

IMX Resources

IXR-ASX / IXR-TSX

June 24, 2015

Last: **A\$0.01**

Share Statistics	
Share price	A\$0.01
52-week high/low (A\$)	\$0.05/\$0.01
Market Cap. (A\$m)	\$8
EV (A\$m)	\$5
Company profile	
<p>IMX is a high grade, large flake graphite developer focussed on Tanzania. IMX hopes to commence production at 50ktpa from its flagship Chilalo graphite project in mid-2017.</p>	

IMX primed for battery market supply

- **IMX plans a small scale, low cost, rapid start up at its high grade, coarse flake Chilalo graphite project** in Tanzania. The company plans to deliver circa 50ktpa of graphite with initial capital estimated at less than US\$75m. The project is undergoing a feasibility study.
- **Excellent initial metallurgy at Chilalo indicates 47% of production will be large and jumbo flake** utilizing simple off-the-shelf flotation technology. This coarser flake material commands a higher valuation and is in greater demand.
- **Initial metallurgy also indicates an exceptionally pure concentrate of 97.4% TGC.** The high purity is again likely to be viewed favourably, especially from the growing battery market, and attract a premium from potential offtakers. The final product is subject to further metallurgical optimisation with the company tailoring the product to end user requirements.
- **Chilalo is a high grade resource with exploration upside.** IMX has so far defined a 7.4mt @ 10.7% TGC resource (5% cut-off) that looks likely to support a 12-year mine life at Chilalo. Electromagnetics indicate potential for additional resources when required.
- **A 25ktpa offtake MOU has been signed with long term Chinese partner.** International commodities trader China-Base Ningbo has a pre-existing relationship with IMX having purchased A\$100m in iron ore shipments from IMX in 2013-14. This pre-existing relationship provides some confidence that the MOU could become binding.
- **IMX has substantial experience in Tanzania having operated in country for over 10 years** at its Ntaka Hill Nickel Project.
- **The project is linked to the Mtwara deep water port and is located near ASX-listed Magnis Resources'** (market cap A\$67m) Nachu graphite project. We see synergies between the two operations; grid power is also planned for the region in time for project start-up.

 Current Chart

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Company overview

- IMX listed on the ASX in 2007. The company was previously listed as Goldstream Mining.
- IMX owns the Chilalo graphite project, Ntaka Hill Nickel Project and the early stage Kishugu and Naujombo gold prospects, all located on IMX's Nachingwea Property in southern Tanzania.

Corporate summary

- We estimate the company holds A\$3m in cash. At 31 March, IMX reported A\$0.3m. On 7 April, IMX raised A\$1.6m through a placement of 157m shares at 1.0c/share. A payment of A\$2.2m from a joint venture partner is imminent.
- IMX has 828m shares on issue. IMX has 13.1m listed options that are well out of the money striking at 60c/sh and expiring 14 September 2015. IMX has 13.1m unlisted options on issue with 80% out of the money. IMX management also has 16.8m performance rights and 30m share appreciation rights that vest in three years and are dependent on significant share price appreciation.

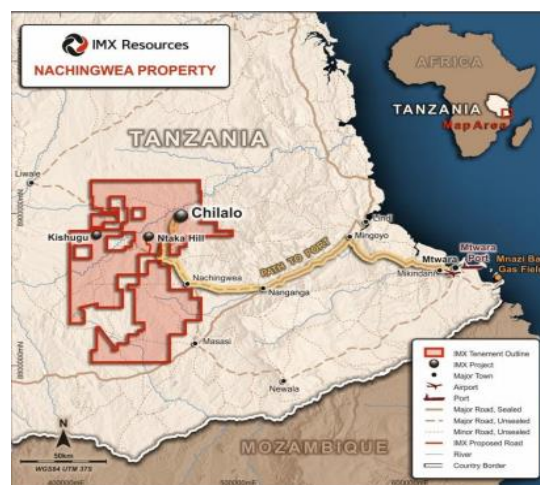
Strategy

- IMX is focussed on starting a small and simple graphite project for minimal initial capital expenditure and a faster path to production. Once up and running, the company will explore options to expand the Chilalo operations to meet demand.
- The Ntaka Hill Nickel Project is a large, low grade nickel project. The divestment of 70.65% of the project for US\$6m to Fig Tree will see the focus of the project strategy shift to the high grade resources at Ntaka Hill. The Fig Tree JV provides near-term funding for Chilalo, whilst retaining an option on nickel price. The remaining US\$4m tranche is due in September and will be required to fund the FS.

Chilalo Graphite Project, Tanzania (85.5%)

- The Chilalo graphite project is part of the company's extensive 5,800km² Nachingwea Property in south eastern Tanzania. The project is in JV with MMG holding the remainder.

