



# Leveraged to nickel and gold

**IMARC Mines and Money Australia** 

Peter Harold, Managing Director 9 November 2016 www.panoramicresources.com

**ASX: PAN** 

## Disclaimer

#### No New Information or Data

This presentation contains references to exploration results and Resource estimates, all of which have been cross referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

#### **Forward Looking Statements**

This presentation may contain certain "forward-looking statements" which may not have been based solely on historical facts, but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the Countries and States in which we operate or sell product to, and governmental regulation and judicial outcomes. For a more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other filings. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement" to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.



### Overview

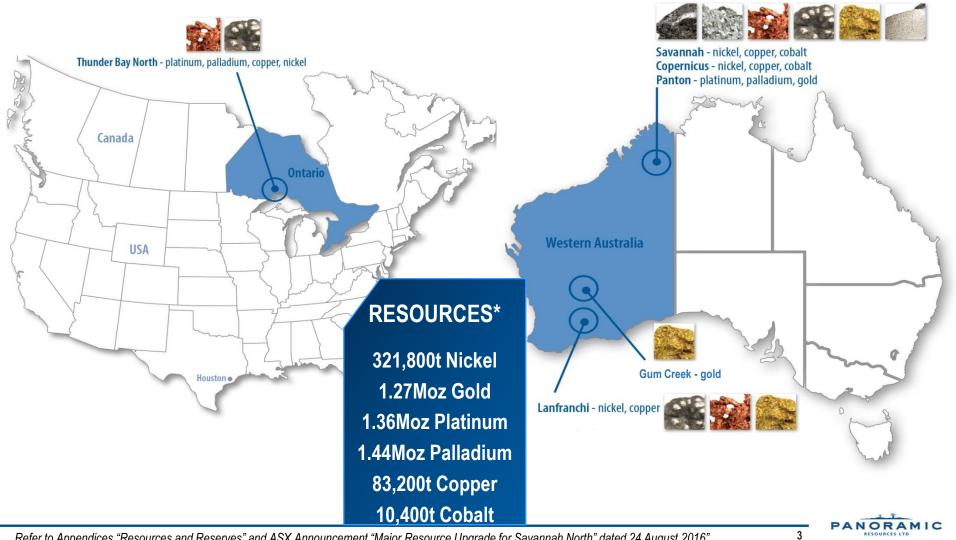
# Nickel – production ready assets

# Gold – Horizon Gold IPO

# Key deliverables

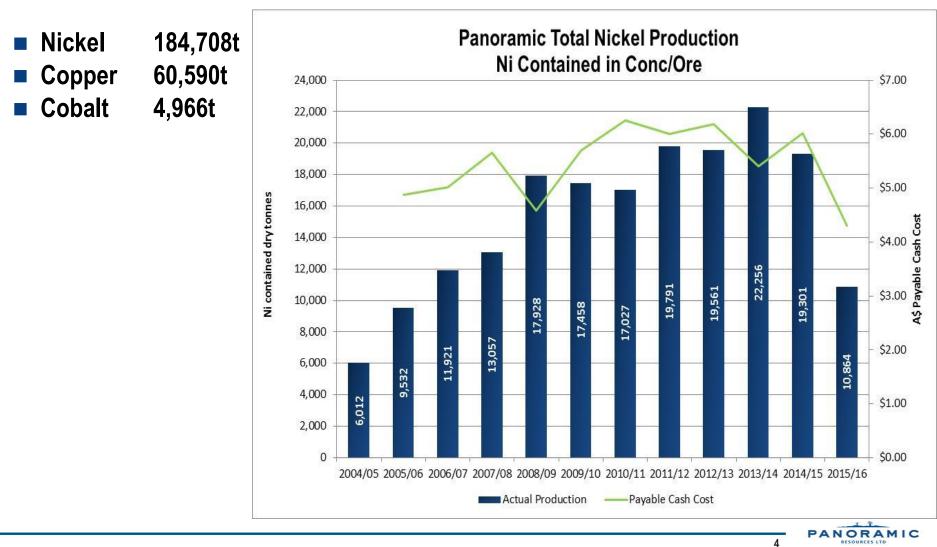


# **Significant Resource Base**

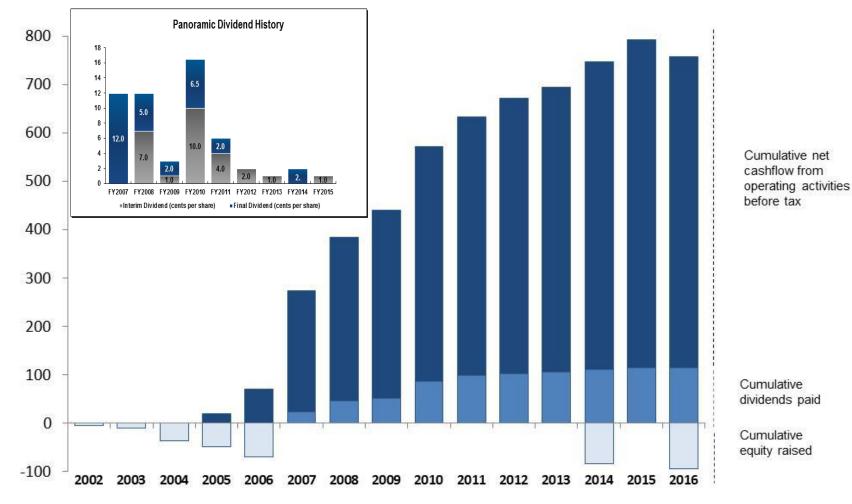


Refer to Appendices "Resources and Reserves" and ASX Announcement "Major Resource Upgrade for Savannah North" dated 24 August 2016"

