

ASX ANNOUNCEMENT

22 JANUARY 2021 ASX: G1A

ABRA BASE METALS PROJECT DRILLING RESULTS

HIGHLIGHTS:

- 2020 Abra Drilling Program concluded in late-December with a total of 57 successfully completed new diamond drill-holes (~25km of drilling), taking the total cumulative drilling on Abra to over 100km
- This third batch of assays (18 drill-holes: AB159, AB160, AB162 to AB175, AB178 and AB179) includes intersections from eight holes added to the Program to expand the shallow, close to infrastructure 'metal rich' zone around previously reported 'best high-grade lead-silver drill-hole ever' at Abra, drill-hole AB147, two of which (AB174 and AB179) are effectively following thick, high-grade mineralisation into an area of Inferred mineralisation
- Outstanding lead-silver intersections in this announcement confirm wide, highgrade mineralised zones:
 - AB174 32.3m at 13.8% lead and 34g/t silver from 352.7m
 - AB167:
 - 22.8m at 7.5% lead and 24g/t silver from 277.1m; and
 - 20.1m at 8.9% lead and 18g/t silver from 338.7m
 - AB172:
 - 24.3m at 10.9% lead and 24g/t silver from 288.5m; and
 - 9.9m at 18.1% lead and 31g/t silver from 342.3m
 - AB166 16.9m at 9.3% lead and 36g/t silver from 398.9m
 - AB171:
 - 17.7m at 8.8% lead and 30g/t silver from 308.1m; and
 - 17.0m at 8.6% lead and 15g/t silver from 329.7m
 - AB170:
 - 16.6m at 9.2% lead and 25g/t silver from 352.7m; and
 - 17.0m at 6.5% lead and 10g/t silver from 374.0m
 - AB173 13.1m at 8.7% lead and 16g/t silver from 404.0m
 - AB 178 15.9m at 7.4% lead and 14g/t silver from 437.8m
 - AB 159 10.7m at 9.2% lead and 26g/t silver from 378.8m



- In a first for Galena, four drill-holes (AB167, AB170, AB172 and AB174) in a single reporting batch show cumulative lead-silver intersections >50m
- One of the last drill-holes drilled in the Program (AB195) was drilled to target the interpreted copper and gold zone – Assays remain pending for that hole but three holes reporting today coincidentally extended into copper and gold mineralisation, with notable significant intersections including:
 - 3.0m at 2.0% copper, 2.3g/t gold and 29g/t silver from 401.6m in AB174
 - 6.0m at 1.8% copper and 1.3g/t gold from 391.8m in AB179
 - 4.9m at 1.0 g/t gold and 24g/t silver from 424.2m in AB166
- Drilling density has been substantially improved (eg, area covered by 30 x 30m or better spacing has increased approximately five fold), particularly over the shallower northern side of Abra, providing opportunities for optimisation of the early years of the mine plan
- Preparatory construction works have resumed at the Project on site installation of the remaining 200 camp units and other ancillary buildings is underway alongside various civil works such as the explosives magazine (completed) and various site clearing and earthworks, including preparation of the pad for the processing plant

GALENA MINING LTD. ("**Galena**" or the "**Company**") **(ASX: G1A)** announces the third batch of assay results from the now completed 2020 Abra Drilling Program at Abra Base Metals Project ("**Abra**" or the "**Project**").

Managing Director, Alex Molyneux commented, "We continue to see the area around the previously reported 'best hole ever', AB147 confirming relatively shallow thick, high-grade mineralisation. The four holes being reported today with cumulative significant intersections >50m are all from that area. I'm also pleased we finished the substantial program safely and efficiently, and I commend our Geology Team and our primary contractor DDH1 Drilling for their hard work and professionalism!"

2020 ABRA DRILLING PROGRAM

The 2020 Abra Drilling Program concluded in late-December with 57 diamond core drill-holes being successfully completed for 24,832 cumulative linear metres. Total completed drilling at the Project is now approximately 100.5km, of which more than two-thirds has been completed under Galena ownership since late-2017.

This release includes assays from 18 drill-holes (AB159, AB160, AB162 to AB175, AB178 and AB179). The assay results for the first 16 holes (AB144 to AB158 and AB161) were announced on 19 October 2020 and 18 November 2020.

The program was initially planned to consist of approximately 15,000 metres to 18,000 metres of drilling, with three objectives: lead-silver orebody infill; drilling into selected prospective 'metal rich' zones for potential life of mine plan optimisation; and gold-copper exploration (see *Galena ASX announcement of 4 August 2020*). However, drill-hole AB147 (reported on 19 October 2020) encountered 86.1 metres of combined down-hole cumulative thickness of significant intersections and was considered to be the best high-grade lead-silver drill-hole in



Abra's history. Importantly, AB147 was targeting a prospective 'metal rich' zone not currently in the early years of the mine plan used for the Feasibility Study, in this case a relatively shallow zone on the northeastern limb of the Indicated portion of Abra's Mineral Resource (see Figure 3 and Figure 4 below). AB147 indicated the existence of a potentially mineable domain approximately 30 metres closer to the surface than the shallowest currently planned mining zone. The relative shallowness of this area and proximity to early decline development makes it a target for optimisation of the early years of the mine plan and potentially improves risk in that period. Based on the success of drill-hole AB147 and then subsequent follow-up success of drill-holes added to the Program around it, an additional 16 drill-holes were added to the 2020 Abra Drilling Program in that area. The added drill-holes cover an area approximately 100 metres (north-south) by 200 metres (east-west), extending outside of the Indicated Resource area modelled for the Apron Zones 101 and 102 lode in the October 2019 Resource, into the Inferred area between the two northern limbs of the Indicated Resource boundary (see Figure 4 below). Eight of the drill-holes being reported today (AB166, AB167, AB170, AB171, AB172, AB173, AB174 and AB179) are holes that were added to the Program in the area surrounding AB147. All of them showed significant lead-silver intersections, with four of them encountering cumulative significant intersections in excess of 50 metres.

