

### **GREENVALE MINING LTD INVESTOR WEBINAR**

- Greenvale Mining Ltd to present at Resources Rising Stars 2020
   Investor Conference
- Presentation scheduled for Wednesday 11th November 2020 at 8:10AM WST / 11:10AM AEDT

Greenvale Mining Ltd (ASX: GRV) is pleased to advise it will present an investor briefing at the *Resources Rising Stars 2020 Investor Forum* on 11<sup>th</sup> November 2020. The Company invites investors to view a live streamed video presentation with Executive Director, Neil Biddle, with the opportunity to submit questions for Mr. Biddle to answer following the presentation.

### Investors can register online to watch the presentation via the following link:

https://www.bigmarker.com/series/Resources-Rising-Stars-2020-Investor-Conference/series\_summit

### More information can be found at:

https://www.resourcesrisingstars.com.au/events/rrs-two-day-investor-webinar

A copy of the Presentation to be made on 11 November 2020 is enclosed.

This presentation has been approved by the Board for release.

Alan Boys Company Secretary



RRS Conference Gold Coast November 10-11 2020

# DEVELOPING A RARE AND VALUABLE TORBANITE RESOURCE IN CENTRAL QUEENSLAND



EXPLORING FOR LARGE SCALE IOCG DEPOSITS IN THE BARKLEY TABLELAND NORTHERN TERRITORY

PRESENTED BY: NEIL BIDDLE (EXECUTIVE DIRECTOR)

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### CORPORATE SUMMARY

CAPITAL STRUCTURE		
Shares <sup>1</sup>	M	341
Options	M	-
Share price (4 November 2020)	A\$	\$0.064
Market Capitalisation (4 November 2020)	A\$	\$17.4m
Cash & Investments <sup>2,3</sup>	A\$	\$4.78m
Top 20 Shareholders	%	67%

Note 1: Based on approval by AGM and completion of proposed placements

Note 2: Allows for expected operations through 30 November 2020

Note 3: Shares in Gold Basin Resources Corporation (CSE:GXX) as at booked value at 7/9/20

# SHAREHOLDER SNAPSHOT Board 32% Institutions 13%

### **SHARE PRICE**





### **KEY PEOPLE**

### TONY LEIBOWITZ (NON-EXECUTIVE CHAIRMAN)

A Fellow of the Institute of Chartered Accountants, Australia with >30-years corporate finance, investment banking & broad commercial experience. Mr. Leibowitz has a proven track record of providing skills & guidance to assist companies grow & generate sustained shareholder value. Previous roles include Chandler Macleod Limited and Pilbara Minerals Limited, where as Chairman and an early investor in both companies, he was responsible for substantial increases in shareholder value and returns. Mr. Leibowitz was a global partner at PricewaterhouseCoopers. Mr. Leibowitz currently serves as Director and Non-Executive Chairman of Bardoc Gold Limited





NEIL BIDDLE (EXECUTIVE DIRECTOR)
BAppSc (Geology), MAusIMM

Geologist and Corporate Member of the Australasian Institute of Mining and Metallurgy with > 35 years professional and management experience in the exploration and mining industry. Mr. Biddle has served on the Board of several ASX listed companies. A founding Director of Pilbara Minerals Limited, serving as Executive Director (May 13 - Aug. 16) and Non-Executive Director (Aug 16 - July 17). He also served as Managing Director of TNG Ltd (1998 – 2007), Border Gold (1994 – 98) & Consolidated Victorian Mines (1991 – 94). Mr. Biddle currently serves as a Non-Executive Director of Bardoc Gold Limited.



ALAN BOYS (CFO & COMPANY SECRETARY)
B.Com., CA

Chartered Accountant with >30 years experience, initially in public practice, where his final role was partner with an international "Big 4" accounting firm. Since 1998, Mr. Boys has worked in the exploration and mining industry as a director, company secretary and Chief Financial Officer. He was the Company Secretary and CFO of Pilbara Minerals Limited from October 2014-mid 2016, during Pilbara's rapid evolution from junior explorer to emerging lithium producer.



MARION BUSH (SENIOR PROJECT GEOLOGIST)

BSc (Geology), MSc (Mineral Project Appraisal)

Geologist with > 20 years commercial and corporate experience, gained mostly in the UK. Ms. Bush's career has included management, directorship, analyst and marketing roles both within and outside of the resources sector. Ms. Bush served as the COO and then CEO of Cassidy Gold Corp. (2012-2016), a Canadian TSX-V listed gold exploration company with projects in West Africa.



