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#### Compliance Statement

The information in this presentation that relates to the Mineral Resource Estimates of the Wolverine deposit is extracted from the report entitled "Increased Mineral Resource delivers more good news" dated 23 February 2015 and is available to view on the Company's website (www.northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in the announcement that relates to the Mineral Resource Estimates of the Cyclops and Banshee deposits is extracted from the report entitled "Further Increase in Brown Range Mineral Resource" dated 15 October 2014 and is available to view on the Company's website (www.northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in the announcement that relates to the Mineral Resource Estimates of the Gambit, Gambit West and Area 5 deposits is extracted from the report entitled "Wolverine Total Resource Doubled in a Major Upgrade of Browns Range HRE Mineral Resource Estimate" dated 26 February 2014 and is available to view on the Company's website (www.northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in the announcement that relates to Ore Reserves is extracted from the report entitled Increased Ore Reserve for Browns Range created on 2 March 2015 and is available to view on the Company's website (northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to Exploration Results or Exploration Targets is based on information compiled by Mr Robin Wilson, a full-time employee of Northern Minerals, a Competent Person, who is a member of the Australasian Institute of Mining and Metallurgy. Robin Wilson 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". Mr Wilson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration completed in the areas of the Exploration Target and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

The information in the announcement that relates to production targets is extracted from the report entitled "DFS positions Browns Range Project as next dysprosium supplier" dated 2 March 2015 and is available to view on the Company's website (northernminerals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the production targets in the relevant market announcement continue to apply and have not materially changed.

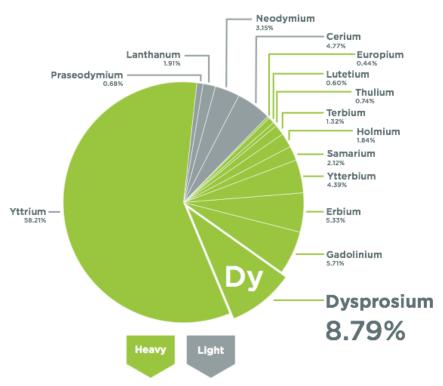
TREO = Total Rare Earth Oxides -  $La_2O_{31}$ ,  $CeO_{22}$ ,  $Pr_6O_{13}$ ,  $Nd_2O_{32}$ ,  $Sm_2O_{32}$ ,  $Eu_2O_{33}$ ,  $Gd_2O_{33}$ ,  $Tb_4O_{72}$ ,  $Dy_2O_{32}$ ,  $Ho_2O_{33}$ ,  $Tm_2O_{33}$ ,  $Tb_2O_{33}$ ,  $Lu_2O_{33}$ 

 $\mathsf{HREO} = \mathsf{Heavy} \; \mathsf{Rare} \; \mathsf{Earth} \; \mathsf{Oxides} \; - \; \mathsf{Total} \; \mathsf{of} \; \mathsf{Sm}_2\mathsf{O}_3, \; \mathsf{Eu}_2\mathsf{O}_3, \; \mathsf{Gd}_2\mathsf{O}_3, \; \mathsf{Tb}_4\mathsf{O}_7, \; \mathsf{Dy}_2\mathsf{O}_3, \; \mathsf{Ho}_2\mathsf{O}_3, \; \mathsf{Er}_2\mathsf{O}_3, \; \mathsf{Tm}_2\mathsf{O}_3, \; \mathsf{Lu}_2\mathsf{O}_3, \; \mathsf{Lu}_2\mathsf{O}_3, \; \mathsf{Y}_2\mathsf{O}_3, \; \mathsf{V}_2\mathsf{O}_3, \; \mathsf{V}_$ 



