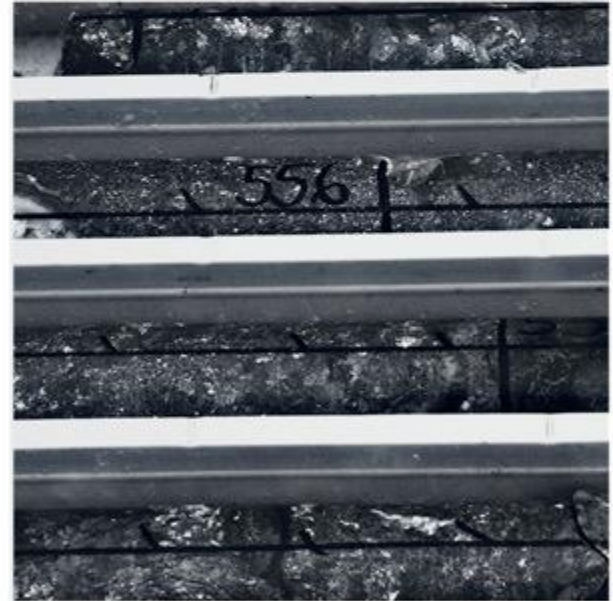




# GALENA

MINING LIMITED



**PRESENTATION**  
*December 2018*

## **PFS Cautionary Statement**

70% of the material included in the current mining schedule for the Abra Base Metals Project (“**Abra**” or the “**Project**”) Pre-Feasibility Study (“**PFS**”) is included in Probable Ore Reserves. However, the remainder is currently included in Inferred Resources, with no reduction factor applied to the tonnes and grades of the Inferred Resources. Inferred Resources have a lower level of geological confidence and can’t be included in the calculation of Ore Reserves. All results of 2018 infill drilling have not been received and there is no guarantee that a Resource update will convert Inferred material into Indicated or return the same grade and tonnage distribution. This may affect mining studies and economic outcomes from this PFS. The Abra Ore Reserve will be reviewed in conjunction with the coming Resource update.

Process and engineering designs for Abra’s PFS were developed to support capital and operating estimates to an accuracy of  $\pm 20\%$  and  $\pm 15\%$  respectively. Key assumptions that the PFS was based on are outlined in the body of this presentation and in the Galena ASX announcement of 25 September 2018 (including Appendix 1 to that announcement).

## **Competent Person’s Statement**

The information in this report related to the Abra Ore Reserve estimate is based on work completed by Mr Roger Bryant, BEng (Mining, Member AUSIMM). Mr Bryant is an employee of Galena Mining Ltd. Mr Bryant has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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 Bryant consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report related to the December 2018 Resource estimate is based on work completed by Mr Don Maclean MSc (Geol), MAIG and RP Geo (Exploration and Mining), MSEG, a consultant to Galena Mining and Mr Mark Drabble B.App.Sci. (Geology), MAIG, MAusIMM, Principal Consultant at Optiro Pty Ltd. Mr Maclean was responsible for data review, QAQC, and development of the geological model. Mr Drabble was responsible for resource estimation, classification and reporting. Mr Maclean and Mr Drabble 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 Maclean and Mr Drabble consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

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 Don Maclean MSc (Geol), MAIG and RP Geo (Exploration and Mining), MSEG, a consultant to Galena Mining. Mr Maclean 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 Maclean consents 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 presentation 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 presentation.

Some statements in this presentation 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 presentation 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.

