

## CONFIRMATION OF OPPORTUNITY FOR NEAR TERM PRODUCTION AT GOODENOUGH GOLD PROJECT – EAST MENZIES, WA

### HIGHLIGHTS

- Optimisation study confirms opportunity for a low cost, near term, open cut development exploiting shallow Resources at Goodenough Gold Project.
- Optimised pit shell indicates up to 179kt of ore at 1.71g/t for 9,800 Oz of gold
- Resources are amenable to conventional processing with high recoveries expected.
- Vat leach processing of Maranoa Resources is anticipated to commence on site in the short term with significantly reduced project cash costs.

**Resources & Energy Group Limited** (ASX: REZ) (**REZ** or the **Company**), is pleased to provide an update on its activities at East Menzies Gold Field

### DISCUSSION

Optimisation studies on the Company's Goodenough (M29/141) and Maranoa Gold projects (M29/427) has commenced with an emphasis on exploiting zones of shallow gold mineralisation which have potential to support short campaign style mining operations. These projects are contiguous with the Company's Granny Venn project site (M29/189), which provides access to fit for purpose facilities which includes stockpile pads, water, and haul road access to the Goldfields Highway.

The Goodenough Gold project is a mining lease wholly owned by East Menzies Goldfields Pty Ltd. In parallel with the recently announced vat leach trials at Maranoa ([ASX Release 29 August 2023](#)), the Goodenough gold resource is being investigated for opportunity to resume mining operations. The Goodnough deposit has previously been worked as an underground resource, with historical production of approximately 21,532 t @ 15.91 g/t.

Previous mine operations at Goodenough have occurred over three phases, with initial production achieving exceptionally high gold grades of 10,850t @ 24.24gt/au. This is due to a combination of very selective mining and potential near surface supergene enrichment. The second phase occurred between 1987 and 2001 when Jones Mining sunk a shaft to a depth of 78 m and developed the mine on two levels. Production was 8,478t for 1955 oz at 7.16g/t. In 2011, and 2013 two tribute mining campaigns recovered 2,203t for 607oz at 8.56gt/au.

Since acquiring Goodenough, the Company has reviewed historic work and mineralisation at the project. These studies has generated a JORC 2012 MRE estimate which comprises 42.7k oz/au ([ASX Release 3 November 2020](#)) at a COG of 1gt/au, represented by:

- **Total Indicated: 633.8kt @ 1.84g/t au for 37.5k oz au.**
- **Total Inferred: 81.9kt @ 1.99g/t au for 5.2k oz au.**

While many of the past lines of underground mine workings are represented by narrow, high grade and low tonnage zones of mineralisation, the current approach is related to investigating broader zones of gold mineralisation which have the potential for open pit development. Mining Plus (MP) was engaged by REZ to conduct open pit optimisations for the project, using a contract mining and toll processing cost model.

The aim of the MP study was to run optimisations with the focus of achieving the highest revenue for a small mine option. The small mine option was selected as it enables early start-up, and cash flow generation. This approach also maximises the volume of oxidised ore available and reduces potential Acid Mine Drainage (AMD) issues and costs associated with fresh waste rock management. The oxide and transitional ore gold recoveries display excellent leach kinetics of up to 97% as indicated by recently reported BLEG results ([ASX Release 29 August 2023](#)), refer table 2.

A development footprint of less than 10ha was also a key consideration, as it is within the ruling criteria for small mine developments in West Australia. This reduces time and costs for permitting and project approvals.

