

26 May 2023

South32 Limited (Incorporated in Australia under the Corporations Act 2001 (Cth)) (ACN 093 732 597) ASX / LSE / JSE Share Code: S32 ADR: SOUHY ISIN: AU000000S320 south32.net

#### HERMOSA PROJECT SITE TOUR

**South32 Limited (ASX, LSE, JSE: S32; ADR: SOUHY) (South32)** will today host an equity analyst and investor site tour of our 100% owned Hermosa project located in Arizona, United States.

The presentation is attached and will be available on the South32 website at: <a href="https://www.south32.net/investors/presentations-speeches">https://www.south32.net/investors/presentations-speeches</a>

#### About us

South32 is a globally diversified mining and metals company. Our purpose is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources. We produce commodities including bauxite, alumina, aluminium, copper, silver, lead, zinc, nickel, metallurgical coal and manganese from our operations in Australia, Southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

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Further information on South32 can be found at www.south32.net.

Approved for release by Graham Kerr, Chief Executive Officer JSE Sponsor: The Standard Bank of South Africa Limited 26 May 2023

# HERMOSA SITE TOUR PRESENTATION

SOUTH32

26 May 2023

### **IMPORTANT NOTICES**



This presentation should be read in conjunction with the "Hermosa Project Update" announcement released on 17 January 2022 and the "Hermosa Project Update" announcement released on 8 May 2023, which are available on South32's website (www.south32.net).

Figures in italics indicate that an adjustment has been made since the figures were previously reported.

#### FORWARD-LOOKING STATEMENTS

This presentation contains forward-looking statements, including statements about trends in commodity prices and currency exchange rates; demand for commodities; production forecasts; plans, strategies and objectives of management; capital costs and scheduling; operating costs; anticipated productive lives of projects, mines and facilities; and provisions and contingent liabilities. These forward-looking statements reflect expectations at the date of this release, however they are not guarantees or predictions of future performance. They involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this release. Readers are cautioned not to put undue reliance on forward-looking statements. Except as required by applicable laws or regulations, the South32 Group does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance. South32 cautions against reliance on any forward-looking statements or mising in connection with COVID-19.

#### NON-IFRS FINANCIAL INFORMATION

This presentation includes the non-IFRS financial measure Underlying revenue. This measure is used internally by management to assess the performance of our business, make decisions on the allocation of our resources and assess operational management. Non-IFRS measures have not been subject to audit or review and should not be considered as an indication of or alternative to an IFRS measure of profitability, financial performance or liquidity.

#### NO OFFER OF SECURITIES

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#### NO FINANCIAL OR INVESTMENT ADVICE - SOUTH AFRICA

South32 does not provide any financial or investment 'advice' as that term is defined in the South African Financial Advisory and Intermediary Services Act, 37 of 2002, and we strongly recommend that you seek professional advice.

#### MINERAL RESOURCES AND ORE RESERVES

Information in this presentation that relates to Ore Reserve or Mineral Resource estimates for the Hermosa project was declared in the "Hermosa Project Update" announcement released on 17 January 2022 and prepared by Competent Persons in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement. Refer to announcement "Hermosa Project-Mineral Resource estimates assumptions on Clark Mineral Resource estimate."

Resource life is estimated using Mineral Resources (extracted from South32's FY22 Annual Report published on 9 September 2022 and available to view on <u>www.south32.net</u>) and Exploration Target (details of which are available in the "Hermosa Project Update" announcement published on 17 January 2022), converted to a run-of-mine basis using conversion factors, divided by the nominated run-of-mine production rate on a 100% basis. Whilst South32 believes it has a reasonable basis to reference this resource life and incorporate it within its Production Targets, it should be noted that resource life calculations are indicative only and do not necessarily reflect future uncertainties such as economic conditions, technical or permitting issues. Resource life is based on our current expectations of future results and should not be solely relied upon by investors when making investment decisions. The cautionary statement included in the next paragraph relates to the proportion of Inferred Resources and Exploration Target when calculating Resource life and should be read in conjunction with this paragraph.

#### **PRODUCTION TARGETS**

Taylor: The information in this presentation that refers to Production Target and forecast financial information is based on Measured (20%), Indicated (62%), Inferred (14%) Mineral Resources and Exploration Target (4%) for the Taylor Deposit. The Mineral Resources underpinning the Production Target have been prepared by a Competent Person in accordance with the JORC Code. All material assumptions on which the Production Target and forecast financial information is based in the "Hermosa Project Update" announcement released on 17 January 2022. There is low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration Target used in the Production Target is conceptual in nature. In respect of Exploration Target is based on South32's current explorations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met. South32 confirms that inclusion of 18% of tonnage (14% Inferred Mineral Resources and 4% Exploration Target is no the determining factor of the project viability and the project forecasts a positive financial performance when using 82% tonnage (20% Measured and 62% Indicated Mineral Resources). South32 is satisfied, therefore, that the use of Inferred Mineral Resources and Exploration Target in the Production Target and 62% Indicated Mineral Resources). South32 is satisfied, therefore, that the use of Inferred Mineral Resources and Exploration Target in the Production Target and 62% Indicated Mineral Resources). South32 is satisfied, therefore, that the use of Inferred Mineral Resources and Exploration Target in the Production Target

Clark: The information in this announcement that refers to the Production Target for Clark is based on Indicated (69%) and Inferred (31%) Mineral Resources and was originally disclosed in "Hermosa Project update" dated 9 May 2023. The Mineral Resources underpinning the Production Target is based on Mineral Resources disclosed in South32's FY22 Annual Report published on 9 September 2022 (www.south32.net). South32 confirms that all the material assumptions underpinning the production target in the initial public report referred to in ASX Listing Rule 5.16 continue to apply and have not materially changed. There is low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

#### EXPLORATION TARGETS

Peake: The information is this presentation that relates to Exploration Target for Peake is extracted from "Hermosa Project Update" released on 17 January 2022 and is available to view on <u>www.south32.net</u>. The information was prepared by a Competent Person in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Flux: The information is this presentation that relates to Exploration Target for Flux is extracted from "South32 Strategy and Business Update" released on 18 May 2021 and is available to view on <u>www.south32.net</u>. The information was prepared by a Competent Person in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

### HERMOSA HIGHLIGHTS



Multiple options in commodities critical to a low-carbon future Only advanced deposit in the US that can produce two federally-designated critical minerals

First mining project added to the FAST-41 process

Taylor is an attractive base metals deposit with 20+ year initial resource life<sup>(a)</sup> Clark is ideally positioned to provide localised supply of battery-grade manganese for the North American market