# **Strong production history**



# Generated cash and paid \$114.3M in dividends



# **Continuous exploration success**

Savannah

- Savannah Lower Zone 2008
   3.4Mt @ 1.48% Ni for 50,120t Ni
- Below 900 Fault 2014
   905kt @ 1.65% Ni for 14,900t Ni
- Copernicus 2006
   852kt @ 1.24% Ni for 10,600t Ni
- Savannah North 2014
   10.27Mt @ 1.70% Ni for 175,100t Ni

Lanfranchi

- Deacon 2006
   2.24Mt @ 2.83% Ni for 63,551t Ni
- Jury-Metcalfe 2013
   312kt @ 1.94% Ni for 6,000t Ni
- Lower Schmitz 2015 131kt @ 5.1% Ni for 6,700t Ni





John Hicks, General Manager Exploration

### **Gum Creek**

 Combined Howards, Heron South, Swan, Swift and Wilsons 14.0Mt @ 1.41g/t Au for 638koz Au

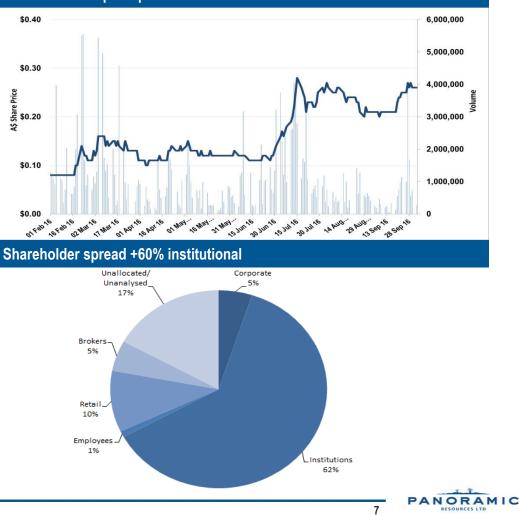


New Resources discovered since 2006 - refer Company Annual Reports

# Low EV for asset base

Market Capitalisati	on
\$103M	
ASX Ticker	Issued Capital
PAN	428.6M
Liquid Assets 30 September 2016	Debt
\$20M	Nil
Share Price 4 November 2016	Enterprise Value
0.24 cents	\$83M

#### 12 month share price performance



# Nickel – production ready assets





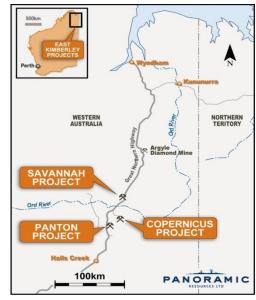
# Savannah - summary

### Combined Resources at Savannah\*

- **226,400t Ni**
- 104,700t Cu
- 15,300t Co

### **Key Points**

- Underground mine, 1Mtpa processing plant, mobile mining fleet & associated infrastructure
- Operated continuously for 12 years
- 8.5Mt ore milled
- 95kt Ni, 53kt Cu, 5kt Co of metal
- Care and maintenance from May 2016
- Offtake agreement until early 2020





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\*Refer ASX Announcement "Major Resource Upgrade for Savannah North" dated 24 August 2016

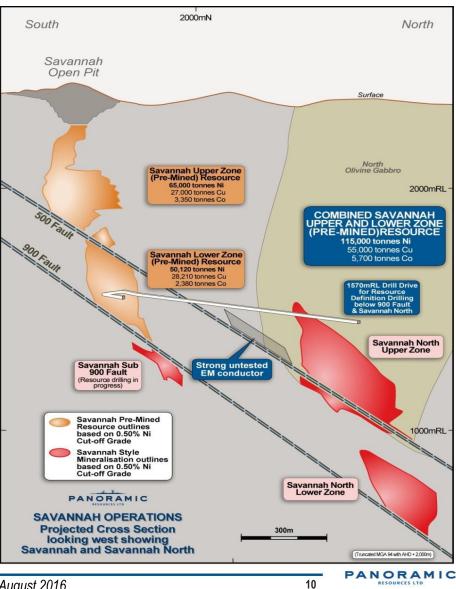
# **Savannah North**

### **Upgraded Resource\***

- 175,100t Ni
- 74,400t Cu
- 12,700t Co

### **Key Points**

- ~500 metres from existing decline
- Scoping Study indicated ~8 year mine life
- Reasonably short development timeframe
- Exploration upside



\*Refer ASX Announcement "Major Resource Upgrade for Savannah North" dated 24 August 2016

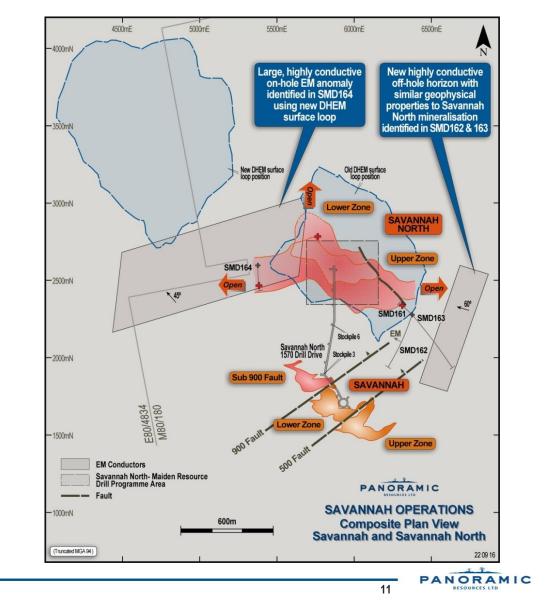
# **Savannah - priorities**

### Complete feasibility study

- Combined Savannah/Savannah North
- Optimise mine plan
- Metallurgical studies targeting
  - higher grade bulk concentrate
  - split concentrates
  - improved recoveries
- CAPEX and OPEX optimisation
- Completion targeting late 2016