Drill-hole AB159 being reported in this announcement was another hole added to the Program, following up on drill-hole AB151 (reported on 18 November 2020), which was considered the best ever drill-hole in Abra's north western quadrant on a cumulative grade and thickness basis (31.2 metres of cumulative significant intersections, including a 27.4 metre intersection at 16.3% lead and 73g/t silver). AB159 succeeded in extending significant mineralistion further northwest, with a significant lead-silver intersection of 10.7 metres at 9.2% lead and 26g/t silver from 378.8 metres down-hole depth. Mineralisation remains open in that direction.

At the end of the Program, a deep drill hole (AB195) was drilled to 1,000 metres down-hole depth, aimed to pass through the interpreted copper-gold zone underneath the known lead-silver mineralisation and to be used for future down-hole electromagnetic surveys to further refine copper-gold exploration targetting. Assays remain pending for AB195. However, the geological logging of the drill hole defined a zone of over 45 metres with intermittent massive and disseminated copper-bearing chalcopyrite mineralisation from a down-hole depth of 752.0 metres.

Following completion of the Program, the drilling density at Abra has been substantially improved, particularly across the shallower northern area of the deposit. For example, the area covered with thirty by thirty metre or better drill-hole spacing has grown approximately five-fold. Figure 1 and Figure 2 (below) show the drilling density prior to the Program and at completion.



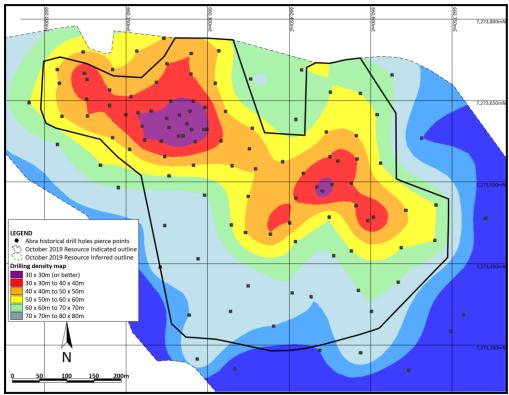


Figure 1. Abra Project drilling density prior to the commencement of the 2020 Abra Drilling Program.

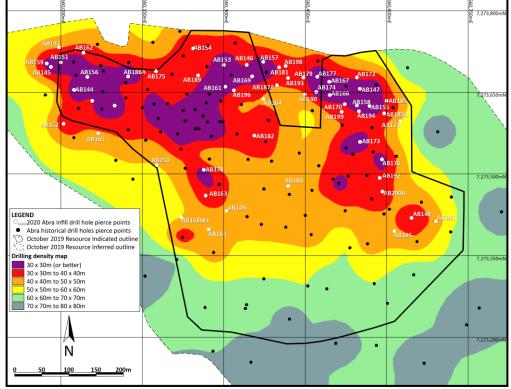


Figure 2. Abra Project drilling density following completion of the 2020 Abra Drilling Program.

DRILL-HOLE ASSAYS (LEAD-SILVER)

Assays for 18 drill-holes (AB159, AB160, AB162 to AB175, AB178 and AB179) are being reported in this announcement and assays for 23 completed holes remain pending. The location of the reported holes and significant intersections are graphically represented in



Figure 3 and Figure 4 (below) and detailed in Appendix 1, together with drill collar locations in Appendix 2.

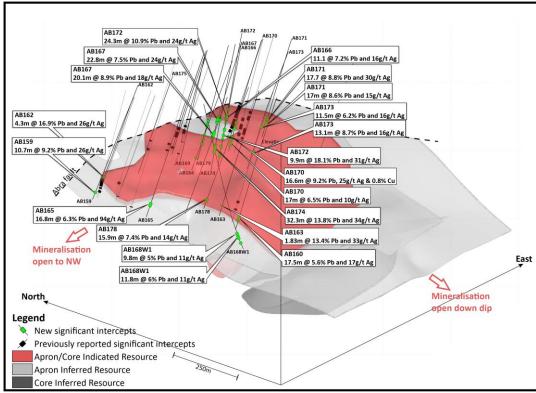


Figure 3. 3D model of October 2019 Resource (5% lead cut-off wireframes) looking obliquely northeast, with new drill-holes AB159, AB160, AB162 to AB175, AB178 and AB179, showing significant mineralised intersections.

