

# MUSGRAVE

ASX : MGV

Minerals Ltd

## Growing in Gold

RIU Explorers Conference  
February 2017

Rob Waugh  
Managing Director

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# Forward Looking Statements



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## **Advancing targets through discovery and extensional drilling to define sufficient resources to underpin a profitable near-term development scenario**

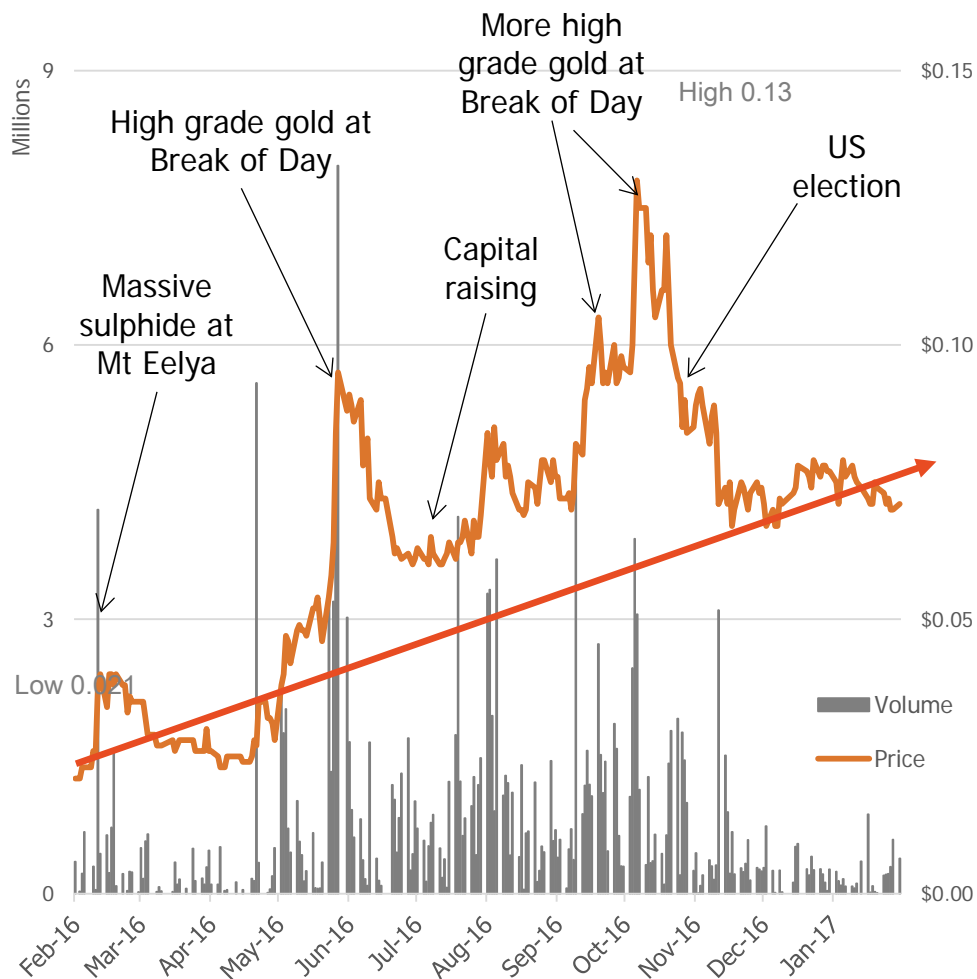
- ❑ Excellent high grade gold discovery at Break of Day
  - 20m @ 21.5g/t Au
- ❑ High grade gold extensions at Lena
  - 3.3m @ 19.4g/t Au
- ❑ New Cu-Au massive sulphide discovery at Mt Eelya
  - 8m @ 1.6% Cu, 0.6g/t Au

# Corporate Overview



ASX Code	MGV
Shares on Issue	180M
Share Price (14 Feb 2017)	\$0.07
Cash on Hand (31 Dec 2016)	\$2.9M
Debt	Nil
Market Capitalisation (@7¢)	\$12.6M
Enterprise Value	\$9.7M
Total Shareholders	~1,150
Liquidity (average daily volume)	750,000
Liquidity (90-day volume)	~65M shares

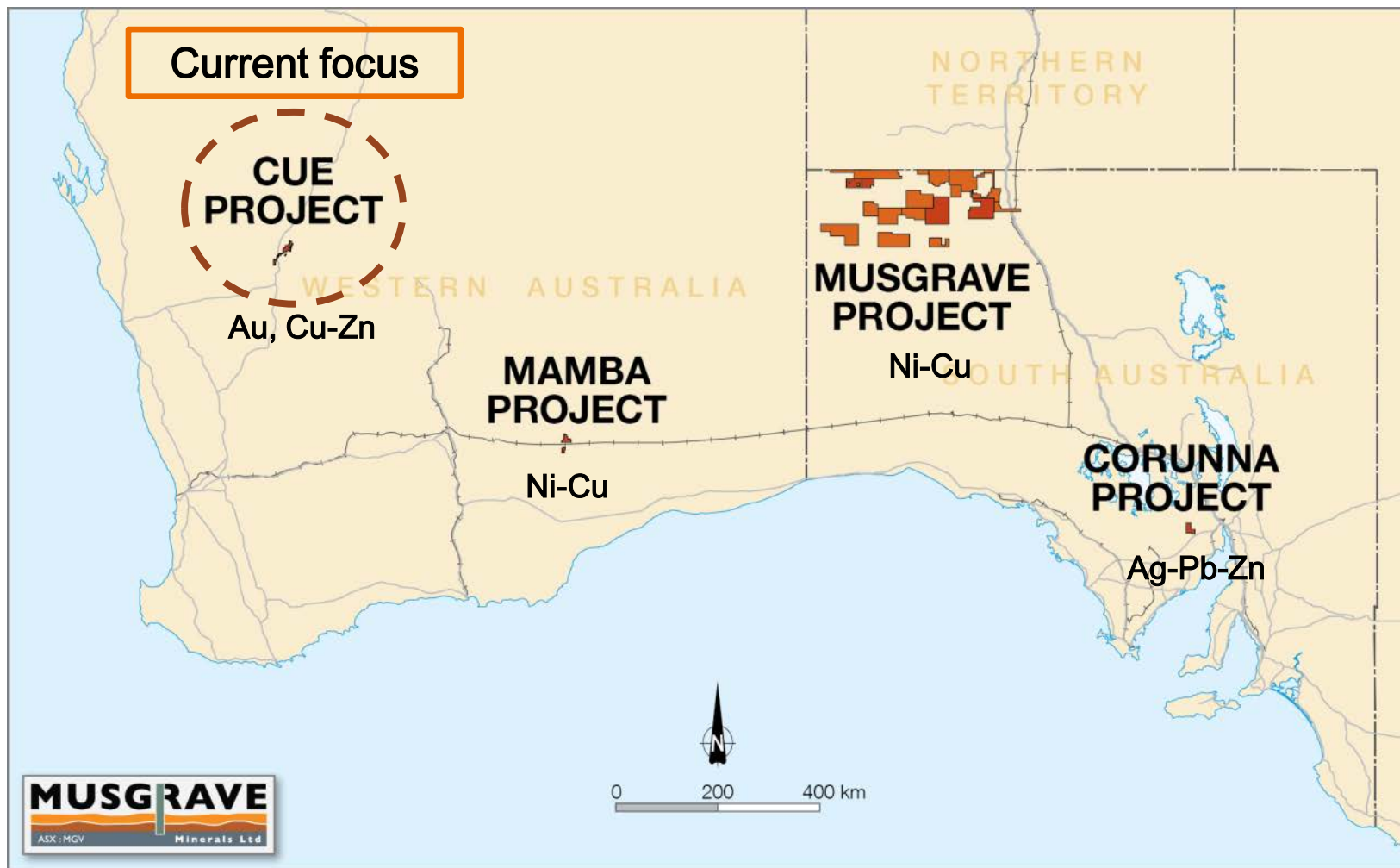
Top Shareholders	%
Silver Lake Resources Ltd	5.3
Independence Group NL	5.0
ABN AMRO Clearing	5.0
Barrick (Australia Pacific) Ltd	3.3
Forsyth Barr Custodians Ltd	2.3



Options	Expiry	Exercise Price	Number
Unlisted	2017 - 2021	\$0.045 - \$0.25	5,375k