#### Northern Minerals Browns Range

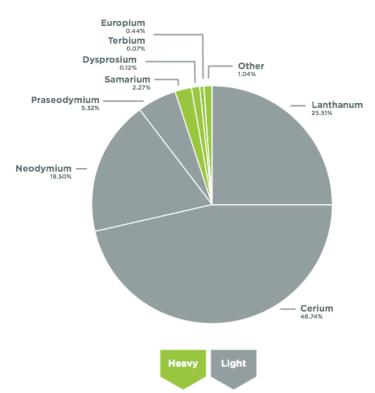
#### Rare earth distribution 1



<sup>&</sup>lt;sup>1</sup> Based on Wolverine Mineral Resource

#### Lynas Mt Weld

#### Rare earth oxide composition <sup>2</sup>



<sup>2</sup> Source: Lynas Corporation website







## **Browns Range underway**





## Heavy rare earths crucial to growth of electric vehicle sector

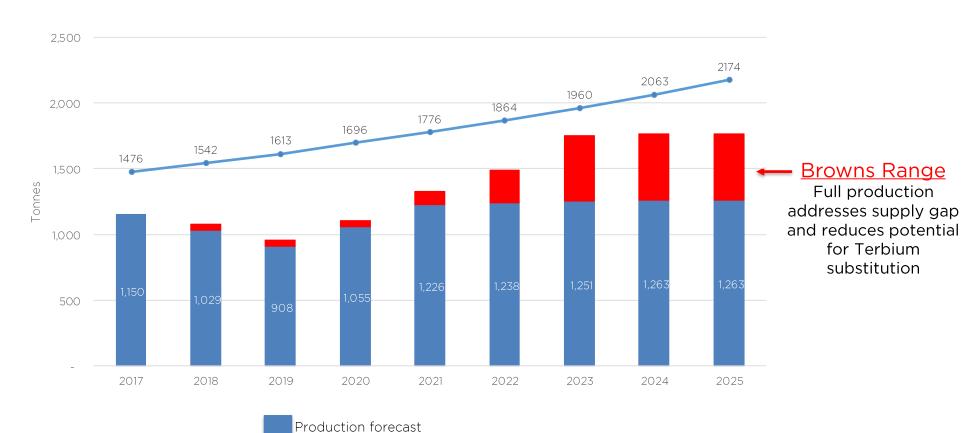


- NdDyFeB permanent magnets used by major electric vehicle (EV) manufacturers require Dysprosium and Terbium as key additives for high performance
- Changing policy settings by European governments and future development plans by global carmakers have resulted in demand for EVs reaching an inflection point
- Permanent magnets account for 25% of rare earth demand in tonnes and 80% in value and the increasing rate of market acceptance has translated into significantly higher prices for heavy rare earth elements specifically
- UBS has increased forecasts on EV production as a consequence of earlier than expected EV cost parity, with EV sales expected to grow from 1.2 million in 2015 to >20 million by 2020
- Each electric vehicle contains approximately 100g of Dysprosium





# Browns Range supply reduces substitution risk



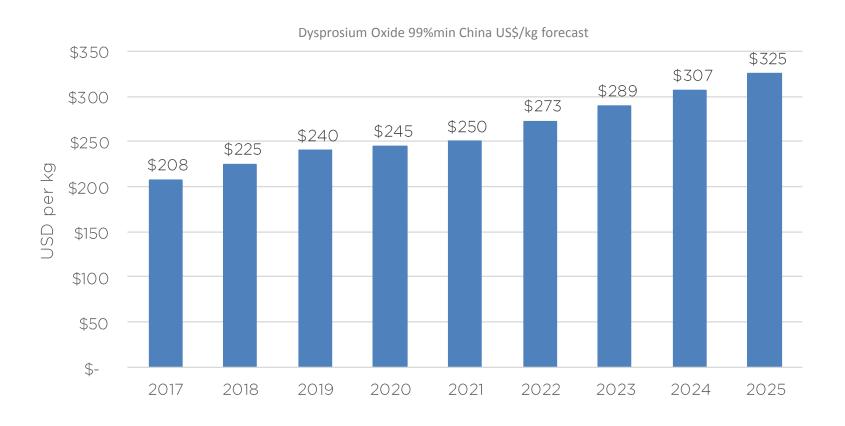
Browns Range forecast\*

Forecast demand





## Dysprosium demand driving price trend



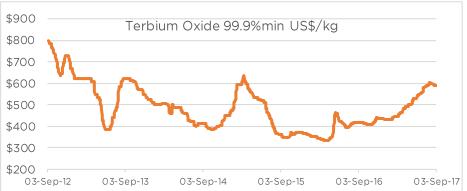




## HRE - sustainable pricing

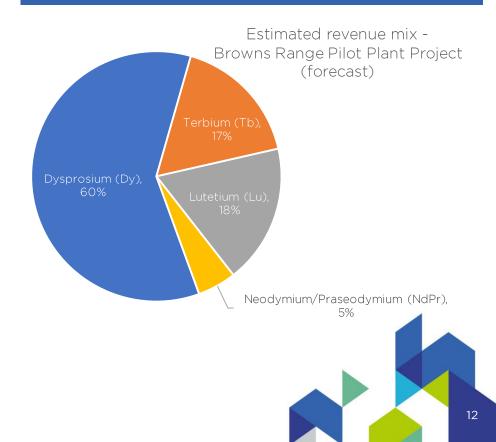








Increased demand from new EV sales coupled with crackdown on illegal mining in China is positively impacting prices



Powering Technology.