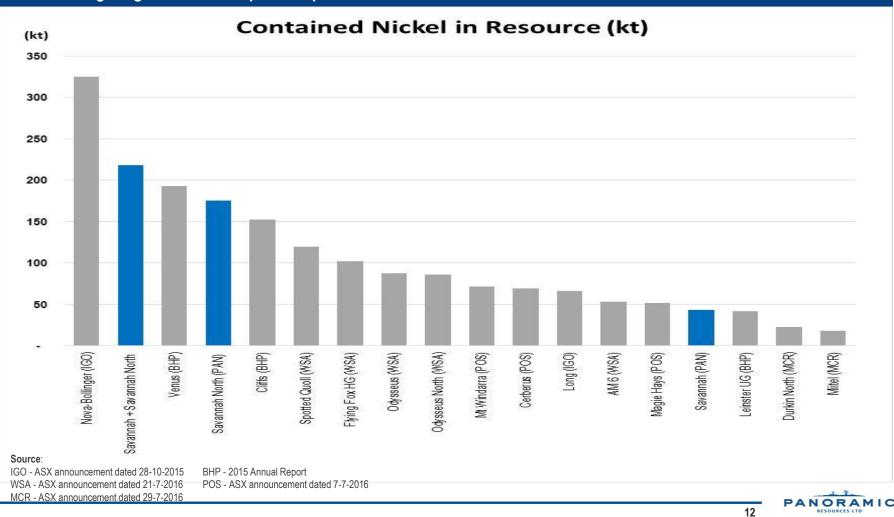
### **Continue exploration**

- Surface drilling to test EM targets
- Continue testing 2km strike length



# **Savannah + Savannah North – a significant Resource**

#### Australian higher grade nickel sulphide deposits



# Lanfranchi - Summary

#### Resource

95,500t Ni

### **Key Points**

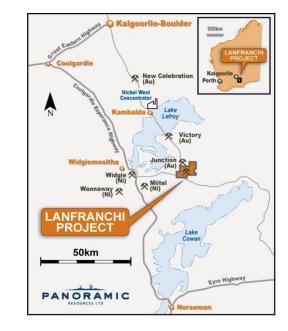
- Underground mine, mobile mining fleet and equipment and associated infrastructure
- Mined continuously for 10 years (2005-2015)
- 3.85Mt ore mined containing 94kt Ni
- Care and maintenance from November 2015
- Offtake with BHP Nickel West to Feb 2019

Lower Schmitz high-grade Resource

- 131kt at 5.1% Ni for 6,700t Ni
- EM anomaly 100m to the north

#### **Exploration upside**

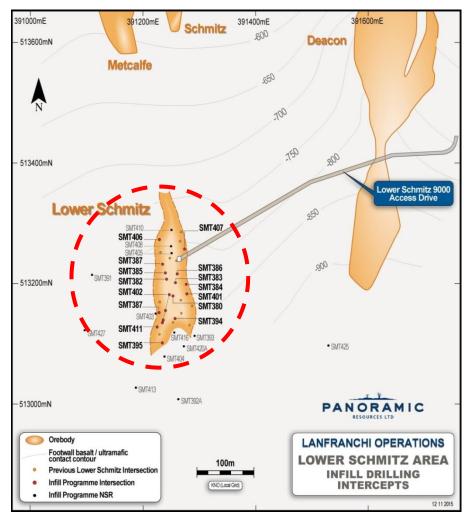
Multiple exploration targets identified





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# Lanfranchi – Lower Schmitz high-grade





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# Lanfranchi – significant exploration potential

### Schmitz Channel – Lower Zone

- 700m below surface
- 9,000t Ni per 100m vertical\*
- Historic production of ~53,000t
   Ni from the Schmitz channel including:

Schmitz	33,552t Ni
Skinner	13,678t Ni
Winner	6,250t Ni

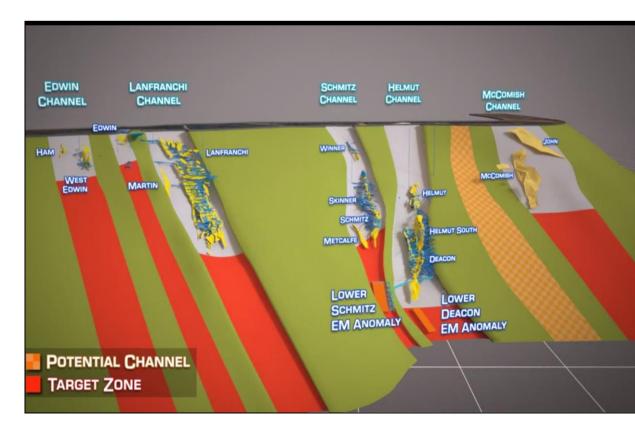
### Lanfranchi Channel

- 500m below surface
- 6,000t Ni per 100m vertical\*

#### Helmut/Deacon Channel

- 900m below surface
- 20,000t Ni per 100m vertical\*

### New Channels?





# Nickel price outlook much brighter

# Market swinging into deficit on robust demand, despite NPI gains in Indonesia

-50 -36 -54 -56 -60 -60 -71 -100 -150 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016f 2017f 2018f 2019f 2020f 2021f 2002 2003 2004 2005 2006 Stocks in weeks of use (RHS) Balance (LHS) Source: INSG, Company data, CRU, Macquarie Research, October 2016