CAMERON BOYS (BUSINESS DEVELOPMENT MANAGER)

B.Com.

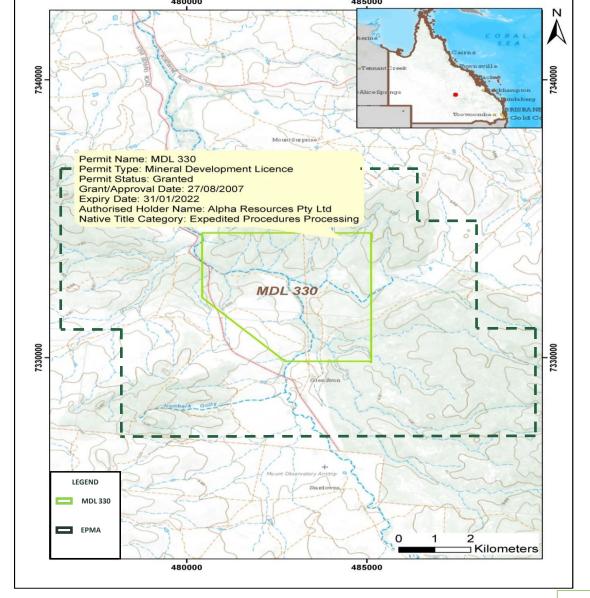
Mr. Boys is a corporate finance professional with experience in commercial credit analysis, asset valuation, business development and risk management. Mr. Boys' career has included roles as a senior commercial analyst for one of Australia's largest banks, as well as markets executive for an international advisory firm and commercial manager for an oil and gas technology company.



### **ALPHA TORBANITE PROJECT OVERVIEW**

- Located in central QLD 500 kms east of Rockhampton
- Discovered in 1939 80 year history of exploration and testing
- Very rare deposit, only two known torbanites in Australia
- Very high hydrocarbon content up to 650 litres per tonne
- Potential to produce 3 high value, high quality products:
  - 1. Bitumen
  - 2. Light crude (Diesel)
  - 3. Activated carbon

Plus Gas (to power processing plant)





### **BITUMEN MARKET**

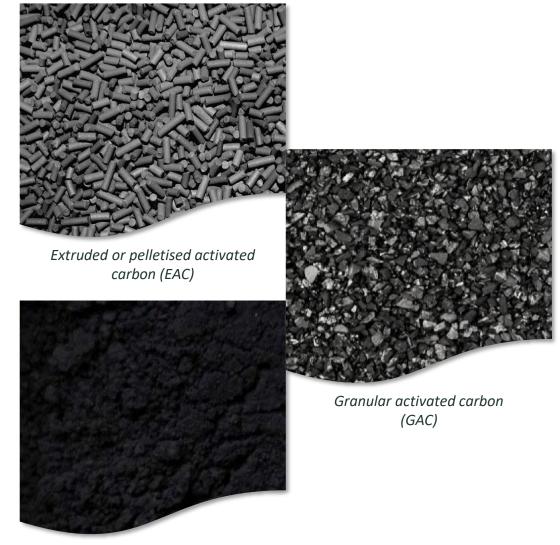
- Australian bitumen market approximately 800,000 tonnes p.a.
- Fully imported from SE Asian mega refineries
- QLD bitumen market approx. 100,000 tonnes p.a.
- Export possibilities to PACRIM countries Indonesia and NZ for cold pelletised bitumen
- Historical test results of Alpha torbanite bitumen exceeded Australian standards





### **ACTIVATED CARBON MARKET**

- One of the worlds fastest growing commodity markets. Currently worth over US\$5 Billion p.a. and growing at 10% p.a.
- Front line choice for emissions purification.
   Excellent adsorption of organic and inorganic impurities and odours in air, gas and water
- Used globally in all types of water treatment, sewerage plants, aquatic centres, waste water and potable water processing
- Alpha torbanite produces a high quality activated carbon due to high porosity and mechanical strength



Powdered activated carbon (PAC)