#### Three stage approach to full scale production

# Stage 1 TEST PILOT PLANT

# Stage 2 REFINE PROJECT

# Stage 3 BUILD FULL SCALE

- 10% of full scale capacity
- Production July 2018
- Develop, mining, processing & offtake experience
- 573tpa contained TREO
- 72ktpa capacity beneficiation plant
- 3,840tpa capacity hydrometallurgical plant

COMMENCED

- Reduce mining cost modify mining method
- Boost production increase head grade
- Develop premium productyttrium rejection
- Increase reserve drilling

- 585,000tpa operation
- 1,500,000kg TREO in a premium product
- Significant dysprosium supplier
- Initial 11 year life with significant upside

measured . sustainable . achievable



Powering Technology.





## Pilot Plant financing



Financing

Sales Agreement

**Processing Plant** 

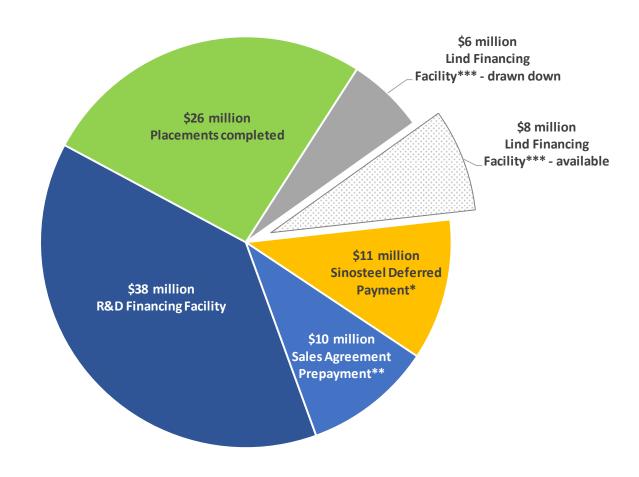
Open Pit Mining

Site Admin

Tailings Dam

Schedule

Feasibility



<sup>\*</sup> Sinosteel MECC has agreed to defer 20% of its contract amount for 24 months, with the ability to convert into Northern Minerals' shares at a conversion price of the lessor of \$0.15 per share or 20 day VWAP prior to conversion notice

<sup>\*\*</sup> JFMAG has agreed to prepay \$10m (expected payment Q1 2018). JFMAG will be issued 40m unlisted options upon receipt of the loan advance with a \$0.25 exercise price.

<sup>\*\*\*</sup> Northern Minerals has drawn down \$6m of a \$14m financing facility.

## Sales agreements secured





Direct shipping

route from Wyndham or

Darwin to

Lianyungang, China

Financing

Sales Agreement

**Processing Plant** 

Open Pit Mining

Site Admin

Tailings Dam

Schedule

Feasibility

100% of Browns Range Pilot Plant production to be purchased by Lianyugang Zeyu New Materials Sales Co Ltd (JFMAG), a 51% owned subsidiary of Guangdong Rare Earths Group.

210 with pricing ge of quoted prices ow Information at, receivable in early one at \$0.25 exercise

Terms based off CIF Incoterms 2010 with pricing referenced from a 2-month average of quoted prices on Asian Metals and Beijing Ruidow Information Technology.

- Includes A\$10 million pre-payment, receivable in early 2018 and 40 million unlisted options at \$0.25 exercise price.
- Representative to join Northern Minerals' Board upon receipt of funds.



## Pilot Plant Processing Plant 📢



Financing

Sales Agreement



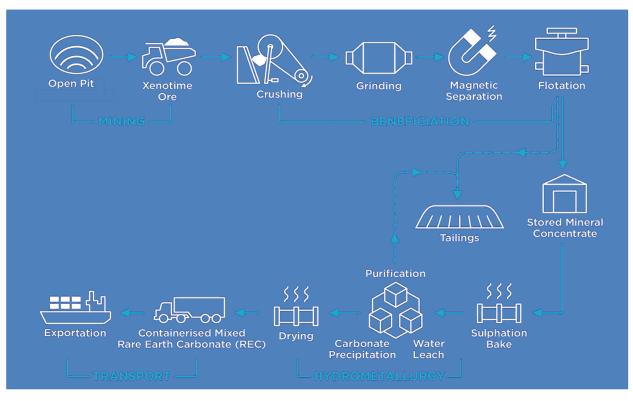
Open Pit Mining

Site Admin

Tailings Dam

Schedule

Feasibility



#### **Project Component:**

Modular processing plant

#### **Annual Production:**

60,000tpa (based on 10 operating months per year)

