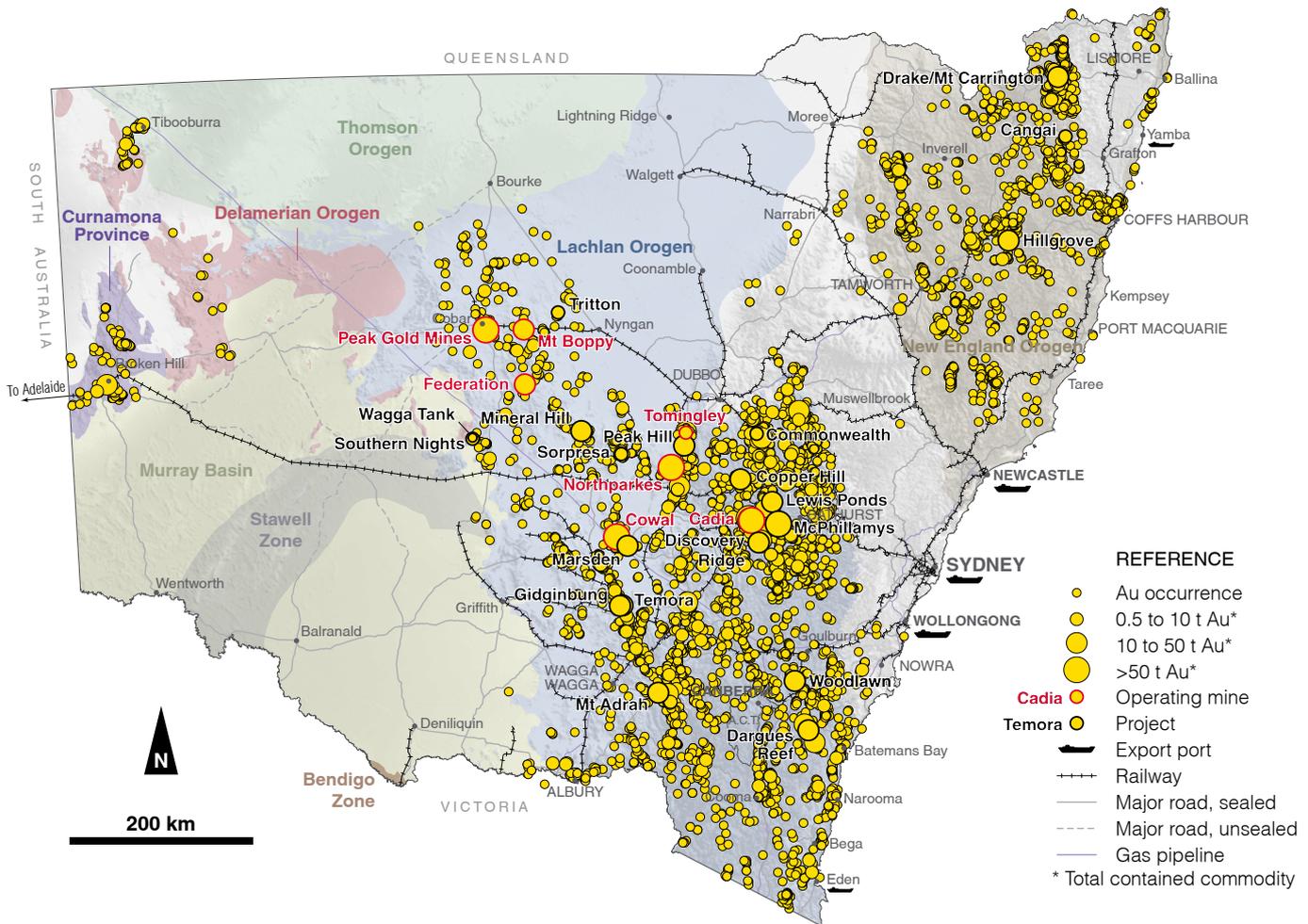


DECEMBER 2021



Overview

- New South Wales (NSW) has a gold endowment (past production and identified resources) exceeding 3,347 t (107.6 Moz).
- Gold production is sourced from a variety of mineral deposit types.
- The state remains under-explored, with a range of opportunities for new discoveries.