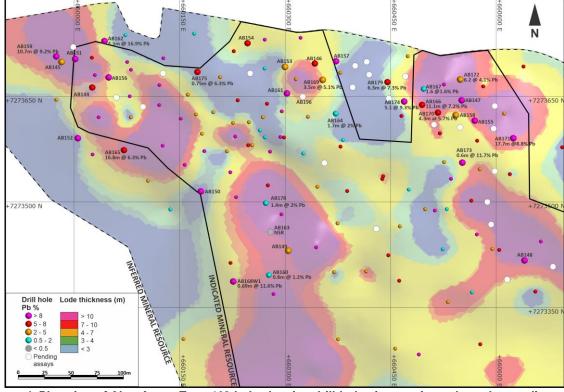


Figure 4. Plan view of Abra Apron Zone 102 lode showing drill-hole pierce point, coloured according to the lead grade range, for the historical (small points) and 2020 Abra Drilling Program drill-holes (large points), over the mineralisation domain thickness contour map. A second mineralisation domain, Apron Zone 101, is positioned immediately underneath Apron Zone 102 and it extends across the deposit. Smaller mineralisation domains also occur within the apron domain, mostly within the eastern part of the deposit.



Drill-holes AB159, AB160, AB162 to AB175, AB178 and AB179 provided the following significant lead-silver mineralised intersections:

- AB159
 - 10.7m at 9.2% lead and 26g/t silver from 378.8m
- AB160
 - 17.5m at 5.6% lead and 17g/t silver from 448.9m; and
 - 6.1m at 4.6% lead and 7g/t silver from 491.4m
- AB162
 - 4.3m at 16.9% lead and 26g/t silver from 353.6m
- AB163
 - 1.8m at 13.4% lead and 33g/t silver from 439.0m (note: below the typical 4.0m reporting cut-off)
- AB164
 - 9.8m at 19.1% lead and 24g/t silver from 380.3m
- AB165
 - 16.8m at 6.3% lead and 94g/t silver from 397.2m
- AB166
 - 11.1m at 7.2% lead and 16g/t silver from 264.4m;
 - 6.8m at 15.4% lead and 21g/t silver from 334.8m;
 - 4.4m at 8.1% lead and 14g/t silver from 348.6m;
 - 10.0m at 7.5% lead and 18g/t silver from 372.9m; and
 - 16.9m at 9.3% lead and 36g/t silver from 398.9m
- AB167
 - 22.8m at 7.5% lead and 24g/t silver from 277.1m;
 - 5.8m at 9.4% lead and 18g/t silver from 304.3m;
 - 20.1m at 8.9% lead and 18g/t silver from 338.7m; and
 - 5.3m at 7.6% lead and 12g/t silver from 363.8m
- AB168W1
 - 9.8m at 5.0% lead and 11g/t silver from 493.6m;
 - 11.8m at 6.0% lead and 11g/t silver from 507.1m; and
 - 6.8m at 5.6% lead and 12g/t silver from 531.8m
- AB169
 - 3.5m at 5.1% lead and 12g/t silver from 270.6m (note: below the typical 4.0m reporting cut-off)
- AB170
 - 4.3m at 5.7% lead and 30g/t silver from 271.3m;
 - 10.6m at 6.8% lead and 22g/t silver from 297.7m;
 - 12.4m at 5.4% lead and 14g/t silver from 317.6m;
 - 16.6m at 9.2% lead and 25g/t silver from 352.7m; and
 - 17.0m at 6.5% lead and 10g/t silver from 374.0m
- AB171
 - 17.7m at 8.8% lead and 30g/t silver from 308.1m and;
 - 17.0m at 8.6% lead and 15g/t silver from 329.7m
- AB172
 - 6.3m at 4.1% lead and 12g/t silver from 259.4m;
 - 11.0m at 5.8% lead and 32g/t silver from 269.4m;
 - 24.3m at 10.9% lead and 24g/t silver from 288.5m;
 - 4.1m at 8.3% lead and 14g/t silver from 321.9m; and
 - 9.9m at 18.1% lead and 31g/t silver from 242.3m
- AB173
 - 11.5m at 6.2% lead and 16g/t silver from 299.3m; and
 - 13.1m at 8.7% lead and 16g/t silver from 404.0m



- AB174
 - 5.1m at 9.3% lead and 16g/t silver from 271.0m;
 - 5.7m at 5.4% lead and 19g/t silver from 309.5m;
 - 10.7m at 5.8% lead and 11g/t silver from 320.3m; and
 - 32.3m at 13.8% lead and 34g/t silver from 360.0m
- AB175
 - No significant reportable lead-silver mineralisation
- AB178
 - 15.9m at 7.4% lead and 14g/t silver from 437.8m
- AB179
 - 6.3m at 7.3% lead and 20g/t silver from 277.7m;
 - 6.1m at 5.2% lead and 15g/t silver from 287.6m;
 - 5.8m at 5.2% lead and 10g/t silver from 297.1m;
 - 3.2m at 14.0% lead and 21g/t silver from 316.6m (note: below the typical 4.0m reporting cut-off);
 - 5.1m at 5.0% lead and 12g/t silver from 331.9m;
 - 7.7m at 6.6% lead and 10g/t silver from 346.8m; and
 - 8.1m at 7.6% lead and 12g/t silver from 391.8m

Galena continues to remain encouraged that on average drill-holes met or exceeded expectations for their specific locations as projected by the October 2019 Resource model.

DRILL-HOLE ASSAYS (COPPER-GOLD)

Only one drill-hole in the 2020 Abra Drilling Program was specifically drilled to target the interpreted copper-gold zone underneath the known lead-silver mineralisation (AB195) and assays remain pending for that hole, albeit, it passed through an approximately 45.0 metre zone of visual intermittent massive and disseminated copper-bearing chalcopyrite mineralisation from a down-hole depth of 752.0 metres. However, four of the holes being reported in this announcement coincidentally encountered significant intersections of copper and / or gold.