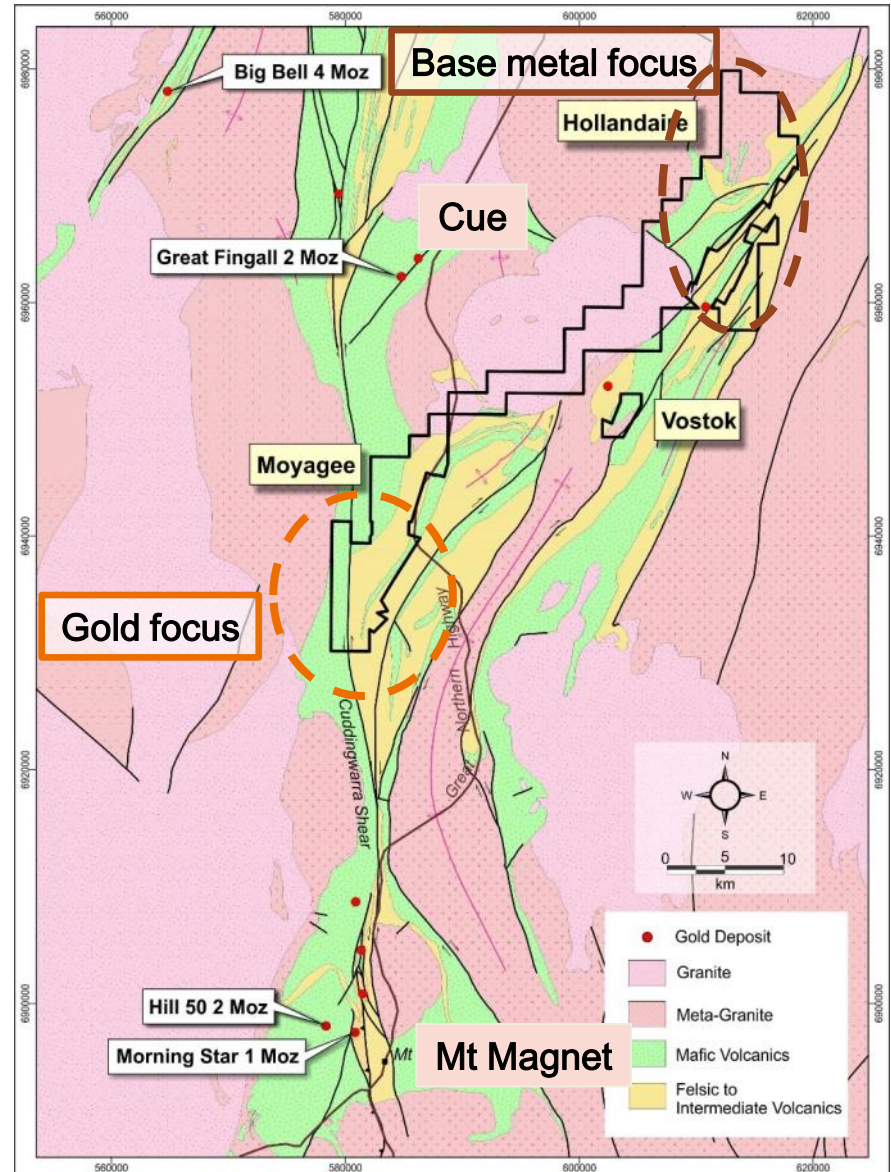
# Project Overview



# Cue Joint Venture

- ❑ Growing resources base on granted mining leases
- ❑ MGJV 60% increasing to 80% through JV with SLR
- ❑ Gold Deposits – new and extensional with high grade gold upside
  - Break of Day & Lena
- ❑ Close to infrastructure and existing gold operations
- ❑ Under-explored copper-gold VMS district
  - New copper-gold mineralisation
  - Mt Eelya

\* Summarised JV commercial terms on slide 23



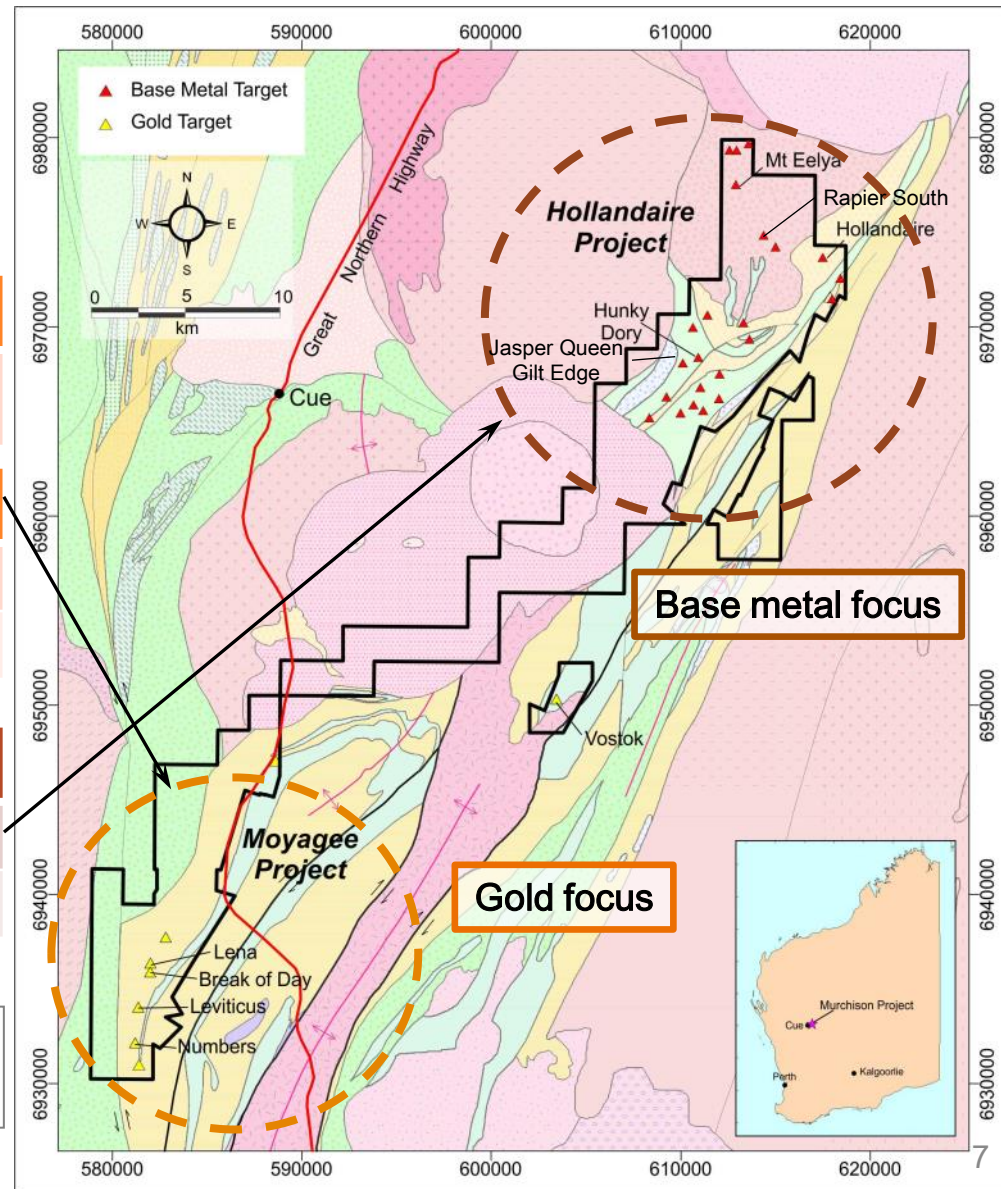


# Existing Mineral Resources and Ore Reserves

- Recent high grade results at Break of Day and Lena not included in existing resources

Moyagee *	Tonnes	g/t Au	oz Au
Lena + Break of Day + Leviticus + Numbers	1.93 Mt	2.05	126,900
Hollandaire Gold *	Tonnes	g/t Au	oz Au
Hollandaire + Rapier South	0.7 Mt	1.6	34,300
Jasper Queen + Gilt Edge	0.3 Mt	2.8	24,000
Hollandaire Copper *	Tonnes	% Cu	t Cu
Mineral Resource	2.0 Mt	1.9%	38,800
Ore Reserve	0.4 Mt	3.3%	14,700

\* Copper and gold Mineral Resources and Ore Reserves reported by Silver Lake Resources Limited (SLR) in its ASX Announcement "Mineral Resources and Ore Reserves Update", 26 August 2016.

