

# INVESTOR INSIGHT

## InterGroup Mining

**Minjng Journal**  
INTELLIGENCE

 **InterGroup Mining**

## Summary

The March 2022 comparative analysis covering 5% of the identified kaolinised mineralisation area reiterated the scale and high-grade potential of InterGroup Mining’s (IGM) Brilliant Brumby project in northern Queensland, Australia. This indicated 47Mt of kaolinised granite for 18.2Mt kaolin and built on the January 2022 maiden resource estimate. The envisaged low-cost operations provide potential for co-mining kaolin, silica, and gold. Potential lithium extraction is also to be investigated. IGM’s recent kaolin concept study returned a conservative NPV of \$125-163 million and an IRR of 16-20%, with low upfront expenditure of approximately \$18 million to de-risk the project over the next 18 months. A subsequent review suggests that these estimates could increase to a NPV of approximately US\$240 million and an IRR of 20%. IGM plans to complete future exploration across Brumby’s wider 20km kaolin corridor while constructing its demonstration metakaolin plant at the deep-sea port of Townsville. This will underpin the feasibility studies to support further grant applications and a potential future stock listing.

## Comment

IGM’s Brilliant Brumby project provides low-capital access in a politically stable environment to a commodity which is likely to play a larger role in the decarbonisation of the cement industry and high purity alumina (HPA) markets. The comparative analysis estimate highlighted a potential increase of resource above earlier inferred resource indications, while assay results confirmed the high-quality value of the kaolin clay. Its current pre-tax free cash flow, modelled on conservative volume and pricing assumptions, is estimated at \$50 million per year. There is further upside likely in the form of kaolin related by-products, notably sand and silica flour, and the identified gold deposits dispersed across the property.

## Key facts

GEOGRAPHICAL FOCUS	Australia
COMMODITY EXPOSURE	Metakaolin, kaolin and gold

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*All currencies are in US dollars unless otherwise stated*

# Commodity: Metakaolin & Kaolin



## Uses

Kaolin is a common mineral traditionally used in the manufacture of ceramics. It is a white clay derived from the mineral kaolinite, which itself is formed by hydrothermal weathering of igneous rock such as granite. Although found across the world, it rarely occurs in large high-grade and low impurity deposits. Additional uses of kaolin are paints and coatings, fibreglass, paper and packaging, pharmaceuticals, cosmetics, plastics, rubber and agriculture, with the potential to be used as feedstock for high purity alumina production.

Metakaolin is a dehydroxylated form of kaolinite and can be manufactured for specific purposes under controlled conditions to ensure consistency. Within the construction industry, metakaolin is already used in high-performance concrete to improve strength and durability as well as decrease permeability and shrinkage.

## Outlook

There is strong growth potential for kaolin, as metakaolin, driven by decarbonisation in different industrial sectors. The concrete and cement sector is likely to rely heavily on metakaolin in the coming decades with plans underway to deliver carbon-neutral production on a global scale by 2050. Metakaolin is particularly valuable in the cement sector because clay-based geopolymers can be used as an alternative binder to replace CO<sub>2</sub> intensive clinker, reducing emissions by up to 40% without compromising performance. Metakaolin also has a potentially significant role to play in meeting future HPA requirements for the electronics and EV market.

The pricing of kaolin and metakaolin are relatively opaque, with prices typically set out in bilateral contracts based on specific products. With the price of metakaolin imported into Australia at approximately US\$500-\$850 per tonne, and demand growth expected to be 5.1% in the next five years, the outlook is positive.



# Commodity: Gold



## Uses

Gold is one of the oldest known mineral sources in the world found in multiple regions around the world. While gold is a permanent resource and cannot be consumed or used up like oil or wheat, it has long been used as a source of currency. This is partially due to its permanency and the high value places on it by many cultures around the world throughout history. However, its intrinsic value and permanency means it is also a popular choice for other uses, alongside silver and copper. This includes making jewellery, as well as medals and awards. Throughout history, it has also been used in art, electronics, dentistry, medicine and aerospace. As gold cannot be consumed or used up like other commodities, supply will continue to increase with little impact on demand. Gold is viewed favourably as a hedge against inflation and was used to measure the stability of the US monetary system for decades.