Figure 1. Nachingwea Property and route to port



Source: IMX

High grade resource

- IMX’s high grade resource of 7.4Mt @ 10.7% TGC is expected to support in excess of 12 years’ production at a rate of 50ktpa concentrate. The resource is relatively small, but intentionally so as the company wants to focus its exploration spend until the project is up and running.
- The main resource at Chilalo is at the Shimba deposit. The resource is shallow with 90% at less than 100m vertical

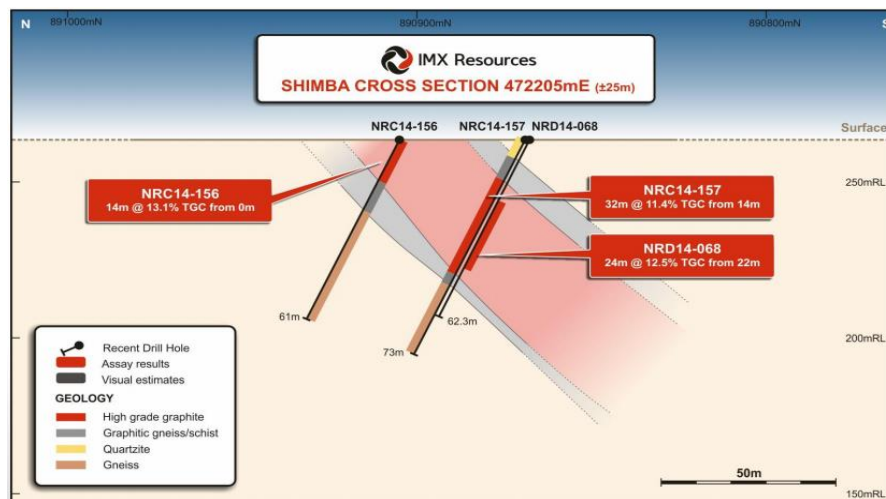
Figure 2. Shimba inferred JORC resource (April 2015)

Domain	Tonnes (Mt)	TGC (%)	Contained graphite (kt)
High Grade zone	7.4	10.7	792
Low grade zone	10.7	3.0	322
Total	18.1	6.2	1,115

Source: IMX

- The graphite is hosted within a predictable sedimentary host. High grade mineralisation is haloed by lower grade mineralisation and dips relatively shallowly to the south. The strip ratio is estimated at 1:1.

Figure 3. Shimba cross section



Source: IMX

- IMX intends to define a measured and indicated resource from the existing inferred resource as part of the current feasibility study

Large flake and high purity

- Large flake size and purity of product are seen as desirable to potential offtakers and traders.
- Initial test work indicates impressive concentrate grades that average 97.4% TGC with recoveries up to 97.5% with no deleterious elements. High concentrate grades and low impurities are highly desirable by the expanding battery market. The test work conducted has been on fresh rock. Test work is yet to

be completed on the oxide and transitional zone (~30% of the resource). Further test work will be completed as part of the feasibility study.

- 47% of the product reports to the high value large and jumbo flake categories (>180microns).
- The two tests shown below reflect increasing grind time from test A to test B. Increased grinding results in a trade-off between flake size and purity.

Figure 4. Concentrate grade and flake size distribution

Flake Size	(microns)	Mesh	Fresh		Fresh	
			Bulk sample GK 34 (Test A)		Bulk sample GK 34 (Test B)	
			Mass Dist. %	Assay TGC %	Mass Dist. %	Assay TGC %
Jumbo	> 300	50	11.7	97.5	5.9	97.2
Large	180 – 300	80	35.3	97.8	34.8	98.3
Medium	150 – 180	100	16.7	96.5	15.5	97.4
Fine	75 – 150	200	36.3	96.1	43.8	96.8
Total			100.0	96.8	100.0	97.4

Source: IMX

- The company’s discussions with end-users have also found that there is little demand for sub-75 micron (-200 mesh) material. As a result, IMX is investigating the minimisation and removal of sub-75 micron material from its concentrate to produce four discrete products that reflect the flake sizes and concentrate grades sought by end-users. The sub-75 micron material represents 25-30% of the flotation product. Should it prove cost effective to remove this amorphous material, IMX’s concentrate appeal will likely attract an additional premium and can be seen as competitive advantage.
- Processing is through very simple grind and flotation using established and off the shelf technology

Offtake MOU with long term partner

- IMX has signed an MOU for 25,000tpa of graphite concentrate over five years with China-Base Ningbo (CBN), an international commodities trader with annual turnover in the region of US\$4.5bn. IMX is the exclusive partner.
- IMX has a pre-existing relationship with CBN having sold iron ore shipments for A\$100m during 2013-14 when IMX was operating iron ore projects in South Australia.
- CBN has also expressed interest in potentially funding the Chilalo project.
- Whilst still only an MOU, the pre-existing and ongoing relationship gives more confidence that the MOU may lead to binding offtake than some other MOUs reported by IMX’s competitors.

