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The details contained in this report that pertain to ore and mineralisation are based upon information compiled by Dr Gavin England, a full-time employee of the Company. Dr England is a Member of of the Australasian Institute of Geosciences (AIG) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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" (JORC Code). Dr England consents to the inclusion in this report of the matters based upon his information in the form and context in which it appears. The Information for the Razorback Premium Iron Project was prepared and first disclosed under the JORC Code 2004. The information has not been updated since to comply with the JOPRC Code 2012 on the basis that the information has not materially changed since it was last reported.

In relation to the changes as a result of the independent review of the PFS which has resulted in an increase in the Net Present Value (NPV) of the project to over \$2,210M with an annual EBITDA of \$340M and an increase in production from 8.2Mtpa to 9.3Mtpa, as required under the JORC Code 2012, it must be noted that at a Scoping Level there is a lower level of technical and geological confidence associated with inferred mineral resources than at a PFS level, and therefore there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

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# **Review of Activities**

- Razorback and Red Dragon
  - PFS Optimisation
  - Mining Lease Application
  - Exploration
- Razorback new direction

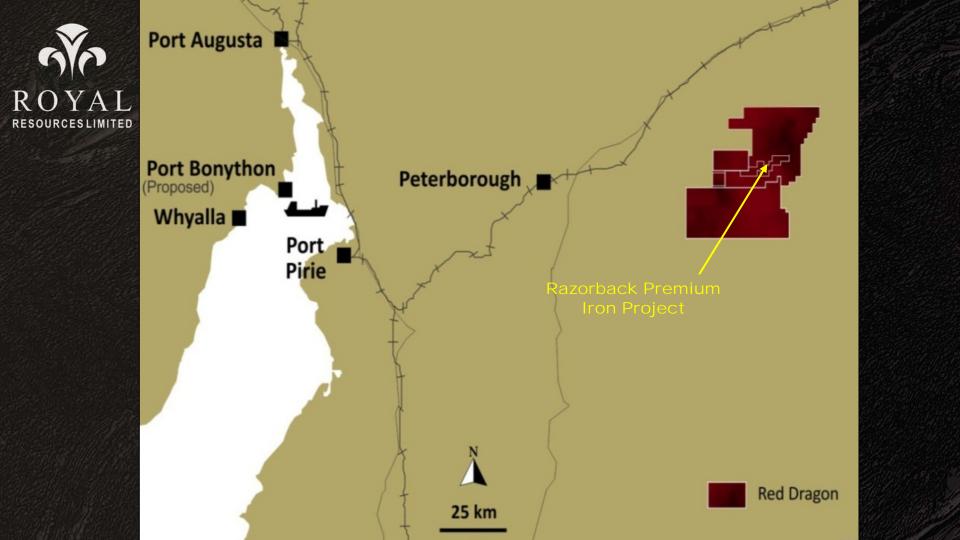




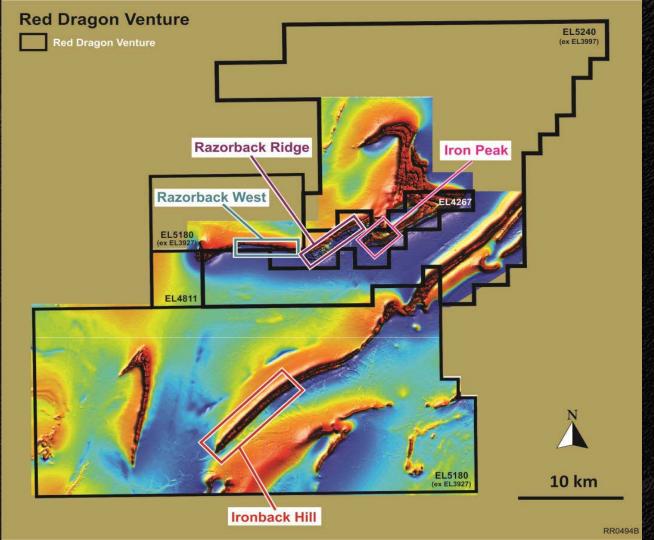
#### **Optimised Case:** Large, low cost, premium grade magnetite