The input parameters used in the optimisation study included:

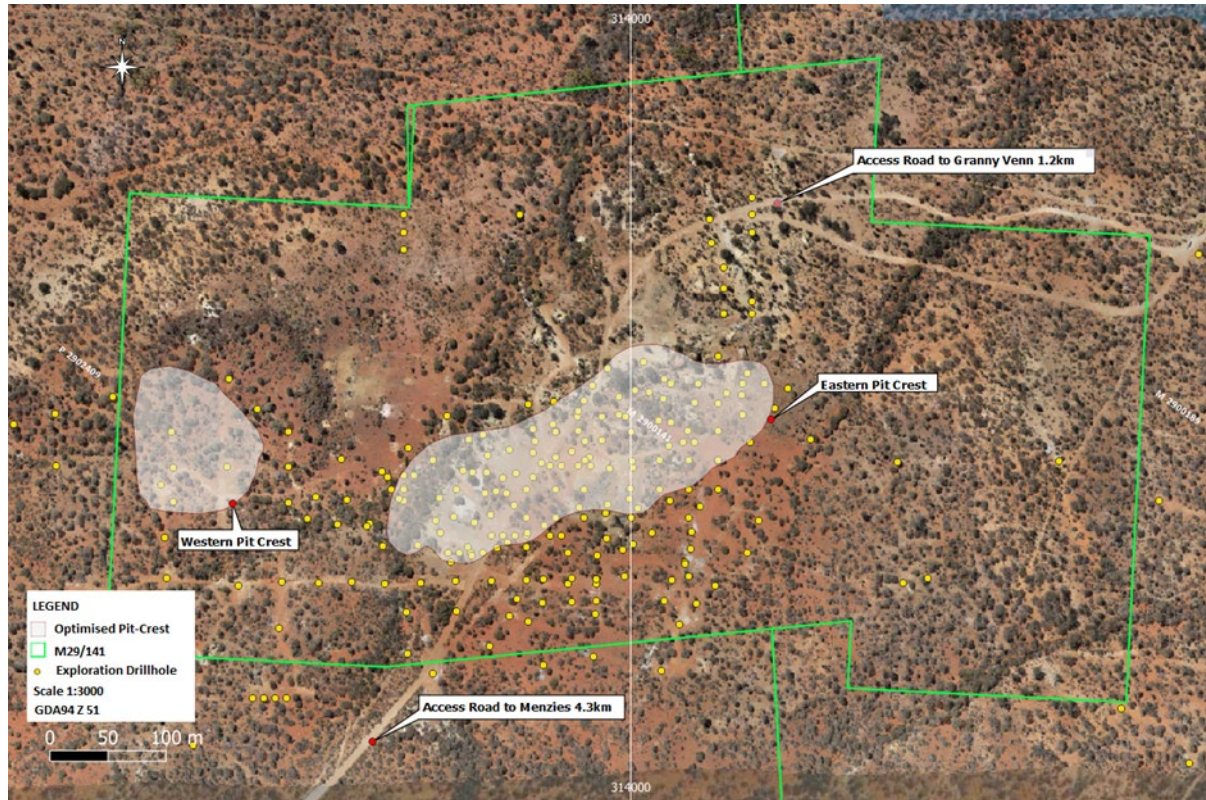
- \$88.58 Revenue Price \$g/t Au after royalty payment.
- Conventional CIL processing
- 94% recovery of contained metal.
- \$83.80/t mining and processing costs
- 10% dilution at 0g/t
- 95% recovery of ore
- 400 Overall Wall Slope (allowing for ramps).

Two mining options were assessed in detail, the first option investigated a pit constrained to a maximum depth of 30m. The second option looked at incrementally increasing pit depth. The latter case delivered significantly improved resource recovery, for relatively minor increases in pit depth, and produced the best outcome of 179k tonnes ore for 9.8k oz/au at a maximum depth of 42m, refer table 1. Of this estimate 169kt is in the higher confidence Indicated category and 10kt are Inferred.

Option	Max Depth (m)	Total Tonnes	Ore Tonnes	Diluted Head Grade (g/t)	Ounces (au)	Waste Tonnes	Strip Ratio
1	30	517039	49364	1.79	2836	467675	10
2	42	2166780	179180	1.71	9876	1987600	11

**Table 1 Goodenough Pit Optimisation October 2023**

In both cases the optimisation software generated two pits, a large eastern pit, and a smaller “outlier” western pit, refer figure 1.



