

**ABRA COMPLETES 2023 MINERAL RESOURCE UPDATE**

**GALENA MINING LTD.** (“Galena” or the “Company”) (**ASX: G1A**) announces that the Abra Base Metals Mine (“Abra” or the “Mine”) has updated its JORC Code 2012 Mineral Resource Estimate (“**July 2023 Resource**” or “**MRE**”). This update is the first MRE annual update including all underground diamond drilling up to 5 May 2023, and all underground geological mapping, and mining and processing up to 30 June 2023.

**HIGHLIGHTS**

- Revised total Abra MRE of 33.4Mt at 7.1% Pb and 17g/t Ag (5% Pb cut-off grade):
  - Measured 0.3Mt at 7.3% Pb and 32g/t Ag,
  - Indicated 16.2Mt at 7.3% Pb and 19g/t Ag,
  - Inferred 16.9Mt at 6.9% Pb and 15g/t Ag.
- No material difference from the previous MRE (April 2021), supporting Abra’s long-term mining plans.
- Includes 26,277m (163 holes) of underground diamond drilling, geology mapping associated with 7,319m underground development, and includes mining depletion.
- Identification and understanding of potential new lead and silver mineralisation associated with Carbonatic Dome structures within the Apron Zone and strong conversion of Inferred Mineral Resources to Indicated Mineral Resources in the eastern end of the mine.

Managing Director, Tony James commented, *“The updated Abra MRE reflects substantial work achieved at Abra over the last 12-months, greatly improving the understanding of the deposit. Importantly, it shows no material difference from the April 2021 MRE, and therefore continues to support our long-term mining plans. The Resource update work also confirms that mining and processing grades seen during Abra’s commissioning and ramp-up, which is dominated by mine development, are not representative of the total MRE at Abra. As mining areas open-up, grades through the mill continue to improve, particularly as we move away from the upper northern margin near the Abra Fault.”*

## SUMMARY

Since June 2022, 26,277m (163 holes) of underground diamond NQ drilling has been completed and during commissioning and ramp-up of the mine, 325,924 tonnes at 4.8% lead and 20g/t silver has been mined and processed (note the early stages of mining is development focussed with 244,332t (75%) associated with development which is subject to a mining cut-off grade of 3.3% lead). Material mined and processed also includes both high-grade and sub-grade material produced during commissioning and early stages of ramp-up. A total of 7,319m of underground development has also been completed to 30 June 2023 in the Apron Zone section of the ore body allowing access for detailed mapping and geological interpretation.

The 2023 Mineral Resource estimate (MRE) takes into account the ore losses seen on the upper-northern margin of the orebody, as outlined in April 2023 (see *Galena ASX announcement of 20 April 2023*).

To complete and update the 2023 MRE with the latest technical understanding and confidence, drilling data was cut-off on 5 May 2023 and mine production data cut-off on 30 June 2023. Table 1 (below) states the Abra July 2023 Resource at a 5.0% lead cut-off grade, as at 30 June 2023. The July 2023 Resource has been independently reviewed by Snowden Optiro Pty Ltd ("**Snowden Optiro**").

Table 1: Abra JORC Mineral Resource estimate at 5% Pb cut-off grade (July 2023 MRE)<sup>1</sup>

Resource classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Measured	0.3	7.3	32
Indicated	16.2	7.3	19
Inferred	16.9	6.9	15
Total	33.4	7.1	17

Notes: 1. Calculated using ordinary kriging method at a 5.0% lead cut-off grade. Tonnages are rounded to the nearest 100,000t, lead grades to one decimal place and silver to the nearest gram. Rounding errors may occur when using the above figures.

The previously published MRE is dated April 2021 (5% lead cut-off grade) based entirely on surface drilling and interpretation, and comprised a total of 34.5Mt at 7.2% lead and 16g/t silver (see *Galena ASX announcement of 28 April 2021*).

## UNDERGROUND DRILLING

Underground diamond drilling for Grade Control (GC) and Resource Definition (RD) purposes commenced in June 2022 with a single drill rig drilling the top of the Abra deposit. In September 2022, a second diamond drill rig mobilised to site and both drill rigs have continued drilling from various parts of the mine including dedicated drill drives, at 1,375mRL and 1,365mRL levels, and other cuddies. The primary focus to date for the underground drilling has been the detailed evaluation of ore to be mined in the short to medium-term mine plans.

Underground drilling has been predominately focussed on infill drilling surface drillholes, with an initial pass of 24m x 24m spacing and a secondary pass of 12m x 12m spacing when required. All the drillholes are logged in detail, sampled, and assayed using similar assaying techniques as those applied to the existing surface drillholes. This higher-confidence, infill-drilling focus supports the Company for the guidance given.

As at the database cut-off date of 5 May 2023, a total of 163 underground drillholes (26,277m) have been added to the dataset, including the return of assay data (14,754 lead assays). The total

database contains 344 drillholes (124,001m) with 45,383 lead assays available for use in the 2023 MRE.

To date the underground drilling has identified changes to the location and orientation of the Abra Fault and confirmed the geological understanding of the orebody. An increase in the structural complexity in a portion of the Apron Zone has been observed in the upper northern margin, with folding and faulting in areas close to the Abra Fault identified in drillholes and underground openings. These changes caused alterations to the mine plan in the initial stages of the mine and the production ramp-up mine plans have been adjusted accordingly.

No additional surface diamond drilling was completed during the period that is associated with this MRE update.

## MINING

Underground mining of the first three levels of the mine (1,300mRL, 1,280mRL, and 1,260mRL) commenced in the first half of 2023 and has occurred predominantly in Apron Zone mineralisation. Some initial development has occurred in Core Zone mineralisation on the lowest of the three levels (1,260mRL).

Detailed mapping and sampling of mineralisation has been conducted by the mine's geological team and the detailed information has been incorporated into the revised geological model used in this MRE.

## JULY 2023 ABRA MINERAL RESOURCE

### Geological model

Abra is located in the Gascoyne region of Western Australia within clastic and carbonate sediments of the Proterozoic Edmund Sedimentary Basin. Abra is a base metals replacement-style deposit, where the primary economic metal is lead. Silver, copper, zinc, and gold are also present within and adjacent to the established lead mineralised zones but are of lower tenor. A metal zonation is observed within the Abra Deposit with the upper portion of the deposit being lead and silver dominant and the lower portion being lead, silver, copper, and gold dominant.

The mineralisation included in this MRE can be divided into two main parts, the upper "**Apron Zone**" and the lower "**Core Zone**".

The **Apron Zone** is comprised of stratiform massive and disseminated lead sulphide (galena), with minor antimony sulphide rich in zinc and silver (tetrahedrite), copper sulphide (chalcopyrite) and zinc sulphide (sphalerite) mineralisation within the lower conglomerate unit of the Edmund Basin Kiangi Creek Formation (KCLC) and the Upper Carbonate Unit of the Irregully Formation (UID). It extends for over 1,200m along strike and 750m down dip, dipping gently south. This MRE has identified 13 separate Apron lodes.

An update to the interpretation of the Apron Zone has been completed on the basis of increased information provided by the underground drilling and mapping completed to date. The underground drilling, drilled at a different angle to the original surface drilling, has defined an impermeable and unmineralised upper unit, called the Red Zone Cap (Jaspilite), which marks the upper boundary of

the Apron Zone. The Red Zone Cap occurs across the entire deposit and has assisted in the understanding of the geology associated with the Apron Zone.

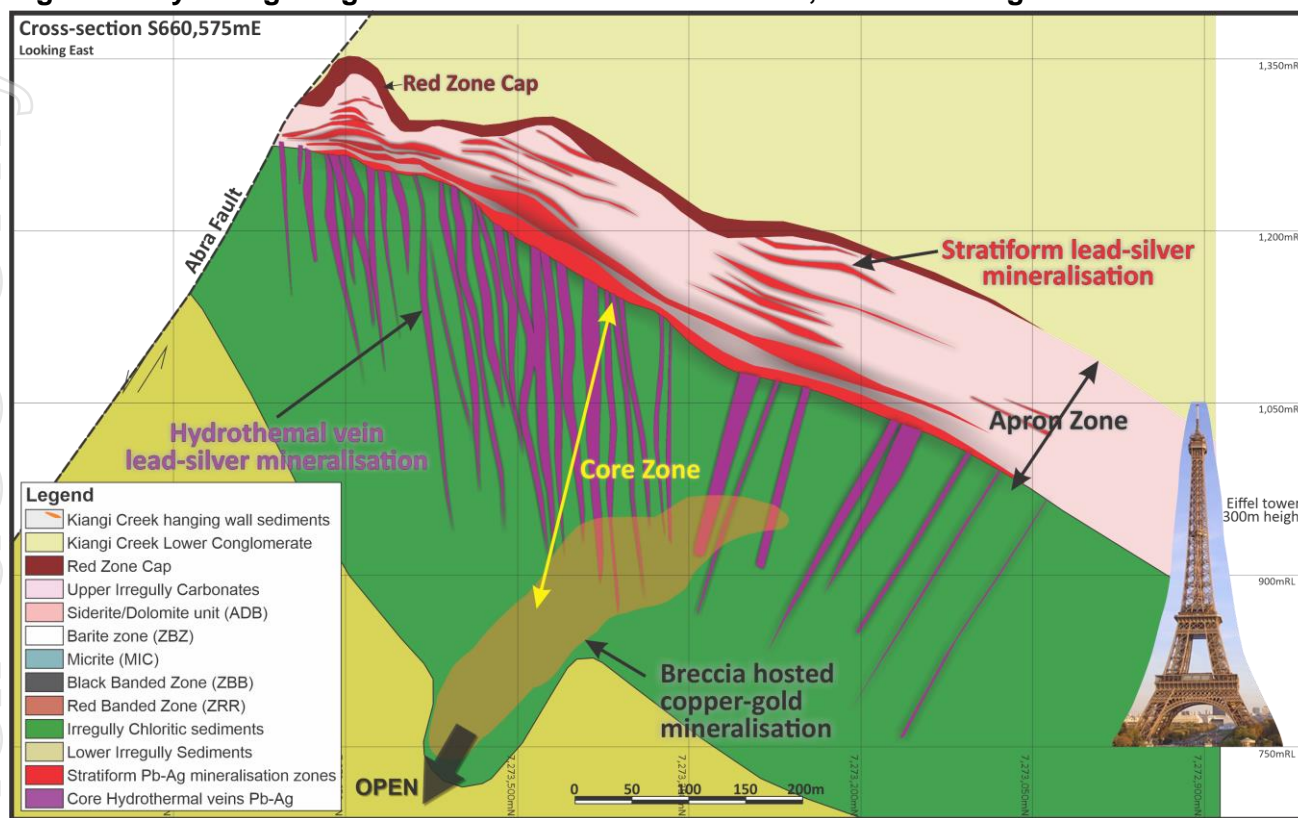
Underground drilling and mine access have confirmed the Apron Zone is dominated by flat-lying alteration zones containing jaspilite ("**Red Zone**"), barite ("**Barite Zone**"), silica-sericite ("**Micrite Zone**"), siderite-dolomite ("**Carbonate Zone**"), and haematite-magnetite ("**Black Zone**"). Distinct stratiform alteration domains have been defined within the Apron Zone and show the lead mineralisation layered in clearly identified mineralised lodes. This flat-lying stratiform orientation dominates the Apron Zone, however, access to the mining levels has also identified some sub-vertical high-grade shoots of lead, silver and copper mineralisation with similar orientation and trends as the Core Zone. These sub-vertical high-grade zones, not previously understood or modelled, offer mining upside by contributing to improved grade in some mining shapes. The geological modelling of these sub-vertical mineralisation zones within the Apron Zone represents a challenge and will rely heavily on the information collected from routine underground geology work during mining activities.