#### **Contractor:**

Sinosteel MECC

#### Capital Cost:

A\$39 million

#### Status:

Under construction in China



## Pilot Plant Processing Plant



Financing

Sales Agreement

Processing Plant

Open Pit Mining

Site Admin

Tailings Dam

Schedule

Feasibility











**Fabrication works underway in China** 

## Open Pit Mining



Financing

Sales Agreement

**Processing Plant** 

Open Pit Mining

Site Admin

Tailings Dam

Schedule

Feasibility



Project Component:

Open Pit Mining

Contractor: MACA Limited

Scale:

180,000t ore mined

Total Cost: A\$6 million

Mining & Strip Ratio:

 Gambit West
 135kt
 4.3:1

 Wolverine
 45kt
 7.3:1

 Total
 180kt
 5.0:1

#### Status:

Mining commenced June 2017 Entire mining project to be completed in November 2017





## Training-to-Work Facility



Financing

Sales Agreement

**Processing Plant** 

Open Pit Mining

Site Admin

Tailings Dam

Schedule

Feasibility



- Northern Minerals has partnered with The Wunan Foundation for the establishment of an \$8.1 million indigenous training-to-work facility at Browns Range.
- The Federal Government, under the Building Better Regions Fund (BBRF) has provided funding of \$4.8 million towards the programme.
- Construction of the facility will commence soon.

## Tailings dam construction



Financing

Sales Agreement

**Processing Plant** 

Open Pit Mining

Site Admin



Schedule

Feasibility



#### **Details:**

Construction of tailings storage facility

#### **Status:**

Works commenced, expected completion September 2017

#### **Contractor:**

**MACA Limited** 

#### **Capital Cost:**

A\$1.2 million



## Project development schedule

Financing

Sales Agreement

**Processing Plant** 

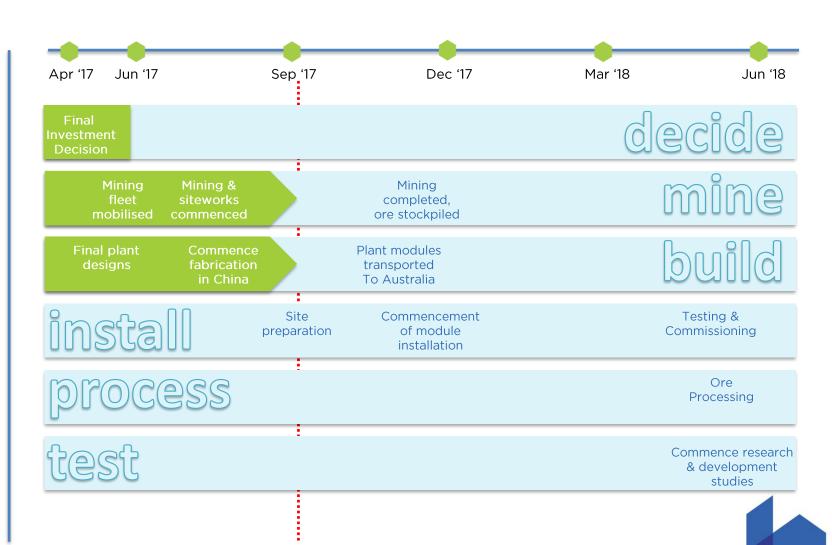
Open Pit Mining

Site Admin

Tailings Dam



Feasibility



## Pilot Plant feasibility



#### Financing

Sales Agreement

**Processing Plant** 

Open Pit Mining

Site Admin

Tailings Dam

Schedule

Feasibility

- The three-year pilot project has been designed to assess the technical and economic feasibility of the proposed full-scale development.
- Key aspects of assessment during the Pilot Plant phase:
  - Mining and ore variability;
  - Flowsheet and recovery optimisation;
  - Water and environmental considerations;
  - Transport and shipping logistics;
  - End user product specifications; and
  - Long term dysprosium market dynamics.
- These determining factors will be incorporated into an updated feasibility study for the proposed full-scale operation.



