LEGACY MINERALS

The Harden Gold Mine

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Wines and Wines 2022

ASX: LGM

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FORWARD LOOKING STATEMENTS

- These materials prepared by Legacy Minerals Holdings Ltd (or “the Company”) include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

- Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

- Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

- Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

OUTLINE

- **Overview**
- Historical Data Review
- Geological Setting
- Mineralisation

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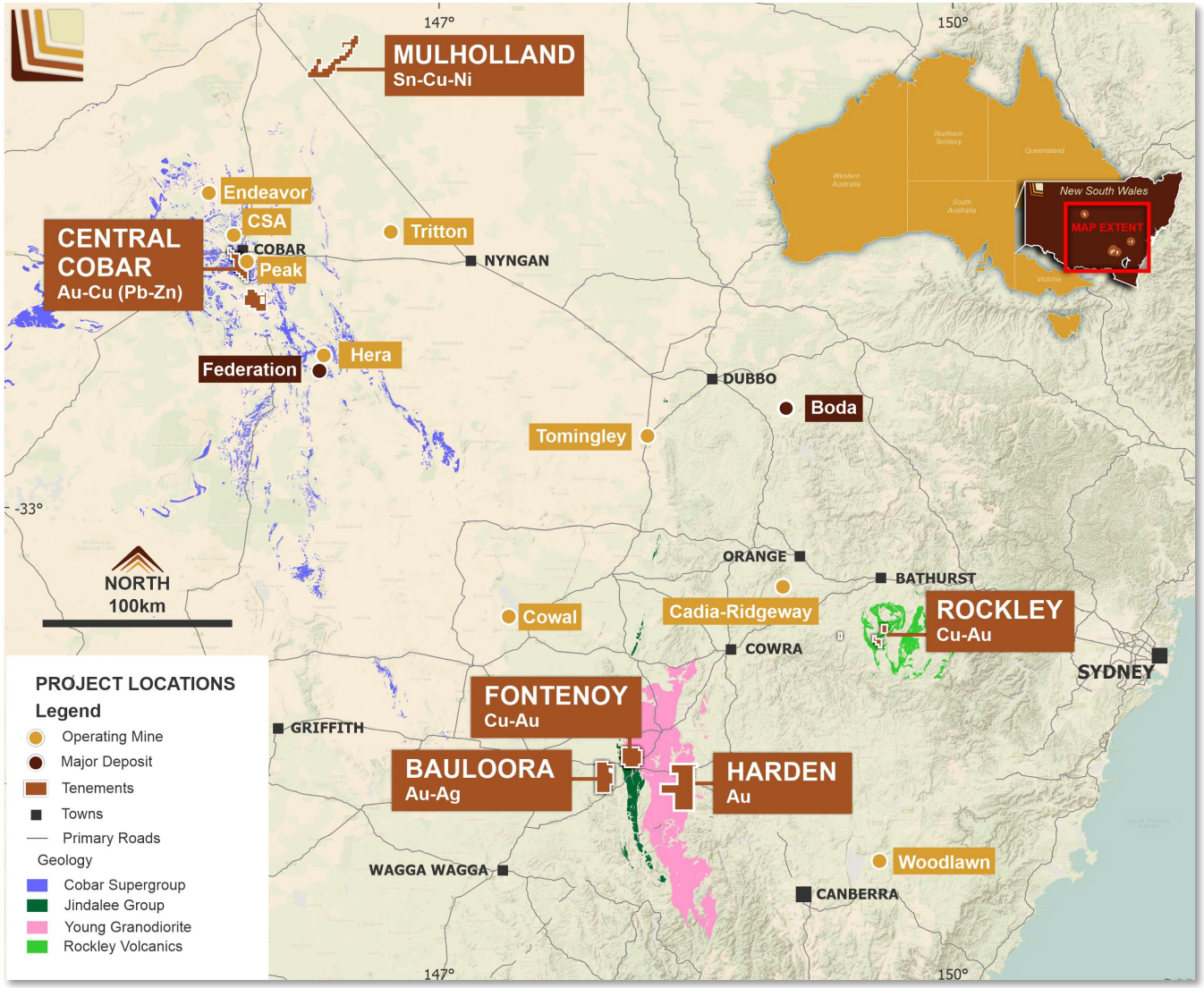
BACKGROUND AND INTRODUCTION

Project Portfolio

Harden Project	Au – Orogenic, Shear Hosted
Bauloora Project	Au-Ag – Low Sulphidation
Cobar Project	Au-Cu (Pb-Zn) – Cobar Type
Rockley	Cu-Au – Porphyry related Cu-Au
Fontenoy Project	Au-Cu – VHMS
Mulholland	Sn-Ni-Cu – Polymetallic skarn



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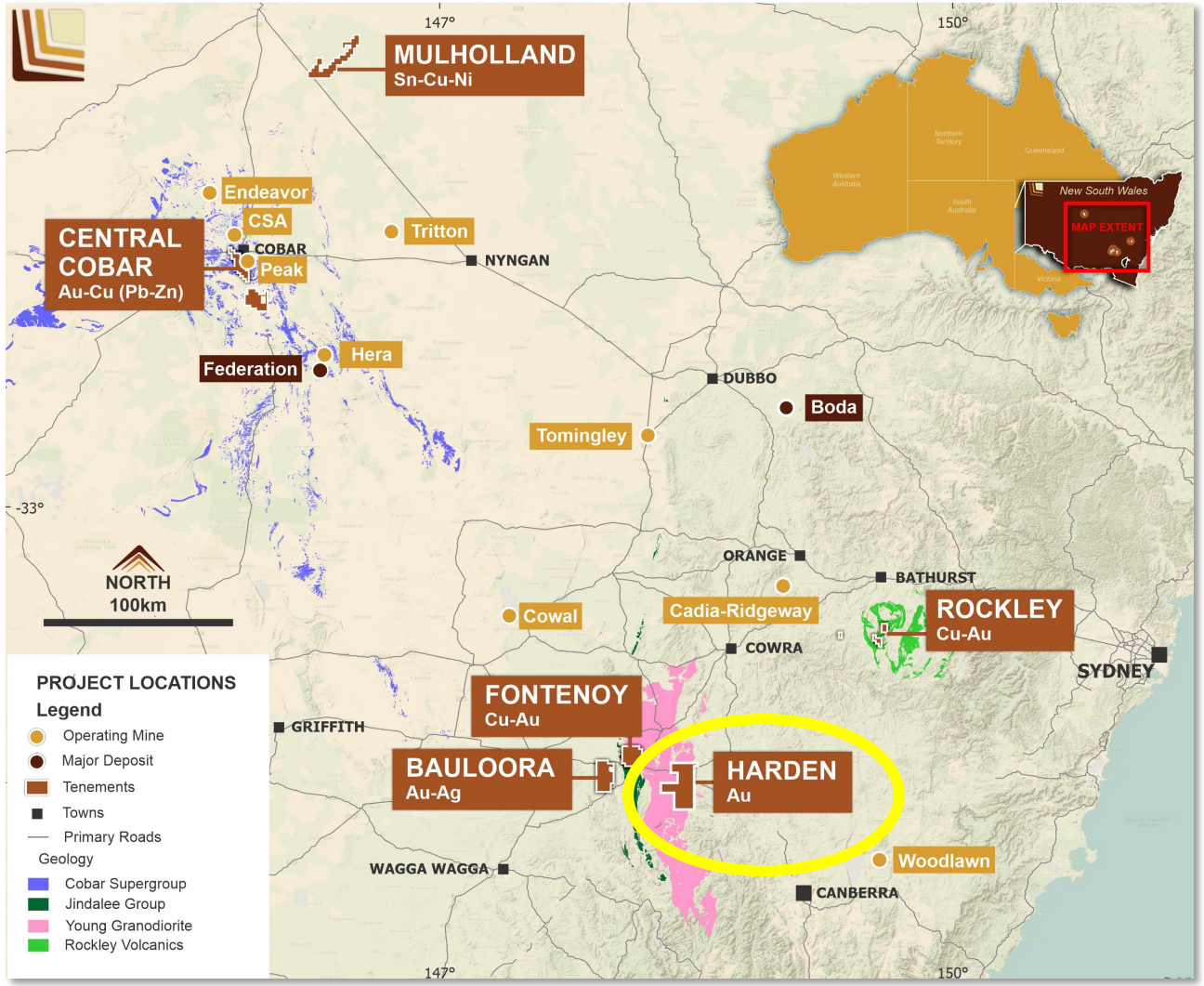
OVERVIEW



Location	Harden Gold Mines
Minerals	Gold
Historical Production	~55,000oz Au
Average Grade	21.7g/t Au
Young District Production	>460,000oz Au

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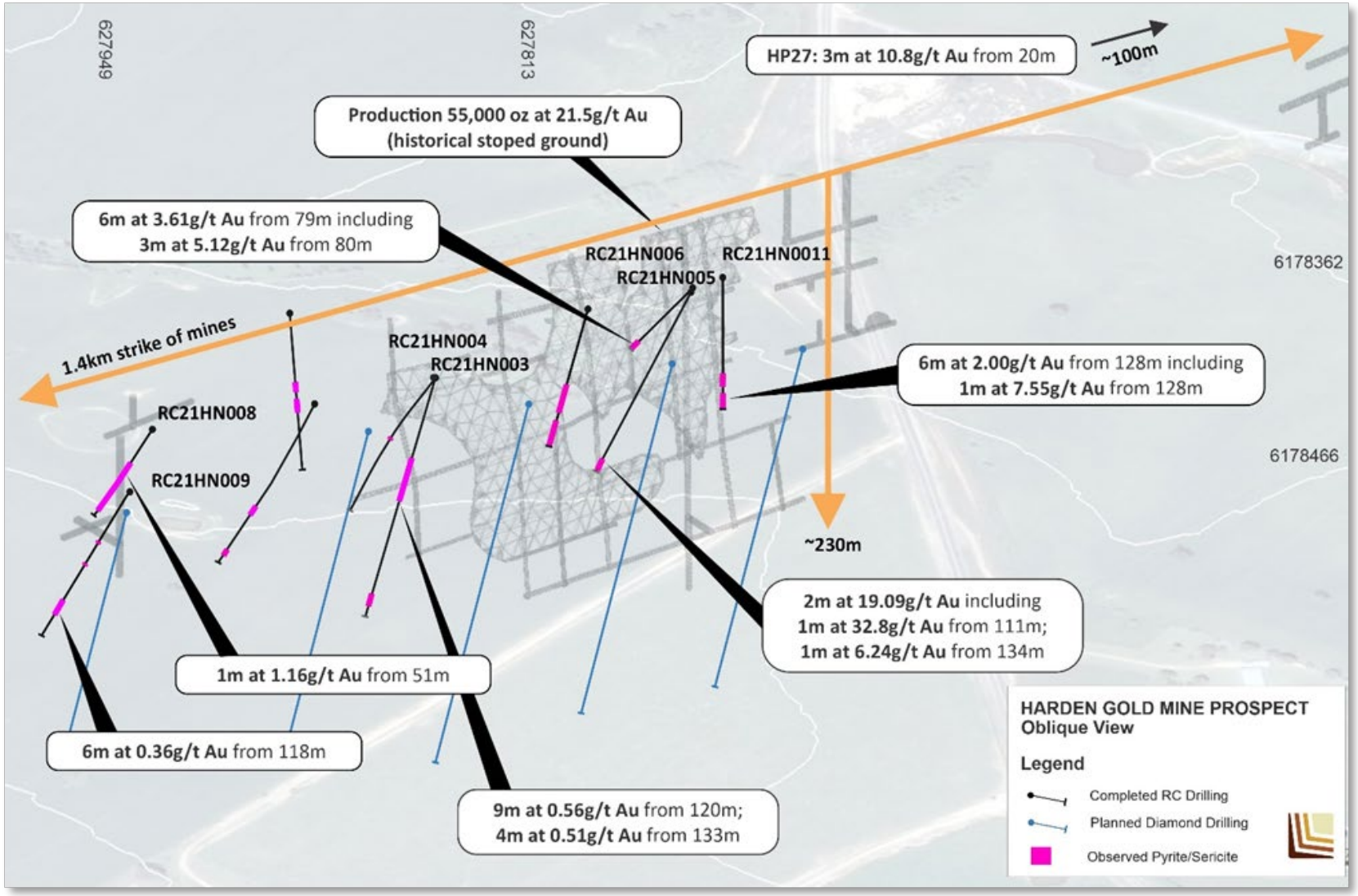
OVERVIEW

- **Total of 19 RC and diamond drill holes for 3,264 meters drilled in FY22**
  - Confirmed significant gold mineralisation around historical workings and suggests continuity of mineralisation below and along strike of current workings
- **Significant intercepts included** (0.2g/t Au cut off)
  - 21m at 0.43g/t Au from 120m (no cut off) incl. 9m at 0.59g/t Au
  - 5m at 7.06g/t Au from 110m incl. 2m at 17.17g/t Au
  - 6m at 3.40g/t Au from 79m incl. 4m at 4.12g/t Au
  - 6m at 0.37g/t Au from 118m
  - 6m at 3.65g/t Au from 128m incl. 3m at 6.41g/t Au
- Underpins case for future exploration and potential resource estimation
- Orogenic shear hosted mineralisation

OVERVIEW



Harden Gold Mine and Drilling 2021 (Oblique View)

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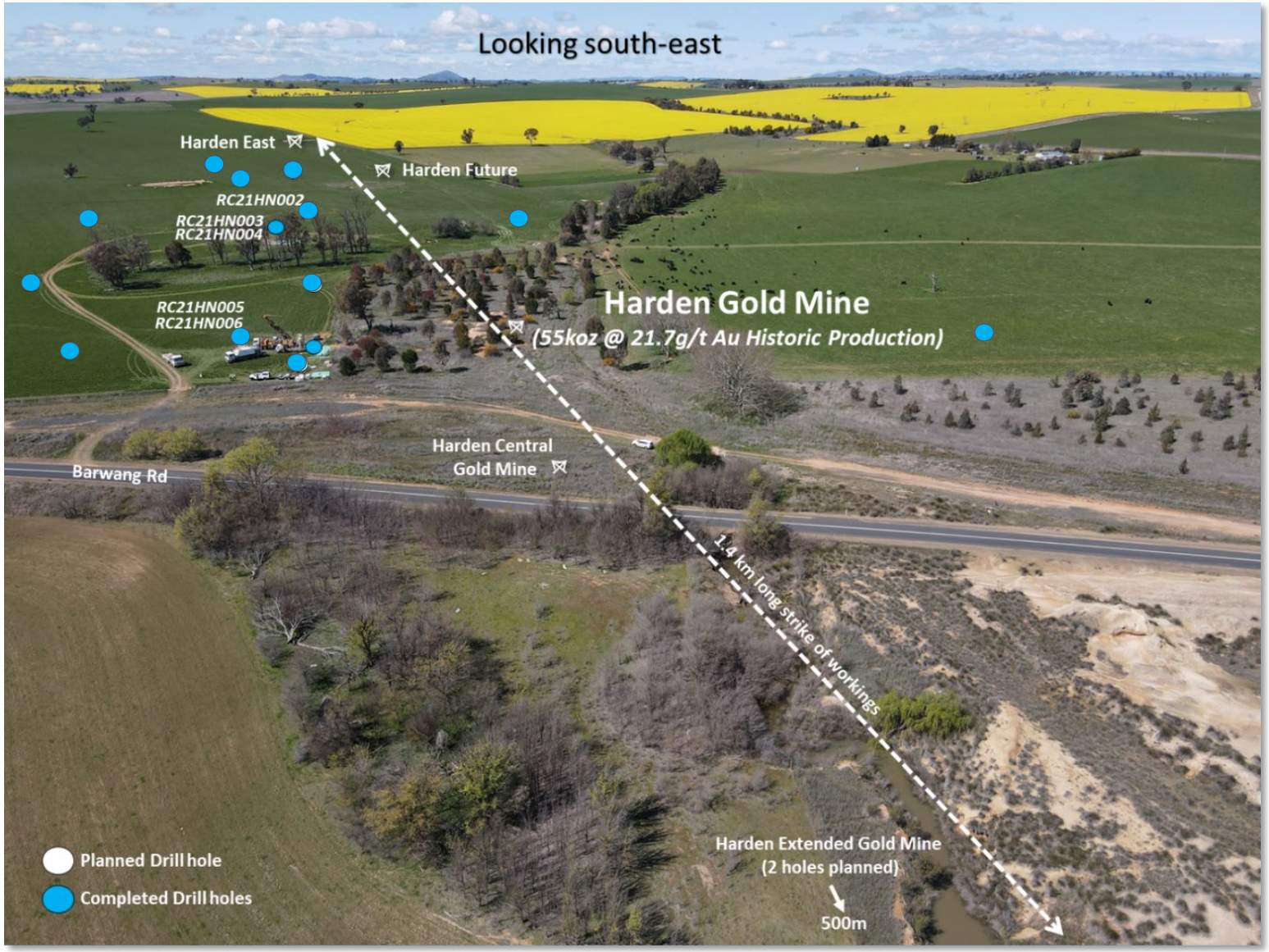
OVERVIEW