Nickel supply/demand balance and stocks





# **Unlocking Gum Creek**

Proposed ASX code: HRN

www.horizongold.com.au

# **Horizon Gold - Introduction**



#### New gold company

**1.25Moz Resource and large ground holding on the Gum Creek Greenstone Belt** 

IPO and Capital Raising	<ul> <li>Panoramic Resources (ASX:PAN) to spin out Horizon Gold (new ASX listing)</li> <li>\$15M fully underwritten IPO capital raising at \$0.40 per share</li> <li>PAN will retain a 51% interest in Horizon Gold (escrowed for two-years)</li> </ul>
Capital Structure post IPO	<ul> <li>Shares on issue 76.53M, market capitalisation ~\$30.6M (at \$0.40 per share)</li> <li>Pro-forma cash ~\$13.65M, enterprise value ~\$16.9M</li> <li>Zeta Resources, PAN's largest shareholder, has agreed to sub-underwrite the IPO to \$4.6M (~15% of Horizon Gold)</li> </ul>
Gum Creek Gold Project	<ul> <li>Acquired by PAN in 2011-2012 for ~\$23M</li> <li>Significant exploration activity by PAN has doubled Resources to 1.25Moz<sup>1</sup></li> <li>Substantial infrastructure in-place and historical production &gt;1Moz<sup>2</sup></li> <li>724km<sup>2</sup> of tenure covering the Gum Creek Greenstone Belt</li> </ul>
Exploration and news flow post IPO	<ul> <li>Resource extension and infill drilling</li> <li>Regional exploration targeting new gold discoveries</li> <li>Free Milling and Refractory development studies</li> </ul>



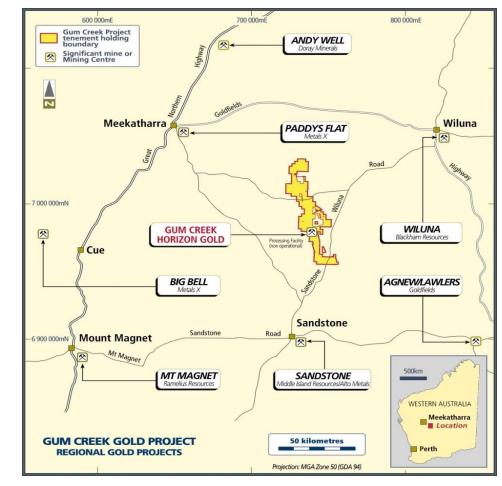
# Horizon Gold - Gum Creek Gold Project

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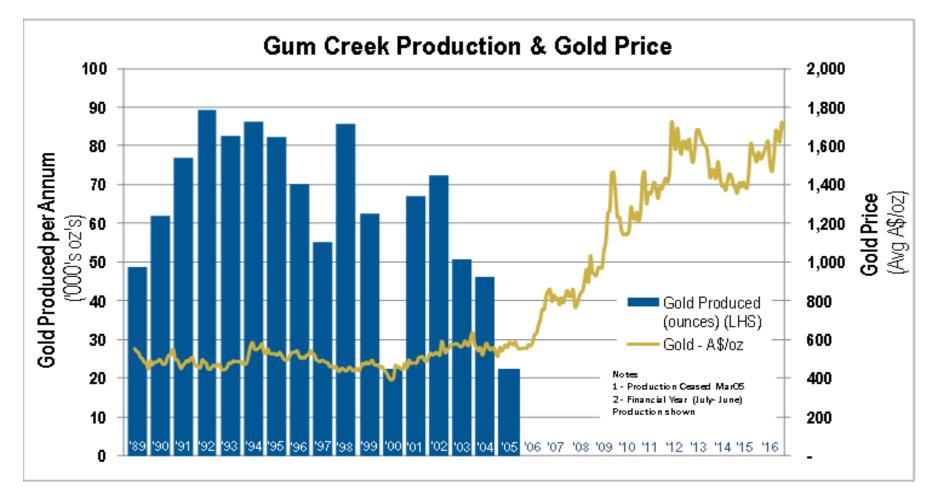
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- Location 640km NE of Perth, Western Australia
- Large tenement package 724km<sup>2</sup> covering the Gum Creek Greenstone belt
- Significant Resources 17.3Mt at an average grade of 2.25g/t Au for 1.25Moz
- Tenements 42 mining tenements with key Resources held on granted mining leases
- New exploration targets 14 priority exploration targets recently identified
- Historic Production >1Moz gold
- Substantial infrastructure:
  - 600ktpa process plant (not in operation and not capable of use without significant capital investment in refurbishment)
  - Village and airstrip
  - Tailings storage facilities
  - Extensive road network
- Water excellent water quality in pits



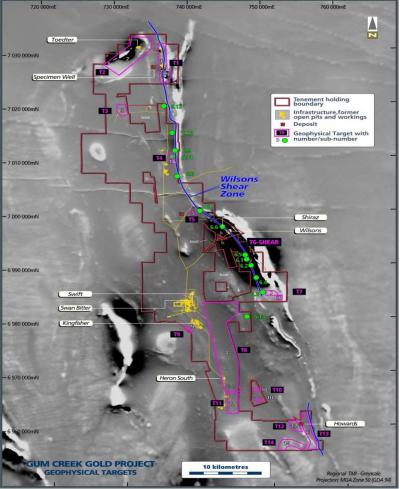
# **Horizon Gold - Historical Production >1Moz**





# **Horizon Gold - Regional Exploration**

- Recent geophysical surveys, combined with analysis of historical work has identified 14 new exploration targets
- The Wilsons Shear, which is one of the fourteen new regional targets, hosts several gold deposits and has been more accurately defined
- An additional fourteen discrete geophysical targets are located on the Wilsons Shear
- Proposed regional exploration includes ground EM surveys, IP surveys and air-core drilling to better define geophysical, geochemical and structural targets to be followed by RC and core drilling of prospects. Initial program includes:
  - 200 line kilometres of EM
  - 400 line kilometres of IP
  - 13,000m of air-core drilling
- Horizon will now benefit from a fully integrated, high quality, belt scale geological, geophysical and geochemical dataset driving future exploration targeting



