9.1	370.3
Total high-grade resource	Indicated + Inferred	9.2	10.7	984.1
Low-grade zone	Inferred	15.9	3.3	523.0
Total resource	Indicated + Inferred	25.1	6.0	1,507.2

**Note: The Mineral Resource was estimated within constraining wireframe solids using a core high-grade domain defined above a nominal 5% TGC cut-off within a surrounding low-grade zone defined above a nominal 2% TGC cut-off. The resource is quoted from all classified blocks within these wireframe solids. Differences may occur due to rounding.*

Table 2. Flake size distribution and concentrate grades

Flake Size (US\$/t) ²	Microns Basket Sales	Mesh Price (US\$/t) ²	Mass Dist. % ¹	Grade TGC %	Pr	
Super Jumbo	> 500	35	2.7	95.9	1,950	53
Jumbo	300 – 500	50	34.6	95.6	1,525	528
Large	180 – 300	80	30.3	93.7	1,000	303
Medium	150 – 180	100	7.0	93.9	950	67
Small	75 – 150	200	25.4	94.9	650	165
Weighted Basket Sales Price (Mass Dist. % x Price)				1,116		

1. The testwork results are reported on the basis that the sub-75 micron material, which represents 25% of the flotation product, has been removed from the concentrate as IMX is focused on producing a premium product at Chilalo.

2. Q3 2015 prices CIF Europe. Source: Benchmark Mineral Intelligence, +35 mesh from market sources.

Figure 1 shows the flake size distribution and resource grade combination against market capitalisation for a number of IMX's peer group companies.

http://fscwire.com/sites/default/files/NR/740/8400_image1.jpg

1. Notes to peer group comparison chart:

a. Due to inconsistent reporting of flake size distribution categories between companies, assumptions have been made to ensure comparability.

b. Sources: Syrah – 29/05/2015 FS announcement, Magnis – 29/12/2014 announcement, Triton – 2014 annual report, Kibaran – 23/07/2015 BFS, Sovereign – 01/09/2015 scoping study, Talga – 17/10/2014 corporate presentation.

c. Talga looking to produce graphene in addition to graphite concentrate.

d. Market cap as of 1 September 2015.

The recently completed drilling was designed to upgrade 50% of the Inferred Resource to a higher category and to provide additional material for metallurgical and geotechnical testwork. CSA Global Pty Ltd ('CSA Global'), who completed the Mineral Resource estimate, has advised that the completion of additional metallurgical testwork is expected to enable conversion of the majority of the Indicated Resource to the Measured category, without any further drilling.

The required metallurgical testwork involves analysis of a representative composite of Oxide Zone drill cores, using similar methods to those adopted for the Transitional and Fresh composites. In addition, testwork on downstream applications for Chilalo graphite concentrate, which is currently under way, would, if successful, support a resource upgrade.

Of the Shimba high-grade resource, 1.3 million tonnes grading 11.1% TGC for 144,300 tonnes of contained graphite is hosted in the higher grade near-surface oxide zone, comprised of the following:

- Indicated Resource of 0.8 million tonnes grading 12.4% TGC for 103,500 tonnes of contained graphite; and

- Inferred Resource of 0.5 million tonnes grading 8.7% TGC for 40,800 tonnes of contained graphite.

All of this is expected to translate into low strip ratios, and with the softer oxide material expected to be mined by free dig rather than drill and blast, result in more favourable mining and operating costs.

Mineral Resource modelling

The updated Mineral Resource estimate (MRE) was completed by CSA Global, in accordance with the guidelines of the JORC Code, (2012). The MRE is based upon drill data which intersected the interpreted mineralisation zones in 19 diamond core holes and in 20 reverse circulation (RC) holes. The modelled mineralisation was intersected over a total of 863.7 m of diamond drilling, and 741 m of RC drilling. The mineralisation wireframes were modelled using a nominal lower cut-off grade of 5% TGC for the high-grade core zones and a nominal 2% TGC lower cut-off grade for the low-grade surrounding zones. The model is reported from all classified estimated blocks within the >5% TGC ("high-grade zone") and >2% TGC ("low-grade zone") domains under the guidelines of the JORC Code (2012).

The mineralisation wireframes were modelled by joining sectional string polygons based upon geological interpretation. The interpretation is derived from drill hole logs, assay results, surface mapping and fixed loop and downhole electromagnetic modelling results. Two weathering profile surfaces representing the base of complete oxidation and top of fresh rock have been generated based on drill hole lithological logging information, petrography and total sulphur assay results. An overburden surface wireframe was generated based on the lithological logs. A topographic surface was generated from surveyed drill collar locations, surveyed track point spot heights and the surveyed spot height grid.