Highly prospective land package with regional resource growth po<u>tential</u>

# HERMOSA AT A GLANCE



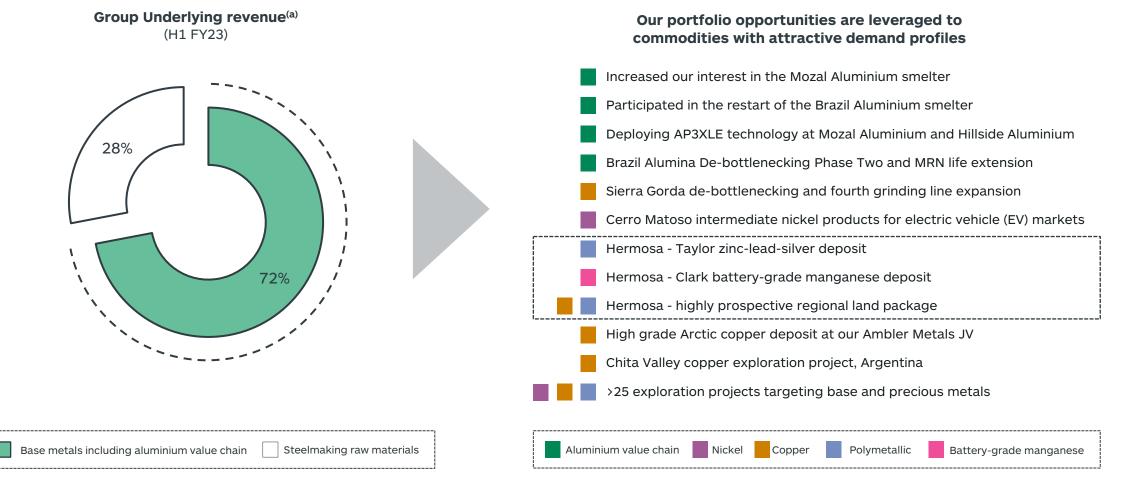
### Potential to produce commodities critical for a low-carbon future across multiple decades

Taylor zinc-lead-silver	Clark battery-grade manganese-	Regional resource
development option	zinc-silver development option	growth potential
Targeting a sustainable operation	Advancing discussions with customers to	Highly prospective regional
with 20+ year resource life <sup>(a)</sup> in the	supply battery-grade manganese into rapidly	land package with 15+ polymetallic
first quartile of the cost curve	forming North American markets	and copper targets
Feasibility study and	Pilot plant production commenced,	Exploration ongoing at Peake,
FID expected H2 CY23	starting decline construction H2 CY23	planning to drill Flux in H2 CY23

# DELIVERING ON OUR STRATEGY



#### Further increasing our exposure to commodities critical to a low-carbon future



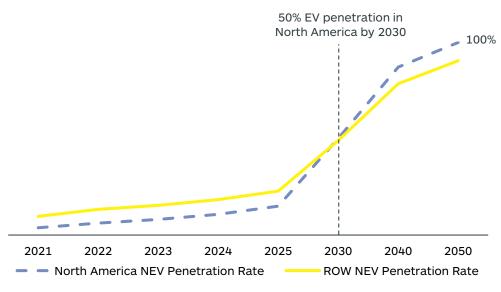
# OPPORTUNITY TO CAPTURE GROWING EV BATTERY MARKET



Committed government policies are expected to underpin a near six-fold increase in North American EV penetration levels by 2030

We expect manganese-rich battery chemistries to capture ~30% of the market by 2030, and >50% by 2040 Manganese-rich cathodes provide substantial cost, performance and sustainable sourcing benefits

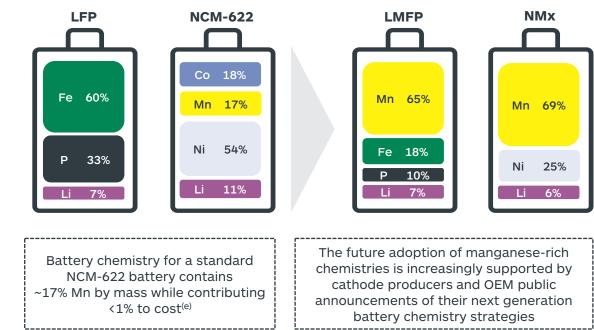
EV (passenger car and commercial vehicle) penetration rates<sup>(a)(b)(c)(d)</sup>



Source: South32 analysis

#### **Electric vehicle battery chemistries**

Active cathode materials, % by mass



Source: BloombergNEF, Esource and other publicly available information

#### Notes:

- a. NEV (new electric vehicles) includes plug-in hybrids, battery EVs and hydrogen fuel-cell passenger cars.
- b. Passenger car and commercial vehicles include commercial trucks/SUVs.
- c. EV penetration is calculated as EV production divided by total automobile production.
- d. North America refers to US, Canada and Mexico.
- e. Based on prices as at the end of 2022.

### **KEY MILESTONES**



### Progressing Taylor and Clark toward development, installing initial infrastructure and unlocking value in our highly prospective regional land package

May-23	Hermosa confirmed as the first mining project to be covered by the FAST-41 process
Jan-23	Signed our first non-binding, non-exclusive MOU for the supply of battery-grade manganese from Clark
Dec-22	Confirmed the potential for Clark to produce battery-grade manganese for growing North American markets
Mar-22	Acquired "The Shire" tenure, adding to our highly prospective land package
Mar-22	Commenced construction of dewatering infrastructure, having identified significant dewatering requirement post acquisition
Jan-22	Completed the PFS for the Taylor deposit, confirming its potential to be a globally significant producer of base metals
2020-2021	Development and exploration activity curtailed by COVID-19 related restrictions
May-20	Declared maiden Mineral Resource <sup>(a)</sup> for the Clark Deposit
Jan-20	Remediated historic tailings and constructed a dry-stack tailings storage facility
Jun-19	Declared maiden Mineral Resource <sup>(a)</sup> for the Taylor Deposit
Dec-18	Ceased work on the pre-existing decline at Taylor
Aug-18	Completed the acquisition of Arizona Mining

# WELCOME TO HERMOSA

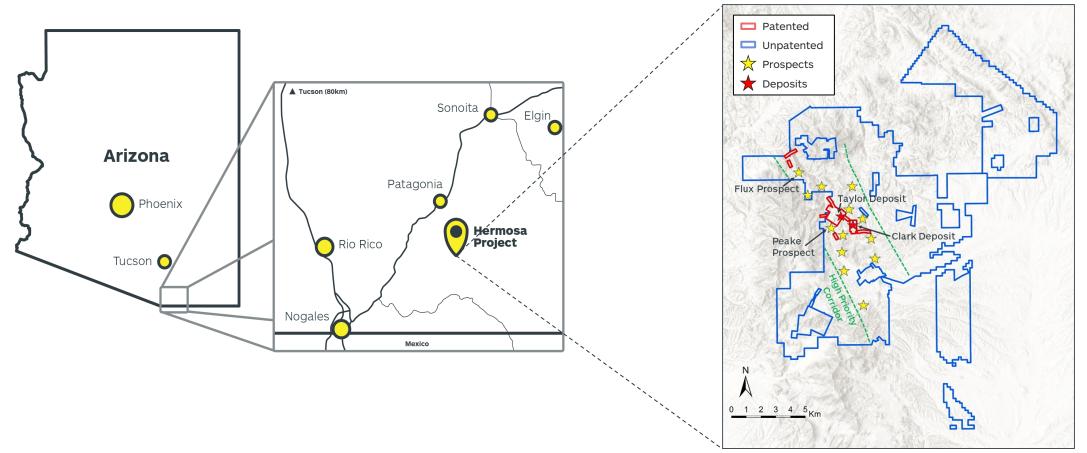


# PROJECT LOCATION



#### Located in southern Arizona, close to infrastructure, skilled service suppliers and domestic supply chains

Hermosa location



#### Hermosa land package

# NORTH AMERICAN CONTEXT



### Government policies are incentivising the build out of electric vehicle supply chains and demand for critical minerals

<b>Inflation Reduction Act</b> Tax incentives for domestic electric battery vehicle	Strong end-user interest in securing battery-grade manganese supply from Clark, the largest, most advanced project of its type in the US Clark's fully integrated development approach brings traceability benefits to	
production and supply chains	customers	