## Key Personnel and Partners







Key Site Personnel: Chris Lee - Resident Manager Eben Van Rooyen - Project Manager Louis de Klerk - R&D Manager



















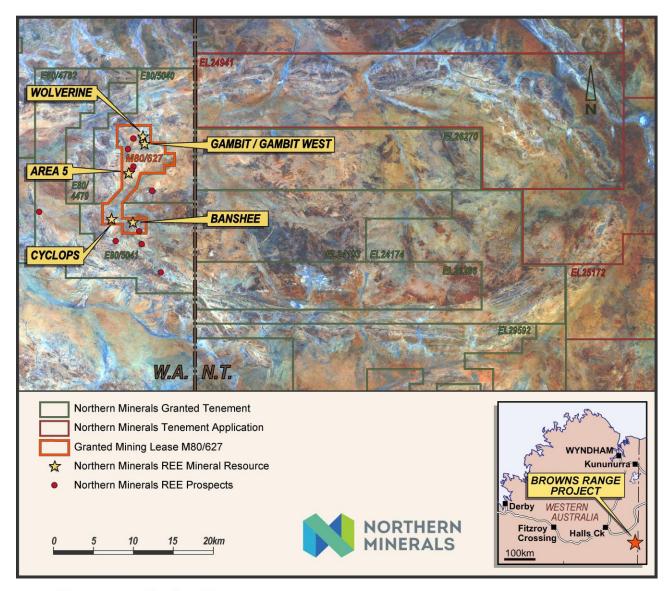






## Blue Sky potential





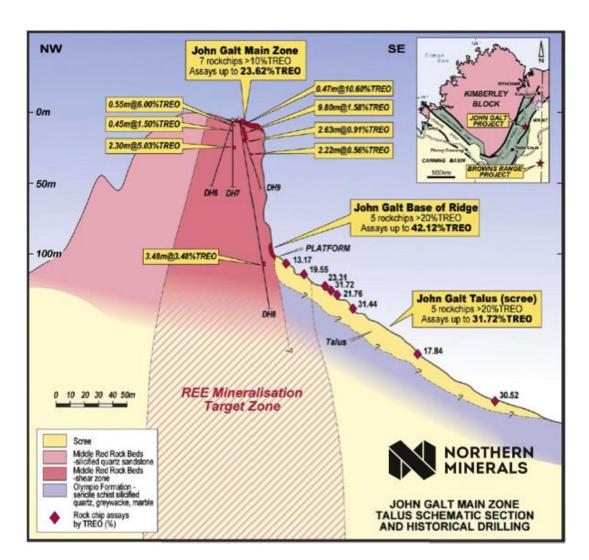
The Browns Range dome is a massive geological feature covering 1,500km<sup>2</sup> and stretching 60km x 30km most of which hasn't been effectively explored

- JORC Resource supporting an 11 year full scale operation
- Conservative exploration target to add additional 9 years of JORC Resources
- 170 defined targets yet to be drilled



## Beyond Browns Range: John Galt MINERALS



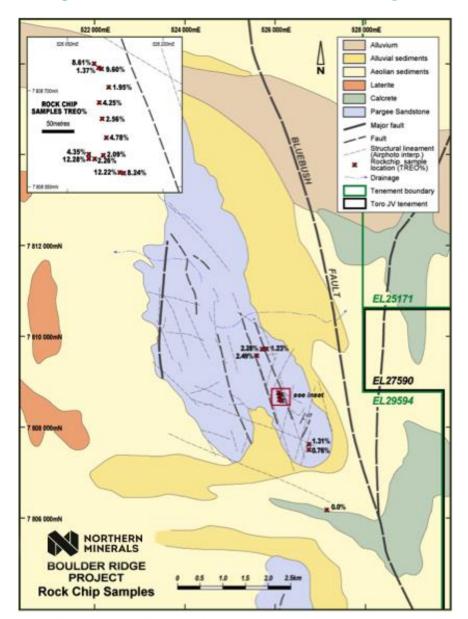


- Rock chip samples up to 42% TREO with approximately 95% Heavy REO
- Preliminary metallurgical tests indicate excellent recovery rates (>90%)
- Potential for concentrate grades >40%
- High grade mineralisation in talus (scree) material
- Hard-rock source of scree is the primary target



#### Beyond Browns Range: Boulder Ridge





- Rock chip samples from the Boulder Ridge project confirm high-grade Heavy Rare Earths (HRE)
- Best results exceed 12% TREO, including up to 1.15% Dysprosium, with a dominance of HRE - up to 99%.
- Reinforces significant growth potential in Browns Range and Tanami regions.