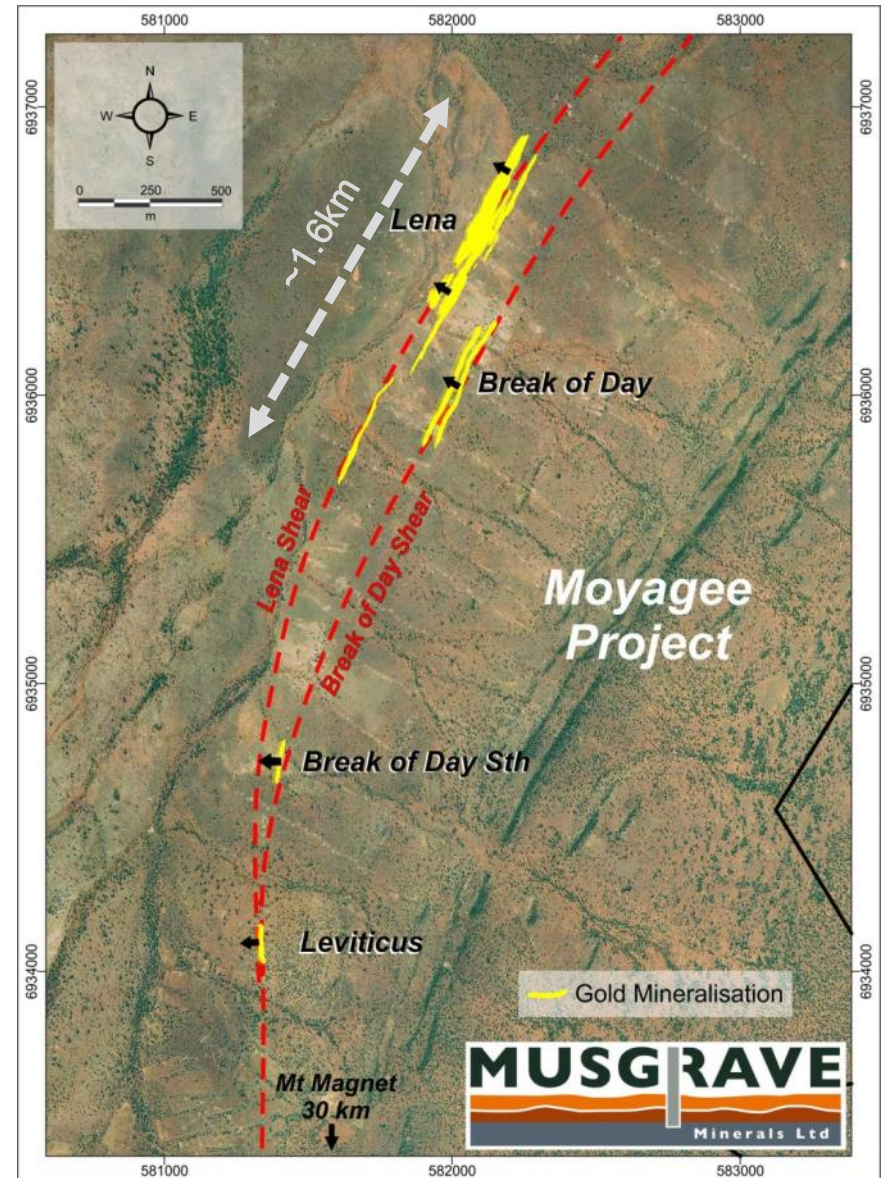


# Moyagee Project

- ❑ High grade gold at Break of Day & Lena
- ❑ On track to deliver new high grade gold Mineral Resource estimate at Break of Day & Lena late in Q2 2017
- ❑ Resource and extensional drilling recommencing next week



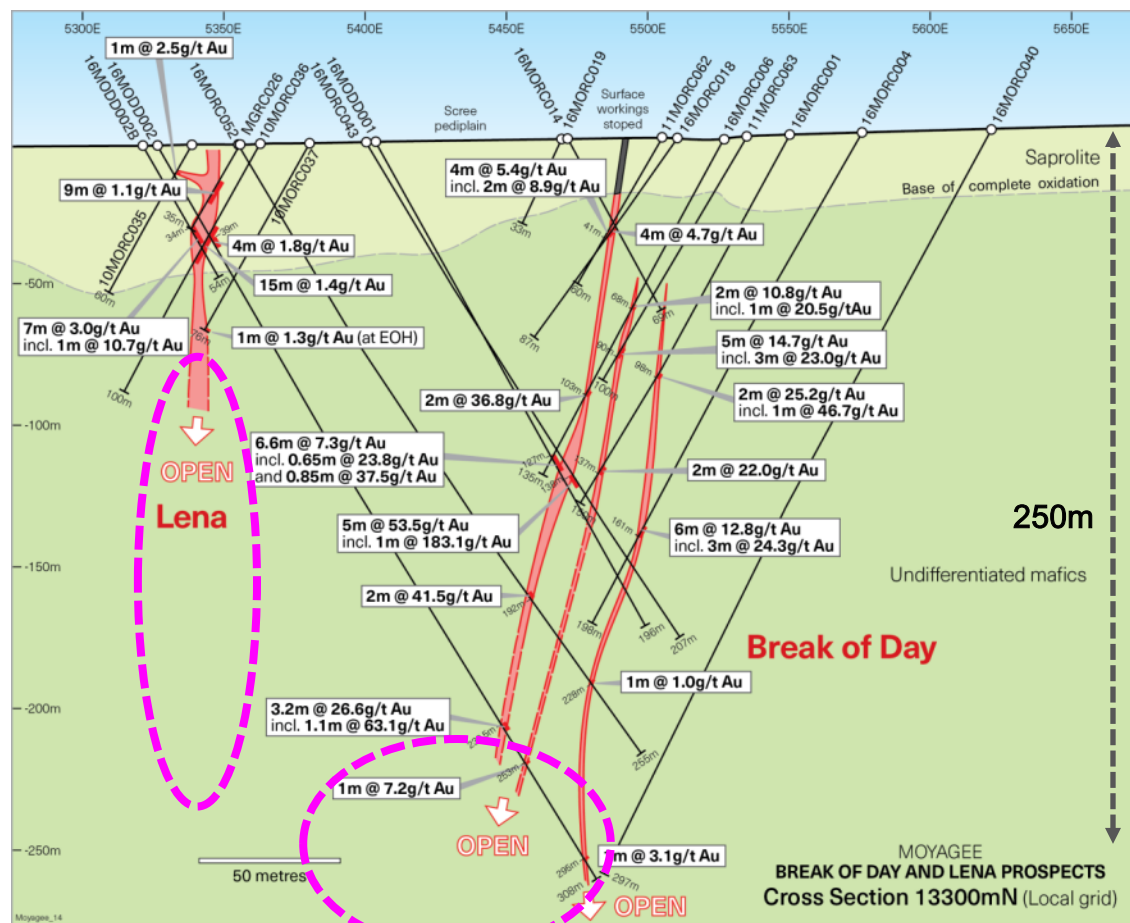
ASX : MGVS





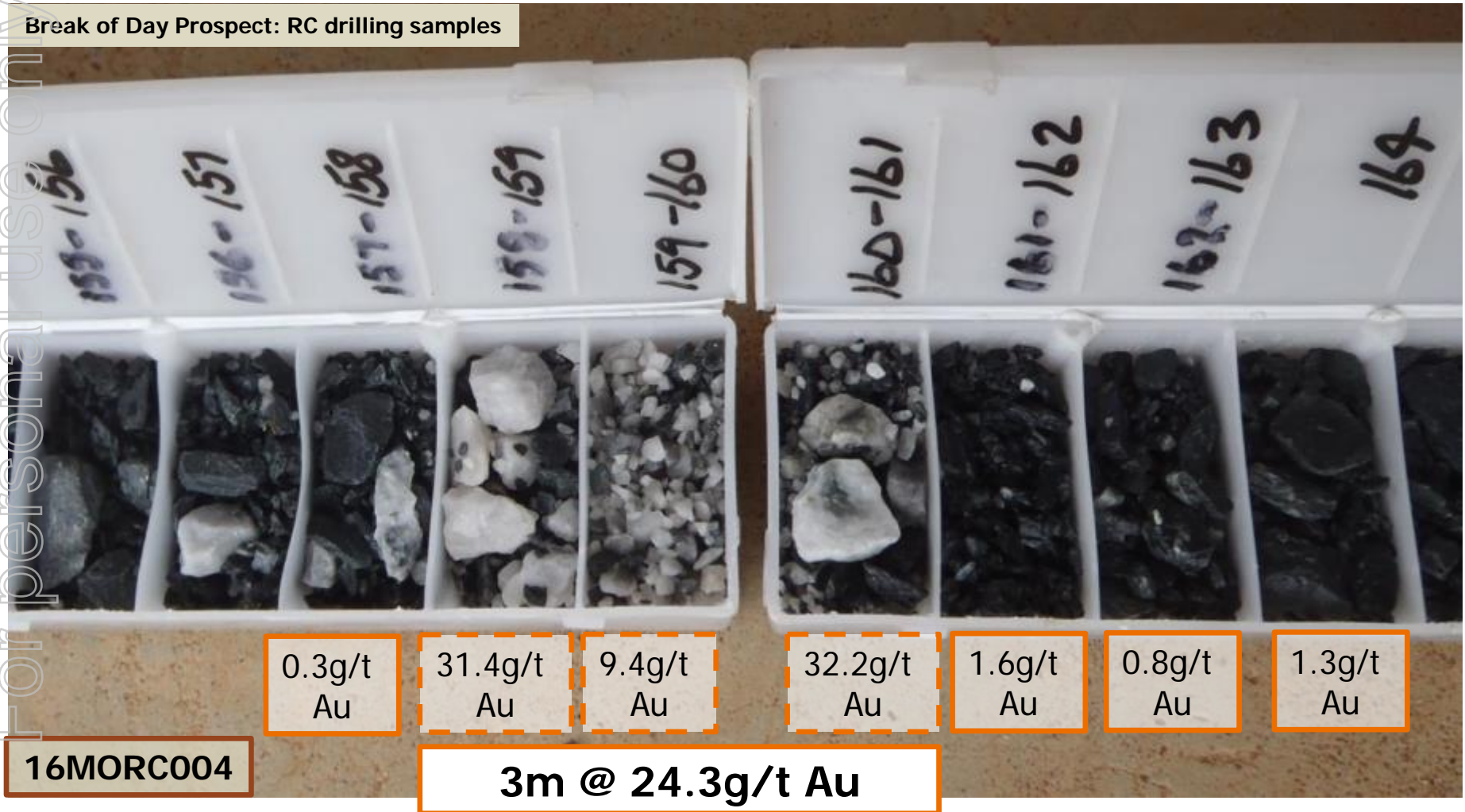
# Break of Day (high grade gold)

