

MAIDEN RESOURCE ESTIMATE FOR PERKINS WEST, GIBRALTAR

HIGHLIGHTS

- Maiden JORC Resource of 18,300oz of gold for Perkins West Deposit (Gibraltar)
- Brings total JORC Resources at Adelong Gold Project to 188,000oz
- Resource assessment shows potential for expanding and upgrading the initial MRE for Perkins West
- Next drilling program expected to commence December 2023

Adelong Gold Limited (ASX:ADG) (Adelong or the Company) is pleased to announce a maiden JORC Resource for the Perkins West deposit at Gibraltar of 18,300oz with the potential to expand that resource at depth and along strike. This brings the total resources for the Adelong Gold Project to 188,000oz.

Adelong Gold Managing Director Peter Mitchell commented:

"It is pleasing to see our exploration efforts continue to come to fruition with an initial maiden resource for the Perkins West deposit now able to be reported. This expands the project resources from 129,000oz to 188,000oz (an increase of 45% from project resources in place on acquisition)."

From drilling we have completed to date at Sawpit and our better understanding of the geology, further discoveries and expansions in resources are expected. Our focus remains targeting shallow resources that can be quickly brought into production and none of the major historical mines (with historical production of over 400,000oz of gold) have yet to be tested for extensions at depth, presenting exciting further opportunity."

Perkins West, Gibraltar

The maiden Mineral Resource Estimation prepared by Snowden Optiro (Attached to this announcement) represents an assessment of three phases of drilling completed by the Company:

- The April 2022 exploratory drilling by the Company led to the discovery of a shallow multiple vein system at shallow depths west of the Perkin's shaft at Gibraltar. This discovery hole (3DGIB003) was reported in ASX Announcement [23 May 2022](#)
- The October 2022 follow up drilling program was completed to test the area west of 3DGIB003 reported in ASX Announcement [17 January 2023](#), and showed the presence of multiple veins with some high grade intercepts that confirmed the presence of a potential deposit
- An infill drilling program was completed in March 2023 with results announced in ASX Announcement [8 May 2023](#)

As detailed in the attached Mineral Resource Estimates, the drilling results were modelled with reference to the historical records of mine workings to the east of this deposit and represent a series of 10 sub parallel veins were modelled and included in the Resource Estimate. See Figure 1.

No resources have been estimated below 200mRL so the current resource estimate is confined to the near surface resource potential.



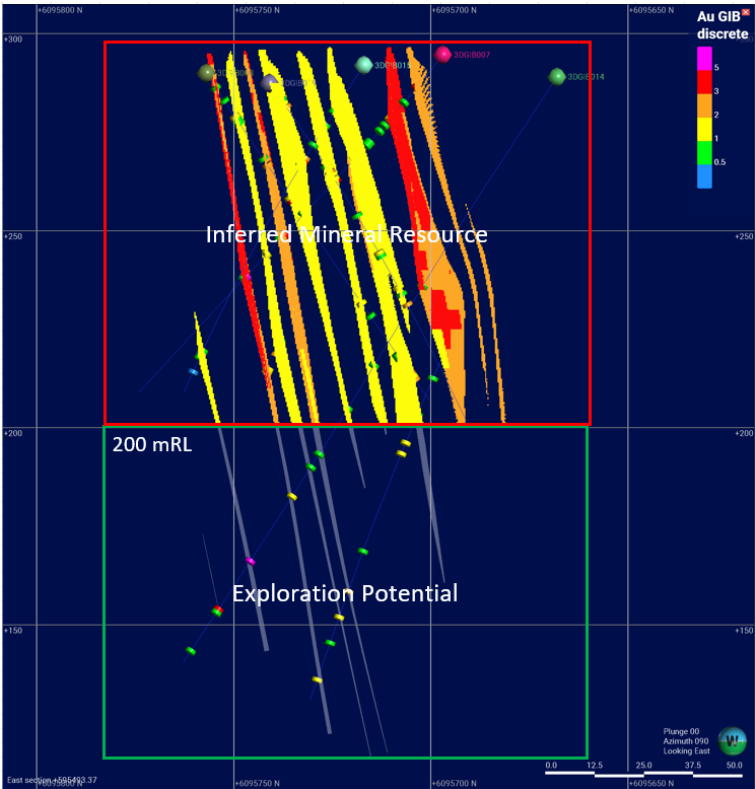


Figure 1: shows a cross section 595494mE looking east

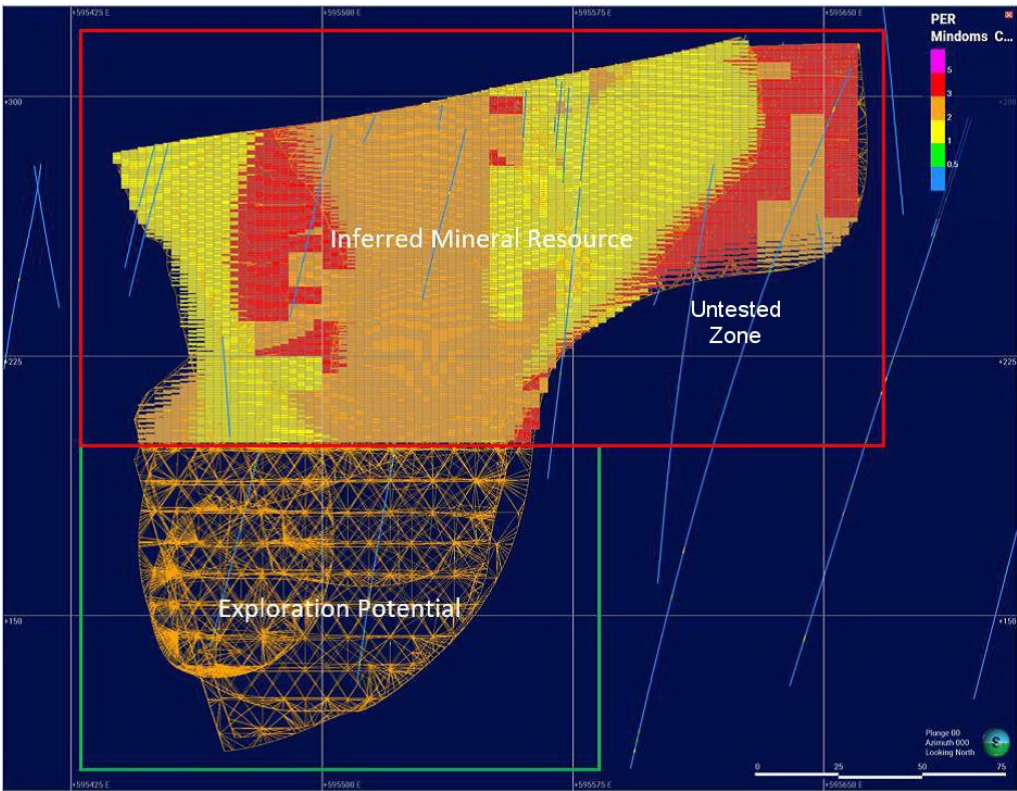


Figure 2: Longitudinal Section looking North showing the current Mineral Resource.

As detailed in the attached report, the Mineral Resource Estimate was completed to the 200mRL and took into account the majority of the >1g/t Au intercepts. Additional drilling is required to upgrade this resource and to test the deeper potential, in particular the Eastern part which has been depicted as “Untested” as a much deeper intercept below the 200mRL had given 2m @ 1.97g/t Au showing the mineralisation continues to depth but has yet to be drilled.

The total initial Maiden Resource Estimate completed by Snowden Optiro for the Perkins West Deposit is summarised in Table 1.

Table 1: JORC Mineral Resource Estimate for the Perkins West Deposit(>1g/tAu Cut Off)

Perkins West, Gibraltar				
Measured				
Indicated				
Inferred	100%	270,000	2.1	18,300
Total	100%	270,000	2.1	18,300

The Company believes that there is a reasonable expectation that the resources at Perkins West can be expanded and upgraded with additional drilling, so this estimate is the Maiden Resource for this deposit.

With the addition of a maiden Mineral Resource Estimate for the Perkins West deposit, to those reported by the Company ([ASX Announcement 31 October 2022](#)), the total JORC Mineral Resources for the Adelong Gold Project, has now increased to 188,000oz as summarised in Table 2

The Company is committed to expanding resources for the Adelong Project and a further program of drilling is planned for December 2023. There are several clear targets for achieving that objective including:

- the opportunity to expand the Perkins West deposit with additional drilling at depth as demonstrated in Figure 2
- Drilling at Sawpit in April 2023 generated some significant high grade intersections (See ASX Announcement 20 June 2023) This shows that there is a potential resource at Sawpit.
- Drilling at Caledonian in March 2023 highlighted a potential new ore shoot in the drill intercepts reported for CAL016 (See ASX Announcement 7 June 2023). Further drilling will be required to define the dimensions.

Government approvals have been received for the December drilling program and drill planning is underway . Some additional exploratory holes may also be possible at Fletchers, and we are hoping to lift our total resources to over 200,000oz. Longer term the project has many unexplored deposits that need further exploration work to generate drill targets.

Table 2: Total JORC Resources for the Adelong Gold Project (>1g/tAu Cut Off)

RESOURCE STATEMENT (JORC 2012) based on 1g/tAu Cutoff				TABLE 2
Challenger	Gold	Tonnes	Grade(g/t Au)	Gold (oz)
Measured	60%	357,000	4.17	47,900
Indicated	23%	163,000	3.5	18,300
Inferred	17%	144,000	3.07	14,100
Total	100%	664,000	3.77	80,300
Currajong West & Currajong East				
Measured				
Indicated	24%	126,000	2.57	10,400
Inferred	76%	407,000	2.63	34,400
Total	100%	533,000	2.62	44,800
Donkey Hill				
Measured				
Indicated				
Inferred	100%	103,000	5.03	16,600
Total	100%	103,000	5.03	16,600
Caledonian				
Measured				
Indicated	57%	127,000	3.90	15,900
Inferred	43%	123,000	3.04	12,100
Total	100%	250,000	3.48	28,000
Perkins West, Gibraltar				
Measured				
Indicated				
Inferred	100%	270,000	2.1	18,300
Total	100%	270,000	2.1	18,300
Measured	20%	357,000	4.17	47,900
Indicated	23%	416,000	3.33	44,600
Inferred	58%	1,047,000	2.84	95,500
TOTAL PROJECT RESOURCES	100%	1,820,000	3.21	188,000
ADELONG GOLD PROJECT RESOURCES				
Measured	20%	357,000	4.17	47,900
Indicated	23%	416,000	3.33	44,600
Inferred	58%	1,047,000	2.84	95,500

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Released with the authority of the board.

For further information on the Company and our projects, please visit:

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ABOUT ADELONG GOLD

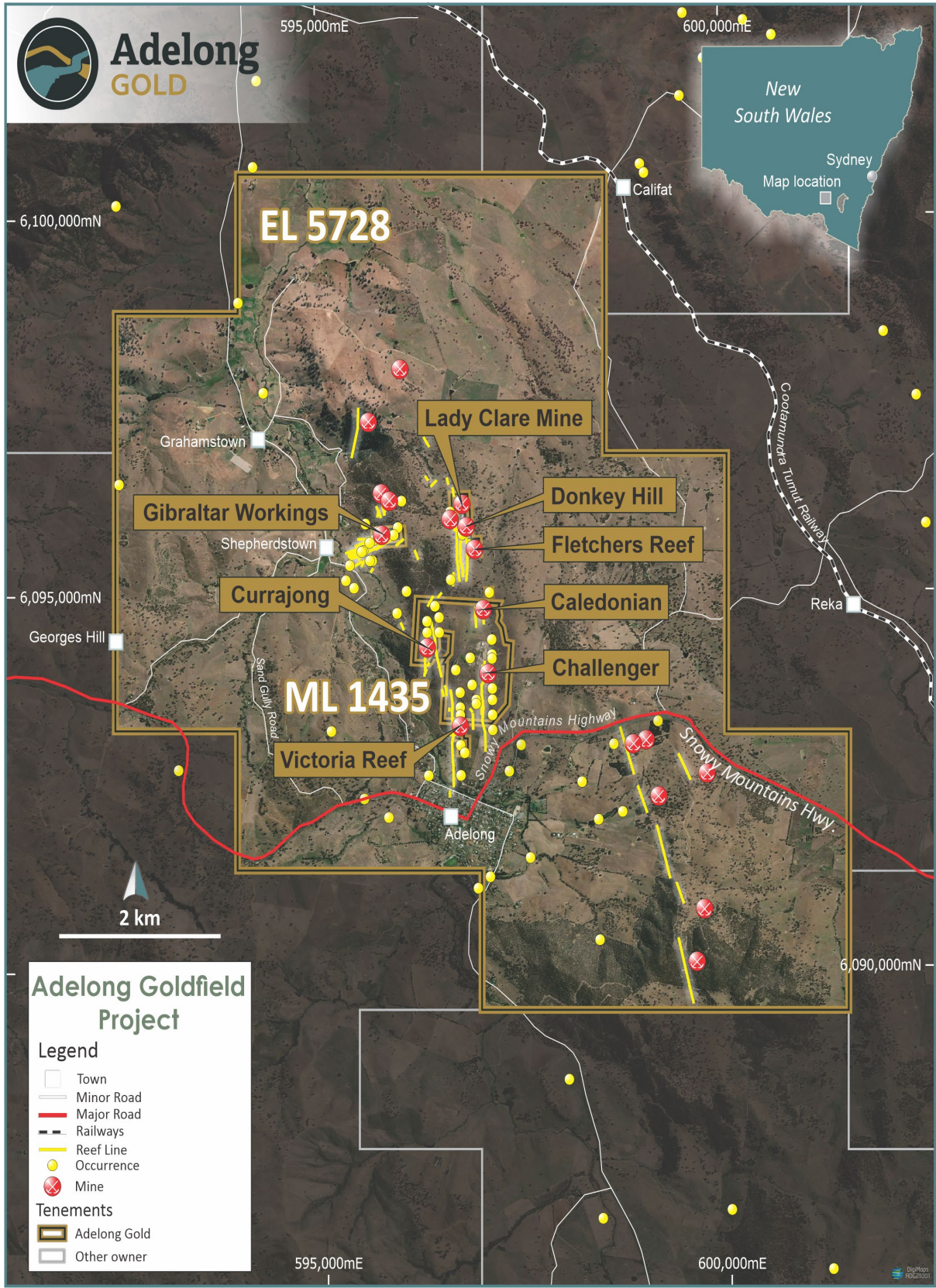
Adelong Gold Limited is a minerals explorer targeting high value commodities with a particular focus on Gold and owns the Adelong Goldfield in New South Wales (NSW). In May 2020, Adelong Gold took control of the Adelong Goldfield which covers 70km², comprising the old Adelong Gold Project situated in Southern NSW located approximately 20km from Tumut and 80km from Gundagai. The project now carries a JORC (2012) Resource, following the resource upgrade in the announcement 31 October 2022 of 188,000 oz of gold as well as 17 freehold properties with all mining and processing plant equipment onsite.

COMPETENT PERSONS STATEMENT

Information in this "ASX Announcement" relating to Exploration Results, geological data has been compiled by Mr. Peter Mitchell. Mr Peter Mitchell is a Member (#104810) of the Australasian Institute of Mining and Metallurgy, the Institute of Materials, Minerals and Mining and the Canadian Institute of Mining, Metallurgy and Petroleum. He is Managing Director and paid by Adelong Gold Ltd. Peter Mitchell has sufficient experience that is relevant to the style of mineralisation and types of deposits under consideration and to the activity being undertaken to qualify as a Competent Person (CP) as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code)

The information in this report that relates to the Perkins West Mineral Resource Estimation is based on information compiled by Mr Mark Drabble, Executive Consultant – Snowden Optiro Pty Ltd. Mr Drabble is a member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and has sufficient experience which 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 (CP) as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Drabble consents to the inclusion in this report of the matters based on their information in the form and context in which they appear.





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**Report for Adelong Gold Limited
Gibraltar Gold Project - Mineral
Resource Estimate
Project Number J2728G
October 2023**

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1 EXECUTIVE SUMMARY

Adelong Gold Limited (ADG) commissioned Snowden Optiro to prepare a maiden Mineral Resource estimate (MRE) for the Gibraltar Gold Project, located 5 km north of Adelong in southern New South Wales. The Adelong Goldfield produced ~800,600 ounces of gold between 1857 and the 1940s, with approximately half produced from the underground mining of subvertical quartz reefs (Rankin, 2016).

The Gibraltar Gold Project has historical underground workings at the Radcliffs, O'Briens and Perkins mines. Mining of the shafts from 1885 to 1916 (with intermittent working until 1947) produced ~125 Koz of gold with mining grades averaging 30 g/t Au (Basden, 1987). The shafts reached depths of 213 m, 366 m, and 143 m deep (respectively).

ADG has carried out programs of mapping and reverse circulation face sampling (RC) drilling to test the mineralisation at the Perkins Shaft area of Gibraltar. This information forms the basis of this maiden MRE.

The interpretation used plans of the historical mine workings, geophysical surveys, RC chip photography and drillhole logging to prepare a geological model. The mineralisation consists of east-northeast to west-southwest striking subvertical narrow reefs of quartz veinlets within the Wondalga Granodiorite host rock with northwest trending mafic dykes (85°/045°) terminating the western end of the reefs. Reef widths range from <1 m to 5 m thick and the model consists of 11 mineralised reef veins. The average dip is 78° towards 180°, with a plunge of 110° in the plane.