Underground drilling and mine access has also identified carbonate-rich (predominantly siderite) domal structures in various locations ("**mineralised domes**") in the upper Apron Zone. These mineralised domes occur through the interaction of strong intrusive Core Zone veins located in the basement chloritic sediments intersecting the carbonatic sediments resulting in multiple flat-lying mineralised Apron Zone lodes stacked on top of each other to form "**Christmas tree**" shaped mineralised zones. Mining of a high-grade lead and silver rich mineralised dome has occurred on the 1,300mRL level; and a second mineralised dome has recently been identified. It is considered likely that other mineralised domes will be discovered outside the existing MRE wireframes based on the topography of the red zone cap.

The **Core Zone** underlies the Apron Zone immediately below the Upper Irregularly Carbonate Domain ("**UID**"). It is comprised of an elongate funnel-shaped body with intense chlorite alteration overprinting the clastic sediments from the Irregularly Formation. Within the Core Zone, the high-grade lead sulphide mineralisation is predominantly hosted in intensely veined and brecciated zones with some disseminated fine-grained mineralisation present along preferred stratigraphic horizons, dipping gently to the south. The veining orientation is broadly east-west (110-290°), with sub-vertical dips varying from moderate north to steep south from south to north throughout the deposit. The vein mineralisation comprises quartz ± barite-dolomite + galena ± magnetite in the central to northern parts, with the addition of jaspilite observed in veins along the southern margin. High-grade zinc sulphide mineralisation (sphalerite) is found in the central and northeast portions of the Core Zone. Copper (chalcopyrite) and gold mineralisation is sporadically found throughout the Core Zone but forms a semi-coherent body at the base of Core Zone which extends from 300m to 750m below surface and can be traced for over 1,000m along strike. This MRE has identified 27 core vein lodes and 1 stratiform lode within the chloritic sediments.

Figure 1 (below) shows a stylised cross-section of Abra along with regional stratigraphy and main zones of interest.



**Figure 1: Stylised geological cross-section of Abra at 660,575mE looking east.**


Source: Galena.

### July 2023 Mineral Resource estimation and outcomes

The July 2023 MRE has been completed as an update that includes information obtained from underground diamond drilling, underground production and underground access which has occurred since the previous MRE, dated April 2021. The MRE has been completed internally by Abra Mining Pty Ltd. The work completed by Abra has been independently reviewed by Mr Mark Drabble, Executive Consultant, B.App.Sci. (Geology) of Snowden Optiro, who reviewed the geological wireframes prior to estimation, and Mr Paul Blackney, Executive Consultant, BSc (Hons) (Geology) of Snowden Optiro, who reviewed the estimation process and outcomes.

The July 2023 MRE is based on geological assay data from 344 holes for 124,000 linear metres of drilling (containing 45,383 lead samples). Mineralised intervals have been diamond drilled using NQ2 diameter core, geologically logged, photographed, cut and then half-core samples submitted to the assay laboratory for analysis. Samples have been oven-dried, crushed, pulverised and analysed for base metals using either a three-acid or four-acid digest followed by an AAS or ICP-OES finish. From drillhole AB84 onwards, samples have been analysed using XRF with a lithium metaborate / tetraborate flux. Since 2020, XRF analysis has been undertaken for lead, zinc, and copper, and either Laser Ablation or four-acid digest for silver. Gold has been routinely assayed by fire assay methods using either a 25g, 30g or 50g charge. Industry standard sampling and QAQC protocols have been used.

Geological modelling has utilised Leapfrog Geo 3D software (Version 2023.1.0). Data from geological logging, structural data, geophysical surveys, and core photography has been used to assist in the interpretation. The deposit has a complex distribution of lithology, permeability, structure, and

geochemical characteristics which define specific relationships to the mineralised lead domains. The geological model was built by Abra staff and reviewed extensively by Abra site geologists and Mr Mark Drabble of Snowden Optiro.

Mineralisation wireframes have been created for the Apron Zone high-grade stratiform lead-silver domains using a nominal cut-off of 3% lead. A total of twelve high-grade mineralised domains have been interpreted (AP101 to AP107, AP109 to AP113). Six high-grade stratiform silver zones have also been modelled within the Apron Zone as indicator wireframes by applying a cut-off grade of 35g/t silver. Additionally, a high-grade lead Apron Zone vertical vein has been identified and added to the Apron Zone domains (AV001).

Mineralisation wireframes have been created for the Core Zone high-grade sub-vertical lead-silver veins by applying a nominal 3% lead cut-off grade. A total of 27 vein-style high-grade domains have been interpreted, based on the logging of steeply-dipping quartz-sulphide veins observed in the hydrothermal breccia zone (CV0 to CV27). The southern portion of the Core Zone contains moderately north-dipping Jaspilite-bearing veins (JASP1 to JASP10). A single flat-lying stratiform lead domain (CS301) and a single high-grade silver domain have been identified in the Core Zone to date (CV14\_HG).

Some high-level high work has commenced on modelling copper, gold and zinc mineralisation to help generate potential additional drilling targets (underground exploration drilling) to be followed up in the future. Basic wireframing of these elements has been completed in the Apron Zone and Core Zone using indicator wireframing techniques in Leapfrog Geo. Gold wireframes have been generated at a cut-off of 0.45g/t Au in both zones; copper wireframes have been generated at a cut-off of 0.3% Cu in the Apron Zone and 0.4% Cu in the Core Zone; and zinc wireframes have been generated at a cut-off grade of 0.4% Zn in the Apron Zone and 1.0% Zn in the Core Zone. The wireframes have been generated independently of each other and may or may not overlap. This work has been completed independently of this MRE update.

The Abra Mineral Resource block model has been estimated in Leapfrog Edge (2023.1.0) software. Grade estimation has utilised ordinary kriging of top-cut two metre downhole composites, and has been constrained within the Apron Zone domains, Core Zone domains and background Apron Zone waste and Core Zone waste domains, generated within the Leapfrog Geo geological model. All Apron Zone and Core Zone mineralisation domain grades have been estimated using dynamic anisotropy, whereby the search ellipse alters its orientation to mirror the change in strike and dip of the domain being estimated. All domain boundaries have been treated as hard grade boundaries during grade estimation, with no soft-boundary estimation being employed.

A block size of 10mE by 10mN by 5mRL has been utilised for grade estimation. Domain boundaries and volumes have been represented using sub-cells of 1.25mE by 1.25mN by 0.625mRL. The block model has been rotated into the strike of the Core Zone veins along an orientation of 110°. Drillhole spacing is variable due to drillholes being orientated to dip both north and south, and ranges from 12m by 12m and 24m by 24m in the GC drilled portions, to 50m by 50m in the centre of the deposit. At the periphery of the deposit, the nominal drillhole spacing increases to 100m by 100m and greater.

Lead is the primary element estimated since it is the primary metal of economic significance. A weak correlation exists between lead and silver, and a very weak correlation exists between copper and gold. These correlations have not been directly utilised during grade estimation or wireframing, however, the estimation search neighbourhoods applied during estimation remained fixed for all elements.

Grade caps/top-cuts have been applied where required, based on identifying grade outliers using a population disintegration analysis methodology. Only minor top-cuts have been applied to lead and silver for a limited number of domains.

The sample search strategy varies by area. The primary search is 40m in the Apron Zone domains and 30m in the Core Zone domains. No more than three composites have been allowed to contribute to a block grade estimate from any single drillhole. Multiple search passes have been employed with increasing search radii applied for secondary and tertiary searches. The tertiary/final search pass has been designed to inform the majority blocks within the limits of the domains. Block model grades have been validated visually, by whole of domain grade comparison and using swath plots.

The Underground drilling has added bulk density data to the dataset, with the relationship between the Pb%+Ba%+Fe% combined assay data and bulk density confirmed. An exponential trendline has been applied to fit the bulk density data, resulting in the following equation with a correlation value of 0.89:  $\text{Density} = 2.6002e(0.0091(\text{Pb\%}+\text{Ba\%}+\text{Fe\%}))$ . The application of the exponential regression increased the dataset from 12,038 measured bulk density values to 59,927 combined bulk density measurements and regressed bulk density values. This enabled the bulk density to be estimated into the Apron Zone and Core Zone domain lodes and surrounding waste using ordinary kriging, by domain. Any unestimated blocks have been assigned the mean bulk density of the domain within which they belong.

The deposit has been depleted for mining to 30 June 2023, within development drives and production stopes using wireframes generated by AMPL Surveyors.