Drone View – Harden Strike of Mines (2021)

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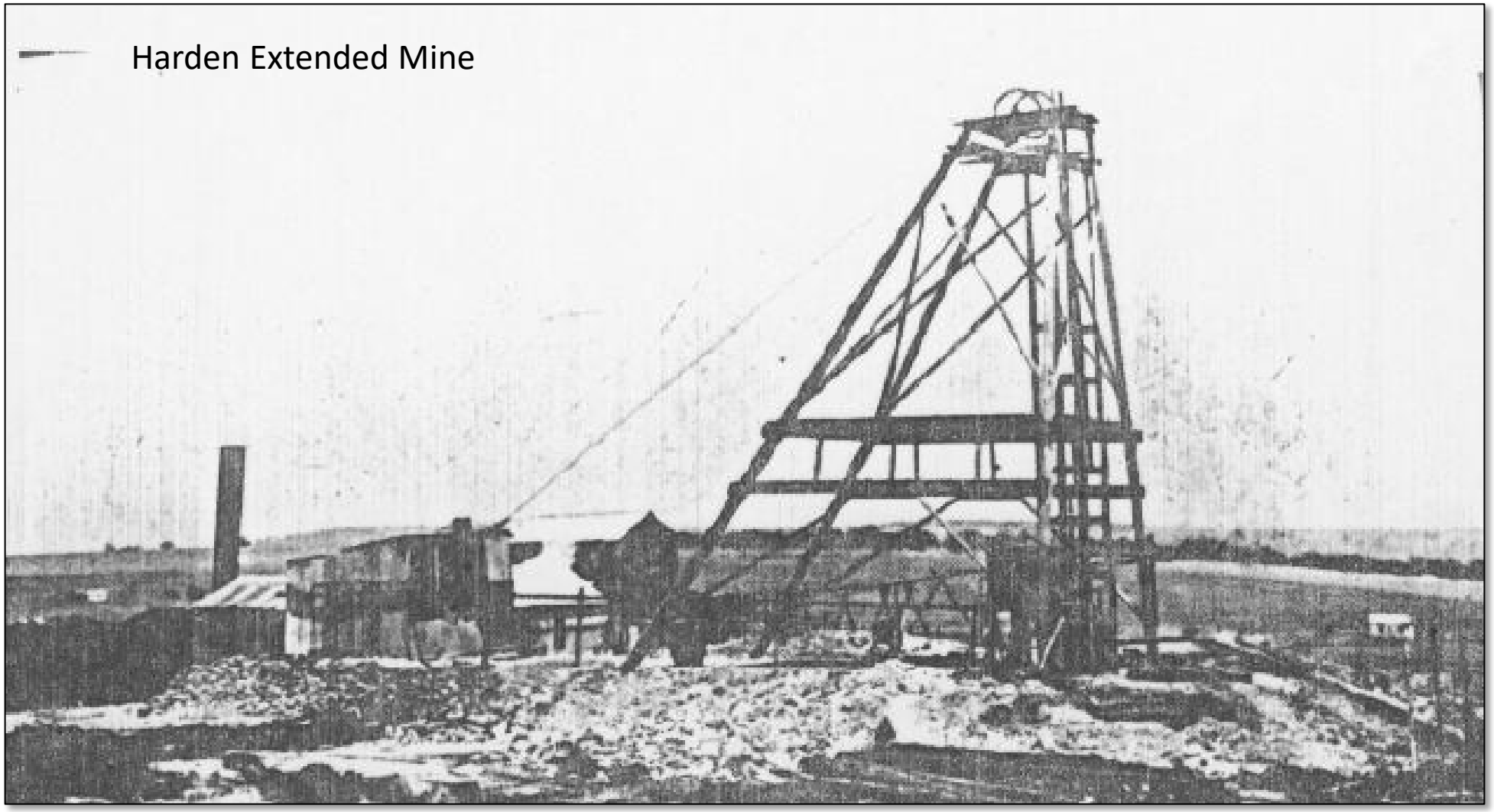
Historical Review



Pit Head – Harden Extended Mine ~1910

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Historical Review

Pit Head – Harden Gold Mine ~1910

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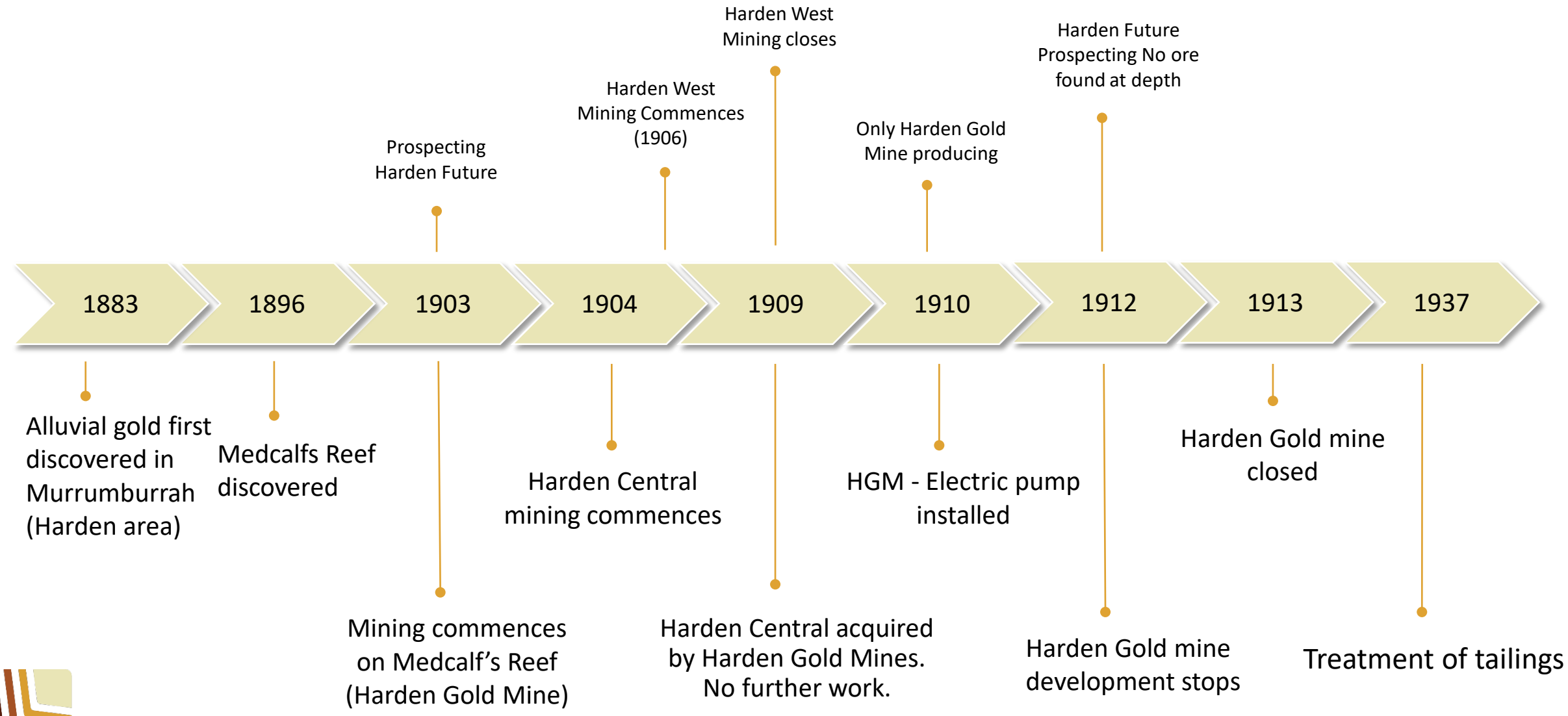
HARDEN GOLD MINING HISTORY



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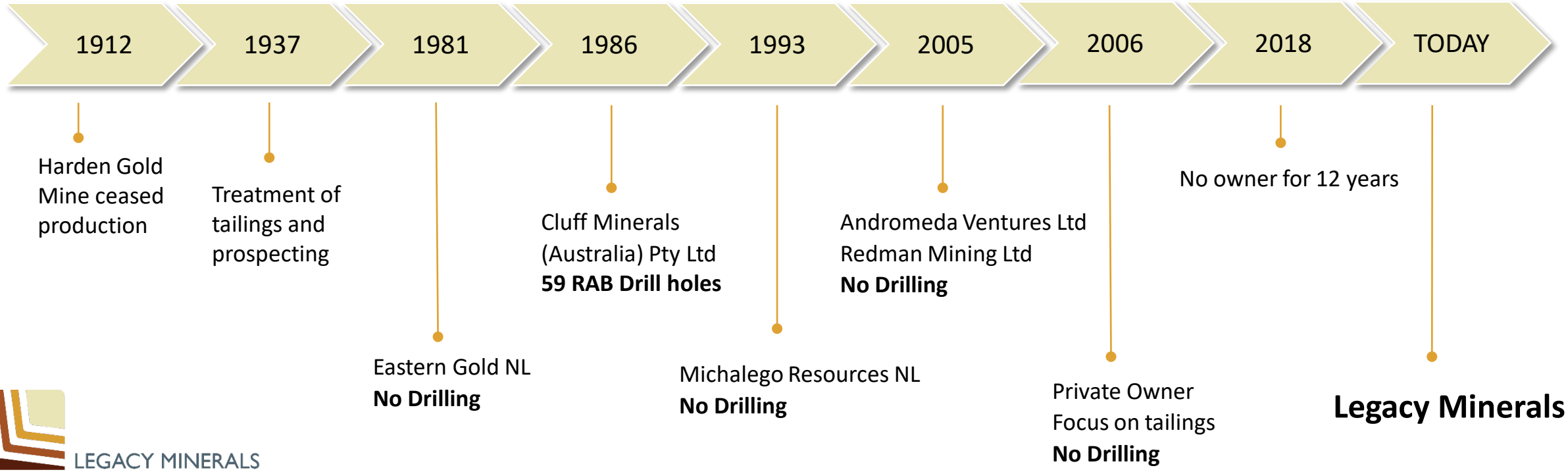
WHY DOES THE OPPORTUNITY STILL EXIST?

No drilling, no discovery

- Only 59 RAB drill holes, over two years (86/87) in last 110 years
  - Average drill hole depth 32.5m
- Later drilling in the district by Alkane and Cluff focused on the nearby high-grade gold McMahons Reef prospect
- No modern geophysics completed
- Held by companies focused on near surface/open pittable deposits or distracted with other projects or the tailings



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OUTLINE

- Overview
- **Historical Data Review**
- Geological Setting
- Mineralisation

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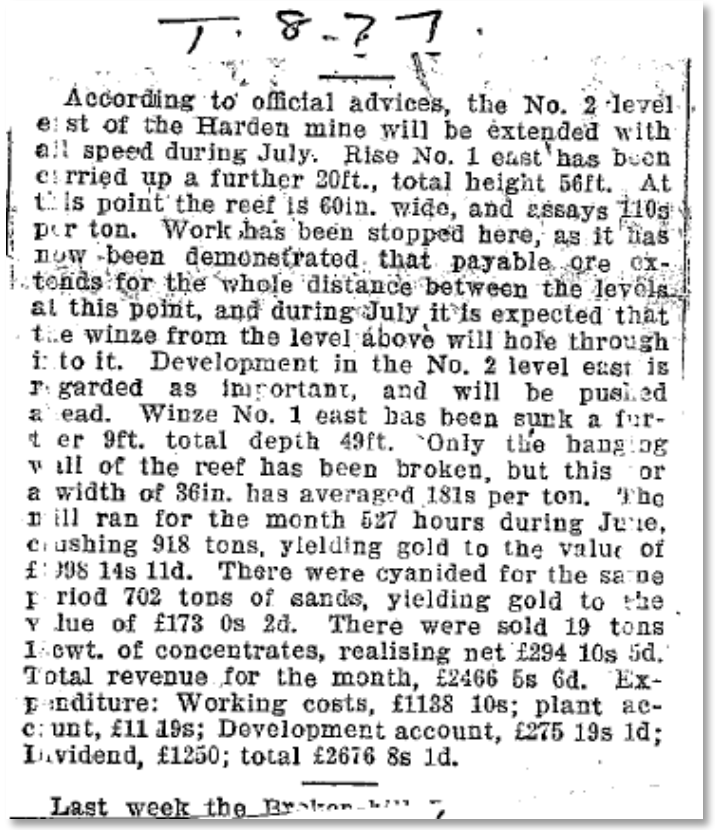
HISTORICAL REVIEW – THE REPORTS



T. 8-?7.

According to official advices, the No. 2 level east of the Harden mine will be extended with all speed during July. Rise No. 1 east has been carried up a further 20ft., total height 56ft. At this point the reef is 60in. wide, and assays 110s per ton. Work has been stopped here, as it has now been demonstrated that payable ore extends for the whole distance between the levels at this point, and during July it is expected that the winze from the level above will hole through into it. Development in the No. 2 level east is regarded as important, and will be pushed ahead. Winze No. 1 east has been sunk a further 9ft. total depth 49ft. Only the hanging wall of the reef has been broken, but this for a width of 36in. has averaged 181s per ton. The mill ran for the month 527 hours during June, crushing 918 tons, yielding gold to the value of £[illegible]98 14s 11d. There were cyanided for the same period 702 tons of sands, yielding gold to the value of £173 0s 2d. There were sold 19 tons 1 cwt. of concentrates, realising net £294 10s 5d. Total revenue for the month, £2466 5s 6d. Expenditure: Working costs, £1138 10s; plant account, £11 19s; Development account, £275 19s 1d; Dividend, £1250; total £2676 8s 1d.

Last week the Broken-hill [illegible]

1. Mentions in the **Department of Mines Annual Reports** for the period **up to 1913**.
2. Records of the Mines Inspector. **Mine plans, with sample information**, available through the Geological Survey.
3. A near **complete set of half yearly reports** of the Harden Gold Mining Company Ltd on file through the Geological Survey. These reports have very detailed data and include mine plans and sample information.
4. Articles in the Sydney Morning Herald (extracts are in the Survey files) and the Australian Mining Standard.
5. In addition, the Survey files preserve a copy of the adjacent Harden Future company's prospectus and plans of other mines on the Reef including Harden Central and Harden Extended.