The 2023 MRE covers the Perkins Mine area, and there is a fault offset between the Perkins and O'Briens workings to the east. Due to the lack of accurate underground surveys of development or stoping, the MRE has not been depleted for underground mining. This is not considered a material issue as only two intersections of fill-in drilling were intersected, and these are on the southern area of the 2023 MRE models.

The October 2023 MRE is reported in Table 1.1 using a 1 g/t Au cut-off grade and down to 120 m below natural surface. There is no significant weathering profile, and a thin soil profile has been depleted so all material is classified as fresh.

Table 1.1 October 2023 MRE reported using 1 g/t Au cut-off grade

Classification	Tonnes	Grade (Au g/t)	Gold (ounces)
Inferred	270,000	2.1	18,300
Total	270,000	2.1	18,300

The Competent Person (CP) for the data is Peter Mitchell who is the Managing Director of Adelong Gold Ltd and has a long history with the project with numerous site visits. He is responsible for the drilling design, data collection procedures, data quality and is responsible for Section 3 of this report and Sections 1 and 2 of the JORC Table 1.

Mark Drabble is Executive Consultant for Snowden Optiro Pty Ltd (SO) and is the Competent Person for modelling, estimation and Section 3 of the JORC Table 1. Mark is familiar with narrow vein gold mining with over 30 years' experience in production and consulting.

1.1 Geology

This information is referenced from Rankin (2016). The dominant rock types in the Adelong area are the Ordovician age Wondalga Granodiorite and the Silurian age Avenal Basic Igneous Complex (ABIC). The Wondalga Granodiorite is a 30 km wide pluton covering the area from north of Adelong to Batlow in the south. It is fine to coarse grained, light to medium grey and strongly deformed with a north-northwest to south-southeast foliation orientation. The ABIC is a group of norite to dioritic stock like intrusives with a north-south trend.

Two sets of crosscutting mafic dykes are found in the project area. The early set is thought to be related to the intrusion of the Wondalga Granodiorite. These are sheared, altered to schists and are thought to be associated with gold mineralisation. The second set is undeformed and related to the ABIC intrusion.

Aplite dykes and quartz veining are associated with the early mafic dykes, and these are thought to be a potential conduit for mineralisation. Mineralisation generally consists of north-northwest trending subvertical high-grade veins or shear structures associated with quartz hosting gold and minor base metals mineralisation. The Adelong area has been subject to significant amounts of deformation and hydrothermal alteration.

1.2 Data quality

Data comprises RC drillhole information (logging, assays), geophysical images, historical maps and cross sections, reports and mapping. The drill collars have been surveyed by handheld Garmin 64st global positioning system with the average of three readings over 24 hours used and the datum Geodetic Datum of Australia 1994 (GDA94) Zone 55. The topography has ± 1 m accuracy based on a recent light detection and ranging (LiDAR) survey.

RC chips have been logged geologically for rock type, colour, presence of sulphides, quartz and alteration on 1 m intervals. A representative sample is stored in chip trays which have been photographed. Sample quality assurance and quality control (QAQC) is limited to lab duplicates and the variability of repeat values is within target ranges. Snowden Optiro considers that the database is of sufficient quality to prepare an MRE.

1.3 Resource estimation

Leapfrog Geo was used to prepare the mineralisation interpretations, which was formed from the selection of assay values with a nominal cut-off grade >0.5 g/t Au. The continuity of the vein reefs was assessed in 3D and referenced the drive orientations in the Perkins underground workings. The mineralisation is not visually obvious within the granodiorite host rock, so the interpretations are primarily based on continuity of mineralised intersections.

The vein models were modified to control the edge thickness and extents by manual polylines. Constraints of 1 m minimum width, 2 m internal dilution and a maximum projection distance of 50 m past the last drill intersection were applied. Eleven mineralised vein models were interpreted, and these were used for sample selection and estimation. Geostatistical analysis showed the populations of each of the domains were too low to support valid variography so a collective variogram was used. Variography was done using a Normal Scores Transformation with a back transform.

The estimation used ordinary kriging for grade estimation within hard boundary domains. Due to the high nugget the local grade estimate is considered to have low confidence and coupled with low sample numbers per domain the estimate used a single pass to smooth the estimated grades. The block model with parent cells of 10 m x 5 m x 5 m (XYZ) and sub-cells of 2.5 m x 0.3125 m x 0.3125 m were prepared using Leapfrog Geo and Leapfrog Edge estimation software.

A density value of 2.7 t/m^3 was used as the dominant host rock is unweathered granodiorite.

The MRE is classified as an Inferred Mineral Resource on the basis that geological continuity is supported by the orientation of the historical workings. Variography showed that the grade continuity is highly variable, with a high nugget requiring smoothing of the grade estimate. On that basis, grade continuity can only be inferred and would require further drilling to convert to a higher confidence category.

The reporting cut-off grade of 1 g/t Au reflects the potential for underground exploitation rather than open pit. The ~100 m depth (due to the steep topography) for reporting is considered to be appropriate for constraint for reasonable prospects for eventual economic extraction (RPEEE). No mining method is assumed at this stage. The MRE is the maiden Mineral Resource.

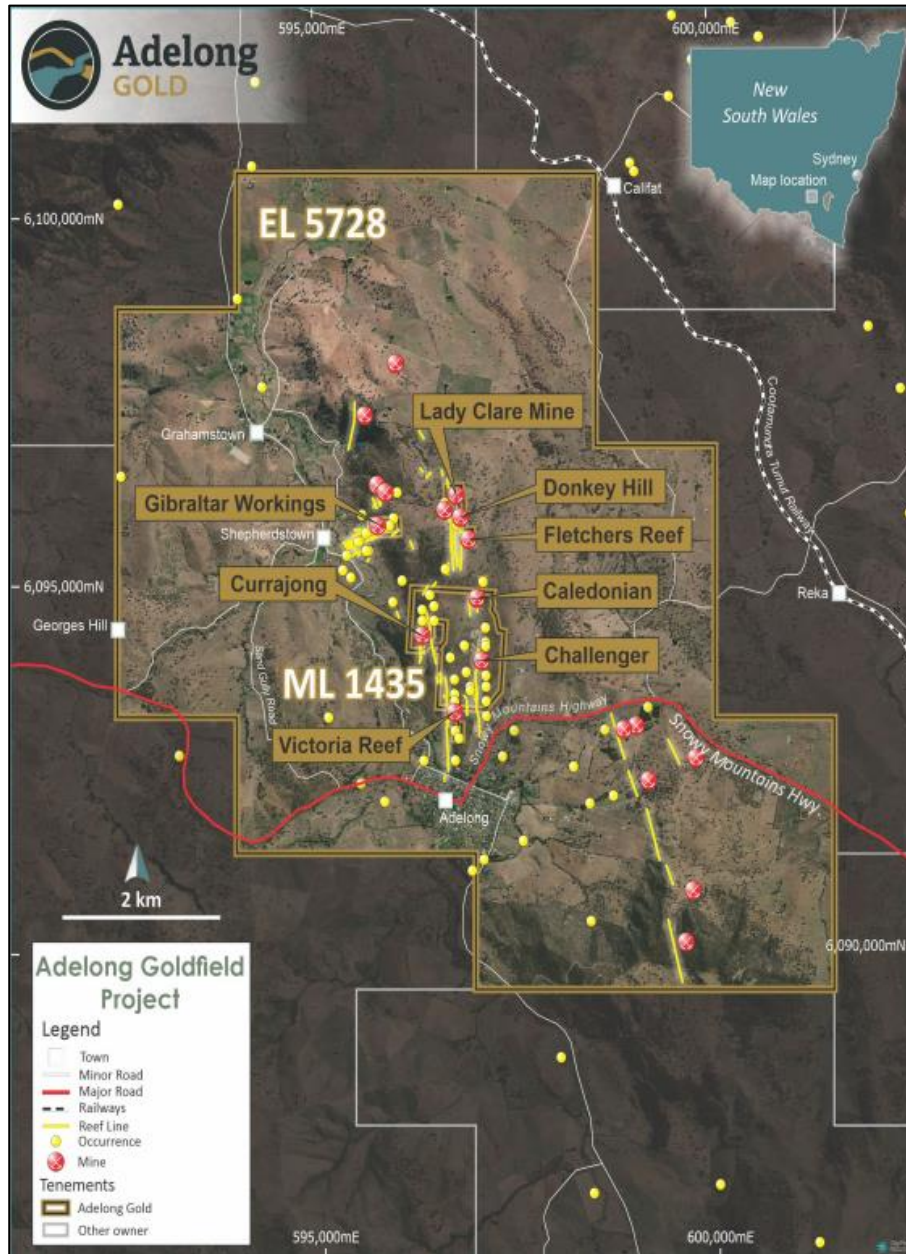
Recommendations for future MREs include:

- Density measurements of each lithology and mineralised zone.
- Diamond drilling to get structural readings of veins, contacts and foliation.
- Validate thicker intersections with twinned drillholes.
- Construct depletion models of historical workings.

2 BACKGROUND

The location of the Gibraltar prospect is shown in Figure 2.1

Figure 2.1 Adelong prospect location plan showing Gibraltar workings



Source: ADG

2.1 Geology

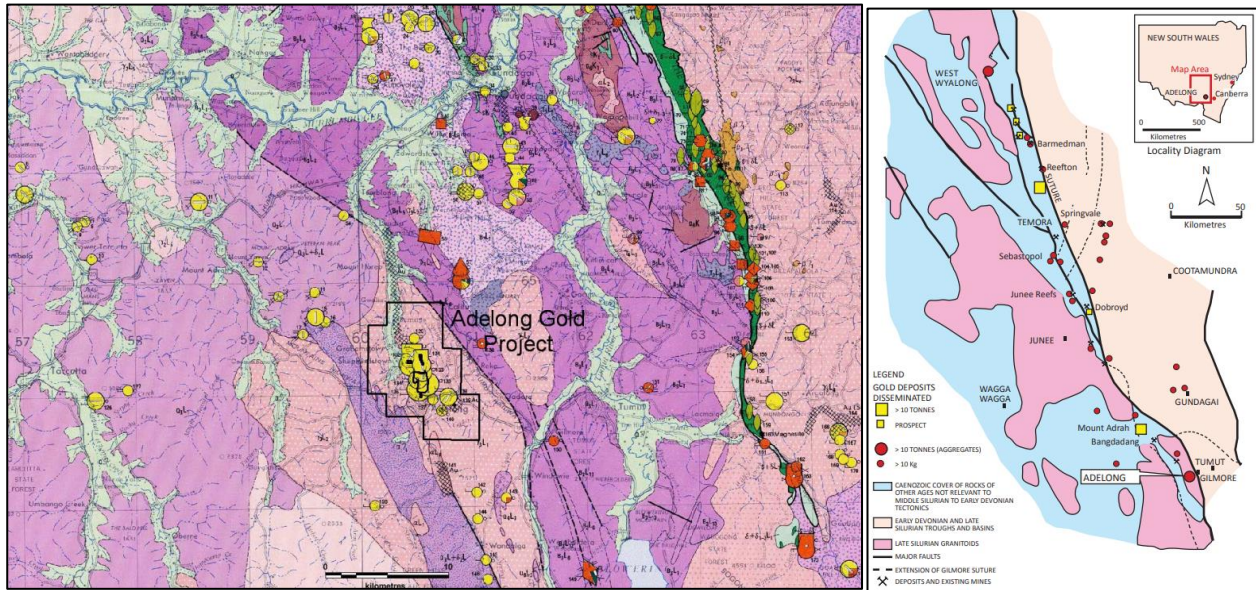
Geological summaries are reprised from Rankin (2016). The Adelong project area is located at the southern end of the Lachlan Fold Belt, a Cambro-Ordovician to late Devonian orogenic belt that is host to many mineral deposits and mines. Locally, the Lachlan Fold belt has the north-northwest to south-southeast trending Wagga-Omeo Belt and Tumut Trough as subdomains, with Adelong located on the eastern margin of the Wagga-Omeo Belt.

This Wagga-Omeo metamorphic terrane has S-type Siluro-Devonian granitoids and I-type late Ordovician-early Silurian granitoids along with numerous small gabbroic stocks (Figure 2.2).

The Tumut Trough (to the east of Adelong) has Silurian flysch related sediments with bimodal volcanics and volcanoclastic sediments, along with minor S-type and I-type granites. The boundary between the two

domains is the major north-northwest trending Gilmore Suture, a west dipping collision contact and major strike slip fault discontinuity. This zone broadly defines a 300 km long zone of copper and gold mineralisation with several major mines of up to 2 Moz gold.

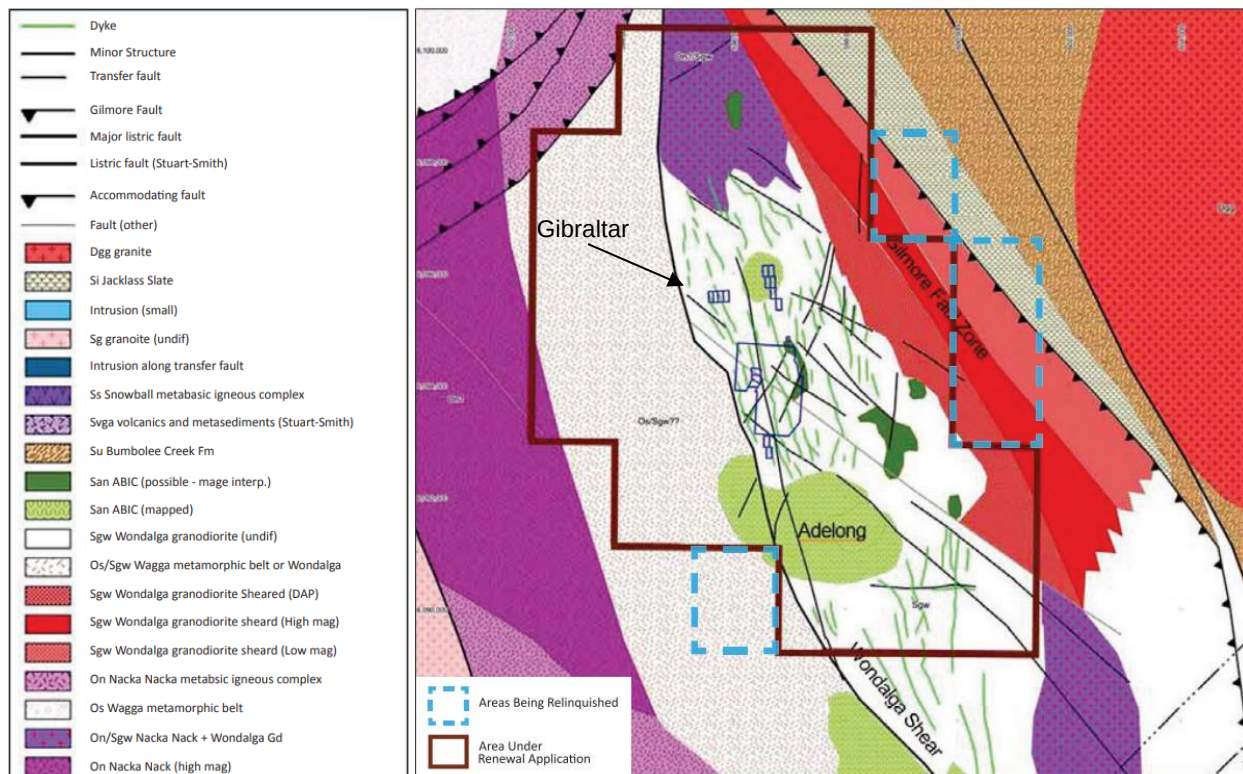
Figure 2.2 Regional geology and metallogenic maps



Source: ADG, Rankin, 2016

Locally, the Gilmore Suture bifurcates into the Gilmore Fault Zone which passes to the east of Adelong. A subsidiary structure called the Wondalga Shear Zone passes to the west of Adelong. The local geology is shown in Figure 2.3. The dominant rock type is the Wondalga Granodiorite (red and white shading) and the ABIC (dark green shading). There are two sets of mafic dykes trending north-northwest to south-southeast to north-south (green lines) with an earlier set related to mineralisation and shearing and the second set undeformed and associated with the ABIC. Aplite dykes are also associated with the early set of mafic dykes, and these are potential conduits of the mineralisation.

Figure 2.3 Local geology map



Source: Rankin, 2016

2.2 Deposit type

The deposit type is granodiorite hosted shear zones with quartz veins and veinlets. The geometry is of narrow subvertical reefs with high-grade mineralisation. The Wondalga Granodiorite is strongly deformed and shows shearing, hydrothermal alteration and late-stage mafic intrusions. Mineralisation is in sheeted vein reef arrays with an aggregate strike length of approximately 15 km, depth extent of 500 m, average width of <2 m and average grade of 1 oz/t to 7oz/t (Rankin, 2016).

Majority of the high-grade deposits at Adelong occur in and adjacent to subvertical shear/fracture zones in the granodiorite and ABIC. Many of the deposits occur adjacent to thin irregular sheets of sheared chlorite-biotite-carbonate altered mafic dykes and/or surrounding silica-sericite-albite-carbonate altered granitoids (Rankin, 2016). Potassium alteration and silicification of the reefs is common.

