



NEXUS MINERALS

ASX ANNOUNCEMENT

16 October 2024

Mine Study Revisited at Pinnacles JV Gold Project

- ✓ Nexus has commenced an Underground Mine Study update of the Pinnacles JV Gold Project
- ✓ Gold Price today ~AUD\$3,970/ounce v's original mine study Gold Price AUD\$1,800/ounce
- ✓ The Pinnacles Gold Deposit is contained within the Nexus - Northern Star Resources JV tenement (NXM 90% : NST 10% contributing JV)
- ✓ Pinnacles has a JORC 2012 Combined Mineral Resource Estimate (ASX:NXM 27/2/2020) of:
 - Total MRE: 609,000t @ 4.0g/t Au for 78,000oz (open pit and underground)
 - Open Pit: 159,000 @ 2.4g/t Au for 12,000oz Au
 - Underground: 450,000t @ 4.6g/t Au for 66,000oz Au
- ✓ Historic drill intercepts from surface down to approximately 300m (remains open at depth) include: (ASX:NXM 21/1/2016, 6/5/2016, 9/9/2016, 13/10/2016, 28/10/2016, 7/2/2017)
 - 5m @ 20.9g/t Au (from 88m);
 - 4m @ 19.5g/t Au (from 86m);
 - 6m @ 17.4g/t Au (from 154m);
 - 6m @ 12.3g/t Au (from 166m);
 - 6m @ 11.5g/t Au (from 128m);
 - 35m @ 3.7g/t Au (from 130m);
 - 17m @ 3.2g/t Au (from 151m); and
 - 25m @ 2.3g/t Au (from 139m).
- ✓ Pinnacles is situated 13km south of the Northern Star Resources Carosue Dam Processing Plant, connected by existing roads and granted miscellaneous license
- ✓ An existing Ore Sale and Purchase Agreement is in place - NST must buy & NXM must sell any ore produced from the Pinnacles JV tenement
- ✓ The project is situated on a granted Mining Lease with clearing permit in place
- ✓ Geotechnical, ground water, waste rock characterisation and metallurgical (>97% recoveries) studies previously completed
- ✓ Both flora and fauna and heritage surveys have been cleared
- ✓ Nexus has engaged COO / Mining Engineer Will Coverdale to lead the mine study update
- ✓ Nexus has engaged several underground mining contractors and support services contractors to refine mine planning and provide detailed costings

Nexus Minerals Limited (ASX: NXM) (Nexus or the Company) is pleased to announce that a review of the Pinnacles JV Gold Project (Pinnacles) has commenced. The underground mine study update has commenced in light of the positive attributes of the project and the current high gold price. The Pinnacles JV is located within the broader Pinnacles Gold Project (Nexus 100%). The Pinnacles JV hosts a JORC 2012 combined open pit and underground Mineral Resource Estimate (MRE) of 609,000t @ 4.0g/t Au for 78,000 ounces. Mine Study updates are expected to be finalised in the December quarter.

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Nexus Managing Director Andy Tudor commented “With the gold price continuing to break all historic records this is a great time to be reviewing Pinnacles. Over the last year we have seen gold price continuing to diverge above costs, generating improved margins across Australian gold mining operations. The Pinnacles project is uniquely positioned with much of the permitting already in place and an Ore Sale and Purchase Agreement providing a treatment solution. This agreement stipulates that Nexus must sell all ore to Northern Star, and Northern Star must buy the ore as per the agreed terms.

Updating the Pinnacles Gold Deposit Mine Study is being undertaken in tandem with the scoping study work currently being undertaken at the Crusader-Templar Gold Deposit at the nearby Wallbrook Gold Project. We look forward to sharing updates on both projects”.