FAST-41 Program	Hermosa is the first mining project accepted into FAST-41, enabling a more efficient and transparent process for federal permitting	
More efficient and coordinated Federal permitting process to support new critical minerals projects	FAST-41 permitting process enables further optimisation of Taylor's proposed mine development schedule	/

Defense Production Act & Infrastructure Bill	Pursuing grant funding from government initiatives to advance our battery-grade manganese supply chain	
Government initiatives that support the domestic production of battery and critical metals	<ul> <li>United States Department of Defense US\$1.5B funding for battery metals supply</li> <li>United States Department of Energy US\$6.0B funding for critical minerals processing</li> </ul>	/

### OUR SUSTAINABILITY APPROACH



### Our sustainability commitment and principles are embedded in our approach to developing Hermosa

Protecting and respecting our people	<ul> <li>Designing an integrated remote operating center, providing safe and flexible working conditions and enabling workforce diversity</li> </ul>	
Delivering value to	<ul> <li>Investing in local communities and creating new jobs in critical minerals</li> <li>Working proactively with local Native American tribes to preserve cultural heritage and deliver long-term opportunities</li> </ul>	
Operating ethically and responsibly	<ul> <li>Prioritising local hiring and partnering with educational institutions to further develop a skilled workforce in Santa Cruz County, where nearly 25% of residents currently live below the poverty line</li> </ul>	
Managing our environment impact	<ul> <li>Small footprint, underground mine designs with efficient water use and dry stack tailings</li> <li>Completed key studies for biodiversity, ecosystems and water</li> </ul>	Est sano cru court Unamite Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Regenta Reg
Addressing climate change	<ul> <li>Applying low-carbon design principles and targeting 100% renewable energy supply</li> <li>Leveraging automation and technology to support South32's goal of net zero greenhouse gas emissions by 2050<sup>1</sup></li> </ul>	

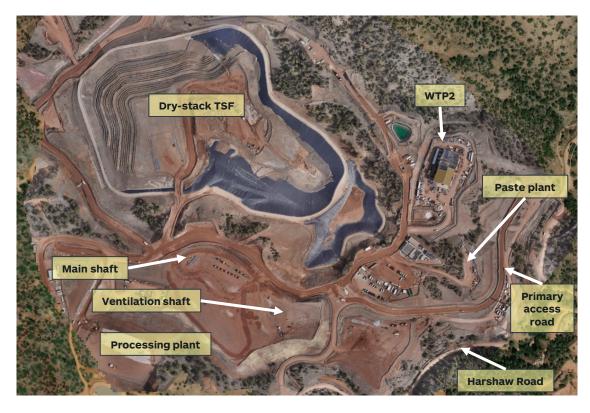
## TAYLOR OVERVIEW



### Potential to be a globally significant producer of base metals

Taylor Highlights								
138Mt zinc-lead-silver Mineral Resource <sup>(a)</sup> , which remains open in several directions	Exploration target ranging from 10 to 95Mt <sup>(a)</sup>							
PFS outlined potential for a sustainable operation with a 20+ year initial resource life <sup>(a)</sup>	Designed as a low-impact, low-carbon underground mine with conventional process plant							
We are optimising the mine development schedule for a FAST-41 permitting process	Feasibility study on-track for H2 CY23, incorporating the revised schedule and current market cost estimates							

#### **Taylor site map**

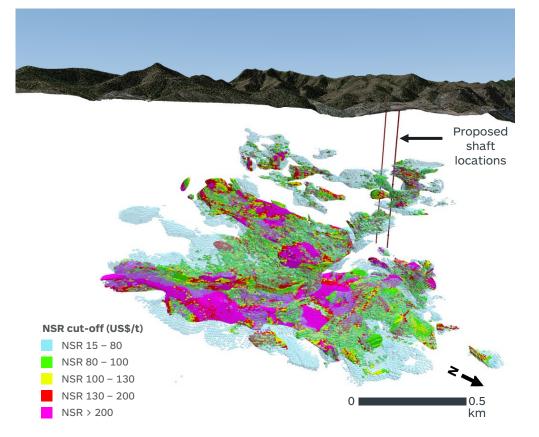


# TAYLOR MINERAL RESOURCE



#### A large Mineral Resource with the potential to support high productivity and throughput

#### **Taylor Deposit geology and mineralisation (looking south-west)**



Taylor Deposi	Taylor Deposit Highlights <sup>(a)</sup>									
138Mt Mineral Resource with a zinc equivalent grade of 8.61% <sup>2</sup>	Strike length ~2.5km and width ~1.9km, to a depth ~1.2km									
Resource remains open in several directions	Orebody geometry enables concurrent mining from multiple independent mining areas									

#### Taylor Deposit Mineral Resource as at 30 June 2022

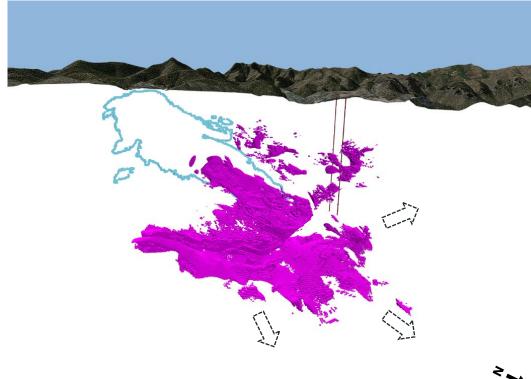
Classification	Mt	Zn (%)	Pb (%)	Ag (g/t)	ZnEq (%)
Measured	29	4.10	4.05	57	8.25
Indicated	86	3.76	4.44	86	8.79
Measured and Indicated	115	3.85	4.34	79	8.65
Inferred	24	3.73	3.82	91	8.41
Total	138	3.82	4.25	81	8.61

# TAYLOR EXPLORATION POTENTIAL

# 

### Our resource range analysis work supports the potential for further resource growth

#### **Taylor Deposit and Exploration Target (looking south-west)**



Clark Deposit (NSR cut-off US\$175/t)
 Taylor Deposit (NSR cut-off US\$80/t)
 Exploration Target extension



#### Notes:

a. Refer to important notices (slide 2) for additional disclosure.

b. Cut-off grade: NSR of US\$80/t.

Taylor Deposit Exploration Highlights								
A highly prospective	Exploration Target 10 to 95Mt,							
mineralised system	mid case of ~45Mt							

#### Exploration Target<sup>(a)(b)</sup>

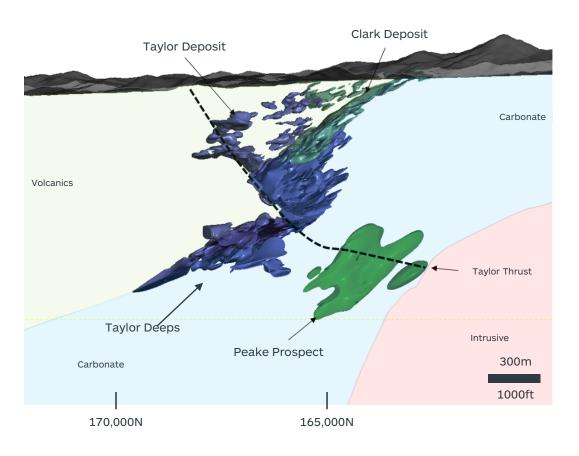
		Low Case				Mid Case			High Case			
	Mt	% Zn	% Pb	g/t Ag	Mt	% Zn	% Pb	g/t Ag	Mt	% Zn	% Pb	g/t Ag
Sulphide	10	3.8	4.2	81	45	3.4	3.9	82	95	3.6	4.0	79