### **ALPHA EXPLORATION HISTORY**

COMPANY	WORK	YEAR	REMARKS
Local Syndicates	Shaft	1939-1945	Prospecting, not systematic and not recorded
<b>Queensland Department of Mines</b>	Series QDM drilling	1942-1944	Government geological supervision; 15 holes
International Mining Corporation (IMC)	Series GA/ RDH drilling	1979-1981	McElroy Bryan & Associates; supervision 16 holes
JFH Murray & Associates	Survey	1980	Establish benchmarks and survey for drilling
Greenvale Esperance	GE 1-8	1980-1984	Resource definition with geological supervision
Queensland Nickel	Analyses	1981	Oil shale as chemical reductant in nickel ore processing
Petrobras Brasil	Analyses	1981	Retorting studies on 100 kg sample
Tosco USA	Analyses	1981	Retorting studies on 100 kg sample
BKS Surveys	Survey	1983	Benchmark survey and drill collars for ARL
Rankin & Hill	Resource estimation	1984	Engineering study
Greenvale Esperance	GE 9-38	1985-1987	Resource definition with geological supervision
Coal and Carbon Industries	Analyses	1987	Retorting studies produced gasoline, kerosene,
Bitumen Study	Market study	1987	Used for road surface, Alpha deposit could supply Queensland's Annual requirements
CSIRO	Analyses	1988	Bench-scale retort tests
Inland Oil Refineries	Microstill	1989	Mini refining concept for remote fuel supply
Daniel Madre	Open pit study	1990	10-year preliminary mine plan to produce 200,000 Barrels oil/year
Northlake Industries Inc.	Analyses	1992	Retorting tests
University of Kentucky	Analyses	1994	Production potential for activated carbon



### ALPHA DRILL HOLE SUMMARY

Company	Hole series	Year	No. of holes	Cumulative depth (m)	Logging depth (m)	Geophysical log	Samples analysed
Queensland Department of Mines	QDM	1942- 1943	15	614.8	-	-	36
International Mining Corporation	GA/ RDH	1979- 1981	16	1,063.6	568.0	RDH 11-16 have logs	23
Greenvale Mining and Esperance Minerals	GE	1980- 1987	37	1,573.6	749.1	GE9B, 10A, 19A, 27-37 have logs	136
	Т	OTAL	68	3,252.0	1,317.1		195

- Main Zone of Torbanite and Cannel Coal relatively intensely drilled, geology and structures are well understood
- Potential for material expansion of Torbanite zone to the SE
- Additional drilling is likely to be required plus downhole geophysics and coal quality sampling to enable JORC 2012 compliant resource modelling

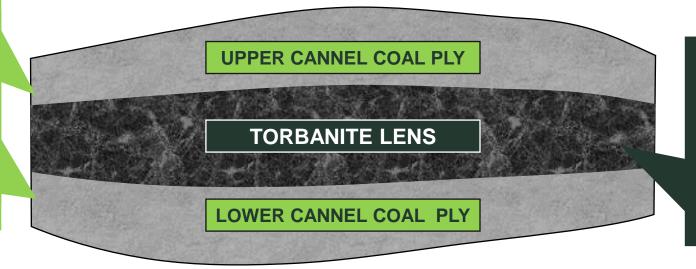


### WHAT IS A TORBANITE LENS?

## Overburden or Spoil Above Coal Seam

### **CANNEL COAL**

Formed in terrestrial environment and likely to have some visible structure



### **TORBANITE LENS**

Formed in freshwater environment and generally fine grained with little or no visible structure



Sub Burden (Mining only to the floor of the Lower Cannel Coal Ply)