**Figure 1 Goodenough Pit Layout**

The western and eastern pit shells range in depth from surface to 37 and 42m respectively. The main eastern pit shell is 350m long and 100m at its widest and occupies a surface area of about 3.5ha and is well within the statutory guidelines for small mine operations.

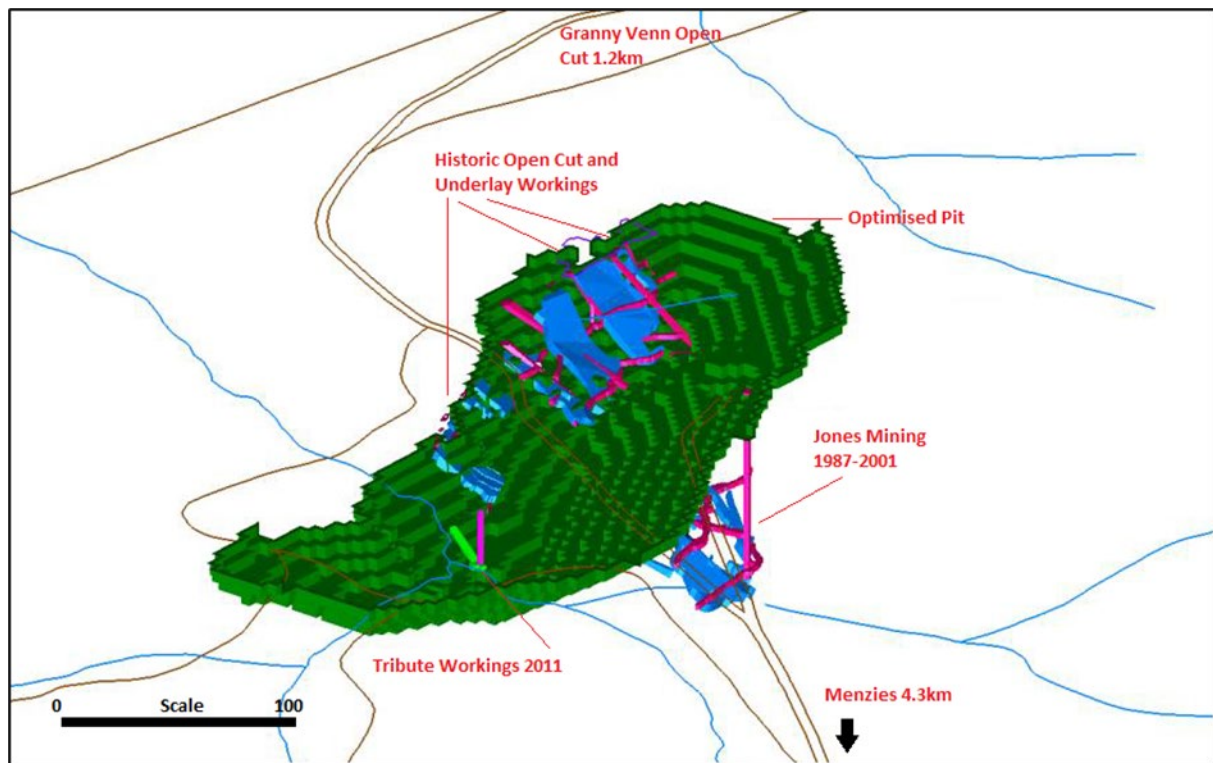
Hole ID	From (m)	To (m)	SAMPLE Ref	Au residual (g/t au)	Au Leach (g/t au)	Calc Head Grade (g/t/au)	Recovery (au %)	Weathering
GERC001	14	15	MGF00015	0.27	2.5	2.77	90%	Oxide
GERC001	15	16	MGF00016	0.28	3.31	3.59	92%	Oxide
GERC001	16	17	MGF00017	0.08	1.2	1.28	94%	Oxide
GERC002	27	28	MGF00077	0.09	3.32	3.41	97%	Trans
GERC002	28	29	MGF00078	0.12	2.59	2.71	96%	Trans
GERC003	24	25	MGF00125	0.18	4.64	4.82	96%	Trans
GERC003	25	26	MGF00126	0.01	0.17	0.18	94%	Trans
GERC003	26	27	MGF00127	0.04	1.08	1.12	96%	Trans
GERC003	43	44	MGF00144	0.15	1.72	1.87	92%	Fresh
GERC003	44	45	MGF00145	0.15	1.93	2.08	93%	Fresh