# PEAKE PROSPECT OPPORTUNITY



### The Peake prospect is located south of the Taylor Deposit and contains high-grade copper-lead-zinc-silver mineralisation

#### Peake prospect (looking north-east)



Peake Highlights <sup>(a)</sup>			
Potential for a continuous structural and lithology controlled system connecting Taylor Deeps and Peake, a deeper zone prospective for copper	Current 5 hole drilling program expected to be completed Q4 FY23, with results expected in H1 FY24		

#### Peake prospect – selected drilling results

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)
	1279.2	1389.0	0.2% Cu	109.7	0.1	0.3	15	0.62
HDS-540 Including								
	1303.6	1309.7	0.2% Cu	6.1	0.2	0.4	61	3.48
	1308.2	1384.7	0.2% Cu	76.5	0.2	0.4	25	1.52
				Inclu	Iding			
HDS-552	1309.9	1328.6	0.2% Cu	18.8	0.1	0.2	40	2.77
	And							
	1364.3	1384.7	0.2% Cu	20.4	0.1	0.3	37	2.44
	1322.2	1374.6	0.2% Cu	52.4	0.1	1.1	105	1.73
Including								
	1322.2	1346.0	0.2% Cu	23.8	0.1	0.8	81	3.32
HDS-661	Including							
HD2-001	1322.2	1330.1	0.2% Cu	7.9	0.1	0.4	81	7.89
	1386.8	1460.6	0.2% Cu	73.8	0.5	0.7	67	1.06
Including								
	1399.6	1410.3	0.2% Cu	10.7	0.7	1.5	227	2.84
HDS-717	1456.6	1466.7	0.2% Cu	10.1	0.5	1.0	78	2.57

## TAYLOR PFS DESIGN



### PFS results support Taylor's potential to be a multi-decade base metals operation

Low footprint, underground mine with dual shaft access	<ul> <li>Longhole open stoping underground mine with paste backfill, similar to Cannington</li> <li>Dual shaft access which enables higher grade ore in early years</li> <li>Concurrent mining from multiple independent areas, supporting high productivity and throughput</li> </ul>
Conventional sulphide flotation circuit	<ul> <li>Conventional sulphide ore flotation circuit, producing separate zinc and lead concentrates with silver credits</li> <li>Nameplate capacity up to 4.3Mtpa<sup>(a)</sup></li> <li>Design recoveries of 90% for zinc, 91% for lead and 81% for silver</li> </ul>
PFS production profile	<ul> <li>Single stage ramp-up following orebody dewatering to nameplate production</li> <li>20+ year initial resource life<sup>(a)</sup> with average production in steady state years of ~340ktpa ZnEq<sup>2</sup></li> <li>High grade mineralisation (~12% ZnEq<sup>2</sup>) targeted in the first five years of the mine plan</li> </ul>
Initial site infrastructure already established	<ul> <li>Established the first of two dry stack tailings facilities</li> <li>First of two water treatment plants has been commissioned, with the second on-track for June 2023</li> <li>Potential access to 100% renewable power</li> </ul>

## TAYLOR DEVELOPMENT PROGRESS



Feasibility study work to date has confirmed key design features in the PFS, with further studies underway to optimise for a permitting process under FAST-41



Construction of dewatering infrastructure is on schedule and on budget

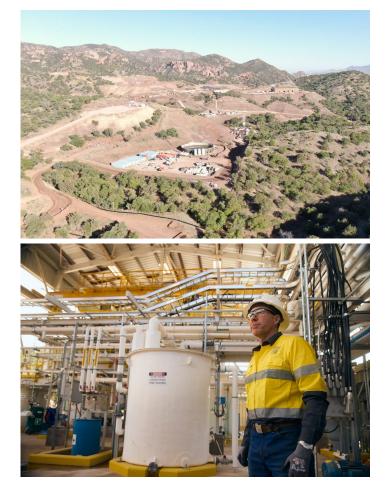
Optimising the development schedule under a FAST-41 permitting process

Potential to access additional higher-grade material earlier in the mine plan Feasibility stage cost estimates are being developed, incorporating current market conditions and US input prices Refining potential synergies from a parallel development of Taylor and Clark, including shared surface infrastructure and integrated underground mining operations

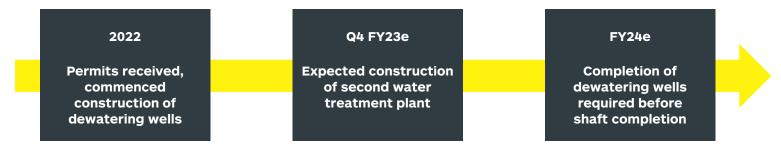
## DEWATERING PROGRESS



### Dewatering activity is progressing, enabling access to both the Taylor and Clark deposits



#### **Dewatering pathway**



#### **Dewatering investment**

- Dewatering program will relocate ground water within the aquifer with no consumptive use
- Significant dewatering requirement compared to pre-acquisition expectations
  - A critical path development activity, which has extended the project delivery schedule
  - Direct capital expenditure ~US\$225M for a second water treatment plant (WTP2) and nine dewatering wells
  - A further ~US\$140M in indirect costs over two years
- Construction of the second water treatment plant is on-track to be completed in Q4 FY23, while remaining dewatering wells remain on schedule to support shaft completion in FY24

### CLARK OVERVIEW



Ideally positioned to provide secure, localised supply of battery-grade manganese for the North American market

Only advanced project in the US with a clear pathway to produce battery-grade manganese (BGM) from locally sourced ore

Confirmed flowsheet to produce high-purity manganese sulphate monohydrate (HPMSM) PFS-S confirmed potential to produce ~60ktpa BGM, plus zinc and silver, over a ~60 year period<sup>(a)</sup>

Commenced pilot plant production with samples being prepared for feedback from potential customers

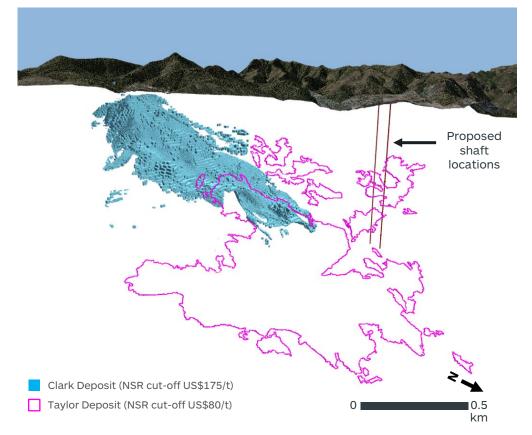
Preparing to construct a decline to access ore to facilitate demonstration plant output from late CY25 Fully integrated operation has carbon and traceability benefits sought after by end users

## CLARK MINERAL RESOURCE



### Large Mineral Resource provides the optionality to target high-grade zones early in the mine life and scale production for future demand

#### **Taylor and Clark Deposits (looking south-west)**



Clark Geology Highlights <sup>(a)</sup>			
55Mt manganese-zinc-silver oxide deposit, up-dip of Taylor	Mineralised from near surface with single decline access		
Low impurities in the ore body make it amenable to leaching	Integrated underground mining operation with Taylor to realise operating and capital efficiencies		