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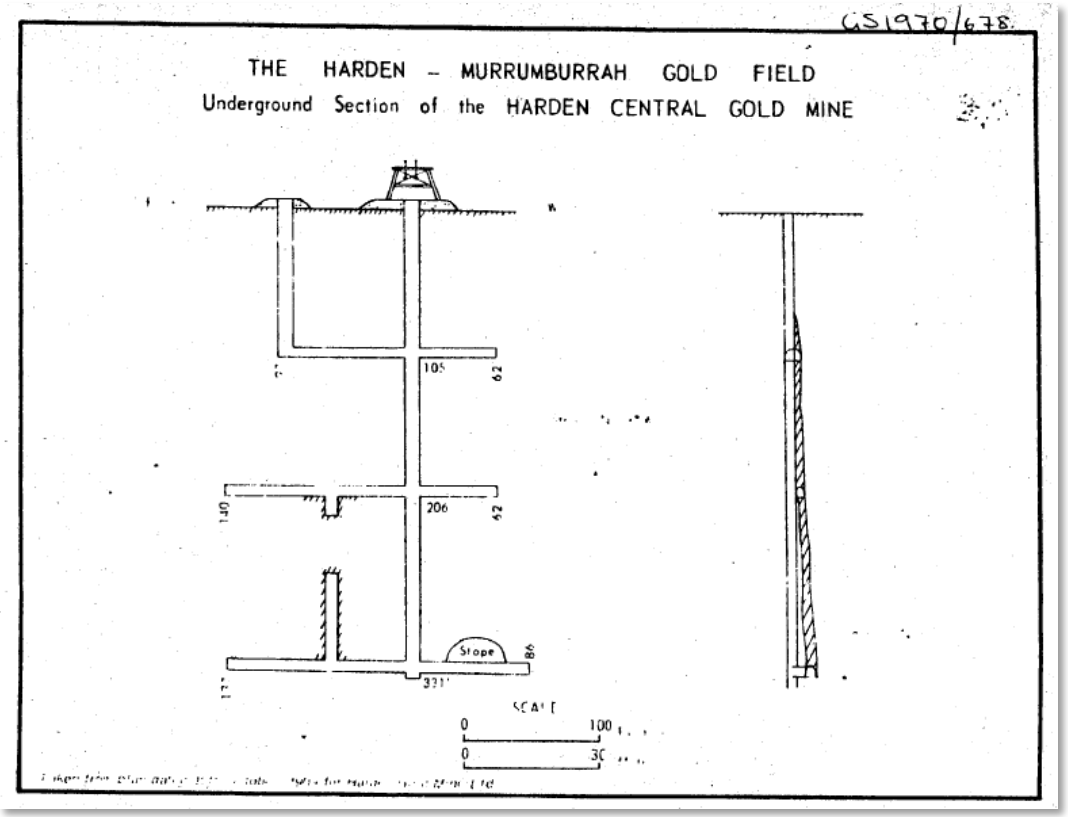
HISTORICAL REVIEW – THE DATA



Harden Central Gold Mine Underground Section ~ 1900-1910

Digitisation of the Harden Mine data:

The plans of the Harden Gold Mine contain four sets of data

1. **Shafts** relative position.
2. **Location of samples** in the mine. Sample are at a standard ten foot spacing but the series includes unsampled positions and runs, presumably where the reef appeared unpromising.
3. **Width** sampled, in feet.
4. **Gold assay**, quoted in shillings per short ton. Gold is at the standard price of £4 4s 10½d an ounce (confirmed by equivalents in ounces and pennyweights for average assays quoted in the manager's reports).

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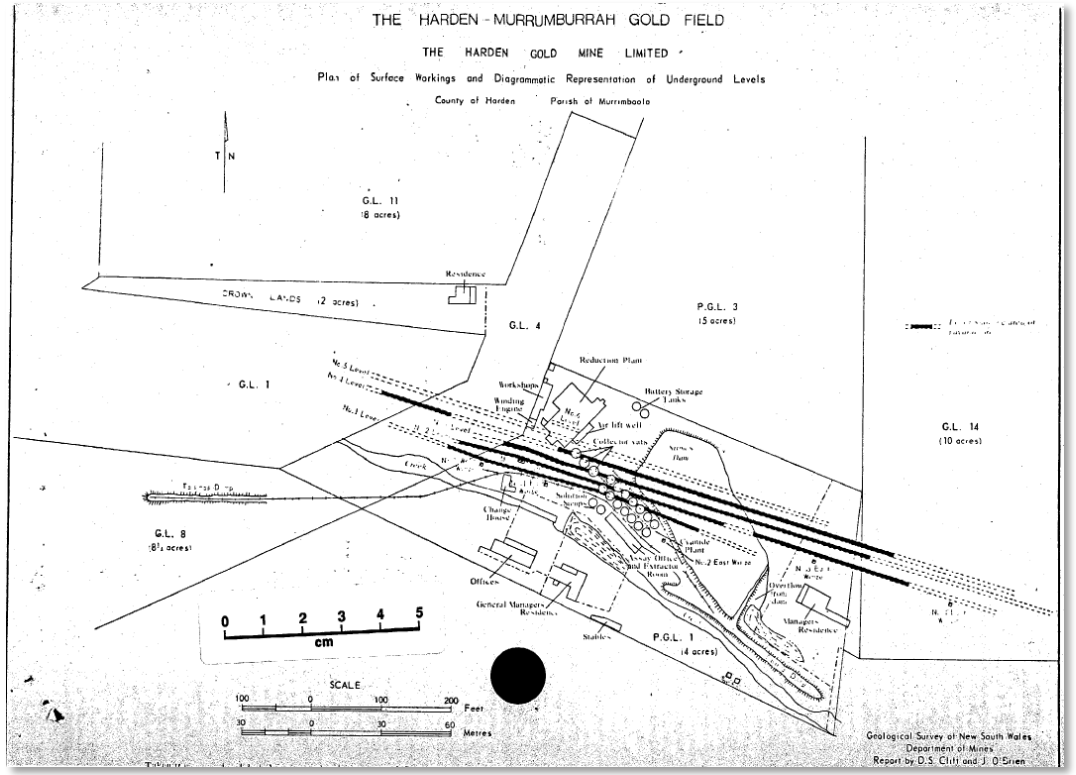
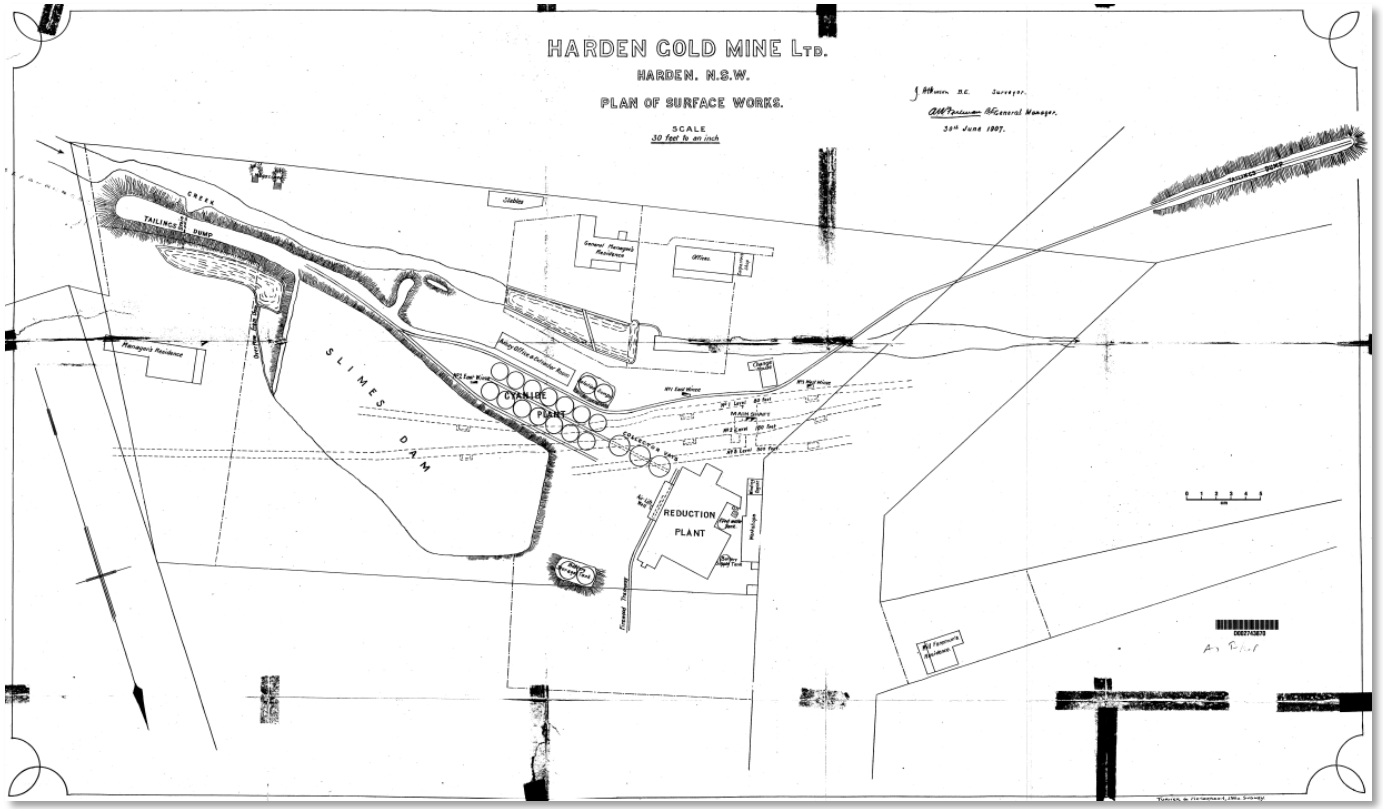
HISTORICAL REVIEW



Harden Gold Mine Plan of Surface Workings ~1907



Harden Gold Mine Plan of Surface Workings 1907

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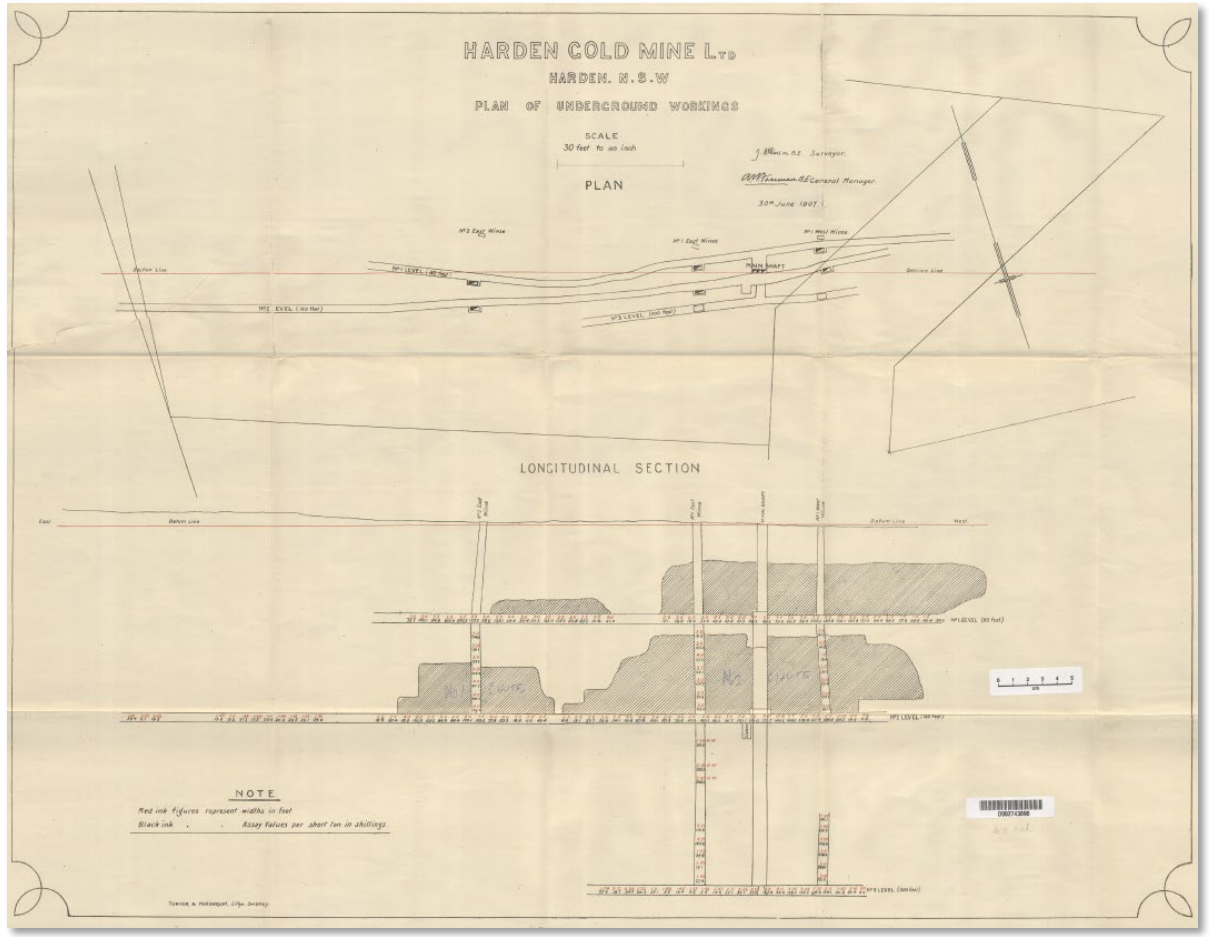
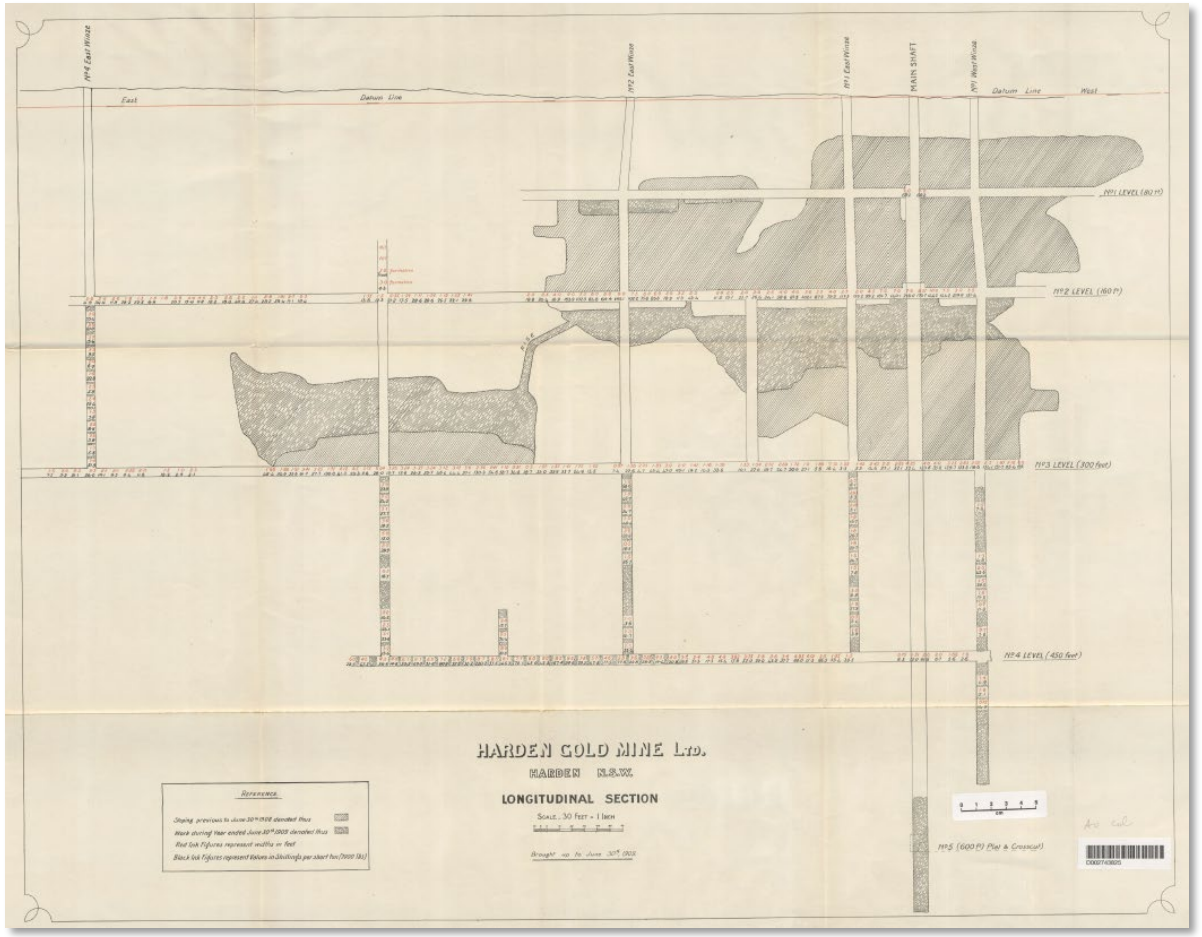
HISTORICAL REVIEW