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## ABRA BASE METALS PROJECT IS THE CORE ASSET



World class, 100%-owned, high-grade, unmined, base metals deposit in Western Australia



Outstanding PFS  
A\$528M NPV<sub>8</sub> / 50% IRR  
14-year mine life  
A\$97M/year cash flow



Construction start 2019  
DFS mid-2019  
Initial production 2021  
On track



Infrastructure and port capacity confirmed



Granted mining licence  
No EPA approval required  
Indigenous land use agreement



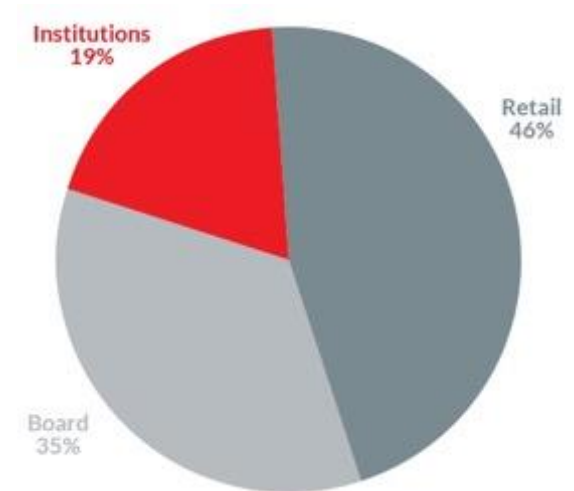
Highest grade primary lead concentrate available globally  
Offtake 100% available

## Capital structure

Shares on issue (ASX: G1A)	337.0M
Options on issue <sup>1,2</sup>	34.8M
Share price	A\$0.19/share
Market Cap	~A\$64.0M
Cash balance (30 Sep 2018)	~A\$4.8M
Debt	Nil

1. Options issued to employees and management with 11.75m having an exercise price of \$0.06 and expiry date of 30 June 2020, and 18m having an exercise price of \$0.08 and expiry date of 30 June 2021. 5m having exercise price of \$0.30 and expiry date of 6 February 2021. 2. In addition, 16.5m contingent performance rights for CEO/MD.

## Shareholder summary



## Board of directors and key management

A proven track record in financing, development and production of mineral assets

Adrian Byass	Non-Executive Chairman	Geologist and Economist, experienced board member, mine development specialist
Alex Molyneux	Managing Director / CEO	Experienced mining executive and financier, former large operating company CEO experience
Tony James	Non-Executive Director	Senior Mining Engineer, former large operating company CEO experience, underground development
Jonathan Downes	Non-Executive Director	Geologist, mining and mine development expertise
Timothy Morrison	Non-Executive Director	Corporate finance, Capital markets, M&A, IPOs
Troy Flannery	Chief Operating Officer	Mining Engineer, underground development, base and precious metals
Ed Turner	GM, Exploration & Geology	Geologist, 30-years+ experience, base and precious metals, former exploration manager of Abra

# OUTSTANDING ABRA PFS RESULTS



PFS RESULTS	NPV <sub>8</sub> A\$528M	IRR 50%	Capex A\$154M
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PFS outcomes – Production metrics		PFS outcomes – Capital investment and project economics	
Mill throughput	1.2Mtpa	Pre-production capital	A\$154m
Initial mine life	14-years	Steady-state average cash flows (yrs 3-13)	A\$97m
Average LOM lead metal production	91ktpa	Project payback from commercial production	2-years
Average LOM silver metal production	760kozpa	Pre-tax NPV (8% discount rate)	A\$528M
Lead C1 direct cash cost	A\$0.66/lb / US\$0.48/lb	Pre-tax IRR	50%

- PFS assumptions include: lead price US\$0.95/lb; silver price US\$14.50/oz; and A\$1=US\$0.73
- Abra product will be a high-value, high-grade concentrate containing 75% lead and 220g/t silver – The highest grade primary lead concentrate available globally
- No material impediments in the areas of permitting, concentrate marketing, infrastructure and logistics, or native title



