# Mt Carlton

May 2014



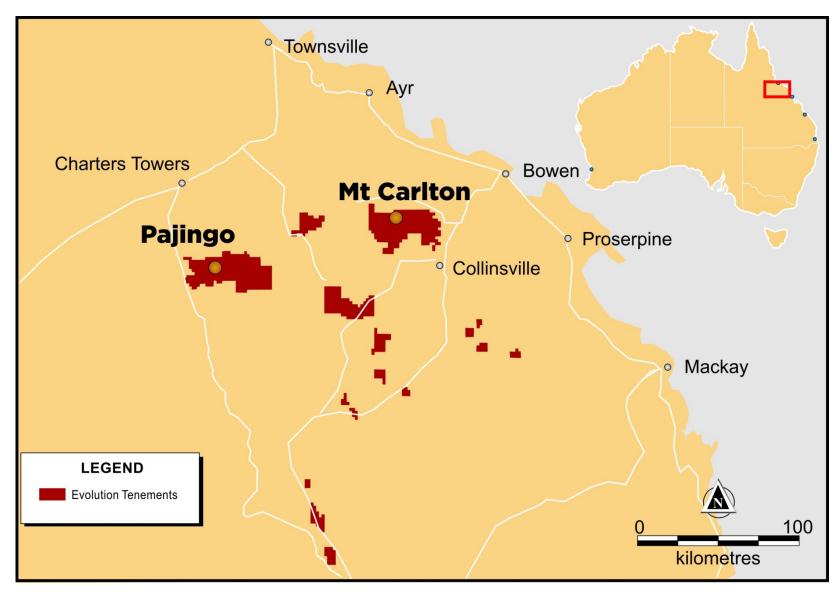
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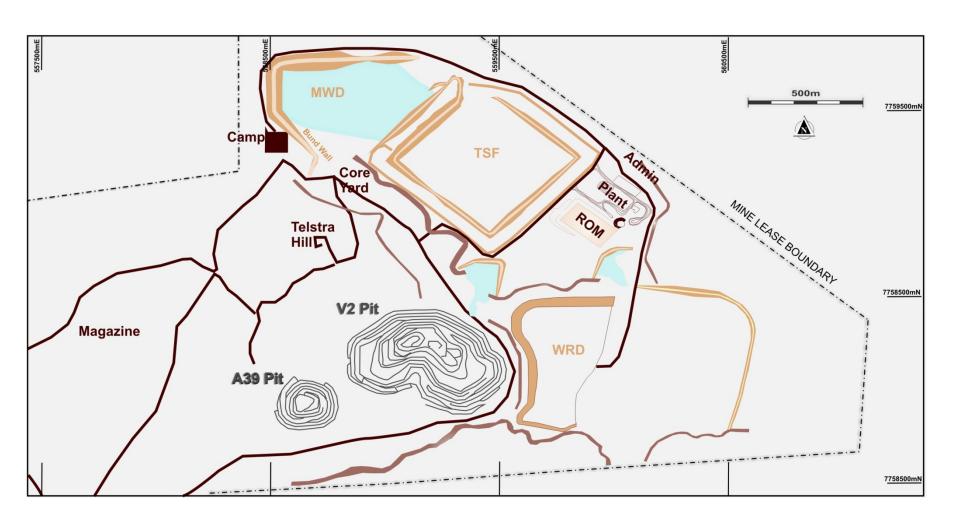
## Location





## Site layout





#### Mt Carlton



- Lowest cost mine in the portfolio
- Workforce: approximately 140 including contractors
  - Roster: 8 days on, 6 days off
- Mining method: open pit conventional drill and blast, load and haul
- Processing method: crushing, grinding and bulk sulphide flotation to produce a polymetallic concentrate

Mine Type	Open pit
Minerals	Gold, silver and copper
Mineralisation type	High-sulphidation epithermal
Throughput	800,000tpa
Average grade	V2 open pit – 3.7g/t gold eq.
Mine Life	12 years
Ore Reserves	1.2Moz gold equivalent
Mineral Resources	2.2Moz gold equivalent

Detailed Ore Reserve and Mineral Resource disclosure provided on the Company website www.evolutionmining.com.au



# Safety, Environment & Community



# Safety, environment & community Evolution

#### **Safety**

- TRIFR reduced by 30%
- Feedback and consultation with workforce
- Behavioural safety key focus Beyond Zero Program
- Culture of reporting hazards, near-misses, incidents

#### **Environment**

- Responsible environmental management and performance
- Tails dam raise to be completed for wet season
- Maintenance of heritage sites
- Burdekin river pipeline flora and fauna survey

## Community

- Four Birriah traineeships positive feedback
- Good relationship with landholders
- Community Consultative Committee
- Capital Program Whitsunday Shire Council (Tondara Road) in discussion