Deposit types

New South Wales is host to a diverse range of gold deposit types, with gold being produced as either the principal commodity (e.g. Cadia, Cowal) or as a by-product (e.g. Broken Hill).

These gold-rich systems include:

- Porphyry Cu–Au (Cadia, Northparkes, Copper Hill, Temora district) and granite-related gold (GRG) deposits (Mt Adrah and Dargues Reef)
- ‘Cobar-type’ (distal intrusion-related Cu–Au) deposits (Peak Gold Mines and CSA) which also may have associated skarn mineralisation (e.g. Hera)
- Orogenic Au (McPhillamys, Hillgrove, Tomingley)
- High, intermediate and low sulfidation epithermal Au systems (Gidginbung, Mineral Hill, Cowal)
- Gold-rich volcanic associated massive sulfide (VAMS) deposits such as Woodlawn and Lewis Ponds
- Significant gold as a by-product in some Broken Hill-type (BHT) base metal systems within the Curnamona Craton.

Gold has also been mined from a diverse range of modern and ancient placer, eluvial and beach deposits and a host of other deposit types where it occurs as a minor commodity.

Prospective terranes

Lachlan Orogen

The mainly Ordovician to Carboniferous Lachlan Orogen is generally poorly explored for gold. Recent discoveries (McPhillamys, Boda, Tomingley and Hera) highlight the prospectivity of this orogen. Important areas include:

- The Macquarie Arc — several belts of volcanic-dominated rocks of Ordovician to Early Silurian which host approximately 59 Moz of gold including the world class Cadia deposits
- Silurian to Early Devonian rift basins (Hill End Trough, Goulburn Basin, Cobar Basin)
- The Gilmore Fault Zone (a major crustal structure)
- The Early Devonian Braidwood Granodiorite.

New England Orogen

The Devonian to Triassic New England Orogen is under-explored by Australian standards. The orogen is host to the Hillgrove orogenic Au-Sb deposit, the Drake epithermal system and the Timbarra and Uralla GRG goldfields.

Other areas

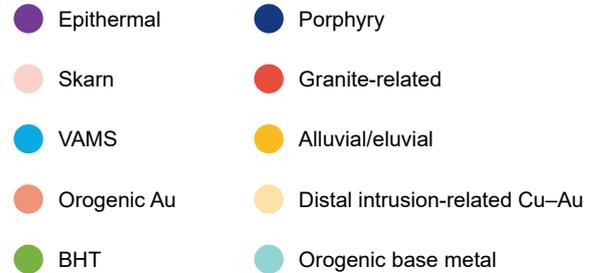
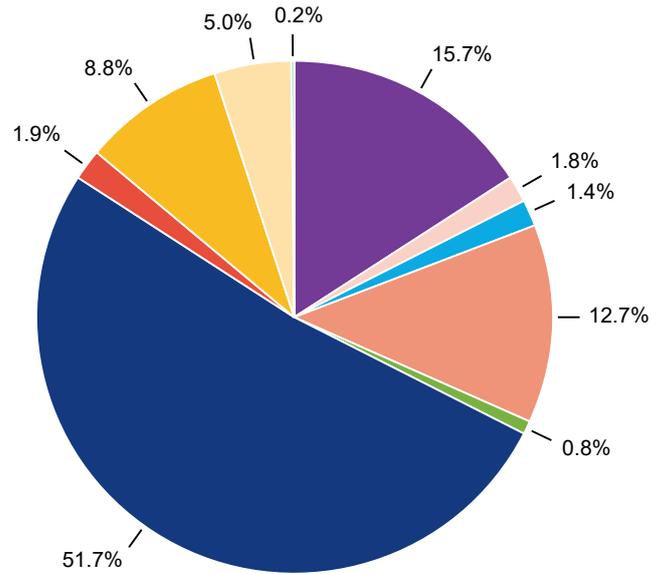
The Stawell and Bendigo zones, which host major gold vein systems in Victoria, are interpreted to extend into southwestern NSW. Similarly, the poorly exposed and understood Thomson Orogen, which extends southwards from Queensland into northwestern NSW, has been little explored.