Harden Gold Mine Plan of Underground Workings 1907



Harden Gold Mine Longitudinal Section 1908

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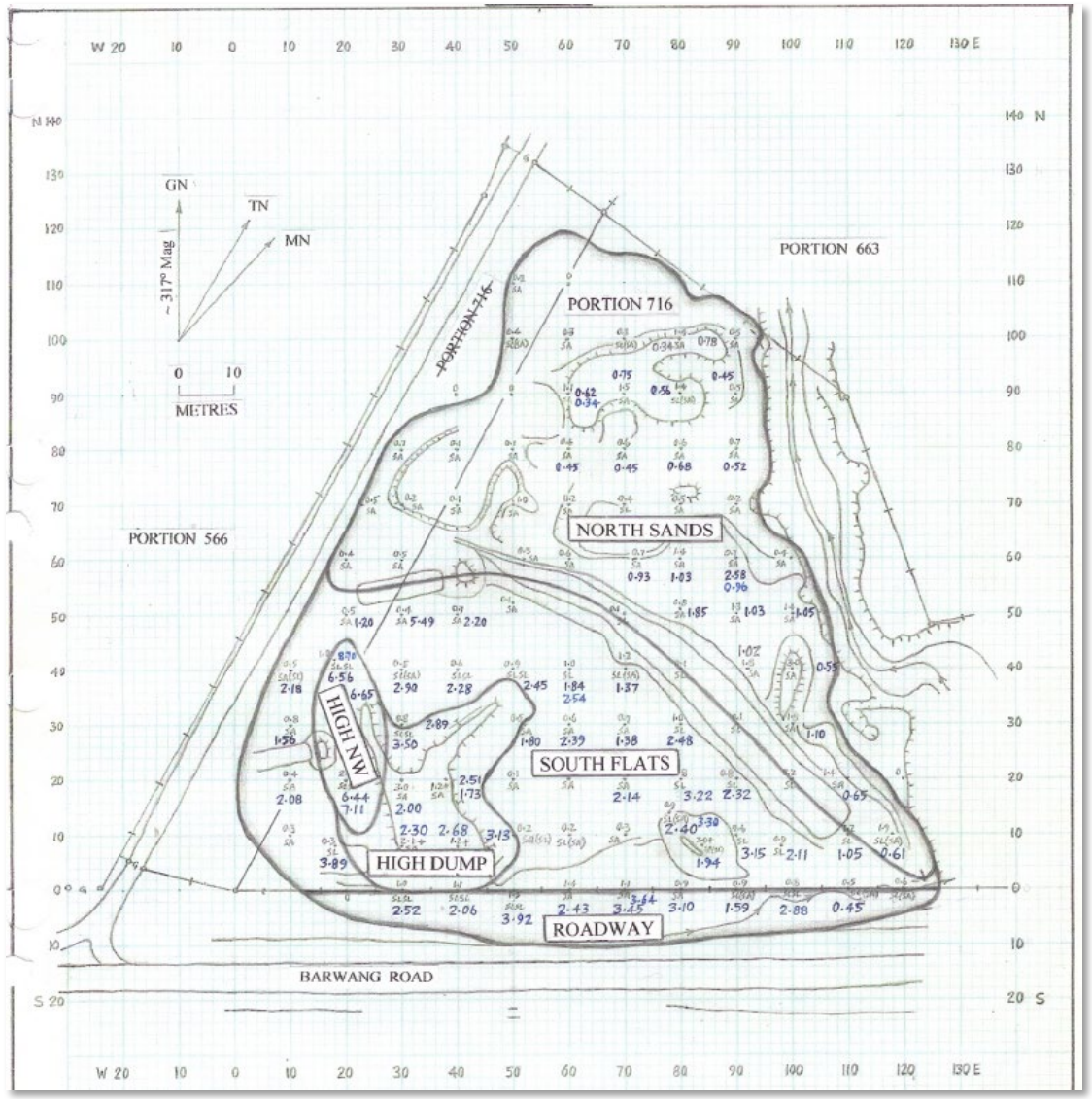
HISTORICAL REVIEW

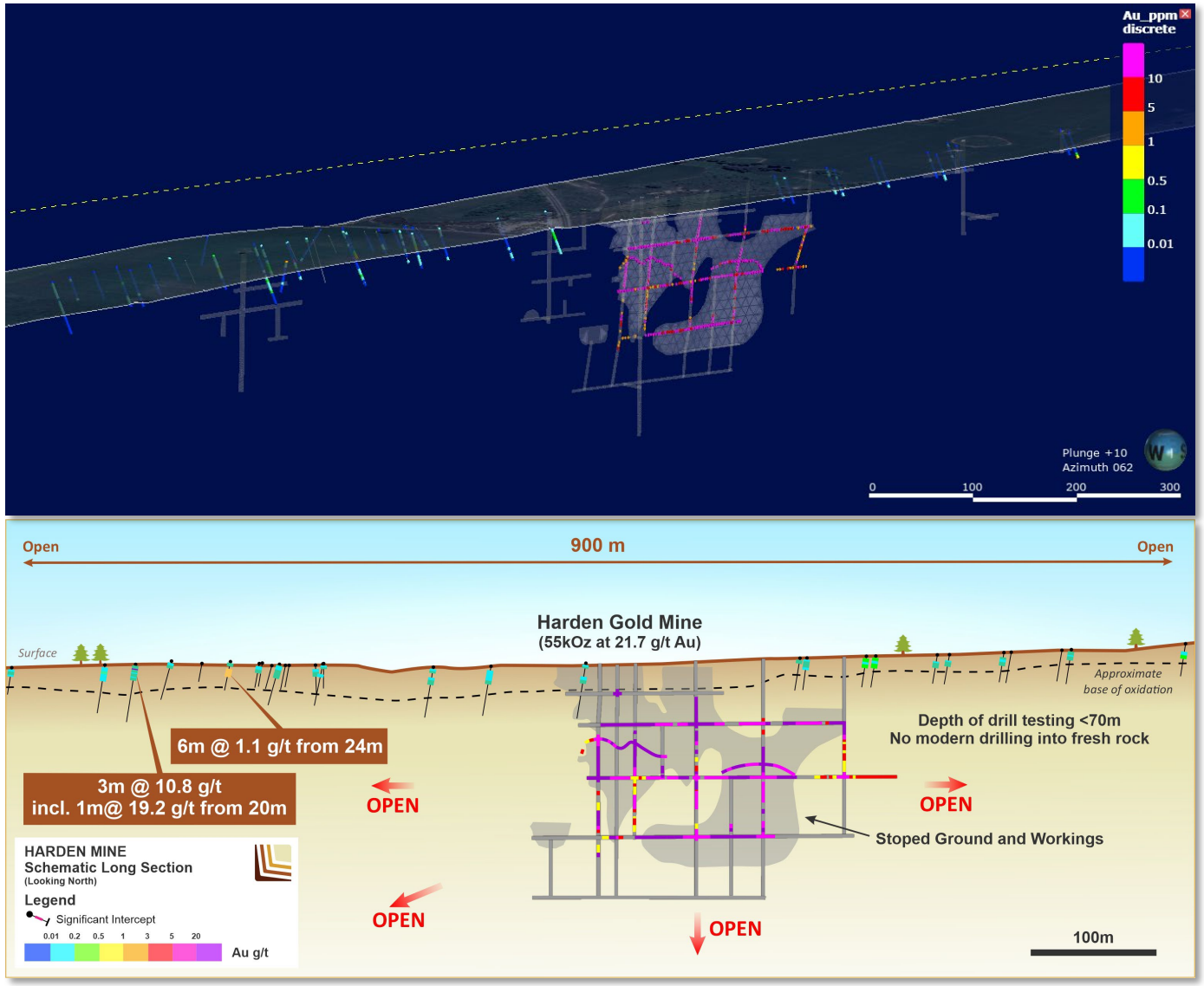


Mapped Dump Area

Tailings – the Major Distraction

Harden Tailings Dump

HISTORICAL REVIEW



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HISTORICAL REVIEW - OUTCOME

- ✓ Significant Historical production (56,131 ounces Au - pre-1912)
- ✓ Indicative modern mining widths (up to 3.7m, average 1m)
- ✓ Indicative modern mining grades (average 21.7g/t Au)
- ✓ Scale potential (Approximately 2km strike and lower-grade present)
- ✓ No exploration at depth (No fresh rock drilling ever completed)
- ✓ Low-cost resource potential (Detailed mine records)
- ✓ Clear exploration targets for mineralisation extension (cut off grades 10-15g/t Au and historical drilling of 3m @ 4.33g/t (rpt 10.8) from 21m and 6m @ 1.1g/t Au from 27m)

OUTLINE

- Overview
- Historical Data Review
- **Geological Setting**
- Mineralisation

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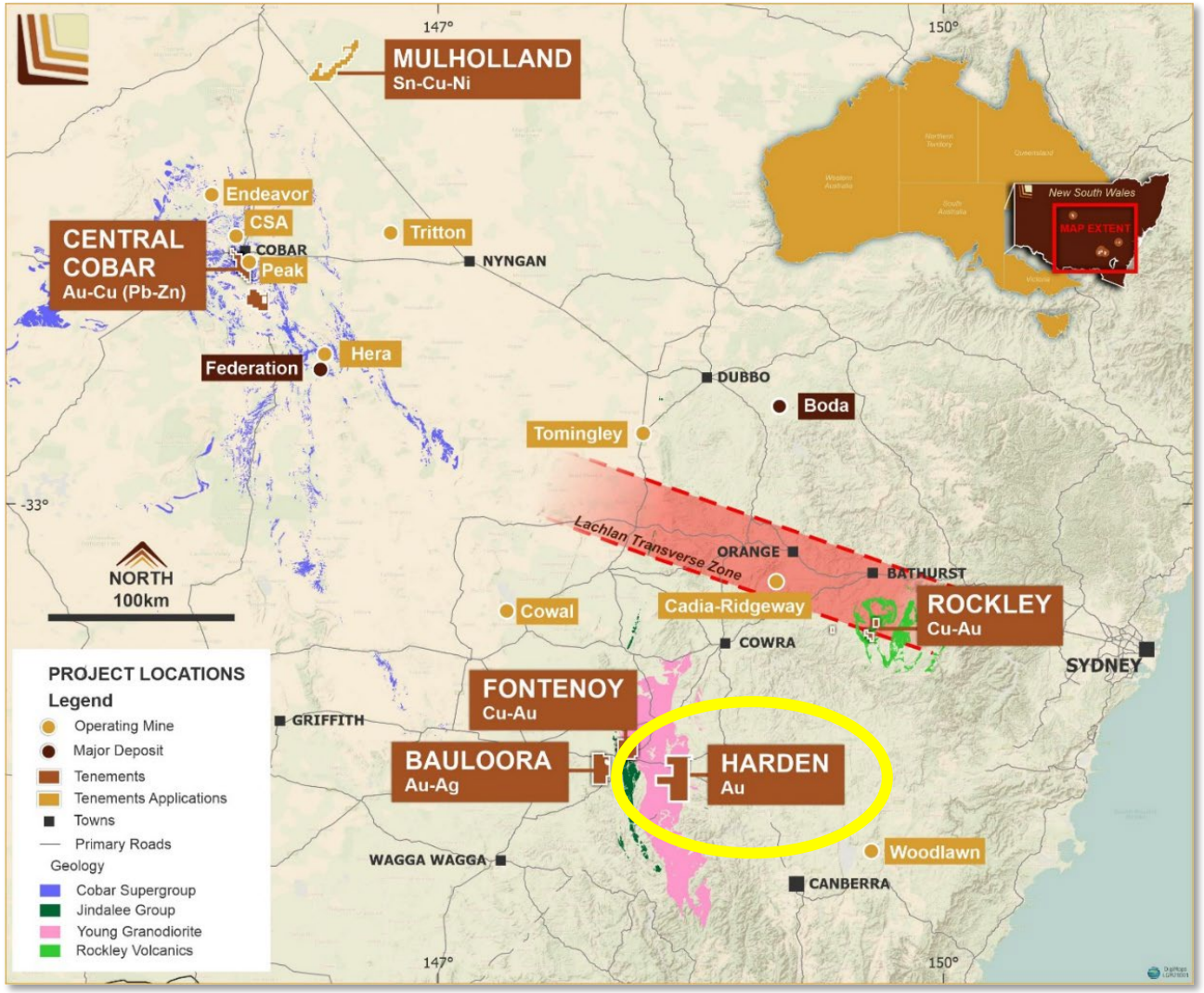
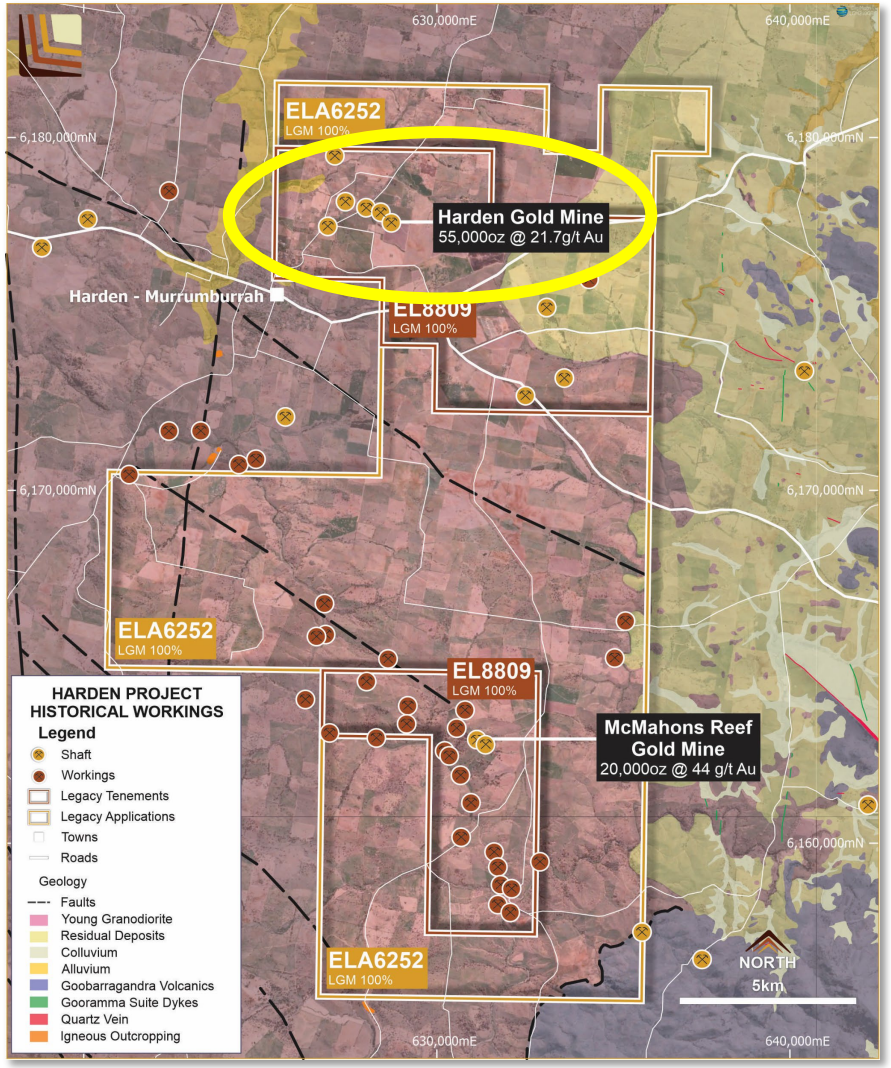
GEOLOGICAL SETTING