## **Mining**



Current Fleet: 1 x 1200 excavator

4 x CAT 777 trucks

1 x 980 loader

1 x 14M grader

1 x 773 water cart

2 x dozers

1x 30t rock breaker

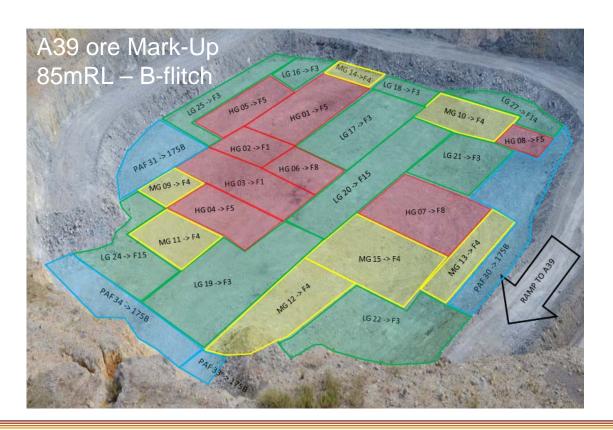
- Completion of A39 Pit mining scheduled in Q4 FY14
- Optimising mine scheduling



## **Mining**

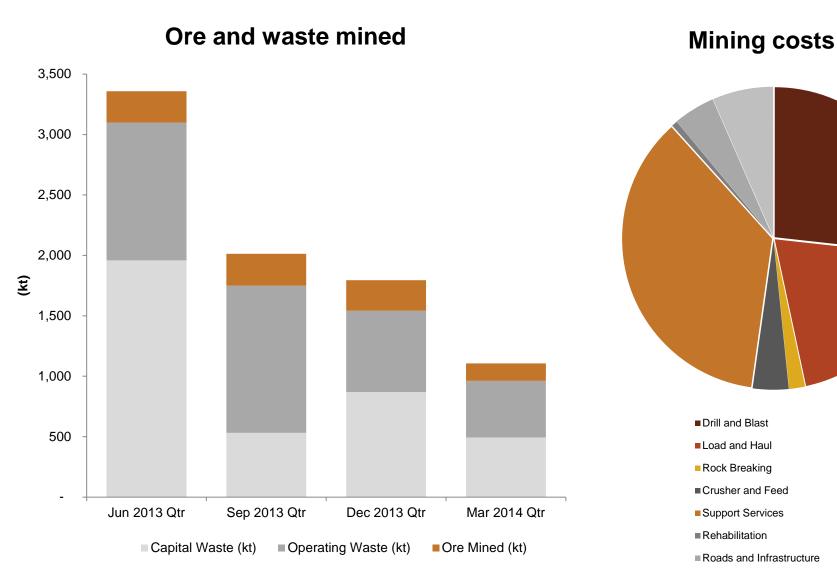


- Total material movement significantly reduced in H2 FY14
- Life of mine strip ratio: V2 = 2.7:1, A39 = 3.3:1
- A39 pit scheduled for completion of mining in Q4 FY14. Evaluation in progress to assess further exploitation of the remaining resource