Drill-holes AB164, AB166, AB174 and AB179 provided the following significant copper and / or gold mineralised intersections:

- AB164
 - 4.4m of 1.0% copper from 422.8m
- AB166
 - 4.9m of 1.0g/t gold and 24g/t silver from 424.4m
- AB174
 - 3.0m at 2.0% copper, 2.3g/t gold and 29g/t silver from 401.6m
- AB179
 - 6.0m at 1.8% copper and 1.3g/t gold from 391.8m

ABRA PROJECT DEVELOPMENT UPDATE

Following the receipt of an additional A\$20 million investment tranche into Abra Mining Pty. Ltd. ("AMPL"), and execution of the Taurus Debt Facilities (see Galena ASX announcements of 12 November 2020 and 13 November 2020), preparatory construction works recommenced at the Abra Base Metals Project in December 2020. The final installation of the remaining 200 camp units and other anciliary buildings is underway together with a number of civil works projects on site. The construction of an explosives magazine was recently completed and site



clearing / earthworks involving preparation of sites for the ROM pad, future processing plant, settlement pond and others are underway.

The Company continues to target the commencement of the procurement / construction phase of Abra's plant and deployment of the underground mining contractor in the first half of the 2021 calendar year. Based on the current schedule, first production of high-value, high-grade lead-silver concentrate at the Project will commence within 2022.

The Board of Directors of Galena authorised this announcement for release to the market.

For further information contact:

Galena Mining Ltd.,

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 Angelo Scopel, MAIG, a full time employee for Abra Mining Pty Limited. Mr Scopel 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 Scopel 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

77.28% owned by Galena, the Abra Base Metals Project ("**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 110 kilometres from Sandfire's DeGrussa Project).

Abra sits on a granted Mining Lease, is fully permitted, and construction works have commenced (12% complete). Project development is being funded via a combination of an A\$90 million investment by Toho Zinc Co., Ltd. of Japan and US\$110 million of project financing debt facilities provided by Taurus Funds Management.



Galena completed an outstanding definitive / bankable feasibility study ("FS") (see Galena ASX announcement of 22 July 2019) for development of a mine and processing facility with a 16-year life producing a high-value, high-grade lead-silver concentrate containing approximately 95kt of lead and 805koz of silver per year after ramp-up. Based on a predevelopment capital expenditure estimate of A\$170 million, the FS modelled a pre-tax net present value for Abra (at an 8% discount rate) of A\$553 million and an internal rate of return of 39%.¹

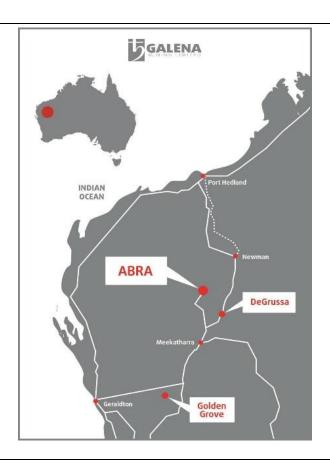
Note: 1. Information relating to the production target and financial information derived from the production target is extracted from the ASX announcement of 22 July 2019. Galena confirms that that all material assumptions underpinning the production target, or forecast financial information derived from a production target, in that announcement continue to apply and have not materially changed.

Abra JORC Mineral Resource estimate^{1, 2}

Resource classification	Tonnes (Mt)	Lead grade (%)	Silver grade (g/t)
Measured	-	-	-
Indicated	16.7	8.5	24
Inferred	24.4	6.5	14
Total	41.1	7.3	18

Notes: 1. See Galena ASX announcement of 17 October 2019. Galena confirms that it not aware of any new information or data that materially affects the information included in Galena's ASX announcement of 17 October 2018 and confirms that all material assumptions and technical parameters underpinning the resource estimates continue to apply and have not materially changed. 2. 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.

Abra location





APPENDIX 1 - 2020 ABRA DRILLING PROGRAM DETAILS OF ASSAY RESULTS (22 JANUARY 2021)

Minimum lead intersection (other than where noted): 4m at 5.0% lead. Maximum consecutive internal dilution: 4m at <5.0% lead.

Minimum copper intersection: 2m at 1.0% copper. Minimum gold intersection: 2m at 1.0ppm gold.

N.B. lower grade intersections reported for major lodes for transparency.