Other areas where little exploration has been done include the Neoproterozoic to early Palaeozoic Koonenberry Belt, which is now interpreted to be a Cambrian arc built on the rifted margin of Gondwana and the northern extension of the Lachlan Orogen, where it is covered by younger sequences.

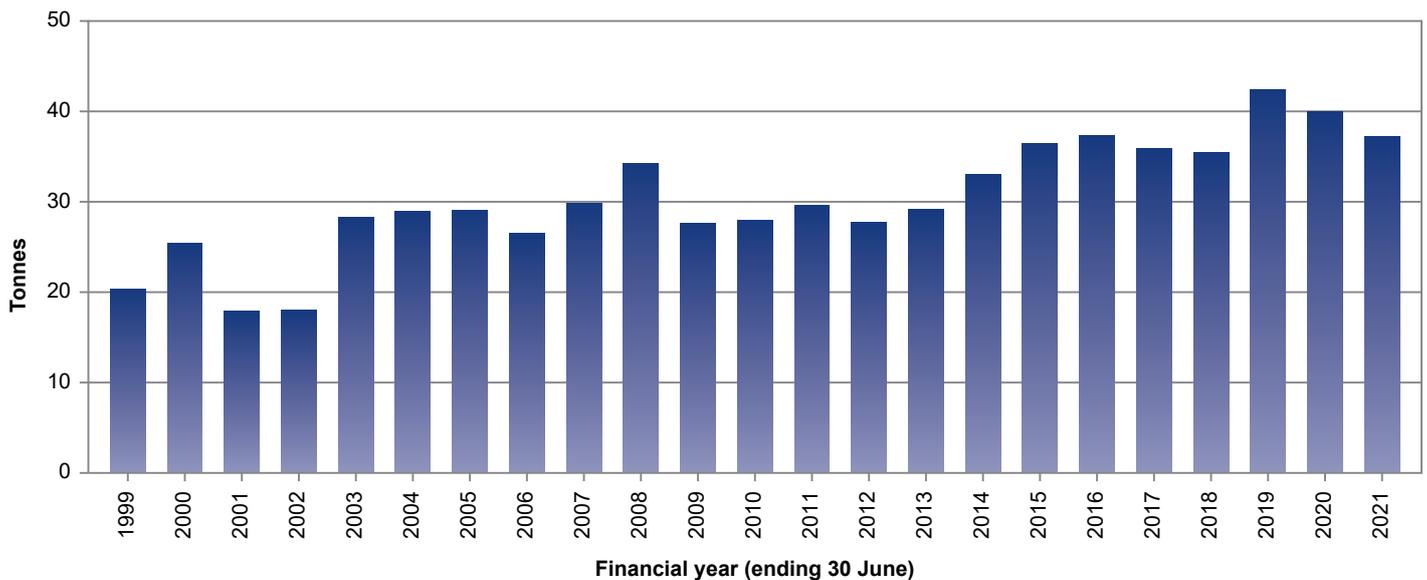
Gold endowment (past production + resources) for NSW, classified by deposit type

Total endowment >3,347 t (107.6 Moz)

Current resources >2,188 t (70.3 Moz)



Gold production in New South Wales (1999–2021)



