

## ASX ANNOUNCEMENT

10 September 2018

ASX: G1A

## NEW DRILLING CONFIRMS HIGH-GRADE MINERALISATION 150M OUTSIDE EXISTING RESOUCE ENVELOPE

## HIGHLIGHTS:

- New drilling results confirm high-grade mineralization 150m outside of the March 2018 Resource, and remains open
- Four holes being reported today (AB95-AB98) include the following significant intersections:
  - 16.2m at 9.2% lead and 44g/t silver (including 4.5m at 15.1% lead and 44g/t silver), and 6.0m at 14.5% lead and 28g/t silver in hole AB96
  - 6.0m at 11.8% lead and 19g/t silver in hole AB97
  - 4.6m at 5.9% lead and 19g/t silver in hole AB98
- Assays have been received for four new drill-holes drilled as part of Galena's 2018 Resource infill and development drilling program
- New mineralisation occurs in the shallower north western area of the Abra deposit very near the currently proposed access decline and the earliest years of mining inventory assumed for the Scoping Study
- Mineralisation continues to remain open along strike to the northwest and down dip

**GALENA MINING LTD.** ("**Galena**" or the "**Company**") **(ASX: G1A)** announces further highgrade lead and silver intersections from four holes drilled as part of its 2018 Infill and Resource Development Program.

Managing Director, Alex Molyneux commented, "These results are very exciting because they confirm high-grade mineralisation extends 150m beyond the existing Resource model mineralised area. This bodes well for achieving our Resource development ambitions when we come to publish an updated Mineral Resource estimate."



### NEW DRILL-HOLE ASSAYS

Intersections for assays for the four holes that have just been received (AB95 to AB98) are graphically represented in Figure 1 (below) and detailed in Appendix 1, together with drill collar locations in Appendix 2.

Figure 1: 3D model of March 2018 Resource (5% lead cut-off wireframes) looking obliquely east, with new drill-holes AB95, AB96, AB97 and AB98 overlain.



Of the new holes, AB95 was drilled as an infill hole within the envelope of the current Mineral Resource (see announcement of 14 March 2018) ("March 2018 Resource") and returned results as per expectations.

Drill-holes AB96, AB97 and AB98 were drilled to test for shallow north western extensions to the Apron Zone outside of the March 2018 Resource. All of these drill-holes intersected high-grade lead mineralisation:

- AB96 returned 16.2m at 9.2% lead and 44g/t silver (including 4.5m at 15.1% lead, 44g/t silver and 0.9% copper) and 6.0m at 14.5% lead and 28g/t silver.
- AB97 intersected 6.0m at 11.8% lead and 19g/t silver.
- AB98 returned 4.6m at 5.9% lead and 19g/t silver.
- This mineralisation is gently dipping so intersection widths are interpreted to be estimates of true widths.



Importantly, drill-holes AB96, AB97 and AB98 extend high-grade lead-silver mineralisation by over 150m outside the current Resource area. Furthermore, it is likely the newly identified mineralisation will provide additional inventory of high-grade mineralisation for the earliest mining years based on the Company's current design work for the mine plan. With these results, mineralisation remains open along strike to the northwest.

Infill hole AB95 intersected Apron Zone style stratiform mineralisation returning 6.0m at 5.4% lead and 17g/t silver (note: this mineralisation is gently dipping so intersection widths are interpreted to be estimates of true widths) and then intersected Core Zone style hydrothermal vein mineralisation returning 7.0m at 5.8% lead and 10g/t silver (including 3.4m at 10.4% lead and 17g/t silver) (note: this mineralisation appears to be moderately dipping to the north so true widths have been estimated to be approximately 50% of downhole width). Mineralisation remains open down dip.

### 2018 RESOURCE INFILL AND DEVELOPMENT DRILLING PROGRAM

Galena has now completed twenty drill-holes (AB82 to AB101) for 10,978 cumulative linear metres as part of its 2018 Resource Infill and Development Drilling Program. Assays for holes AB99 to AB101 remain pending.

The 2018 Resource Infill and Development Drilling Program has two aims: (i) to infill areas of existing Inferred Resources with the aim to upgrade the volume Indicated Resources as part of the Pre Feasibility Study work; and (ii) to test for extensions to the high-grade mineralisation with the aim to upgrade the overall Resource. The assays announced today and previously announced results continue to exceed the Company's expectations for success.

One last hole for the current campaign, AB102 is currently in progress.

Drilling has primarily targetied the stratiform "Apron Zone" which is the most laterally continuous mineralisation and will be the focus of early stage underground development as highlighted by the Scoping Study (see announcement of 28 June 2018).