**Table 2 Goodenough 2023 Drilling BLEG Results**



## ASSUMPTIONS AND LIMITATIONS

The resource model and optimised pit volumes have been depleted by 14.4k cubic metres or approximately 44kt to account for historic workings. In the case of the optimised volumes, this depletion has been added to the waste. Most historic mine development comprising open cut and underlay development, and more recent underground operations by Jones Mining is located in the north-eastern corner of the pit. The extent of these workings superimposed on the optimised pit is shown on figure 3.



**Figure 3 Goodenough Optimum Eastern Pit Showing Historic Working**

Data utilised in the interpretation of mineralisation at Goodenough consisted of historic drill hole logging and assays, past interpretations, and data acquired by recent drilling programs in 2014, 2016 and 2019 and 2023. A total of 174 drill holes were used in this process. The spacing of drill-holes on section typically ranges from ~10-30m, and the assay sample intervals have been, in the main 1m. All exploration drillholes have been collared from the natural topographic surface with collars snapped to a digital terrain model which was prepared from a drone survey completed in August 2020.

Indicated resource blocks typically required borehole spacing less than 30m and inferred 30-70m. No resources have been classed beyond 70m. During the analysis of the pit shells, it became evident that the block model wireframes have limited the pit shells, causing the pits to hit the western and eastern extents of the model framework. This has resulted in a slight reduction in the reported waste volumes.

The resource model used for the optimisation study applied a default density of 2.8 to all resource categories. Typically, within the project area fresh ultramafic rocks can be expected to have a density ranging from 2.7 to 2.93. Oxidised and transitional rocks have lower densities at between 2.5 and 2.7.

## NEXT STEPS

It is planned to immediately commence a scoping study including mine design, production schedules and waste dump design. Some additional drilling will also be necessary to confirm gold recoveries, and to assist with ore and waste materials characterisation, and to further inform the resource model.

The Company is also investigating a trial vat leach option for shallow gold resources at its Maranoa project, which is less than 1.5km south of Goodenough. A program of work to recover bulk samples from the Maranoa lode has been approved and four costeans have been excavated, with sample sent off site for testing. If these trials are successful there is opportunity to transition into a larger 50,000 tpa production program, with feed coming from a combination of resources from Maranoa and Goodenough. This will require further metallurgical study from Goodenough to determine optimum grind size, and column leach testing to assess leach kinetics.