## Off and racing in 2017



- Innovative multi-faceted project financing secured:
  - \$38m R&D financing facility
  - \$26m Placements at 12.5 cents per share (average)
  - \$14m Lind financing facility signed, \$6m drawn down
  - \$11m Sinosteel MECC deferred payments
  - \$10m JFMAG sales agreement prepayment signed
- Design completed
- Pilot Plant Project approved by Board
- Mining and bulk earthworks commenced
- Fabrication under way in China and procurement orders placed



#### Corporate Overview





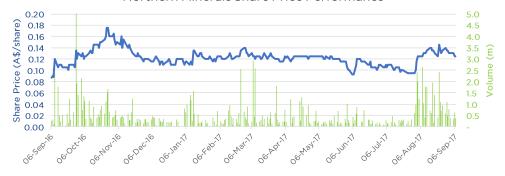
Major shareholders	31 August 2017
ACIIG	26.0%
Huatai Mining	21.2%
Jien Mining	3.5%
Board & Management	2.4%
Remaining Top 20	21.3%
Other	25.6%

## Market capitalisation \$100M

#### (at 8 September 2017 @ \$0.13)

Ordinary Shares	767M
Options and Performance Rights	72M
Cash (30 June 2017)	\$8.5M
12 month low - high	\$0.087 -\$0.175
Average daily volume (12 month avg)	563,000
Average daily volume (1 month avg)	982,000

#### Northern Minerals Share Price Performance





# Northern Minerals: Building an Australian greenfields discovery

## Appendices





## Browns Range - A Seven Year Journey

2010	2011	2012	2013	2014	2015	2016	2017	
DISCOVERY	EXPLORATION	EVALU	ATION AND APPE	ROVALS	DFS	NEW PLAN	DEVELOPMEN	IT
NTU shifts focus to HRE  John Galt acquisition  Rock Chip samples  Bench scale NAGROM benefication results	Maiden drilling campaign at Browns Range	Bench scale NAGROM/ ANSTO hydro- metallurgy results  Maiden JORC Resource released	Discovery of Boulder Ridge Upgraded JORC Resource \$26 million capital raised	80t bulk sample processed  Maiden JORC Ore Reserve  EPA approval granted  Mining Licence granted  Native Title agreement  Pre-Feasilbility Study finished  JORC Resource doubled	Definitive Feasibility Study released	Divestment of non-core HRE assets  Commitment to the new three stage Business Plan  Pilot Plant Project approved for Browns Range	\$14m Lind Facility executed  Fabrication commenced in China  Mining starts at Browns Range  Financial Investment Decision (Pilot Plant)  Offtake Agreement signed with JFMAG  \$26.0 million capital raised	
							Financing Facility executed	





| \$38m R&D

## Global EV growth drivers



Battery technology eliminating range technology





Regulatory support for lower emission vehicles



Consumer demand reaches inflection point



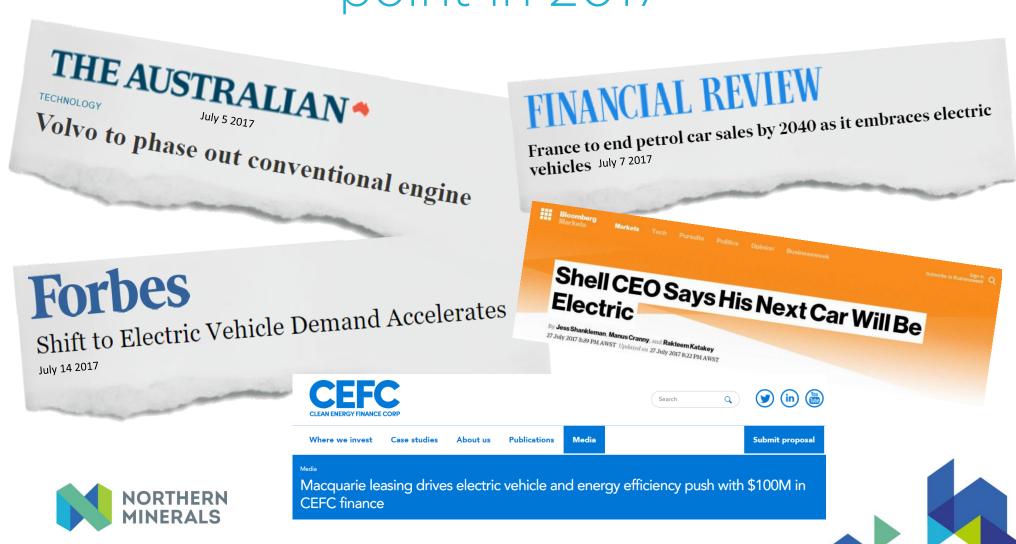




EVs approaching price parity with combustion vehicles



# EV acceptance reaches inflection point in 2017



### Chinese carmakers to dominate EV production

















































Powering Technology.