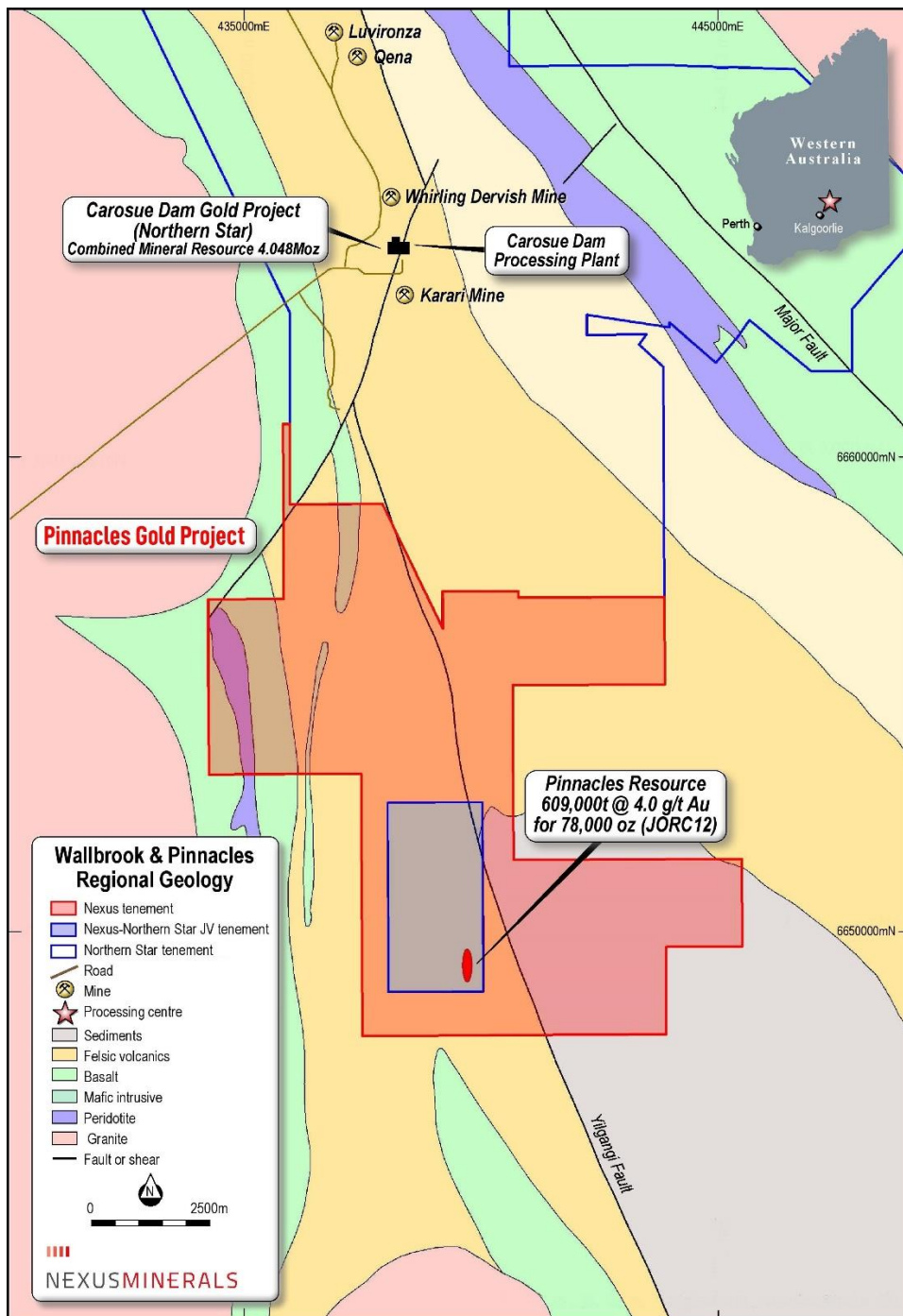


Figure 1: Pinnacles JV Gold Project Location Map



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Pinnacles JV Gold Project

Pinnacles is situated in the Eastern Goldfields, 120km northeast of Kalgoorlie, and 13km south of Northern Stars' Carosue Dam Operations. The deposit is hosted within tenement M28/243, held in a contributing JV between Nexus (90%) and Northern Star Resources (10%). The Pinnacles Gold Deposit has a JORC 2012 combined mineral resource of 609,000t @ 4.0g/t Au for 78,000 ounces.