#### Clark Deposit Mineral Resource as at 30 June 2022

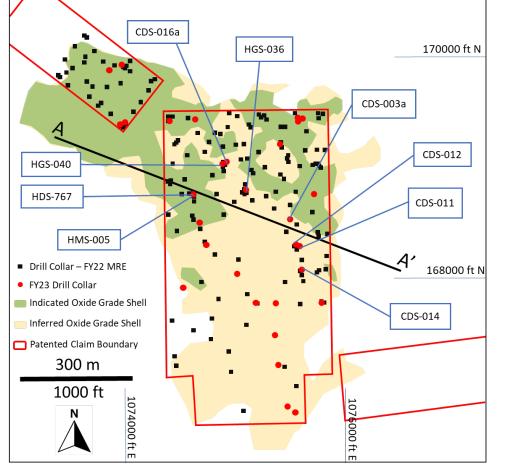
Classification	Mt	Zn (%)	Mn (%)	g/t Ag
Indicated	33	2.49	9.39	57
Inferred	22	2.04	8.64	110
Total	55	2.31	9.08	78

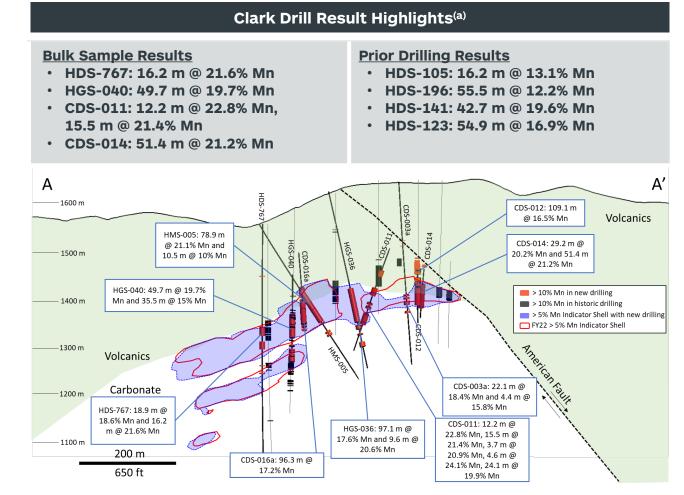
# CLARK BULK SAMPLE DRILL RESULTS



### **Recent drill results have returned higher average local manganese grades**

#### Clark cross-section of drill hole locations





Notes:

a. Refer to Annexure 1 for additional disclosure.

# CLARK PFS-S RESULTS



### Selection phase PFS demonstrated the potential for a long-life operation producing battery grade material

Small footprint underground mine integrated with Taylor

An integrated, small footprint underground mine design

- Single decline extending from surface to a depth of ~600 metres
- · Longhole open stoping with paste backfill selected as the mining method
- Expected to benefit from shared infrastructure and operating and capital efficiencies with Taylor

Confirmed flow sheet to produce HPMSM

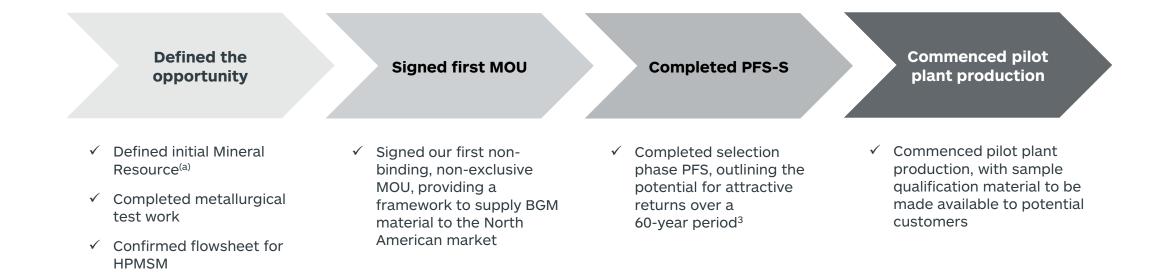
Potential for a long-life operation, generating attractive returns

- Detailed metallurgical test work complete, including diagnostic leach testing of more than 120 samples
- PFS-S has confirmed a preferred flowsheet to produce HPMSM
- Customer feedback indicates wide market acceptance for HPMSM into cathode precursor production
- HPMSM has carbon and traceability benefits when compared to other manganese battery materials
- Crushed ore from Clark hauled to HPMSM facility to be constructed in southern Arizona
- Potential to produce ~60ktpa of BGM (~185ktpa of HPMSM), plus zinc and silver, over a ~60-year period<sup>3</sup>
- Potential to deliver attractive returns with options to scale production to meet future demand
- Early strategic advantage in the North American electric vehicle supply chain

# CLARK DEVELOPMENT PATHWAY

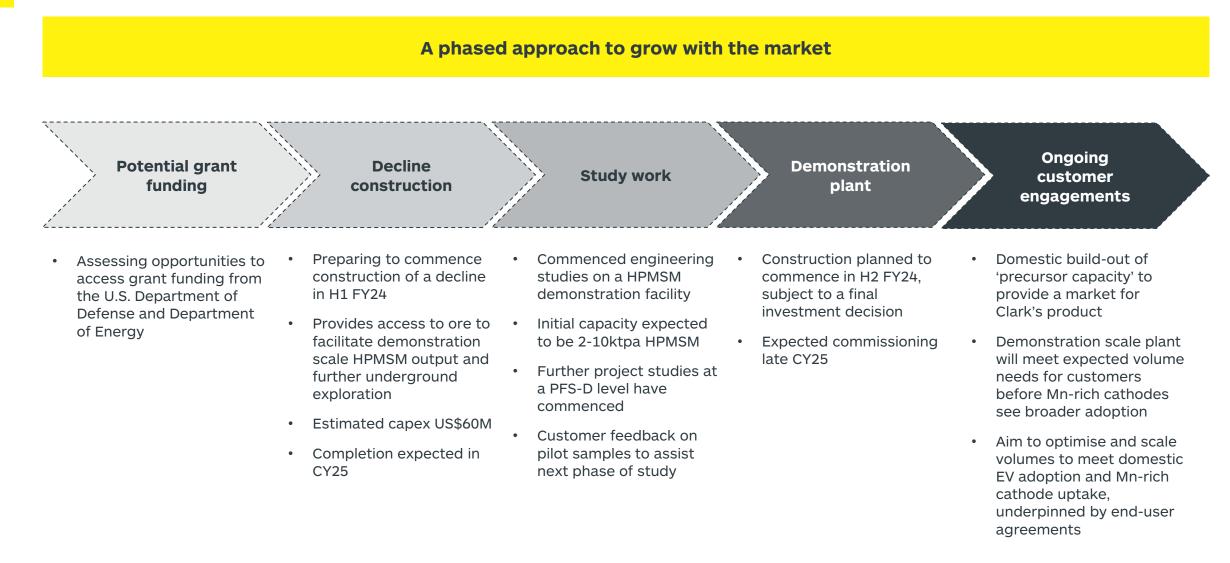


### Creating the opportunity to supply battery-grade manganese from an integrated, sustainable development in southern Arizona