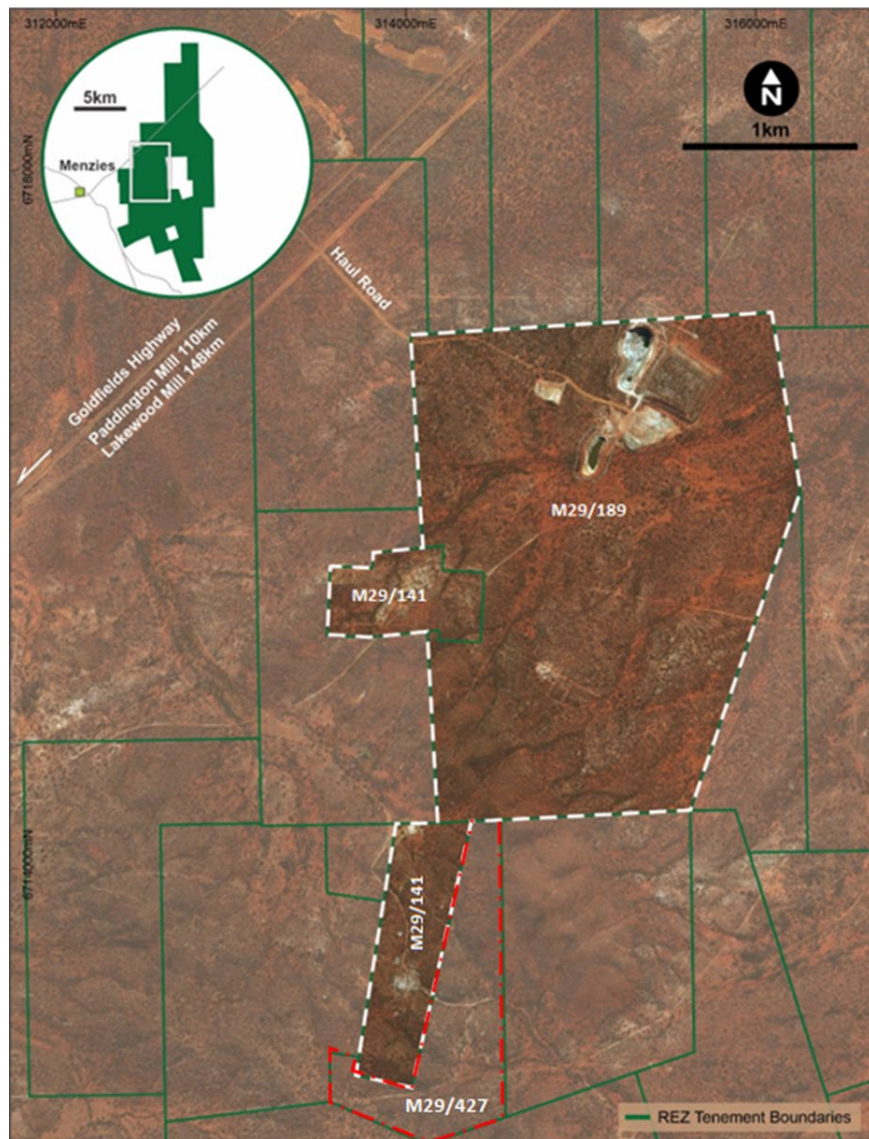


Figure 4: M29/189 Granny Venn, M29/141 Goodenough, and M29/427 Maranoa

Released with the authority of the board.

For further information on the Company and our projects, please visit: [www.rezgroup.com.au](http://www.rezgroup.com.au)

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## COMPETENT PERSONS STATEMENT

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The information in this release related to Exploration Results is based on and fairly represents information compiled by Mr Michael Johnstone Principal Consultant for Minerva Geological Services (MGS). Mr Johnstone is a member of the Australian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the reporting of Exploration Results to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Johnstone consents to the inclusion in this release of the matters based on their information in the form and context it appears. Insert Competent Persons Statement and usual project information. This should not require a Table 1, as we are not producing exploration results.