Cut Off Grade (g/t Au)	Category		Tonnes (kt)	Au Grade (g/t)	Au Ounces (kOz)
0.5	O/P	Indicated	140	2.6	11
		Inferred	19	1.6	1
		Sub-total	159	2.4	12
1.0	U/G	Indicated	170	5.6	30
		Inferred	280	4.0	36
		Sub-total	450	4.6	66
Combined Total			609	4.0	78

Table 1: Pinnacles Gold Deposit JORC 2012 Combined Mineral Resource Estimate (ASX:NXM 27/2/2020)

The mineralisation at the Pinnacles Gold Deposit occurs within a sub-vertical shear zone hosted within volcanoclastic sediments. It is associated with quartz veining (2-5%), sulphides (2-5%) and sheared chlorite / carbonate / hematite altered host rocks.

The deposit is comprised of two domains (Figure 2) with simple geometry that is well defined and understood. Domain 1 is more constrained with higher grades when compared to domain 2 (see figures 4a and 4b).

Historic drill intercepts from surface down to approximately 300m (remains open at depth) include:

- 5m @ 20.9g/t Au Domain 1 (from 88m);
- 4m @ 19.5g/t Au Domain 1 (from 86m);
- 6m @ 17.4g/t Au Domain 1 (from 154m);
- 6m @ 12.3g/t Au Domain 1 (from 166m);
- 6m @ 11.5g/t Au Domain 1 (from 128m);
- 35m @ 3.7g/t Au Domain 2 (from 130m);
- 17m @ 3.2g/t Au Domain 2 (from 151m); and
- 25m @ 2.3g/t Au Domain 2 (from 139m).

The Pinnacles Gold Deposit is uniquely positioned for low cost and rapid development should mine studies support favorable economics. Mining License M28/243, which hosts the deposit, is subject to a binding Ore Sale and Purchase Agreement with Northern Star Resources, requiring them to purchase, and Nexus Minerals to sell, any ore produced from the Pinnacles JV tenement. The ore would be processed through the Carosue Dam mill, located 13 km to the north, connected by a granted miscellaneous license and existing Northern Star infrastructure. Critical studies including geotechnical assessments, ground water and waste rock characterisation have been completed. Metallurgical studies have shown recoveries to exceed 97%. Flora, fauna, and heritage surveys have all been completed and cleared for the project, and a clearing permit has been approved.

Nexus has engaged several mining and support services contractors to refine mine planning and improve cost estimates. This information will underpin the updated underground mine study which is due for completion in the December quarter.



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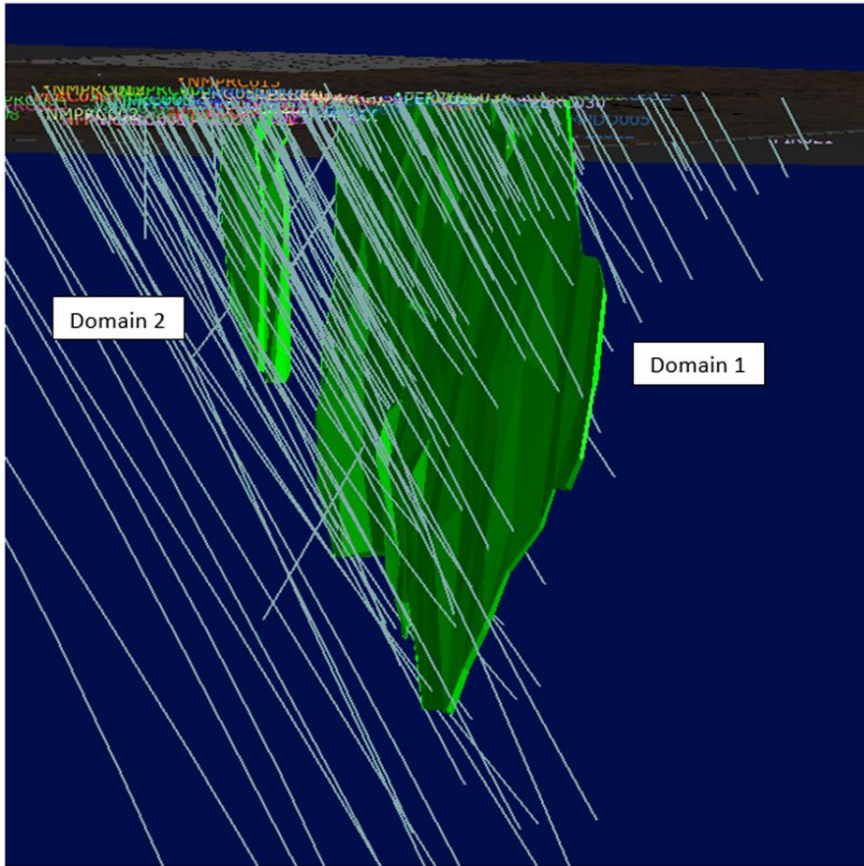