Refer Section 5, page 36 of the Independent Technical Report in the
Prospectus
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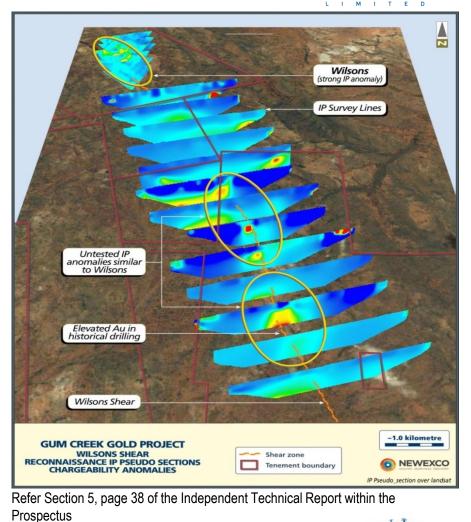
### HORIZONGOLD

# **Horizon Gold - Regional Exploration Targets**

#### Wilsons Shear – IP Targets

- Mineralisation at Wilsons is associated with a strong chargeable IP anomaly
- Two discrete chargeable IP anomalies similar to Wilsons have been identified coincident with the Wilsons Shear to the south of Wilsons
- Only an estimated 10% of the Wilson Shear within Gum Creek has been tested using modern IP techniques
- IP anomalies to be drill-tested

 Exploration of the two IP anomalies identified to the south of Wilsons is a priority



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# **Horizon Gold - Objectives and Strategy**

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#### Proposed strategy comprises three key objectives:

- 1. Resource Extension and Infill
- To grow the known resources and lift defined resources into higher-confidence JORC categories
- 2. Regional Exploration
- Target new gold discoveries outside the known resources
- 3. Development Studies
- On free milling mineralisation
- On refractory mineralisation
- Includes metallurgical and processing investigations

Horizon's objective is to become a stand-alone gold producer





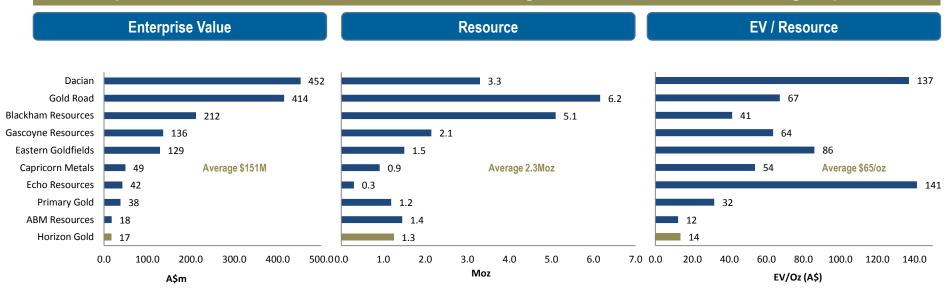
# **Relative Valuation of Horizon Gold**



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Implied EV/Resource ounce metric of ~\$14/oz is a significant discount to ASX listed gold peers



Source: IRESS, Company announcements

Note: Share price as at 27 October 2016, company data sourced from latest company announcements

The share price for Horizon Gold is based on the issue price of shares under the Prospectus, being \$0.40 per share. The issue price of shares in Horizon Gold is not determinative of the actual trading price. The price at which Horizon Gold's shares trade on ASX may be higher or lower than \$0.40 per share and may be subject to varied and unpredictable influences on the market for equities in general and resource exploration stocks in particular.

# **Horizon Gold IPO Timetable**



Date of Prospectus and lodgement with ASIC	Friday, 21 October 2016
Priority Offer Record Date	Friday, 28 October 2016
Opening Date	Friday, 28 October 2016
Closing Date for Priority Offer (PAN Shareholders)	Friday, 18 November 2016
Closing Date for Public Offer	Friday, 25 November 2016
Despatch of holding statements	Wednesday, 7 December 2016
Expected date for quotation on ASX	Wednesday, 14 December 2016

\* The above dates are indicative only and may change without notice. The Exposure Period may be extended by ASIC by not more than 7 days pursuant to Section 727(3) of the Corporations Act. The Company reserves the right to extend the Closing Dates or close the Offers early without prior notice. The Company also reserves the right not to proceed with the Offers at any time before the issue of Shares to Applicants.



# Horizon Gold - Investment Highlights

- Well credentialed board and management
  - Proven track record of exploration discovery and development
- ✓ Strong cash position
  - To fund active exploration program and development studies
- Supportive shareholder base
  - PAN (51%) to provide management and technical expertise
  - Zeta Resources (~15%) has agreed to sub-underwrite up to \$4.6M
- ✓ Valuable Resource base, infrastructure and prospective exploration tenure
  - Historical acquisition cost ~\$23M, plus significant in-ground exploration spend
  - IPO valuation represents a significant discount to ASX listed peers (\$/Resource oz)

#### Large prospective greenstone belt

- Current Resources 1.25Moz averaging 2.25g/t
- Exploration upside
  - 14 new priority exploration targets identified
  - Exploration drilling a priority post listing
  - Exciting IP targets Wilsons Shear