# CLARK DEVELOPMENT PATHWAY

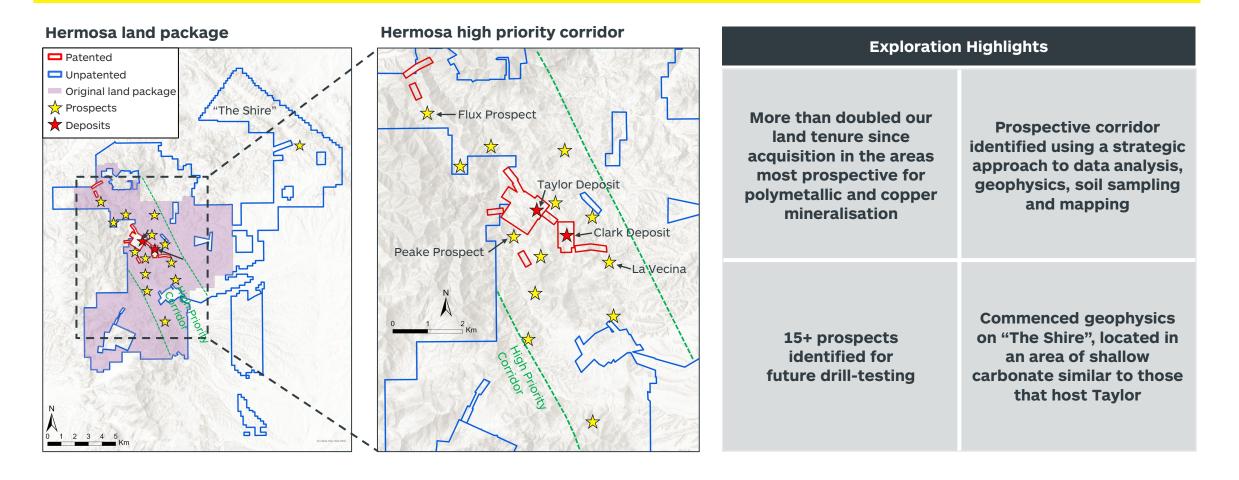




# HERMOSA'S REGIONAL EXPLORATION POTENTIAL



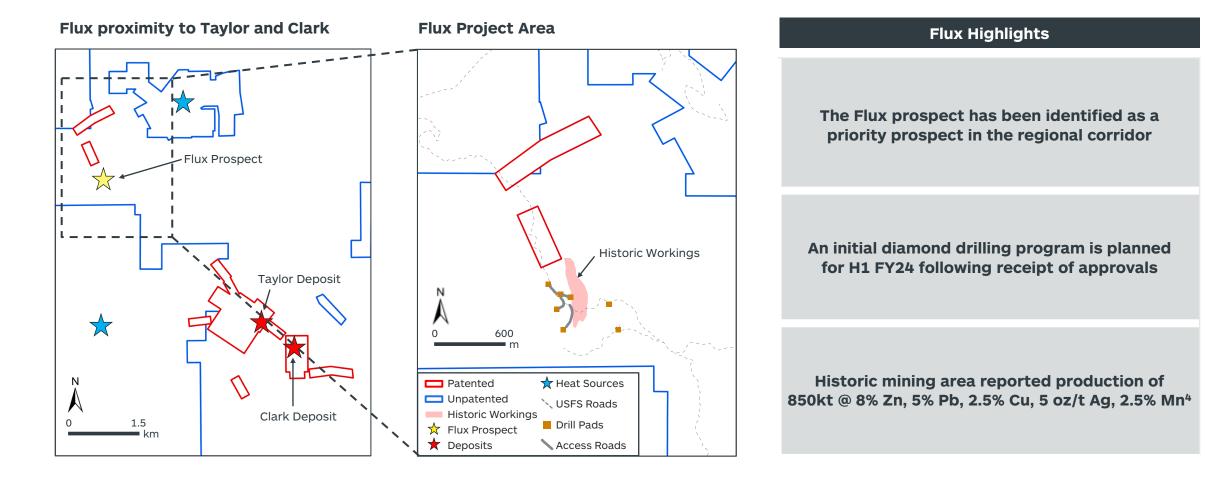
### A highly prospective regional land package with the potential for future discoveries



# FLUX PROSPECT OPPORTUNITY



#### Flux is located immediately downdip of a historic mining area with the potential to host Taylor-like mineralisation



### LOOKING AHEAD



Multiple options in commodities critical to a low-carbon future

Acceptance into FAST-41 reinforces domestic support for new critical minerals supply

Critical path dewatering progressing to schedule

Taylor feasibility study and final investment decision expected H2 CY<u>23</u> Phased approach to Clark, growing with the market and managing our capital efficiently Completing current drill program at Peake

Planning to drill the high priority Flux prospect in H1 FY24



# SUPPLEMENTARY INFORMATION

### TAYLOR PFS SUMMARY



### PFS summary information<sup>(a)</sup>

Mining		Capital costs	
Mineral Resource estimate	138Mt averaging 3.82% zinc, 4.25% lead and 81g/t silver		~US\$1,230M
Resource life	~22 years	Direct capital expenditure	(Mining ~US\$565M, Surface facilities ~US\$440M, Dewatering ~US\$225M)
Mining method	Longhole open stoping with paste backfill	Indirect capital expenditure	~US\$470M
Mined ore grades	Zinc 4.1%, Lead 4.5%, Silver 82g/t	Sustaining capital expenditure	~US\$40M annual average
Processing		Schedule	
Mill capacity	~4.3Mtpa	First production	FY27
Concentrates	Separate zinc and lead concentrates with silver credits	Steady state production	FY30-FY44
Zinc recoveries (in zinc concentrate)	~90%	Operating costs	
Lead recoveries (in lead concentrate)	~91%	Mining costs	~US\$35/t ore processed
Silver recoveries (in lead concentrate)	~81%	Processing costs	~US\$13/t ore processed
Metal payability	Zinc ~85%, Lead ~95%, Silver ~95% (in lead concentrate)	General and administrative costs	~US\$10/t ore processed
Zinc concentrate grade	~53%	Other operating unit costs	~US\$23/t ore processed (incl. royalties)
Lead concentrate grade	~70%	Operating unit costs <sup>5</sup>	~US\$81/t ore processed
Payable metal production		Zinc equivalent operating unit cost <sup>6</sup>	~(US\$0.71/lb) ZnEq (incl. lead and silver credits)
Zinc	~2.4Mt (~111kt annual average)	All-in sustaining cost <sup>7</sup>	~(US\$0.05)/lb ZnEq (incl. lead and silver credits)
Lead	~3.0Mt (~138kt annual average)	Fiscal terms	
Silver	~160Moz (~7.3Moz annual average)	Corporate tax rate <sup>8</sup>	~26%
Zinc equivalent <sup>2</sup>	~6.2Mt (~280kt annual average)	Royalties	Average 2.4% private net smelter royalties

# TAYLOR PFS MINE DESIGN

#### Our PFS mine design employs conventional methods, delivering high productivity from multiple faces

Ventilation shaft Main shaft Exploration platforms Primary haulage level and shaft loadout 800m Shafts Drives Declines Stopes

**Taylor Deposit underground mine design** 

#### Dual shaft access prioritises higher grade ore in early years

Proposed mining method is low technical risk, employing longhole open stoping, similar to Cannington