## Outlook

Gold has traditionally been one of the more stable commodities with minimal impact from policy and inflationary pressures around the globe. This is partially because it doesn't follow standard supply-demand fundamentals. This means that gold prices rarely see the large fluctuations familiar in other commodities such as oil or gas. However, there is still plenty of volatility as global markets continue to factor in the impact of the war in Ukraine and recessions fears in recent months. A recent downturn saw gold prices fall below \$1,800 an ounce in mid-May before sentiment shifted again with hedge funds covering short positions on the back of a weakened US dollar. There is further potential for a price correction amid speculation of further US interest rate hikes in the coming months. This may be further exacerbated by news of falling production levels in Australia/ Gold production dropped by 6% in the second quarter of the year as wet weather and a resurgence in Covid cases hit operations at several sites.

# Asset metrics

## Project: Brilliant Brumby



OP/UG	OP	CAPEX (USD MILLIONS)	260
LIFE (YEARS)	N/A	OPEX (\$/T)	161
COMPANY	InterGroup Mining	NPV (USD MILLIONS)	240*
EXISTING PRODUCER	No	IRR (%)	20*
MARKET CAPITALISATION	Private	DISCOUNT RATE	8%
ANNUAL PRODUCTION	Metakaolin: 256kt/yr, Kaolin: 99kt/yr, Silica: 374kt/yr	MATURITY (PFS/BFS/ EQUIVALENT)	Concept study + 2022 Update***
		STUDY AGE	2022
COMMODITY PRICE ASSUMPTIONS	Metakaolin: \$400/t (demonstration plant), \$300/t (production plant); Kaolin \$80/t; Silica \$34/t	PROVEN TECHNOLOGY	Yes
		RESOURCE (CONTAINED MI&I; Mt)	18.2 Mt**
		RESOURCE GRADE	39.7% Kaolinite
BY-PRODUCT	Silica and Alumina	OWNERSHIP	100%

\*Pre-tax

\*\*Not JORC compliant. The comparative validation assessment of 18.2Mt is 5% of identified Kaolinized mineralisation area.

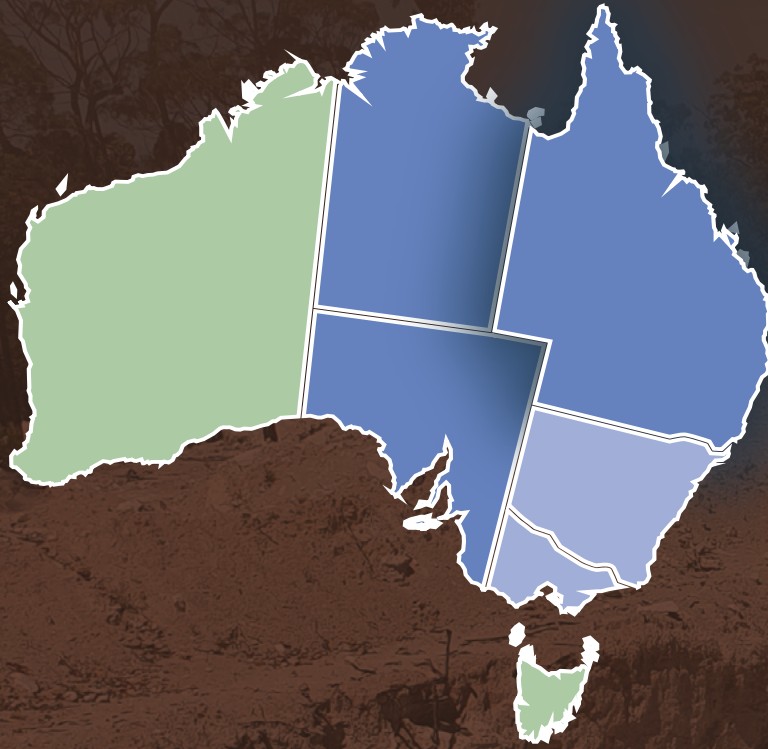
\*\*\* The concept study completed by IGM and the 2022 update were private studies and not subject to market regulation

# Asset rating

IGM's Brilliant Brumby project is underpinned by its low-cost capital expenditure and highly prospective asset following the publication of its maiden resource estimate. An expected NPV of \$240 million and an IRR of 20% highlights strong potential for future growth, while the reliability of operating in a Tier 1 jurisdiction provides additional security in a time of uncertainty. In addition, mining is shallow with minimal waste and the required processing technology is well known. This low project risk should enable the company to raise the equity and debt financing to bring the demonstration plant online. Construction is scheduled to begin in the second half of 2022. Confidence should also grow in line with product demand, especially in the Asia-Pacific region.