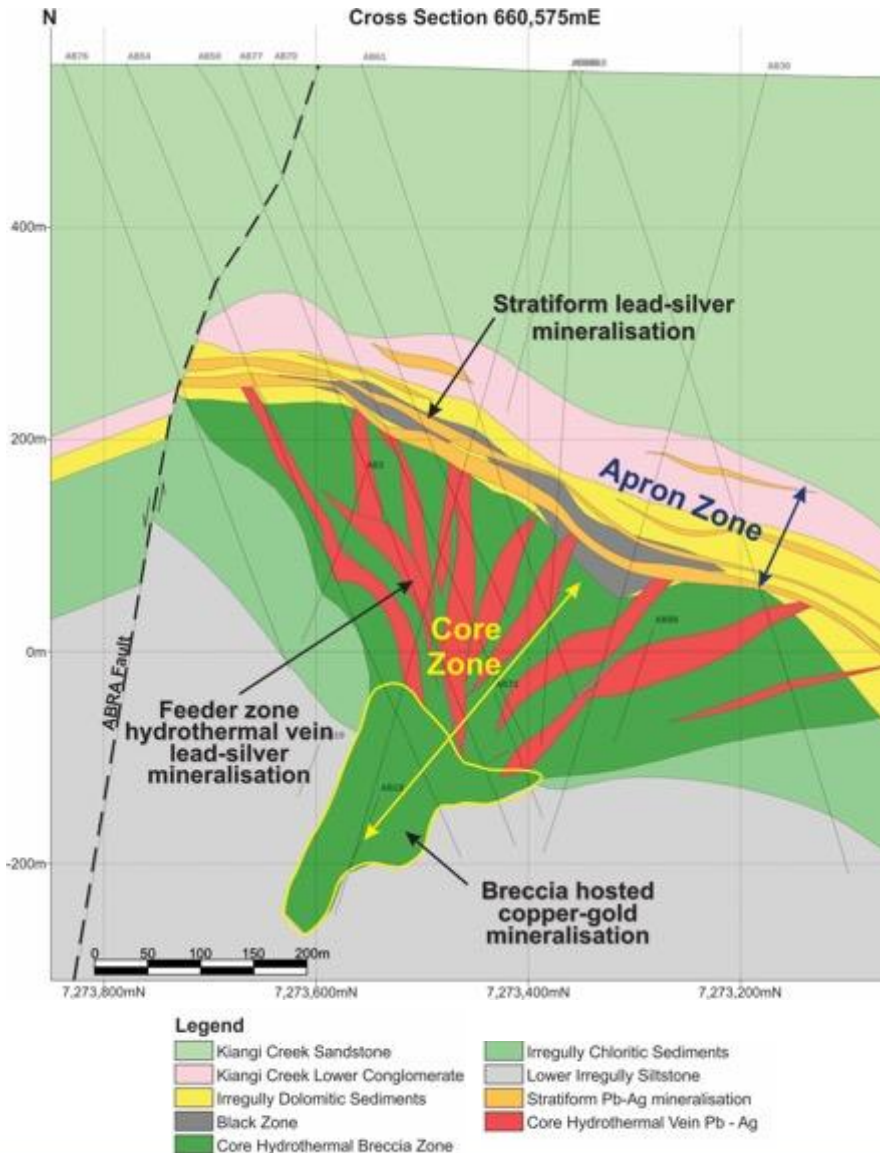


- Abra is located in the Gascoyne region of Western Australia approximately 110km from Sandfire Resources' DeGrussa copper mine
- Well serviced by infrastructure and located approximately halfway between Newman and Meekatharra
- Lead concentrate to be trucked via public highways to Port of Geraldton
- Port of Geraldton has all permits and infrastructure required to handle lead sulphide concentrates and is currently an active handler of third-party (Golden Grove) similar product
- Ample ship loading capacity available



Port of Geraldton – Primary export port

# ABRA MINERALISATION MODEL



- Sediments hosting Abra were deposited in a basin setting and have been deformed with large scale folding and faulting in and around the deposit
- Mineralisation model; hydrothermal fluids carrying lead-silver-zinc-copper-gold have risen through breccia and fault zones
- Mineralised fluids have risen to a sedimentary boundary and have ‘mushroomed’ sideways settling in preferential (dolomitic) units
- The overlying, stratiform hosted mineralisation is called the “Apron Zone” and is largely galena-rich (ie, lead and silver). This is fed by breccia and vein zones which are called the “Core Zone” mineralisation. Core Zone grades from lead-silver dominant in upper levels to increasingly copper-gold at depth.
- The deposit is open at depth