Favourable infrastructure and in-country experience

- The project is located only a short distance from Magnis Resources’ Nachu graphite project and shared synergies can be expected.
- Access to port is via 60km of unsealed road and 160km of sealed road to the deep water port of Mtwara. Water is on site and an airport is just 47km away.

- Mtwara is capable of loading Panamax vessels and has space for a concentrate shed. The port is growing its infrastructure on the back of natural gas discoveries offshore.
- The government plans to link the Chilalo project with grid power in 2016. However, the small power requirement at the project of 2-3MW makes diesel power viable should the grid power line be delayed.
- IMX has a long (10-year) working relationship in Tanzania when IMX was focussed on developing the Ntaka Hill nickel Project. IMX's country manager has extensive experience working with government.
- Tanzanian state ownership is not applicable to projects of Chilalo's size. Corporate tax is 30% with royalties in the region of 4%.

Aggressive timeline to production

- IMX has made rapid progress from desktop studies in August 2014 to likely completion of the PFS this year.
- The current PFS should be assisted by substantial work in country on the Ntaka Hill Nickel project.
- Assuming funding is achieved later this year then the project could be in production by mid-2017.

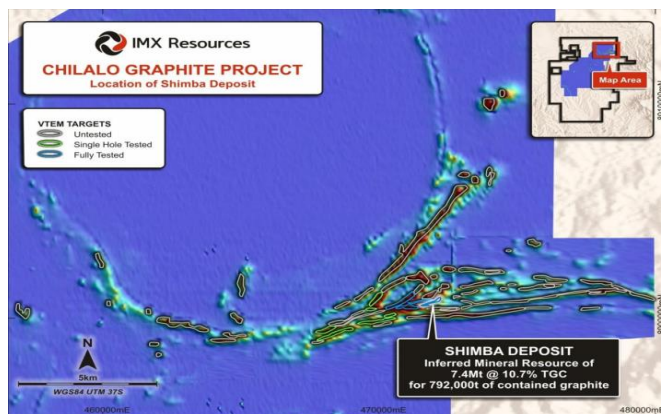
Possible project assumptions

- At a conservative assumption 50ktpa sold at margins of US\$500/t (US\$1,000 – US\$500/t FOB) would generate annual operating margins of US\$25mpa over a 12-year mine life.
- To achieve this, a 0.6mtpa flotation plant is required at an estimated capital cost of US\$75m.

Exploration upside

- Exploration upside is strong with a VTEM survey indicating extensive conductive horizons that are likely to be a continuation of the graphite defined at Shimba.

Figure 5. VTEM image showing Shimba and additional targets



Source: IMX

- The Shimba resource remains open along strike, especially immediately to the east. The stratigraphy wraps around a granite intrusion that is believed to have heated up the graphite increasing flake size and purity.

The graphite market

- At present, the global graphite market is estimated at ~2.2Mtpa, with an even split between natural (in situ) and synthetic (manmade) graphite.
- Supply in the graphite market is dominated by China, which produced an estimated 68% of global graphite in 2013.
- China's flake production is in decline and facing a number of challenges as ore quality declines, production costs rise and the central government tries to halt environmentally damaging mining operations.
- The fastest growing demand sector for graphite is battery anodes that currently only make up 9% of the total graphite demand and is expected to grow at 9% pa.

Potential growth markets

- Li-ion batteries now form 15% of the battery market and industry insiders estimate that this will have a 30–40% annual growth, equivalent to ~5kt pa at minimum medium diameter flake graphite, with larger flake preferred.
- Electric vehicle companies plan to increase electric vehicle manufacturing with market predictions that Tesla alone could represent 126kt of flake graphite by 2020, a 152% increase in current battery consumption.
- The 50Mt carbon market could use graphite as a higher quality replacement for petroleum coke for steel production in electric arc furnaces, also used in the aluminium production process.
- Consumer electronics use graphite foil made exclusively from extra-large, jumbo flake (+50 mesh) for screens and touch pads, an application which can only use natural graphite; demand is currently 6% and is expected to grow exponentially as developing nations increase use of these electronics.
- Graphene is often quoted by the graphite industry as an emerging market but this will not be a volume driver for graphite and will firmly remain as a niche R&D product for at least the next 5–10 years.

Ntaka Hill Nickel (diluting to 29.35%) and greenfields gold prospects (100%)

- IMX has defined a large low grade 56mt @ 0.6% Ni for 356kt NI resource at Ntaka. The project has returned high grade intersections including 3m @ 11.2% Ni, 7.6m @ 9.1% Ni and 16m @ 3.5% Ni and clearly potential for a higher grade resource.
- The Kishugu and Naujombo gold prospects are both large promising gold in soil anomalies that require drill testing.

M&A opportunities

- The undervalued nature of IMX and Chilalo's proximity to Magnis' Nachu project lends itself to possible synergies with Magnis.

Management

- Management has significant experience in exploration and production of various commodities in Africa.

Disclosures

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