# Jurisdiction rating



## INVESTMENT RISK INDEX: QUEENSLAND, AUSTRALIA

LEGAL	51
GOVERNANCE	73
SOCIAL	87
FISCAL	57
INFRASTRUCTURE	78
<b>TOTAL</b>	<b>65</b>
OPPORTUNITY (GEOLOGY)	48
PERMITTING	51
POLICY	61

Australia is one of the most popular mining jurisdictions in the world due to favourable policy and security, despite recent reforms which tightened scrutiny and improved efficiency. While the incoming Labor government is more willing to tackle the issue of climate change, their focus on increasing renewable energy sources means there will be little change for the mining industry. The potential establishment of an Environmental Protection Agency should be positive for the sector as it will improve processes and centralise data analysis across the country.

Western Australia remains the most prolific jurisdiction in Australia, ranking fourth in the world, Queensland is not too far behind in 16th place.



# Team

“The scope of Brumby is significant. By size, it has the potential to be the largest of its type in Australia – a multi-generational project with a possible 100-plus year mine life. By relevance, we believe high quality kaolin - in the form of metakaolin - will have a fundamental role to play in the long-term decarbonisation of Australia’s and SE Asia’s cement and concrete sector. We also see its importance growing as an alternative lower-cost feedstock in HPA production now that HPA has been placed onto Australia’s critical mineral list.”

Neil Miller, Chairman



## James Busche

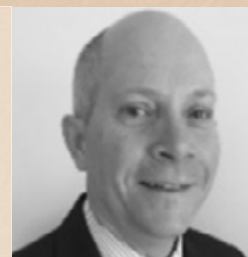
Chief executive officer elect

James has extensive experience in energy, mining, capital markets, project management and M&A. James has spent the last seven years focusing more on sustainable energy by initiating/funding renewable projects in the biofuel, biogas, hydrogen and storage areas as well as converting assets to renewables.

## Bruce Aitken

Chief financial officer & director elect

Bruce brings more than 30 years of experience in the financial and management consulting industry in Australia, the UK and Pacific nations. Bruce is a chartered accountant and has a Masters of Applied Finance with a corporate finance specialisation.



## Steve Sanders

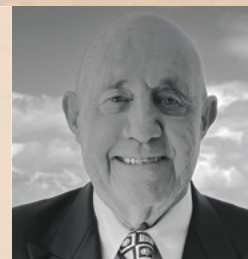
Non-executive director elect

After pursuing a career in corporate and international law at major law firms, Steve now focuses on company development in the specialised areas of minerals and mining, alternative energy, banking, biotech, life sciences and manufacturing. He is a member of the American Bar Association and the New York State Bar Association.

## John Bohringer

Non-executive director

John has extensive experience as president, CEO and major shareholder in a number of public companies. He brings 25 years of experience in international merchant banking including acquisitions, mergers, new floats capital raising and corporate development.