#### PRE-FEASIBILITY STUDY REMAINS ON-TRACK

Galena's announced Scoping Study for its Abra Base Metals Project ws outstanding and confirms Abra as an economically and technically robust opportunity, with potential to become a significant, long-life, high margin West Australian lead-silver producer. Following on from the success of the Scoping Study, Galena remains on-track to complete a Pre-Feasibility Study due in September 2018.

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Alex Molyneux Managing Director



### Competent Person's Statement

The information in this report to which this statement is attached that relates to exploration results and drilling data is based upon information compiled by Mr E Turner B.App Sc, MAIG, an employee of the Company. Mr Turner has 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 Turner consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

#### About Abra Base Metals Project

Abra comprises a globally significant high-grade lead-silver project and additional copper-gold mineralisation. It is wholly-owned by Galena and sits within a granted mining licence located in the Gascoyne region of Western Australia. Abra is located approximately half way between the towns of Newman and Meekatharra, 110km from Sandfire Resources' DeGrussa Copper Mine, and is well serviced by infrastructure.

The high-grade lead-silver deposit is sedimentary hosted replacement style with the upper sections dominated by strataform lead-silver horizons that dip shallowly to the south can be divided into two main parts. The upper Apron zone comprises stratabound massive and disseminated lead sulphides (galena) and minor copper sulphides (chalcopyrite) within a highly altered sequence of clastic and dolomitic sediments. The Apron zone is open in several directions, extends for 1,000m along strike, 700m down dip and dips gently south.

The Core Zone underlies the Apron and comprises an elongate funnel shaped body of hydrothermal breccias, veining and intense alteration overprinting gently south dipping sediments. The Core zone extends from 300 to 750m below surface and can be traced for 400m along strike.





## APPENDIX 1 – GALENA MINING DETAILS OF ASSAY RESULTS (10 SEPTEMBER 2018)

Minimum lead intersection: 4m at 5.0% lead. Maximum internal dilution: 4m at <5.0% lead. Minimum copper intersection: 2m at 1.0% copper. Minimum gold intersection: 2m at 1.0ppm gold.

HOLE	FROM	ТО	INTERVAL	GRADE	GRADE	GRADE	GRADE	GRADE
ID			(downhole)	Pb (%)	Ag (g/t)	Zn (%)	Cu (%)	Au (g/t)
AB95	518	524	6.0	5.4	17	-	-	-
	629	626	7.0	5.8	10	-	-	-
inc	632.6	636	3.4	10.4	17	-	-	-
AB96	373	389.24	16.2	9.2	44	-	-	-
inc	373.	381	8.0	9.5	62	-	-	-
and	384.7	389.2	4.5	15.1	44	-	0.9	-
	403.5	409.5	6.0	14.5	28	-	0.3	-
AB97	355.5	361.5	6.0	11.8	19	-	-	-
AB98	307.6	312.2	4.6	5.9	19	-	-	-



# APPENDIX 2 – GALENA MINING 2018 COMPLETED DIAMOND CORE DRILL-HOLES AS AT 10 SEPTEMBER 2018: COLLAR LOCATIONS AND DIRECTION DETAILS

Hole ID	E	N	Dip	Azi	Depth
AB82	660275	7273461	-73	1	466.1
AB83	660275	7273064	-70	354	784.7
AB84	660275	7273554	-75	355	406.1
AB85	660225	7273442	-67	356	450.5
AB86	660225	7273165	-69	355	580.63
AB87	660725	7273353	-73	355	460.1
AB88	660619	7273096	-72	355	665.2
AB89	660425	7273061	-72	355	692.2
AB90	660275	7272980	-71	355	692.6
AB91A	660525	7273034	-73	355	664.2
AB92	660225	7273555	-67	350	435.9
AB93	660675	7272958	-70	355	720.9
AB94	660277	7273637	-70	355	399.0
AB95	660325	7272955.8	-67	7	714.9
AB96	660165	7273470	-67	350	476.7
AB97	660075	7273550	-70	355	390.0
AB98	660175	7273636.5	-70	355	402.2
AB99	660386	7273372	-73	356	511.5
AB100	660325	7273672	-72	0	522.9
AB101	660325	7273672.2	-70	5	397.1