Figure 2: Isometric view of Pinnacles Gold Deposit MRE (looking northeast)

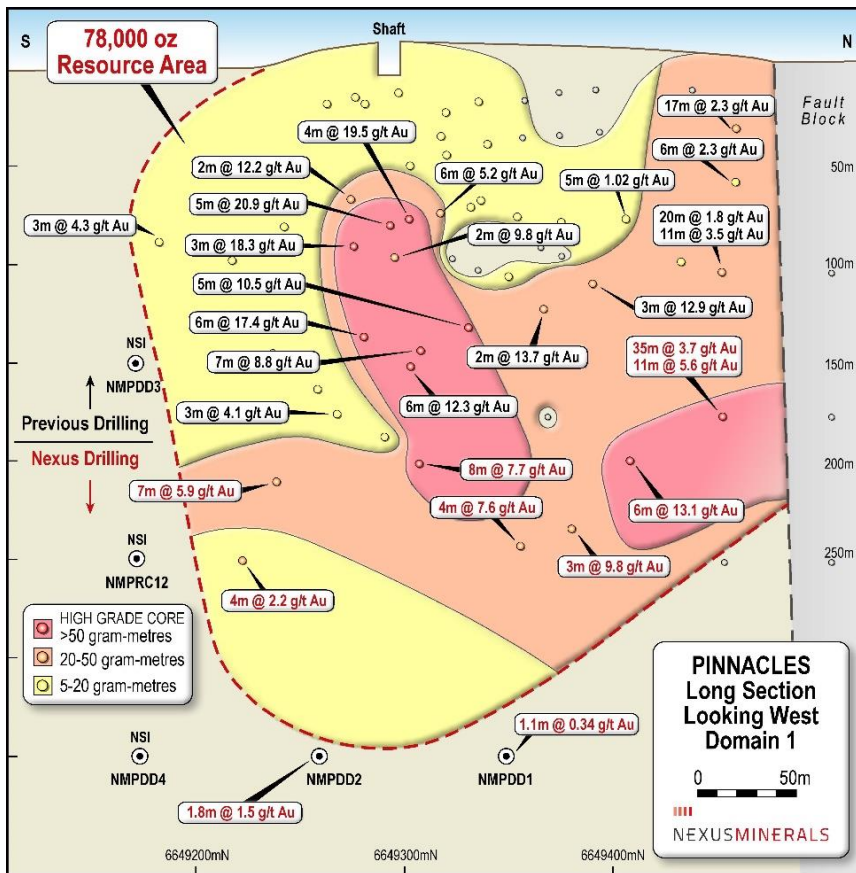


Figure 3: Long Section through the Pinnacles Gold Deposit



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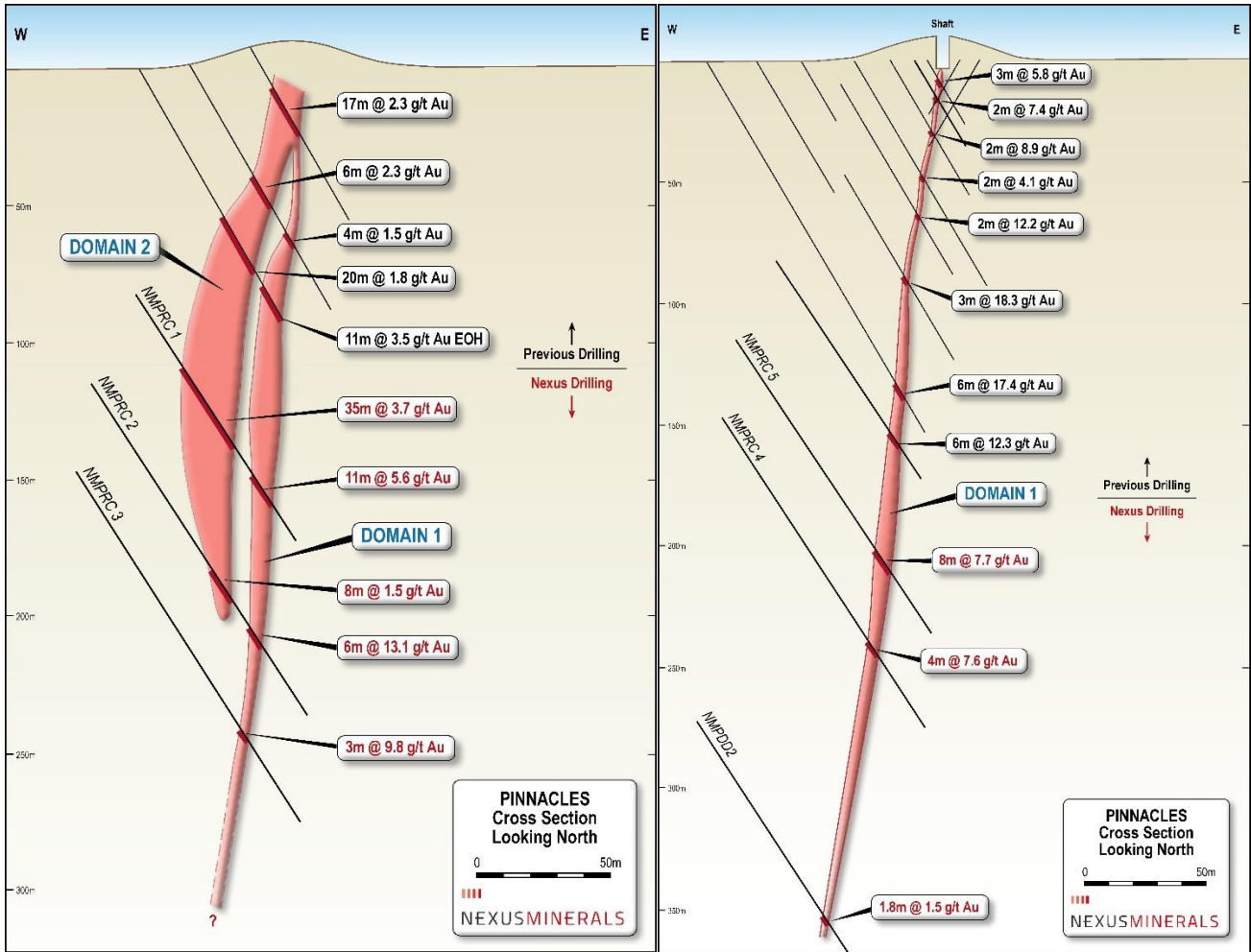


Figure 4a: Cross Section through Northern End of the Pinnacles Gold Deposit

Figure 4b: Cross Section through Southern End of the Pinnacles Gold Deposit

Site ID	Easting	Northing	Elevation	Dip	Azimuth	Depth	From	To	Interval	g/t Au	
PERC007	439596	6649281	361	-60	90	110	88	93	5	20.95	
PERC026	439556	6649284	361	-60	102	178	153	161	8	13.38	
							inc.	154	160	6	17.44
PIC118	439602	6649300	362	-60	105	140	86	90	4	19.51	
PIC122	439559	6649313	361	-60	105	190	162	172	10	7.81	
							inc.	166	172	6	12.29
NMPRC1	439599	6649448	359	-60	105	200	130	165	35	3.67	
								175	186	11	5.57
							inc.	181	184	3	13.19
NMPRC2	439568	6649426	360	-60	105	270	208	214	6	13.12	
							inc.	210	214	4	16.47
NMPRC22	439614	6649451	360	-60	105	192	139	164	25	2.33	
							inc.	115	117	2	6.78
								165	182	17	2.25
							inc.	171	179	8	3.40
NMPDD5	439747	6649398	360	-60	285	195.2	151	168	17	3.19	
							inc.	161	164	3	13.40
NMPDD8	439573	6649297	360	-60	105	150	128	134	6	11.46	