- Long-life operation (+25 years) backed by **2.7 Billion tonne** Mineral Resource<sup>2</sup>
- 9.3 Mtpa **67.4% Fe** magnetite concentrate production<sup>1</sup>
- US\$1,029 Million CAPEX, sub US\$59/t C3 OPEX estimates
- US\$2,210 Million NPV, 30% IRR with an average EBITDA of US\$340 Million<sup>1,3</sup>
- Braemar Infrastructure to provide all transport and utilities infrastructure

<sup>1</sup>Announced 27/11/13. The production target, or the forecast financial information derived from it, continue to apply and have not materially changed. <sup>2</sup>The Mineral Resource information for the project was prepared and first disclosed under the JORC Code 2004. The information has not been updated to comply with the JORC Code 2012 as the information has not materially changed since it was reported.<sup>3</sup> 62% Fe Fines price of US\$87 / tonne and US\$1 equates to Aus\$0.80.







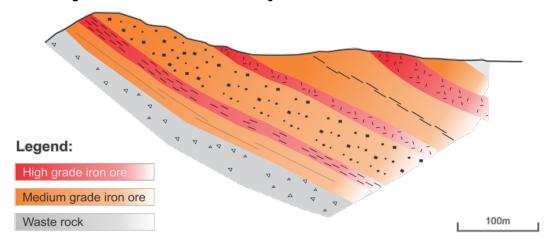


### Razorback History: Progress achieved to date

- 1969- SA Dept Mines Study, drilled and installed the Adit (Whitten)
- November 2009 Deal signed for Royal to purchase Razorback
- April 2010 First drilling at Razorback
- August 2010 Maiden Resource at Razorback of 273 Mt
- July 2011 Second Resource at Razorback of 537 Mt
- October 2012 Base Case Resource at Razorback of 1.8 Bt
- January 2013 Base Case PFS completed
- June 2013 Optimised Resource of 2.73 Bt large improvement in stripping ratio
- November 2013 Optimised PFS large improvement in project economics
- November 2014 Work commences on capacity expansion of the RPIP



## **Razorback Project: Resource profile 2014**



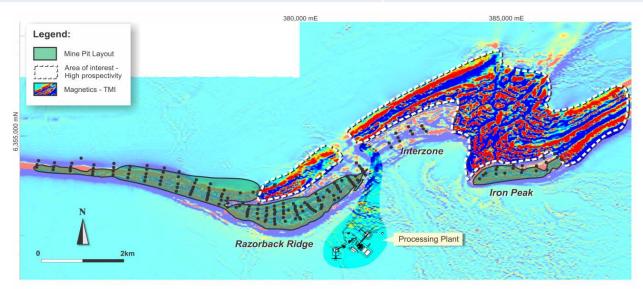
Stratigraphic Units	Million Tonnes <sup>1</sup>	DTR%	Fe%	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Р%
Unit A, B1, B3, D, G	1,783	16.2	19.8	46.9	7.7	0.19
Low Grade - Unit B2, C and E	949	13.5	15.2	50.3	8.7	0.15
Total	2,732	15.3	18.2	48.1	8.0	0.18
Magnetite Concentrate	424	100	67.4	4.74	0.54	0.016

<sup>&</sup>lt;sup>1</sup> Tonnages rounded to significant values. Total may not appear correct as a result. Reported under the 2004 JORC Code in announcement dated 11<sup>th</sup> June 2013 and there have been no material changes to the Mineral Resources since that announcement.