## APPENDIX 3 - JORC CODE, 2012 EDITION: TABLE 1

#### Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
	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.	Mineralised intervals were drilled with NQ diamond core and sampled by cutting the core with a diamond saw and the half core submitted for assay.
Sampling	<ul> <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> </ul>	Sample intervals vary depending on geological contacts and are generally between 0.5m and 1.5m, averaging 1.0m in length. Sampling is continuous throughout the mineralised intervals with no gaps. Prior to cutting, the core was marked up by a geologist, orienting the core to ensure the relative orientation of consecutive pieces of core, always taking the left hand half of the core looking down the hole.
techniques	In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	All core photographed for reference and sample intervals and can be compared with assays. Samples are taken according to geological controls on mineralisation. This includes larger sample intervals representative of the wide mineralised intervals. All aspects of the determination of mineralisation are described in this table, but of particular materiality to this Public report is the high quality and completeness of core. The core sampling method is considered appropriate for the Abra mineralisation.
Drilling techniques	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).	HQ core intervals were drilled as pre-collars within the non- mineralised overburden before converting to NQ diamond core standard tube drilling for the remainder of each hole. HQ and NQ core holes were systematically oriented using either a Reflex ACT Mk.3 or TrueCore core orientation system. The bottom of hole was marked on the core as a reference for structural measurements.



Criteria	JORC Code explanation	Commentary
	Method of recording and assessing core and chip sample recoveries and results assessed.	All core was measured for recovery by Galena staff and recovery % recorded. Overall recovery was excellent due to the silicified and massive nature of the rock, which resulted in 100% or close to 100% for a majority of the holes. Photographic evidence of all core supports this.
Drill sample recovery	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No additional measures were required during drilling to maximize recovery due to the silicified nature of the host rock and mineralised zones.
	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.	Sample recovery was excellent within unmineralised and mineralised zones. There is no relationship between sample recovery and grade.
	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.	All core was logged geologically and geotechnically in detail sufficient to support Mineral Resource estimates, mining and metallurgical studies.
Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging included lithology, texture, veining, grain size, structure, alteration, hardness, fracture density, RQD, alteration and mineralisation.
	The total length and percentage of the relevant intersections logged.	Core logging was both qualitative and quantitative. Lithological observations were qualitative. All geotechnical observations and core photographs were quantitative.
		100% of all core which included all mineralised intervals was logged. All core was photographed both wet and dry.
	If core, whether cut or sawn and whether quarter, half or all core taken.	All cut core was initially sampled as half core for assaying.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry	N/A
Sub-sampling techniques and	<ul> <li>For all sample types,</li> <li>the nature, quality and</li> <li>appropriateness of the sample</li> <li>preparation technique.</li> <li>Quality control</li> </ul>	All core was appropriately oriented and marked up for sampling by company geologists prior to core cutting.
sample preparation	procedures adopted for all sub-sampling stages to maximise representivity of samples.	No sub sampling was completed.
	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	Duplicates (secondary splits of the primary sample) were systematically taken throughout the program and show an excellent correlation with the original samples.



Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to the fine – medium grained grain size common in the host rock and galena mineralisation.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Assaying was completed by SGS Laboratories in Perth. Au was assayed using fire assay. Pb, Ag, Cu, Zn, Fe were assayed using 4 acid digest method DIG40Q followed with ICP-OES finish. Over limit samples undergo further assaying using DIG43B with an AAS finish. This digest is similar to the DIG40Q, being a HF mixed acid digest, but is specifically designed to cope with large concentrations of the elements of interest. These methods are considered appropriate for ore grade analysis and are considered total analysis. However high Ba content can effect total dissolution. In this case additional acid may be used in order to get total digestion.
Quality of assay data and laboratory tests	□ 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.	
	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.	<ul> <li>Galena quality control procedures include the following:</li> <li>Blank samples – submitted at selected points within mineralised intersections at a nominal rate of 2 per 100 samples. The blank material is Bunbury basalt certified as a blank.</li> <li>Reference Standard samples – submitted at a rate of 1 in 20 in sequence with the original core samples. Three different certified standards are being used.</li> <li>Duplicates – to be routinely taken by the laboratory at a rate of 1 in 20 through a second split of the crushed core. They were submitted with the next sample number after the primary sample as part of a continuous sample stream. These are considered as true duplicates and can be used for assessing laboratory precision.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	All significant intersections are verified by alternative company geologists. Due to the depth of the mineralisation below surface this is not practical.



Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All primary data was firstly recorded on either paper or in a Toughbook computer according to company procedures and then entered into an electronic database files onsite. Electronic copies are backed up onsite and routinely transferred to the Perth head office where the master database is administered. All paper documents are scanned onsite and electronic copies kept. Duplicates of the data are kept onsite and in Perth office after validation.
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	There were no adjustments made to assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Down hole surveys are completed every 15-30m during the drilling using using a north seeking gyro. Drill holes were set out using a handheld GPS and then are later picked up with differential GPS. Galt Mining Solutions completed A Real Time Kinematic (RTK) GPS pickup of drill hole collars to enhance the precision of the survey, providing centimetre-level accuracy. A Department of Land Administration (DOLA) State Survey Mark (SSM) was used for the base station, the coordinates are provided in GDA94 using vertical datum AHD71.
	Specification of the grid system used.	Data captured in Map Grid of Australia GDA 94, Zone 50.
	Quality and adequacy of topographic control.	The RL of previous drill collars was measured by both DGPS surveys to an accuracy of 0.02m which gives us with a satisfactory control over the topography.
	Data spacing for reporting of Exploration Results.	Drill holes in the current round of drilling is infill drilling and will improve the spacing to approximately 50m x 50m or 50m x 100m centres east – west and 50m x 100m centres north – south over the high grade part of the mineralized body which extends over approximately 600m east – west and 600m north – south.
Data spacing and distribution	<ul> <li>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.</li> <li>Whether sample</li> </ul>	Data spacing is sufficient to establish geological and grade continuity to establish a mineral resource estimate.
	compositing has been applied.	No sample compositing has been applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Some drilling may be drilled sub-parallel to mineralised structures as there are multiple mineralised directions. The upper sections of the mineralisation are relatively shallow dipping to the south and can therefore be drilled in either direction.



Criteria	JORC Code explanation	Commentary
	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.	It is not considered that there is a sampling bias.
Sample security	The measures taken to ensure sample security.	All sampled core will be transmitted from site to Perth assay laboratories either by company personnel or by courier. All remaining core is stored on site.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been conducted to date.

#### Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• 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.	Galena Mining holds 100% interest in the Mulgul Project, consisting of Mining Lease M52/0776 and Exploration Lease E52/1455. A 2.5% Net Smelter Royalty exists over leases M52/0776 and E52/1455. Miscellaneous licences G52/286 and L52/021 are also held 100% by AML and these fall within E52/1455.
	• 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.	<ul><li>Within the adjoining Jillawarra Project Abra Mining holds 100% of E52/1413 and E52/3575.</li><li>All tenements are in good standing and have existing Aboriginal Heritage Access Agreements in place. No mining agreement has been negotiated.</li></ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Historical exploration commenced around the Abra deposit by Amoco Minerals in 1974 but 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 hole in 1981. 8 diamond core holes (AB1-11) were drilled before takeover by North Limited which did not complete any exploration. In 1995 RGC Exploration joint ventured in and drilled another deep diamond core hole (AB22A) with a daughter hole wedged from 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, the acquired the ground and subsequently vended the project into Abra Mining Limited (AML). Abra resumed drilling in 2005 and has completed all holes between and including AB23-61. All diamond core drilling completed by all parties was completed to a high standard and contributed towards defining the extent and limits of the mineralisation



Criteria	JORC Code explanation	Commentary
		Further extensive regional exploration within the Mulgul and Jillawarra Projects has been completed within this time by these companies and delineated many geophysical and surface geochemical anomalies and targets however no other potentially economic deposits have been discovered.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The Abra deposit lies within sediments of the Proterozoic Edmund Group. There are two styles of mineralisation within the Abra deposit; the upper mineralisation is strata-bound massive and disseminated sulphides associated with lead and silver mineralisation (dominantly galena), and the lower mineralisation consists of sulphide-rich hydrothermal veins that transported the mineralisation to the upper zone. This zone contains the copper and gold mineralisation as well as lead and silver.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul>	Historic drill hole information has previously been reported and is included in a table within appendices of the Galena's IPO Prospectus, and for Galena's 2017 drilling in ASX releases in 2017 and 2018. Coordinates, dip, depth and azimuth of Galena's 2018 completed holes are listed in Appendix 2.
Data aggregation methods	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.	Significant intersections are calculated as weighted average means for downhole intervals greater than 4m@5% Pb. There was no cutting of high grades.



Criteria	JORC Code explanation	Commentary
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	A maximum internal dilution interval of 4m@ <5% Pb was applied.
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent calculations were made.
	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole 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>	All intersection widths reported are downhole widths. The upper strata-bound mineralisation drill intercepts are interpreted as being close to true width ("Apron" mineralisation). The lower vein-hosted mineralisation has drill intercepts that, depending on drillhole orientation, may not be close to true width (true width not known) ("Core" mineralisation.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	A plan is included in the report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	The focus of this drilling program is convert Inferred Resources to Indicated Resources. All significant results are reported.



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Other historic exploration data has been previously announced by Abra Mining and is also summarised in the IGR within Galena's Prospectus.
Further work	<ul> <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>	Future work includes further infill drilling to convert Inferred Resources to Indicated Resources to support Galena's ongoing mine feasibility studies.