Gold mineralisation is nuggety and can be seen in drilling samples in networks of quartz-pyrite veins or associated with sulphide grains. Fine gold is noted as inclusions within sulphide minerals. Pyrite is the main sulphide, with minor chalcopyrite, sphalerite, rare pyrrhotite, arsenopyrite and galena.

Reefs are made up of single or multiple quartz veins or veinlets. There appears to be strong plunge controls on thickness, possible related to intersecting structures.

2.3 Exploration

Modern exploration of the Adelong area was carried out by a number of companies. These details are reprised from Rankin (2016).

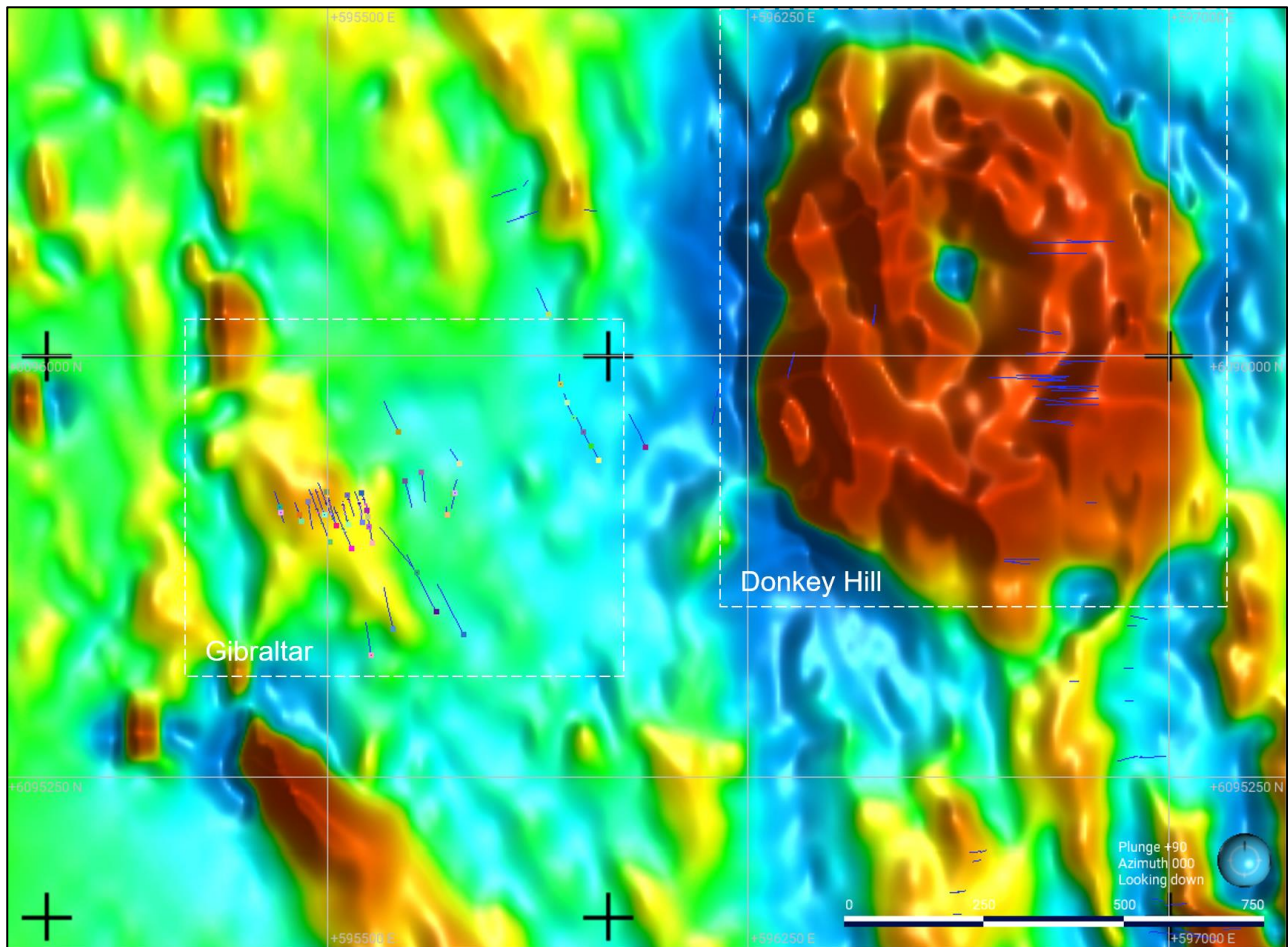
- Carpentaria Exploration Company carried out RC and diamond drilling of the Challenger, Caledonian and Currajong. Drilling with joint venture partners MM&S and Pan Aust was carried out on the Challenger, Our Own, Cladonian, Victoria, Currajong, Gibraltar and Dyke targets.
- Adelong Consolidated/Adelong Capital carried out reconnaissance and follow-up drilling at Donkey Hill, Fletchers, Currajong, East Currajong, Gibraltar, Sawpit and Challenger.
- Golden Cross Resources infill drilled Challenger and reconnaissance hole at Currajong.
- Tasman Goldfields drilled at Old Hill, Currajong and near Caledonian.
- Macquarie Gold Limited tested outcrop continuity with lines of short rotary air blast holes at Old Hill and Currajong, and tested extensions at Currajong.

In 1988–1989, Pan Aust constructed a 400 m long adit into the Challenger deposit to collect a bulk sample for analysis. The sample consisted of 33 cuts totalling 1,200 tonnes at 5.6 g/t Au. It was noted that the mined grades were considerably higher than the drillhole grades, with the conclusion that the drillholes may under-represent the grade of the deposits. The adit was refurbished in the late 1990s to collect metallurgical samples. A 335 m long adit at the Currajong deposit (the Boumoya Adit) was mined in the 1920s. This was also refurbished in the 1980s and used to drill underground diamond holes into the deposit.

Figure 2.4 shows the magnetic field image with Gibraltar drilling overlaid. Of note is the Donkey Hill norite intrusion and the strong northwest fabric. The Adelong area presents as a complex interaction of structure and lithology. The structural fabric in the Wondalga Granodiorite is crosscut by mafic dykes, norite intrusives and structures such as faults and shear zones. This renders the area highly prospective for repetitions of the underground reefs mined to date.

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Figure 2.4 Total magnetic field image with Gibraltar drilling



2.4 Drilling

Drilling at Gibraltar is summarised from information in Rankin (2016) and updated for recent drilling by ADG in Table 2.1

Table 2.1 Gibraltar exploration summary

Company	Year start	Year end	Number of holes	Type	Metreage
Carpentaria Exploration Company	1979	1988	15	RC	712
Adelong Consolidated/Adelong Capital	1996	2000	4	RC	673
Adelong Gold Limited	2022	2023	20	RC	1,969
Total			39		3,354

3 DATA QUALITY

3.1 Input data

The data package provided by ADG contains the information from recent and historical drilling programs at Gibraltar, along with assay reports, geophysical survey images, historical mining images and digitised strings of the workings. Drillhole information includes:

- Collar XYZ data
- Downhole surveys
- Lithology logging
- Chip tray photographs
- HyLogger scans
- Daily drilling logs
- Original assay reports.

3.2 Data validation, quality assurance and quality control

3.2.1 Precision

Snowden Optiro analysed the QAQC data provided by ADG and the Fire Assay vs Photon Assay data (Section 3.2.4 – Check Assays) was used to check the precision of the analysis. The comparison is tabulated in Table 3.1. Of the 175 samples, 87 are significant (>0.2 ppm Au) and the statistics for both populations are shown. Of note is the correlation coefficient of 0.99 for both sets of data, and the coefficient of variation (CV) of 32.6% for the mineralised dataset.

Table 3.1 Adelong assay comparison

Adelong – Assay method comparison – Au						
Statistic	All data			Significant data		
	500 g Photon	50 g FA	% Difference	500 g Photon	50 g FA	% Difference
Count	175	175	0.00%	87	87	0.00%
Minimum	0.015	0.005	-66.67%	0.200	0.060	-70.00%
Maximum	41.160	46.900	13.95%	41.160	46.900	13.95%
Range	41.145	46.895	13.97%	40.960	46.840	14.36%
Mean	1.476	1.506	2.03%	2.895	2.918	0.77%
Standard error	0.373	0.386	3.58%	0.721	0.749	3.92%
Median	0.190	0.200	5.26%	0.920	0.760	-17.39%
Mode	0.025	0.005	-80.00%	0.230	0.200	-13.04%
Standard deviation	4.933	5.110	3.58%	6.722	6.985	3.92%
Sample variance	24.336	26.109	7.29%	45.184	48.796	7.99%
CV	3.342	3.393	1.52%	2.322	2.394	3.12%
Kurtosis	47.840	53.662	12.17%	23.444	26.503	13.05%
Skewness	6.530	6.899	5.64%	4.636	4.907	5.85%
Paired data statistics						
Correlation coefficient	0.9892			0.9886		
Rank correlation coefficient	0.9215			0.8813		
Log correlation coefficient	0.9205			0.9015		
Average CV	43.6%			32.6%		

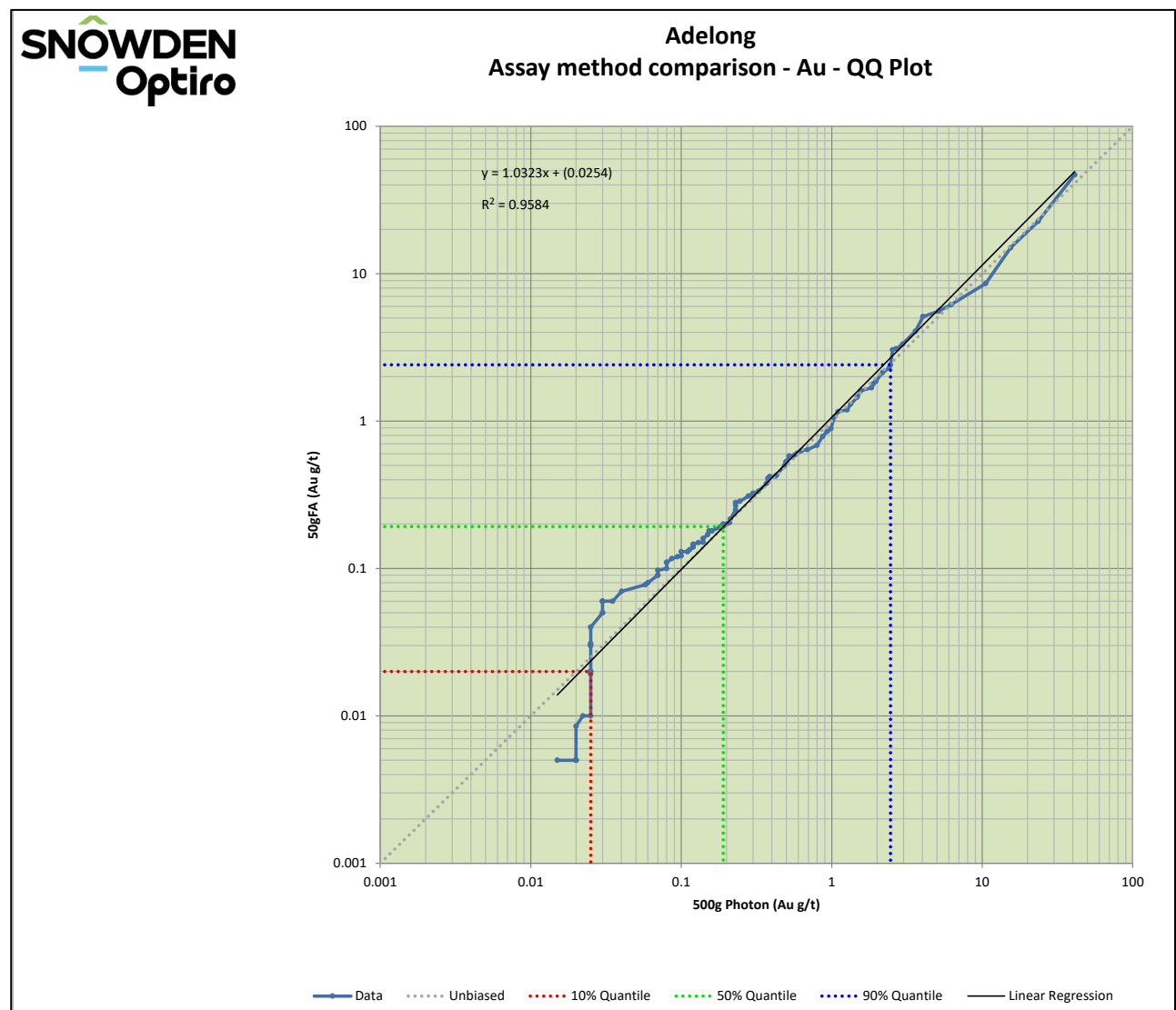
As can be seen in Table 3.2, the bulk of the variance is in the lowest-grade bins which is to be expected. The higher-grade range bins show much lower CVs. Figure 3.1 shows the quantile-quantile (Q-Q) plot of the data and this confirms a slight overstatement of samples below 0.1 ppm Au, excellent correlation up to around 5 ppm Au, then a slight under-call on samples above 5 ppm. Snowden Optiro does not consider this to be a material issue and, whilst the precision is poorer at lower grades, it is good at higher grades.

Table 3.2 Grade bin comparison

Adelong – Assay method comparison – Au					
Grade range		Count	Mean		CV_Avr
Minimum	Maximum		Original	Duplicate	
0.00	0.20	88	0.07	0.11	52.2%
0.20	1.00	47	0.45	0.54	31.4%
1.00	4.00	29	2.05	2.04	39.3%
4.00	8.00	4	5.27	5.00	9.9%
8.00	Maximum	7	21.44	21.33	8.7%
0.20	Maximum	87	2.90	2.92	32.6%
0.00	Maximum	175	1.48	1.51	43.6%

CV_Avr = Average coefficient of variation (Abzalov 2008).

Figure 3.1 Q-Q plot



3.2.2 Analytical performance

The duplicate assay data contained in the analytical reports for each hole were reviewed by Snowden Optiro and duplicate values found to be within acceptable target range. However, the 1:10 duplicate rate resulted in most samples being taken in unmineralised material, so the results are not indicative of mineralised samples. Variation was found in the absolute values of high-grade sample repeats, and this is to be expected, but the relative values were acceptable. Field duplicates were taken until the last phase (3DGIB013–3DGIB019), where issues with the sampling setup did not allow field duplicates to be taken on the rig.

Analytical standards were reviewed in the original assay reports, and these appear to be performing well, with all results withing the stated target ranges.

3.2.3 Contamination

Review of blank assay values in the QAQC reports shows that none returned a value higher than 0.01 g/t Au.

3.2.4 Check Assays

Following receipt of the Fire Assay results from the 2022 drilling program, 176 pulverised samples of mineralisation grading from <0.01 g/t Au up to 46.9 g/t Au and including zones of low-grade alteration taken from both the Gibraltar and Caledonian deposits were sent to Perth for re-assay by Photon Assay.

This aimed to check the assay results, but also the effect of assaying a much larger sample (Photon Assay uses a 500 g charge vs Fire Assay 50 g charge). In samples exceeding 1 g/t Au (123 samples), the Fire Assay on average showed a 1.67% higher value than the Photon Assay which is reasonable result for gold and confirmed the reproducibility of the Fire Assays.