## **Razorback Project: Deposit geology**

Characteristics	Benefit to Project
Magnetite in metamorphic sediment, not hard BIF	Softer ore for mining and crushing
Simple layer cake geology	Simple mine design
Average 250 metres thick and 10km in length	Very low stripping ratio
Outcropping	No pre-strip





# **2014 PFS Optimisation Outcomes**

- Reduction in product transport costs, outsourcing infrastructure to BIPL
- Increased production rate to 9.3 Mtpa and improvement in recoveries<sup>1</sup>
- Reduction in mining costs through the significant reduction in the Strip Ratio and the use of In-Pit Crushers
- Reduction in process plant costs through reduction in water costs and use of larger, more economic equipment
- Change to using seawater in processing to drastically reduce water costs and simplify tailings disposal processes
- Review of PFS Optimisation by Oyster Consulting confirm a robust approach has been taken to maximising value of Razorback

<sup>&</sup>lt;sup>1</sup>Announced 27/11/13 and 3/04/14. The production target, or the forecast financial information derived from it, continue to apply and have not materially changed.

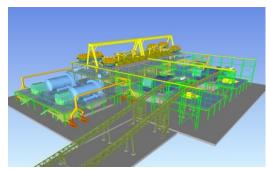


## Razorback Project: Open pit design with conventional processing

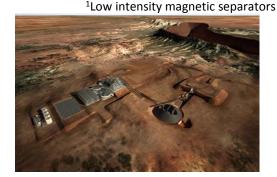
- Lower cost In-Pit Crushing and Conveying (IPCC)
- No pre-strip, low Life of Mine strip, long mine life +25 years
- 9.3 Mtpa production using two-module processing plant, each consisting of:
  - SAG Mill
  - Two Ball Mills, 45μm grind size
- Iron recovered via a 3 stage wet LIMS<sup>1</sup> all sea water processed



Sino Iron Project in-pit crusher

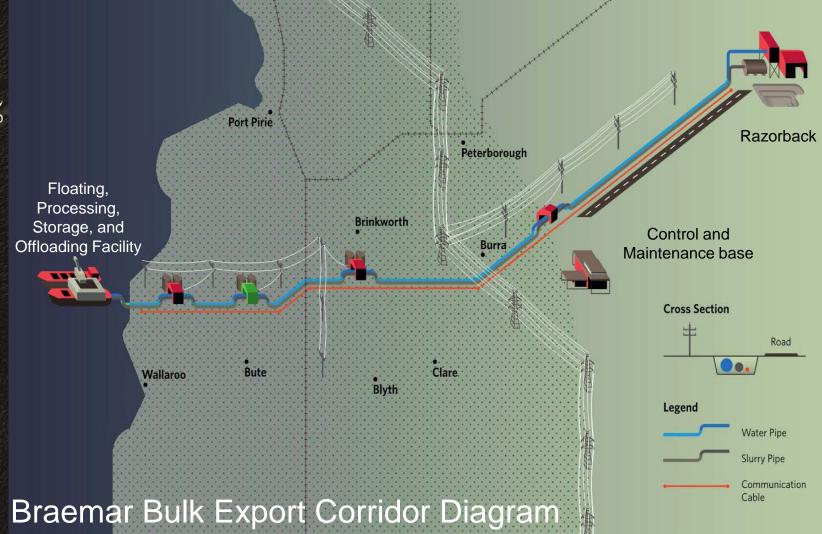


Proposed RPIP processing plant



Proposed RPIP mine layout







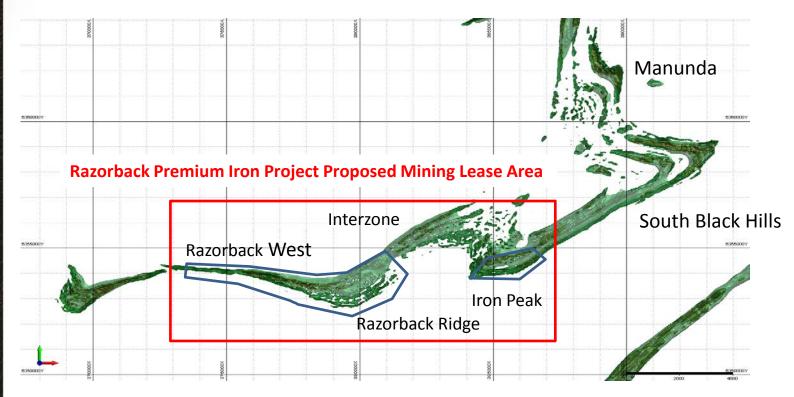
## Razorback Premium Iron Project: A new generation mine