- ❑ Near surface gold mineralisation
- ❑ Significant potential to extend high grades along strike
- ❑ Potentially amenable to open pit and underground mining
- ❑ Semi-parallel high grade gold lodes
- ❑ MGV drilling results:
  - 21m @ 21.5 g/t Au from 157m
  - 3m @ 24.3 g/t Au from 158m
  - 2m @ 25.2 g/t Au from 96m
  - 2m @ 22.0 g/t Au from 135m
  - 2m @ 36.8 g/t Au from 101m
  - 5m @ 53.5 g/t Au from 138m
  - 3.2m @ 26.6 g/t Au from 238m



# Break of Day Quartz Vein Hosted Gold

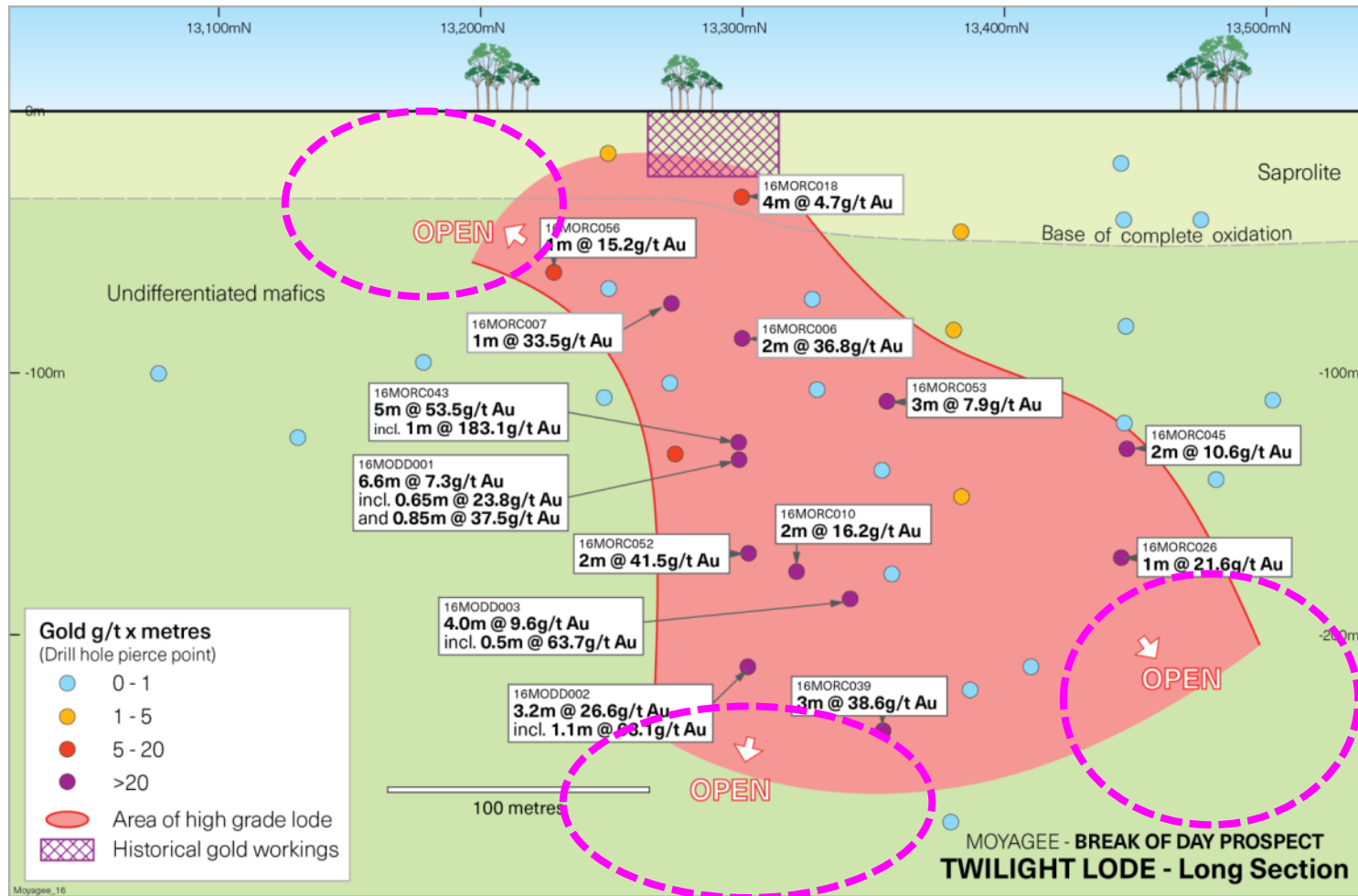
Break of Day Prospect: RC drilling samples



Drilling is continuing...

# Break of Day Twilight Lode – Long Section

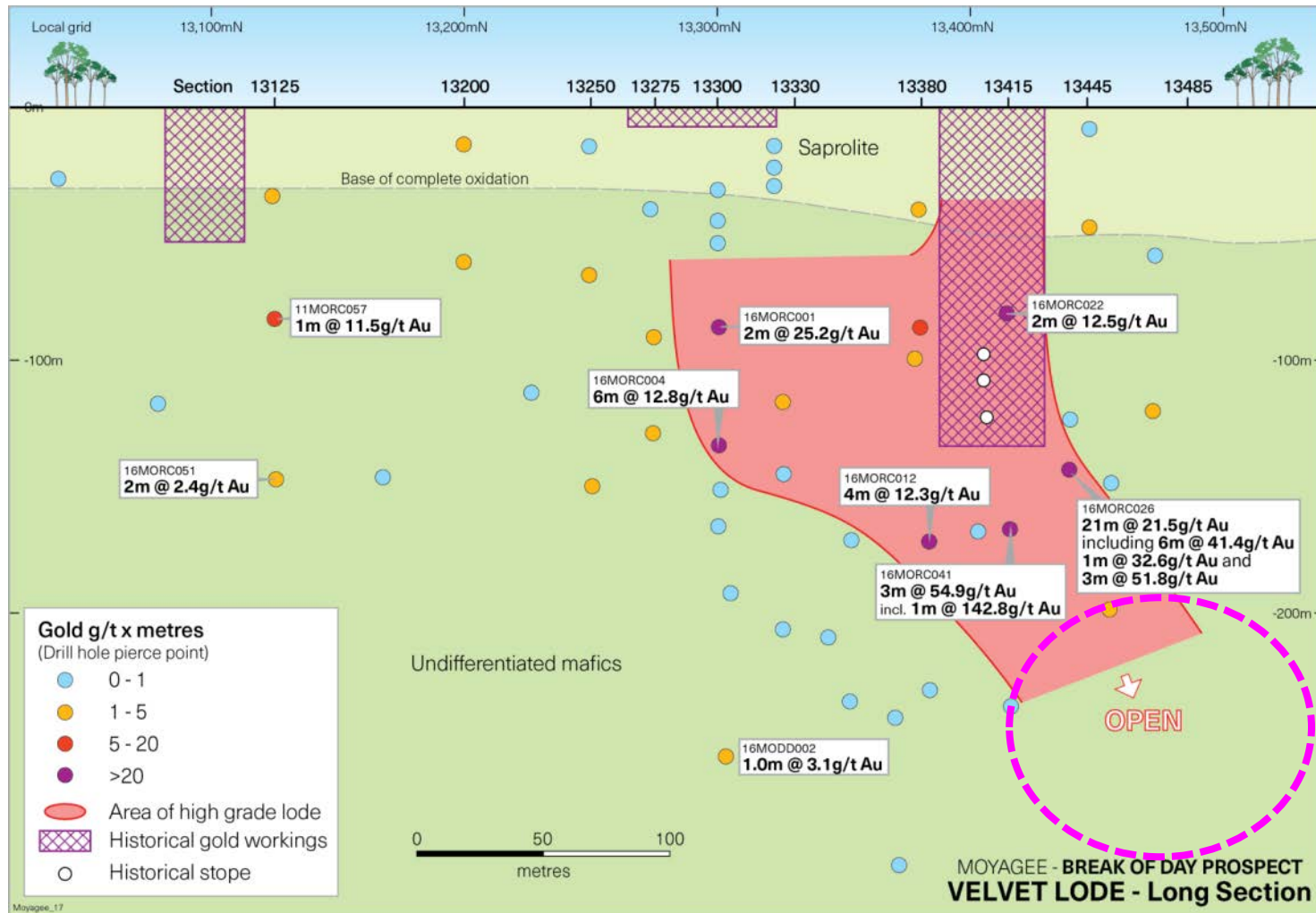
- 15 to 70m separation from Velvet Lode
- Only broadly drill tested
- High grade gold in vein quartz lode
- ~250m of strike of high grade shoot and open to the south and down plunge