Summary of significant gold resources within NSW

	Mine name Deposit type	Current resources and reserves (JORC)	Contained gold (kg)	Contained gold (Koz)
M I N E S	Cadia Valley Operations Porphyry Cu-Au	Cadia East: (indicated) 2,900 Mt @ 0.35 g/t Au, 0.26% Cu, 64 ppm Mo, 0.67 g/t Ag Cadia East: (probable) 1,300 Mt @ 0.44 g/t Au, 0.29 % Cu	1,015,000	32,633
	Cowal Epithermal	(total resources) 290.24 Mt @ 1.04 g/t Au (total reserves) 142.18 Mt @ 0.97 g/t Au	300,580	9,664
	Dargues Reef Granite-related	(total resources) 2.1 Mt @ 5.1 g/t Au (total reserves) 0.77 Mt @ 5 g/t Au	10,947	352
	Hera Skarn	(total resources) 1.7 Mt @ 1.8 g/t Au, 0.1% Cu, 2.3% Pb, 3.5% Zn, 25 g/t Ag (total reserves) 0.94 Mt @ 1.4 g/t Au, 2.6% Pb, 4.1% Zn, 32 g/t Ag	3,060	98
	Mt Boppy Orogenic Au	Open pit: (total resources) 0.339 Mt @ 4.58 g/t Au	882	28
	Northparkes Porphyry Cu-Au	(total resources) 481.52 Mt @ 0.56% Cu, 0.18 g/t Au (total reserves) 121.17 Mt @ 0.58% Cu, 0.22 g/t Au	86,674	2,787
	Peak Gold Mines Distal intrusion-related Cu-Au	(total copper resources) 14 Mt @ 1.2 g/t Au, 1.8% Cu, 0.1% Pb, 0.1% Zn, 7 g/t Ag (total lead zinc resources) 2.9 Mt @ 1.8 g/t Au, 0.3% Cu, 5.3% Pb, 6.9% Zn, 29 g/t Ag (total copper reserves) 1.7 Mt @ 2.1 g/t Au, 1.2% Cu, 0.2% Pb, 0.1% Zn, 5 g/t Ag (total lead zinc reserves) 1 Mt @ 2.7 g/t Au, 0.3% Cu, 5.4% Pb, 6.5% Zn, 23 g/t Ag	16,800	540
	Tomingley Orogenic Au	Open pit: (total resources) 4.667 Mt @ 1.5 g/t Au Open pit: (total reserves) 0.548 Mt @ 1.6 g/t Au Underground: (total resources) 3.947 Mt @ 2.6 g/t Au Underground: (total reserves) 1.825 Mt @ 2 g/t Au	17,262	555
	Project name Deposit type			
P R O J E C T S	Cadia Valley Operations Porphyry Cu-Au	Ridgeway Underground: (indicated) 110 Mt @ 0.57 g/t Au, 0.3% Cu, 0.74 g/t Ag Ridgeway Underground: (inferred) 41 Mt @ 0.38 g/t Au, 0.4% Cu, 0.43 g/t Ag Cadia extended underground: (indicated) 80 Mt @ 0.35 g/t Au, 0.19% Cu Big Cadia: (inferred) 11 Mt @ 0.7 g/t Au, 0.52% Cu Cadia Hill Stockpiles: (measured) 32 Mt @ 0.3 g/t Au, 0.13% Cu Ridgeway Underground: (probable) 80 Mt @ 0.54 g/t Au, 0.23% Cu	123,580	3,973