	Common Issues*	Razorback Solution
D	Hard ore: excessive wear rate	Half the hardness and a third the abrasiveness of BIFs
	Difficult tailings dewatering	Use of sea water obviates the need for full water recovery
	Sticky ores	Simple mineralogy of Razorback ores, no clays or sulphides
	Barging & wharf delays	RPIP product is slurried directly on to a floating stockpile
	Dangerous fibres	None present
	Use of local ground water	Use sea water - local water resources are untouched
	Diesel and tyre dependent shovel and truck mining	In-pit Crushing and Conveying minimises soft tyred vehicle fleet and enhances safety
	Multi-handling of product	Slurry pipeline eliminates multi-handling; reduced OPEX and CAPEX
	Need for a Cape sized conventional port	Product is slurried directly onto a Cape size floating stockpile in deep water. No port required

<sup>\*</sup> Sino, Karara, Roper Bar mines, Cairn Hill



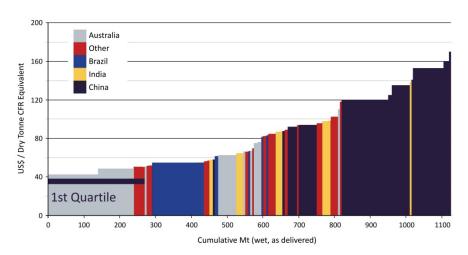
# Mining Lease Application in progress





# Razorback Project Future Direction

- Pooling intellectual, physical and geological assets of Royal and the Loadstone Group, which will maximise the chances for the project to move forward to production
- Target an OPEX of between US\$ 40 to 45, thus competing with the majors in the first quarter of the cost curve, thus ensuring survival even at the bottom of the commodity cycle