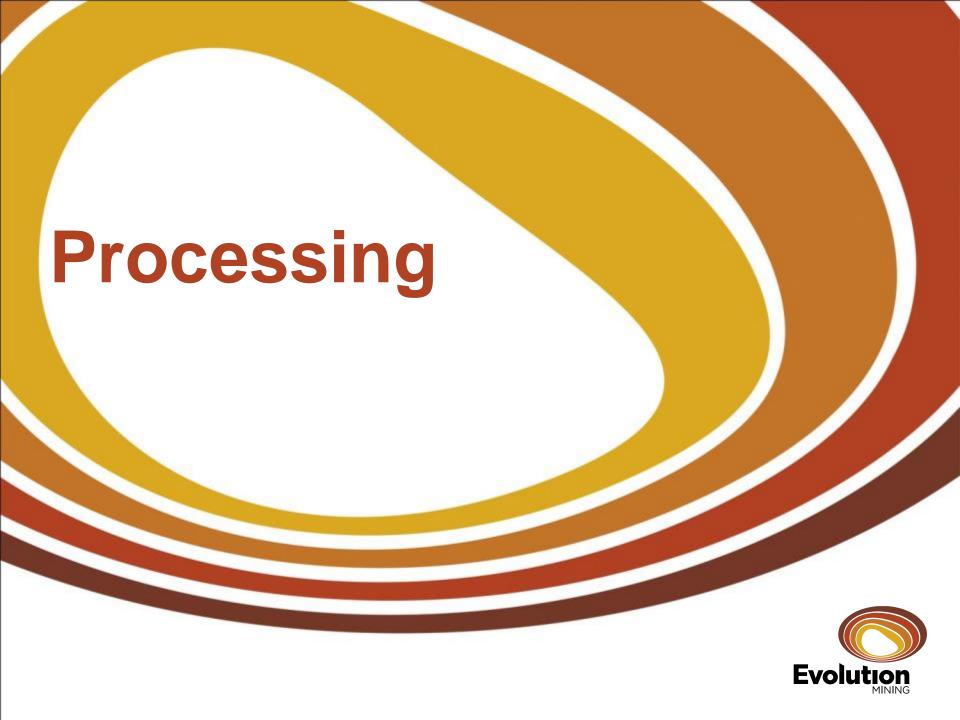


## **Physicals**



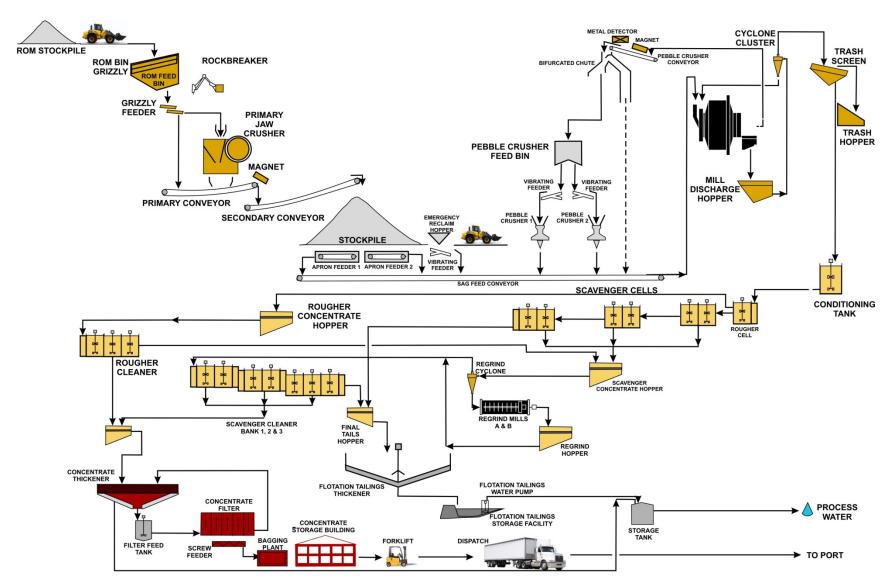


■General Management & Admin Costs



#### **Process flowsheet**





## **Physicals FY14 YTD**



July 2013 to March 2014	Units	A39	V2	Total/Average
Mining				
Capital waste	kt	0	1,894	1,894
Operating waste	kt	141	2,219	2,359
Ore mined	kt	211	341	553
Mined Grade - gold	g/t	-	5.1	5.1
Mined Grade - silver	g/t	373	48	172
Processing				
Ore processed	kt	174	318	492
Grade processed - gold	g/t	-	5.6	5.62
Grade processed - silver	g/t	426	60	190
Grade processed - gold and gold equiv.1	g/t	6.9	5.6	6.1
Gold recovery	%	-	87	87
Silver recovery	%	85	-	85
Production				
Concentrate produced	t	16,246	25,255	41,501
Gold <sup>2</sup>	OZ	-	42,245	42,245
Silver <sup>2</sup>	OZ	1,568,704	278,983	1,847,687
Copper <sup>2</sup>	t	77	861	937
Gold and gold equivalent <sup>1,2</sup>	OZ	25,515	42,245	67,759

<sup>1.</sup> Gold and gold equivalent is Mt Carlton A39 silver as gold equivalent

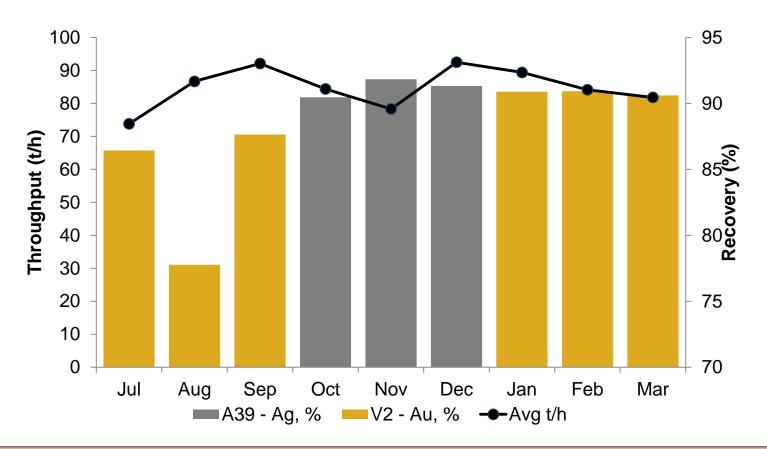
<sup>2.</sup> Production is equivalent to payable metal

## Plant performance



- Plant throughput 800kt per annum
- Plant availability 91.3%

#### **Plant Performance**



#### **Concentrate sales**



- 47,000dmt concentrate shipped to date
- Total revenue USD110m.