## ABOUT RESOURCES ENERGY GROUP

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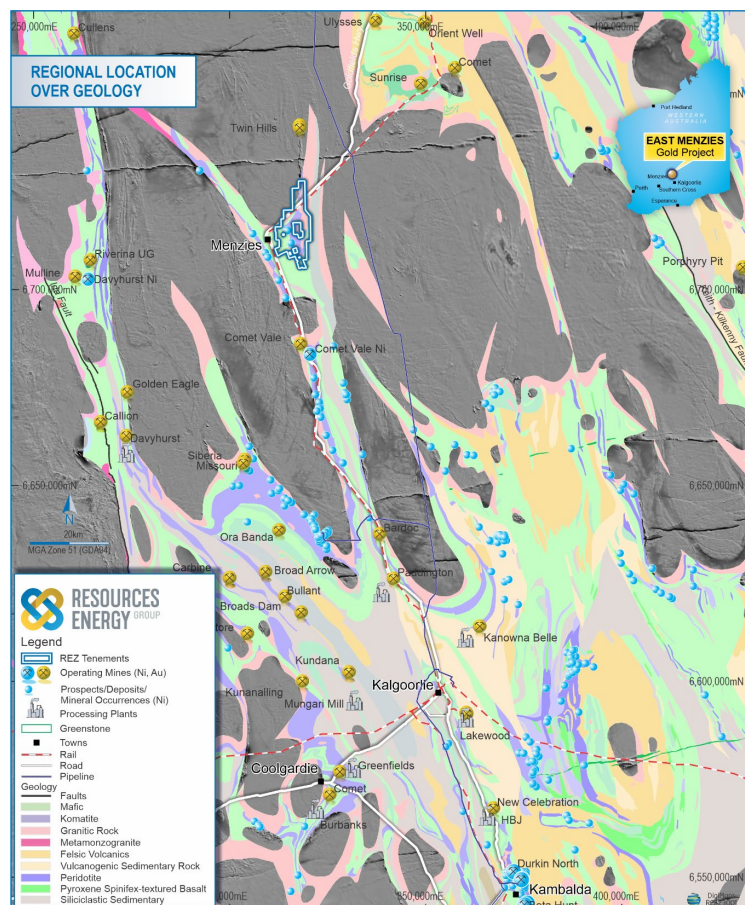
Resources and Energy Group Limited (ASX: REZ) is an ASX-listed mineral resources explorer and miner, with projects located in premier mining jurisdictions in Western Australia and Queensland. As of April 2023, the Company has gold and silver resources of 183k oz/au and 862k oz/au ag: refer to Table below.

Deposit	Material	Cut-off (gt/Au)	Indicated					Inferred					Indicated and Inferred				
			Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)	Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)	Tonnes (kt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
<b>Mount Mackenzie</b> <sup>(1)</sup>	Oxide	0.35	500	1.09	8	18	136	700	0.96	4	21	87	1200	1.02	6	39	223
	Primary	0.55	1200	1.25	13	48	482	1030	1.28	5	42	157	2220	1.27	9	90	639
<b>Goodenough</b> <sup>(2)</sup>	Primary	1	634	1.84		38		82	1.99		5.2		716	2.07		43	
<b>Granny Venn</b> <sup>(3)</sup>	Primary	1	134	2.03		9		41	2.14		2.9		175	2.1		3	
<b>Maranoa</b> <sup>(4)</sup>	Primary	1						46			8	8.05	46	5.7		8	
<b>Total</b>			2468			113	618	1899			79	252	4357			183	862