Table 2: Pinnacles Gold Deposit Selected Historic Significant Intercepts



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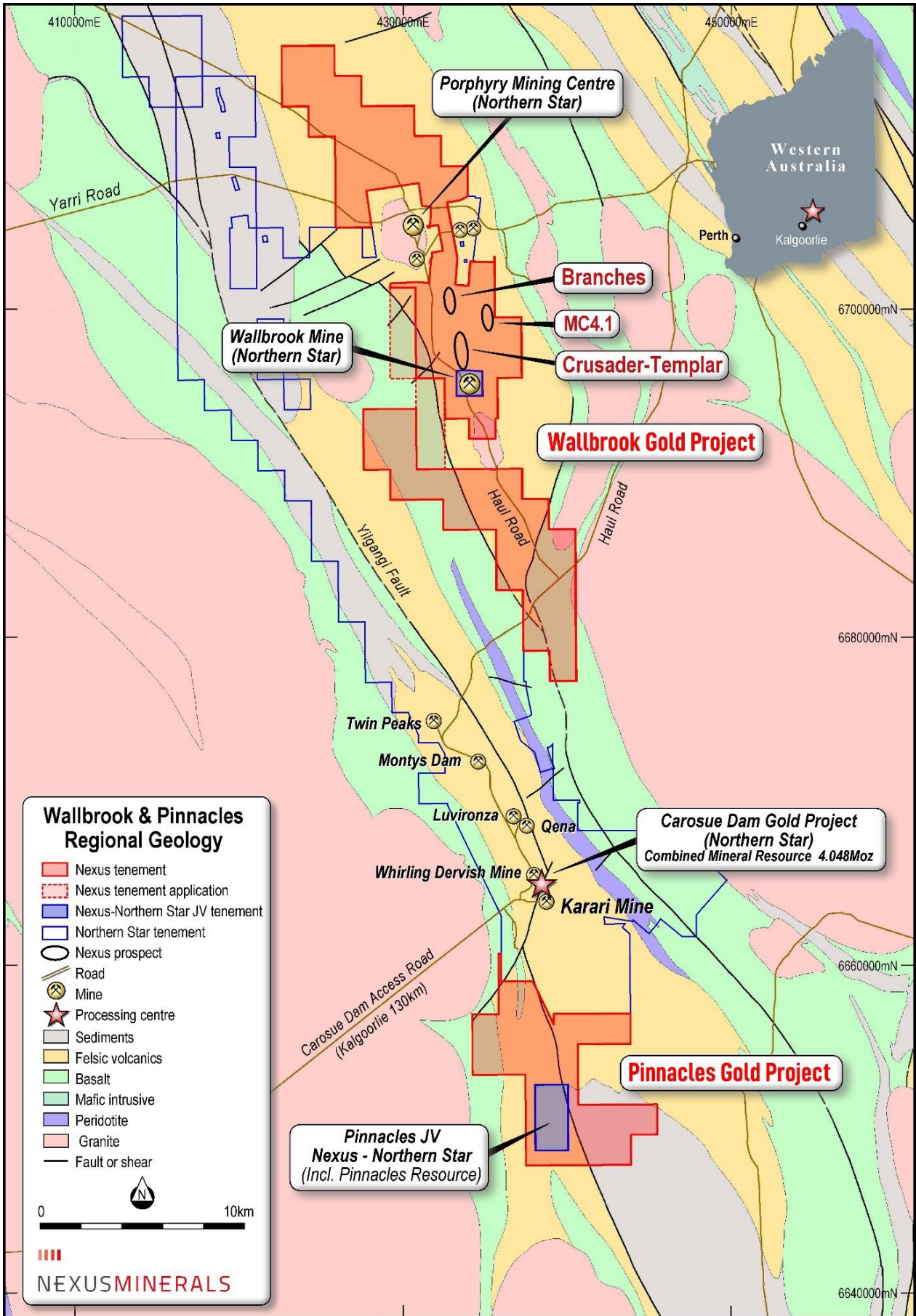


Figure 5: Nexus Eastern Goldfields Exploration Operations Map



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This announcement is authorised for release by Mr Andy Tudor, Managing Director, Nexus Minerals Limited.

