

Australian miners claim big graphite advances

It has been quite a week on the Australian graphite scene with at least three technology breakthroughs.

As posted here on InvestorIntel overnight you will have seen one more company confirming it can produce graphene in a single-step process. On top of that, one player is moving into producing Super Sand, while another is proving up its ability to offer expandable graphite.

As I have previously reported, Sydney-based analyst Warwick Grigor of Far East Capital has become an enthusiastic backer of graphene. In his latest client note he reports that, at a recent Sydney resources forum, he addressed the audience on the subject of graphene. "Pleasingly, I was approached by quite a few investors afterwards who wanted to know how to get involved in the sector," he writes. "That tells me that the [graphene] story continues to be embryonic, both in terms of the material itself and investors' knowledge of the potential."

Grigor has become a keen backer of **Talga Resources (ASX:TLG)** and its Swedish project that contains graphite of such a geological nature that a relatively simple process is involved converting the graphene. (And InvestorIntel also today reports the latest details of Talga's processing plans in Germany.)

We also have another player in this one-step graphene process, **MRL Resources (ASX:MRF)** with its crystalline vein project in Sri Lanka. MRL says its deposit has a very high crystalline carbon content not observed in any other previously tested graphite materials. The company said it will now consider the merits of producing both graphite and graphene in its development plan and it will begin talks with several research

organizations to find a way to production. MRL employs a combined thermal and mechanical process to isolate the graphene directly from the raw graphite (without milling) and without having to produce graphene oxide.

So where does this leave Talga?

Here's Grigor again: "You may be tempted to declare that Talga is not longer unique, but that isn't of itself a problem. You should have always been prepared for the possibility that alternatives would eventually come along."

"Some people have said that Talga is too good to be true, but the emergence of another company that can employ a similar process actually adds credibility to the thematic," Grigor argues.

He says the two companies are different: Talga's orebody has simple geometry that lends itself to low-cost, open cut mining. MRL will access its ore from narrow, very high grade underground mines that will be volume-constrained.

"Talga is still the best option for bulk production, but a small, sweet Sri Lankan mine, or series of mines, could offer high profit margins on low capital costs," he adds.

Meanwhile, **Strategic Energy Resources (ASX:SER)** – which previously spun off the now operating Uley graphite mine in South Australia – is planning to manufacture Super Sand. It is the view that, for example, by using sand (which is a very good water filter in and of itself) and coating it in graphite oxide you can remove the contaminants (heavy metals or pathogens) that get through natural sand. Super Sand can also be used as a filter in other applications.

And **Kibaran Resources (ASX:KNL)**, which has the Epanko graphite project in Tanzania, has been running tests that show it can produce expandable graphite salt and, it claims, with superior qualities to the expandable graphite now produced by China.

The company says the characteristics of Epanko's graphite paves the way for it to be used in a wide variety of applications, from refractories to anode-grade graphite for lithium-ion batteries and expandable graphite for graphite foil production.