		grade in	INTERVAL	•	GRADE			GRADE	
HOLE ID	FROM	то	(m	GRADE	Ag	Grade	GRADE	Au	Comment
			downhole)	Pb (%)	(ppm)	Zn (%)	Cu (%)	(ppm)	
AB144	396.16	396.55	0.39	7.5	43				
AB145	376.29	377.76	1.47	5.9	18				
AB145	381.69	383.14	1.46	10.2	28				
AB146	279.48	285.80	6.32	5.7	12				
AB146	302.60	314.12	11.52	17.2	27				
AB146	350.80	356.95	6.15	8.1	11				
AB147	255.88	260.19	4.31	6.3	20				
AB147	266.22	283.73	17.51	9.5	34	2.1			
AB147	288.06	308.94	20.88	7.3	20	0.7			
Including	280.00	295.77	15.77	7.1	25	4.5			
AB147	321.78	357.30	35.52	15.1	22				
AB147	366.16	375.08	8.92	17.1	26				
Including	372.7	375.1	2.4	18.5	30		1.1		
AB148	396.43	407.07	10.64	8.6	17				
AB149	400.37	402.47	2.1	3.1	15				
AB149	430.22	438.12	7.9	9.1	20	0.8			
Including	430.22	433.67	3.45	11.1	25	1.6			
AB149	461.66	466.94	5.28	13.7	24				
AB149	468.85	472.60	3.75	3.9	15		1.6		
AB150	421.43	432.65	11.22	2.5	9				
AB151	334.46	361.86	27.40	16.5	73	1.3			
Including	337.31	342.46	5.15	24.8	157	6.1			
AB151	368.52	372.29	3.77	13.8	24				
AB152	394.09	395.78	1.69	24.1	193				
AB153	312.96	319.58	6.62	6.9	9				
AB153	340.19	344.42	4.23	9.7	13				
AB154	291.45	295.87	4.42	6.0	11				
AB154	324.28	329.32	5.04	9.6	11				
AB155	280.16	288.65	8.49	11.1	47				
AB155	300.89	313.58	12.69	5.1	18				
AB155	352.00	370.57	18.57	7.9	11				
AB155	380.50	386.69	6.19	7.7	12				
AB156	361.37	366.69	5.32	9.4	29				
AB157	283.47	288.89	5.42	13.9	24				
AB157	301.11	313.46	12.35	10.7	16				
AB158	316.42	324.18	7.76	8	23				
AB158	346.51	356.16	9.65	11.3	20				



HOLE ID	FROM	ТО	INTERVAL (m downhole)	GRADE Pb (%)	GRADE Ag (ppm)	Grade Zn (%)	GRADE Cu (%)	GRADE Au (ppm)	Comment
AB158	373.23	377.0	3.77	6.1	12			,	
AB158	415.6	418.18	2.6				1.5	1.1	
AB159	378.83	389.48	10.65	9.2	26				
AB160	448.94	466.4	17.46	5.6	17				
AB160	491.37	497.46	6.09	4.6	7				
AB161	298.52	300.08	1.6	11.5	36				
AB161	343.85	346.33	2.49	9.6	14				
AB162	353.57	357.85	4.28	16.9	26				
AB163	438.95	440.78	1.83	13.4	33				
AB164	380.34	390.14	9.80	19.1	24				
AB164	422.79	427.22	4.43				1.01		
AB165	397.23	414.03	16.80	6.3	94				
AB166	264.37	275.51	11.14	7.2	16				
AB166	334.84	341.63	6.79	15.4	21				
AB166	348.58	352.97	4.39	8.1	14				
AB166	372.93	382.97	10.04	7.5	18				
AB166	398.91	415.79	16.88	9.3	36				
AB166	424.22	429.16	4.94		24			0.96	
AB167	277.1	299.85	22.75	7.50	24	1			
Including	280.83	283.38	2.55	6.9	24	3.42			
Including	293.08	298.70	5.62	11.8	24	1.49			
AB167	304.32	310.12	5.80	9.4	18				
AB167	338.72	358.8	20.08	8.9	18				
AB167	363.75	369	5.25	7.6	12				
AB168W1	493.59	503.35	9.76	5.0	11				
AB168W1	507.10	518.92	11.82	6.0	11				
AB168W1	531.78	538.54	6.76	5.6	12				
AB169	270.61	274.1	3.49	5.1	12				
AB170	271.34	275.65	4.31	5.7	30				
AB170	297.66	308.28	10.62	6.8	22				
AB170	317.63	330.03	12.40	5.4	14				
AB170	352.65	369.24	16.59	9.2	25	0.8			
Including	353.86	357.93	4.07	5.3	15	2.2			
AB170	374.00	391.00	17.00	6.5	10				
AB171	308.08	325.74	17.66	8.8	30				
AB171	329.66	346.64	16.98	8.6	15				
AB172	259.40	265.65	6.25	4.1**	12**				**4% Lead cut-off applied
AB172	269.40	280.40	11	5.8**	32**				**4% Lead cut-off applied
AB172	288.46	312.75	24.29	10.9	24				
AB172	321.90	326.00	4.1	8.3	14				
AB172	342.30	352.20	9.90	18.07	31				
AB173	299.30	310.78	11.48	6.2	16				
AB173	404.04	417.17	13.13	8.7	16				



HOLE ID	FROM	то	INTERVAL (m downhole)	GRADE Pb (%)	GRADE Ag (ppm)	Grade Zn (%)	GRADE Cu (%)	GRADE Au (ppm)	Comment
AB174	271.00	276.1	5.10	9.3	16				
AB174	309.48	315.17	5.69	5.4	19				
AB174	320.31	331.03	10.72	5.8	11				
AB174	360.00	392.33	32.33	13.8	34				
AB174	401.61	404.56	2.95		29		2	2.3	
AB175	NSI								
AB178	437.84	453.70	15.86	7.4	14				
AB179	277.66	283.94	6.28	7.3	20				
AB179	287.62	293.75	6.13	5.2	15				
AB179	297.06	302.87	5.81	5.2	10				
AB179	316.63	319.86	3.23	14	21				
AB179	331.87	336.94	5.07	5	12				
AB179	346.80	354.54	7.74	6.6	10				
AB179	361.82	369.92	8.10	7.6	12				
AB179	391.83	397.78	5.95				1.8	1.3	