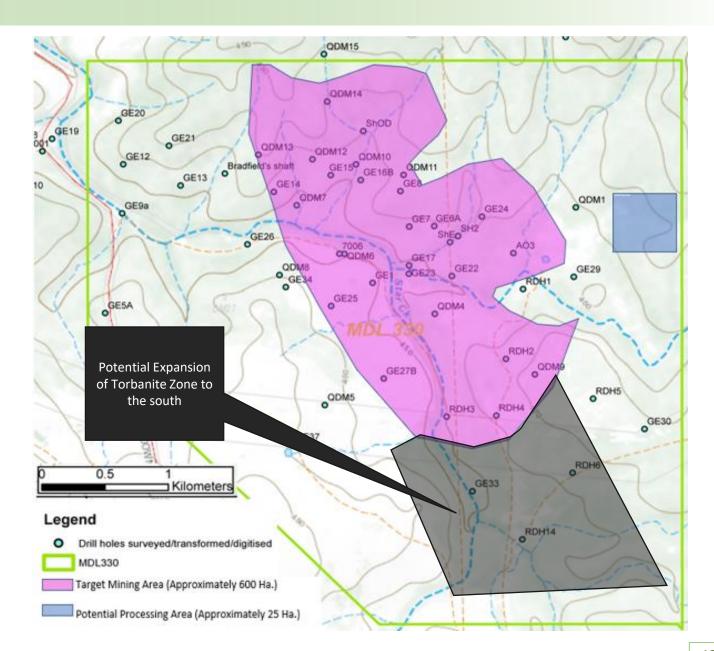




<sup>\*</sup> This diagram is not to scale and for illustration purposes only

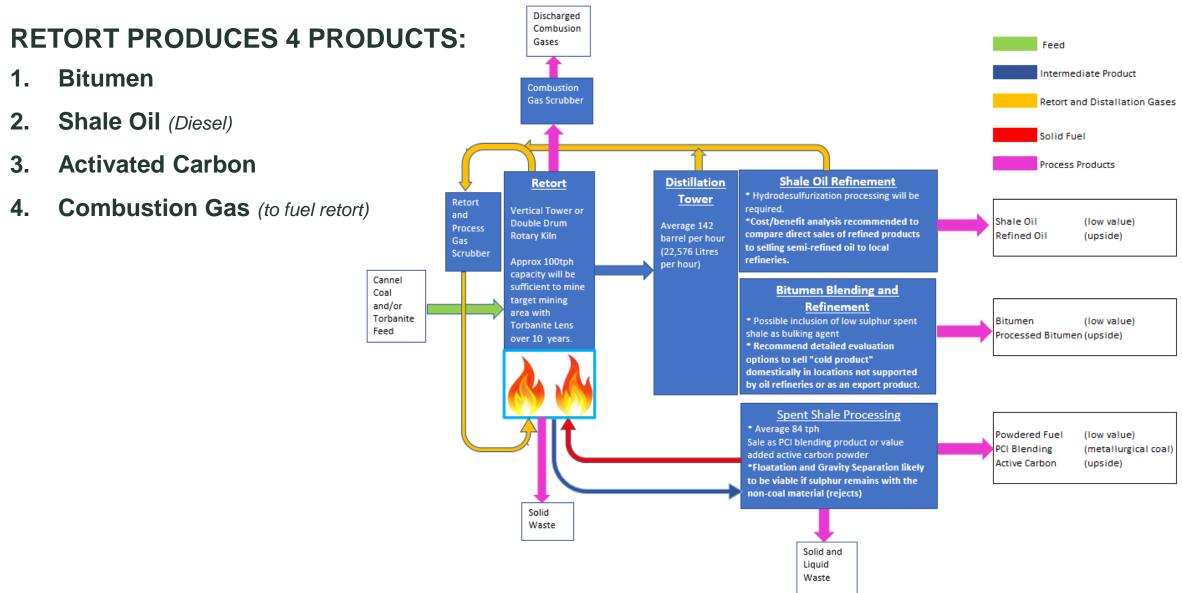
### PROPOSED TORBANITE MINE PLAN

- Scoping Study assumed mine plan for 7mt, 10 years at 700kt p.a.
- Torbanite zone approx. 600ha,
   ~3km's x 2km's
- From 5m depth on eastern side to max 50m depth on western side
- Strip mining with progressive backfill and rehabilitation