# Break of Day Velvet Lode – Long Section

- ❑ 360m of strike and open to the north and south
- ❑ Only shallowly drill tested to ~200 vertical metres
- ❑ High grade gold shoot ~150m wide and open down plunge



# Break of Day Recent Diamond Drilling Results

- ❑ Diamond drilling confirms and enhances geological interpretation
- ❑ Providing SG data for future resource estimation
- ❑ Diamond drilling intersections:

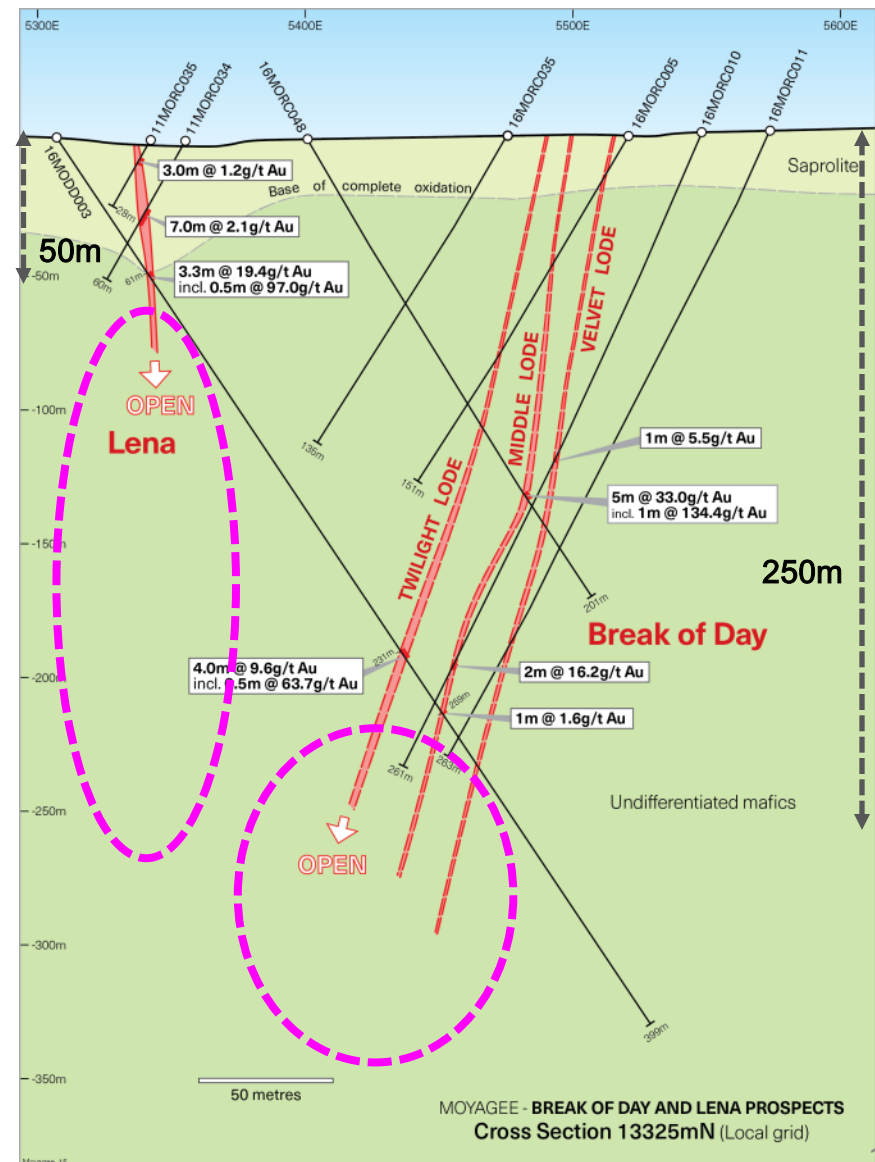
## Break of Day

- 3.2m @ 26.6g/t Au from 238m
- 4.0m @ 9.6g/t Au from 231m
- 6.6m @ 7.3g/t Au from 138m

## Lena

- 3.3m @ 19.4g/t Au from 62m

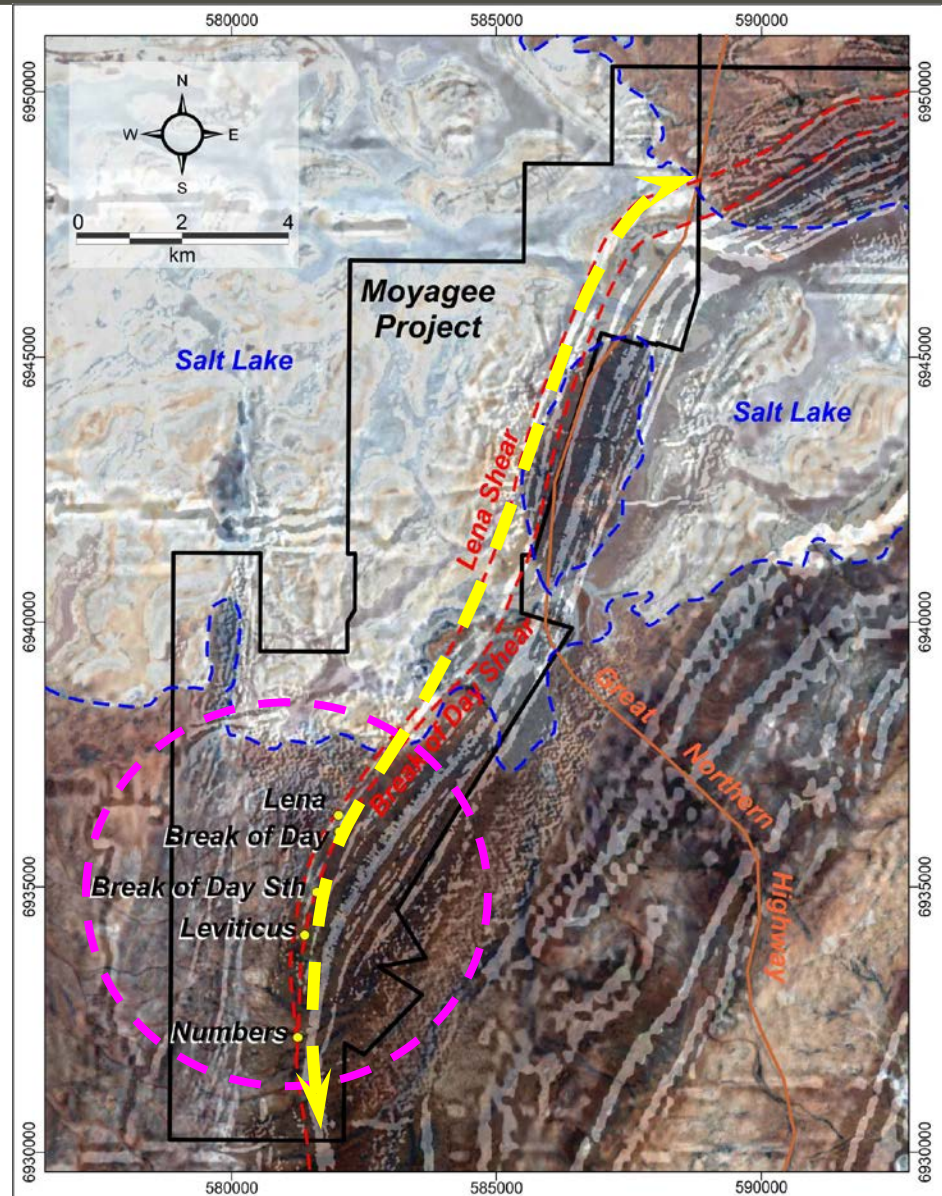
*Visible gold in diamond core 16MODD002 (Twilight Lode)  
238.9m, 1.1m @ 63.1g/t Au*