A39 Silver Concentrate

12 shipments @ Av. size 2,000dmt

Average Ag grade: 3,750g/t

Average revenue: US\$4M per shipment

V2 Gold Concentrate

11 shipments @ Av. size 2,100dmt

Average Au grade: 63g/t

Average revenue: US\$6M per shipment

- Both customers are satisfied with the quality of product
  - All shipped concentrate has met spec no rejections



## **Cost saving initiatives**

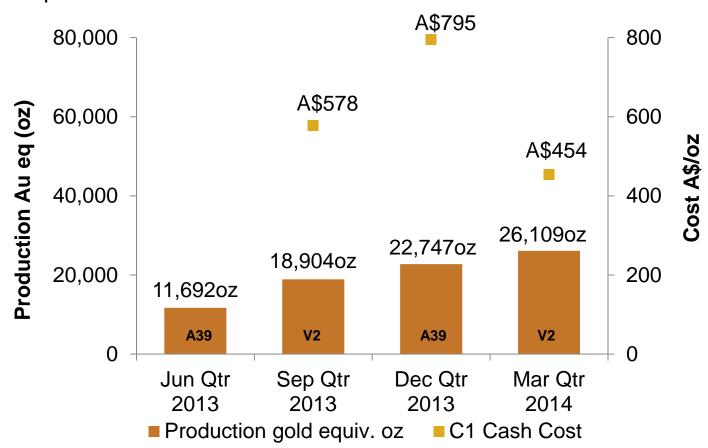


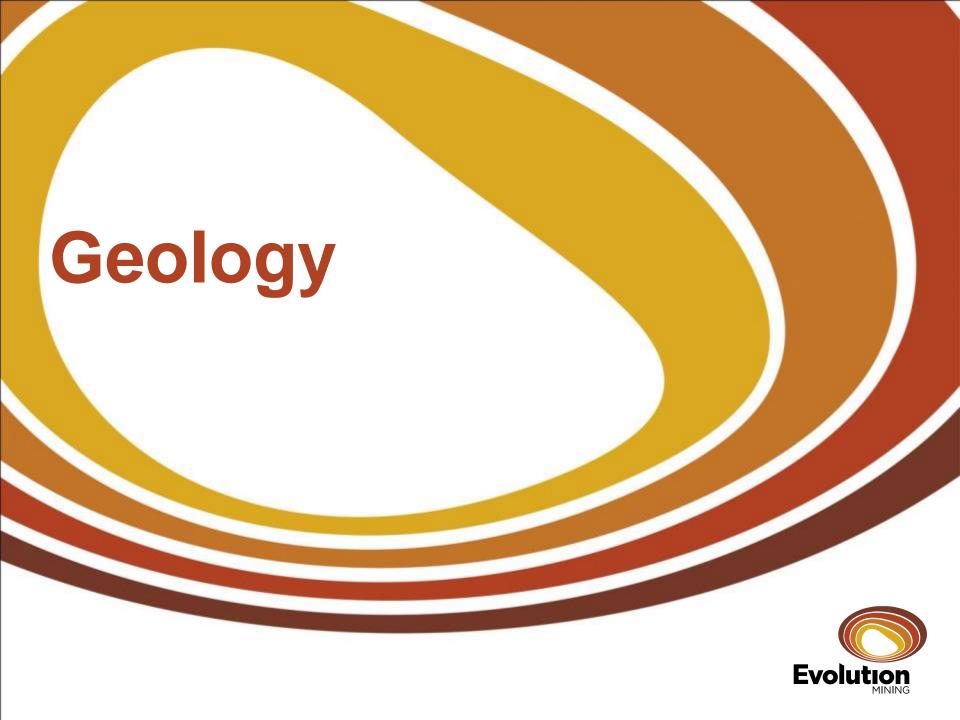
- More favourable contracts negotiated
  - Power, fuel, lime, explosives, equipment
- Review of rates being charged on all hired equipment on site
- Reduced grinding media consumption
- Contractor management and selection
- Material selection to reduce maintenance and costs
- Camp costs reduced
- Grade control cost could be reduced by >35% if sample length is increased to 1.5m (from 1m).
- Review fleet and mining organisational structure

### Production and cash cost



- FY14 YTD production of 67,749oz AuEq already within FY14 guidance (65,000 – 75,000oz AuEq)
- FY14 YTD cash cost of A\$603/oz well below guidance of A\$700 –
   \$750 per ounce





## Exploration – Strategy and Plan

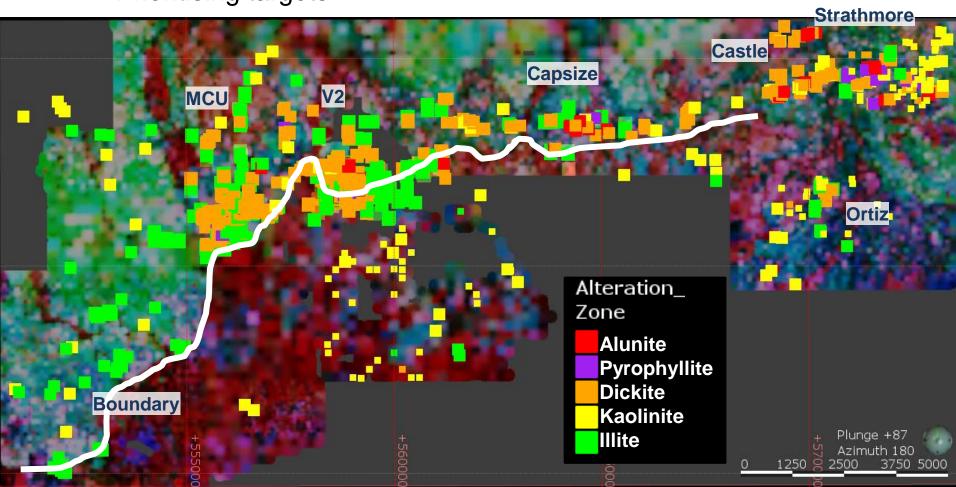


- Transformational discovery maximise opportunity
  - Capability of the orebody drives the business
- 4D and Seismic opportunity to increase geological knowledge
  - Think like scientists to increase prospectivity
- Lithogeochemistry and ASD
  - defined levels to explore and prioritise exploration
- Project pipeline depth and quality
  - Rank, prioritise, monetise, drop
- People capability and commitment
  - Realise full potential work to values