The deposit has a generally simple tabular morphology striking for approximately 1,300 m in an east-north-east direction and dipping 45-55 degrees in a south-south-east direction. The deposit consists of a high grade core interpreted as being two discrete lenses surrounded by a lower grade halo and hanging wall lenses. Drill lines are spaced 200 m apart with infill drilling at 100 m spacing in the area classified as Indicated. Down dip intersections are separated by approximately 50 m. The mineralisation interpretation is extended to approximately 140 m below surface, or nominally 20 m past the deepest mineralised drilling intersection.

Drill hole sample assay results were subjected to detailed statistical analysis for each interpreted mineralisation lens, and spatial (variography) analysis was completed on the high-grade mineralisation. A block model was constructed using Datamine Studio software with a parent cell size of 50 m (E) by 10 m (N) by 10 m (RL). Composited drill hole sample grades for TGC were interpolated into the block model using Ordinary Kriging (OK) with an inverse distance to the power of two weighting (IDS) check estimate completed for validation purposes. Density values were assigned to the block model based on analysis of the 1,145 immersion method density measurements taken from diamond core samples. The model was validated visually, graphically and statistically, and has been classified based on the guidelines of the JORC Code (2012).

Marketability of Chilalo product

Product specifications and general product marketability were considered to support the Mineral Resource Estimate for Industrial Minerals, in accordance with Clause 49 of the JORC Code (2012). Independent testwork programs for an ongoing Pre-Feasibility Study (PFS) have demonstrated that Chilalo high-grade mineralisation can produce a graphite concentrate containing up to 68% large and jumbo flake graphite (see announcement 9 September 2015 and Table 2 below). In addition to long-established markets such as refractories, lubricants and friction materials, this flake size distribution and purity is anticipated to be suitable for products such as spherical graphite for Li-ion battery anodes, expandable graphite for building insulation, graphite foil and flame retardants.

The extractive metallurgical results are corroborated by petrographic examination of thin sections from three boreholes across the deposit, which indicate that graphite flakes in the >5% TGC high-grade zone are generally + 0.5mm in length and several hundred microns thick. The flakes are generally free of significant mineral contaminants, which is believed to be a key contributing factor to the very high concentrate grades of 96.8–97.4% achieved from recent metallurgical flotation testwork (see announcement 14 August 2015).

Figure 2 – Plan view of Shimba deposit, showing drill holes and surface outcrop
http://fscwire.com/sites/default/files/NR/740/8400_image2.jpg

Figure 3 – Cross-section from Shimba deposit at Chilalo
http://fscwire.com/sites/default/files/NR/740/8400_image3.jpg

IMX believes there is significant potential to expand the current high-grade resource base, with the Shimba deposit remaining open along strike and at depth. Electromagnetic surveys at Chilalo, including Versatile Time Domain, Fixed Loop and down-hole surveys have highlighted a number of high-conductance targets, none of which have been tested by drilling or sampling.

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Competent Person's Statement

The information in this announcement that relates to in situ Mineral Resources for Chilalo is based on information compiled by Mr. Grant Louw under the direction and supervision of Dr Andrew Scogings, who are both full-time employees of CSA Global Pty Ltd. Dr Scogings takes overall responsibility for the report. Dr Scogings is a Member of both the Australian Institute of Geoscientists and Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition).¹ Dr Scogings consents to the inclusion of such information in this announcement in the form and context in which it appears.

1. Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC 2012).

About IMX Resources Limited

IMX Resources is an Australian minerals exploration company that holds a 5,800 km² tenement package at the Nachingwea Property in south-east Tanzania. The Nachingwea Property hosts the Chilalo Graphite Project, the Ntaka Hill Nickel Project and the Kishugu and Naujombo Gold Prospects. IMX's primary focus is on high-grade, high quality graphite and it is rapidly advancing development of the Chilalo Graphite Project. Chilalo is located approximately 220 km by road from the deep water commercial Mtwara Port, the majority of which is a sealed main road. IMX aims to become a respected supplier of high quality graphite for the clean technology economy.

To find out more, please visit www.imxresources.com.au.

APPENDIX 1. DRILL HOLES USED FOR MINERAL RESOURCE ESTIMATION

<http://fscwire.com/newsrelease/substantial-resource-upgrade-chilalo-graphite-project>

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