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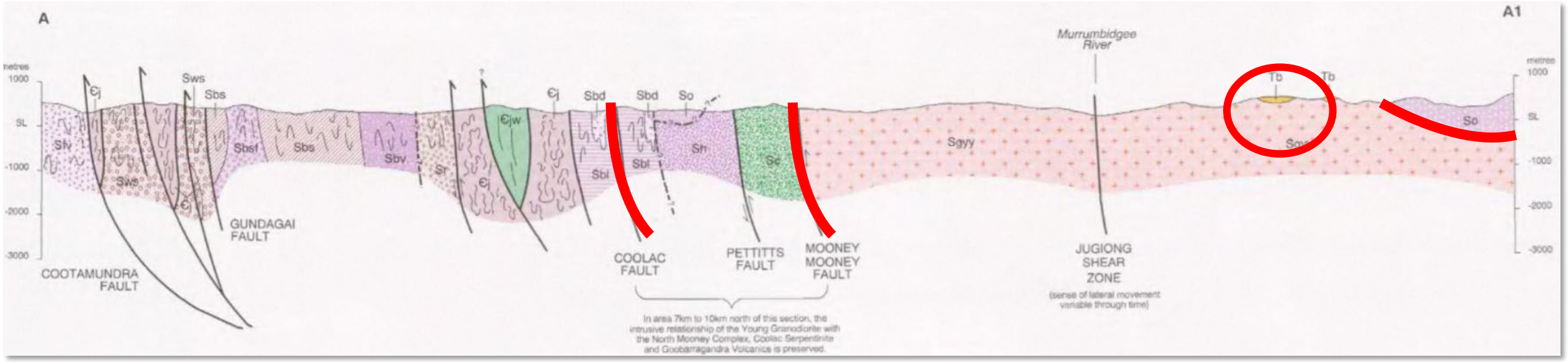
GEOLOGICAL SETTING



Indicative E-W cross section through the Harden Gold Mines

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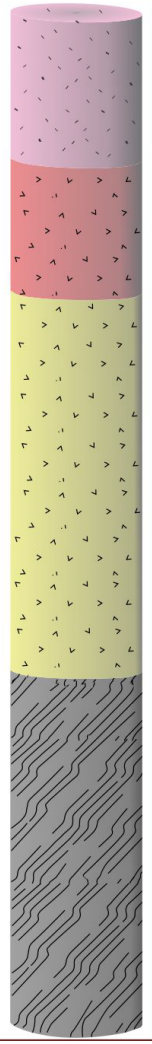
GEOLOGICAL SETTING

Age	Graphic Log	Stratigraphic Name	Lithology	Alteration	Mineralisation	
Silurian		Young Granodiorite	Granodiorite	Hydrothermal alteration assemblages: quartz, sericite, pyrite, chlorite, carbonate	Au mineralisation	Low sulphide quartz vein and possible intrusion related (>460,000 oz Au produced)
Early Silurian		Warrenoy Diorite	Diorite	Hydrothermal alteration assemblage: quartz, plagioclase, amphibole and epidot	Cu Au mineralisation	Disseminated and vein occurences of: py, cpy, bo and sp
		Yandila Volcanics	Andensitic to dactic compositions of lava flows, tuffs and volcaniclastics; metamorphosed to low amphibolite facies	Hydrothermal alteration (potassic, propylitic, sericitic and argilic) postdates metamorphism		Disseminated and vein occurences of: py, cpy, bo and sp
Cambrian Ordovician		Jindalee Group	Partly serpentinised and metamorphosed hornblende augite gabbro, dunite and peridotote	No known mineralisation		
			Partly serpentinised and metamorphosed dunite and harzburgite and clinopyroxenite	Occurences of lenticular chromite bodies		Chromite occurences
			Metamorphosed deepwater turbidites, locally quartzite, chert, and mafic volcanic rocks and volcaniclastics rock	Occurences of quartz vein hosted gold Locality (Reef Hill)		Gold occurences

Stratigraphic Column of the Harden and Fontenoy Region (source: modified David 2004)

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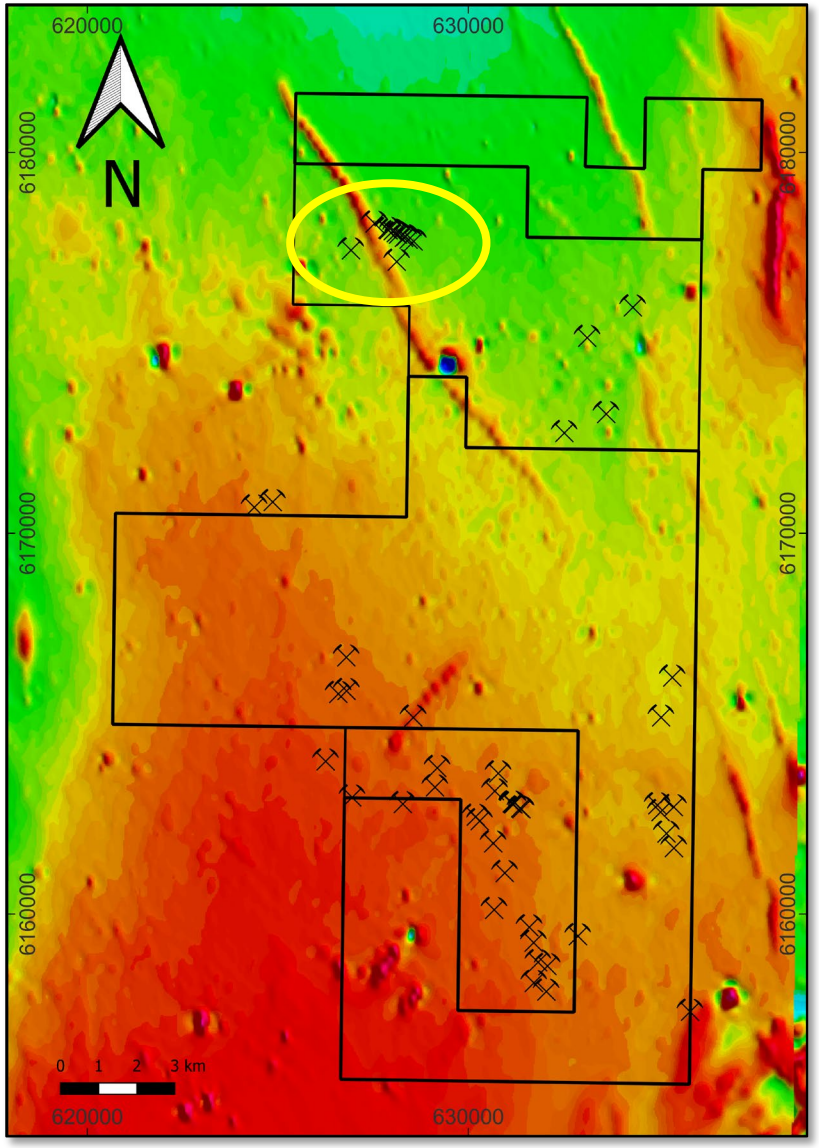
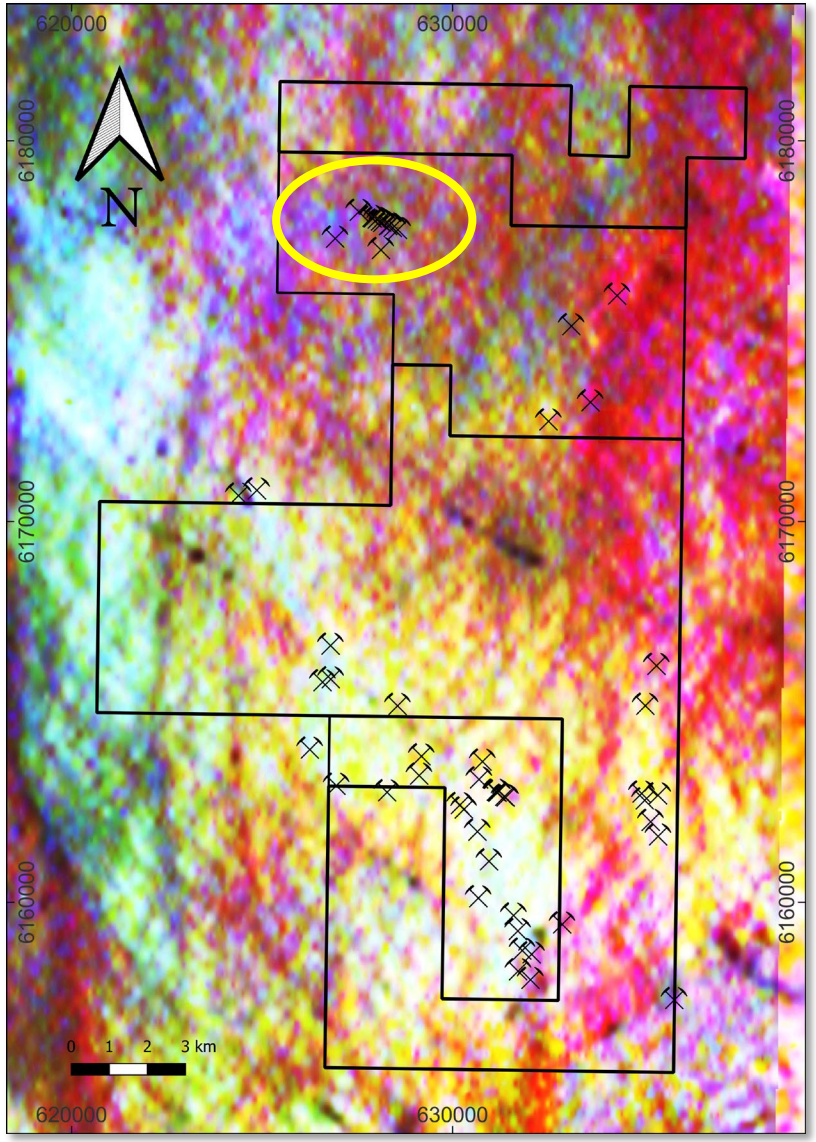
GEOLOGICAL SETTING





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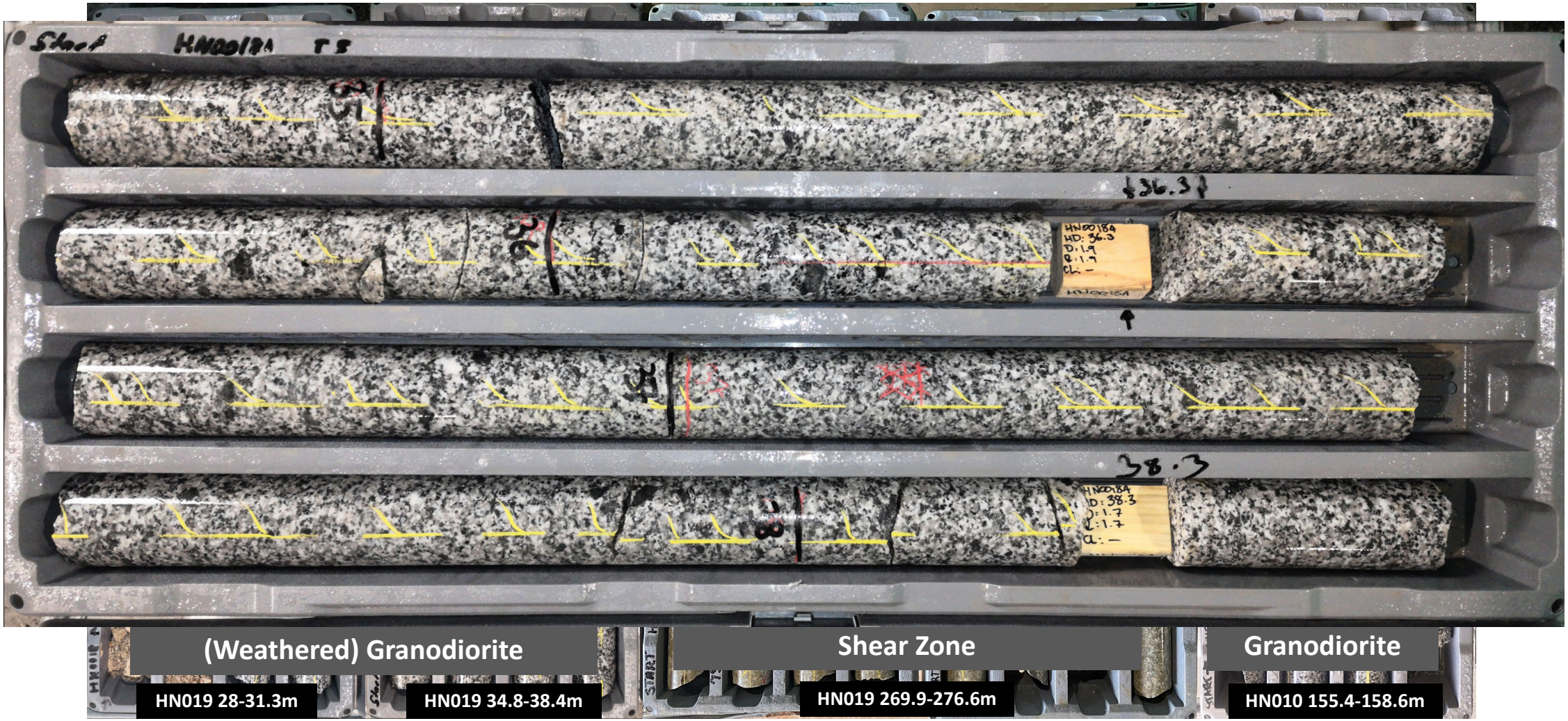
GEOLOGICAL SETTING