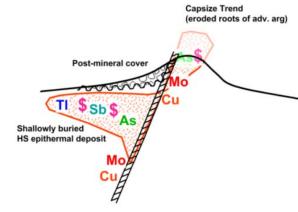
## **Alteration mapping with ASD**

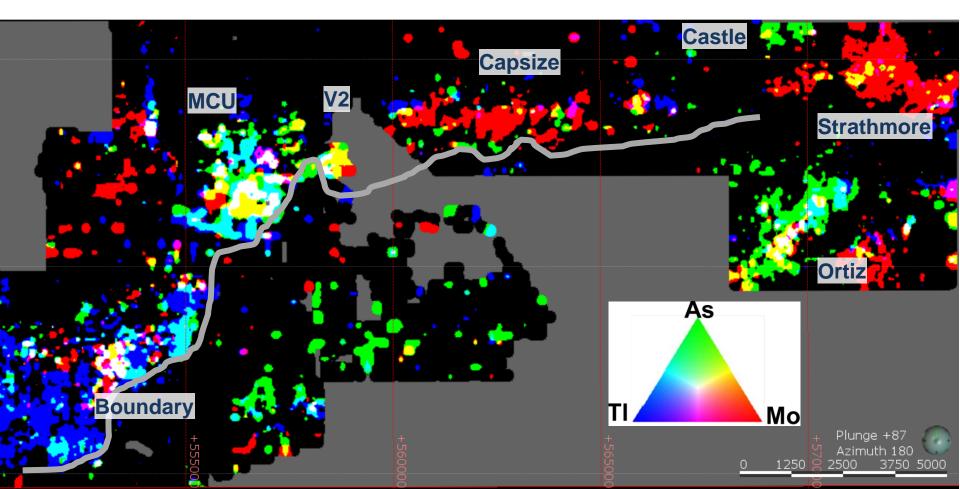


- Camp-scale alteration zonation
  - Defining preservation levels
  - Prioritising targets



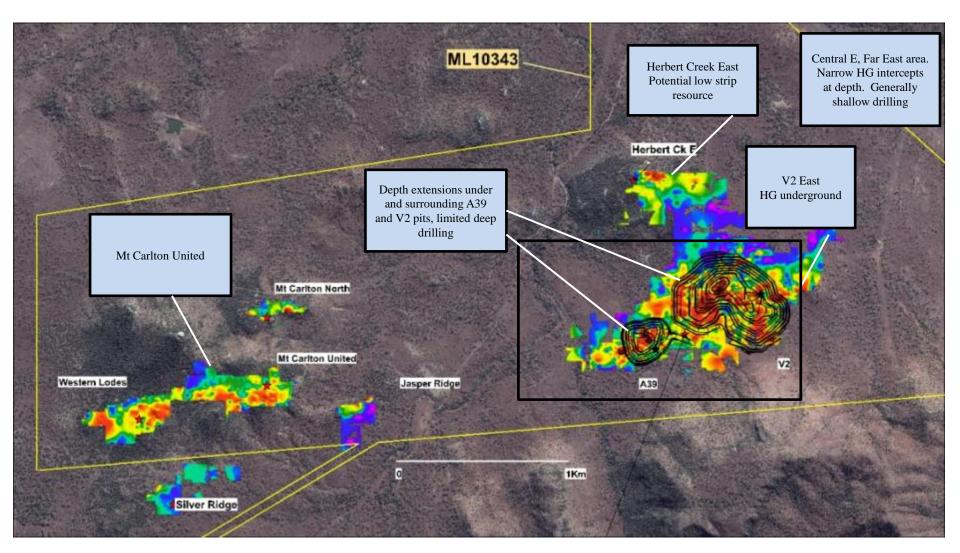
- Alteration and geochemical mapping reflect the styles and ability to target high sulphidation deposits
- New targets identified