# Upside Gold Potential

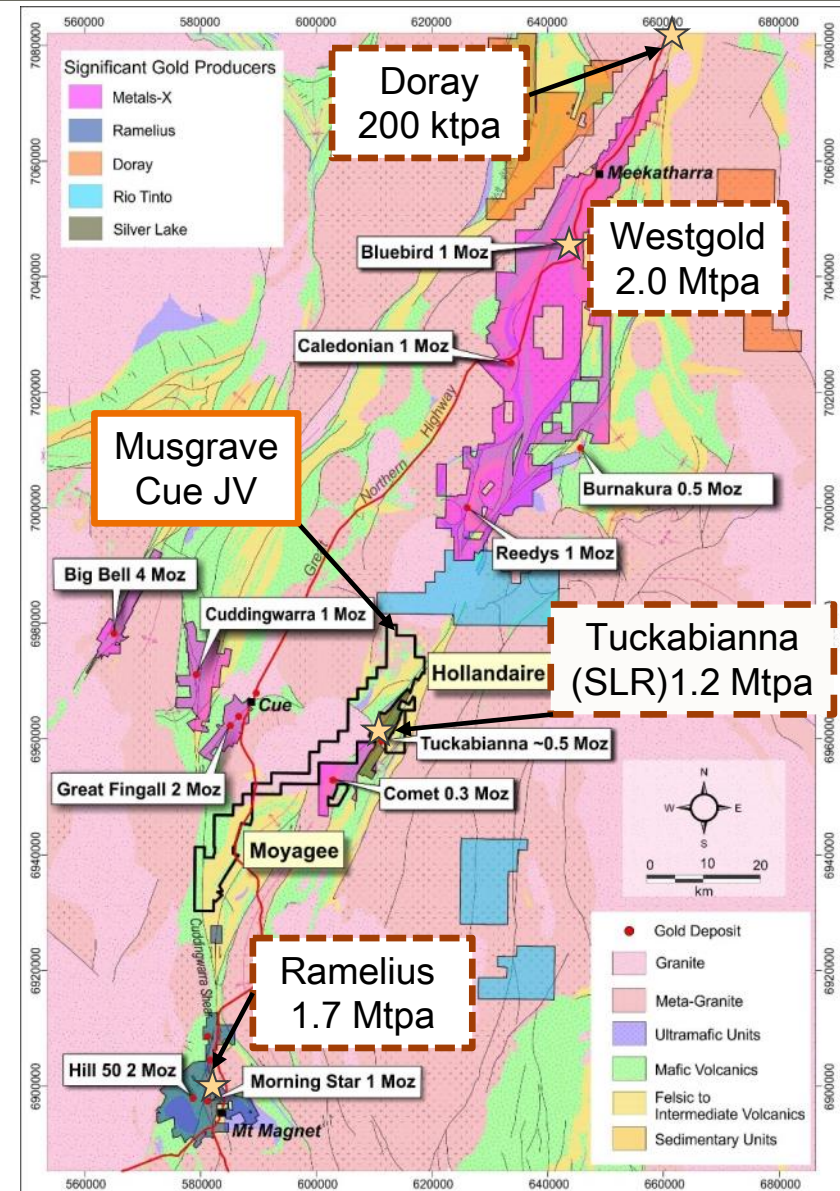
- ☐ >20km of strike of host shear zone
  - >12km with no previous exploration
- ☐ Multiple gold deposits and occurrences – open and under-explored





# Multiple Gold Plants in Operation in the Region

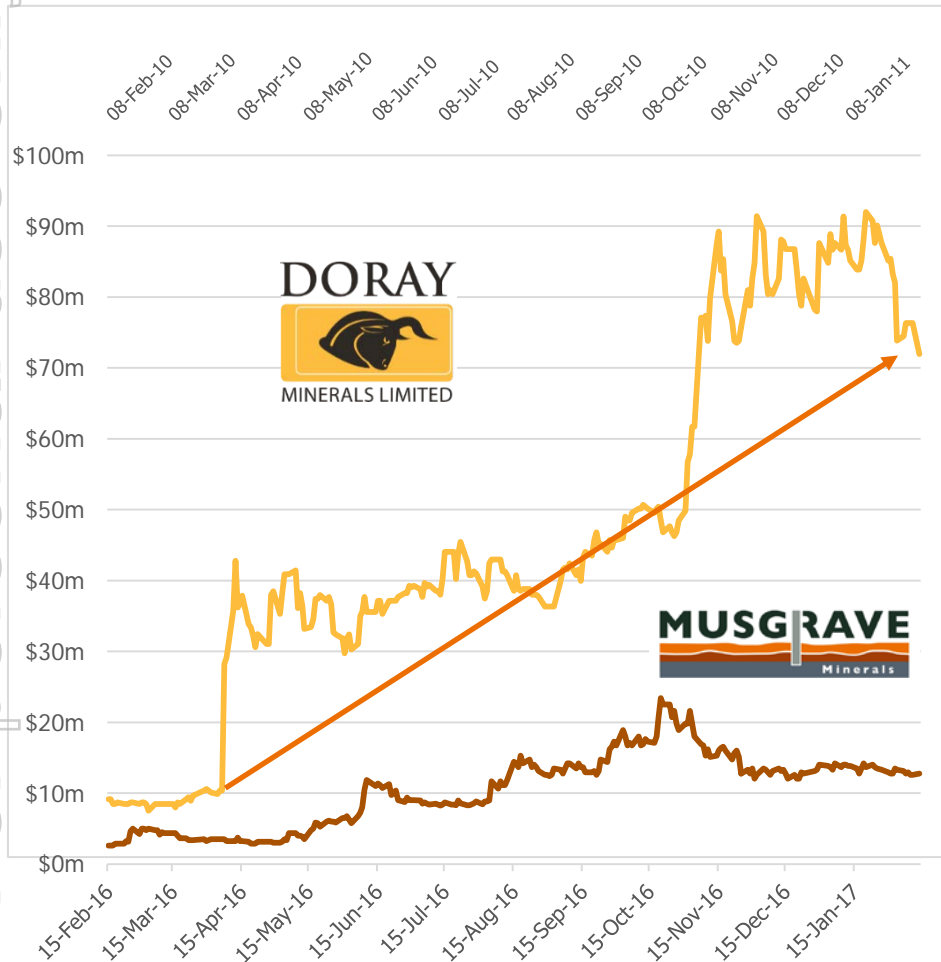
- ❑ Surrounded by significant gold producers
- ❑ Multiple existing gold processing plants within 40km to 150km for possible toll treatment



# Doray Minerals Comparison



*Doray: Initial 12 months from Andy Well discovery*



DRM	Initial Resource Estimate
*7 Feb 2011	311,000t @ 17.5g/t Au (174,000 contained ounces)

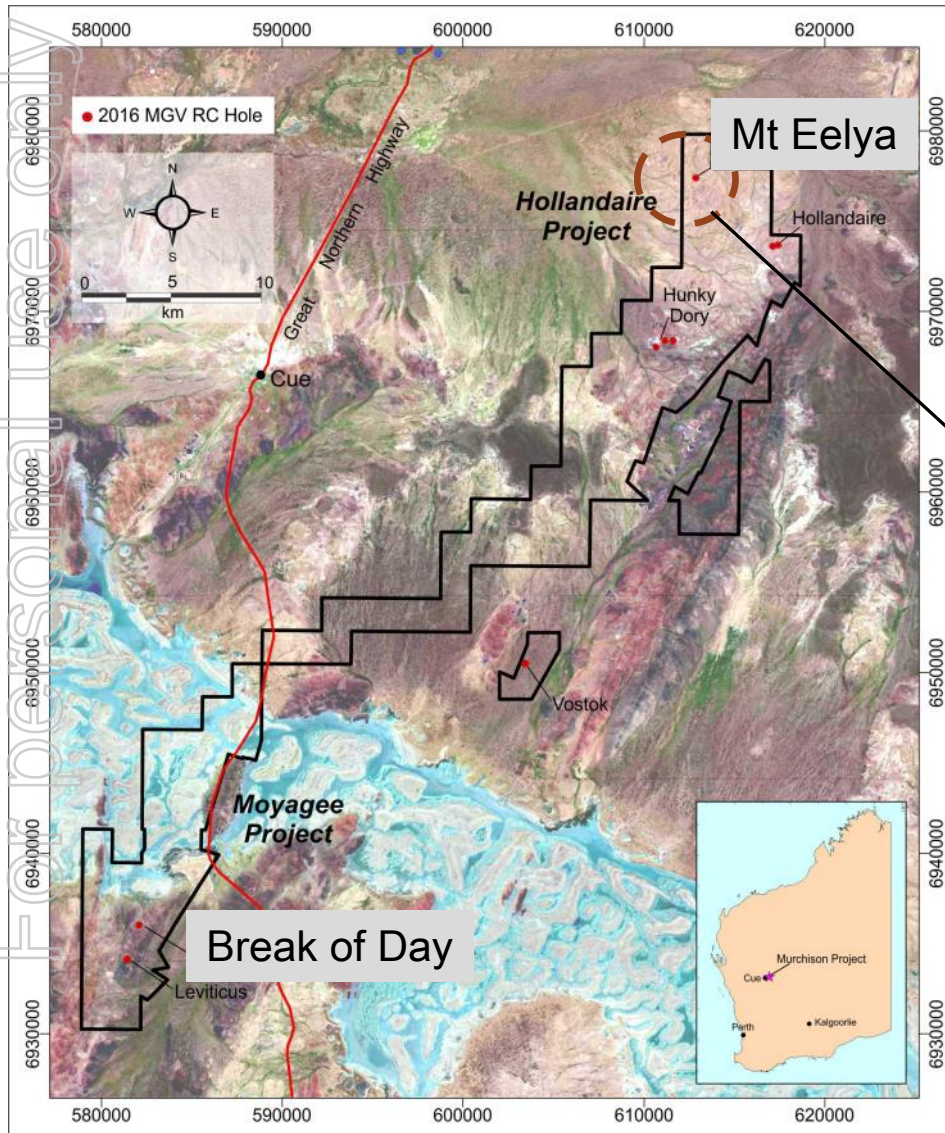
*\* ASX :DRM; 7 Feb 2011, Andy Well Resource Delivers High-Grade Ounces*