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OUTLINE

- Preamble
- Historical Data Review
- Geological Setting
- **Mineralisation**

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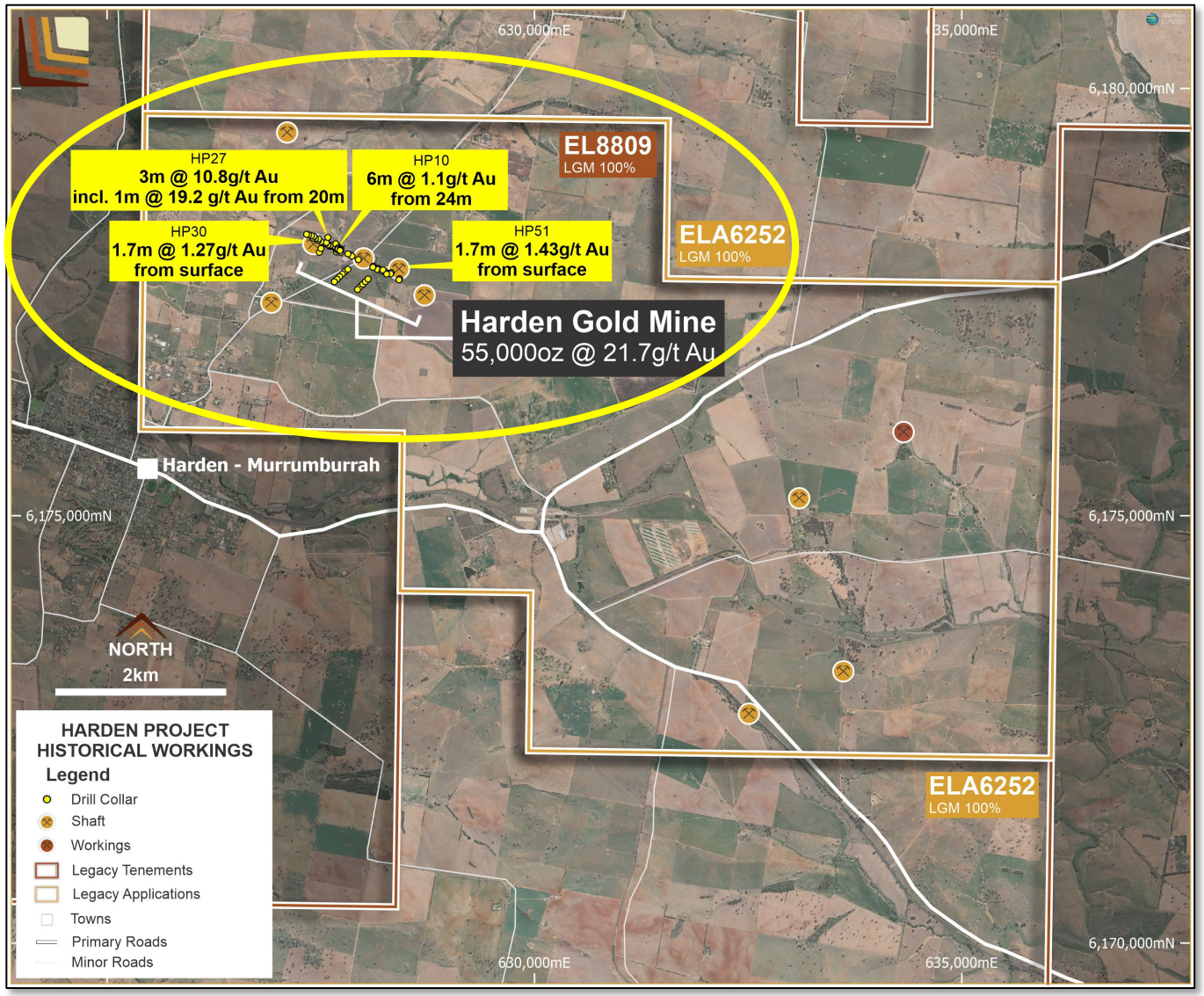
GOLD MINERALISATION



- Harden Gold Mine project area is known to host a single style of mineralisation:
  - Orogenic Gold
  - Structurally controlled gold mineralisation hosted within granodiorite
- The Harden Gold Mines and the majority of significant hard rock historical mines are located to the east of the Jugiong Shear Zone

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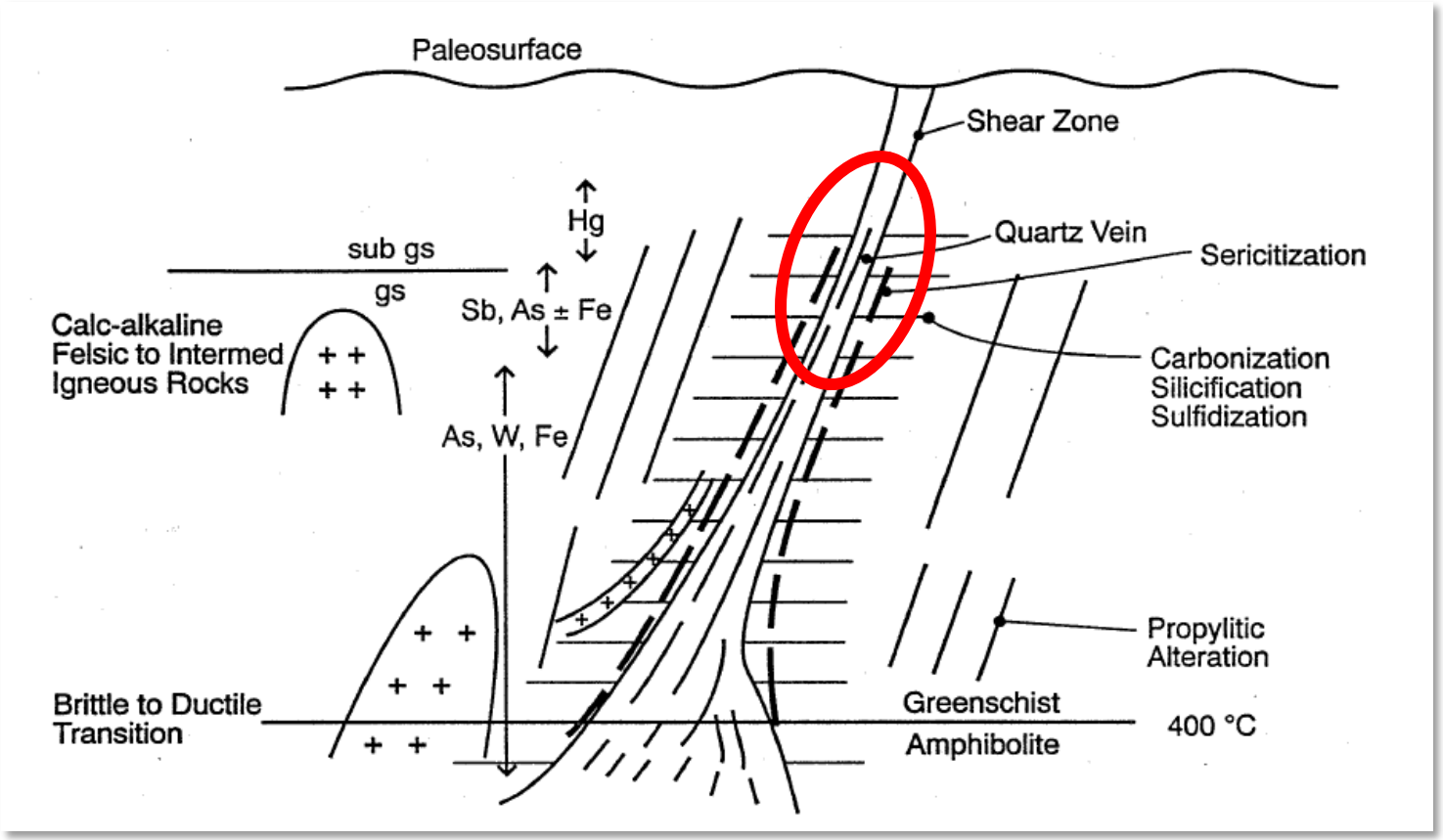
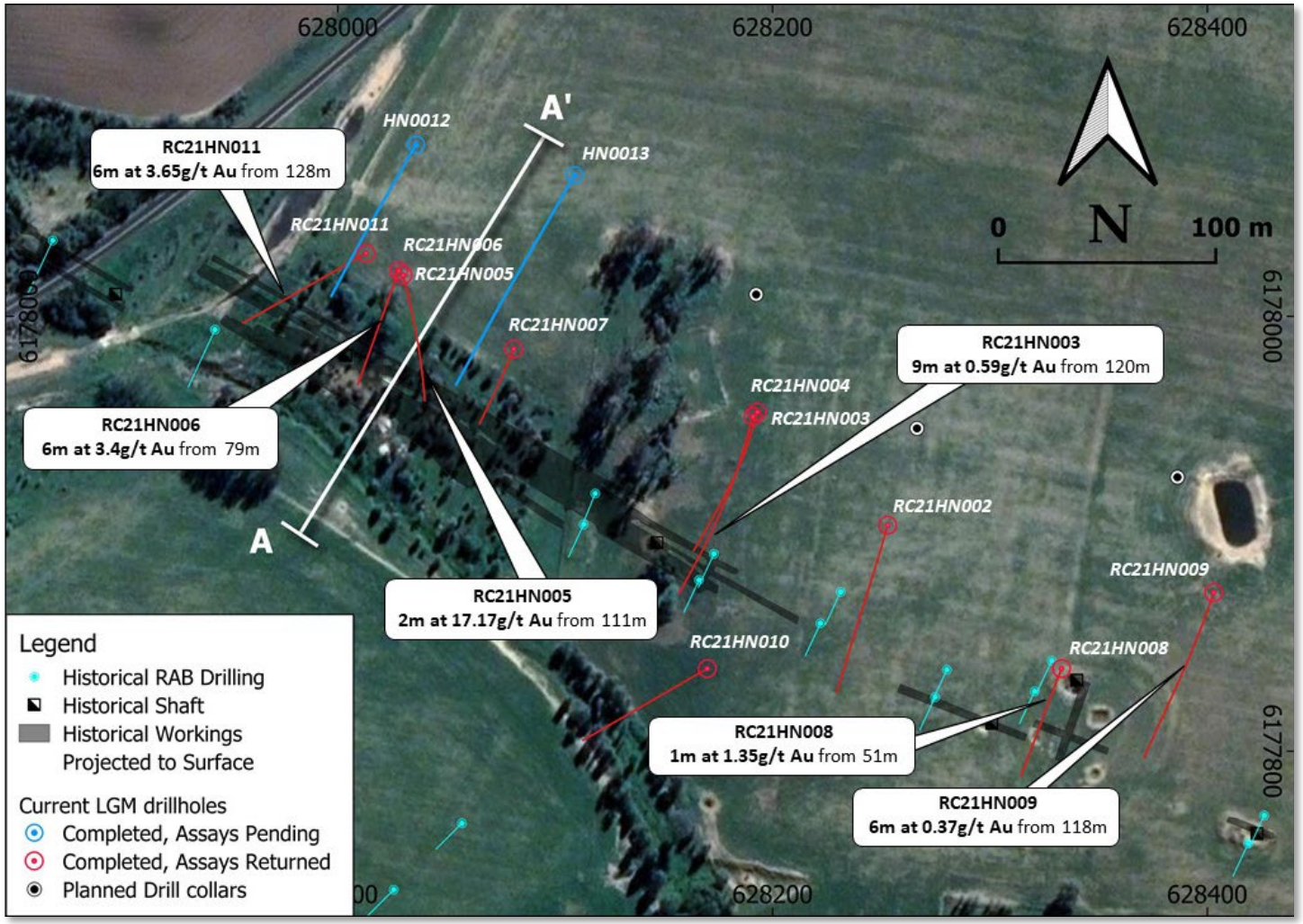
GOLD MINERALISATION



Proposed schematic geological cross section of Harden Mineralisation (Berger, 1986)

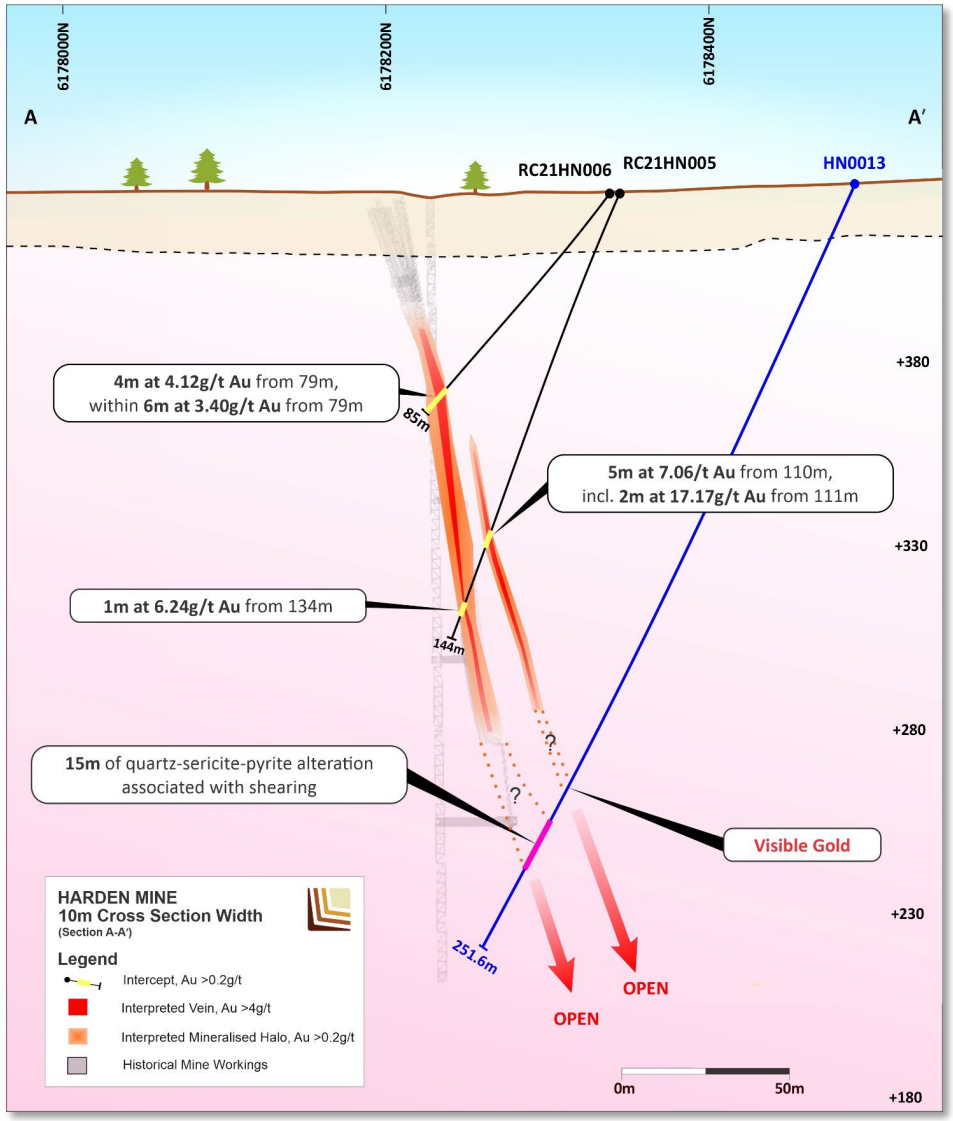
- This orogenic style gold mineralisation characteristically has great lateral and vertical extents.
- Veins here are usually 1-2m thick with a strike length observed up to 1.5kms.
- Gold mineralisation is hosted within veins of quartz-carbonate and is associated with a variety of clay minerals derived from alteration of feldspars in sheared and crushed granodiorite.

GOLD MINERALISATION



- Strikes ~105°T
- The dip of mineralisation is around 85° northerly.
- The main vein varies in width from a few centimetres to over three metres with subsidiary quartz veins
- The veins are sufficiently continuous to be traced for a kilometre and a half on the surface
- Gold occurs only in quartz veins, but quartz could have down to only a trace of gold.
- Gold occurs in association with sulphides, in particular arsenopyrite

GOLD MINERALISATION



- Mineralisation is interpreted to be localised in discrete steeply easterly pitching shoots, within an overall steeply westerly plunging mineralised zone.
- Higher grades appear to correspond to zones of generally increased dip of the shear zone.