The deposit is classified as a Measured Mineral Resource, Indicated Mineral Resource, and Inferred Mineral Resource. All the Measured Mineral Resource lies within the GC-drilled portion of the deposit and is wholly within the Apron Zone. The bulk of the Indicated Mineral Resource is contained within the central and northern portions of the Apron Zone mineralisation, with minor portions in the Core Zone contained in high-grade hydrothermal vein zones in the northeast area of the deposit. The distribution of the Inferred Mineral Resource material is on the southern and eastern margins and downdip areas of the Apron Zone and comprises most of the Core Zone.

The classification of the Apron Zone Measured Mineral Resource is based on the demonstration of geological and grade continuity at close spacing, in both drillholes and mapped drives within the GC-drilled area.

The classification of the Apron Zone Indicated Mineral Resource is based on the demonstration of geological continuity and determination of thickness/extents of each domain. There is sufficient confidence in the demonstration of geological and grade continuity in the four largest Apron Zone domains (AP101 to AP104) to classify the bulk of them as Indicated Mineral Resources, with drilling density generally ranging from 25m by 25m to 50m by 50m. Inferred Mineral Resources are defined in areas of lower confidence of the geological and/or grade continuity on the margins.

The classification of Indicated Mineral Resource in the Core Zone is based on the confidence in the orientation and dip of the Core Zone veins from logging and structural measurements, and the determination of grade continuity.

Table 2 (below) states the Abra July 2023 Mineral Resource at a 5.0% lead cut-off grade (as at 30 June 2023) and Figure 2 (below) displays the insitu 'grade tonnage' curve for the Project.

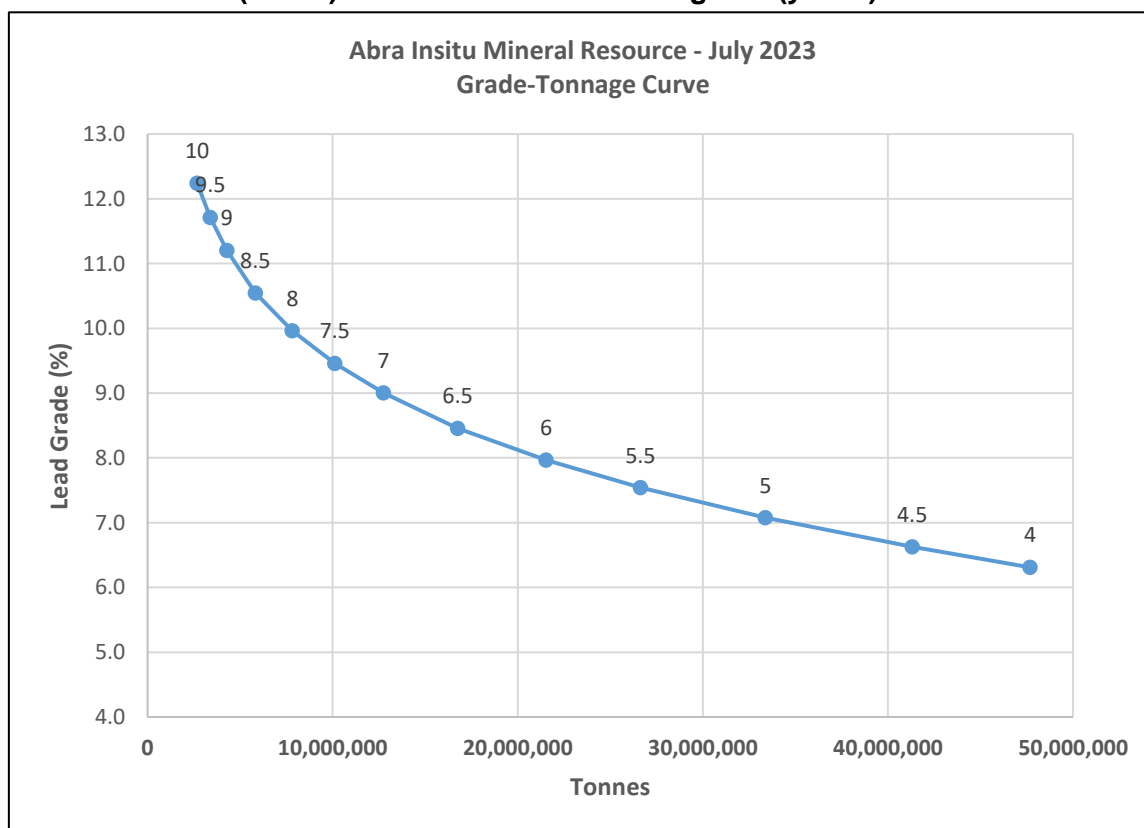
Table 2: Abra JORC Mineral Resource estimate @ 5% Pb cut-off grade (July 2023 Resource)<sup>1</sup>

Resource classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
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Indicated	16.2	7.3	19
Inferred	16.9	6.9	15
<b>Total</b>	<b>33.4</b>	<b>7.1</b>	<b>17</b>

Notes: 1. Calculated using ordinary kriging method and a 5.0% lead cut-off grade. Tonnages are rounded to the nearest 100,000t, lead grades to one decimal place and silver to the nearest gram. Rounding errors may occur when using the above figures.

Mineral Resource tabulations at a 6.0% lead cut-off grade and 7.5% lead cut-off grade have been provided in Appendix 1 for reference.

**Figure 2: July 2023 Abra Mineral Resource – Total Insitu Mineral Resource 'grade-tonnage' curve (note that numbers shown adjacent to the curve are the various cut-off grades used to determine the tonnes (x axis) and overall block model grade (y axis)).**