## Mineral Resources



Deposit	Category	Mt	TREO	Dy <sub>2</sub> O <sub>3</sub>	$Y_2O_3$	Tb₄O <sub>7</sub>	HREO	TREO	
			%	Kg/t	Kg/t	Kg/t	%	Kg	
Wolverine	Indicated	2.99	0.83	0.73	4.86	O.11	89	24,952,000	
	Inferred	1.97	0.89	0.76	5.13	O.11	88	17,609,000	
	Total <sup>1</sup>	4.97	0.86	0.74	4.97	0.11	89	42,560,000	
Gambit West	Indicated	0.27	1.26	1.07	7.06	0.14	90	3,424,000	
	Inferred	0.12	0.64	0.54	3.67	0.07	85	753,000	
	Total <sup>1</sup>	0.39	1.07	0.91	6.04	0.12	89	4,177,000	
Gambit	Indicated	0.05	1.06	0.92	6.62	0.12	97	533,000	
	Inferred	0.06	1.2	1.01	6.8	0.15	95	671,000	
	Total <sup>1</sup>	O.11	1.13	0.97	6.72	0.13	96	1,204,000	
Area 5	Indicated	1.38	0.29	0.18	1.27	0.03	69	3,953,000	
	Inferred	0.14	0.27	0.17	1.17	0.03	70	394,000	
	Total <sup>1</sup>	1.52	0.29	0.18	1.26	0.03	69	4,347,000	
Cyclops	Indicated	120	-	2	-	(47)	-	-	
	Inferred	0.33	0.27	0.18	1.24	0.03	70	891,000	
	Total <sup>1</sup>	0.33	0.27	0.18	1.24	0.03	70	891,000	
Banshee	Indicated	-	-	-	11-1	-	0=	-	
	Inferred	1.66	0.21	0.16	1.17	0.02	87	3,484,000	
	Total <sup>1</sup>	1.66	0.21	0.16	1.17	0.02	87	3,484,000	
Total <sup>1</sup>	Indicated	4.69	0.70	0.59	3.95	0.09	87	32,862,000	
	Inferred	4.28	0.56	0.46	3.15	0.07	87	23,802,000	
	Total <sup>1</sup>	8.98	0.63	0.53	3.56	0.08	87	56,663,000	

<sup>1 -</sup> Rounding may cause some computational discrepancies (TREO (metal) tonnes estimated from Mt x TREO%)



## Ore Reserves



		TREO		Dy <sub>2</sub> O <sub>3</sub>		Tb₄O <sub>7</sub>		Y <sub>2</sub> O <sub>3</sub>		
Deposit	Classification	Ore Tonnes	kg/t	kg Contained	kg/t	kg Contained	kg/t	kg Contained	kg/t	kg Contained
OPEN PIT										
Wolverine	Probable	833,000	6.15	5,124,000	0.55	460,000	0.08	66,000	3.59	2,989,000
Gambit West	Probable	219,000	10.10	2,212,000	0.83	182,000	O.11	25,000	5.52	1,209,000
Gambit	Probable	37,000	8.05	298,000	0.68	25,000	0.09	3,000	4.74	176,000
Area 5	Probable	467,000	2.24	1,048,000	0.14	65,000	0.02	10,000	0.99	463,000
UNDERGROUN	D									
Wolverine	Probable	2,104,000	8.00	16,833,000	0.70	1,483,000	0.10	221,000	4.71	9,908,000
Gambit West	Probable	90,000	9.54	860,000	0.88	79,000	O.11	10,000	5.78	521,000
RESERVE										
Total	Probable <sup>1</sup>	3,750,000	7.03	26,375,000	0.61	2,294,000	0.09	335,000	4.07	15,266,000

<sup>&</sup>lt;sup>1</sup> Rounding may cause some computational discrepancies

# Pilot plant: targeted production

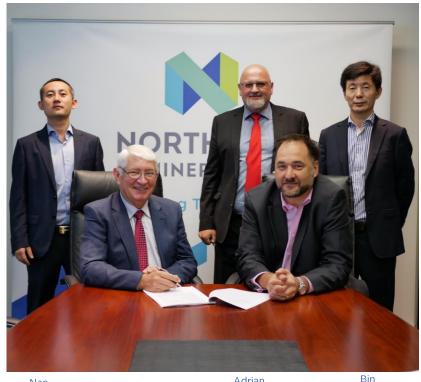
- Mixed RE carbonate (REC) produced
- Product specification available for REC
- REC samples validated by several downstream separators
- REC suitable for solvent extraction separation
- Low thorium and uranium levels