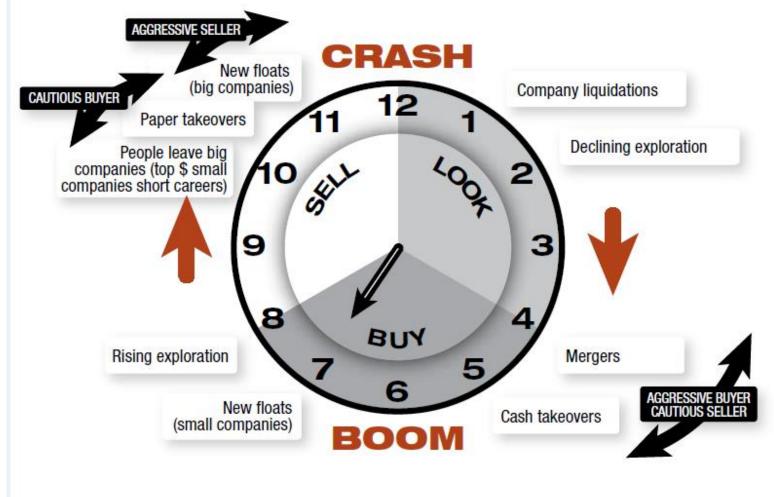
#### Previous Studies

- Illustrate a potential pathway to development for both free milling and refractory Resources
- Further work to be undertaken to enhance economics and de-risk
- Exploration results and news flow post IPO





# **Investment in Resources – Timing is right**



Source: LionAnalyst, August 2016. Edition 11



#### **Mission Statement**

We strive to achieve excellence in all aspects of our business to provide long term capital growth and dividend return to our shareholders, a safe and rewarding work environment for our employees, and opportunities and benefits to the people in the communities we operate in.



Note: further 2012 Edition JORC compliance tables are referenced in the PAN ASX announcement dated 30 September 2016



### **APPENDIX 1 - NICKEL - MINERAL RESOURCES AS AT 30 JUNE 2016**

-	<b>.</b>		Date of	JORC	Meas	ured	Indic	ated	Infe	rred	То	tal	Metal		
Resource	Equity	Metal	Resource	Compliance	Tonnes	(%)	Tonnes	(%)	Tonnes	(%)	Tonnes	(%)	Tonnes		
Savannah Project															
Savannah (above 900)	100%	Nickel	Jun-16	2012	1,275,000	1.51	759,000	1.2			2,034,000	1.39	28,300		
		Copper				0.87		0.9				0.88	17,900		
		Cobalt				0.07		0.07				0.07	1,400		
Savannah (below 900)	100%	Nickel	Jun-16	2012	780,000	1.64	125,000	1.72			905,000	1.65	14,900		
		Copper				0.76		0.75				0.76	6,900		
		Cobalt				0.1		0.09				0.1	900		
Savannah North	100%	Nickel	Jun-16	2012			4,780,000	1.51	2,103,000	1.77	6,883,000	1.59	109,600		
		Copper						0.72		0.88		0.77	52,900		
		Cobalt						0.11		0.12		0.11	7,800		
Copernicus (O/P)	100%	Nickel	Jun-15	2012	132,000	0.97					132,000	0.97	1,300		
		Copper				0.52						0.52	700		
		Cobalt				0.03						0.03	0		
Copernicus (U/G)	100%	Nickel	Jul-10	2004			508,000	1.3	25,000	0.98	532,000	1.29	6,800		
		Copper						0.91		0.69		0.9	4,800		
		Cobalt						0.05		0.02		0.05	300		
Lanfranchi Project	100%	Nickel													
Cruikshank			Apr-11	2004			2,018,000	1.42	611,000	0.79	2,629,000	1.28	33,600		
Deacon			Mar-14	2012	89,000	2.99			134,000	1.7	224,000	2.22	5,000		
Gigantus			Jul-07	2004					652,000	1.63	652,000	1.63	10,600		
Helmut South			May-14	2012											
Helmut South Ext			Apr-14	2012	21,000	4.54	29,000	2.87			50,000	3.59	1,800		
John			Jul-07	2004					291,000	1.42	291,000	1.42	4,100		
Lanfranchi			Apr-14	2012	40,000	4.12	55,000	4.4	63,000	3.49	158,000	3.97	6,300		
Martin			Feb-12	2012			47,000	3.58	7,000	4.16	54,000	3.66	2,000		
McComish			Jul-07	2004					992,000	1.49	992,000	1.49	14,800		
Metcalfe			Jan-14	2012			280,000	1.99	111,000	1.35	391,000	1.81	7,100		
Schmitz			Jul-13	2012	30,000	4.92	23,000	3.93	16,000	2.95	69,000	4.14	2,900		
Lower Schmitz			Mar-16	2012			51,000	5.6	79,000	4.8	131,000	5.11	6,700		
Winner			Jul-11	2004			14,000	4.4			14,000	4.4	600		
Total (Equity)		Nickel											256,300		
		Copper											83,200		
		Cobalt											10,400		

Note: Savannah Resources upgraded – refer ASX Announcement 24 August 2016



### **QUALIFYING STATEMENT AND NOTES**

#### Notes:

- Figures have been rounded and therefore may not add up exactly to the reported totals
- All resources are inclusive of reserves
- Savannah Project Resource cutoff grade is 0.50% Ni
- Copernicus Project Resource cutoff grade is 0.50% Ni
- Lanfranchi Project Resource cutoff grade is 1.00% Ni

#### **Competent Person Statement**

The information that relates to Mineral Resources is based on information compiled by or reviewed by Paul Hetherington (MAusIMM) for the Savannah Project Resource and Copernicus Project Resource and Bradley Robinson (MAusIMM) for the Lanfranchi Project Resources. The aforementioned were formerly full-time employees of Panoramic Resources Limited. The aforementioned have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The aforementioned consent to the inclusion in the release of the matters based on their information in the form and context in which it appears.