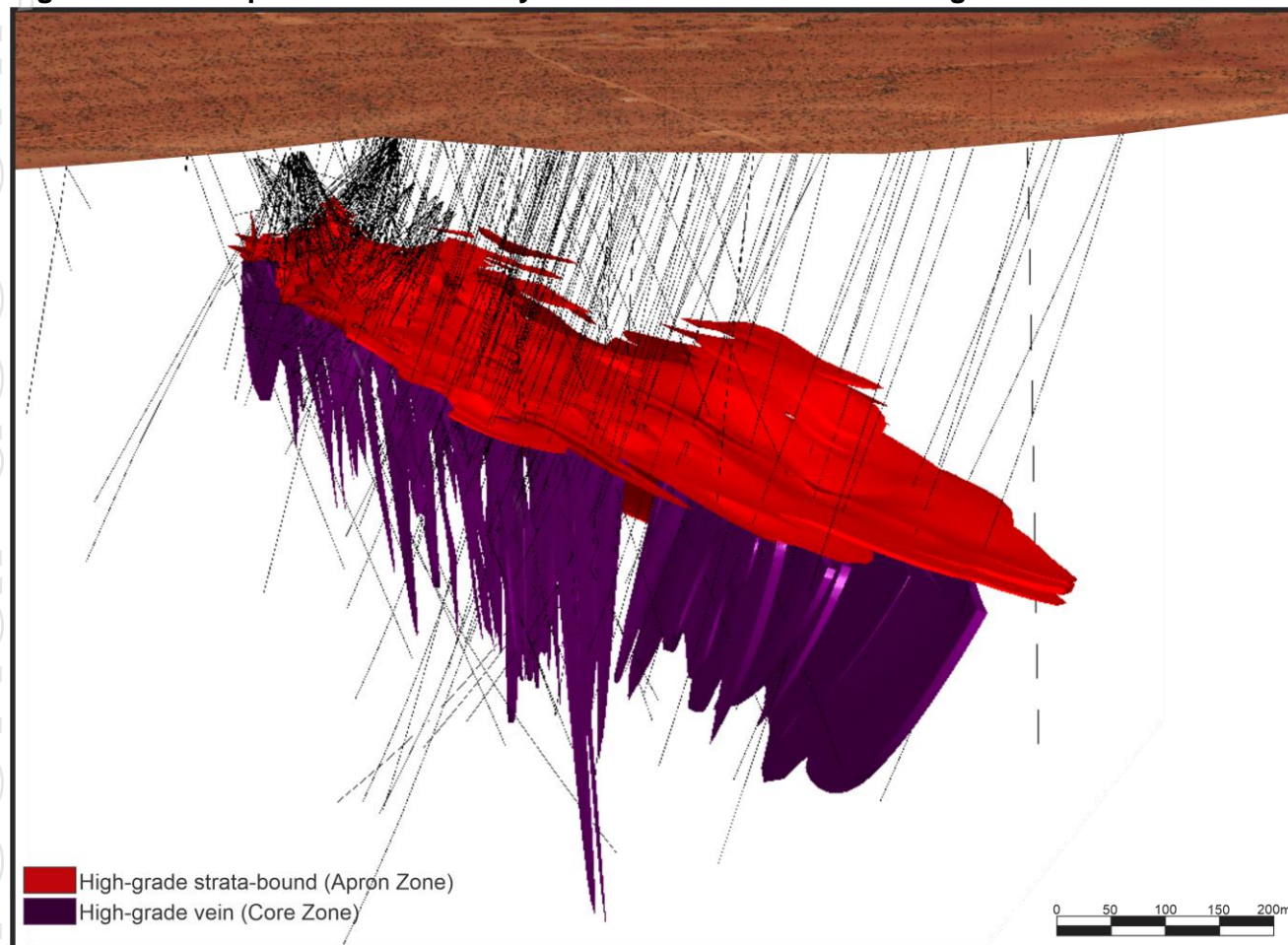


Source: Galena



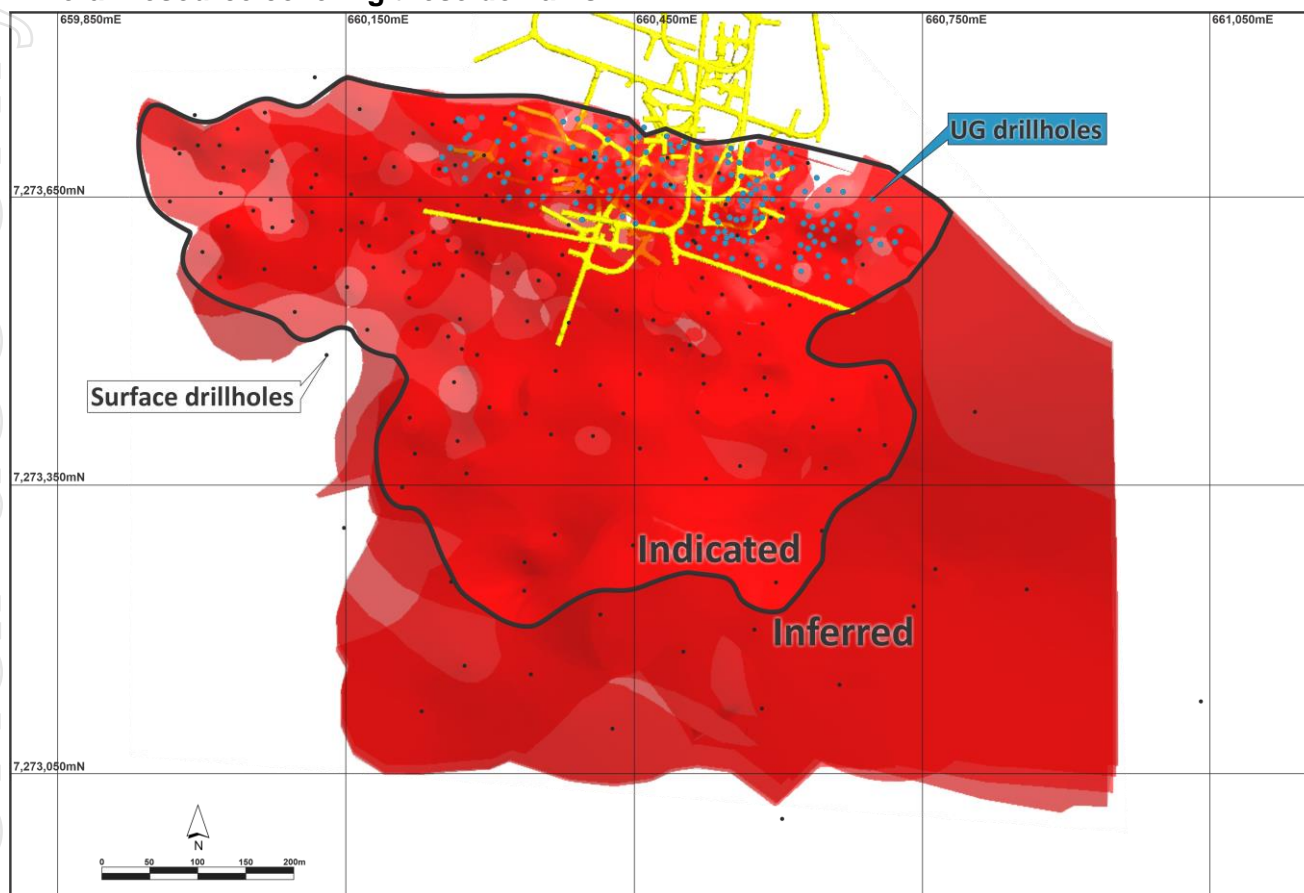
Figure 3 shows a 3D visualisation of the July 2023 Mineral Resource split between the upper Apron Zone and lower Core Zone.

**Figure 3: 3D oblique view of Abra July 2023 Mineral Resource looking east.**



Source: Galena

**Figure 4: Plan view of Abra July 2023 Mineral Resource showing the full extent of the four main Apron Zone domains and the solid outline representing the maximum extent of the Indicated Mineral Resource covering these domains.**



Source: Galena

## UNDERGROUND PRODUCTION

Mining of ore commenced in November 2022, following access to the top of the Abra deposit via the underground decline (approximately 240m below the surface). Ore mining has occurred on three levels to date in an area considered to be the upper northern margin of the orebody. Ore has been mined and will continue to be mined on the 1,300mRL, 1,280mRL and 1,260mRL levels. The surveyed development drives and production stopes (voids) have been depleted from the Mineral Resource block model as at 30 June 2023.

The mill-reconciled production, at the same date, is 325,924 tonnes at 4.8% lead and 20.3g/t silver. Mining to date has occurred at different mining cut-off grades for development (3.3% lead) and stoping (5.5% lead). The initial mine access, and ramp-up period for the mine is dominated by development material which has accounted for 75% of the processing plant feed project to date. Sub-grade material (lower than development cut-off grade) has also been processed during the commissioning phase of processing. The current life of mine (LOM) mine plan has a development contribution of approximately 18% of the processing plant feed.

Reporting the mined voids depleted to 30 June 2023 within the July 2023 MRE indicates that approximately 200,000t at 6.7% lead has been mined. This implies that an additional 125,924t at 1.8% lead has been mined and processed from outside the 2023 Mineral Resource. This additional

material comes from areas subject to lower development cut-off grades, planned and unplanned internal mining dilution, commissioning sub-grade material and areas mined that are not included in the July 2023 MRE.

As mining continues, and mining designs and execution plans continue to be optimised, the mine grade achieved will continually improve.

## MINERAL RESOURCE UPDATE SUMMARY

The July 2023 Abra MRE displays a minor reduction when compared to the previous April 2021 MRE (2023 MRE of 33.4 million tonnes at 7.1% lead and 17 g/t silver compared to 2021 MRE of 34.5 million tonnes at 7.2% lead and 16 g/t silver).

The Measured and Indicated Mineral Resource category has reduced from 16.9 million tonnes at 7.4% lead and 17g/t silver (no Measured Resource category in 2021 MRE) to 16.5 million tonnes at 7.3% lead and 19g/t silver (0.3 million tonnes at 7.3% lead and 32g/t silver in Measured category). The reduction in the Measured and Indicated Mineral Resource classifications was expected due to the changes observed during the underground drilling program along the upper northern margin of the deposit, immediately next the Abra Fault, where changes in the orientation, continuity, and thickness of the Apron Zone domains has been observed. These changes occurred within an area classified as Indicated in the April 2021 MRE update, and therefore the biggest impact has been to the Indicated Mineral Resource in this location.

The Inferred Mineral Resource category has reduced from 17.5 million tonnes at 7.0% lead and 15 g/t silver to 16.9 million tonnes at 6.9% lead and 15g/t silver. Drilling completed to date has enabled some conversion of inferred Mineral Resources to Indicated Mineral Resources.

Underground drilling and underground access have confirmed the stratiform interpretation of the Apron Zone lodes and generally the overall interpretation has not changed. The stratiform nature of the lower Apron lodes (AP101 and AP102), sitting immediately above the interface between the Core Zone and Apron Zone, is dominant and represents approximately 20 million tonnes of the total MRE. The upper Apron Zone lodes (AP105 to AP113), in some locations, display increased geological complexity which has subsequently impacted the lode volume and tonnes. Additionally, the stratiform lode AP108 has been reinterpreted as a sub-vertical Core Zone vein-style lode in the 2023 MRE, as a direct result of knowledge gained from underground mapping. The change of this interpretation has reduced the total Indicated Mineral Resource. The addition of narrow high-grade sub-vertical lodes and identification of the mineralised domes within the Apron Zone is likely to offset some of these reductions. These targets will continue to be explored for mine planning and to enhance future MREs.

The Core Zone mineralisation domains represent approximately 36% of the total 2023 MRE. These domains have not changed significantly from the 2021 MRE with original interpretations remaining consistent with the updated 2023 MRE. The sub-vertical nature of the Core Zone veins in the chloritic sediments is supported in the underground drillholes. Additional underground drilling platforms, available in the second half of 2023, are expected to provide superior drillhole angles for the ongoing underground drilling of the Core Zone.

No geological modelling or MRE has been completed on the northern side of the Abra Fault due to the current lack of drillhole information (limited holes). Drilling of lead mineralisation on the northern side of the Abra Fault will occur when the decline advances to approximately 1,200mRL and suitable drill platforms can be established.

The Board of Directors of Galena authorised this announcement for release to the market.  
**Galena Mining Ltd.,**

**Anthony (Tony) James**

Chief Executive Officer and Manager Director

## COMPETENT PERSON'S STATEMENT

The information in this report related to the Abra July 2023 Mineral Resource is based on work completed by Mr Angelo Scopel BSc (Geol), MAIG, a fulltime employee of Galena Mining and Ms Lisa Bascombe BSc (Geol), MAIG, an employee of Abra Mining Pty Ltd. Mr Scopel is responsible for data review, QAQC, and the geological model. Ms Bascombe is responsible for the resource estimation, classification, and reporting.

Mr. Scopel and Ms. Bascombe have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Scopel and Ms Bascombe consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

## FORWARD-LOOKING STATEMENTS

The contents of this announcement reflect various technical and economic conditions at the time of writing. Given the nature of the resources industry, these conditions can change significantly over relatively short periods of time. Consequently, actual results may vary from those in this announcement.

Some statements in this announcement regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "Scheduled", "intends", "anticipates", "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions.

Forward-looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should not be relied on as guarantee of future performance. Forward-looking statement may be affected by a range of variables that could cause actual results to differ from estimated results and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward-looking statements. So there can be no assurance that actual outcomes will not materially differ from these forward-looking statements.

**APPENDIX 1 – TENEMENT INFORMATION AS REQUIRED BY LISTING RULE 5.3.3**

Country	Location	Project	Tenement	Change in Holding (%)	Current Interest (%)
<u>Tenements owned by Galena or wholly-owned subsidiaries:</u>					
Australia	WA	Jillawarra	E52/1413	0	100
Australia	WA	Jillawarra	E52/3575	0	100
Australia	WA	Jillawarra	E52/3581	0	100
Australia	WA	Jillawarra	E52/3630	0	100
Australia	WA	Jillawarra	E52/3823	0	100
<u>Tenements owned by Galena's 60%-owned subsidiary Abra Mining Pty Limited:</u>					
Australia	WA	Abra	M52/0776	0	100
Australia	WA	Abra	E52/1455	0	100
Australia	WA	Abra	G52/0286	0	100
Australia	WA	Abra	G52/0292	0	100
Australia	WA	Abra	L52/0121	0	100
Australia	WA	Abra	L52/0194	0	100
Australia	WA	Abra	L52/0198	0	100
Australia	WA	Teano	L52/205	0	100
Australia	WA	Ervilla	L52/206	0	100
Australia	WA	Teano	L52/210	0	100
Australia	WA	Three Rivers	L52/214	0	100
Australia	WA	TEANO	L52/240	0	100



## ABOUT ABRA BASE METALS MINE

The Abra Base Metals mine is 60% owned by Galena and 40% owned by Toho Zinc, the Mine (“**Abra**” or the “**Project**”) is a globally significant lead-silver project located in the Gascoyne region of Western Australia (between the towns of Newman and Meekatharra, approximately 110km from Sandfire’s DeGrussa Project).