^{*} Alternative compositions for zinc and copper intersections **1% lead cutoff applied to that intercept



APPENDIX 2 – 2020 ABRA DRILLING PROGRAM COMPLETED DIAMOND CORE DRILL-HOLES AS AT 22 JANUARY 2021: COLLAR LOCATIONS AND DIRECTION DETAILS

Hole_ID	NAT_East	NAT_North	NAT_RL	Dip	Azimuth	Max_Depth
AB144	660022.971	7273518.888	562.068	-70.03	358.21	421
AB145	659975.233	7273556.796	564.051	-70.56	357.76	409.05
AB146	660349.659	7273599.536	555.385	-70.20	353.65	374.93
AB147	660548.926	7273549.137	552.737	-71.11	356.88	391.24
AB148	660650.112	7273271.742	543.825	-71.14	353.07	510.97
AB149	660300.153	7273292.203	549.086	-71.17	356.86	514.42
AB150	660178.642	7273366.572	552.858	-71.20	355.75	468.68
AB151	659999.009	7273609.619	564.788	-74.91	355.93	393.04
AB152	660001.068	7273461.882	560.452	-71.01	356.32	427.1
AB153	660298.146	7273603.724	556.233	-69.71	355.63	381.87
AB154	660249.946	7273635.040	557.432	-70.99	353.23	363.82
AB155	660573.670	7273530.329	552.214	-72.74	357.17	397.14
AB156	660048.686	7273554.000	561.863	-70.37	354.71	401.5
AB157	660376.440	7273617.708	555.097	-72.12	353.87	348.7
AB158	660548.429	7273547.388	552.694	-74.67	353.56	421.06
AB159	659975.005	7273558.906	564.063	-66.99	355.65	415.05
AB160	660272.531	7273257.523	548.772	-71.89	358.33	499.15
AB161	660300.640	7273546.461	555.264	-70.00	356.02	402.07
AB162	660050.090	7273605.927	562.786	-69.74	355.88	373
AB163	660272.695	7273326.086	550.097	-71.88	351.45	475.05
AB164	660374.820	7273515.602	553.996	-68.16	353.36	430
AB165	660072.484	7273437.917	558.026	-71.20	355.98	454.07
AB166	660496.409	7273582.346	553.276	-79.04	356.56	436.43
AB167	660496.347	7273583.648	553.299	-73.48	357.06	376.1
AB168	660087.478	7273383.749	555.673	-71.80	89.59	256.7
AB168W1	660087.446	7273383.726	555.663	-71.80	89.59	561
AB169	660349.647	7273599.525	555.384	-75.00	357.31	385.4
AB170	660525.478	7273537.207	552.812	-72.72	356.90	405.1
AB171	660613.809	7273487.969	550.715	-70.90	3.18	385.06
AB172	660546.223	7273623.206	553.240	-78.95	351.63	366.84
AB173	660546.015	7273442.778	550.071	-70.42	354.52	483.96
AB174	660473.712	7273587.792	553.485	-77.90	357.07	445.6
AB175	660174.116	7273576.159	558.304	-69.81	356.42	384
AB176	660597.876	7273414.505	548.863	-70.42	354.42	417.98
AB177	660473.052	7273590.391	553.469	-74.21	357.33	373.5
AB178	660251.036	7273362.230	551.450	-69.66	359.09	473.45
AB179	660450.054	7273592.813	553.794	-74.01	357.70	412.01
AB180	660051.635	7273683.254	563.429	-79.18	171.80	166.8
AB180W1	660051.660	7273683.258	563.423	-79.18	171.80	430.5
AB181	660401.205	7273598.741	554.817	-71.95	353.70	361.85
AB182	660351.736	7273435.805	552.224	-70.06	356.42	487.59
AB183	660601.313	7273555.773	552.099	-80.81	352.31	24.8
AB183A	660601.276	7273555.754	552.120	-80.81	352.31	403.81



Hole_ID	NAT_East	NAT_North	NAT_RL	Dip	Azimuth	Max_Depth
AB184	660422.381	7273328.254	548.464	-70.07	353.84	442.5
AB185	660601.244	7273553.257	551.988	-74.99	356.76	367.09
AB186	660123.035	7273561.804	559.450	-69.58	355.48	15.7
AB186A	660123.042	7273561.272	559.505	-69.70	355.56	415.28
AB187	660401.178	7273596.980	554.706	-77.79	356.58	15.8
AB187A	660401.186	7273598.186	554.757	-77.79	356.58	368.27
AB188	660098.131	7273664.703	561.571	-79.83	179.93	159.7
AB188W1	660098.129	7273664.694	561.580	-80.00	180.00	457.73
AB189	660249.383	7273636.695	557.509	-81.95	355.88	393.91
AB190	660450.039	7273592.542	553.572	-80.13	356.74	415.1
AB191	660697.699	7273273.884	543.665	-70.78	354.15	493.24
AB192	660593.280	7273409.335	548.750	-76.77	356.25	564.3
AB193	660419.157	7273621.714	554.524	-79.90	356.57	372.92
AB194	660540.119	7273664.226	553.597	-78.96	173.04	469
AB195	660618.869	7273254.871	544.131	-71.15	356.02	1000
AB196	660323.205	7273544.045	554.872	-70.16	356.28	405.5
AB197	659998.654	7273611.669	564.768	-68.09	356.43	433.11
AB198	660419.111	7273622.616	554.614	-75.00	356.00	335.11
AB199	660525.155	7273536.509	552.713	-76.20	356.31	453.92
AB200	660596.369	7273409.404	548.676	-81.55	352.36	33.8
AB200A	660596.221	7273410.619	548.753	-81.67	352.47	492.75