Massive mineralisation in Core



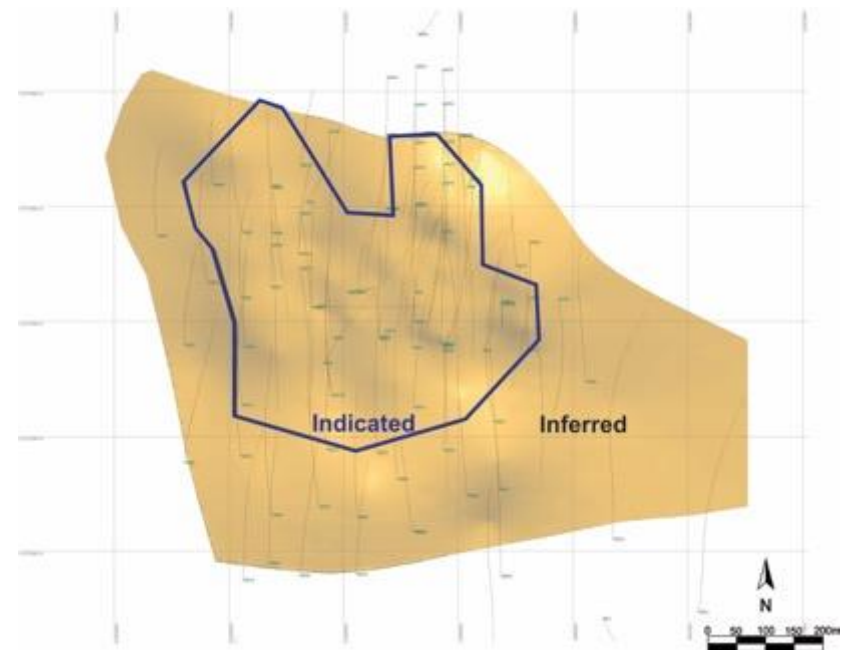
Strata from Apron

JORC Mineral Resource estimate (December 2018 Resource) at a 5% lead cut-off grade <sup>1</sup>			
<u>Resource classification</u>	<u>Tonnes (Mt)</u>	<u>Lead grade (%)</u>	<u>Silver grade (g/t)</u>
Measured	-	-	-
Indicated	15.0	8.7	22
Inferred	22.4	6.7	15
<b>Total</b>	<b>37.4</b>	<b>7.5</b>	<b>18</b>