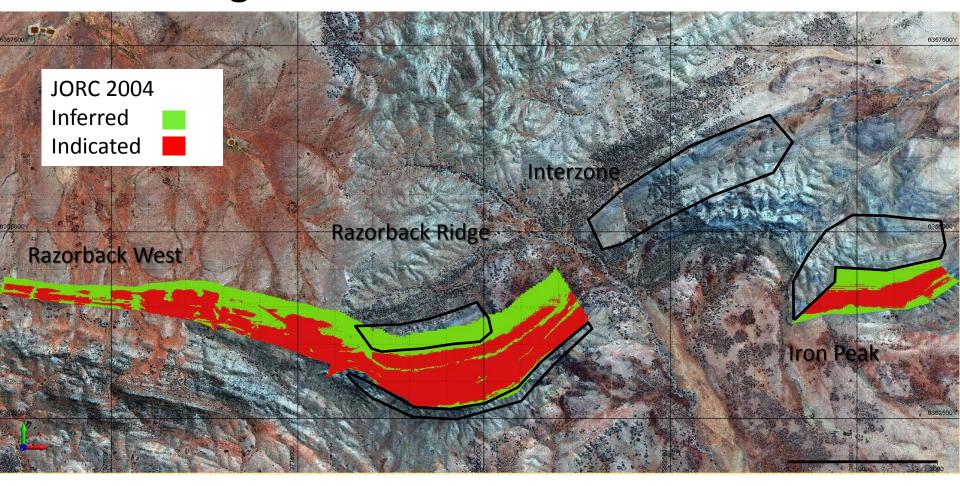


# Razorback Project Future Direction

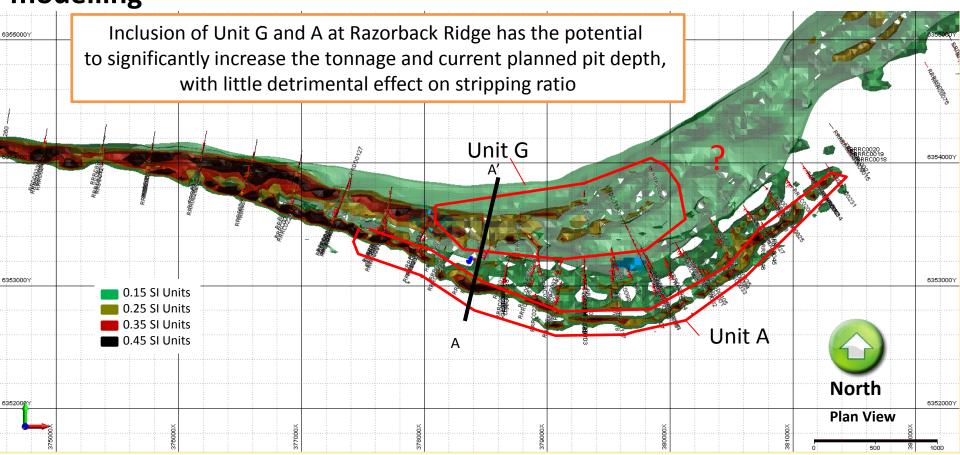
- The first three areas being investigated to achieve the targeted OPEX :
  - Increase planned production to 20 to 25 Mtpa concentrate, fully utilising the slurry pipeline capacity and proving reduced OPEX through economy of scale
  - Integration of fully mobile In Pit Crushers and Conveyors which will greatly reduce mining CAPEX
  - Optimise the Resource to accommodate the above two requirements

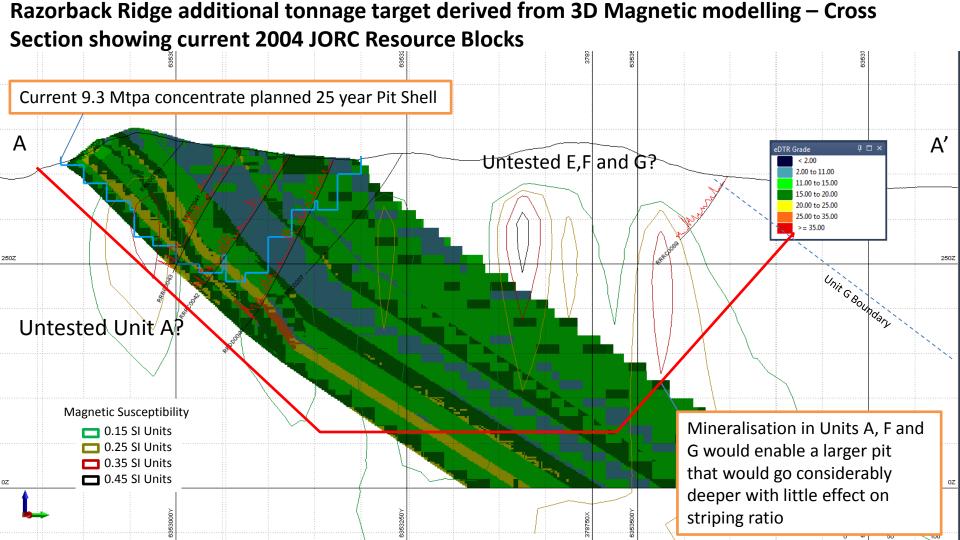


# **Potential Targets for Resource Increase**



Razorback Ridge additional tonnage target derived from 3D magnetic modelling







#### Conventional Mine/Plant Interaction

EXCAVATOR TRUCK MILL

### **Fixed Location IPCC**

EXCAVATOR TRUCK CRUSHER CONVEYOR MILL

## **BREAKTHROUGH TECHNOLOGY**

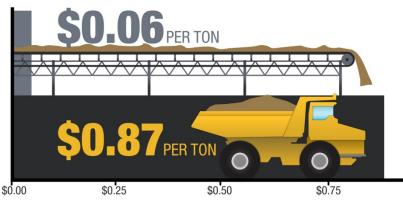
Fully Mobile IPCC (Truckless Mining)