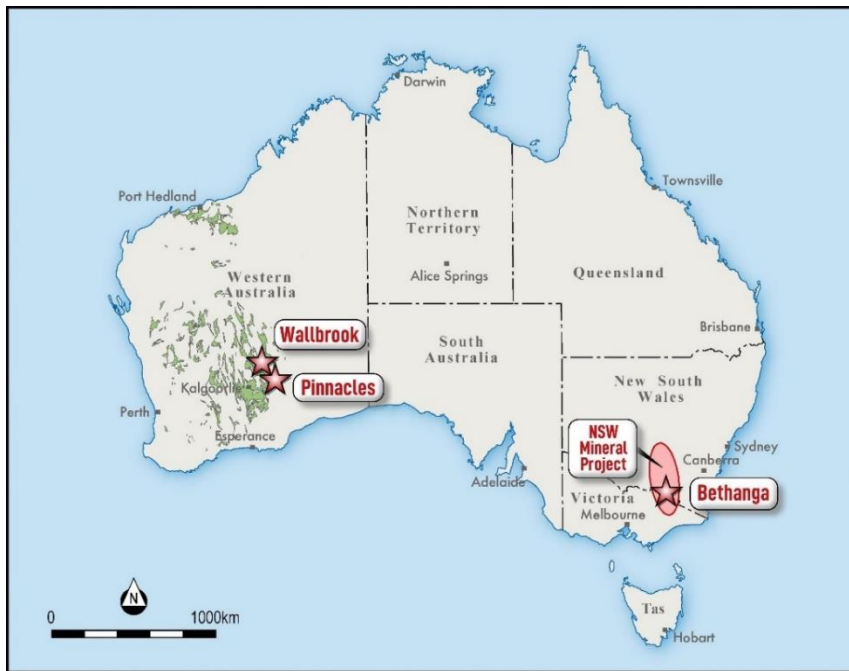


Figure 6: Nexus Project Locations, Australia

About Nexus

Nexus is actively exploring for gold deposits on its highly prospective tenement package in the Eastern Goldfields of Western Australia. In Western Australia, the consolidation of the highly prospective Wallbrook Gold Project by the amalgamation of existing Nexus tenements with others acquired, will advance these gold exploration efforts. Nexus holds a significant land package of highly prospective geological terrane within a major regional structural corridor and is exploring for gold deposits.

Nexus Minerals' tenement package at the Wallbrook Gold Project commences immediately to the north of Northern Star's multi-million ounce Carosue Dam mining operations (CDO), and current operating Karari and Whirling Dervish underground gold mines. The Company's Pinnacles Gold Project is located immediately to the south of CDO and comprises Nexus 100% owned tenure and Nexus-Northern Star Resources JV tenure. This Pinnacles JV tenure hosts the JORC 2012 combined Mineral Resource Estimate of 609,000t @ 4.0g/t Au for 78,000 ounces.

In addition to this, the Company has expanded its existing project portfolio with the addition of the granted tenure over 15,000km² of Gold, Copper and Critical Mineral prospective tenure in NSW, and the Bethanga Porphyry Copper-Gold project in Victoria.

Nexus is actively investing in new exploration techniques to refine the targeting approach for their current and future tenements.

- Ends -

Enquiries **Mr Andy Tudor, Managing Director**
 Mr Paul Boyatzis, Non-Executive Chairman

Contact **Phone: 08 9481 1749**

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ASX Code **NXM**



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The information in the report to which this statement is attached that relates to Pinnacles Mineral Resources is based upon information compiled by Mr Mark Drabble, a Competent Person who is a member of The Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Drabble is a full-time employee of Optiro Pty Ltd, consultants to Nexus Minerals Limited. Mr Drabble has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Drabble consents to the inclusion in the report of matters based on his information in the form and context in which it appears. The information is extracted from the announcement dated 27/02/2020 and is available to be viewed on the Company website www.nexus-minerals.com. 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 original 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 announcement.