In 2017, Galena acquired the Abra project and commenced drilling the deposit for geological evaluation.

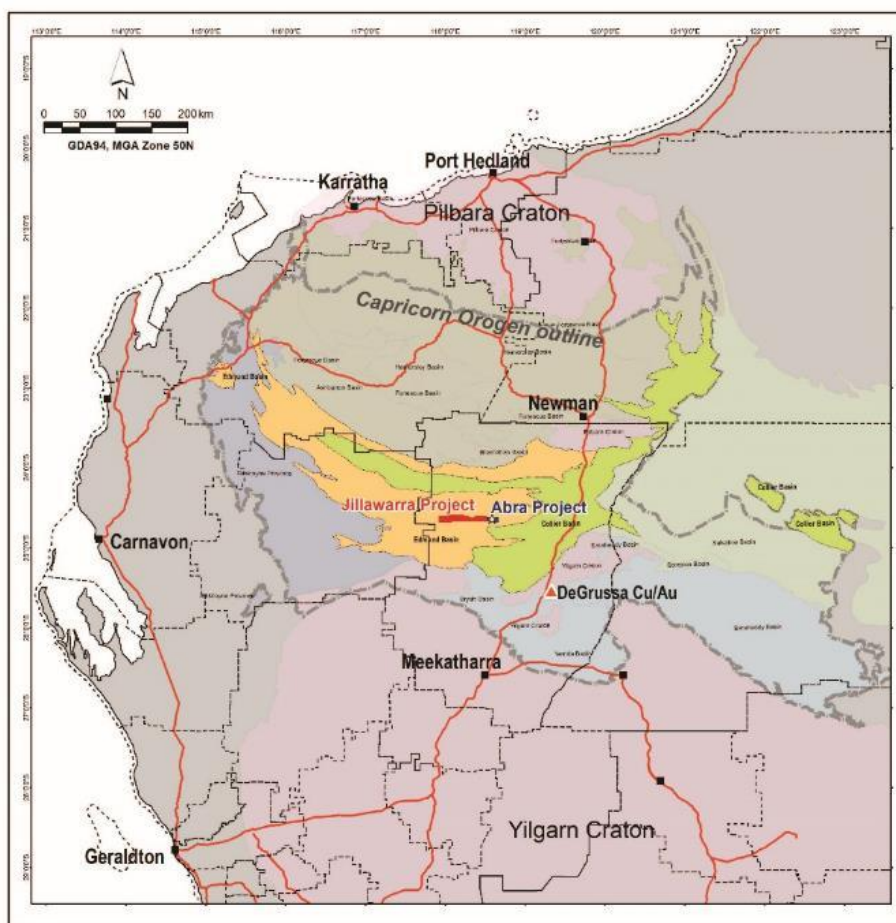
In 2018 the Galena updated 2 separate MRE and completed a Scoping and PFS.

Toho Zinc acquired 40% of the project in 2019 for A\$90M during a period where another MRE was completed and the DFS for development of an underground mine and processing facility to produce a high-grade lead-silver concentrate was finalised (see *Galena ASX announcement of 22 July 2019*). Galena also finalised an offtake agreement with IXM in the same year.

Following more drilling in 2020, the project finalised a US\$110M debt facility with Taurus.

A ‘final investment decision’ to complete the Project was made in June 2021 and construction was completed in December 2022 with first concentrate produced in the first quarter of 2023 calendar year. Following the successful commissioning of the mine in early 2023 underground production is ramping up towards steady-state mining and concentrate production.

## ABRA LOCATION



## APPENDIX 2: 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
<i>Sampling techniques</i>	<ul style="list-style-type: none"><li>• Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li><li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li><li>• Aspects of the determination of mineralisation that are Material to the Public Report.</li><li>• 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.</li></ul>	<ul style="list-style-type: none"><li>• The Abra June 2023 Mineral Resource Estimate (MRE) is primarily based upon geological and assay data from diamond drilling programs completed at Abra from 1981 to date, including the extensive infill Underground GC drillhole program which commenced in September 2022.</li><li>• The Mineral Resource estimate contains 376 drillholes for 129,973.91 m of drilling (45,383 Pb samples). The quoted drill metres exclude drillholes that did not intersect the mineralised zones and outside the deposit area.</li><li>• Sample intervals have been selected based upon geological logging and range in length from 0.3 m to 3.0 m. GML and AMPL generally sampled at 1 m sample intervals, while earlier drilling was sampled in 2 m intervals.</li><li>• Sampling has been applied continuously throughout the mineralised intervals with cutting lines applied to create a representative sample for the respective interval.</li><li>• The sampling methodology is considered to be representative and appropriate for the style of mineralisation at Abra (poly-metallic lead-silver-zinc-copper-gold).</li></ul>

Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg, core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg, 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).</li> </ul>	<ul style="list-style-type: none"> <li>Surface drillholes have been diamond drilled commencing with HQ diameter (to minimise deviation) and reduced to NQ2 diameter at between 80 m and 200 m downhole depth. Several drillholes were RC pre-collared through the barren upper sequence rocks, cased and diamond tailed using NQ2 diameter drilling. Surface diamond drilling used wireline drilling methods. Drillhole depths ranged from 320 m to 1,000 m with an average depth of 454 m.</li> <li>Underground (UG) GC diamond drillholes have been completed from dedicated drill drives and underground stockpiles/platforms. All drillholes have been drilled as NQ2 diameter drillholes, using a combination of wireline and conventional drilling techniques. Underground GC drillholes range in length from 39 m to 450 m, with an average length of 312.2 m.</li> <li>Most core drillholes have been oriented. Pre-GML/AMPL drillholes were either orientated using a Chinagraph spear or Ballmark/Ezemark type systems. Galena's 2017- 2021 drilling was systematically oriented using either a Reflex ACT Mk.3TM or TrueCoreTM core orientation system.</li> <li>Underground GC drillholes are orientated using a REFLEX ACT III™ tool operated by Swick Mining Services during the drilling operations.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All diamond core has been measured/recorded for drilling recovery by GML/AMPL staff (and its predecessors).</li> <li>Overall core recovery is excellent due to the silicified and competent nature of the core with recoveries typically approximating 100%.</li> <li>No grade versus recovery sample biases, due to loss or gain of material has been identified.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>he total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All drill core has been logged geologically and geotechnically in detail sufficient to support the Mineral Resource estimate, mining and metallurgical studies.</li> <li>Surface drillholes have been logged for lithology, texture, veining, grain size, structure, alteration, hardness, fracture density, RQD, alteration, mineralisation, and magnetic response.</li> <li>Underground GC drillholes have been logged for lithology, texture, veining, structure, alteration, hardness, fracture density, RQD, and mineralisation.</li> <li>Lithological observations collected reflect both qualitative and quantitative data. All geotechnical observations and core photographs are quantitative.</li> <li>100% of the diamond core has been logged and photographed wet and dry.</li> </ul>

*Sub-sampling techniques and sample preparation*

- *If core, whether cut or sawn and whether quarter, half or all core taken.*
  - *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*
  - *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*
  - *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*
  - *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.*
  - *Whether sample sizes are appropriate to the grain size of the material being sampled.*
- All Surface drillholes and Underground GC drillholes have been routinely sampled as half-core (NQ2) for assaying, apart from two drillholes drilled in 2012, which were quarter-cored.
  - All core has been appropriately orientated and marked-up for sampling by company geologists prior to cutting. Sample lengths range from 0.3 m to 3.0 m.
  - AMPL and GML's sampling has generally been completed in 1 m intervals whereas its predecessors were generally 2 m intervals.
  - Blank samples were routinely dispatched to the laboratory to monitor sample preparation practices. These generally performed within acceptable tolerances; however, elevated lead values were returned from some blanks which is thought to either represent cross-sample contamination (i.e. soft lead caking the sample preparation bowl) or issues with the high lead values at the read stage. From drillhole AB78 onwards, barren flushes were carried out after each sample during sample preparation to reduce the risk of high-grade lead contamination between adjacent samples. Barren flushes are inserted routinely in all Underground GC sample lots.
  - In GML/AMPL's 2017-2019 drill programs, coarse-crush duplicates were routinely assayed. Results showed an excellent correlation demonstrating a high level of grade repeatability.
  - In AMPL's 2020-2021 infill drilling program a new duplicate sample methodology was added to the QAQC system. A field duplicate sample was added, whereby the other half of the original core sample was sampled and submitted to the lab for analysis as a blind field duplicate. Most of the field duplicate samples display high to moderate levels of correlation, however, some of the samples display greater than 10% variance from the original sample, demonstrating the presence of a level of inherent grade variability within the mineralisation.
  - Sample sizes are typically 3kg to 6kg (depending on the length of the sample) and are considered appropriate for the fine to medium grained galena mineralisation present at Abra.