# Indicative timeline and near-term catalysts

2022

## Q2 2022

Kaolin pre-feasibility study and bankable feasibility study

initiate grants application and project financing

## Q4 2022

Gold Planning / phased exploration

ASX listing led by CPS Capital

2023

## Q1 2023

Kaolin - construction of demonstration plant and approvals

# Resources

**Kaolin concept study PDF**



**Stratum comparative analysis PDF**

**Maiden resource PDF**

**Traxys offtake agreement PDF**

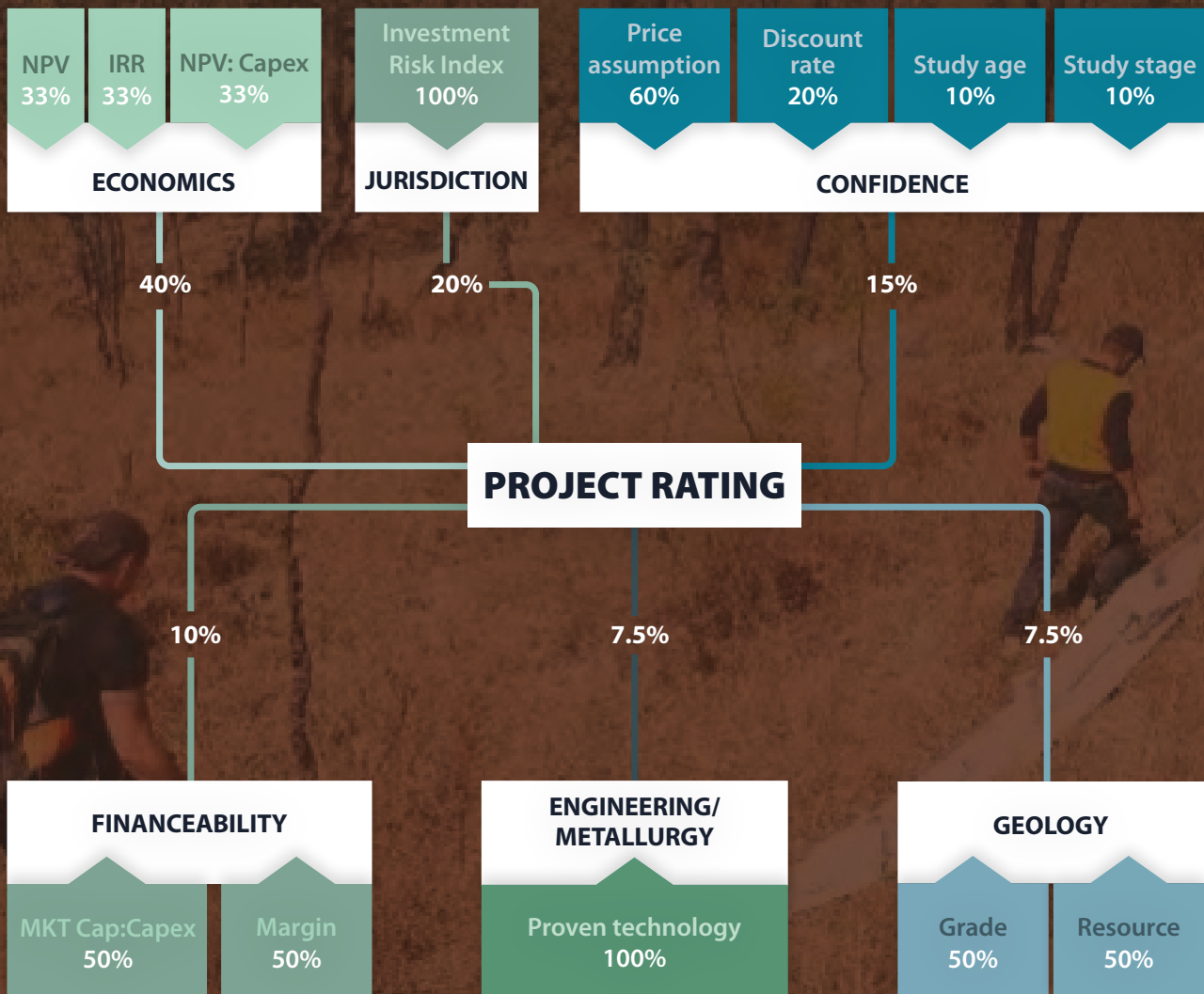


**Analyst report from September 2021 PDF**



# Appendices

The ratings for the asset and the jurisdiction come from *Mining Journal Intelligence's* Project Pipeline Handbook and Investment Risk Index, respectively. The Investment Risk Index is part of the Mining Journal World Risk Report (feat.MineHutte ratings). Below are the two schematics to explain how we arrive at our ratings.



# Appendices

For a more detailed explanation of the methodology behind these systems, download the summary documents for each report from the Research page on the *Mining Journal* website:

[www.mining-journal.com/category/research-reports](http://www.mining-journal.com/category/research-reports)