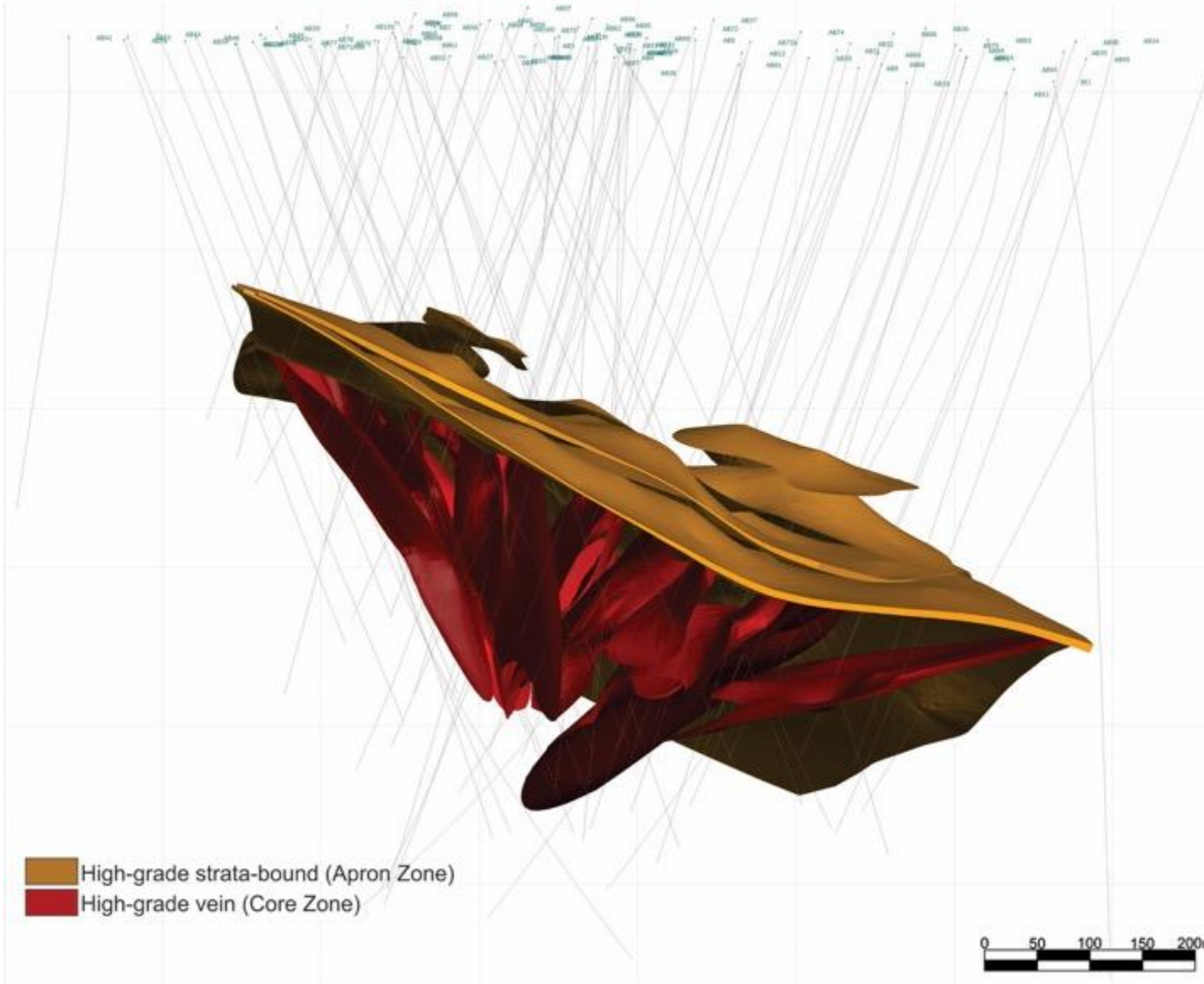
Notes: 1. For more detail please see Galena ASX announcement of 17 December 2018.

- Resource based on 102 diamond core drill-holes
- ~60km of cumulative linear drilling
- >1/3 of the database made up of new drill-holes from 2017-2018