3.2.5 Author's opinion

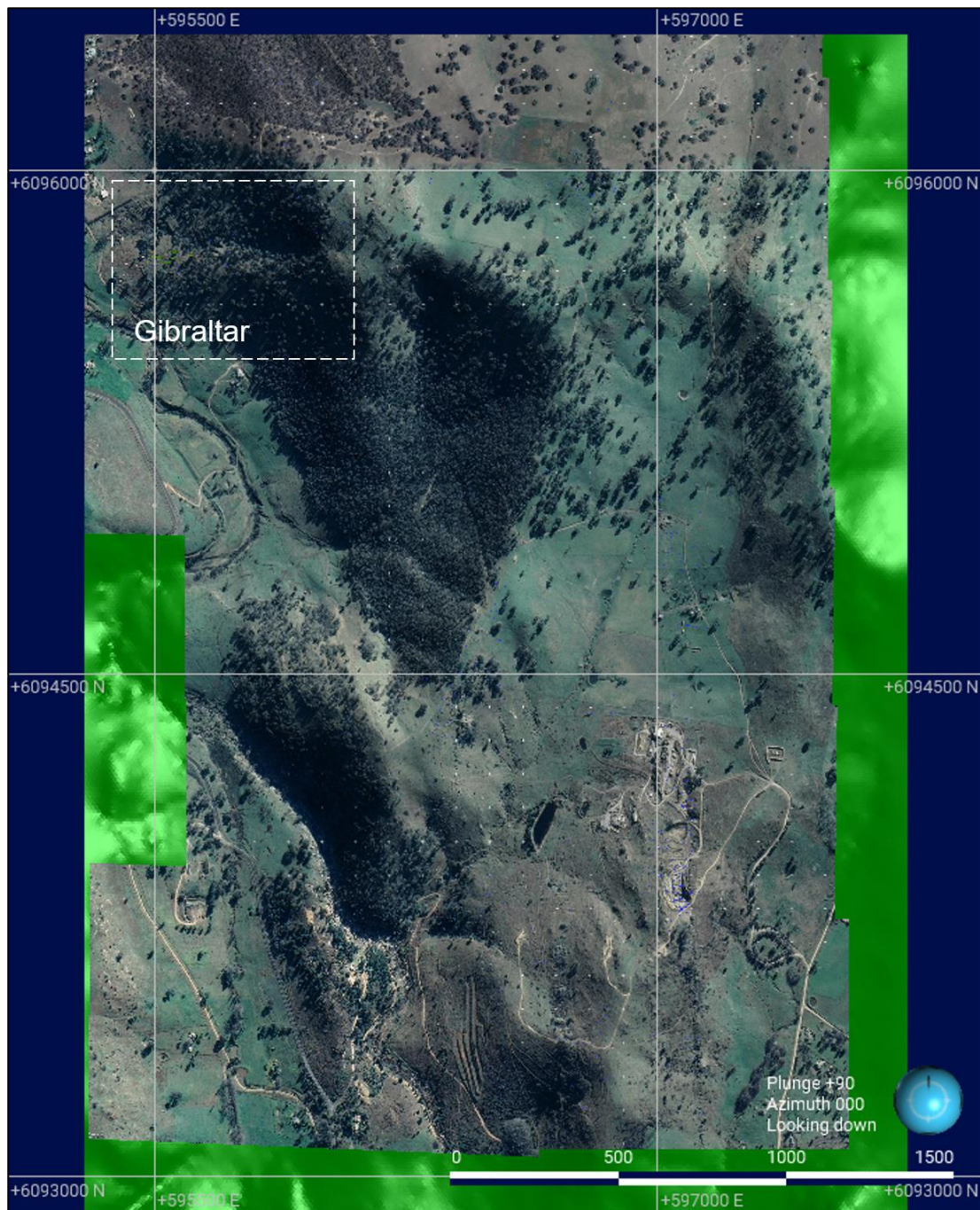
In the opinion of the author, the QAQC processes show the sampling has reasonable precision and no material issues. The data is considered to be of acceptable quality to carry out an MRE.

3.3 Topography and depletion surfaces

A digital elevation model with ± 1 m accuracy based on a recent LiDAR survey has coverage over the Adelong project area (Figure 3.2).

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Figure 3.2 Topographic surface with aerial photograph overlay



3.4 Bulk density

The following information was presented in the Adelong Gold Project Feasibility Study published by Golden Cross Resources Ltd in April 2002: *“Density measurements on ore and waste from the underground bulk sampling stockpiles were carried out by Adelong Consolidated Gold Mines and returned averages of 2.73 t/m³ and 2.69 t/m³ respectively. This test work confirmed values adopted by previous explorers of 2.70 – 2.72 t/m³ for ore”.*

Test work by Amdel Laboratories in 1989 on an 80 kg sample of ore from the Challenger deposit which is the same style as Gibraltar returned a value of 2.72 t/m³.

On this basis, a bulk density value of 2.7 t/m³ was provided by ADG as representative of the granodiorite hosted mineralisation. No density measurements were taken during the drilling.

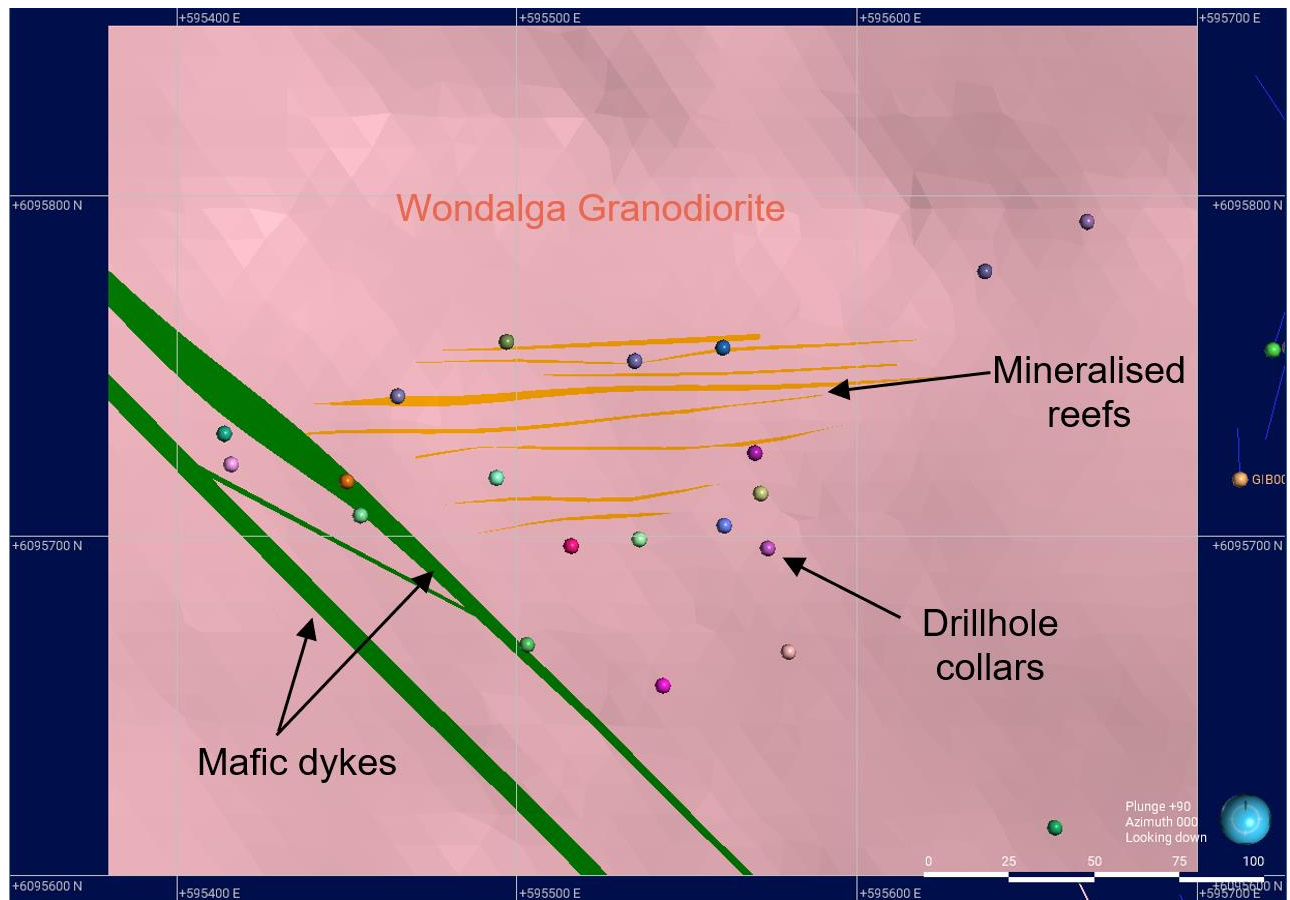
4 RESOURCE ESTIMATION

4.1 Geological interpretation and modelling

The lithology model for Gibraltar was interpreted using Leapfrog Geo software to produce a 3D model of the host lithology and mineralised reefs. The interpretation used plans of the historical mine workings, geophysical surveys, RC chip photography and drillhole logging. The drilling data covers an area of 500 m in northing extent, 700 m in easting and 360 m in vertical extent.

The mineralisation consists of east-northeast striking subvertical narrow reefs of quartz veinlets within the Wondalga Granodiorite host rock with northwest trending mafic dykes (85°/045°) terminating the western end of the reefs (Figure 4.1, Figure 4.2). Reef widths range from <1 m to 5 m thick and the model consists of 11 veins (Figure 4.3). The average dip is 78° towards 180°, with a plunge of 110° in the plane.

Figure 4.1 Plan view of Gibraltar lithology model (soil profile not shown)



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Figure 4.2 Cross section 595540mE looking west showing drilling and lithology model

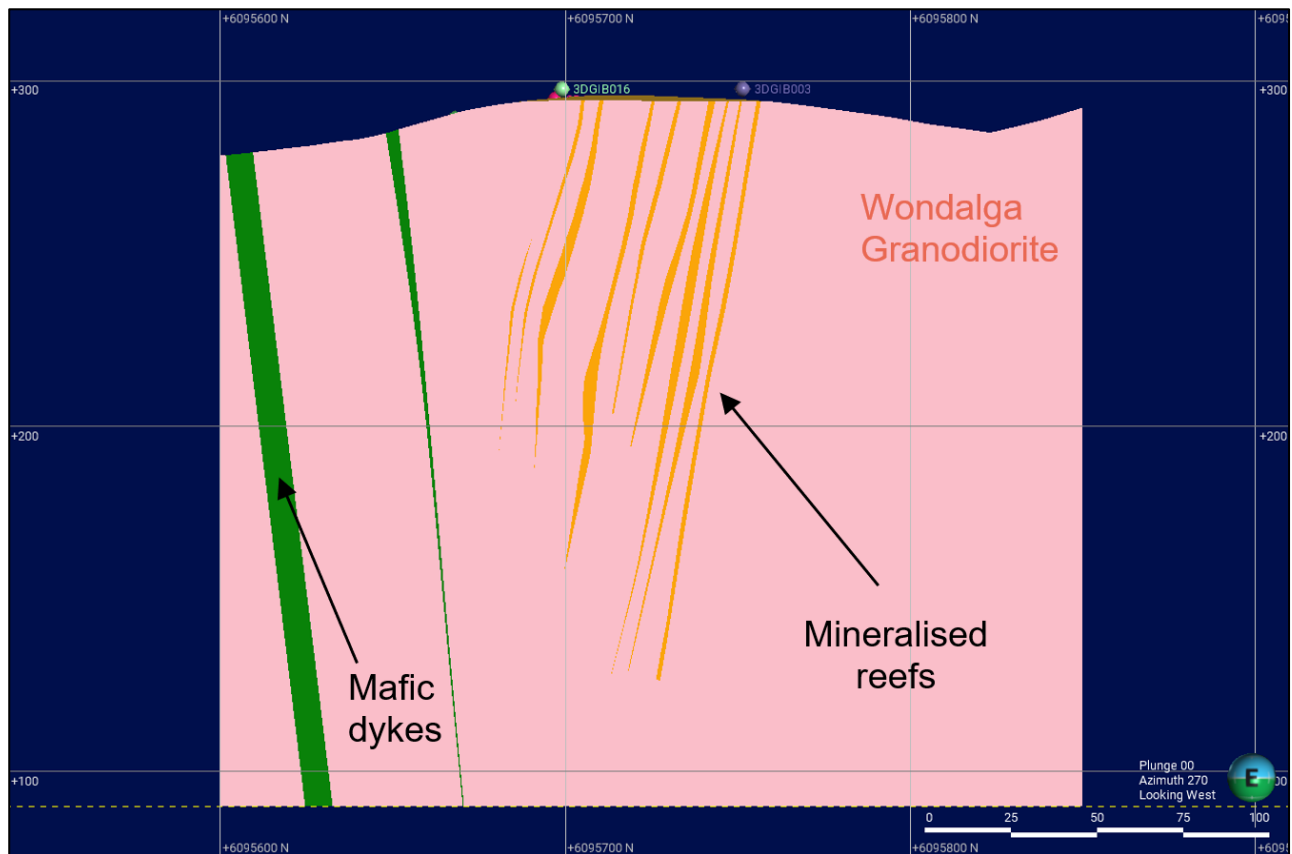
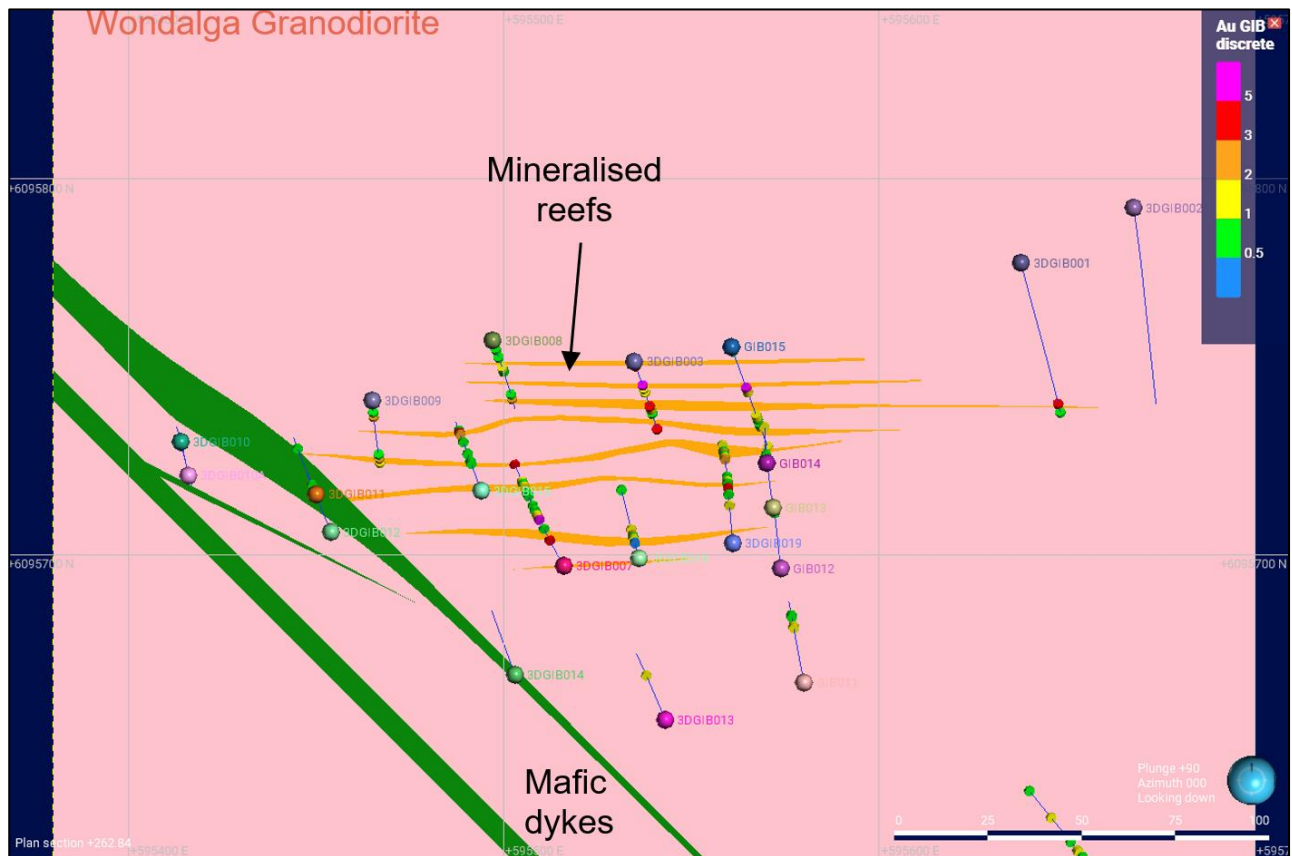
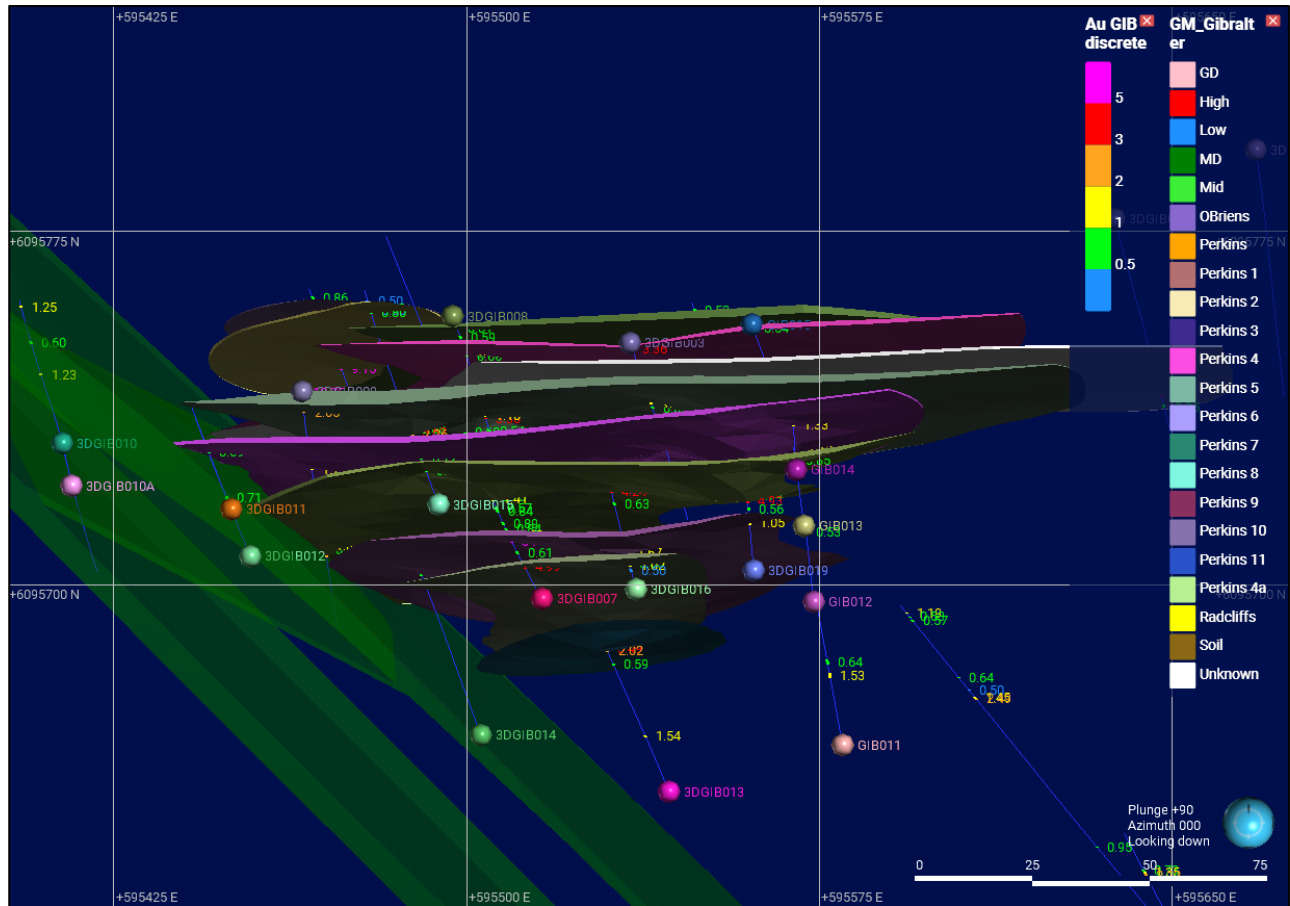


Figure 4.3 Plan slice 260mRL showing drilling, gold assays and lithology model



The mineralisation was coded into veins to produce a vein system model, and this is shown in Figure 4.4. The thickness of vein edges was checked and adjusted to taper the veins. The veins were terminated against the mafic dykes and boundary strings were used to set lateral extents with a maximum distance of ~50 m from the last drillhole intersection. A thin layer of soil cover was modelled from logging and used as a boundary for the upper extents of the veins.