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 diamond drilled using NQ2 diameter core, geologically logged, photographed, cut and then ½ core samples were submitted to the laboratory for analysis. Samples were oven dried, crushed, pulverised and analysed for base metals using XRF with a lithium borate flux 15% NaNO ₃ and Fused Bead Laser Ablation ICP-MS. Gold was assayed by fire assay using a 50 g charge with AAS finish.
Sampling	 □ Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. □ Aspects of the determination of mineralisation that are Material to the Public Report. 	ranged from 0.3 to 1.6m. Galena's sampling generally used 1m intervals. Sampling was continuous throughout the mineralised intervals with the right-hand side of the core taken. The sampling methodology is considered to be representative and appropriate for the style of mineralisation at Abra (poly-metallic lead-silver-zinc-copper-gold).
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.	
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).	Most holes were diamond drilled from surface to minimise hole deviation using HQ diameter and reduced to NQ2 diameter at between 80 and 200m depth. Diamond drilling was by wireline methods. Completed hole depths range from 350 to 955 m. Galena's 2017 - 2020 drilling was systematically oriented using either a Reflex ACT Mk.3TM or TrueCoreTM core orientation system. The bottom of hole line was marked on the core as a reference for structural measurements. Only reliable core orientations were used for obtaining structural measurements.



Criteria	JORC Code explanation	Commentary
	☐ Method of recording and assessing core and chip sample recoveries and results assessed.	All diamond core was measured/recorded for drilling recovery by Galena staff.
Drill sample recovery	 ☐ Measures taken to maximise sample recovery and ensure representative nature of the samples. ☐ Whether a relationship 	Overall core recovery is excellent due to the silicified and competent nature of the rock with core recoveries typically being 100%.
	exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No grade versus recovery sample biases due to loss or gain of material has been identified.
	☐ 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 drill core was logged geologically and geotechnically in detail sufficient to support the Mineral Resource estimate, mining and metallurgical studies. Logging included lithology, texture, veining, grain size, structure, alteration, hardness, fracture density, RQD, alteration and, mineralisation
Logging	☐ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Core logging was both qualitative and quantitative. Lithological observations were qualitative. All geotechnical observations and core photographs were quantitative.
	☐ The total length and percentage of the relevant intersections logged.	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 holes were routinely sampled as half cut NQ2 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 sample preparation	☐ For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All core was appropriately orientated and marked up for sampling by company geologists prior to core cutting. Sample widths range from 0.3m to 3.0m. Galena's sampling was generally in 1m intervals whereas its predecessors were generally 2m intervals. Half core samples were submitted to the commercial laboratories in Perth laboratory for analysis. Sample preparation comprised industry standard oven drying, crushing, and pulverisation to less than 75 microns. Homogenised pulp material was used for assaying.
	☐ Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Blank samples were routinely dispatched to the laboratory to monitor sample preparation. 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 on the AAS plasma. From hole AB78 onwards barren flushes were carried out after each sample in sample preparation. The magnitude of the elevated values is not considered to be a material issue on the lead value estimates in the resource estimate.



Criteria	JORC Code explanation	Commentary
	☐ 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.	In Galena's 2017 to 2020 drill program replicates of crushed core and duplicates (2 nd half of crushed core) were routinely assayed. Results showed an excellent correlation demonstrating a high level of repeatability. Sample sizes were typically 3 to 6 kg (depending on the length of the sample) and are considered appropriate to the fine – medium grained grain size common in the host rock and galena mineralisation at percent grades.
Quality of assay	☐ The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. ☐ For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and	Galena's samples were analysed by Bureau Veritas Laboratory in Perth/WA. The samples were analysed via XRF analysis – sulphide ore for the following elements: Ni, Cu, Co, Fe, S, MgO, CaO, SiO2, Al2O3, Mn, Zn, Cr, Cl, K2O, P2)5, Pb, As, Ti, V, LOI, and by Fused Bead Laser Ablation ICP-MS for Ag, Ba, Bi, Ce, Eu, Gd, Hf, La, Mo, Nb, Nd, Pr, Rb, Sb, Sm, Sn, Sr, Ta, Th, U, W, Zr, and by Fire Assay for Au with AAS finish for a 50g charge The analysis methods used are considered to approach total dissolution thus reporting total assay values and are appropriate for the style and tenor of mineralisation at Abra. Blanks, certified standards, replicated and duplicates were regularly submitted to the assaying laboratory and monitored. Galena completed umpire assaying by an alternate laboratory with results returned consistent with the primary samples. The
Quality of assay data and laboratory tests	model, reading times, calibrations factors applied and their derivation, etc.	QAQC data indicates that assaying data accuracy and precision is of an appropriate quality for resource estimation work. Galena quality control procedures include the following: 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.
	□ 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.	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. Duplicates – two duplicate samples of the original samples are been taken during this drilling program. The first duplicate samples is a split of the crushed material of the original samples taken in the laboratory, and the second duplicate sample corresponds to the other half of the core (field duplicate). The duplicate samples are taken at a rate of 4 per 100 samples, over selected mineralisation styles and also through waste rock material. These are considered as true duplicates and can be used for assessing field sampling methodology and laboratory precision.