Plan view of Abra December 2018 Resource



# MINERAL RESOURCE 3D MODEL



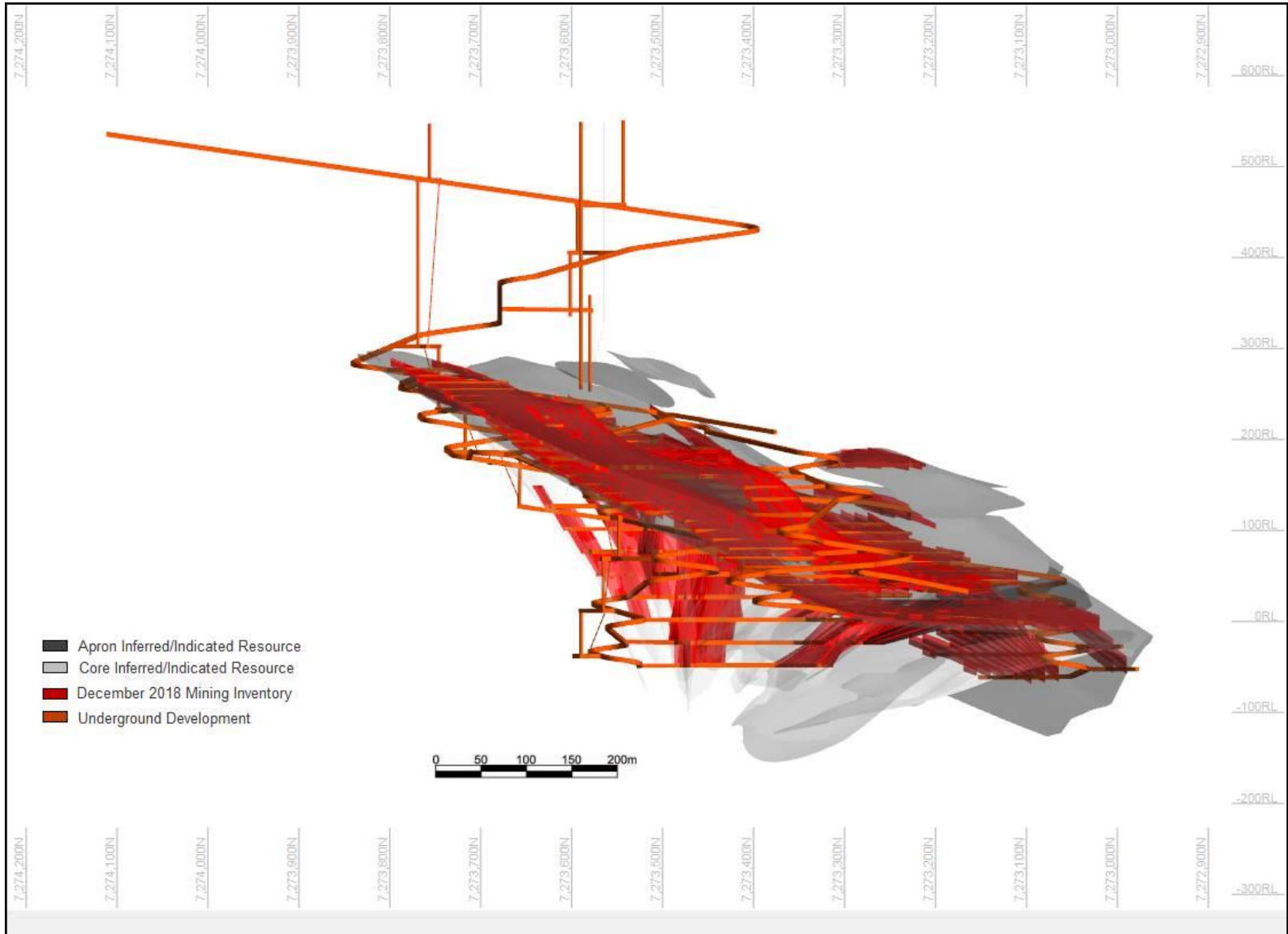
+5%  
Resource  
Apron and  
Core shapes

- Underground mining primarily using long-hole open stoping but with some room and pillar in certain areas
- New Reserve (below) based on December 2018 Resource – 9% increase in lead grade vs. PFS Reserve – overall 7% increase in contained lead and 18% increase in contained silver
- Good geotechnical conditions allowing for relatively large stopes – 85% recovery assumption with 6% dilution
- New mining inventory model also prepared on December 2018 Resource
  - 1-year extra life of mine vs. PFS' 14-years
  - ~6% higher lead grade over life of mine average
  - ~20% reduction in lateral development metres
- Optimised PFS to come early-2019 once new mining model is sequenced and run through financial model

<b>JORC Ore Reserve statement<sup>1</sup></b>			
<u>Reserve classification</u>	<u>Tonnes (Mt)</u>	<u>Lead grade (%)</u>	<u>Silver grade (g/t)</u>
Proved	-	-	-
Probable	10.3	8.8	24
<b>Total</b>	<b>10.3</b>	<b>8.8</b>	<b>24</b>

Notes: 1. Prepared by Galena Mining – For more detail please see Galena ASX announcement of 17 December 2018.