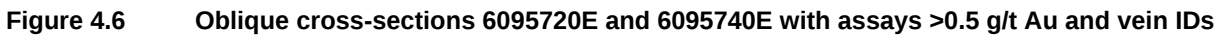
Figure 4.4 Plan view of mineralised veins with assays and mafic dykes



The veins are shown in Figure 4.5 in a long section view and the thickness ranges from <1 m to 5 m. Oblique cross sections are presented in Figure 4.6 with the drillhole intersections (note: some are off section, gold grades >0.5 g/t Au).

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FINAL

4.3 Statistical analysis

The domain statistics are presented in Table 4.1. The maximum grade is 34.6 g/t Au, and CVs are reasonably low for a gold vein deposit, with only one domain (Perkins 7) with a CV >2.

Table 4.1 Domain statistics

Domain	Count	Length	Standard deviation	CV	Variance	Minimum	Lower quartile	Median	Upper quartile	Maximum
Perkins 1	10	10	5.51	1.80	30.36	0.42	0.76	1.12	1.85	18.55
Perkins 2	15	16.5	1.04	0.82	1.08	0.21	0.64	0.71	1.60	3.46
Perkins 3	27	27	3.29	1.18	10.85	0.11	0.86	1.81	3.10	15.10
Perkins 4	33	33	1.92	1.27	3.70	0.04	0.51	1.03	1.79	10.75
Perkins 5	28	28	1.25	1.00	1.57	0.06	0.27	0.73	1.71	5.36
Perkins 6	33	33	1.84	1.19	3.38	0.07	0.49	0.90	1.68	8.58
Perkins 7	14	14	9.02	2.23	81.32	0.28	0.49	1.05	1.68	34.60
Perkins 8	6	6	1.53	0.68	2.33	0.65	1.02	2.07	2.36	4.99
Perkins 9	6	6	3.48	1.66	12.09	0.13	0.50	0.73	1.25	9.15
Perkins 10	2	2	1.04	0.38	1.08	2.02	2.02	2.02	3.49	3.49
Perkins 11	2	2	2.06	0.98	4.26	0.65	0.65	0.65	3.57	3.57

4.3.1 Considering grade outliers and estimation method

Whilst the CV values are low, top cut values of 15 g/t Au was applied to Perkins 1 and 7. A value of 5 g/t Au was applied to Perkins 4, 6 and 9. These values were derived during the estimation process to apply control on the grade estimation on a domain basis. This is due to the low sample numbers and variable pierce point spacing. These are summarised in Table 4.2.

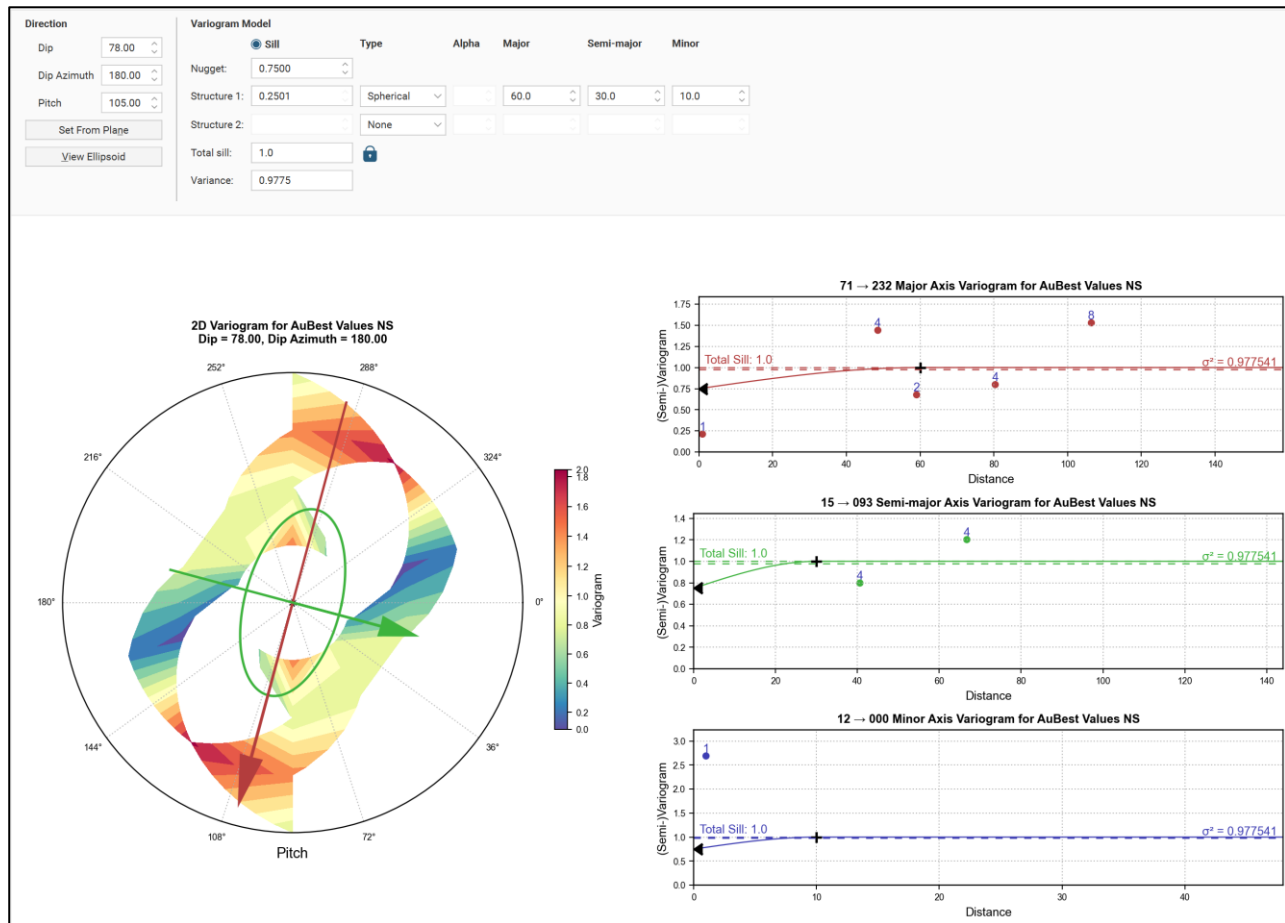
Table 4.2 Top cut and CV values

Domain	Uncut CV	Maximum	Top cut value	Cut CV
Perkins 1	1.80	18.55	15	1.63
Perkins 2	0.82	3.46	None	0.82
Perkins 3	1.18	15.10	None	1.18
Perkins 4	1.27	10.75	5	0.87
Perkins 5	1.00	5.36	None	1.00
Perkins 6	1.19	8.58	5	0.99
Perkins 7	2.23	34.60	15	1.54
Perkins 8	0.68	4.99	None	0.68
Perkins 9	1.66	9.15	5	1.40
Perkins 10	0.38	3.49	None	0.38
Perkins 11	0.98	3.57	None	0.98

4.4 Variography

Variography was carried out using a Normal Scores transformation of the grouped composite data. The nugget was calculated from the downhole variogram and is 70–80% of the total variance when back transformed. Variograms used the dip and plunge of the vein set for the major and semi-major directions (Figure 4.7). The minor direction was given a nominal value of 10 m as the number of samples in this direction varied from one to a maximum of nine samples.

Figure 4.7 Variograms for Domain 1



4.5 Kriging neighbourhood analysis

4.5.1 Selection of block size

Block size was selected on the basis of the drill spacing of 20 m. The parent cell size is 10 m x 5 m x 5 m and sub-cell size of 2.5 m x 0.3125 m x 0.3215 m for narrow vein wireframe fill.

4.5.2 Selection of number of informing samples

The number of samples used to inform the estimate was a minimum of two or four and maximum of 20, as shown in Table 4.3.

Table 4.3 Number of informing samples

Domain numbers	Minimum	Maximum
1–5, 7–9	4	20
6, 10, 11	2	20

4.6 Block modelling

4.6.1 Block model

The block model is a Leapfrog Edge Octree model, and the block configuration is shown in Table 4.4. No rotation was applied. Parent cells of 10 m (X) x 5 m (Y) x 5 m (Z) were sub-celled into 2.5 m (X) x 0.3125 m (Y) x 0.3215 m (Z) to optimise the filling of the narrow wireframes.

Table 4.4 Block model definition table

Description	X	Y	Z
Parent cell	10	5	5
Sub-cell	2.5	0.3125	0.3125
Base point	595360	6095580	-70
Maximum point	595800	6096020	370
Extent	440	440	440

4.6.2 Grade estimation

Estimation used Leapfrog Edge software (Version 2023.1.1) to estimate using ordinary kriging. The parameters are shown in Table 4.5.

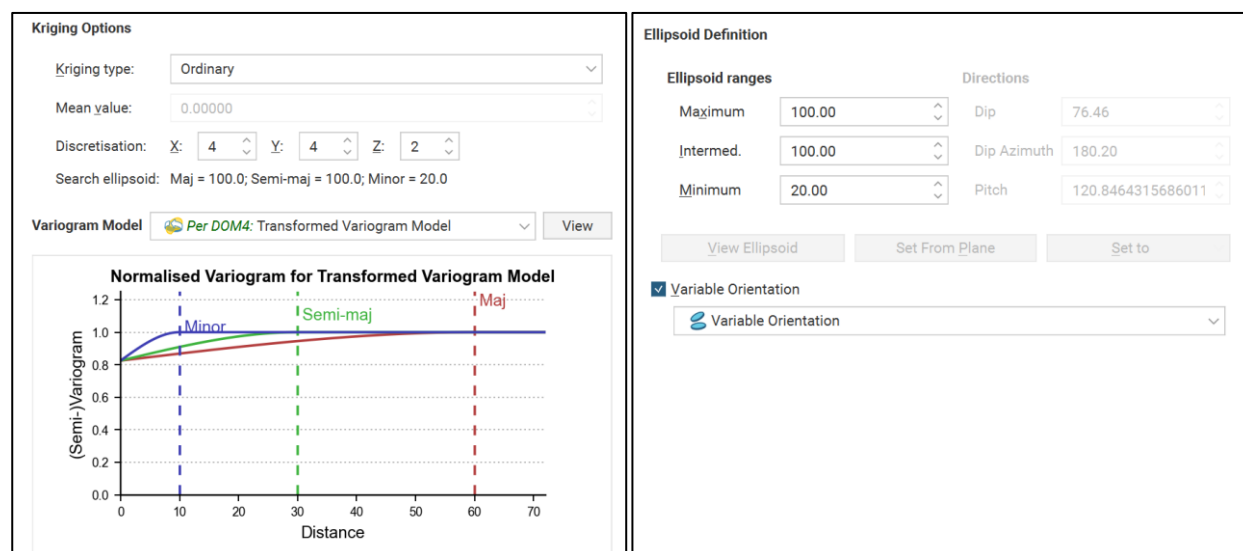
Variography of the global Perkins vein system was carried out as there were insufficient samples to analyse variography separately for each mineralised domain. The global variography was then applied to the estimation with minor changes to optimise per domain.

The estimate used ordinary kriging of 1 m composite samples to estimate vein style mineralised domains that applied hard boundaries between mineralisation and unmineralised waste rock. Ellipsoid declustering of samples was applied within the planes of each vein.

As a function of the low number of composite samples, it was noted that several grade artefacts were introduced when multiple search passes were used Search ranges were set at 100 m x 100 m x 20 m for a single search pass. Discretisation of 4 x 4 x 2 (XYZ) was applied and dynamic anisotropy used to estimate within the vein domain wireframes.

The kriged estimate employed a single spherical structure variogram model with a nugget value of 0.75 and ranges of 60 m major x 30 m semi-major x 10 m minor were set from the variography.

Table 4.5 Estimation parameters



4.6.3 Density estimation and assignment

Density was assigned using a value of 2.7 t/m³ provided by ADG as representative of the granodiorite hosted quartz vein mineralisation, as discussed in Section 3.4.

4.6.4 Metallurgical test work

Initial metallurgical test work on two Gibraltar samples has indicated that the mineralisation is not refractory and is amenable to gravity and cyanide leach extraction with good recoveries (AMML, 2021). The samples were taken from mullock piles with 35.9 kg from Gibraltar (GB) and 26.6 kg from Gibraltar West (GW). The average grades of the samples are 0.49 g/t Au and 5.24 g/t Au, respectively.

AMML (2021) stated “The samples were slightly damp and required drying at 60°C. The dried samples were stage crushed to -3.35 mm, homogenised and rotary split into 5 kg working portions. Duplicate head assay portions were riffle split from separate working portions and pulverised”.

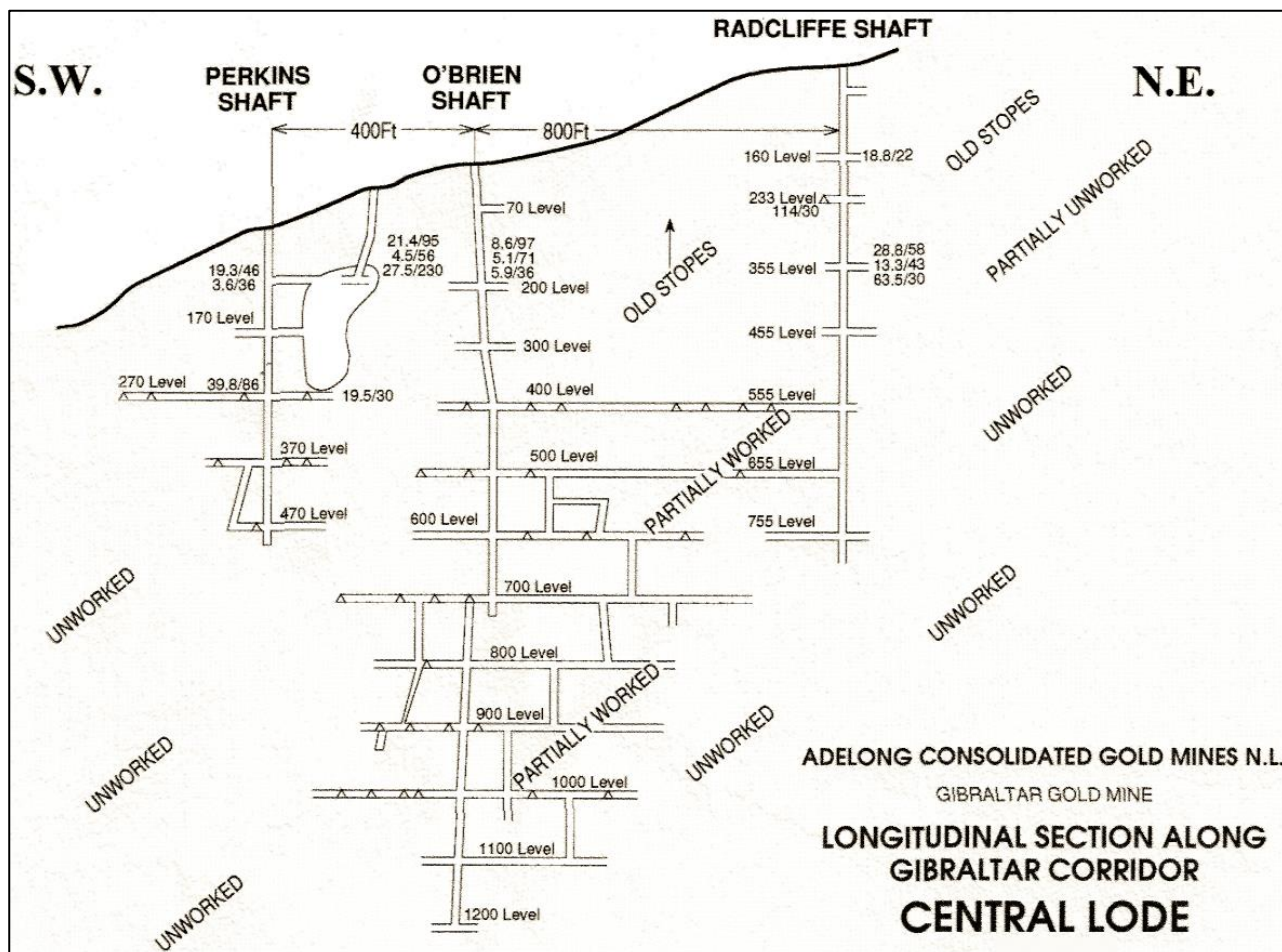
The samples were ground to 80% passing 300 µm with trial times of between 9 and 11 minutes. Gravity test work consisted of centrifugal gravity (spiral tails) and Wilfley table with recoveries from 78% to 87%. Cyanidation tests showed near complete gold dissolution, with 98% after 6 hours noted.