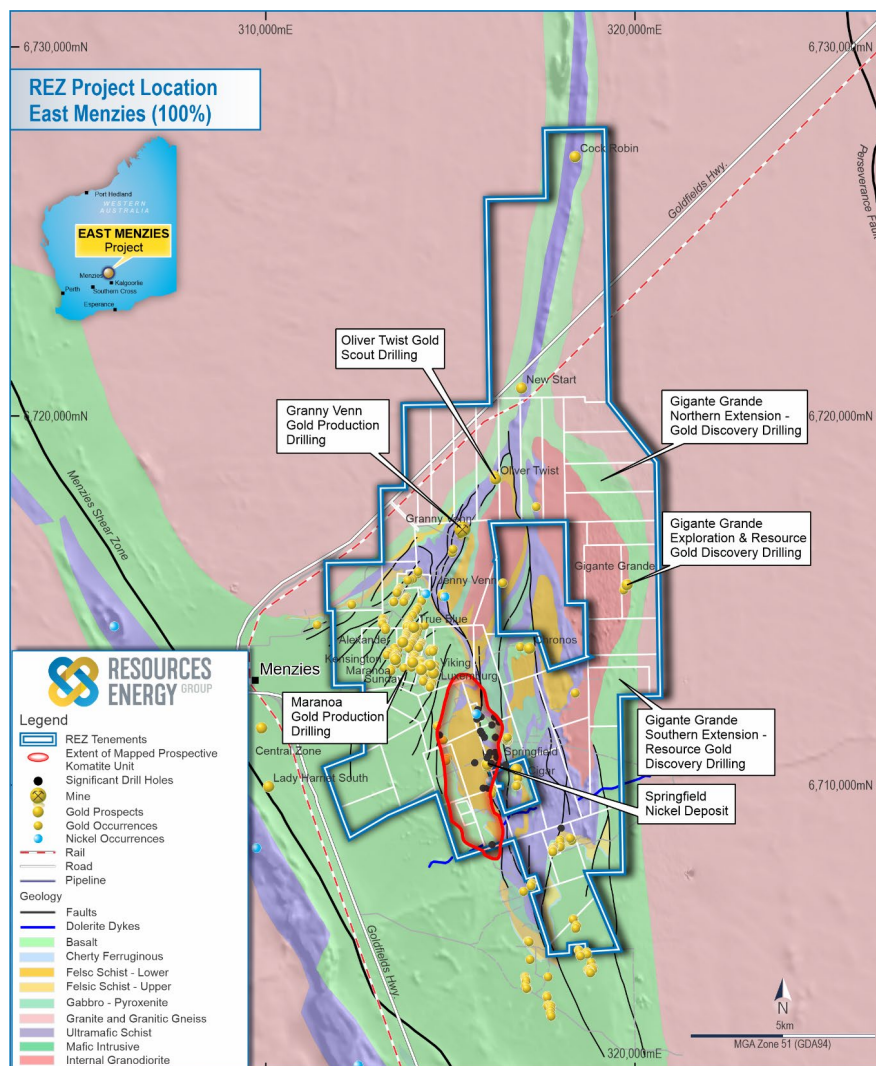
*Resources and Energy Group Resources (1) Depleted for Mining Activity at GVCB*

*(1), (2) (4) Refer to ASX releases made on 26 February 2016, 21 June 2016 and 19 May 2020 concerning the Mt Mackenzie Resource and 11 June 2020, 3 November 2020, 14 January 2021, 22 March 2021 and 4 May 2021 concerning Menzies. (3) Depleted for Mining Activity at GVCB*

In Western Australia, the Company's flagship is the East Menzies project (EMP), situated 130km north of Kalgoorlie.



The EMP represents a 108km<sup>2</sup> package of contiguous mining, exploration, and prospecting licenses which are prospective for precious metals, nickel, and other technology metals. The tenements are located within a significant orogenic lode gold province.



The EMP currently encompasses seven operational areas, including the Gigante Grande Gold prospect on the east side project area, which has been subdivided into three geographical domains (North, Central and South). In the southwest, drilling investigations at Springfield have intersected magmatic Ni sulphides. This is a significant and material exploration result that has opened a large tract of prospective ground for nickel, cobalt, copper, and platinum group elements. In the central west, the Company is investigating opportunities for mining operations in M29/189 Granny Venn, M29/141 Goodenough, and M29/427 Maranoa. In the north exploration planning is underway to investigate the Venn Springfield corridor, from the northern end of the Granny Venn Open Pit to the Cock Robin prospect located in E29/929.

In Queensland, the Company has a 12km<sup>2</sup> Mineral Development Licence over the Mount Mackenzie Mineral Resource and retains a further 15km<sup>2</sup> as an Exploration Permit. These tenements are prospective for high, intermediate, and low sulphidation gold and base metals mineralisation. The current MRE for Mount Mackenzie has been estimated at 3.42Mt @ 1.18g/t gold and 9g/t silver for a total of 129,000 oz gold and 862k oz silver: refer to the Resource Summary. The Company is carrying out mining, groundwater, ecological, and metallurgical studies, to inform a PFS study and an application for an Environmental Authority to develop the project.