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Key information

Market: Private/pre-IPO
Sector: Mining

This report provides an update on the mining and processing at ML 100008 and exploration across the tenements that make up the InterGroup Mining's Brilliant Brumby Project.

Business

Gold mining and exploration in Queensland, Australia. The Company has a 100% stake in the Brilliant Brumby Project which is a fast-expanding major gold project in Northern Queensland. The Brumby Project covers more than 100km² of highly prospective ground in an underexplored gold district lying within the Charters Towers Gold Province.

InterGroup Mining

Limited is an unlisted Australian Public Company registered in Queensland under ACN 163 989 553.

Website

www.igmining.com

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Environmental approval to expand operations

Receipt of the approval of IGM's EPA application will allow operations to expand at the Brilliant Brumby Project

- ❖ **Activities about to shift up a gear or two following the granting of environmental authority.** Environmental regulations protect the planet and its inhabitants, but many mining companies have been seriously held back over the years by such legislative requirements. So, it is very good news that InterGroup Mining's (IGM) environmental application has been approved. This is an important step as investors can now look forward to the Company being able to take advantage of the tremendous opportunities that are being unveiled across IGM's vast 100%-owned Brilliant Brumby Project that lies in a highly prospective area within the renowned high-grade Charters Towers Gold Province.
- ❖ **Size of the prize could really be outlined by the forthcoming project wide geophysics.** Initially, IGM's comprehensive exploration and drilling programmes have largely been focused near the sites of historic high-grade gold mines within the licence area with impressive gold grades as high as 176g/t being reported. This work has led to the identification of clusters of quartz bearing lodes along a 13km corridor. Planned geophysics is designed to gain an improved understanding of both the trend and extent of these veins as well as identifying high quality drill targets. All of which could prove that these clusters might connect underground, which is seen to be a growing possibility.
- ❖ **Potentially very low gold production costs per ounce subsidised by kaolin.** There is now a fast-growing appreciation of the kaolin potential. A leading commodity research house believes that the major opportunities open to IGM's kaolin could attract prices of US\$10-20/t in bulk or US\$100-350/t after passing through a basic washing plant. With further processing to create aluminium, HPA precursors and HPA generating anywhere between US\$2,000 – 15,000/t. IGM has a large kaolin resource with 100Mt estimated across the project area. However far the processing of IGM's kaolin is taken, there is clearly a rapidly growing prospects that kaolin could help to subsidise the cost of mining gold.
- ❖ **Economically highly robust gold mining project in the making.** The powerful combination of scale, grade and low costs is fast suggesting the potential for an economically strong mining venture being developed at Brilliant Brumby. These days there is a dire shortage of decent sized gold discoveries being made and the leading gold mining companies are highly focused on acquiring replacement projects. Given the sort of project that IGM rapidly seems to be outlining in a highly prospective region for gold, the Brilliant Brumby Project is likely to increasingly appear on the radar of the major miners which have become highly dependent on juniors like IGM for their projects of tomorrow.

MINING CONTINUES TO UNCOVER HIGH GRADE AREAS

Initial gold mining at ML 100008 began in 2018. Good progress has been made since that time in both mining and processing. The early move into revenue generation has allowed IGM to be able to develop the mining technique for these gold bearing quartz lodes as well as devising the processing circuit. These are critical steps which provide vital data to feed into in the mine planning and plant design decisions for a far larger full-scale operation that is planned at the Brilliant Brumby Project.

Surface mineralisation enables low cost production with gold ore mined by a series of shallow pits. So far, mining activity has been mainly focused on Surprise, Mystery, Silica Ridge and Brumby North. Quartz veins are being successfully mined using excavators as free digging methods can be employed due to the weathered material near to the surface not needing to be drilled and blasted. Mining continues to uncover high grade area as has been demonstrated this season with work to rapidly progress the Brumby North excavations leading to assay results as high as 155g/t gold (N4 vein) being discovered.



Gold bar from recent pour

The processing of the gold ore at the project has been demonstrated to be a fairly straightforward process using gravity separation, where the gold is separated from waste based on their differing densities.

POTENTIALLY LOW GOLD PRODUCTION COSTS

Now there is the additional potential of both kaolin and silica. Detailed drilling logs of 36 of the reverse circulation (RC) holes from the 2018 drilling programme in the Surprise area provided plenty of evidence which pointed towards the potential for kaolin. Samples from the Surprise Kaolin Project came through initial laboratory tests with flying colours. A leading commodity research house believes that there are a number of major opportunities open to IGM's kaolin could attract prices of US\$10-20/t in bulk or US\$100-350/t after passing through a basic washing plant.