These are initial samples but indicate that the deposit is amenable to gravity and cyanide leach extraction.

4.6.5 Prior mining

Underground mining has taken place at the Perkins shaft, and this can be seen on the schematic long section in Figure 4.8 and the plan of workings in Figure 4.9. Whilst level outlines were digitised from the historical plans, no stoping outlines were able to be used to construct a depletion model for the Perkins workings. There are two intersections of backfill in the drilling and they are on separate veins. No extent of the filled area is known. On this basis, the model is undepleted for prior mining. In checking the location of the Gibraltar wireframes against the historical workings, most of the 2023 MRE model is to the west of the shaft area, so this is not considered to be a material issue for the MRE.

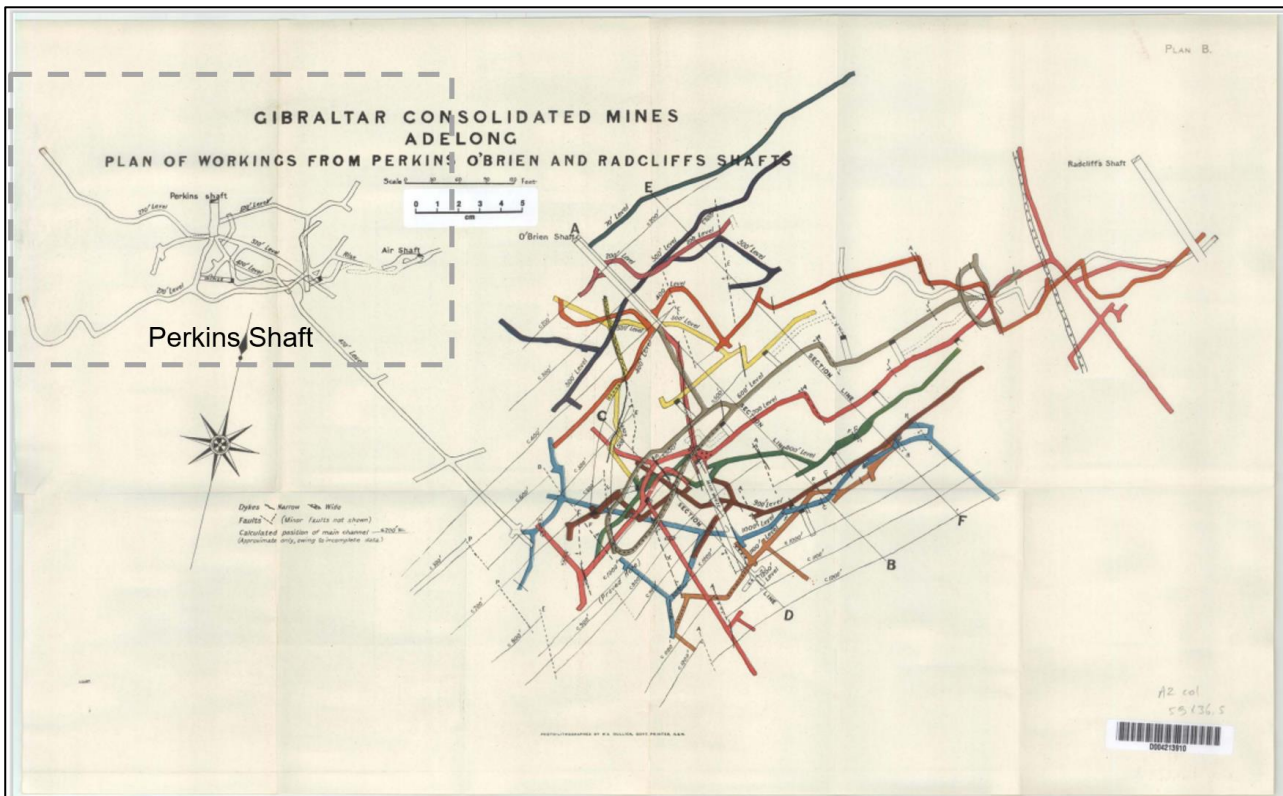
Figure 4.8 Long section view of Gibraltar shafts



Source: ADG

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Figure 4.9 Plan of Gibraltar underground workings



Source: Harper, 1916

4.6.6 Model fields

The block model has the following attributes (Table 4.4).

Table 4.6 Block model definition table

Field	Description	Type	Value	Default
GM_Gibraltar	Geology code	Character	GD, MD, Perkins	GD
PER Mindoms Combined Estimator Au (g/t)	Gold grade	Numeric	Variable	OUT
PER Mindoms Combined Estimator Au (g/t) DOM	Mineralised domain	Character	Domain code	OUT
PER Mindoms Combined Estimator Au (g/t) EST	Estimation type	Character	Kriging + Dom	OUT
PER Mindoms Combined Estimator Au (g/t): MinAD	Minimum anisotropic distance	Numeric	Variable	OUT
PER Mindoms Combined Estimator Au (g/t): AvgAD	Average distance to sample	Numeric	Variable	OUT
Density	Density	Numeric	2.7	OUT
Res Class	Classification field	Character	INF	OUT

4.7 Model validation

4.7.1 Global comparisons

The global comparisons of top cut grades to estimated grades is shown in Table 4.7 and this shows that the volume of the block model to the wireframes is excellent. The comparison of estimated grades to the top cut composite grade show that the model honours the input data and the differences in estimated grades is considered to be reasonable.

Table 4.7 Validation table of input data to block model estimate

Field	Top cut grade	Estimated grade	Grade comparison	Block model vs Wireframe volume	TC vs Estimated grade
Per DOM1	2.70	2.91	0.21	99%	108%
Per DOM2	1.27	1.38	0.11	99%	109%
Per DOM3	2.79	2.67	-0.12	99%	96%
Per DOM4	1.34	1.48	0.14	100%	110%
Per DOM5	1.25	1.39	0.14	100%	111%
Per DOM6	1.44	1.59	0.15	100%	110%
Per DOM7	2.65	2.76	0.11	99%	104%
Per DOM8	2.24	2.34	0.10	100%	104%
Per DOM9	1.43	1.52	0.09	99%	106%
Per DOM10	2.76	2.76	0.00	100%	100%
Per DOM11	2.11	2.11	0.00	100%	100%
Total	1.98	2.06	0.08	99.4%	104%

4.7.2 Visual comparisons

Visual comparisons of grade trends and the input data showed that the estimate is highly smoothed, but generally honours the composite samples. Locally, the grade estimate is likely to be less reliable than the global estimate and some grade artefacts were noted on the margins of the veins. These are not considered to be material.

4.7.3 Grade trend plots

The number of composite samples is shown in Table 4.8 and due to the narrow vein models, there are low numbers of samples for most domains. Figure 4.10 and Figure 4.11 show representative plots of two of the domains with higher numbers of samples.

Table 4.8 Number of composites per domain

Domain	Count	Median	Minimum	Maximum
Perkins 1	10	1.12	0.42	18.55
Perkins 2	15	0.71	0.21	3.46
Perkins 3	27	1.81	0.11	15.10
Perkins 4	33	1.03	0.04	10.75
Perkins 5	28	0.73	0.06	5.36
Perkins 6	33	0.90	0.07	8.58
Perkins 7	14	1.05	0.28	34.60
Perkins 8	6	2.07	0.65	4.99
Perkins 9	6	0.73	0.13	9.15
Perkins 10	2	2.02	2.02	3.49
Perkins 11	2	0.65	0.65	3.57

The grade trend plots show the variability in composite grades and that the estimate is highly smoothed, but generally honours the grade trends.

Figure 4.10 Swath plots for Domain 3 (X and Z directions)

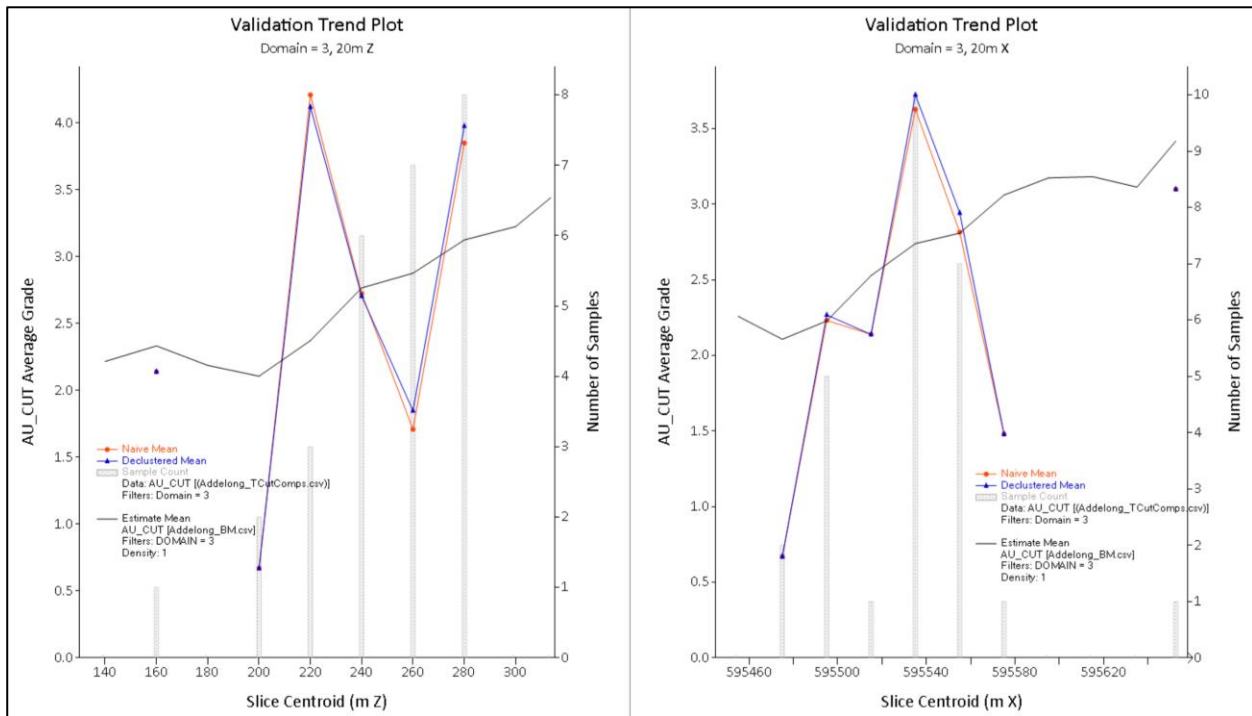
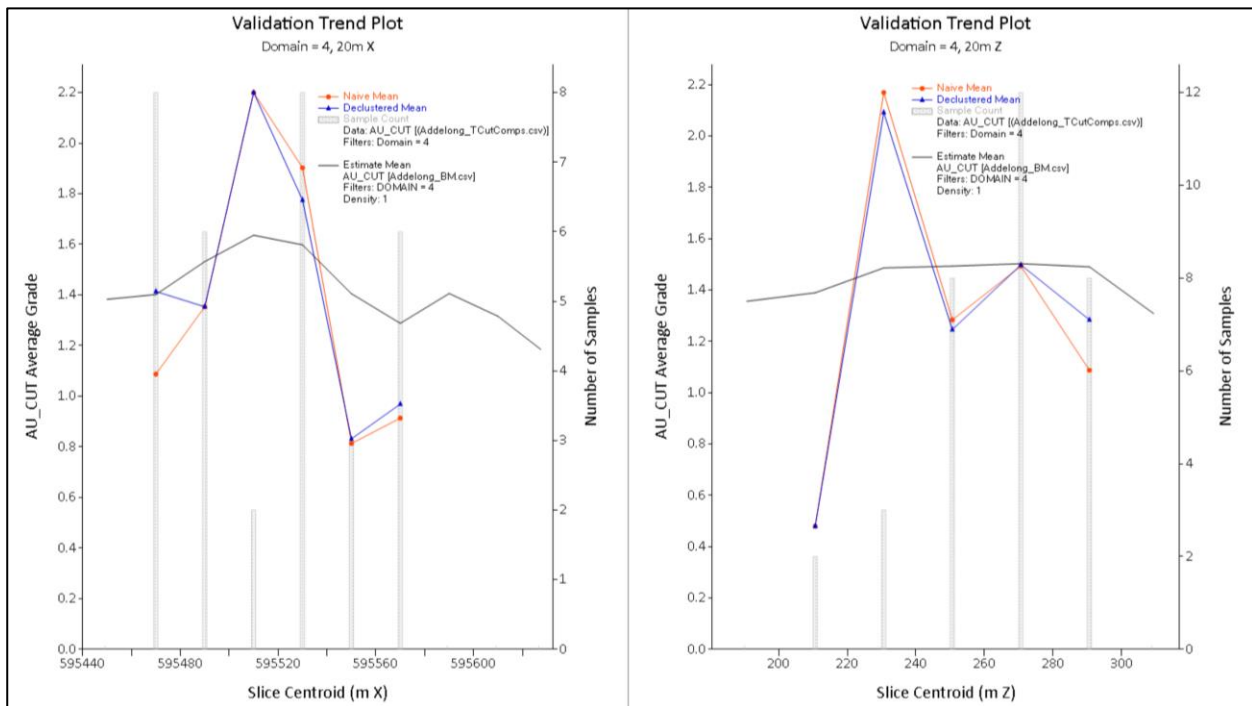


Figure 4.11 Swath plots for Domain 4 (X and Z directions)



4.8 Resource classification

The Gibraltar MRE has been classified as an Inferred Mineral Resource. The geological continuity can be inferred from the mine workings, but the grade estimate has the following issues for consideration:

- The low number of samples
- Variable pierce point spacing
- High nugget (75–80%) of total variance
- Highly smoothed grade estimate
- Assigned density value of 2.7 t/m³.

The confidence in the local grade estimate is low, and the deposit would require infill drilling to improve the quality of the grade estimate and to better resolve the definition of vein boundaries and extents.

Due to very narrow vein widths and low grades at depth, the decision was made to exclude the part of the Gibraltar MRE below the 200mRL as unclassified or exploration potential. This is in reference to the JORC Code requirement for considering the RPEEE. This is shown in Figure 4.12 and Figure 4.13.