The information that relates Mineral Resources at Lower Schmitz is based on information compiled by Mr Paul Payne. Mr Payne is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and consultant working for Payne Geological Services Pty Ltd (PayneGeo). Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of target/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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Payne consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.



### APPENDIX 2 - NICKEL - ORE RESERVE AS AT 30 JUNE 2016

D	F	Manal	Date of	JORC	Pro	ven	Prob	able	То	tal	Metal		
Reserve	Equity	Metal	Reserve	Compliance	Tonnes	(%)	Tonnes	(%)	Tonnes	(%)	Tonnes		
Savannah Project													
Above 900 Fault	100%	Nickel	Jun-16	2012	1,365,000	1.15	194,000	1.24	1,558,000	1.16	18,100		
		Copper				0.66		1.28		0.74	11,500		
		Cobalt				0.06		0.07		0.06	900		
Below 900 Fault	100%	Nickel	Jun-16	2012									
		Copper											
		Cobalt											
Copernicus Open Pit	100%	Nickel	Jun-16	2004									
		Copper											
		Cobalt											
Lanfranchi Project	100%	Nickel											
Deacon			Jun-16	2012			42,000	2.67	42,000	2.67	1,100		
Metcalfe			Jun-16	2012			113,000	1.57	113,000	1.57	1,800		
Lanfranchi			Jun-16	2012			11,000	2.56	11,000	2.56	300		
Schmitz			Jun-16	2012			15,000	2.96	15,000	2.96	500		
Helmut Sth Ext			Jun-16	2012			27,000	2.19	27,000	2.19	600		
Total (Equity)		Nickel									22,300		
		Copper									11,500		
		Cobalt											



### **QUALIFYING STATEMENT AND NOTES**

#### Notes:

- Figures have been rounded and therefore may not add up exactly to the reported totals
- All reserves are inclusive of resources
- Savannah Project Reserve cutoff grade is 0.80% Ni
- Lanfranchi Project Reserve cutoff grade is 1.00% Ni except for airleg mining which is 2.00% Ni

#### **Competent Person Statement**

Information relating to Ore Reserves has been compiled by or reviewed by Lilong Chen (MAusIMM). The aforementioned is a full-time employee of Panoramic Resources Limited. The aforementioned has sufficient experience that 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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The aforementioned consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.



### **APPENDIX 3** - GOLD - MINERAL RESOURCES AS AT 30 SEPTEMBER 2016

	Resource	Cut-off	Minoraliaation	Indicate	ed	Infer	red	Tota	Contained Gold				
Resource	Date	Au)	Mineralisation Type		Au (g/t)	Tonnes	Au (g/t)	Tonnes	Au (g/t)				
Open Pit Resources													
Swan OC	Jun-15	0.7	Free Milling	2,250,000	2.57	990,000	2.36	3,240,000	2.51	261,100			
Heron South	Aug-16	0.5	Refractory	1,135,000	2.20	2,000	1.32	1,137,000	2.20	80,400			
Howards	Jul-13	0.4	Free Milling	5,255,000	1.07	716,000	1.01	5,971,000	1.06	204,000			
Specimen Well	Aug-16	0.5	Free Milling			361,000	2.00	361,000	2.00	23,200			
Toedter	Aug-16	0.5	Free Milling			690,000	1.54	690,000	1.54	34,200			
Shiraz	Jul-13	0.4	Refractory	2,476,000	0.84	440,000	0.76	2,916,000	0.83	77,600			
			Un	derground R	esource	S							
Swan UG	Jun-15	4.0/6.0	Free Milling	207,000	8.71	77,000	11.25	284,000	9.40	85,800			
Swift UG	Jun-15	6.0	Free Milling			46,000	10.25	46,000	10.25	15,200			
Kingfisher UG	Aug-16	3.5	Free Milling			391,000	6.14	391,000	6.14	77,200			
Wilsons UG	Jul-13	1.0	Refractory	2,131,000	5.33	136,000	5.97	2,267,000	5.37	391,500			
Total				13,454,000	2.17	3,849,000	2.53	17,303,000	2.25	1,250,100			



#### **QUALIFYING STATEMENT AND NOTES\***

#### **Competent Persons Statement**

The information that relates to the Swan OC, Swan UG, Swift UG, and Kingfisher Mineral Resources is based on information compiled by or reviewed by Dr Spero Carras (FAusIMM). Dr Carras is the Executive Director of Carras Mining Pty Ltd and was acting as a consultant to Legend Mining Ltd in 2006 and Panoramic Resources Ltd between 2012 and 2016. Dr Carras has sufficient experience that 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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Carras consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The information that relates to the Heron South, Howards, Specimen Well, Shiraz and Toedter Mineral Resources is based on information compiled by or reviewed by Andrew Bewsher (AIG). Mr Bewsher is a full time employee of BM Geological Services and has sufficient experience that 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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bewsher consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

The information that relates to the Wilsons Mineral Resource is based on information compiled by or reviewed by Ben Pollard (AIG, AusIMM). Mr Pollard is a full time employee of BM Geological Services and has sufficient experience that 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 Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Pollard consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.