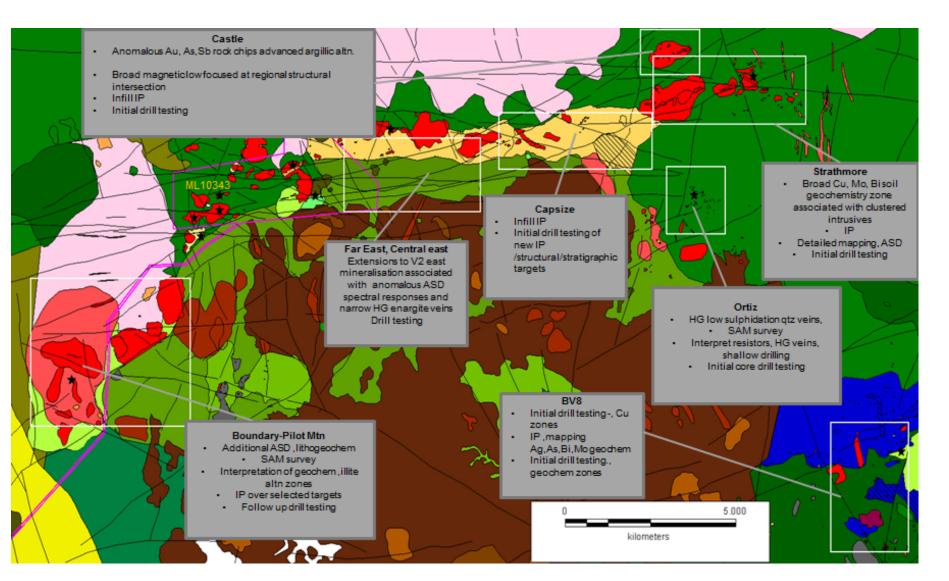
## **Near-mine opportunities**





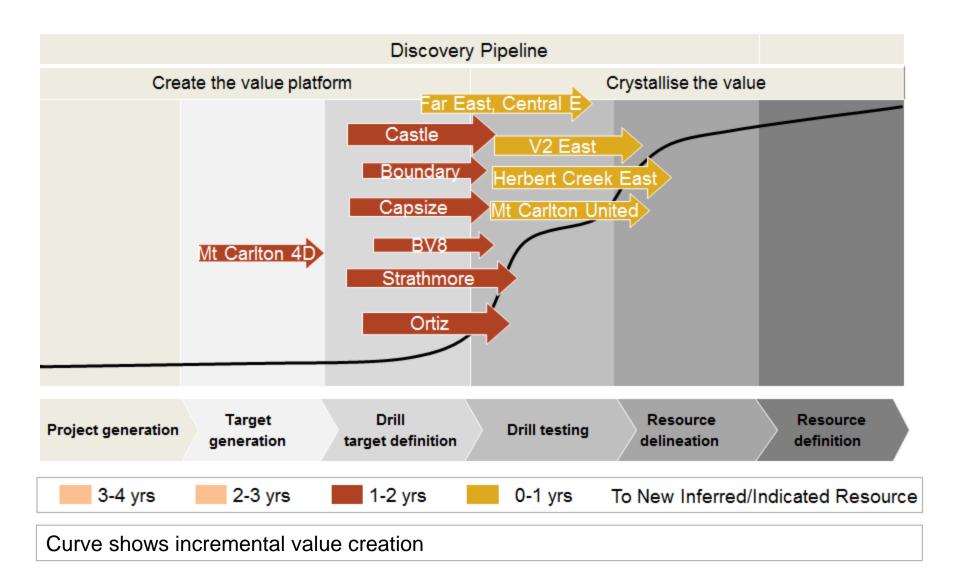
## **Greenfields opportunities**

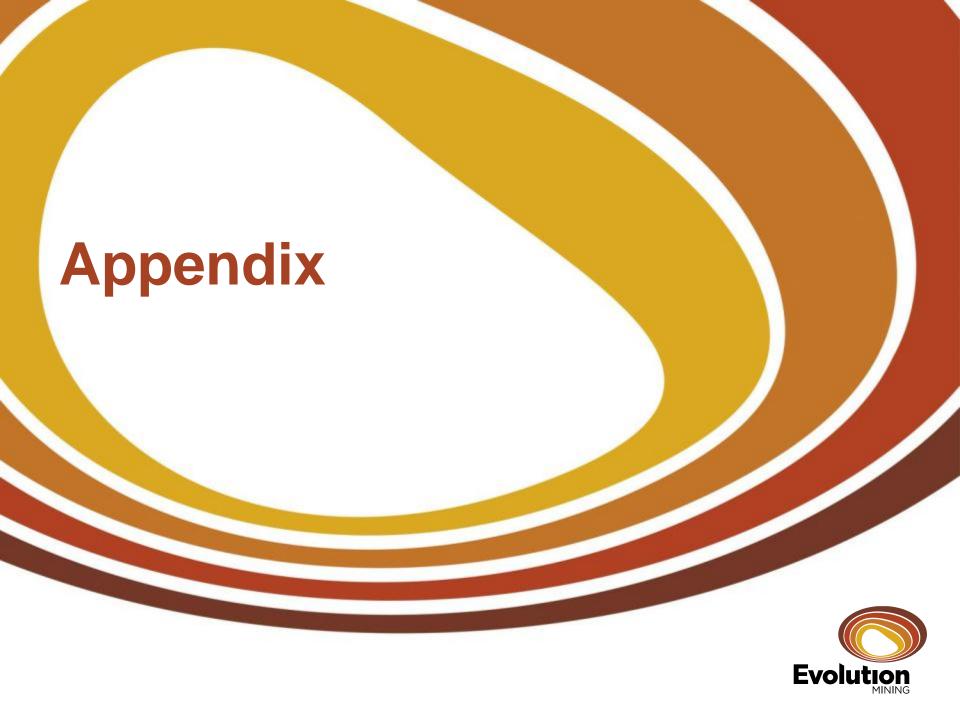




## Discovery project pipeline







#### Resources



Gold - Mt Carlton Mineral Resources - December 2012												
	Measured			Indicated			Inferred			Total Resource		
Mineral Resource	Tonnes (Mt)	Grade Au (g/t)	Cont. Metal Au (koz)									
A39	-	-	-	-	-	-	-	-	-	-	-	-
V2	9.02	2.0	586	14.7	1.5	695	1.41	1.5	68	25.2	1.7	1,350
Stockpile	0.25	0.1	1	-	-	-	-	-	-	0.25	0.1	1
Total Mt Carlton	9.28	2.0	587	14.7	1.5	695	1.41	1.5	68	25.4	1.7	1,350

Silver - Mt Carlton Mineral Resources - December 2012												
	N	leasure	d	Indicated				Inferred		Total Resource		
Mineral Resource	Tonnes (Mt)	Grade Ag (g/t)	Cont. Metal Ag (koz)									
A39	2.38	192	14,631	0.23	80	594	0.10	85	262	2.70	178	15,487
V2	9.02	21	6,159	14.7	18	8,410	1.41	12	534	25.2	19	15,103
Stockpile	0.25	80	647	-	-	-	-	-	-	0.25	80	647
Total Mt Carlton	11.7	57	21,437	14.9	19	9,004	1.51	16	796	28.1	35	31,237

Copper - Mt Carlton Mineral Resources - December 2012												
	Measured			Indicated				Inferred		Total Resource		
Mineral Resource	Tonnes (Mt)	Grade Cu (%)	Cont. Metal Cu (kt)									
A39	2.38	0.13	3.1	0.23	0.01	0.0	0.10	0.00	0.0	2.70	0.12	3.1
V2	9.02	0.27	24.5	14.7	0.22	32.1	1.41	0.22	3.0	25.2	0.24	59.7
Stockpile	0.25	0.11	0.3	-	-	-	-	-	-	0.25	0.11	0.3
Total Mt Carlton	11.7	0.24	27.9	14.9	0.21	32.1	1.51	0.20	3.0	28.1	0.22	63.1

Gold Equivalent - Mt Carlton Mineral Resources - December 2012												
	Measured			Indicated			I	Inferred		Total Resource		
Mineral Resource	Tonnes (Mt)	Grade AuEq (g/t)	Cont. Metal AuEq (koz)									