Figure 4.12 MRE classification long section view looking north

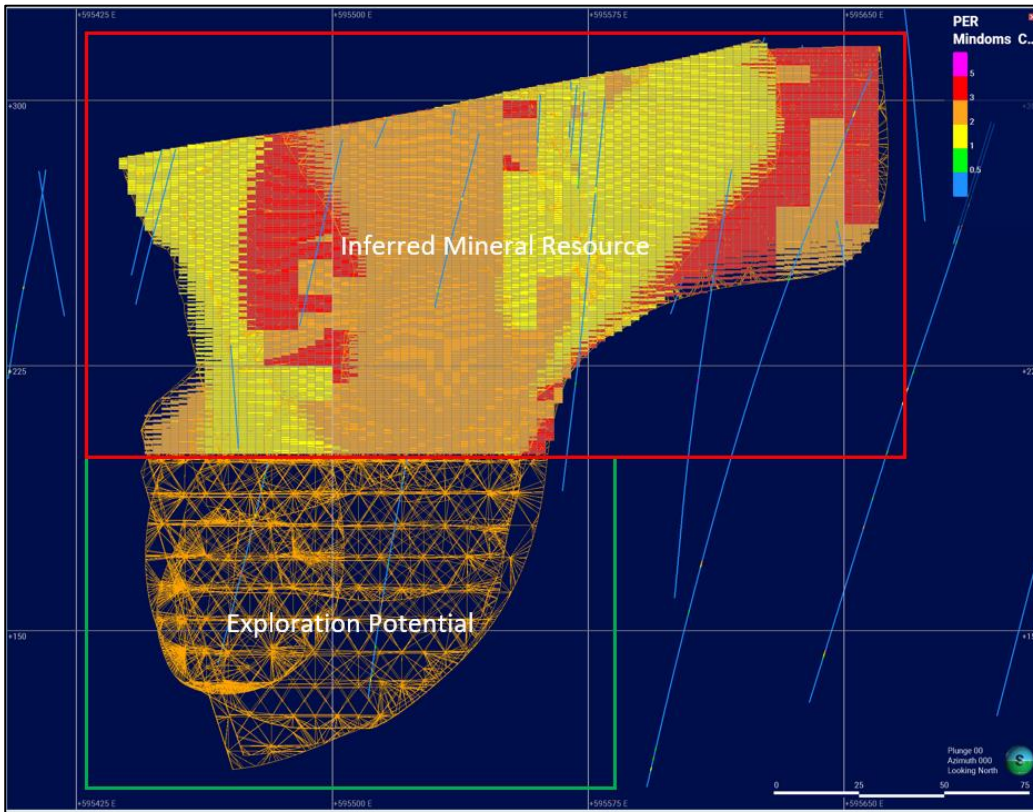
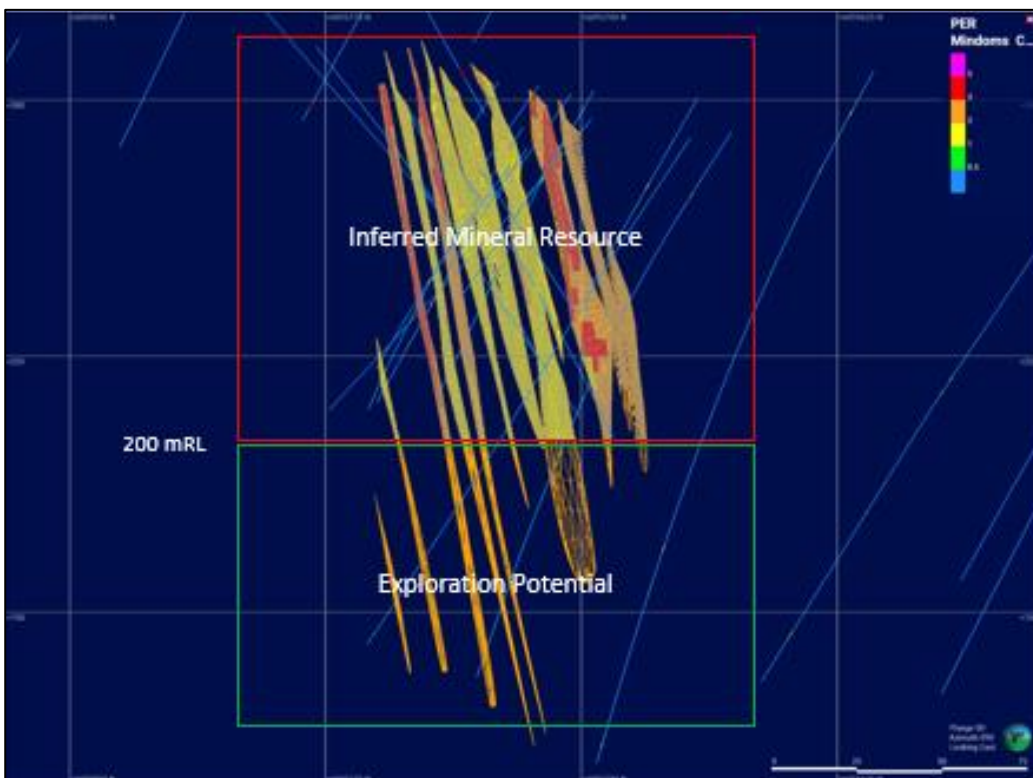


Figure 4.13 MRE classification cross section



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4.9 Mineral Resource reporting

4.9.1 Mineral Resource

The October Gibraltar MRE has been reported using a 1 g/t Au cut-off grade and a Z constraint of 200mRL.

Table 4.9 October 2023 MRE reported using 1 g/t Au cut-off grade

Classification	Tonnes	Grade (Au g/t)	Gold (ounces)
Inferred	270,000	2.1	18,300
Total	270,000	2.1	18,300

Table 4.10 lists the MRE reported by domains and using a 1 g/t Au cut-off grade and Z >200mRL. Note: the small domain "Per DOM11" lies below the 200mRL and does not report.

Table 4.10 MRE tabulation by domain (1 g/t Au cut-off grade and >200mRL)

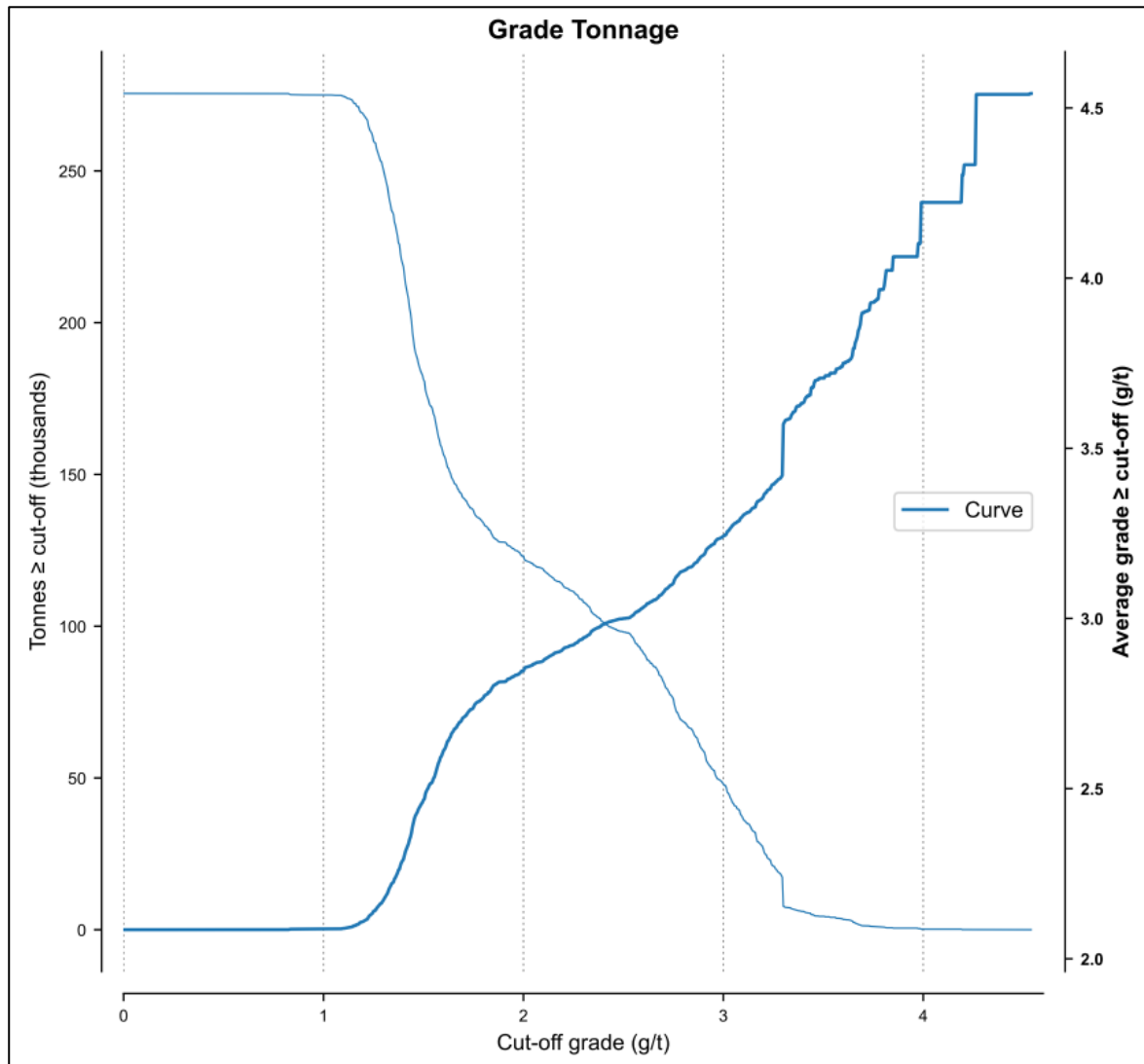
Domain	Tonnes	Grade	Ounces
Per DOM1	29,377	3.03	2,860
Per DOM2	34,341	1.42	1,569
Per DOM3	52,699	2.78	4,704
Per DOM4	47,180	1.48	2,242
Per DOM5	33,894	1.39	1,517
Per DOM6	29,687	1.64	1,564
Per DOM7	33,058	2.78	2,955
Per DOM8	7,253	2.34	545
Per DOM9	2,121	1.35	92
Per DOM10	3,070	2.76	272
Total	272,680	2.09	18,319

4.9.2 Tonnage-grade curve

The tonnage-grade curve for material above the 200mRL level is shown in Figure 4.14.

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Figure 4.14 Tonnage-grade curves above 200mRL cut-off



4.9.3 Comparison to previous estimate

This is the maiden MRE, so no comparison is possible.

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5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 Highlights

The vein geological continuity is reasonably good, and the available drilling supported an initial model of the vein system. The indication from the historical underground mining is that the average recovered grade was ~1 oz/t, so opportunities for high-grade mineralisation exist in this area. Snowden Optiro was able to form coherent veins with the current drilling down to 200 m below surface. The mineralisation is open to the east, and the current drilling has not fully tested continuity of these structures past the old workings.

5.1.2 Key risks

The drilling to date has found that the narrow vein thickness and high-grade variability are the highest risks at Gibraltar and indicates that substantially more drilling is required to support a higher confidence MRE classification. The lack of depletion models means the MRE could be slightly overstated as the full extents of the underground mining are not known. However, the bulk of the MRE is to the north and west of the old workings.

There is a risk that the vein orientation may change with further drilling, but this is not considered to be material with respect to the endowment at this stage.

5.1.3 Opportunities

The Gibraltar MRE has been interpreted over the Perkins historical mining area. The system of mineralised structures at Gibraltar is not fully tested by the current drilling. Potential for extension around the O'Briens and Radcliffs mining areas is rated as good. The model is reflective of the Adelong style of narrow quartz vein style reefs and consistent with the other deposits in the project area.

5.2 Recommendations

Snowden Optiro recommends future MRE models should incorporate:

- Density measurements of samples in mineralised and unmineralised material
- Multi-element sampling to provide additional vectors to mineralisation
- Creation of 3D depletion/void models of underground workings.

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6 REFERENCES

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7 ABBREVIATIONS

Abbreviation	Description
°	degrees
μ	micron(s)
3D	three dimensional
ABIC	Avenal Basic Igneous Complex
ADG	Adelong Gold Limited
Au	gold
CV	coefficient of variation
g	grams
g/t	grams per tonne
GDA84	Geocentric Datum of Australia 1994
GPS	global positioning system
kg	kilograms
km	kilometres
koz	kilo (or thousand) ounces
LiDAR	light detection and ranging
m	metres
Moz	million ounces
MRE	Mineral Resource estimate
oz	ounces
oz/t	ounces per tonne
ppm	parts per million
QAQC	quality assurance and quality control
Q-Q	quantile-quantile
RAB	rotary air blast
RC	reverse circulation
RPEEE	reasonable prospects for eventual economic extraction
t	tonnes

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Appendix A

Data Files and Variography

Drillhole collar listing

Hole ID	GDA Easting	GDA Northing	GDA RL	Depth
ARC044	595658.3	6095614	308.4557	229
ARC045	595694.1	6095542	293.5246	202
ARC045A	595693.1	6095544	293.8967	42
ARC050	595742.5	6095503	296.7124	200
GIB001	595984	6095813	447.0325	60
GIB002	595969	6095839	446.3373	57.5
GIB003	595955.6	6095865	447.5609	57
GIB004	595938.7	6095890	446.9893	56.7
GIB005	595926.6	6095917	445.9743	39
GIB006	595914.7	6095950	445.7207	39
GIB007	595712.6	6095717	343.1122	30.5
GIB008	595722.2	6095755	343.3531	57
GIB009	595735.2	6095808	343.0825	65.7
GIB010	595727.2	6095755	344.3191	56.3
GIB011	595579.9	6095666	300.6465	66
GIB012	595573.8	6095696	302.7872	32
GIB013	595571.7	6095712	304.3388	29.5
GIB014	595570	6095724	305.4126	20.7
GIB015	595560.6	6095755	302.7612	45.5
3DGIB001	595637.7	6095778	315.632	80
3DGIB002	595667.7	6095792	325.8164	80
3DGIB003	595534.7	6095751	297.6972	82
3DGIB004	596067.3	6095837	480.0381	100
3DGIB005	595626.7	6095865	317.82	100
3DGIB006	595894	6096073	443.3798	80
3DGIB007	595516	6095697	294.6454	120
3DGIB008	595497	6095757	289.9729	102
3DGIB009	595465	6095741	287.4642	100
3DGIB010	595414	6095730	280.0507	50
3DGIB010A	595416	6095721	280.4327	72
3DGIB011	595450	6095716	285.8322	43
3DGIB012	595454	6095706	286.0833	54
3DGIB013	595543	6095656	290.6092	180
3DGIB014	595503	6095668	289.0075	180
3DGIB015	595494	6095717	291.9987	96
3DGIB016	595536	6095699	297.6201	96
3DGIB017	595617	6095513	280.2823	144
3DGIB018	595577	6095467	271.6801	102
3DGIB019	595561	6095703	301.8253	108
Total	39 holes			3,354.4 m

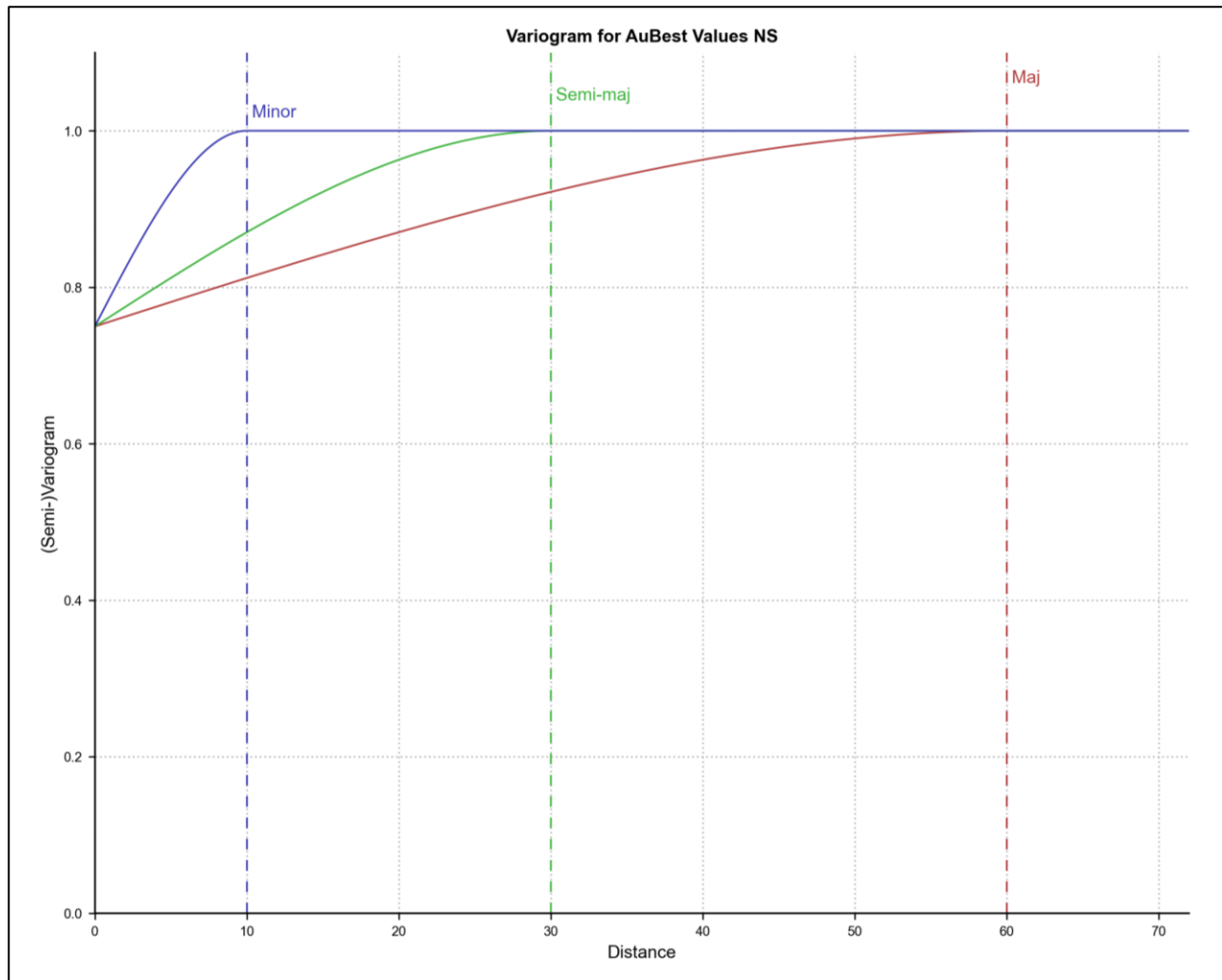
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Filenames