Multiple concurrent mining areas expected to support high productivity

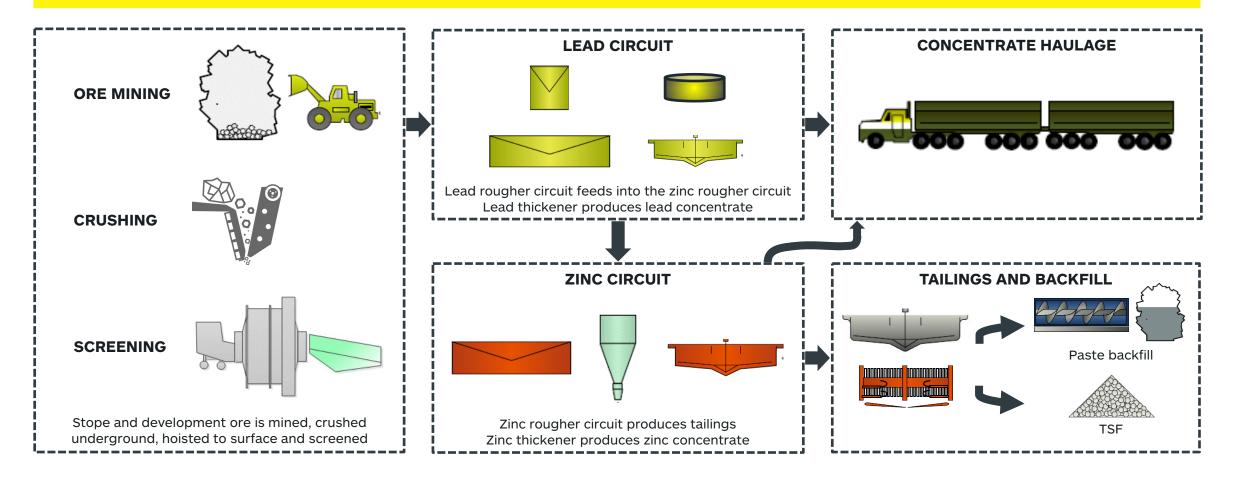
Single stage ramp-up following orebody dewatering to nameplate production



## TAYLOR PFS PROCESS DESIGN



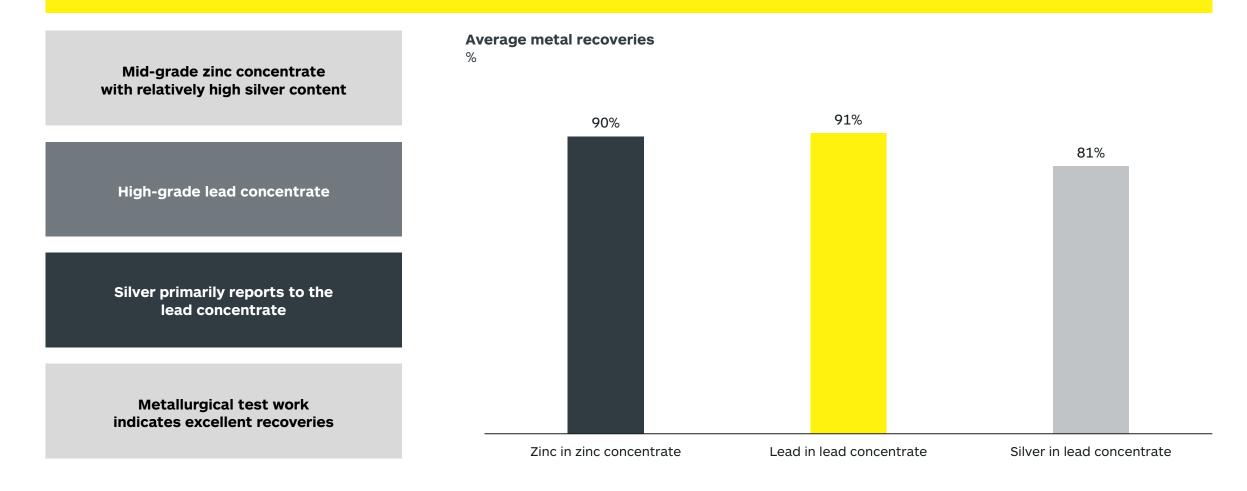
### Conventional sulphide ore flotation circuit that produces separate zinc and lead concentrates with silver credits



## TAYLOR PFS PRODUCT RECOVERIES



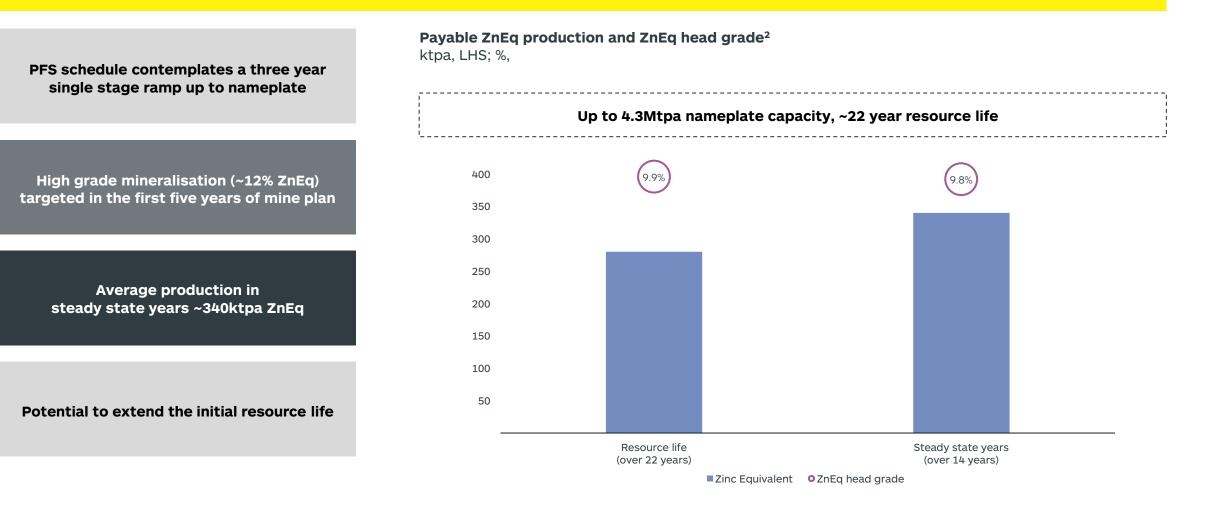
### Taylor is expected to produce high-quality zinc and lead concentrates, with substantial silver by-product credits



# TAYLOR PFS PRODUCTION PROFILE



### Preferred PFS development scenario to target throughput of up to 4.3Mtpa<sup>(a)</sup>







- 1. Goal is defined as an aspiration to deliver an outcome for which we have not identified a pathway for delivery, but for which efforts will be pursued towards achieving that outcome, subject to certain assumptions or conditions.
- 2. Refer to market release "Hermosa Project Update Presentation" published on 17 January 2022. Payable zinc equivalent was calculated by aggregating revenues from payable zinc, lead and silver, and dividing the total revenue by the price of zinc. Average metallurgical recovery assumptions are 90% for zinc, 91% for lead and 81% for silver. FY21 average index prices for zinc (US\$2,695/t), lead (US\$1,992/t) and silver (US\$25.50/oz) (excluding treatment and refining charges) have been used.
- 3. Refer to market release "Hermosa Project Update" dated 9 May 2023.
- 4. Refer to the mindat.org database, available at https://www.mindat.org/loc-5529.html.
- 5. Operating unit cost is Revenue less Underlying EBITDA, excluding third party sales and TCRCs, divided by sales volumes. The prices used are FY21 average index prices for zinc (US\$2,695/t), lead (US\$1,992/t) and silver (US\$25.50/oz) (excluding TCRCs).
- 6. ZnEq Operating unit cost includes lead and silver by-product credits, using FY21 average index prices.
- 7. AISC includes Operating unit costs (including royalties), TCRCs and sustaining capital expenditure.
- 8. Federal tax of 21.0% and Arizona state tax of 4.9% of taxable income, subject to applicable allowances. Property and severance taxes are also expected to be paid.