EXCAVATOR CRUSHER CONVEYOR MILL





Considerable cost reduction when trucks are replaced by conveyors to transport material within the pit and to the ROM





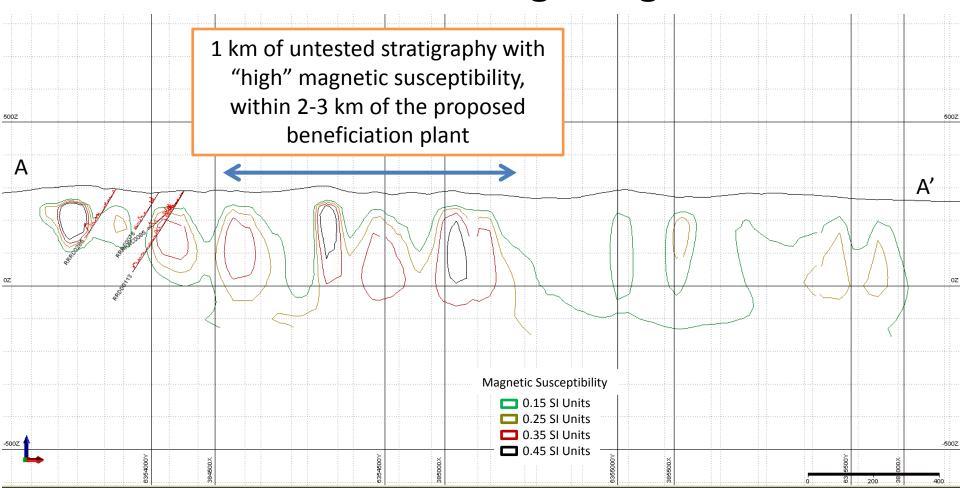




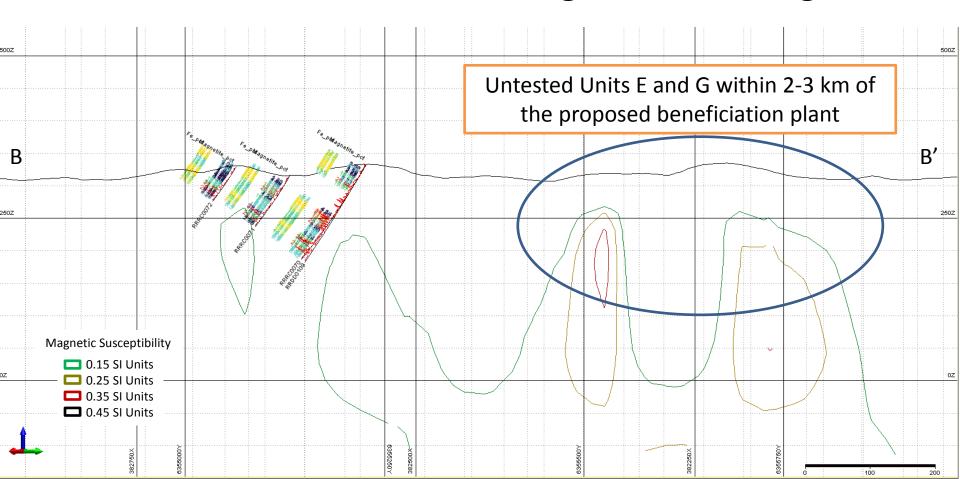
Iron Peak and Interzone - 3D magnetic modelling depicting potential additional magnetite mineralisation outside the current Resource Magnetic Susceptibility 0.15 SI Units B' 0.25 SI Units .35 SI Units 45 SI Units **JORC 2004** Inferred North **Indicated Plan View** 