Criteria	JORC Code explanation	Commentary
	☐ The verification of significant intersections by either independent or alternative company personnel. ☐ The use of twinned	All significant intersections are verified by alternative company geologists. Due to the depth to mineralisation no twinned holes have been
	holes.	attempted yet.
Verification of sampling and assaying	□ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	During Galena's 2017- 2020 drilling program geological logging and sampling data was firstly recorded on either paper or in a Toughbook computer according to then entered into an electronic Excel and Access database files onsite. Electronic copies are backed up onsite and routinely transferred to the Perth head office. All paper documents are scanned onsite and electronic copies kept. Duplicates of the data are kept in 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 recently been migrated to a DatashedTM database to ensure data integrity. Galena used LogChiefTM for logging and sampling for the 2018-2020 drill programs.
	☐ Discuss any adjustment to assay data.	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 by the drilling contractor during during drilling. A selection of holes will be then later gyro surveyed by ABIMS using a north seeking gyro for quality control. 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 and distribution	☐ Data spacing for reporting of Exploration Results.	The footprint of the Abra deposit extends 1,000m east-west along strike and 800m north south. Drill spacing ranges from 150m spaced centres on the periphery to 100 and 50m spacing in the central parts of the deposit. In some areas drill spacing is close to 50m by 25m. The deposit lies between 250m and 700 m below surface.
		Drill holes in the current round of drilling is infill drilling and will improve the spacing to approximately 30 by 30m.
	□ 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.	Data spacing is sufficient to establish geological and grade continuity to establish a mineral resource estimate.



Criteria	JORC Code explanation	Commentary
	☐ Whether sample compositing has been applied.	No sample compositing has been applied.
Orientation of data	□ Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The mineralisation in the Apron Zone consists of tabular shallow south dipping zones can be drilled from north or south with high intersection angles. The Core zone has steeply dipping structures that trend east-west. The majority of drill holes in the current programare oriented to the north to sample most of the identified structures in the Apron zone an unbiased manner.
in relation to geological structure	☐ 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.	The Apron Zone is not considered to have any sample bias issues due to the high intersection angles of all the drilling. By virtue of is nature as a feeder zone to the Apron mineralisation, the Core Zone has drilling at low intersection angles to the mineralised structures. 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.	Mitchell River Group completed an audit of the geological database for data up to October 2019. This audit included review and documentation of sampling and geological data integrity. No issues have been identified Optiro carried out a review of the sampling and data collection processes during the site visit to Abra in 2018 and found that
		the protocols met industry standard with no material issues.

Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	Abra Mining holds 100% interest in the Mulgul Project, consisting of Mining Lease M52/0776, Exploration Licence E52/1455, General Purpose Leases G52/292 and G52/286 and Miscellaneous Licence L52/0121, L52/0194, L52/0198, and L52/210. A 3.0% Net Smelter Royalty exists over leases M52/0776 and E52/1455. Within the adjoining Jillawarra Project Galena Mining holds 100% of E52/1413, E52/3630, E52/3823 and E52/3575.
	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.	All tenements are in good standing and have existing Aboriginal Heritage Access Agreements in place. No mining agreement has been negotiated.



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	. Acknowledgment and appraisal of exploration by other parties.	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 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 mineralization 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 holes were drilled in 2012 (AB60A and AB61) HNC divested the project in 2016. Galena Mining acquired the project in 2017 and floated on the ASX. The historic exploration work on the project is of a very high standard.
Geology	· Deposit type, geological setting and style of mineralisation.	The Abra deposit lies within sediments of the Proterozoic Edmund Group. Abra is a polymetallic base metal 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. The deposit can be divided into two main parts. 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 dolomitic sediments. Alteration products include jaspilitic rich sediments (the "Red Zone") and a distinctive stratiform zone of hematite-magnetite alteration (the "Black Zone". The Apron zone 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 veining and breccia zones in the Core form a feeder style flower shaped geometry in cross section. Hydrothermal veining dips moderately south on the northern flank, sub-vertically in the central parts and gently to the north 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 parts of the Core. Copper (chalcopyrite) and gold mineralisation is sporadically found throughout the upper parts of the Core zone but forms a semi-coherent body at the base of Core. The Core zone extends from 300 to 750m below surface and can be traced for 400m along strike.



Criteria	JORC Code explanation	Commentary
Drill hole Information	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:	
	o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth	Coordinates, dip, depth and azimuth of Galena's 2020 completed holes are listed in Appendix 2.
	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.	
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. Where aggregate	Significant intersections are calculated as weighted average means for downhole intervals greater than 4m@5% Pb. There was no cutting of high-grades. Lower grade intersections reported for major lodes for transparency.
	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.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	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.



Criteria	JORC Code explanation	Commentary
	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').	
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.	All significant results are reported and tabulated.
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.	Galena has completed various studies as part of its FS study program, including geotechnical, metallurgical and environmental studies. To date no significant issues have been identified, Groundwater studies and test work has identified water sources suitable for processing water supplies
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	The 2020 Abra resource development drilling program is ongoing and focused on: - infill drilling of the Apron lead-silver orebody to support mine design work; - testing selected prospective 'metal rich' zones that have potential to enhance life of mine plan optimisation; and - testing prospective gold-copper zones