The information in the report to which this statement is attached that relates to Wallbrook Mineral Resources is based upon information compiled by Mr Paul Blackney, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Blackney is a full-time employee of Snowden Optiro, consultants to Nexus Minerals Limited. Mr Blackney has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Blackney consents to the inclusion in the report of matters based on his information in the form and context in which it appears. The information is extracted from the announcement dated 01/05/2024 and is available to be viewed on the Company website www.nexus-minerals.com. 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 original 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 announcement.

The Exploration Target estimate has been prepared by Mr Andy Tudor, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Tudor is the Managing Director and full-time employee of Nexus Minerals Limited. Mr Tudor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for 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 Tudor consents to the inclusion in the release of the matters based on his information in the form and context in which it appears. The information is extracted from the announcement dated 26/03/2023 and is available to be viewed on the Company website www.nexus-minerals.com. 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 original 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 announcement.

The information in this release that relates to Exploration Results, Mineral Resources or Ore Reserves is based on, and fairly represents, information and supporting documentation, prepared, compiled or reviewed by Mr Adam James, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr James is the Exploration Manager and full-time employee of Nexus Minerals Limited. Mr James has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for 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 James consents to the inclusion in the release of the matters based on his information in the form and context in which it appears. The results are available to be viewed on the Company website www.nexus-minerals.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements.

FORWARD LOOKING AND CAUTIONARY STATEMENTS. Some statements in this announcement regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this report are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward-looking statements. So, there can be no assurance that actual outcomes will not materially differ from these forward-looking statements. No Ore Reserves have currently been defined on the Pinnacles or Wallbrook tenements. There has been insufficient exploration and technical studies to estimate an Ore Reserve and it is uncertain if further exploration and/or technical studies will result in the estimation of an Ore Reserve. The potential for the development of a mining operation and sale of ore from the Pinnacles or Wallbrook tenements has yet to be established.



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Appendix A

Indicated			Inferred			TOTAL		
Tonnes (kt)	Au grade (g/t)	Au ounces (koz)	Tonnes (kt)	Au grade (g/t)	Au ounces (koz)	Tonnes (kt)	Au grade (g/t)	Au ounces (koz)
2,460	1.8	140	3,210	1.6	164	5,670	1.7	304

Crusader-Templar Mineral Resource Summary (0.4g/t cut-off) (rounding errors may occur)

Cut Off Grade (g/t Au)	Category		Tonnes (kt)	Au Grade (g/t)	Au Ounces (kOz)
0.5	O/P	Indicated	140	2.6	11
		Inferred	19	1.6	1
		Sub-total	159	2.4	12
1.0	U/G	Indicated	170	5.6	30
		Inferred	280	4.0	36
		Sub-total	450	4.6	66
Combined Total			609	4.0	78

Pinnacles Mineral Resource Summary (OP & UG gold g/t cut-off) (rounding errors may occur)

Northern Star Ltd Carosue Dam Resource Table as at 31/3/2024

NST Attributable Inclusive of Reserve	Measured			Indicated			Inferred			Total Resources		
	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)
Carosue Dam												
Surface	2,489	1.6	129	17,061	1.8	998	6,559	1.7	356	26,109	1.8	1,483
Underground	6,992	2.9	656	14,752	2.6	1,222	6,282	3.0	514	28,026	2.8	2,392
Stockpiles	6,996	1.5	167	-	-	-	-	-	-	6,996	1.5	167
Gold in Circuit	-	-	6	-	-	-	-	-	-	-	-	6
Sub-total Carosue Dam	16,476	1.8	958	31,814	2.2	2,220	2,841	2.4	870	61,131	2.1	4,048

Northern Star Ltd Carosue Dam Reserve Table as at 31/3/2024

NST Attributable Reserve	Proved			Probable			Total Reserve		
	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)
Carosue Dam									
Surface	-	-	-	6,535	1.8	381	6,535	1.8	381
Underground	3,407	3.0	333	2,870	3.1	283	6,277	3.1	616
Stockpiles	6,996	1.5	167	-	-	-	6,996	0.7	167
Gold in Circuit	-	-	6	-	-	-	-	-	6
Sub-total Carosue Dam	10,403	1.5	506	9,405	2.2	663	19,809	1.8	1,170