	Cangai Granite-related Au	(inferred): 3.2 Mt @ 3.35% Cu, 0.8 g/t Au, 20.17 g/t Ag, 0.37% Zn, 0.005% Co	2,560	82
	Commonwealth VAMS	(inferred) 0.912 Mt @ 2.4 g/t Au, 44 g/t Ag, 1.2% Zn, 0.5% Pb, 0.08% Cu Silica Hill North & Silica Hill South (inferred) 0.71 Mt @ 88 g/t Ag, 0.8 g/t Au	2,757	89
	Copper Hill Porphyry Cu-Au	(indicated & inferred) 87 Mt @ 0.36% Cu, 0.32 g/t Au	27,840	895
	Discovery Ridge Orogenic Au	(total resources) 10 Mt @ 1.2 g/t Au (proved & probable) 1.17 Mt @ 5.73.8 g/t Au	12,000	386
	Drake/Mt Carrington Epithermal	Strauss: (indicated & inferred) 2.661 Mt @ 1.52 g/t Au, 1.89 g/t Ag Kylo West: (indicated & inferred) 0.557 Mt @ 1.44 g/t Au, 1.12 g/t Ag Kylo North: (indicated & inferred) 1.741 Mt @ 1.17 g/t Au, 1.43 g/t Ag Red Rock & Guy Bell: (indicated & inferred) 1.79 Mt @ 1.2 g/t Au, 3.6 g/t Ag (gold-rich zones)	9,032	290
	Federation Distal intrusion-related Cu-Au	(indicated & inferred) 5.1 Mt @ 0.9 g/t Au, 0.3% Cu, 5.5% Pb, 9.3% Zn, 7 g/t Ag	4,590	148
	Gidginbung Epithermal	Gidginbung: (inferred) 8 Mt @ 1.5 g/t Au, 0.09% Cu	12,000	386
	Hillgrove Orogenic Au	(total resources) including stockpile 7.266 Mt @ 4.5 g/t Au, 1.2% Sb (proved & probable) 2.195 Mt @ 3.8 g/t Au, 2.1% Sb	32,697	1,051
	Lewis Ponds VAMS	(inferred) 6.2 Mt @ 2 g/t Au, 80 g/t Ag, 2.7% Zn, 1.6% Pb, 0.2% Cu	12,400	399
	McPhillamys Orogenic Au	(indicated & inferred) 70 Mt @ 1 g/t Au (probable) 61 Mt @ 1 g/t Au	70,000	2,251
	Mallee Bull Distal intrusion-related Cu-Au	(indicated & inferred) 6.76 Mt @ 1.3% Cu, 0.6% Pb, 0.6% Zn, 31 g/t Ag, 0.4 g/t Au	2,704	87
	Marsden Porphyry Cu-Au	(indicated & inferred) 122.97 Mt @ 0.27 g/t Au, 0.46% Cu (probable) 65.17 Mt @ 0.39 g/t Au, 0.57% Cu	33,202	1,067