### **CONCEPTUAL ALPHA PROCESSING PLANT LAYOUT**





### **BULK SAMPLE PROGRAM**

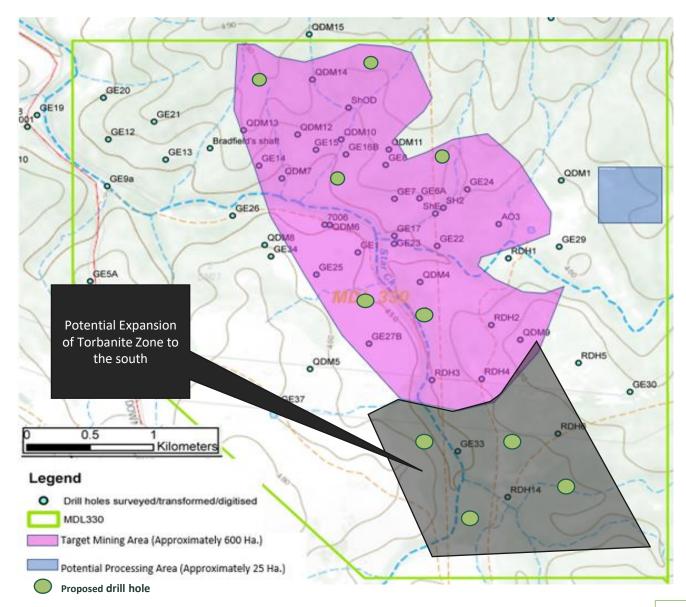
- 3 x 1 tonne samples to be collected from upper Cannel Coal, Torbanite and lower Cannel Coal
- Pilot scale retort testing for process design and product specifications





### PROPOSED DRILL PROGRAM

- 4 hole diamond program proposed to test extensions of identified Torbanite Zone
- 6 hole diamond program and downhole geophysics to verify historical drilling and provide geotechnical data
- JORC 2012 compliant resource/reserve June 30 2021
- Final feasibility with offtake partners in place, December 2021





### GEORGINA IOCG PROJECT



### **GEORGINA PROJECT**

### NEW GEOSCIENCE HIGHLIGHTS POTENTIAL FOR IRON

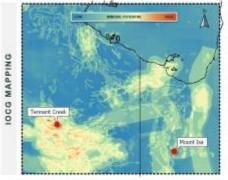
OXIDE CU-AU DEPOSITS EAST OF TENNANT CREEK

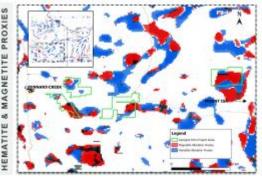
- Exploring for the Future (\$100.5 million) 4-year program boosting exploration investment in under explored regions of northern & South Australia
  - Mineral potential map for IOCG mineralization (Tennant Creek Mt Isa)
  - Hematite & Magnetite Alteration proxies
  - Depth to basement
  - National Drilling Initiative (MinEx CRC)
  - Sept. 2019 release of IOCG Prospectivity map, Tennant Creek Mt Isa
- Resourcing The Territory (2018-2022) (\$26 million) NT Geological Survey (NTGS) led initiative in collaboration with Geoscience Australia and industry
  - Upgrading geophysics coverage; Greenfields exploration grants; Unlocking resource potential of Barkly & Gulf regions; Stimulating greenfield exploration in Central Australia; Increasing data accessibility
  - Oct. 2019 competitive bid for exploration licenses over new IOCG province, east of Tennant Creek