#### **APPENDIX 4 - PLATINUM GROUP METALS - MINERAL RESOURCES AS AT 30 JUNE 2016**

#### Panton PGM Project

			JORC				Metal (oz)				
Resource	Equity	Date of Resource	Compliance	Tonnage	Pt	Pd	Au	Ni	Cu	Pt	Pd
					(g/t)	(g/t)	(g/t)	(%)	(%)	(oz ,000)	(oz ,000)
Top Reef	100%	Mar-12	2012								
Measured				4,400,000	2.46	2.83	0.42	0.28	0.08	348	400
Indicated				4,130,000	2.73	3.21	0.38	0.31	0.09	363	426
Inferred				1,560,000	2.1	2.35	0.38	0.36	0.13	105	118
Middle Reef	100%	Mar-12	2012								
Measured				2,130,000	1.36	1.09	0.1	0.18	0.03	93	75
Indicated				1,500,000	1.56	1.28	0.1	0.19	0.04	75	62
Inferred				600,000	1.22	1.07	0.1	0.19	0.05	24	21
Total (Equity)				14,320,000	2.19	2.39	0.31	0.27	0.08	984	1,081

#### **QUALIFYING STATEMENT AND NOTES**

Cross references to previous market announcements:

refer ASX announcement dated 30 September 2015 titled "Mineral Resources and Ore Reserves at 30 June 2015"

#### No New Information or Data

The Panton Mineral Resource estimates tabled above have been previously reported, and the relevant market announcements cross referenced. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.



#### **APPENDIX 5 - PLATINUM GROUP METALS - MINERAL RESOURCES AS AT 30 JUNE 2015**

#### **Thunder Bay North**

			JORC		Grade										Metal (oz)	
Resource	Equity	Date of Resource	Compliance	Tonnage	Pt	Pd	Rh	Au	Ag	Cu	Ni	Co	Pt-Eq	Pt	Pd	
					(g/t)	(g/t)	(g/t)	(g/t)	(g/t)	(%)	(%)	%	(g/t)	(oz ,000)	(oz ,000)	
Open Pit	100%	Jan-11	2004													
Indicated				8,460,000	1.04	0.98	0.04	0.07	1.5	0.25	0.18	0.014	2.13	283	267	
Inferred				53,000	0.96	0.89	0.04	0.07	1.6	0.22	0.18	0.014	2	2	2	
Underground	100%	Feb-12	2004													
Indicated				1,369,000	1.65	1.54	0.08	0.11	2.6	0.43	0.24	0.016	3.67	73	68	
Inferred				472,000	1.32	1.25	0.06	0.09	2.1	0.36	0.19	0.011	2.97	20	19	
Total (Equity)				10,354,000										377	355	

#### **QUALIFYING STATEMENT AND NOTES**

#### Notes - Open Pit Resource:

The open pit Mineral Resource is reported at a cut-off grade of 0.59 g/t Pt-Eq within a Lerchs-Grossman resource pit shell optimized on Pt-Eq. The strip ratio (waste:ore) of this pit is 9.5:1. The platinum-equivalency formula is based on assumed metal prices and overall recoveries. The Pt-Eq formula is: Pt-Eq g/t = Pt g/t + Pd g/t x 0.3204 + Au g/t x 0.6379 + Ag g/t x 0.0062 + Cu g/t x 0.00011 + Total Ni g/t x 0.000195 + Total Co g/t x 0.000124 + Rh g/t x 2.1816. The conversion factor shown in the formula for each metal represents the conversion from each metal to platinum on a recovered value basis. The assumed metal prices used in the Pt-Eq formula are: Pt US\$1,595/oz, Pd US\$512/oz, Au US\$1,015/oz, Ag US\$15.74/oz, Cu US\$2.20/lb, Ni US\$7.71/lb, Co US\$7.71/lb and Rh US\$3,479/oz. The assumed combined flotation and PlatsolTM process recoveries used in the Pt-Eq formula are: Pt 76%, Pd 75%, Au 76%, Ag 55%, Cu 86%, Ni 44%, Co 28% and Rh 76%. The assumed refinery payables are: Pt 98%, Pd 98%, Au 97%, Ag 85%, Cu 100%, Ni 100%, Co 100% and Rh 98%.



### **QUALIFYING STATEMENT AND NOTES CONT.**

#### Notes - Underground Resources:

The underground mineral resource is reported at a cut-off grade of 1.94g/t Pt-Eq. The Pt-Eq formula is: Pt-Eq  $g/t = Pt g/t + Pd g/t \times 0.2721 + Au g/t \times 0.3968 + Ag g/t \times 0.0084 + Cu g/t \times 0.000118 + Sulphide Ni g/t \times 0.000433 + Sulphide Co g/t \times 0.000428 + Rh g/t \times 2.7211$ . The assumed metal prices used in the Pt-Eq formula are: Pt US\$1,470/oz, Pd US\$400/oz, Rh US\$4,000/oz, Au US\$875/oz, Ag US\$14.30/oz, Cu US\$2.10/lb, Ni US\$7.30/lb and Co US\$13.00/lb. The assumed process recoveries used in the Pt-Eq formula are: Pt 75%, Pd 75%, Rh 75%, Au 50%, Ag 50%, Cu 90%, and Ni and Co in sulphide 90%. The assumed smelter recoveries used in the Pt-Eq formula are Pt 85%, Pd 85%, Rh 85%, Au 85%, Ag 85%, Cu 85%, Ni 90% and Co 50%. Ni and Co in sulphide were estimated by linear regression of MgO to total Ni and total Co respectively. The regression formula for Ni in sulphide (NiSx) is: NiSx = Ni - (MgO% x 60.35 - 551.43). The regression formula for Co in sulphide (CoSx) is: CoSx = Co - (MgO% x 4.45 - 9.25).

#### Cross references to previous market announcements:

Open pit Resources – refer Magma Metals Limited (ASX:MMW) announcement dated 7 February 2011 titled "Positive Scoping Study for Thunder Bay North Project"

Underground Resources – refer Magma Metals Limited (ASX:MMW) announcement dated 23 February 2012 titled "Magma Metals Increases Mineral Resources at TBN to 790,000 Platinum-Equivalent Ounces"

#### No New Information or Data

The Thunder Bay North Mineral Resource estimates tabled above have been previously reported, and the relevant market announcements cross referenced. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