Type	Name	Description	Type
Collar	Collar	Drillhole collar records	CSV
Survey	Survey	Downhole survey records	CSV
Lithology	Lith	Lithology logging	CSV
Assay	Assay	Assay values (AuBest)	CSV
Wireframes	WND_GND	Wondalga Granodiorite	DXF
	MAF_Dykes	Mafic Dykes	DXF
	Per DOM1	Mineralised vein domain 1	DXF
	Per DOM2	Mineralised vein domain 2	DXF
	Per DOM3	Mineralised vein domain 3	DXF
	Per DOM4	Mineralised vein domain 4	DXF
	Per DOM5	Mineralised vein domain 5	DXF
	Per DOM6	Mineralised vein domain 6	DXF
	Per DOM7	Mineralised vein domain 7	DXF
	Per DOM8	Mineralised vein domain 8	DXF
	Per DOM9	Mineralised vein domain 9	DXF
	Per DOM10	Mineralised vein domain 10	DXF
	Per DOM11	Mineralised vein domain 11	DXF
Composites	Per DOM1 - AuBest Clipped Values	Domain 1 top-cut composites	CSV
	Per DOM2 - AuBest Values	Domain 2 composites	CSV
	Per DOM3 - AuBest Values	Domain 3 composites	CSV
	Per DOM4 - AuBest Clipped Values	Domain 4 top-cut composites	CSV
	Per DOM5 - AuBest Values	Domain 5 composites	CSV
	Per DOM6 - AuBest Clipped Values	Domain 6 top-cut composites	CSV
	Per DOM7 - AuBest Clipped Values	Domain 7 top-cut composites	CSV
	Per DOM8 - AuBest Values	Domain 8 composites	CSV
	Per DOM9 - AuBest Clipped Values	Domain 9 top-cut composites	CSV
	Per DOM10 - AuBest Values	Domain 10 composites	CSV
	Per DOM11 - AuBest Values	Domain 11 composites	CSV
Block model	GIB0923BM	Gibraltar October 2023	CSV

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Grouped variogram model



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Appendix B

JORC Code (2012 Edition) – Table 1

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	The deposit was sampled by 5½ inch face sampling reverse circulation (RC) drilling. Samples are taken at regular 1 m intervals to the end of hole. From the +15 kg sample of rock chips and pulverised rock recovered from the drilling rig a sample was taken to generate a 5 kg sample using a cone splitter on the rig. These samples were sealed into plastic bags on site and submitted to the laboratory for assay. The remaining sample is stored on site. This method is considered representative for the sampling of gold deposits due to the large sample size. The laboratory riffle split the sample and pulverised 2–3 kg samples to 75 µm. A 50 g sample of this pulverised sample was fire assayed.
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	Gibraltar has been sampled by 39 face sampling RC drillholes totalling 3,354.4 m.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	Material from RC drilling was bagged in large plastic bags. Visual inspection did not show obvious losses, apart from three intersections of old workings. Minor circulation and sample loss occur in the initial 1 m sample of each rod.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i>	Chip samples were logged geologically for rock type, colour, presence of sulphides, quartz and alteration on 1 m intervals. A specimen sample for each metre is stored in chip trays. Chip trays photographed. The remainder of the RC samples stored on site. All drilling is qualitatively logged.
Subsampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Chip samples from RC split on site via a cone splitter on the drilling rig that generated a ~4–6 kg sample in a calico bag ready for shipment to the laboratory and a remaining 5–10 kg sample bagged in large plastic bags that are stored on site. Sample size is considered appropriate for this style of mineralisation.

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Criteria	JORC Code explanation	Commentary
	<i>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Field duplicate samples were taken every 10 m during drilling. Due to the sampling setup on the rig for holes 3DGIB07-3DGIB019, no duplicates were submitted. Drilling was in dry conditions down to 40 m below surface. Two wet intervals were encountered in stope fill material in holes 3DGIB016 (6 m) and 3DGIB019 (5 m).
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Assay method is 50 g Fire Assay. Adelong mineralisation contains coarse gold and so a large part of the sample (up to 3 kg) is pulverised and the 50 g charge that is fire assayed is taken from this pulverised sample. The samples were submitted to ALS (Orange) a laboratory that is NATA accredited and records their own quality assurance/quality control (QAQC) set of duplicate assays, blanks and standards to ensure assay accuracy and precision. Following receipt of the Fire Assay results from the 2022 drilling program, 176 pulverised samples of mineralisation grading from <0.01 g/t Au up to 46.9 g/t Au and including zones of low-grade alteration taken from both the Gibraltar and Caledonian deposits were sent to Perth for re-assay by Photon Assay. This aimed to check the assay results, but also the effect of assaying a much larger sample (Photon Assay uses a 500 g charge vs Fire Assay 50 g charge). In samples exceeding 1 g/t Au (123 samples), the Fire Assay on average showed a 1.67% higher value than the Photon Assay which is reasonable result for gold and confirmed the reproducibility of the Fire Assays.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	Verification of significant results is carried out by company management. Drill cuttings are logged on site. Drill logs stored electronically, large samples stored at site for any follow-up investigation, metallurgical work etc. Chip trays are also stored on site as is a log of samples. No twinned holes were drilled. No adjustments made to assay data.
Location of data points	<i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	Garmin 64st global positioning system used to locate and survey holes for drilling with two to three readings taken over several days and averaged. Hole coordinates use datum: GDA94 Zone 55. Downhole surveys used north seeking gyroscope or Longyear Trushot every 30 m and, on occasions, end of hole. Digital elevation model data ± 1 m available for this site based on recent light detection and ranging (LiDAR) data. This topographic surface was used to adjust the RL of a number of drillholes with an average adjustment of +1 m.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	The drillholes were spaced generally around 25 m apart but also drilled in a scissor pattern to better orientate the mineralisation.

Criteria	JORC Code explanation	Commentary
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i>	A composite result was announced as Exploration Results, representing the weighted average of grades with individual samples taken on a 1 m interval.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	The drillholes at Gibraltar were generally drilled across the approximate strike to the mineralisation as determined by the historical workings in the Perkin's Shaft (Gibraltar) and O'Briens Workings which are believed to be the eastern extension to the mineralisation under investigation by this drill program. A review of the historical workings in the Perkins workings suggests the mineralisation may have been close to vertical. However, further east still, the O'Briens workings dip south at around ~80°. The drilling is orientated to cut across the mineralisation trend but also evaluate the orientation of the deposits.
Sample security	<i>The measures taken to ensure sample security.</i>	Samples dispatched to the laboratory were sealed on pallets and stored at the mine site with locked gates before shipment. The samples were loaded on pallets under the supervision of the Site Manager.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audit or review has been undertaken.

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Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	The drilling at Gibraltar is on EL5728, an exploration licence held by Challenger Mines Pty Ltd which is a wholly owned subsidiary of the company. The tenement has been granted to 17 May 2028. Drillhole 3DGIB002 lies in a mining lease that expires in September 2040.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Most of the companies that have worked on Adelong have completed some exploration activity at Gibraltar and while this work had not discovered the Perkins West deposit, several drillholes completed by Pan Australian Mining Ltd (1987) and Adelong Consolidated Gold Mines NL (1999) were used in modelling the vein system present at Gibraltar.
Geology	<i>Deposit type, geological setting and style of mineralisation.</i>	Adelong is primarily a shear-hosted veins and stockworks/silicified zones carrying gold. The Gibraltar area contains 11 veins and is terminated to the west by northwest trending mafic dykes. The dimensions of the deposit are 250 m in strike (easting), 100 m in northing and 320 m vertical. The host rock is sheared and altered granodiorite. The mineralisation includes increased levels of silicic alteration and replacement of feldspars and amphiboles, and in some cases, quartz veining. Some alteration minerals such as sericite are also present.
Drillhole information	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> • easting and northing of the drillhole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar • dip and azimuth of the hole • downhole length and interception depth • hole length. <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	All details as required are tabulated in the report.
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	RC samples taken on 1 m intervals and aggregated to reflect the mean grade of the intersection with samples >1 g/t Au reported. Zones selected based on assay results that demonstrate >1 g/t Au mineralisation.

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Criteria	JORC Code explanation	Commentary
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	All drillholes drilled to intercept the mineralised trend at around 70–900 to provide a reasonable basis for assessing mineralised width and grades. However, there is an observed difference in the trends of mineralisation between the O'Briens and Perkins workings and so some of the drilling was orientated to test which trend applies to the western extensions being explored.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	See maps for drill locations.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Results reported based on assay data received.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Geophysical surveys were carried out over the region and include airborne aeromagnetism and radiometrics. An induced polarisation (IP) grid was setup over Gibraltar.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The data from this drilling will be used to plan any future exploration drilling at Gibraltar and any resource definition work required.

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Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i>	Original logs and assay tables were viewed and compiled into the drillhole database during the Mineral Resource estimation process. All data transfer was carried out digitally.
	<i>Data validation procedures used.</i>	Checks on loading included: missing information, collar survey to topography, downhole survey errors and assay substitutions. Historical plans and sections were used to indicate the locations of the historical workings relative to the Gibraltar Mineral Resource estimate for drillhole design during the data collection phase. The LiDAR topography was used to adjust the Z value of the drill collars to topography.
Site visits	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	The Competent Person for the data is Peter Mitchell who is the Managing Director of Adelong Gold Limited and has a long history with the project with numerous site visits. He is responsible for the drilling design, data collection procedures and data quality.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	Mark Drabble is an Executive Consultant for Snowden Optiro and is the Competent Person for modelling and estimation. Mark is familiar with narrow vein gold mining with over 30 years' experience in production and consulting. Mark did not visit the site as this was not considered necessary for the estimation part of the Mineral Resource estimate.
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i>	The geological interpretation is based on the historical production history at Adelong, with understanding of the mineralised system gleaned from underground mines. Underground drive plans were used to aid the interpretation of the mineralisation using a 0.5 g/t Au nominal cut-off grade.
	<i>Nature of the data used and of any assumptions made.</i>	The assumption of continuity is made on the spatial continuity of mineralised intersections and underground workings. These are consistent with the general east-west orientation of the system, but locally could be more variable in orientation and thickness than the model suggests. This is reflected in the Mineral Resource estimate classification as an Inferred Mineral Resource.
	<i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i>	The model was refined during the phases of drilling and alternative scenarios tested. Differing vein orientations were modelled and assessed for continuity. The main impact is slight changes in the orientation, but the vein array interpretation is considered to be commensurate with the regional geological style of mineralisation.
	<i>The use of geology in guiding and controlling Mineral Resource estimation.</i>	The host rock is granodiorite with subvertical east-west trending quartz sulphide veining and northwest-southeast crosscutting mafic dykes. Drillhole logging and geophysical surveys support the orientation of the mafic dykes that were used to terminate the mineralised veins on the western end of the deposit.

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Criteria	JORC Code explanation	Commentary
	<i>The factors affecting continuity both of grade and geology.</i>	The continuity of grade and geology is affected by the intersection of variably oriented drillholes into multiple narrow veins, resulting in low sample numbers per vein. The variography showed a high nugget of around 80% of the total variance. This shows that the confidence of both geology and grade is consistent with the Mineral Resource estimate classification as Inferred Mineral Resource.
Dimensions	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource</i>	The drilling data covers an area of 700 m in easting, 500 m in northing and 360 m in vertical extent. There are 11 narrow vein style lodes of 1–5 m in width that extend from base of soil (1–3 m) surface down to 230 m below surface.
Estimation and modelling techniques	<i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i>	The estimation used Leapfrog Edge software (Version 2023.1.1) to estimate into an Octree block model with a base point of 595360E, 6095580N, 370mRL and extents of 440 m in each axis. No rotation was applied. Parent cells of 10 m(X) x 5 m(Y) x 5 m(Z) were sub-celled into 2.5 m(X) x 0.3125 m(Y) x 0.3215 m(Z) for narrow wireframe fill. Top cut values of 5 g/t Au and 15 g/t Au were applied to five of the domains. Samples from individual domains were grouped together for the purposes of variography for the global Perkins vein system. The global variography was then applied to the estimation of individual domains, with minor changes to the plunge direction to optimise the estimate. The estimate used Ordinary Kriging of (top cut where appropriate) 1 m composite samples, employing hard boundaries between mineralisation and unmineralised waste rock. A single structure spherical model with nugget value of 0.75 and ranges of 60 m major x 30 m semi-major x 10 m minor was used. Discretisation of 4 x 4 x 2 (XYZ) was applied and dynamic anisotropy used the vein domain wireframes. Search ranges were set at 100 m x 100 m x 20 m for in the plane of the mineralisation, using a single search pass. The maximum range of extrapolation is 30 m past the range.
	<i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i>	This is the maiden estimate for the deposit.
	<i>The assumptions made regarding recovery of by-products.</i>	Gold is the only economic commodity, and no assumptions were made on by products.
	<i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i>	No estimates of deleterious elements were made on the Gibraltar deposit, but tests have been completed on other Adelong deposits and these have shown the low sulphide content and host rock are at low risk of generating acid mine drainage.
	<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i>	The drill density is variable but ranges from 25 m between sections and 10–50 m (using scissor holes) on section. Parent cells of 10 m(X) x 5 m(Y) x 5 m(Z) were considered to be appropriate for this drill spacing.
	<i>Any assumptions behind modelling of selective mining units.</i>	No assumptions were made on selective mining units.
	<i>Any assumptions about correlation between variables.</i>	Only gold was estimated.

Criteria	JORC Code explanation	Commentary
	<i>Description of how the geological interpretation was used to control the resource estimates.</i>	The mineralised domains were interpreted as narrow veins, and these were estimated separately with hard boundaries from top cut 1 m composites. This is consistent with the mining history of the region and the adjacent underground mines at Gibraltar.
	<i>Discussion of basis for using or not using grade cutting or capping.</i>	The coefficient of variation was well below 2 in most cases and top cut values were applied to control isolated outlier values. The maximum value of the composites was 34 g/t Au. Top cut values of 5 g/t Au were applied to domains 4, 6 and 9 and 15 g/t Au to domains 1 and 7.
	<i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i>	The comparison of block model estimated values to the naïve and declustered top cut composites shows an average difference of 4% in grade for the block model estimated blocks. Swath plots show that the estimate is smoothed in respect to the input data, but this was considered to be necessary due to the high nugget and low numbers of samples.
Moisture	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	The tonnages are based on a dry basis. No allowance has been made for moisture content.
Cut-off parameters	<i>The basis of the adopted cut-off grade(s) or quality parameters applied</i>	The reporting of the Mineral Resource estimate used a cut-off grade of 1.0 g/t Au. This is considered to reflect the economic potential of the mineralisation based on scoping studies completed by the company.
Mining factors or assumptions	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	No assumptions have been made as to mining methods, apart from the potential for a small open pit, and the opportunity for narrow vein underground mining to a depth of ~100 m below the natural surface.
Metallurgical factors or assumptions	<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	Metallurgical test work consisting of gravity and leach test analyses was carried out on two rock samples from Gibraltar and Gibraltar West of 35.9 kg and 26.6 kg, respectively. These indicated good recoveries from gravity and cyanide leach methods. No other metallurgical assumptions are made in this Mineral Resource estimate.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	<i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made</i>	The mineralisation is hosted in quartz veins within a granodiorite host rock. It is a low sulphidation system with minor levels of associated sulphide minerals. Pyrite is the main sulphide, with minor chalcopyrite, sphalerite, rare pyrrhotite, arsenopyrite and galena.
Bulk density	<i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i>	Bulk density has been assigned a value of 2.7 t/m ³ . Density measurements on ore and waste from the underground bulk sampling stockpiles were carried out by ACGM and returned averages of 2.73 t/m ³ and 2.69 t/m ³ respectively. This test work confirmed values adopted by previous explorers of 2.70–2.72 t/m ³ for ore. This was published in the Adelong Gold Project Feasibility Study published by Golden Cross Resources Ltd in April 2002. The mineralisation is in fresh rock as very little soil cover is present and little to no oxidation of the granodiorite observed in drilling.
	<i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit,</i>	The host rock and mineralisation showed good sample recoveries and do not appear to be subject to natural vugs. Mining voids were intersected by three holes in the drilling, and historical underground workings are present in the eastern end of the Mineral Resource estimate. These have not been depleted due to lack of accurate surveys.
	<i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	Studies of the density results from other deposits in the area were the basis for a single density value.
Classification	<i>The basis for the classification of the Mineral Resources into varying confidence categories</i>	The Gibraltar MRE has been classified as an Inferred Mineral Resource on the basis of: • Narrow veins • Variable pierce point spacing • Low sample numbers per domain • High nugget • Highly smoothed estimate • Assigned density value of 2.7 t/m³.
	<i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i>	The category reflects the reasonable expectation of geological confidence based on the orientation of mineralisation in historical mining at the Perkins Shaft but accounts for the fact that grade continuity cannot be demonstrated at the current drill density.
	<i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i>	The Competent Person considers that result reflects the early stage of drill testing of the deposit and the level of confidence derived from the input data and interpretation.

Criteria	JORC Code explanation	Commentary
Audits or reviews	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	Internal peer review by Snowden Optiro has been carried out on this Mineral Resource estimate and no fatal flaws were identified.
	<i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate</i>	The rounding of the reported figures has been carried out to a level that reflects the deposit size and relative accuracy of the reported figures. It is too early in the exploration process to warrant geostatistical quantification.
	<i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used</i>	The statement relates to the global estimate.
	<i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available</i>	Total production data for historical mining at Gibraltar was 141,350 ounces at 1.1 oz/t Au grade, but this includes production from the Radcliffs, O'Briens and Perkins shafts. No individual production from the Perkins shaft is available.

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