# 3D IMAGE OF NEW MINE MODEL



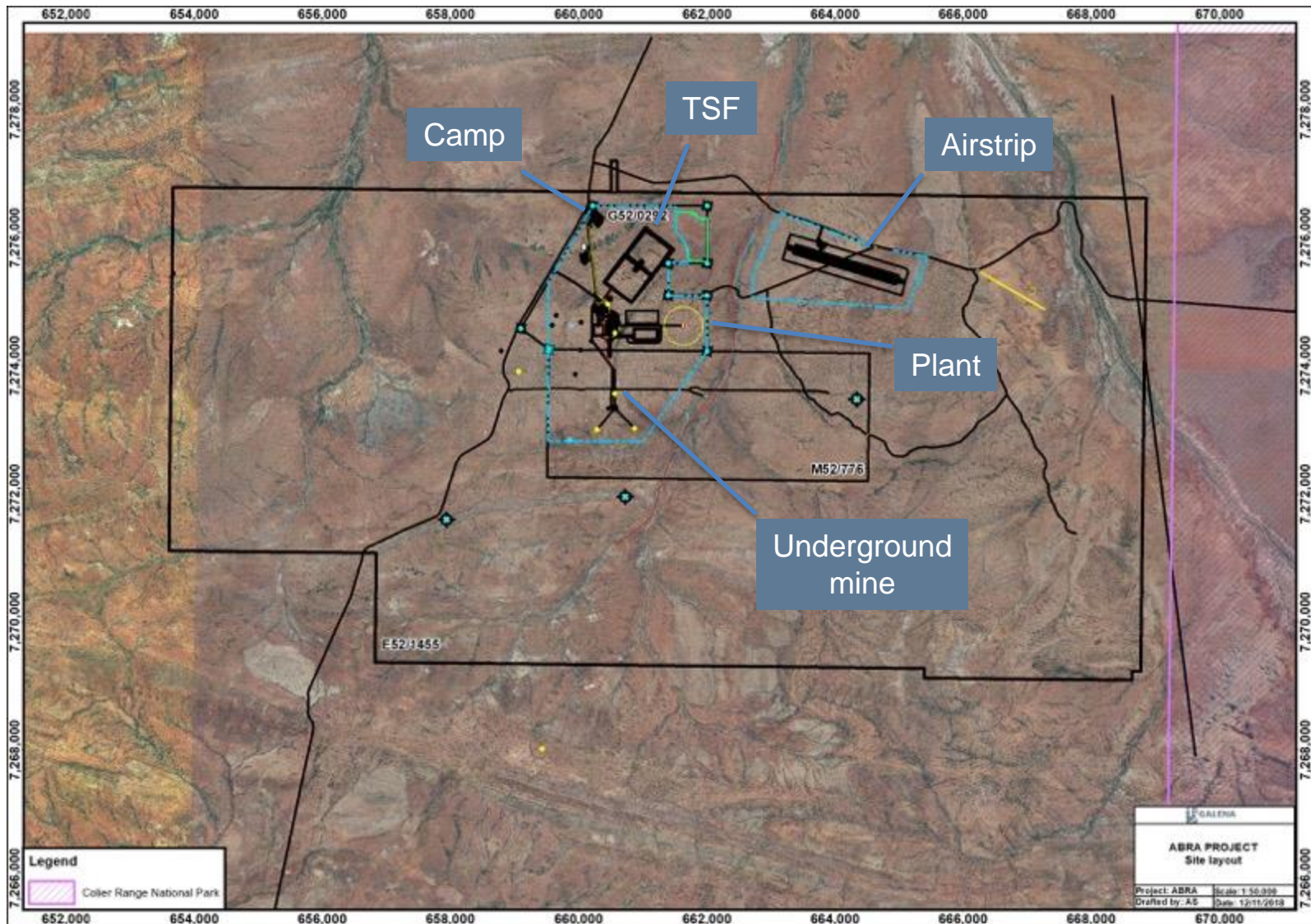


- 1.2Mtpa plant throughput
- Conventional crushing, grinding, flotation and filtration
- Metallurgical testing confirms high (96%) recoveries for both lead and silver into high-value, high-grade concentrate
- Concentrate product expected to be the highest grade primary lead concentrate available globally – 75% lead and 220g/t silver
- Abra's product in high demand, particularly in the context of the global lead market in current deficit and limited new supply growth
- Nine indications of interest for offtake received from potential customers in Europe, East Asia and China