Iron Peak and Interzone - 3D magnetic modelling depicting potential additional magnetite mineralisation outside the current Resource 0.15 SI unit shells removed North Magnetic Susceptibility 0.15 SI Units 0.25 SI Units .35 SI Units **Plan View** 0.45 SI Units

# Iron Peak Cross Section through hinge zone

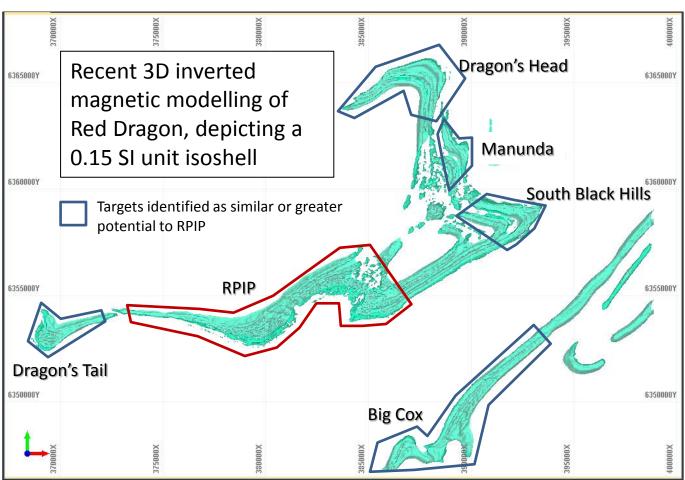


## Interzone cross section, with 3D magnetic modelling





# **Red Dragon Blue Sky Potential**

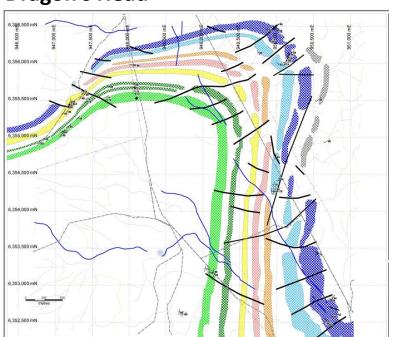




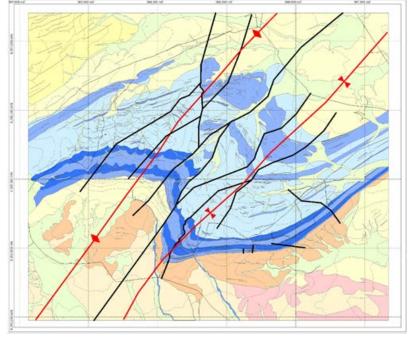
# **Exploration – Prospect Scale Mapping**

Mapping enables us to have a better idea about where to plan drill holes and what targets could potentially produce the best stripping ratios to mine

#### **Dragon's Head**



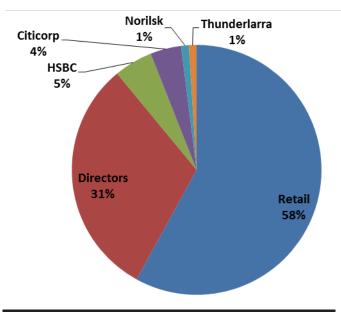
#### **Iron Peak**





#### **Appendix:** Corporate Overview of Royal Resources Limited

COMPANY SNAPSHOT	Issued shares	353.9M	
	Share price	2.6c	2.5 – 7.0c (12 months)
	Market Cap	\$12M	
	Cash (31.10.14)	1.10.14) \$2.3M	
	Тор 20	59%	
BOARD OF DIRECTORS	Gordon Toll	Executive Chairman	
	Frank DeMarte	Non Executive Director	
		Director	
	Mal Randall	Director  Non Executive  Director	
PROJECT MANAGER	Mal Randall  Nate Toll	Non Executive	



Diversified register with supportive corporate, institutional investors and private investors.

Contact: info@royalresources.com.au