MGV	Initial Resource Estimate
June 2017	Initial Resource Estimate Due

Source: SNL Mining & Metals, Terra Studio



# Copper-Gold VMS Mt Eelya Prospect



- ❑ Mt Eelya : Cu-Au discovery
- ❑ Drill test possible extensions to copper-gold and zinc mineralisation at Mt Eelya



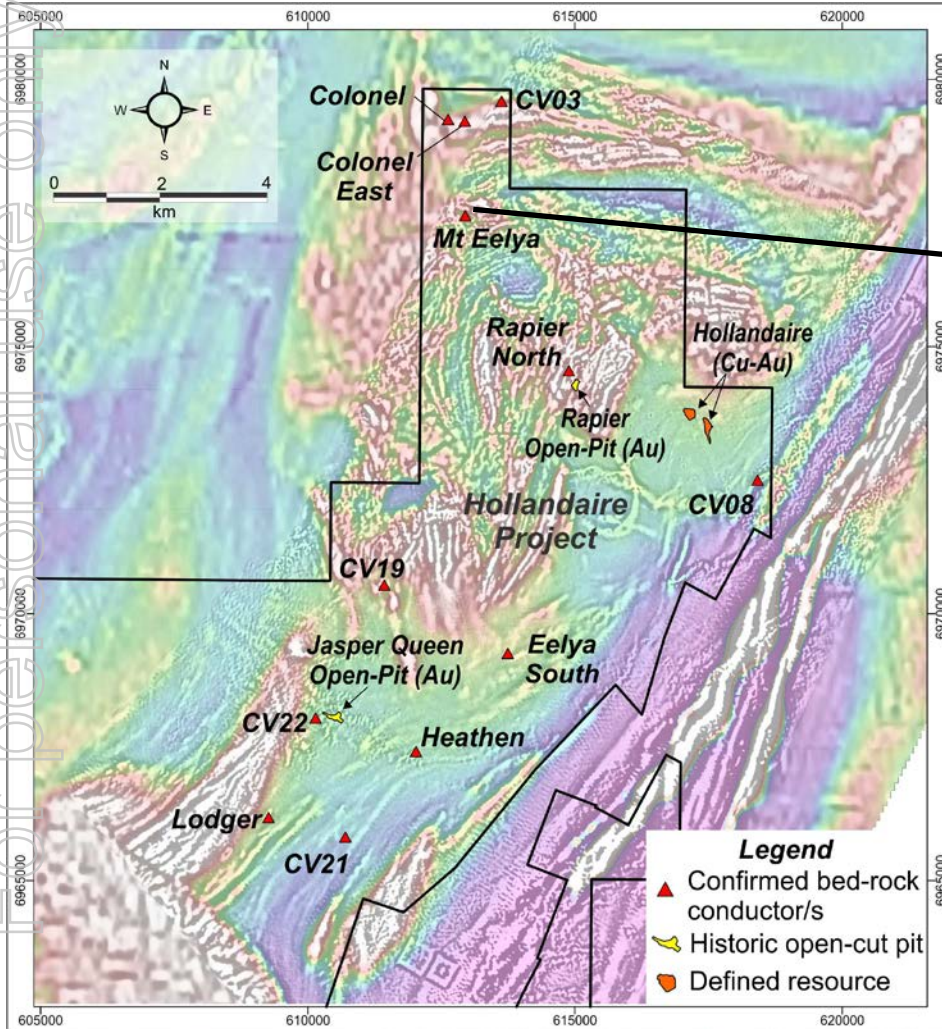


# Mt Eelya Prospect Massive Sulphide

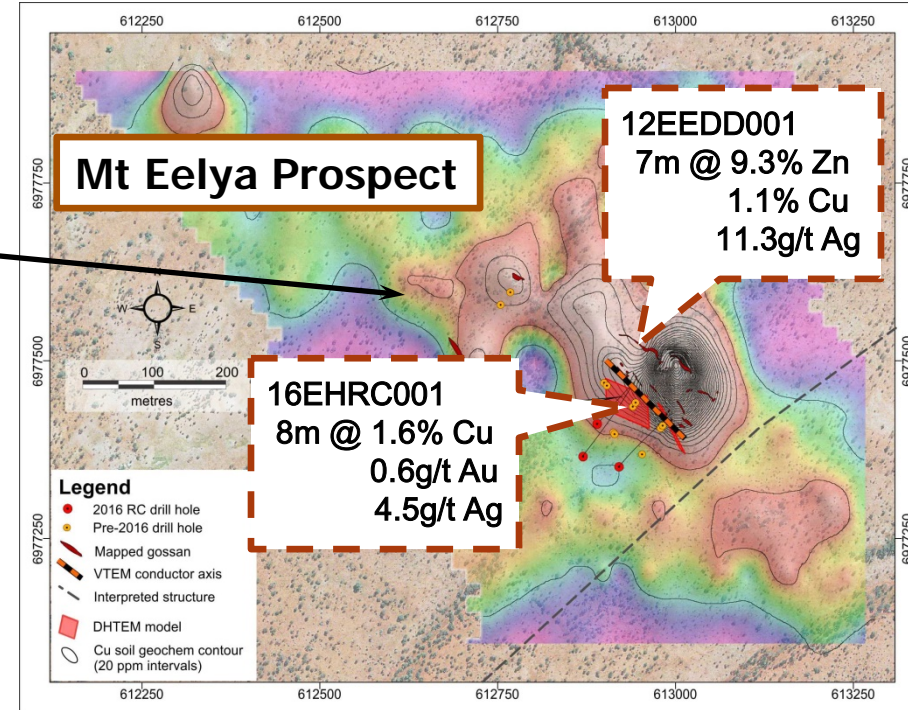
8m of massive to semi-massive sulphide  
from 115-123m down hole



# New Base Metal Targets



*Multiple undrilled basement EM targets*



*pXRF Copper Soil Geochemistry*

- ❑ Regional base metal geochemical anomaly Cu, Zn, Pb
- ❑ Shallow zinc: 7m @ 9.3% Zn from 29m



# Scheduled Work Plan

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Moyagee Gold Project	Q1 2017	Q2 2017
Soil Geochemical Surveys (New Targets)	✓	
Heritage Survey (New Targets)	✓	
Aircore Drilling		✓
RC Drilling	✓	✓
Mineral Resource Estimate		✓
Metallurgical Studies	✓	✓

Hollandaire Base Metals Project	Q1 2017	Q2 2017
Soil Geochemical Surveys	✓	
Heritage Survey (New Targets)	✓	
RC / Diamond Drilling (New Targets)		✓



# Why MGV?

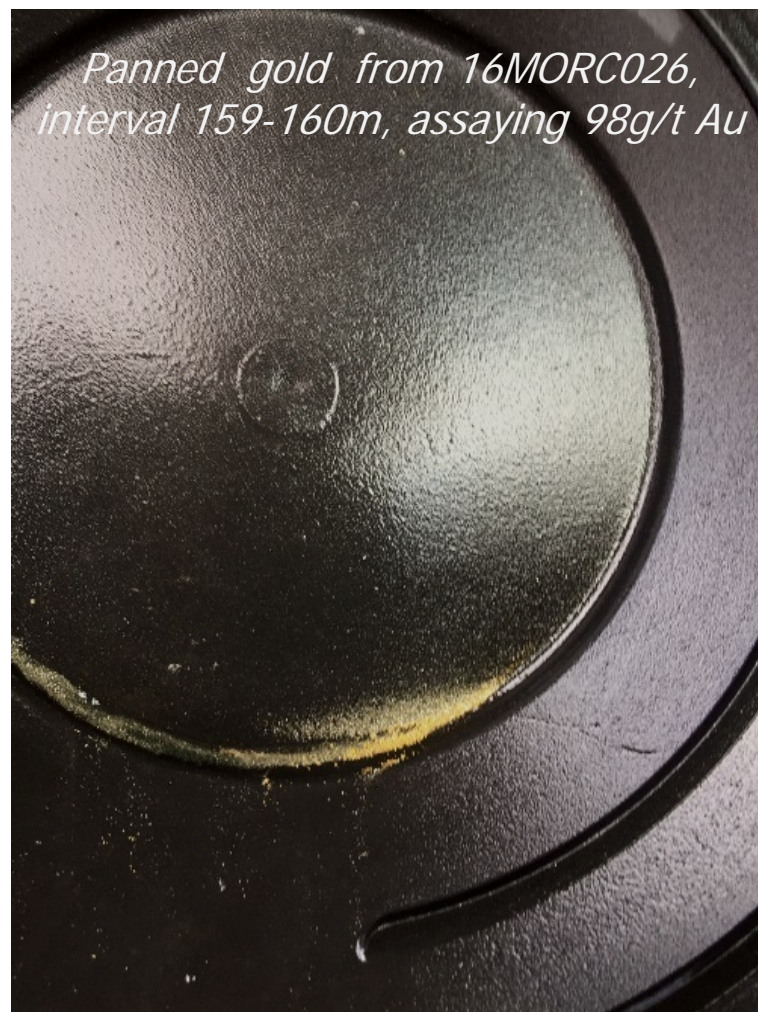
- ❑ **Delivering on our objective:**
  - Advancing targets through discovery and extensional drilling to define sufficient resources to underpin a profitable near-term development scenario
- ❑ **Existing gold and copper resources in WA with significant upside**
  - New Resource estimate for Break of Day & Lena expected Late Q2 2017
- ❑ **Exciting high grade results with active programs**
  - High grade gold discovery - Break of Day
  - High grade shallow gold extensions - Lena
  - New drilling commencing next week
- ❑ **Highly leveraged to further exploration success**
- ❑ **Multiple gold plants in close proximity (toll treatment options)**
- ❑ **Strong board and management**