A39	2.38	4.0	307	0.23	1.6	12	0.10	1.7	5	2.70	3.7	325
V2	9.02	2.8	798	14.7	2.1	988	1.41	2.0	90	25.2	2.3	1,876
Stockpile	0.25	1.7	14	-	-	-	-	-	-	0.25	1.7	14
Total Mt Carlton	11.7	3.0	1,119	14.9	2.1	1,000	1.51	2.0	95	28.1	2.5	2,214

#### Notes:

Data is reported to significant figures and differences may occur due to rounding

Mineral Resources are inclusive of Ore Reserves

Mt Carlton V2 deposit Mineral Resources have been reported above a cut-off grade of 0.35 g/t gold and A39 deposit reported above 42g/t silver Mt Carlton V2 deposit was estimated using E-Type Multiple Indicator Kriging into blocks with dimensions 25 metres east by 25 metres north by 5 metres elevation

Mt Carlton A39 deposit was estimated using a combination of Ordinary Kriging, for more broadly spaced Resource Definition drilling, and Sequential Gaussian Simulation for close spaced grade control drilled areas of the deposit into blocks with dimensions 10 metres by 10 metres by 2.5 metres elevation

Competent Person: John Winterbottom a member of Australian Institute of Geoscientists

The gold equivalence calculation represents total metal value for each metal summed and expressed in equivalent gold grade and ounces. The prices used in the calculation being A\$1350/oz Au, A\$28.00/oz Ag and A\$2.00/lb Cu. Metallurgical recovery to concentrate of 90.0% for gold, 92.0% for silver at V2 and 88.0% silver at A39 and 92.0% for copper as indicated by metallurgical testwork

1 Troy Ounce = 31.1034768 grams

Au Eq for Silver = ((Price Ag per Oz x Ag Recovery)/(Price Au per Oz x Au Recovery)) x Ag Grade

Au Eq for Copper =  $((Price\ Cu\ per\ lb\ x\ 2204.623)\ x\ (Cu\ Recovery))\ /\ (Price\ Au\ per\ Oz\ x\ Au\ Recovery\ /\ 31.1034768)\ x\ (Cu\ Grade\ /\ 100)$ 