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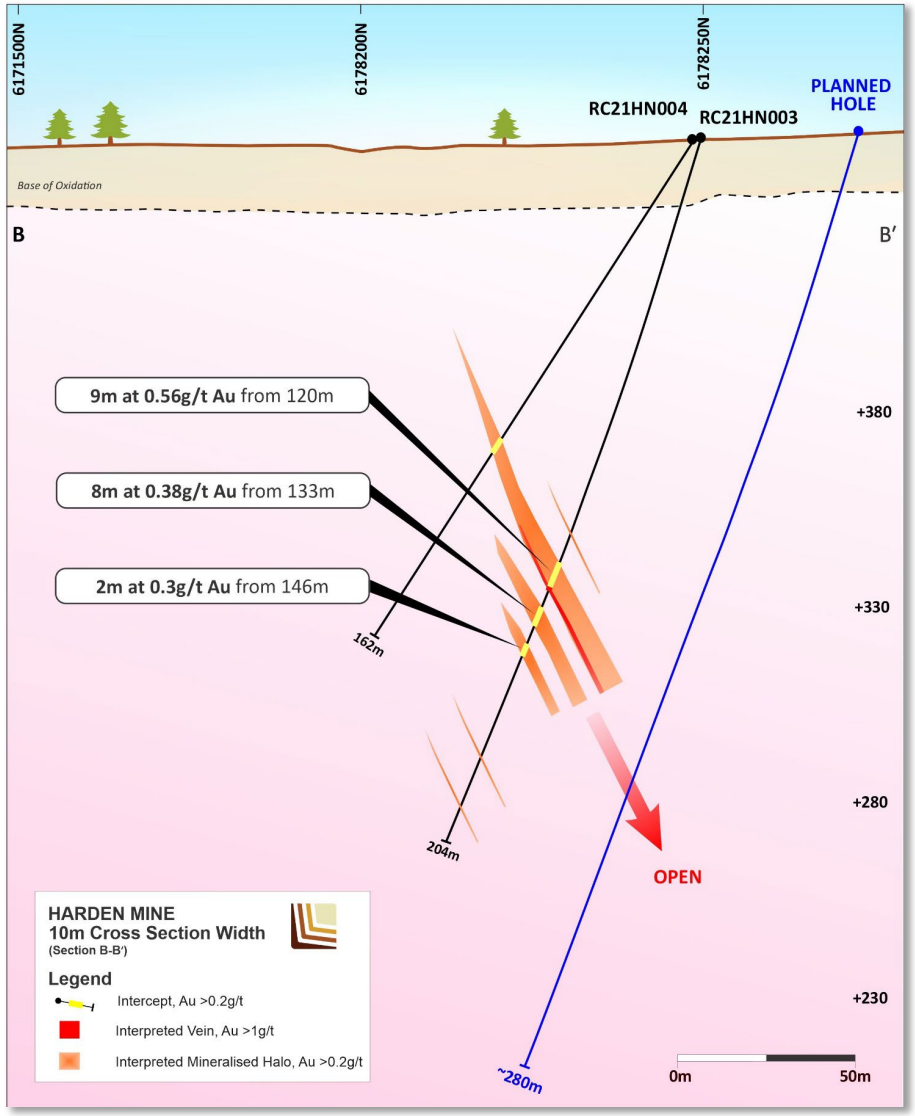
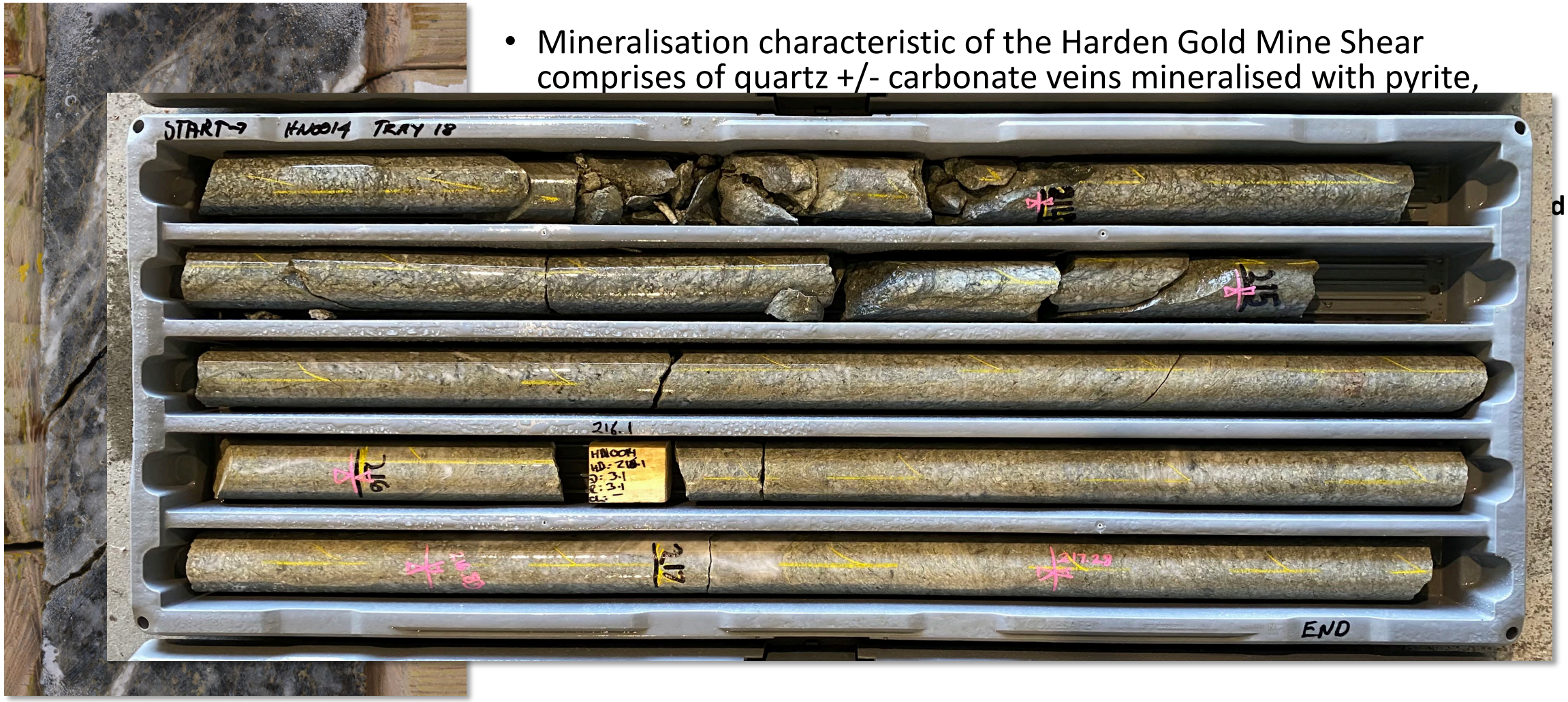
GOLD MINERALISATION



- Within this envelope, mineralisation occurs in a series of parallel zones separated from each other by less mineralised zones.
- Mineralisation is contained within quartz veins and within the mineralised envelope there appears to be a relationship between gold grade, quartz reef thickness and dip of the reef.

GOLD MINERALISATION

- Mineralisation characteristic of the Harden Gold Mine Shear comprises of quartz +/- carbonate veins mineralised with pyrite,



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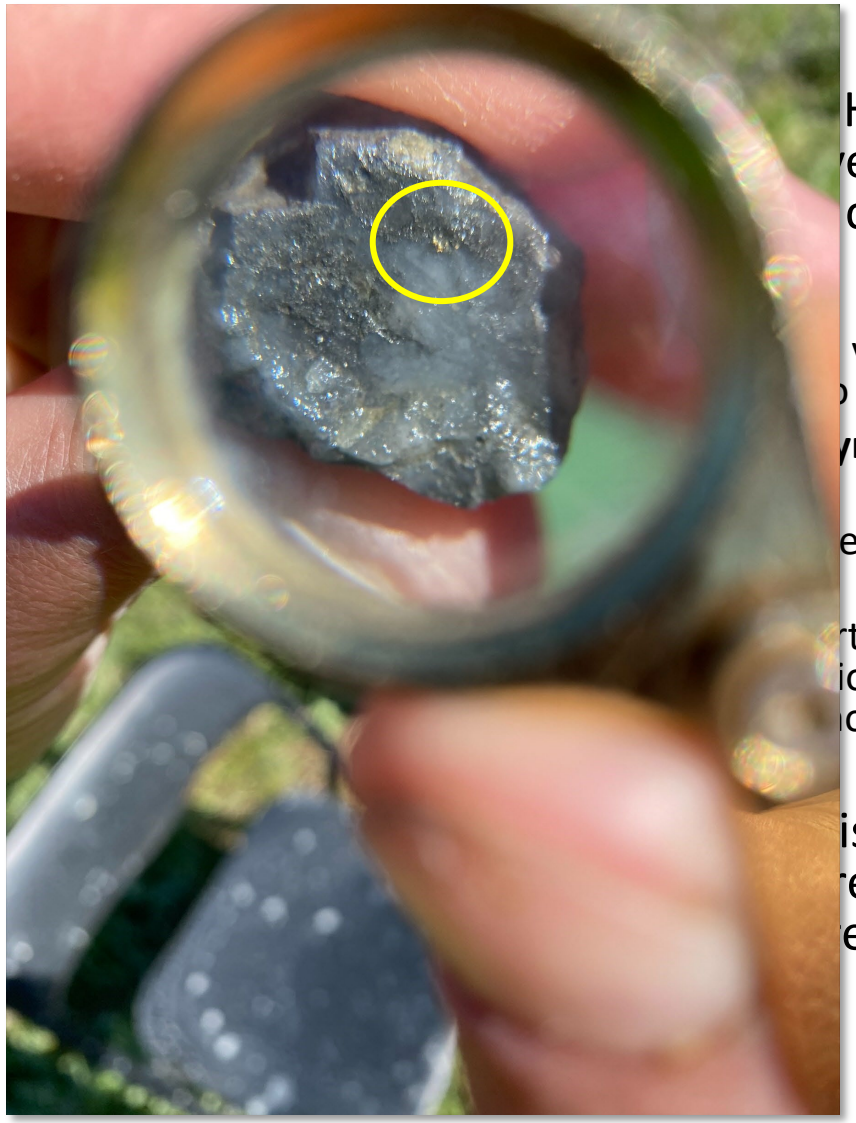
GOLD MINERALISATION



Harden Gold Mine Shear
eins mineralised with pyrite,
chalcopyrite.

veinlets up to 5cm wide striking E-W and
unmineralised.

rite and coarse arsenopyrite. Associated

etre in width, limited in extent, E-W strike,

tz veins characterised by bucky white
ional coarse free gold associated with
osted within strained or undeformed

is hosted within the strongly
ed granodiorite. The locally
eted to be associated with early
Gold Mine shear zone.

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GOLD MINERALISATION

- Mineralisation characteristic of the Harden Gold Mine Shear

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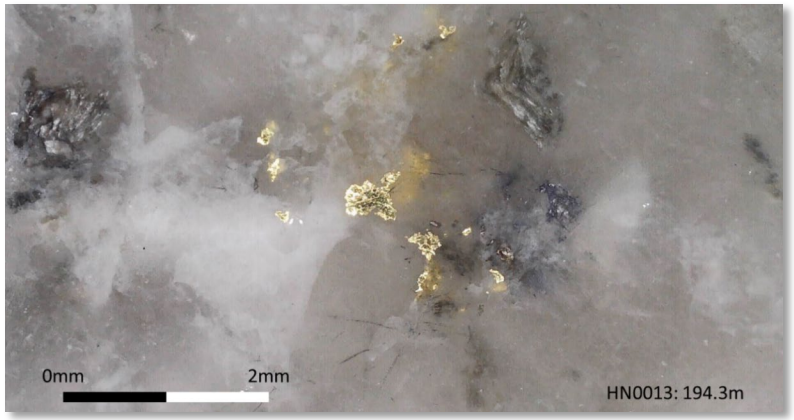
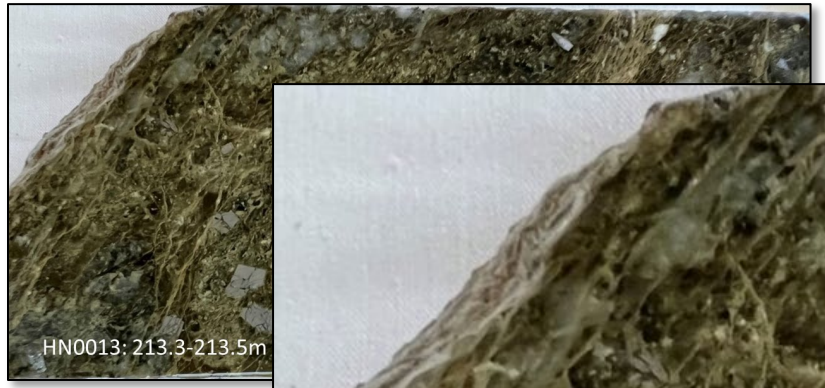
GOLD MINERALISATION

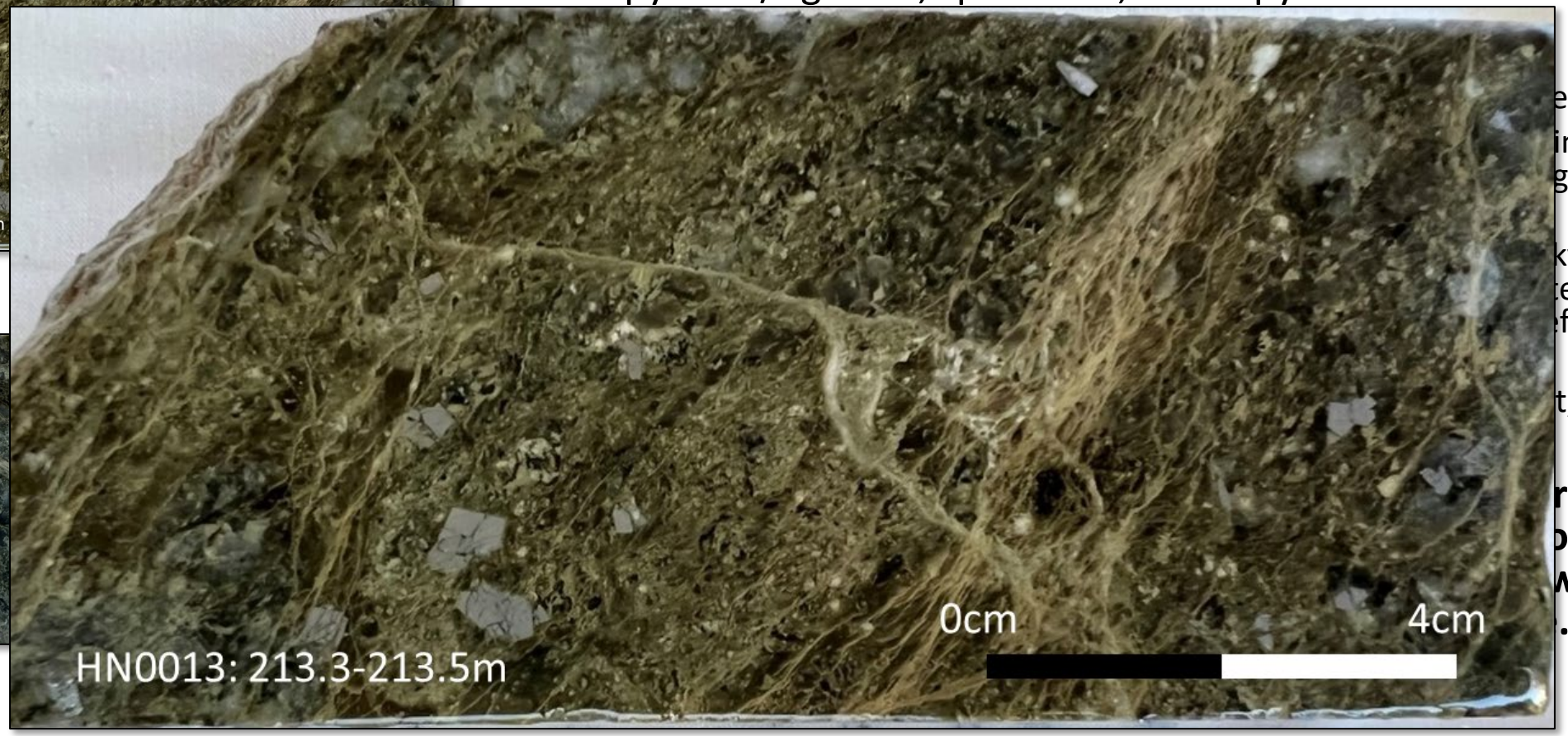


- Mineralisation characteristic of the Harden Gold Mine Shear comprises of quartz +/- carbonate veins mineralised with pyrite, arsenopyrite +/- galena, sphalerite, chalcopyrite.
- Veins are:
  1. shear hosted quartz-carbonate-pyrite veinlets up to 5cm wide striking E-W and steeply north dipping (85°). Generally associated with lower grade gold mineralisation < 2g/t Au.
  2. Dark quartz with very fine grained to coarse pyrite and arsenopyrite trending E-W and interpreted to locally plunge eastwards.
  3. silicified fault breccia zones up to a metre in width, limited in extent, E-W strike, steeply North dipping (85°) and contain varying amounts of gold mineralisation
  4. **narrow (up to 10cm) extensional quartz veins characterised by bucky white quartz with rare carbonate and occasional coarse free gold associated with galena and rare sphalerite. Veins are not confined to the strongly deformed granodiorite.**
- The vast majority of mineralisation is hosted within the strongly sheared quartz, sericite, pyrite altered granodiorite. The locally intense chlorite alteration is interpreted to be associated with early faulting and shearing of the Harden Gold Mine shear zone.