Major markets for kaolin are paper and ceramics but there is growing use in new age industries. Kaolin is now heralded as "white gold" as it can be transformed into High Purity Alumina (HPA) which is highly versatile and used in LEDs, coating cathode and anode electrode separator sheets in the lithium-ion battery for electric vehicles (EVs) and energy storage. Improving the whiteness and metallurgy of kaolin could attract a selling price of up to some US\$2,000 per tonne as an HPA precursor.



Mining at the Surprise Kaolin Project

Increasing purity of HPA from 99.9% to 99.9999% Al_2O_3 creates 3N-6N priced at around US\$6,000 to 35,000/t when aluminium was trading at US\$2,200/t. A large kaolin resource of approximately 100Mt has been estimated across the project area and this material could be excavated along with the gold-bearing quartz veins which would help subsidise the cost of mining gold. Lab tests have shown that high-quality kaolin and high-quality silica can be successfully beneficiated and refined into multiple valuable products which includes HPA precursors, pigments, fillers and pozzolans.

BEING SMARTLY PUSHED UP THE VALUATION CURVE

IGM has a clear strategy to establish viable mining operations based on the gold veins that characterise the Mt Stewart region in NE Queensland. The management is no stranger to adding value to international resources projects and it now looks as though many of the pieces are in place for the Brilliant Brumby Project to be smartly pushed up the valuation curve. There seems to be growing potential that a major gold project could now be in the process of beginning to be revealed given the powerful combination of scale, grade and low costs that is becoming obvious.

Large scale – The focus of exploration work has just been on a small part of the overall licence area of more than 100km² which has begun to highlight the sizeable potential scale of this project which is known to extend over 13km long corridor coupled with good scope for even better gold mineralisation at depth. Importantly, the style of the vein deposit observed suggests the potential for more focused and continuous mineralisation at depth.

Impressive gold assays – Exploration work around historic high-grade gold mines has not disappointed with assay results as high as 155g/t and 176g/t gold discovered by the team. Certainly, all the signs are that this looks like textbook Charters Towers-style gold mineralisation which occurs in high-grade mesothermal structures which are well-known for extending to depth and holding a large amount of gold.

Low costs – Surface mineralisation enables low cost production with gold ore mined by a series of shallow pits. Costs are likely to be further reduced by the proven straightforward mineral processing of the gold ore as well as the rapidly growing potential for kaolin revenue. In fact, there seems to be the real prospect that the mining kaolin could pay for the cost of mining gold. This does really begin to point towards potentially low gold production costs by global standards becoming a real possibility at this project.

Operations at the Brilliant Brumby Project are now set to expand following the approval of IGM's EPA application. This is a key move which will allow the Company to follow up on many of the enviable opportunities which lie across IGM's vast project area. Forthcoming investment in project wide geophysics is planned to gain an improved understanding of both the trend and extent of these veins as well as identify high quality drill targets which are likely to form part on an extensive drill programme. All of which could prove a lot more information on the gold mineralisation and determine whether these clusters are not separate bodies but connect underground which is a growing possibility.

These days there is a real shortage of decent sized gold discoveries being recorded internationally. Given the impressive assay results couple with the sort of scale beginning to be outlined in a highly prospective region for gold, the Brilliant Brumby Project is likely to increasingly appear on the radar of the major mining companies which have become more heavily reliant on juniors like IGM for their replacement projects.

About the author

Dr Michael Green is an independent analyst who specialising in growth companies and resources companies. He gained a BSc Honours degree in Mining Engineering from Nottingham University, UK and PhD for a thesis that looked at the economic analysis of mining projects. Having been involved in consultancy work, Michael began working in the City in the 1980s as a Mining Analyst with stockbrokers Buckmaster & Moore and then HSBC-owned Greenwell Montagu Securities. Subsequently, he was involved in analysing a wide range of growth companies and became Head of Research at stockbroker Everett Financial which specialised in the small cap market. Since, 2006 Michael has been an independent analyst. He has specialised in analysing companies in the resources sector providing research for mining companies, stockbrokers, corporate finance houses, advisers and independent research firms. Between 2008 – 2011, he was a Non-Executive Director of Ascot Mining PLC, a quoted Central American gold mining company. In addition, he has worked closely with resources companies assisting in IR.

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