# Thank you

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Au





# Board & Management



## **Graham Ascough: BSc, MAusIMM, PGeo (Non-Executive Chairman)**

- Geoscientist with >25 years exploration experience (Ex Falconbridge).

## **Robert Waugh: MSc, BSc, FAusIMM, MAIG (Managing Director)**

- Geologist with >25 years of exploration experience (Ex WMC & BHP) including 20 years in Au & Ni-Cu exploration. Strong discovery track record.

## **Kelly Ross: BBus, CPA, GradDipCSP (Non-Executive Director)**

- Accountant and Chartered Secretary with over 25 years experience in the mining industry.

## **John Percival: (Non-Executive Director)**

- Over 25 years experience in broking, investment and merchant banking.

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## **Patricia (Trish) Farr: GradCertProfAcc, GradDip ACG (Company Secretary)**

- Chartered Secretary with over 17 years experience in the exploration and mining industry.

## **Glenn Martin: BSc (Hons), MAusIMM (Chief Geologist)**

- Geologist >20 years of exploration experience. Good discovery track record.



# JORC Resources and Reserves



Gold Mineral Resources as at 30 June 2016

30 June 2016	Indicated Resources			Inferred Resources			Total Resources		
Deposit	Ore tonnes '000s	Au Grade g/t	Total oz. Au '000s	Ore tonnes '000s	Au Grade g/t	Total oz. Au '000s	Ore tonnes '000s	Au Grade g/t	Total oz. Au '000s
<b>Moyagee</b>									
Lena	433	2.0	28	839	1.8	49	1,273	1.86	76
Leviticus				42	6.0	8	42	6.00	8
Numbers				278	2.5	22	278	2.46	22
Break of Day				336	1.9	21	336	1.91	21
<b>Total Moyagee</b>	<b>433</b>	<b>2.0</b>	<b>28</b>	<b>1,495</b>	<b>2.1</b>	<b>99</b>	<b>1,928</b>	<b>2.05</b>	<b>127</b>
<b>Eelya</b>									
Hollandaire	473	1.4	21	45	1.1	2	518	1.35	22
Rapier South				171	2.2	12	171	2.15	12
<b>Total Eelya</b>	<b>473</b>	<b>1.4</b>	<b>21</b>	<b>216</b>	<b>1.9</b>	<b>13</b>	<b>689</b>	<b>1.55</b>	<b>34</b>
<b>Tuckabianna</b>									
Jasper Queen				175	2.6	15	175	2.6	15
Gilt Edge				96	3.1	9	96	3.1	9
<b>Total Tuckabianna</b>				<b>271</b>	<b>2.8</b>	<b>24</b>	<b>271</b>	<b>2.8</b>	<b>24</b>

Copper Mineral Resources as at 30 June 2016

30 June 2016	Indicated Resources			Inferred Resources			Total Resources		
Deposit	Ore tonnes '000s	Grade %	Total Tonnes Cu '000s	Ore tonnes '000s	Grade %	Total Tonnes Cu '000s	Ore tonnes '000s	Grade %	Total Tonnes Cu '000s
<b>Hollandaire</b>									
Copper	1,891.3	2.0	37.1	122.4	1.4	1.7	2,013.7	1.9	38.8

Silver Mineral Resources as at 30 June 2016

30 June 2016	Indicated Resources			Inferred Resources			Total Resources		
Deposit	Ore tonnes '000s	Grade g/t	Total oz. Ag '000s	Ore tonnes '000s	Grade g/t	Total oz. Ag '000s	Ore tonnes '000s	Grade g/t	Total oz. Ag '000s
<b>Hollandaire</b>									
Silver	1,925	6.3	390	728	4.7	110	2653	5.9	500

Copper Ore Reserves as at 30 June 2016

30 June 2016	Proven Reserves			Probable Reserves			Total Reserves		
Deposit	Ore tonnes '000s	Grade %	Total Tonnes Cu '000s	Ore tonnes '000s	Grade %	Total Tonnes Cu '000s	Ore tonnes '000s	Grade %	Total Tonnes Cu '000s
<b>Hollandaire</b>									
Copper				442	3.3	15	442	3.3	15

Silver Ore Reserves as at 30 June 2016

30 June 2015	Proven Reserves			Probable Reserves			Total Reserves		
Deposit	Ore tonnes '000s	Grade g/t	Total oz. Ag '000s	Ore tonnes '000s	Grade g/t	Total oz. Ag '000s	Ore tonnes '000s	Grade g/t	Total oz. Ag '000s
<b>Hollandaire</b>									
Silver				574	8.2	151	574.0	8.2	151

## Notes to Tables:

The Lena Mineral Resource at Moyagee is produced in accordance with the 2012 Edition of the Australian Code of Reporting of Mineral Resources and Ore Reserves (JORC 2012). The remaining Mineral Resources and Ore Reserve estimates were first prepared and disclosed in accordance with the 2004 Edition of the Australian Code of Reporting of Mineral

Resources and Ore Reserves (JORC 2004) and have not been updated since to comply with JORC 2012 on the basis that the information has not materially changed since it was last reported.

For further details refer to SLR ASX announcement 26 August 2016, "Mineral Resources and Ore Reserves Update".



# Competent Person's Statement



## *Mineral Resources and Ore Reserves*

The information in this report that relates to Mineral Resources or Ore Reserves that relate to the Hollandaire deposit based on information compiled by Mr Matthew Karl, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Karl is a full-time employee of Silver Lake Resources Limited. Mr Karl has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration 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 Karl consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All other information in this report that relates to Mineral Resources or Ore Reserves is based on information compiled and/or thoroughly reviewed by Mr Antony Shepherd, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Shepherd is a full-time employee of Silver Lake Resources Limited. Mr Shepherd has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration 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 Shepherd consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## *Exploration Results*

The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled and thoroughly reviewed by Mr Robert Waugh. Mr Waugh is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and a Member of the Australian Institute of Geoscientists (MAIG). Mr Waugh is Managing Director of Musgrave Minerals Ltd. Mr Waugh has sufficient industry experience 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 Waugh consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

# Cue JV Commercial Terms



**The key commercial terms for the Farm-In and Joint Venture Agreement are outlined below:**

- ❑ Commencement occurred on the satisfaction of the Conditions Precedent (satisfied on 4 December 2015)
- ❑ \$75,000 paid to SLR in ordinary shares in Musgrave Minerals Limited on Commencement (completed)
- ❑ \$900,000 minimum commitment on exploration expenditure on the Project within 12 months of Commencement (completed July 2016)
- ❑ Musgrave to earn an initial 60% interest with a further spend of \$1,800,000 within a further 2 years (completed Feb 2017)
- ❑ Upon completion of one of the Project Milestones referred to below, Musgrave will, at its election, either pay Silver Lake \$250,000 cash or, subject to obtaining shareholder approval, issue to Silver Lake that number of fully paid ordinary Musgrave shares with a total issue value of \$250,000:
  - Delineation of an additional JORC (2012) compliant inferred mineral resource of 400,000oz gold; or
  - An additional JORC (2012) compliant inferred mineral resource of 80,000 tonnes copper
- ❑ Musgrave may elect to increase its equity in the Project to 80% by spending a further \$1,800,000 within a further 2 years
- ❑ If a party dilutes below 10%, its joint venture interest will convert to a 1.5% net smelter royalty
- ❑ Upon a Decision to Mine Musgrave will, at its election, either pay Silver Lake \$250,000 cash or, subject to obtaining shareholder approval, issue to Silver Lake that number of fully paid ordinary Musgrave shares with a total issue value of \$250,000
- ❑ Musgrave Minerals managing the Project