ALTERATION

- Mineralisation characteristic of the Harden Gold Mine Shear comprises of quartz +/- carbonate veins mineralised with pyrite, arsenopyrite +/- galena, sphalerite, chalcopyrite.





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ALTERATION

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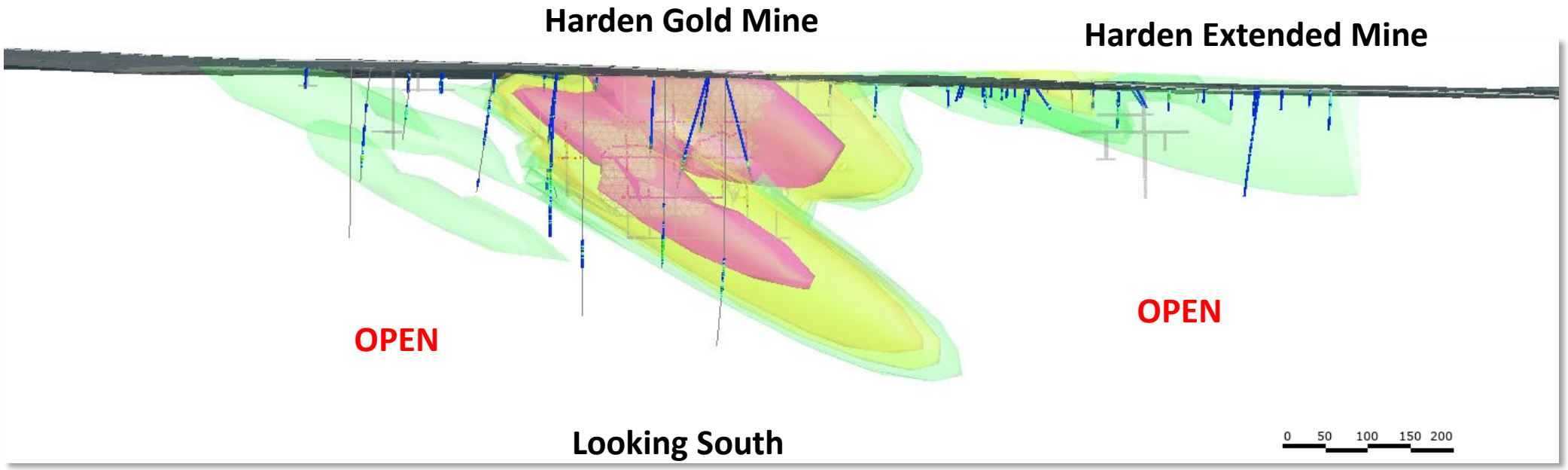
Silicified fault Breccia

LEGACY MINERALS

MINERALISATION



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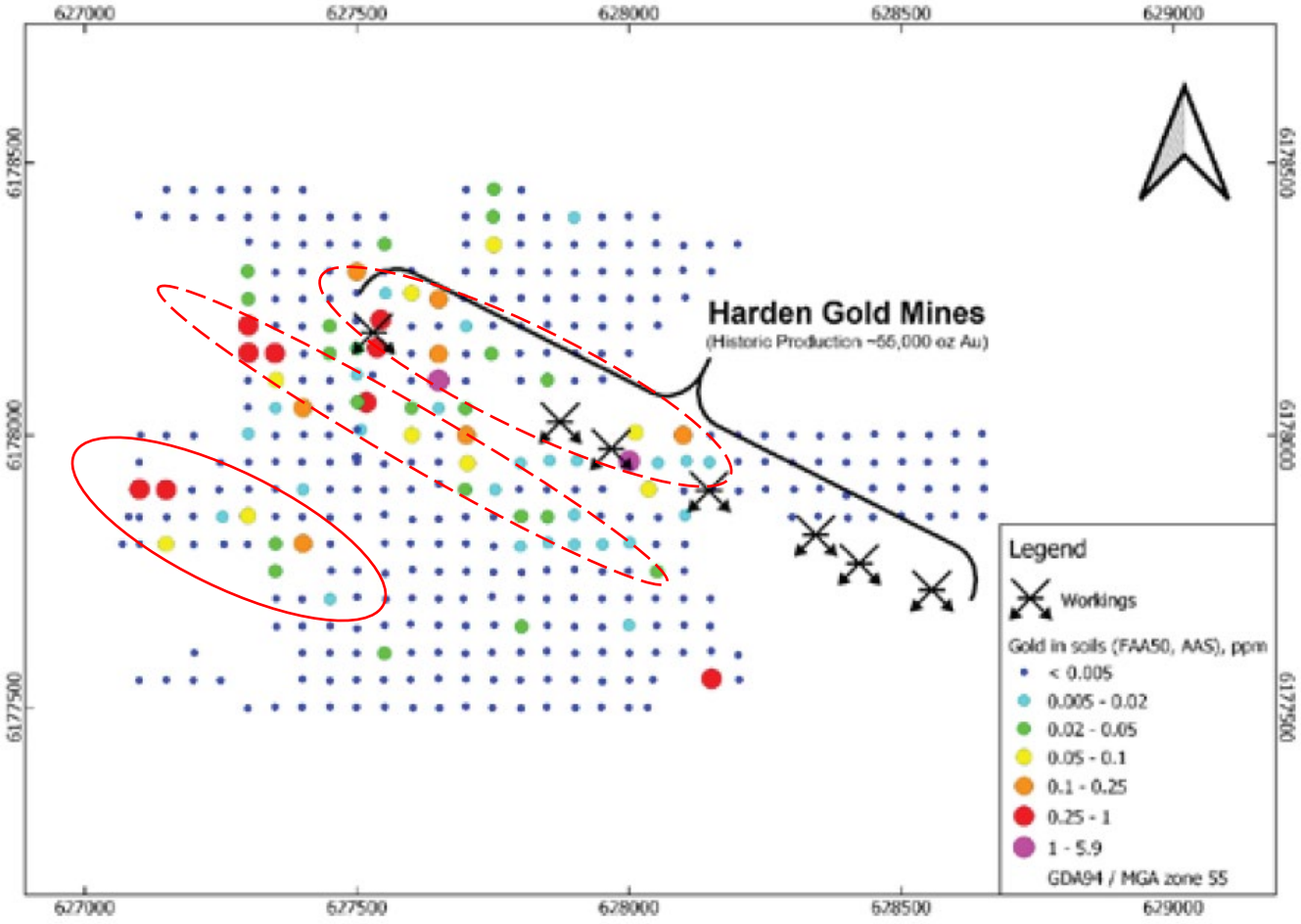
NUGGET EFFECT

- Historical assessment by Cluff identified either an inhomogeneous distribution of fine gold or gold locked in sulphides in the near surface environment.
- Inherent variability in duplicate assays
- The gold variability is currently understood to be primarily a function of inhomogeneous distribution of fine-grained gold more than it is a coarse gold problem.

Hole ID	From (m)	To (m)	Original Fire Assay (g/t Au)	Re-split Fire Assay (g/t Au)
RC21HN011	130	131	1.38	**19.35**
RC21HN006	80	81	2.26	**7.07**
RC21HN006	82	83	1.64	**6.04**
RC21HN005	111	112	32.8	**22.1**
RC21HN005	112	113	5.38	**8.4**

SURFACE GEOCHEMICAL EXPRESSION



Soil Sampling at the Harden Gold Mine Prospect showing location of gold results and historic workings

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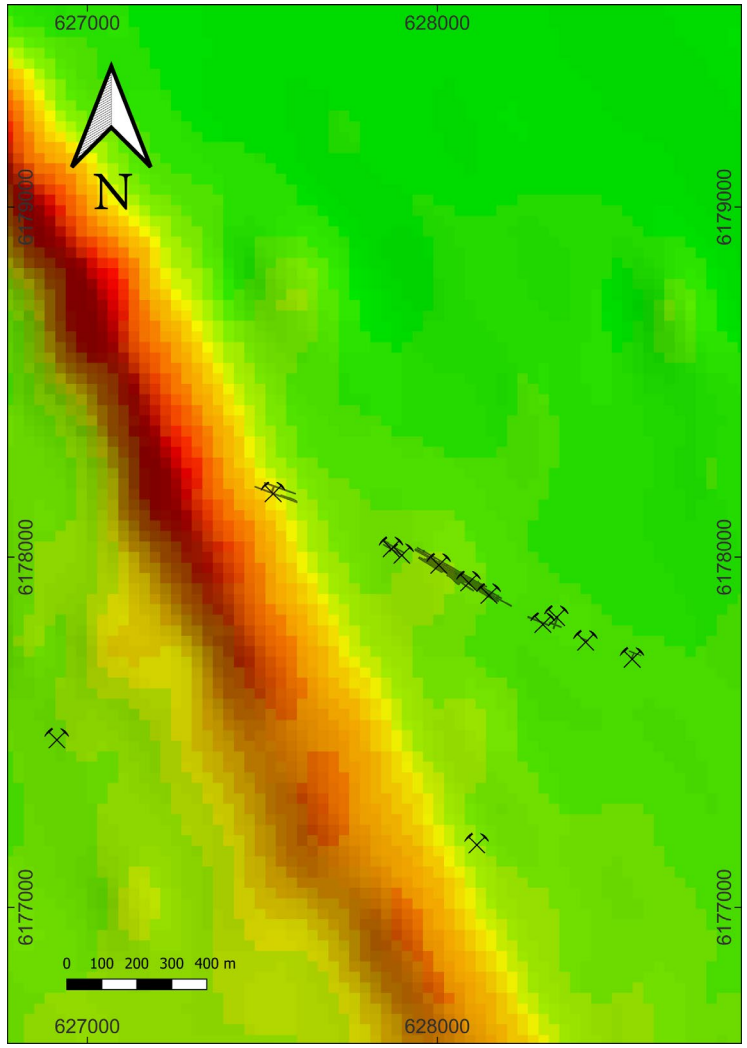
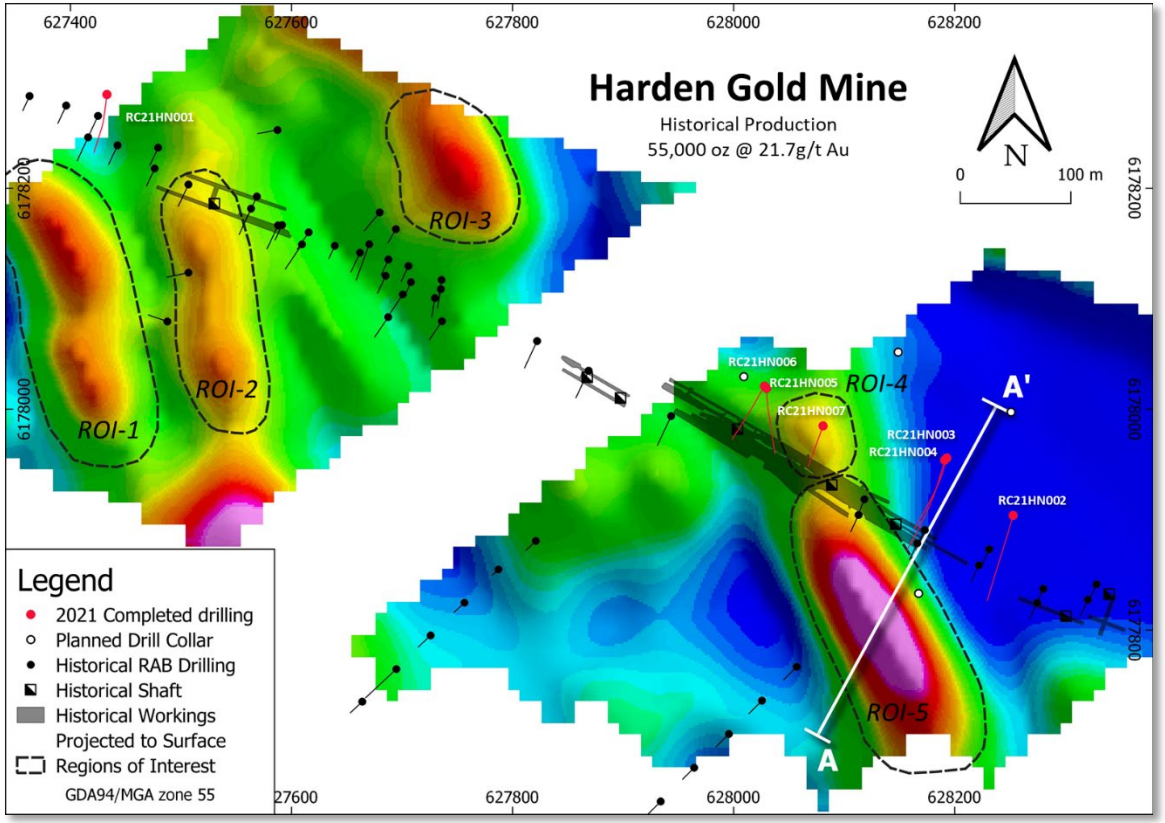
GEOPHYSICAL EXPRESSION





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CONCLUSIONS

Exploration Strategy

1. Repetitions and extensions of the interpreted westerly plunging mineralisation
2. Seek analogues of major structures with known mineralisation/anomalies

Development Strategy

1. Opportunity for moderate high-grade resource
2. High-grade nature presents trucking and external toll processing opportunities
3. Small development footprint

Challenges

1. Development sterilisation of resources in the Young-Grandiorite
2. High-grade but inconsistent mineralisation

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