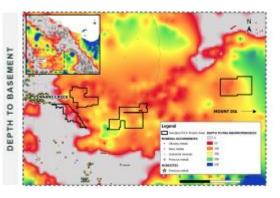




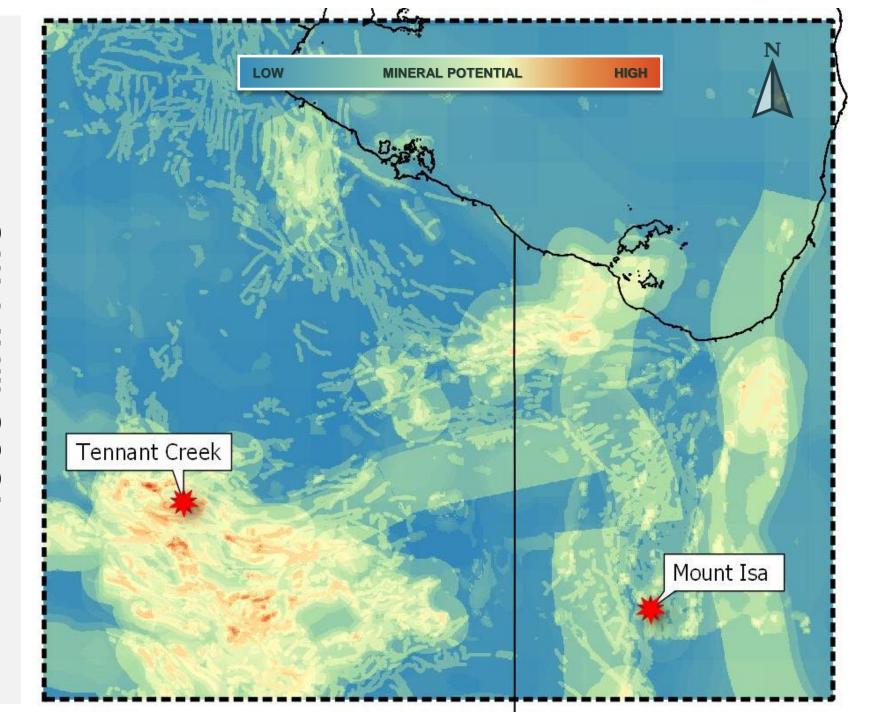


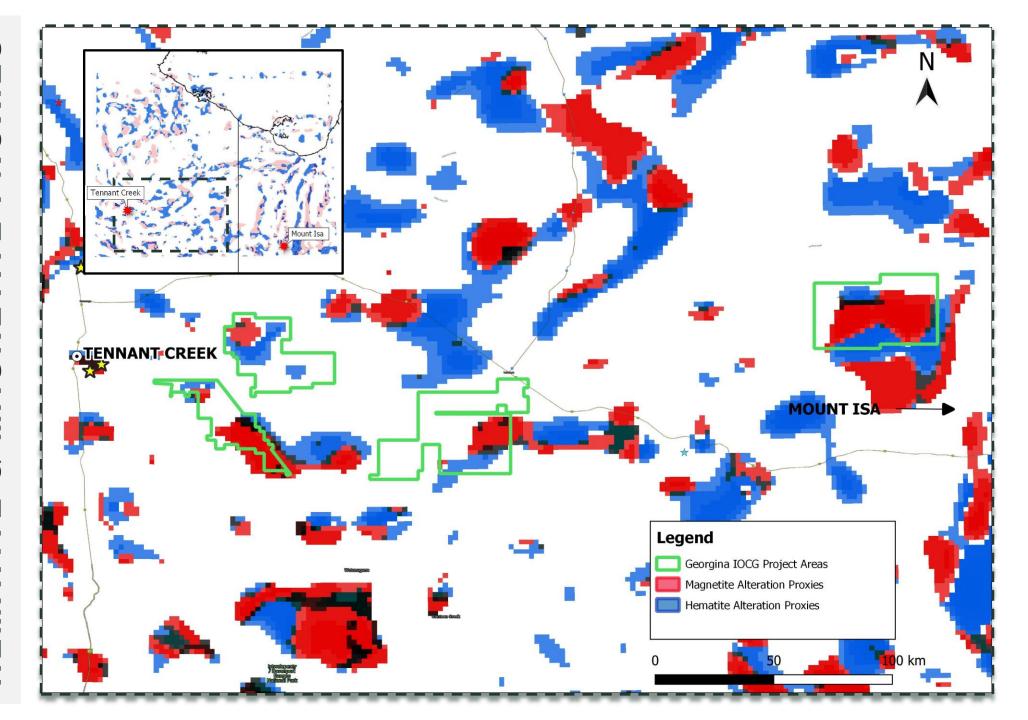




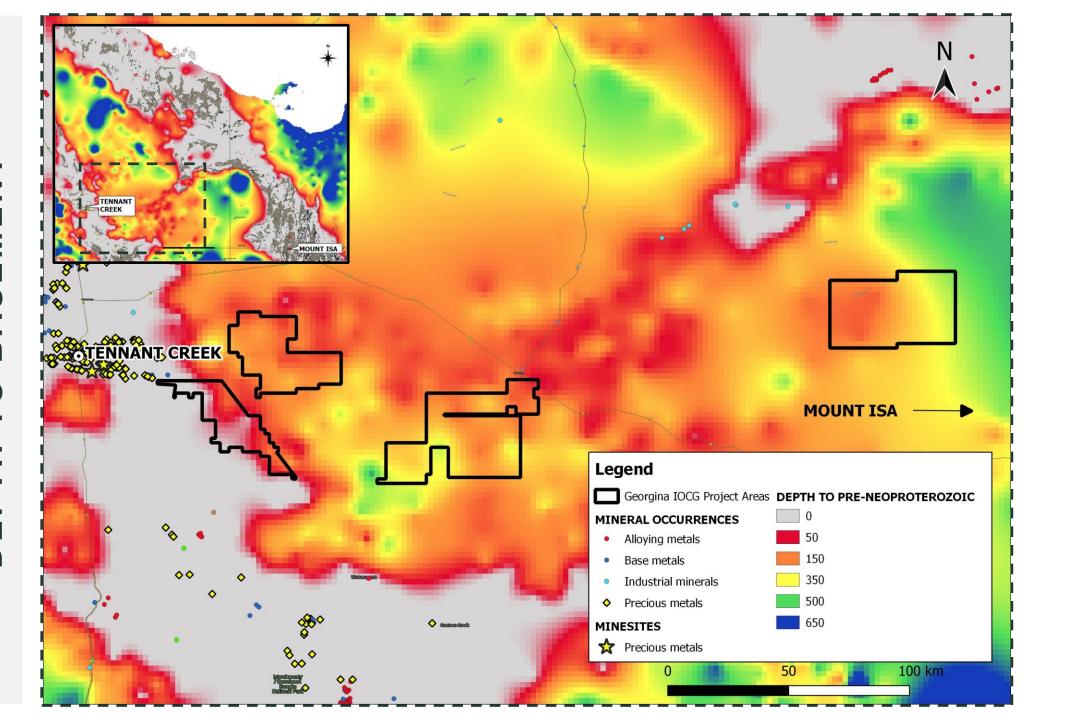






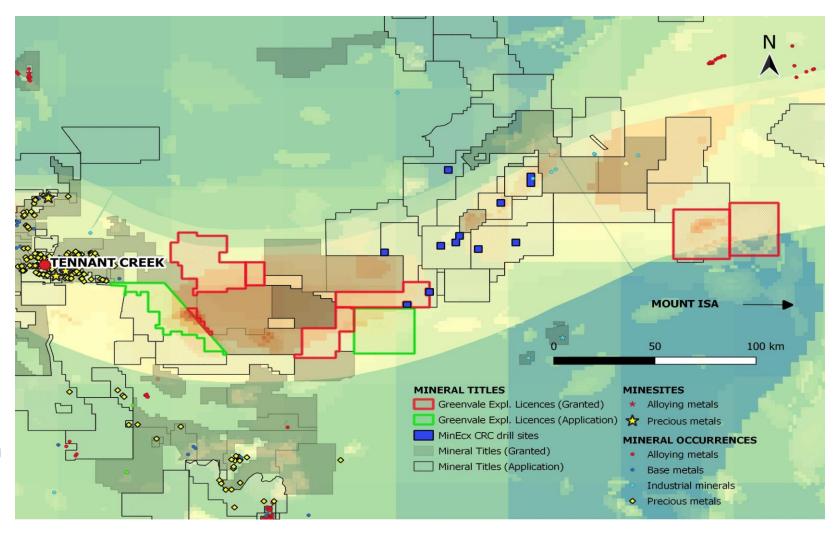


# BASEMENT



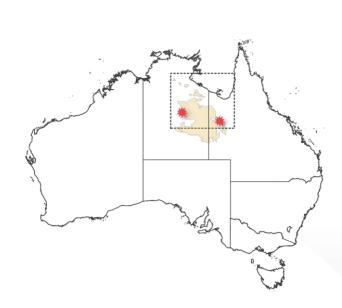
### **GEORGINA TENEMENTS**

- Seven Granted Tenements
- Two Applications
- Total Area 4,475 sq kms
- All Tenements Cover High Prospectivity Areas
- Two NDI Diamond Holes in Current Program
- Coincident Geophysics with drilling