#### Reserves



Gold - Mt Carlton Ore Reserves - December 2012									
	Proved			F	Probable		Total Reserve		
Ore Reserve	Tonnes (Mt)	Grade Au (g/t)	Cont. Metal Au (koz)	Tonnes (Mt)	Grade Au (g/t)	Cont. Metal Au (koz)	Tonnes (Mt)	Grade Au (g/t)	Cont. Metal Au (koz)
A39	-	-	-	-	-	-	-	-	-
V2	4.52	3.1	446	4.61	2.5	366	9.13	2.8	812
Total Mt Carlton	4.52	3.1	446	4.61	2.5	366	9.13	2.8	812

Silver - Mt Carlton Ore Reserves - December 2012									
	Proved			F	Probable		Total Reserve		
Ore Reserve	Tonnes (Mt)	Grade Ag (g/t)	Cont. Metal Ag (koz)	Tonnes (Mt)	Grade Ag (g/t)	Cont. Metal Ag (koz)	Tonnes (Mt)	Grade Ag (g/t)	Cont. Metal Ag (koz)
A39	1.04	265	8,852	-	-	-	1.04	265	8,852
V2	4.52	24	3,470	4.61	20	2,991	9.13	22	6,461
Stockpile	0.25	80	647	-	-	-	0.25	80	647
Total Mt Carlton	5.81	69	12,969	4.6	20	2,991	10.4	48	15,960

Copper - Mt Carlton Ore Reserves - December 2012										
	Proved			F	Probable		Total Reserve			
Ore Reserve	Tonnes (Mt)	Grade Cu (%)	Cont. Metal Cu (kt)	Tonnes (Mt)	Grade Cu (%)	Cont. Metal Cu (kt)	Tonnes (Mt)	Grade Cu (%)	Cont. Metal Cu (kt)	
A39	1.04	0.24	2.5	-	-	-	1.04	0.24	2.5	
V2	4.52	0.32	14.3	4.61	0.23	10.5	9.13	0.27	24.8	
Stockpile	0.25	0.11	0.3	-	-	-	0.25	0.11	0.3	
Total Mt Carlton	5.81	0.29	17.1	4.61	0.23	10.5	10.4	0.26	27.6	

Gold Equivalent - Mt Carlton Ore Reserves - December 2012										
	Proved			F	Probable		Total Reserve			
Ore Reserve	Tonnes (Mt)	Grade AuEq (g/t)	Cont. Metal AuEq (koz)	Tonnes (Mt)	Grade AuEq (g/t)	Cont. Metal AuEq (koz)	Tonnes (Mt)	Grade AuEq (g/t)	Cont. Metal AuEq (koz)	
A39	1.04	5.6	188	-	-	-	1.04	5.6	188	
V2	4.52	3.9	567	4.61	3.1	464	9.13	3.5	1,031	
Stockpile	0.25	1.7	14	-	-	-	0.25	1.7	14	
Total Mt Carlton	5.81	4.1	769	4.61	3.1	464	10.4	3.7	1,233	

#### Notes:

Data is reported to significant figures and differences may occur due to rounding V2 Ore Reserves are reported above a 0.69 g/t gold cut-off and A39 Ore Reserves reported above a 53 g/t silver cut-off

Ore Reserves were calculated using a gold price of A\$1,350/oz, silver price of A\$28.00/oz silver price and copper price of A\$2.00/lb

V2 deposit used variable recoveries proportionate to head grade with gold recovery ranging from 82.0% to 90.0%, silver and copper recoveries ranged from 84.0% to 92.0%

A39 deposit used 88.0% and 92.0% for silver and copper recoveries respectively Smelter payabilities were also considered in the reserve calculation Competent Person: Tony Wallace a member of the Australasian Institute of Mining and Metallurgy

The gold equivalence calculation represents total metal value for each metal summed and expressed in equivalent gold grade and ounces. The prices used in the calculation being A\$1350/oz Au, A\$28.00/oz Ag and A\$2.00/lb Cu. Metallurgical recovery to concentrate of 90.0% for gold, 92.0% for silver at V2 and 88.0% silver at A39 and 92.0% for copper as indicated by metallurgical testwork

Au Eq for Silver = ((Price Ag per Oz x Ag Recovery)/(Price Au per Oz x Au Recovery)) x Ag Grade

Au Eq for Copper = ((Price Cu per lb x 2204.623) x (Cu Recovery)) / (Price Au per Oz x Au Recovery / 31.1034768) x (Cu Grade / 100)

## Competent person statement



The information in this presentation that relates to exploration results, Mineral Resources or Ore Reserves listed in the table below is based on work compiled by the person whose name appears in the same row, who is employed on a full-time basis by the employer named in that row and is a member of the institute named in that row. Each person named in the table below has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he or she has undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code, 2004). Each person named in the table consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

Activity	Name of Competent Person	Employer	Institute
Mt Carlton Mineral Resources	John Winterbottom	Formerly Evolution Mining	Australian Institute of Geoscientists
Mt Carlton Ore Reserves	Tony Wallace	Evolution Mining	Australasian Institute of Mining and Metallurgy

## **Evolution Mining**

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