REO contained in mixed RE carbonate	Annual production (000s kg)
Lanthanum	5.8
Cerium	15.2
Praseodymium	2.8
Neodymium	10.6
Samarium	11.4
Europium	2.4
Gadolinium	34.8
Terbium	6.7
Dysprosium	49.4
Holmium	13.5
Erbium	39.3
Thulium	5.6
Ytterbium	33.1
Lutetium	4.5
Yttrium	337.6
Total TREO produced	573
Total carbonate produced	1,100

Figures may not add due to rounding TREO = Total Rare Earth Oxides- Total of  $Dy_2O_3$ ,  $La_2O_3$ ,  $CeO_2$ ,  $Pr_6O_{11}$ ,  $Nd_2O_3$ ,  $Sm_2O_3$ ,  $Eu_2O_3$ ,  $Gd_2O_3$ ,  $Tb_4O_7$ ,  $Ho_2O_3$ ,  $Er_2O_3$ ,  $Tm_2O_3$ ,  $Yb_2O_3$ ,  $Lu_2O_3$ ,  $Y_2O_3$ 

#### NTU Board





Nan Yang

Colin McCavana Adrian Griffin

George Bauk Cai

Colin McCavana - Non-executive Chairman (appointed 2006)

Mr McCavana has more than 35 years of management experience worldwide in the earthworks, construction and mining industries.

#### **George Bauk - Managing Director / CEO (appointed 2010)**

George is an experienced executive, with over 25 years' experience in the resources industry. Prior to Northern Minerals, George held global operational and corporate roles with WMC Resources, Arafura Resources and Indago Resources. Mr Bauk is Vice President of the Chamber of Minerals and Energy, WA.

#### Adrian Griffin - Non-executive Director (appointed 2006)

An Australian trained mining professional with exposure to metal mining and processing throughout the world, Mr Griffin has been involved in the development of extraction technology for platinum group metals and agricultural commodities.

#### Nan Yang - Non-executive Director (appointed 2017)

Mr Yang is an Australian mining engineer with more than 10 years' experience in mine planning, design, and mergers and acquisitions.

#### Yanchung Wang - Non-executive Director (not in photo) (appointed 2013)

Ms Wang acts as a strategic investor for a number of Chinese based companies. Ms Wang is Vice Chairman of Conglin Baoyuan International Investment Group and also a Director of Huachen.

#### Bin Cai - Non-executive Director (alternate) (appointed 2013)

Bin is the MD of Conglin International Investment Group Pty Ltd based in Brisbane. He has a record of successful strategic investments in emerging Australian resources companies.

#### Executive Team













Mark Tory
Chief Financial Officer
Mark is a Chartered
Accountant with 25 years of professional experience in the mining industry and accounting professions. Prior to Northern Minerals, Mark held senior positions at Crescent Gold Limited, Anglo American Exploration and Homestake Gold (now Barrick Gold).

Robin Jones
Chief Operating Officer
Robin has more than 20
years experience in the
mining industry, the majority
of which has been in the
assessment and
development of resource
projects from scoping study
level through to operation.
Robin has held senior
management positions in
PGM, nickel, copper, gold
and uranium projects in
Australia, RSA and China.

Robin Wilson
Exploration Manager
Robin has held senior

Robin has held senior exploration positions in several exploration and mining companies, including Polaris Metals, Tanganyika Gold, Troy Resources and CRA Exploration. In addition, he spent 5 years working in oil and gas exploration for Woodside Energy.

Robin was instrumental in the discovery of the Browns Range Project, including Wolverine and Gambit West. **Christopher Lee Resident Manager** 

Chris is a degree qualified mining engineer with almost 30 years' experience predominately in open cut gold and iron ore mining operations through Western Australia. He has extensive mine design, planning, scheduling and management capabilities and is a key addition to our management team.

Eben Van Rooyen Project Manager

Mr Van Rooyen is a Project Manager with an electrical and mechanical engineering background with more than 35 years experience in the mining industry. Eben has significant gold industry experience in brownfields projects from concept and feasibility through to commissioning.

#### The Northern Minerals SPIRIT