<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• Nature of quality control procedures adopted (eg, standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<p><b>ASSAYING TECHNIQUES AND METHODOLOGIES:</b></p> <ul style="list-style-type: none"> <li>• Several different laboratories and analytical techniques have been used for the assaying of Abra samples over the life of the project:</li> </ul> <p><b>Amoco/Geopecko/Renison Goldfields (1981 – 1995)</b></p> <ul style="list-style-type: none"> <li>• Samples were submitted to SGS Analabs Perth, Comlabs Perth, Genalysis Perth, and ALS Chemex Perth.</li> <li>• Sample analysis in the older drillholes was generally a three-acid digest with an AAS finish for the base metals.</li> <li>• Silver and gold were determined by fire assay using a 30g or 100g charge.</li> </ul> <p><b>Old City/Abra Mining Limited/HNC (2005 – 2016)</b></p> <ul style="list-style-type: none"> <li>• Samples were submitted to Genalysis Perth, and Ultratrace Perth for analysis.</li> <li>• Samples were analysed using a four-acid digest with either an AAS or ICP-OES finish. Later samples used the NaOH fusion technique for base metals followed by an ICP-OES finish.</li> <li>• Gold was analysed using either a 25g or 40g fire assay.</li> </ul> <p><b>Galena Mining (2017 to 2018)</b></p> <ul style="list-style-type: none"> <li>• Samples were analysed by SGS Laboratories in Perth. An ore grade 4-acid digest was used followed by an ICP-AES finish. A selection of samples was sent for gold analysis by fire assay with AAS finish.</li> <li>• From June 2018 (Drillhole AB84) samples were analysed using XRF with a platinum crucible using a lithium metaborate/tetraborate flux.</li> <li>• Gold was analysed by fire assay of a 50g charge with an AAS finish.</li> </ul> <p><b>Abra Mining Pty Ltd (2019)</b></p> <ul style="list-style-type: none"> <li>• Samples were analysed by SGS Laboratories in Perth, using XRF with a platinum crucible using a lithium metaborate/tetraborate flux and ore grade 4-acid digest was used for silver followed by an ICP-AES finish. A selection of samples was sent for gold analysis by fire assay with an AAS finish.</li> </ul> <p><b>Abra Mining Pty Ltd (2020-2021)</b></p> <ul style="list-style-type: none"> <li>• Samples were submitted to the Bureau Veritas Laboratory in Perth.</li> <li>• All samples were submitted for XRF analysis for 19 elements, including lead, copper, and sulphur, and also for Laser Ablation for silver, barium and other 18 elements. Gold analysis was undertaken using fire assay of a 50g charge.</li> </ul>
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		<p><b>Abra Mining Pty Ltd (2022 to current – UG GC Drilling)</b></p> <ul style="list-style-type: none"><li>• Samples are submitted to Intertek Perth for analysis by fused-disc XRF for lead, copper, zinc, iron, and barium (using a lithium-borate flux).</li><li>• Silver is determined using four-acid digestion with an ICP-MS finish.</li><li>• Reviews of the assay results by different assay methodologies have been completed, and no biases identified.</li><li>• The analysis methods used are considered to approach total dissolution and are therefore reporting total assay values and are considered appropriate for the style and tenor of mineralisation at Abra by the Competent Person.</li></ul> <p><b>QAQC SYSTEMS:</b></p> <p><b>Amoco/Geopecko/Renison Goldfields (1981 – 1995)</b></p> <ul style="list-style-type: none"><li>• Geopeko Limited verified its assay data by submission of duplicate samples and cross checks by umpire laboratories. RGC submitted standards every 20 samples.</li></ul> <p><b>Old City/Abra Mining Limited/HNC/Abra Mining Limited/Galena Mining/Abra Mining Pty Ltd (2005 – current)</b></p> <ul style="list-style-type: none"><li>• The majority of drillholes were either drilled by Abra Mining Limited (2005-2008), GML (2017 - 2018) or AMPL (2019 - current) who all used industry standard QAQC programs. Blanks, certified reference standards and coarse-crush duplicates were regularly submitted to the assaying laboratory and monitored.</li><li>• Both AML and GML/AMPL completed umpire pulp duplicate assaying by an alternate laboratory with results returned consistent with the primary samples.</li><li>• Blind field duplicates have been added to the QAQC sample suite by AMPL in 2020.</li><li>• The QAQC data indicates that assaying data accuracy and precision is of an appropriate quality for Mineral Resource estimation work.</li><li>• No handheld XRF or other geophysical data is reported here or used in the estimation of the Mineral Resource.</li></ul>
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<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• Most historic significant intersections have been verified by (then) GML Geologists Angelo Scopel and Don Maclean while completing a core relogging program in 2017.</li> <li>• Two twinned drillholes have been drilled as wedges on AB131 (AB131W1) and AB135 (AB135W1). With an average separation distance of 7 m, the intersections displayed good correlation with the lithology and mineralisation (interval locations, thickness and grade) between the twinned and original drillholes.</li> <li>• Prior to GML, primary geological logging and sampling data was first recorded on paper and then entered into electronic files onsite. Electronic copies were transferred periodically to the Perth head office where the master database was stored and managed. Duplicates of the data were kept onsite after validation. Duplicates of all paper copies of sample data were made for site and head office.</li> <li>• During GML/AMPL's 2017-2019 drilling programs geological logging and sampling data was firstly recorded on either paper or in a Toughbook computer and then entered into an electronic Excel and Access database files onsite. Electronic copies were backed up onsite and routinely transferred to the Perth head office. All paper documents were scanned onsite and electronic copies kept. Duplicates of the data were copied to the Perth office after validation. Assay data was imported and merged directly from lab digital files in excel then later uploaded in an Access Database. All data has been migrated to a DatashedTM database to ensure data integrity and security.</li> <li>• GML/AMPL has used LogChiefTM for logging and sampling recording for all the drilling programs since 2018. Digital copies of all files are located on the site server and in Sharepoint folders, enabling access from any location.</li> <li>• No adjustments have been made to any assay data.</li> </ul>
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<p>Location of data points</p>	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<p><b>COLLAR SURVEYS:</b></p> <ul style="list-style-type: none"> <li>• All surface drillhole collars have been surveyed using a DGPS by either Haines Surveys (2005), MHR Surveys (2007), Galt Mining Solutions (2017), ABIMS (2018, 2019), Land Surveys (2019), Terry Attwood Surveyor Consultant and ABIMS (2020, 2021). The DGPS accuracy is within 0.02 m.</li> <li>• Checks of historical surface drillhole collar locations have been completed and are within error of the original collar location. The topography of the Abra area is very flat and surface drillhole collars have been cross checked against the topographic surface (accuracy within 0.1 m vertical) and no significant differences identified.</li> <li>• Underground GC drillhole collars have been surveyed by mine-site UG Surveyors using a Leica Nova MS60 multi-station theodolite with an accuracy of 0.001 m.</li> </ul> <p><b>DOWNHOLE SURVEYS:</b></p> <ul style="list-style-type: none"> <li>• Surface drillholes have been downhole surveyed using several different methods:</li> </ul> <p><b>Pre-Galena Mining (1981 – 2008)</b></p> <ul style="list-style-type: none"> <li>• Prior to 2008, diamond drillholes were routinely surveyed every 30 m to 50 m downhole during drilling using an Eastman Single-Shot camera. A number of these drillholes were later gyroscopically re-surveyed due to the presence of magnetite-rich rocks in some portions of the deposit which renders the Eastman azimuths inaccurate. Some inconsistencies between the Eastman single-shot and gyro data were identified in historic reviews, which was largely attributed to incorrect set-up azimuths being provided to the gyro-operators and some poor gyro QAQC controls.</li> <li>• The pre-GML downhole survey data was reviewed, drillholes were re-surveyed where possible, and erroneous data discarded, or azimuths corrected to be consistent with neighbouring reliable surveys and re-surveyed data. Historical drillholes surveyed by previous operators (before 2017), were surveyed using Eastman single-shot (ESS) and/or using Electronic Multi-shot (EMS) downhole cameras. Due to significant amount of magnetite within the Abra ore body, the ESS and EMS downhole surveys were significantly affected, and during the validation of previous surveys during a QAQC check of the downhole surveys in 2018, using a north seeking gyroscope, was completed to determine the variance. The new gyroscope data was applied to the historical drillholes surveyed and similar variance applied to neighbouring drillholes.</li> <li>• Several historical drillholes were re-surveyed during the various drilling programs by Galena Mining Limited and Abra Mining Pty Limited after 2018, as part of the downhole survey QAQC process.</li> </ul> <p><b>Galena Mining (2008 - 2021)</b></p> <ul style="list-style-type: none"> <li>• From 2008-2018 electronic multi-shot Ranger and Ezi-shot downhole tools were used for</li> </ul>
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		<p>routine surveying every 30 m while drilling. These drillholes were later re-surveyed using a north-seeking gyro by contractor ABIMs and the multi-shot data replaced with gyro data in the database export.</p> <p><b>Abra Mining Pty Ltd (2019 to 2021)</b></p> <ul style="list-style-type: none"> <li>• Surface drillholes were routinely surveyed using north-seeking Gyro every 30 m as drilling progressed.</li> <li>• QAQC checks consisted of the selection of six drillholes for independent gyro re-survey. The gyro re-surveys returned results consistent with the original surveys. In addition, 13 historic pre-GML drillholes were also surveyed using the north-seeking gyro.</li> </ul> <p><b>Abra Mining Pty Ltd (UG GC - 2022 to current)</b></p> <ul style="list-style-type: none"> <li>• Underground GC drillholes are surveyed using a continuous survey methodology utilizing a north-seeking REFLEX GYRO SPRINT-IG™ by the drilling contractor at the end of each drillhole.</li> <li>• All survey data is captured in Map Grid of Australia GDA 94, Zone 50.</li> </ul> <p><b>UNDERGROUND OPENINGS:</b></p> <ul style="list-style-type: none"> <li>• All development drives have been surveyed on a routine basis by UG Surveyors using a Leica Nova MS60 multi-station theodolite with an accuracy of 0.001 m.</li> <li>• All underground stopes, either in progress or complete, have been surveyed using a Teledyne Optech CMS V500 Cavity Monitoring System, with an accuracy of 0.02 m.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The footprint of the Abra deposit extends 1,200 m east-west along strike and 800 m north-south.</li> <li>• Drillhole spacing varies from 150 m spaced centres on the periphery of the deposit to 12 m spacing in the GC-drilled portions.</li> <li>• The GC infilled area contains 163 drillholes with an average spacing of between 12 m and 48 m.</li> <li>• The deposit lies between 230 m and 750 m below surface.</li> <li>• Data spacing is sufficient to establish geological and grade continuity and is considered appropriate to form the basis of a Mineral Resource estimate.</li> <li>• No sample compositing has been applied to drillhole data.</li> </ul>

Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation in the Apron Zone consists of tabular shallow south dipping zones which can be drilled from north or south with high intersection angles. During the underground drilling program, a fold along the northern margin of the Apron Domain was identified, however this only effects the northern margin of the deposit.</li> <li>During 2022 and 2023, a significant amount of underground diamond drillholes were added to the project database, now accounting for over 50% of the data intercepting the Abra Mineral Resource. Multiple drillhole orientations were achieved from various drilling platforms enabling a better understanding to the mineralisation lodes in the Apron Domain.</li> <li>The Core zone has steeply dipping structures that trend east-west with the northern core vein structures steeply dipping to the south changing progressively towards the south with core veins dipping steeply to the north.</li> <li>The Apron Zone is not considered to have any sample bias issues due to the high intersection angles of all the drilling, however with the new information collected by underground geological mapping programs, a secondary orientation (vertical), has been defined within the Apron Domain, despite that, the primary interpreted orientation is still the stratiform orientation.</li> <li>By virtue of its nature as a feeder zone to the Apron Zone mineralisation, the Core Zone has drilling at low intersection angles to the mineralised structures. Better intersection angles are expected to be achieved with the progress of the underground development and addition of optimised drilling platforms.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All companies that drilled the deposit implemented/maintained sample security protocols. All samples were transported from site to Perth assay laboratories either by company personnel or by courier.</li> <li>Drill core was transported twice daily from the drill rig to the core yard at the completion of the shift.</li> <li>GML/AMPL drill core has been transported to the core yard where it has been logged and sampled. Securely sealed sample bulka-bags have been transported by AMPL staff from the Abra site to Meekatharra for commercial trucking to the laboratory in Perth or trucked directly by GML/AMPL transport contractors.</li> <li>All remaining core is stored on site.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Mark Drabble of Snowden Optiro carried out a review of the sampling, data collection processes, controls on mineralisation and geological framework during a site visit to Abra in December 2021 and found that the protocols met industry standard with no material issues identified.</li> <li>Mitchell River Group completed an audit of the geological database used for the estimate in February 2021. This audit included the review and documentation of sampling and geological</li> </ul>



		<p>data integrity. No issues were identified.</p> <ul style="list-style-type: none"> <li>Data validation checks are completed routinely in Leapfrog Geo and Datashed on importation of the drillhole data. No significant data entry errors have been identified.</li> </ul>
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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
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Abra Mining Pty Limited (AMPL) holds 100% interest in the Abra Project, consisting of Mining Lease M52/0776, Exploration Licence E52/1455, General Purpose Leases G52/292 and G52/286 and Miscellaneous Licences L52/021, L52/198 and L52/210.</li> <li>Royalties that apply to the M52/776 and E52/1455 tenements include: 5.0% Western Australian State royalty plus 3.5% in historical, vendor and other royalty equivalent payment obligations for lead; and 2.5 % Western Australian State royalty plus 3.5% in historical, vendor and other royalty equivalent payment obligations for silver.</li> <li>Galena Mining Limited (GML) currently owns 77.28% of AMPL, with the remainder owned by Toho Zinc Co. Ltd (Toho) of Japan. Toho have an agreement with Galena to acquire up to 40% of the project assuming key project targets are met.</li> <li>Abra is subject to an existing Indigenous Land Use Agreement and Heritage Agreement with the Jidi Jidi Aboriginal Corporation, the relevant native title claimant group.</li> <li>All tenements are in good standing.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Initial exploration around the Abra deposit was undertaken by Amoco Minerals Australia Company (Amoco) in 1974 but they failed to discover the Abra deposit when testing the significant magnetic anomaly associated with the mineralisation. Geopeko Limited entered into a JV with Amoco in 1980 and drilled the discovery drillhole in 1981. In total they drilled 8 diamond core drillholes (AB1-11) before being taken over by North Limited (North) which did not complete any exploration. In 1995 Renison Goldfields Corporation (RGC) Exploration joint ventured in and drilled another deep diamond core drillhole (AB22A) with a daughter drillhole wedged off of it (AB22B). Both North and RGC were subject to takeovers and the tenement was relinquished in 1999. Old City Nominees Pty Ltd, a private company, then acquired the ground and subsequently vended the project into Abra Mining Limited (AML).</li> <li>AML resumed drilling in 2005 and completed drillholes AB23-AB59. Abra Mining drilled out the main extents of the deposit and completed various drilling programs focussing on establishing a high tonnage, low grade lead Mineral Resource that would be amenable to bulk underground mining. Preliminary mining, geotechnical and metallurgical studies were completed.</li> <li>AML was subsequently taken over in 2011 by Chinese company Hunan Nonferrous Metals' Australian subsidiary, HNC Resources Pty Ltd (HNC), following a lengthy acquisition process. Two diamond drillholes were drilled in 2012 (AB60A and AB61) HNC divested the project in</li> </ul>

		<p>2016. GML acquired the project in 2017 and floated on the ASX.</p> <ul style="list-style-type: none"> <li>The historic exploration work on the project is of a very high standard and the data sets generated are appropriate for use in the Mineral Resource estimate.</li> </ul>
Geology	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Abra deposit lies within sediments of the Proterozoic Edmund Group. Abra is a base metal replacement-style deposit hosted by sediments. The primary economic metal is lead (Pb). Silver (Ag), copper (Cu), zinc (Zn) and gold (Au) are also present but are of much lower tenor.</li> <li>The deposit can be divided into two main zones. The upper Apron Zone comprises stratiform massive and disseminated lead- sulphides (galena) and minor copper sulphides (chalcopyrite) within a highly altered sequence of clastic and carbonate rich sediments. Alteration products include jaspilitic rich sediments (Red Zone), barite alteration zone (Barite Zone) and a distinctive stratiform zone of hematite-magnetite alteration (Black Zone). In 2022, following considerable UG GC drilling, a distinct Red Zone Cap has been defined at the top of the Apron Zone, forming an impermeable barrier and trapping the mineralising fluids. No significant mineralisation occurs within the Red Zone Cap.</li> <li>The Apron Zone extends for 1,000 m along strike, 700 m down dip, and dips gently south and it presents as a fold along the northern margin, near the Abra Fault. The primary mineralisation orientation within the Apron Zone is the stratiform orientation with secondary (high-grade) mineralisation occurring sub-vertically on a similar orientation to the core mineralisation lodes located underneath.</li> <li>The Core Zone underlies the Apron Zone and comprises an elongate funnel-shaped body of hydrothermal breccias, veining and intense alteration overprinting gently south-dipping sediments. The veining and breccia zones in the Core Zone represent a swarm of east-west striking and steeply-dipping feeder zones to the overlying Apron Zone. Hydrothermal veining dips steeply south on the northern flank, sub-vertically in the central portion and moderate to steeply northerly on the southern margins. High-grade lead sulphide mineralisation is predominantly hosted in intensely veined zones. High-grade zinc sulphide mineralisation (sphalerite) is found in the central portion of the Core Zone. Copper (chalcopyrite) and gold mineralisation is sporadically found throughout the upper portions of the Core Zone but forms a semi-coherent body at the base of the Core Zone.</li> <li>The Core Zone extends from 300 m to 750 m below surface and can be traced for over 400 m along strike.</li> </ul>

<p><i>Drillhole Information</i></p>	<ul style="list-style-type: none"> <li>• <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> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drillhole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The Abra Mineral Resource estimate is based upon geological and assay data from diamond drilling programs completed at Abra from 1981 until May 2023.</li> <li>• The MRE uses 376 drillholes for 129,973.91 m of effective drilling (45,383 lead assays).</li> <li>• At the database cut-off date, a total of 32 UG GC drillholes had been drilled, but assays had not yet been received from the assay laboratory. These drillholes informed the geological interpretation but were not used in the estimation of grades.</li> <li>• A complete listing of all drillhole details and drillhole intercepts used in the estimate is not appropriate for this report. All drillhole information has been previously reported and its exclusion does not detract from the understanding of this report.</li> </ul>
<p><i>Data aggregation methods</i></p>	<ul style="list-style-type: none"> <li>• <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No exploration results are reported in this report.</li> <li>• No metal equivalents are reported here.</li> </ul>

Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• No exploration results are reported here.</li> <li>• The upper strata-bound mineralisation is gently dipping to the south and drilling intercepts are typically close to true width.</li> <li>• The lower vein-hosted mineralisation is generally steeply-dipping and drilling intercepts are greater than the true width of the mineralisation.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• A plan view of the Mineral Resource outline and appropriate sections and views of the Mineral Resource are included within this report.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• No exploration results are reported here.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• AMPL and its predecessors have collected a substantial volume of dry bulk density readings from drill core using standard water immersion techniques (over 12,000 readings within the MRE area).</li> <li>• Where no dry bulk density data has been measured, the density has been regressed by comparing the combined assay results of Fe+Ba+Pb to the measured dry bulk density values. The regression displays an excellent correlation of around 0.9.</li> </ul>

Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate documented in this report will form the basis of an updated Ore Reserve and Life of Mine Plan.</li> <li>The mineralisation remains open to the north (north of the Abra Fault), west, east and south. Underground drilling to the north of the Abra Fault in 2022 has identified the occurrence of mineralisation and extension to previously identified base metals mineralisation.</li> </ul>
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### Section 3 Estimating and Reporting of Mineral Resources

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

Database integrity	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>The Abra drilling database is stored in Datashed™ with data hosting services provided by the Mitchell River Group.</li> <li>From 2018, Log Chief™ was used for logging and sampling which has in built validation checks.</li> <li>Data is validated upon import into Leapfrog Geo, with no significant issues identified.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>The Competent Person for the geological and assay data is Mr Angelo Scopel (Geol), Bachelor in Geology, MAIG. Mr. Scopel is a permanent employee of Galena Mining Limited and worked at Abra Project between 2007 until November 2011 with Abra Mining Limited, returning to the project in September 2017 with Galena Mining. Mr. Scopel has spent extensive periods of time at Abra from 2017.</li> <li>The Competent Person for the Mineral Resource Estimate is Ms Lisa Bascombe: B.Sc (Geology), MAIG. Ms Bascombe is a permanent employee of Abra Mining Pty Ltd and has visited the project in January 2023 to review the drilling, logging and sampling procedures, along with the underground mapping and sampling procedures.</li> <li>The Competent Persons are of the opinion that the work has been completed in line with industry best practice and to an appropriate standard suitable for the Mineral Resource reported.</li> </ul>

Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The geological interpretation is based upon geological logging data from diamond drill core for the Abra deposit. Structural data from orientated drill core and historic structural studies have been important guides for the interpretation.</li> <li>Geological/mineralisation modelling has been completed in Leapfrog Geo 3DTM software (v2023.1.0). The deposit comprises the gently south dipping stratiform Apron Zone and the steep-dipping feeder hydrothermal veins and breccias of the Core Zone.</li> <li>The detailed 3D geological model has been used to control the mineralisation wireframe interpretation. Mineralisation has been coded into domains consistent with the host lithology.</li> <li>Lead mineralisation wireframes were interpreted at a nominal cut-off grade of 3% Pb.</li> <li>High-grade silver zones correlating with several lead mineralised domains have been identified in Apron lodes AP101, AP102, AP103, AP104, AP105 and AP106, and in the Core vein CV14. High-grade silver indicator wireframes have been generated in Leapfrog Geo at a cut-off of 35 ppm Ag following a cut-off grade analysis.</li> <li>Copper, gold and zinc indicator wireframes have been generated in Leapfrog Geo within the Apron and Core zones for the estimation of these elements. The cut-off grades applied are: <table border="1" data-bbox="1227 662 2132 794"> <thead> <tr> <th>Element</th><th>Apron Zone</th><th>Core Zone</th></tr> </thead> <tbody> <tr> <td>Cu</td><td>0.3</td><td>0.4</td></tr> <tr> <td>Au</td><td>0.45</td><td>0.45</td></tr> <tr> <td>Zn</td><td>0.4</td><td>1.0</td></tr> </tbody> </table> </li> </ul>	Element	Apron Zone	Core Zone	Cu	0.3	0.4	Au	0.45	0.45	Zn	0.4	1.0
Element	Apron Zone	Core Zone												
Cu	0.3	0.4												
Au	0.45	0.45												
Zn	0.4	1.0												
Dimensions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Mineral Resource estimate encompasses all of the Abra Deposit which extends for 1200 m along strike and 800 m across-strike. The Mineral Resource lies between 250 m and 750 m below surface.</li> </ul>												
Estimation and modelling techniques	<p>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.</p> <ul style="list-style-type: none"> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> </ul>	<ul style="list-style-type: none"> <li>The Abra Mineral Resource block model has been estimated using Leapfrog Edge (v2023.1.0) software. Grade estimations have been undertaken by Ordinary Kriging of top-cut two metre downhole composites.</li> <li>Grade estimations have been constrained to stratiform mineralisation (Apron Zone), vein mineralisation (Core Zone) and unmineralised domains developed from physical observations of core samples and lead-grade characteristics.</li> <li>The dataset utilised in the estimation of the Mineral Resource contains only diamond drillhole data. UG face, walls and sludge samples have not been used.</li> <li>The block model contains estimated values for lead, silver, dry bulk density, copper, zinc and gold. No deleterious elements have been estimated.</li> <li>A block size of 10mE by 10mN by 5mRL has been employed for grade estimation. Domain boundaries have been represented using sub-cells of 1.25mE by 1.25mN by 0.625mRL. The block model has been rotated into the strike of the mineralisation (110°).</li> <li>Samples have been composited to 2 m and all elements weighted by density during compositing.</li> <li>Grade caps/top-cuts have been applied based on identifying grade outliers using a</li> </ul>												

	<ul style="list-style-type: none"> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <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></li> </ul>	<p>population disintegration analysis methodology on a domain-by-domain basis. Only minor grade caps have been applied to lead and silver for a limited number of domains.</p> <ul style="list-style-type: none"> <li>• The mineralisation and waste domains have been treated as hard grade boundaries during grade estimation.</li> <li>• The sample search strategy varied by zone. The primary search is 40 m in the Apron Zone lodes and 30 m in the Core Zone veins. The estimation has been undertaken using dynamic anisotropy within the mineralised domains. No more than three composites from any single drillhole are allowed to contribute to a block grade estimate. A minimum of 10 and a maximum of 20 samples can be used to inform a block in the primary search pass.</li> <li>• Multiple search passes have been employed with increasing search radii applied the for second and third searches. The final search pass has been designed to inform the majority of unestimated blocks within the limits of the domains. The minimum number of informing samples is decreased to 1 in the third search.</li> <li>• A weak correlation exists between lead and silver and a very weak correlations exist between lead, silver and the other elements. These correlations have not been directly utilised during grade estimation, however, the estimation search neighbourhoods and parameters applied during the estimation have remained fixed for all elements, including dry bulk density.</li> <li>• Dry bulk density values have been estimated within the lead domains, using the same estimation parameters as applied to the elements estimated.</li> <li>• Block model grades have been validated visually, by whole of domain grade comparisons and using swath plots, for all estimated elements.</li> <li>• The Abra Mineral Resource was previously estimated in April 2021 by Optiro using DatamineTM software and Ordinary Kriged (OK) methods of grade estimation.</li> <li>• No assumptions have been made regarding selective mining units.</li> <li>• No assumptions have been made regarding recovery of by-products.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Block model estimates have been undertaken on a dry basis.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A range of cut-off grades are reported which are believed to be appropriate for underground mining.</li> </ul>



<p><i>Mining factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No specific assumptions have been made on mining method during the Mineral Resource estimate apart from the understanding that mining has commenced using conventional underground mining methods.</li> </ul>
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>In early 2018 GML sent 130 half core samples (six composited zones) representing the major ore types at Abra for mineralogical and metallurgical test work. This work indicates that a high-quality lead-silver concentrate with an average grade of 74% lead was achievable. No major deleterious elements were identified.</li> <li>In 2018 and 2019 an additional 20 composites, designed to give a representative spread of ore types and early mine production, were sent for test work as part of ongoing FS study work. Comminution results indicated that AMPL should opt for a three-stage crush in combination with a ball mill. Composite mineralogy showed that a regrind to sub 40 micron would be required to liberate galena and produce a high grade concentrate. Flotation results, both batch and locked cycle tests, confirmed that a conventional flotation circuit, comprised of roughing, scavenging, regrind and two stages of cleaning, was suited. Simple flotation data modelling indicated that the plant is likely to produce a 73-75% lead concentrate grade for 93.8% lead recovery. Dewatering test work conducted on bulk concentrate and tailings confirmed that both products were amenable to conventional thickening and filtration methods. Bulk concentrate was subjected to characterisation test work for the purposes of handling and shipping. A paste fill study conducted on bulk tailings indicated that Abra tailings was amenable to use as cemented mine backfill.</li> <li>In 2021, thirteen composite samples were taken for metallurgical testwork, from Apron Zone mineralisation lodes AP101, AP102 and AP103, and Core Zone mineralisation from the NE area of the deposit, to determine the metallurgical test work results within a specific mining stope. A comprehensive comminution program comprised of Uniaxial Compressive Strength (UCS) tests and Drop Weight Tests was conducted as part of detailed crusher circuit design. Bond work index, Bond abrasion index and SAG mill circuit test work was also completed.</li> <li>During the 2022 financial year, a program of metallurgical testwork was conducted, including geomechanical studies, comprised of UCS and comminution test-work. On the completion of the geomechanical study, the samples were submitted for flotation testwork. The sample selection was driven by the geomechanical studies, therefore composite samples were selected to represent the Run Of Mine (ROM) feed for the first eight years and including a minimum of 2 m of the hangingwall and footwall dilution.</li> </ul>

Environmental factors or assumptions	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Abra project is on a granted mining lease.</li> <li>No environmental factors/issues have been identified to date.</li> <li>The Abra project produces a lead-silver sulphide concentrate which is trucked to Geraldton in sealed containers and shipped in sealed bulk carriers.</li> </ul>
Bulk density	<ul style="list-style-type: none"> <li>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.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>A total of 18,893 dry bulk density measurements have been collected from a suite of mineralised and un-mineralised drill core samples using conventional water immersion techniques. A total of 12,038 dry bulk density measurements have been utilised in the Mineral Resource.</li> <li>The dry bulk density measurements correlate well with the sum of the lead, barium and iron grades (Pb+Ba+Fe), with bulk density increasing as the summed grade increases. This relationship has allowed a regression to be determined between the combined assay data and the dry bulk density measurements, thereby enabling the calculation of regressed dry bulk density values for a number of drillhole intervals without a dry bulk density measurement.</li> <li>Once the regression had been applied, the MRE dataset contained a total of 59,927 measured and regressed dry bulk density values, which were composited to two metres and used to estimate dry bulk density using ordinary kriging within the lead mineralised and waste domains. Blocks which did not estimate have been assigned the mean dry bulk density of the domain they occur within.</li> </ul>
Classification	<ul style="list-style-type: none"> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit is classified as a Measured Mineral Resource, Indicated Mineral Resource and Inferred Mineral Resource.</li> <li>The classification of the Measured Mineral Resource in the Apron Zone is based on the presence of close-spaced GC diamond drillholes and underground development drives which enable the detailed observation/mapping of the mineralisation and geological features.</li> <li>The classification of Indicated Mineral Resources is based on the demonstration of geological and grade continuity underpinned by a high-resolution 3D geological model that has been used to constrain the mineralised domains.</li> <li>All other portions are classified as Inferred Mineral Resources.</li> <li>The classification takes into account the relative contributions of geological and data quality, as well as grade confidence and grade continuity.</li> <li>The classification reflects the view of the Competent Person.</li> </ul>

Audits or reviews	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>• The geological modelling and mineralisation wireframes have been reviewed by Mr Mark Drabble [Executive Consultant, B.App.Sci. (Geology)] of Snowden Optiro.</li> <li>• The block model estimation process and outcomes have been reviewed by Mr Paul Blackney [Executive Consultant, BSc (Hons) (Geology)] of Snowden Optiro</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>• The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC (2012) Code.</li> <li>• The statement relates to an estimate of tonnes and grade by underground mining methods at a cut-off grade of 5.0% Pb.</li> </ul>