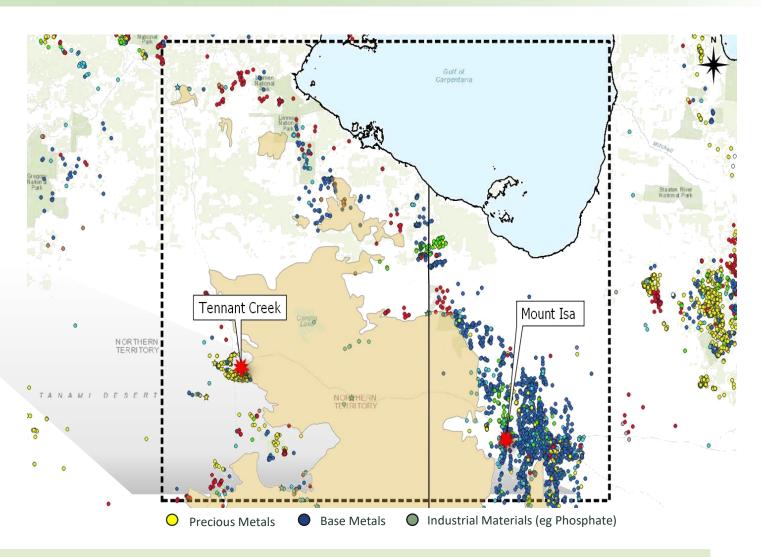




### **UNDER EXPLORED - WHAT LIES BENEATH THE GEORGINA BASIN?**



 Sandwiched between the globally significant IOCG provinces of Tennant Creek and Mount Isa

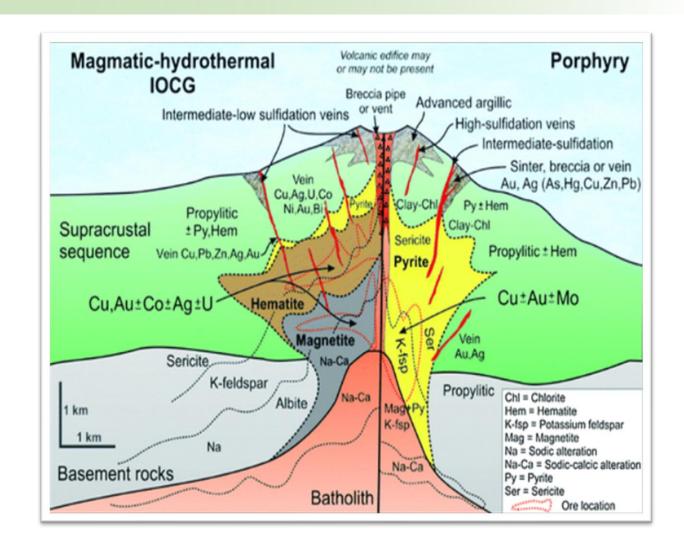


Discovered deposits in the Georgina Basin are primarily basin hosted phosphate deposits



### WHAT IS AN IOCG DEPOSIT?

- Potential to also host significant Silver, Bismuth, Molybdenum, REE & Cobalt.
- Broad range of deposits defined by elevated magnetite and/or hematite.
- Created as a result of pervasive and widespread igneous intrusion related hydrothermal activity.
- Polymetallic sulphide mineralization can occur as veins, hydrothermal breccias, replacement mantos, and calcic skarns, depending on lithology and structural setting (Sillitoe, 2003).



Globally significant sources of Copper & Gold, + / - Uranium



### SUMMARY

Micro cap – Ground Floor Investment Opportunity

 Management team with proven track record in exploration and listed company management

Near term production a real possibility at Alpha

Opportunity for large IOCG discovery at Georgina



### **SUMMARY OF SRK SCOPING REVIEW**

- Review of open cut mining and processing options by SRK Consulting indicates that a strategy to produce a diversified range of products including petroleum, bitumen and active carbon products is most likely to offer a commercially viable development pathway.
- The Alpha coal deposit can produce high-value bitumen and active carbon with the potential to deliver high-quality, value-added products through appropriate investment in processing infrastructure. This is in contrast with typical oil shale deposits.
- SRK recommends a revised exploration work program supplementing conventional core drilling with bulk samples from trenches or costeans. The raw materials will be refined to provide product samples for detailed analysis and study.
- The primary technology required will be a retorting and refining plant, which would nominally be constructed on-site.
- Preliminary investigation indicates that there will be high demand for all products that the Alpha Project would produce.
- Refined liquid petroleum products can be produced and sold domestically, either as an independent brand or in partnership with an established petroleum distributor. There is an ideal opportunity to take advantage of the project's proximity to the Bowen Basin to supply mining operations with diesel and other fuels.
- High-quality bitumen products can be refined on site or sold in pelletized form to domestic and export customers. A local asphalt producer has already indicated an interest in securing the supply of ~20,000 tonnes per annum of refined bitumen.
- Activated carbon products derived from spent shale (especially the higher-grade torbanite) can potentially be sold for a range
  of applications including blending with metallurgical PCI coal, a blended carbon.