# ABRA PROJECT PROPOSED SITE PLAN



# CAPITAL INVESTMENT AND COSTS

Abra pre-production capital expenditure	
	<u>A\$M</u>
Mine development (incl. box cut and access)	31.2
Processing plant (concentrator)	51.4
Surface infrastructure	28.8
Offsite road upgrades and miscellaneous	1.5
Tailings storage facilities	5.0
EPCM	13.8
Contingency	10.1
Owner's and indirect costs	12.3
<b>Total</b>	<b>154.0</b>

Abra LOM operating cost estimates	
	<u>US\$ C/lb</u>
Mining	23.4
Processing <sup>1</sup>	14.7
TCRCs and outbound logistics	15.4
By-product credit for net silver revenue	(5.6)
<b>Lead C1 direct cash cost of production<sup>2</sup></b>	<b>48.0</b>
Royalties <sup>3</sup>	7.2

Notes: 1. Includes an allocation for site general and administration costs of A\$8/t of throughput, 2. Equates to A\$0.657/lb based on an exchange rate of A\$1=US\$0.73, 3. For lead, 5.0% Western Australian State royalty plus 3.27% in vendor and other royalties, and for silver, 2.5% Western Australian State royalty plus 3.27% in vendor and other royalties.

- **PFS review / optimisation** – Optimised PFS to be released early-2019 taking into account the increased metal and lower development metres associated with the new mining inventory model prepared in conjunction with the recently released December 2018 Resource
- **Permitting approvals** – Abra already on granted mining licence and no requirement for EPA but Galena aims to receive final minor permits mid-2019
- **Offtake** – Continued engagement with a select sub-set of the nine parties that already submitted expressions of interest for Abra’s high-value, high-grade lead-silver concentrate with a view to concluding formal offtake arrangements
- **Advancing discussions with project financiers and strategic investors** – Discussions substantially advanced with traditional project financing banks and strategic counterparties
- **Construction decision and commencement of construction (by mid-2019)**
- **Completion DFS (mid-2019)**

*“The PFS confirms Abra is one of the best base metals projects in the world in terms of high investment returns, low country risk and market significance. The Project has an estimated NPV of A\$528M and an IRR of 50%.”*

*“The new (December 2018) Resource is yet another improvement. The mining inventory model associated with that shows one year extra mine life at a 6% average lead grade over the life of mine combined with 20% less lateral development required compared to the PFS.”*

***Managing Director, Alex Molyneux***

## Abra December 2018 Resource at alternative cut-off grades

JORC Mineral Resource estimate (December 2018 Resource) at a 6% lead cut-off grade <sup>1</sup>			
<u>Resource classification</u>	<u>Tonnes (Mt)</u>	<u>Lead grade (%)</u>	<u>Silver grade (g/t)</u>
Measured	-	-	-
Indicated	12.4	9.4	24
Inferred	12.9	7.5	17
<b>Total</b>	<b>25.3</b>	<b>8.4</b>	<b>20</b>

Notes: 1. For more detail please see Galena ASX announcement of 17 December 2018.

JORC Mineral Resource estimate (December 2018 Resource) at a 7.5% lead cut-off grade <sup>1</sup>			
<u>Resource classification</u>	<u>Tonnes (Mt)</u>	<u>Lead grade (%)</u>	<u>Silver grade (g/t)</u>
Measured	-	-	-
Indicated	8.5	10.5	27
Inferred	4.5	9.2	22
<b>Total</b>	<b>13.0</b>	<b>10.1</b>	<b>25</b>

Notes: 1. For more detail please see Galena ASX announcement of 17 December 2018.





Alex Molyneux | Managing Director



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