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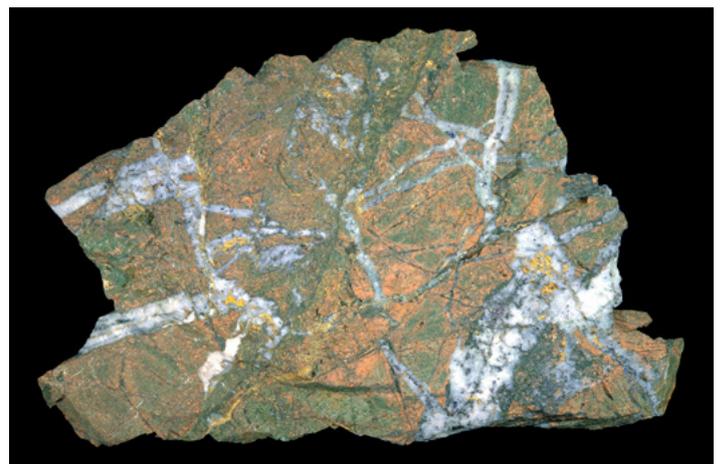
Project name Deposit type	Current resources and reserves (JORC)	Contained	Contained
		gold (kg)	gold (Koz)
May Day Distal intrusion-related Cu-Au	Open Pit Oxide (indicated) 0.510 Mt @ 1.0. g/t Au, 20.4 g/t Ag Open Pit Sulphide (indicated) 0.390 Mt @ 1 g/t Au, 28.2 g/t Ag, 1.31 % Zn, 0.84% Pb Underground Sulphide (indicated) 0.170 Mt @ 1.03 g/t Au, 39.4 g/t Ag, 1.67% Zn, 1.21	1,091	35
Mineral Hill Epithermal	Pearse (oxide & sulfide): (measured & indicated) 0.298 Mt @ 6.9 g/t Au, 80 g/t Ag Pearse (oxide & sulfide): (proved & probable) 0.235 Mt @ 6.9 g/t Au, 71.7 g/t Ag Pearse North: (total resources) 0.298 Mt @ 2.7 g/t Au, 26 g/t Ag Pearse North: (proved & probable) 0.179 Mt @ 2.5 g/t Au, 21 g/t Ag Southern Ore Zone: (total resources) 1.985 Mt @ 1.2% Cu, 1.4% Pb, 1.1% Zn, 1.8 g/t Au, 19 g/t Ag Red Terror: (total resources) 0.186 Mt @ 1.7% Cu, 0.1% Pb, 0.3% Zn, 2.2 g/t Ag, 2.4 g/t Au	6,761	217
Mt Adrah Granite-related Au	(indicated & inferred) 20.5 Mt @ 1.1 g/t Au	22,550	725
Peak Hill Epithermal	Proprietary underground: (inferred) 1.02 Mt @ 3.29 g/t Au, 0.15 % Cu	3,356	108
Sorpresa Epithermal	(total resources) 1.519 Mt @ 1.52 g/t Au, 70 g/t Ag	2,309	74
Temora Project Porphyry Cu-Au	Dam: (indicated & inferred) 40 Mt @ 0.30% Cu, 0.41 g/t Au Cullingerai: (inferred) 24 Mt @ 0.30 % Cu, 0.31 g/t Au Estori: (inferred) 14 Mt @ 0.21 % Cu, 0.35 g/t Au Mandamah: (inferred) 26 Mt @ 0.34 % Cu, 0.38 g/t Au Yiddah: (inferred) 127 Mt @ 0.32 % Cu, 0.14 g/t Au	68,669	2,208
Tomingley Orogenic Au	Roswell (indicated & inferred) 10.059 Mt @ 2.04 g/t Au Roswell Open pitable reserves (probable) 3.679 Mt @ 1.7 g/t Au Roswell Underground reserves (probable) 1.575 Mt @ 2.8 g/t Au San Antonio (indicated & inferred) 7.319 Mt @ 1.73 g/t Au San Antonio Open pitable reserves (probable) 4.188 Mt @ 1.6 g/t Au	18,710 11,510	602 370
Wagga Tank/Southern Nights VAMS	Southern Nights (indicated & inferred) 4.14 Mt @ 5.0% Zn, 2.0% Pb, 77 g/t Ag, 0.3 g/t Au, 0.2% Cu Wagga Tank (indicated & inferred) 0.81 Mt @ 5% Zn, 2.4% Pb, 81 g/t Ag, 0.5 g/t Au, 0.4% Cu	1,647	53
Woodlawn VAMS	Underground: (total resources) 7.4 Mt @ 6% Zn, 1.9% Cu, 2.2% Pb, 0.5 g/t Au, 48 g/t Ag Underground: (probable) 3.1 Mt @ 5.2% Zn, 1.6% Cu, 1.8% Pb, 0.4 g/t Au, 38 g/t Ag Reclaimed tailings: (total resources) 10.8 Mt @ 2.2% Zn, 0.5% Cu, 1.3% Pb, 0.3 g/t Au, 31 g/t Ag Reclaimed tailings: (proved & probable) 9.3 Mt @ 2.2% Zn, 0.5% Cu, 1.3% Pb, 0.3 g/t Au, 31 g/t Ag	6,940	223

PROJECTS

Note: Project totals for contained gold are based on combined resources.



Free gold in drillcore from Cadia East.



Copper gold ore with quartz veins, chalcopyrite and bornite from underground at the Ridgeway mine near Cadia.

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