#### The denotation (e) refers to an estimate or forecast year.

The following abbreviations have been used throughout this presentation: silver (Ag); battery-grade manganese (BGM): calendar year (CY); United States Department of Defense (DoD); electric vehicle (EV); Title 41 of the Fixing America's Surface Transportation Act (FAST-41); final investment decision (FID); financial year (FY); half (H); high-purity manganese sulphate monohydrate (HPMSM); internal combustion engine (ICE); kilo (k); lithium ferrophosphate (LFP); lithium manganese iron phosphate (LMFP); metre (m); million (M); memorandum of understanding (MOU); 60% nickel, 20% cobalt and 20% manganese battery (NCM-622); cobalt-free nickel-manganese (NMx); net smelter return (NSR); original equipment manufacturer (OEM); lead (Pb); pre-feasibility study (PFS); selection phase pre-feasibility study (PFS-S); Sports Utility Vehicle (SUV); tailings storage facility (TSF); tonnes per annum (tpa); United States (US); United States of America (USA); water treatment plant (WTP); zinc (Zn) and zinc equivalent (ZnEq).



#### Annexure 1: JORC Code Table 1

#### CLARK - EXPLORATION RESULTS

The following table provides a summary of important assessment and reporting criteria used for the reporting of Clark oxide exploration results for the Hermosa project, which is located in southern Arizona, USA (Figure 1), in accordance with the Table 1 checklist in The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition) on an 'if not, why not' basis.

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	Commentary
Sampling techniques	• The infill core drilling that supports the exploration results is within the current Clark Mineral Resource estimate as at 30 June 2022. A total of 47 drillholes, totalling 24,115 metres, have been drilled since the last update of the resource estimate, targeting both the Taylor and Clark mineral resources. All samples were obtained from diamond drilling and were taken at predominantly 1.5-meter (5-foot) intervals on a half-core basis.
	• A heterogeneity study was undertaken to determine sample representativity, and the recommendations to improve duplicate performance included increasing sub-sample and pulverising volumes.
	• The core is competent to locally vuggy, and sample representativity is monitored using predominantly quarter or half core field duplicates submitted at a rate of approximately 1:40 samples. More than 70% of the field duplicates located within mineralisation envelopes demonstrate performance to within 30% of original sample splits.
	• Core assembly, interval mark-up, recovery estimation (over the 3m drill string) and photography all occur prior to sampling and follow documented procedures.
	• Sample size reduction during preparation involves crushing and splitting of PQ (122.6mm), (HQ (95.6mm) or NQ (75.3mm) half-core.
Drilling techniques	• The data used for reporting exploration results is based on logging and sampling of PQ and HQ diamond core, which is reduced to NQ in areas of difficult drilling.
	• All drill core has been oriented using the Boart Longyear 'Trucore' system since mid-August 2018. In Q3 FY20, the implementation of acoustic televiewer data capture for downhole imagery for the majority of drilling improved orientation and geotechnical understanding.
Drill sample recovery	• Prior to October 2018, core recovery was determined by the summation of individual core pieces within each 3m drill string. Recovery for the drill string has since been measured after oriented core alignment and mark-up.
	• Core recovery is recorded for all diamond drill holes. Recovery of holes exceeds 90%.
	• Poor core recovery can occur when drilling the oxide material and in major fault zones. To maximise recovery, drillers vary the speed, pressure, and composition of drilling muds, reduce PQ to HQ to NQ core size, and use triple tube and '3 series' drill bits.
	• When comparing core recovery to Mn, Zn and Ag grades for both the whole data set and within individual lithology, there is no discernible relationship.
Logging	• The entire length of the core is photographed and logged for lithology, alteration, structure, rock quality designation (RQD), and mineralisation.
	• Logging is both quantitative and qualitative; with examples including the estimation of mineralisation percentages and the association of preliminary interpretative assumptions with observations.
	• All logging is peer-reviewed against core photos and in the context of current geological interpretation and surrounding drill holes during geological model updates.
	Logging is to a level of detail to support the exploration results.

Criteria	Commentary
Sub-sampling	• Sawn half core and barren core samples are taken at predominantly 1.5m intervals after
techniques and sample preparation	<ul> <li>logging. Sampling is also terminated at litho-structural and mineralogical boundaries.</li> <li>Sample preparation has occurred offsite at Australian Laboratory Services (ALS), an</li> </ul>
	ISO17025-certified laboratory. Samples submitted to ALS are generally 4–6kg in weight.
	• Sample size reduction during preparation involves crushing of PQ (122.6mm), HQ (95.6mm) or NQ (75.3mm) half or whole core, splitting of the crushed fraction, pulverisation, and splitting of the sample for analysis.
	• Core samples are crushed and rotary split in preparation for pulverisation. Depending on the processing facility, splits are done via riffle or rotary splits for pulp samples.
	• Fine crushing occurs until 70% of the sample passes 2mm mesh. A 250g split of finely crushed sub-sample is obtained via rotary or riffle splitter and pulverised until 85% of the material is less than 75µm. These 250g pulp samples are taken for assay, and 0.25g splits are used for digestion.
	• ALS protocol requires 5% of samples to undergo a random granulometry QC test. Samples are placed on 2 micron sieve and processed completely to ensure the passing mesh criteria is maintained. Pulps undergo comparable tests with finer meshes. Results are uploaded to an online portal for review by the client.
	• The precision of sample preparation is also monitored with blind laboratory duplicates, which are assayed at a rate of 1:50 submissions.
	• Coarse crush preparation duplicate pairs show that 80% of all Mn, Zn and Ag pairs for oxide mineralisation report within +/-20% of original samples. Performance significantly improves for all analytes in higher grade samples. More than 85% of pulp duplicates report within a 10% variance for Mn, Zn and Ag within all pulp duplicates.
	• The sub-sampling techniques and sample preparation procedures employed are adequate for generating reliable assay data necessary for the reporting of exploration results.
Quality of assay data and laboratory tests	• Samples of 0.25g from pulps are processed at ALS Vancouver using a combination of Inductively Coupled Plasma – Mass Spectrometry ICP-MS (ME-MS61) four acid 48 element assay along with the addition of overlimit packages of S-IR07 for Sulphur and ME-ICP81 for Manganese.
	• Digestion batches comprising 36 samples plus four internal ALS control samples (one blank, two Certified Reference Material (CRM), and one duplicate) are processed using a four-acid digestion. Analysis is conducted in groups of three larger digestion batches. Instruments are calibrated for each batch before and after analysis.
	• The performance of ALS internal QA/QC samples is continuously monitored. In the event of a blank failure, for example, the entire batch is reprocessed from the crushing stage. If one CRM fails, data reviewers internal to ALS examine the location of the failure within the batch and determine how many samples around the failure should be reanalysed. If both CRMs fail, the entire batch is reanalysed. No material failures have been observed from the data.
	• Coarse and fine-grained certified silica blank material submissions, inserted at the beginning and end of every work order of approximately 200 samples, indicate a lack of systematic sample contamination in sample preparation and ICP solution carryover. While systematic contamination issues are not observed for the blanks, the nature of the blanks themselves and their suitability for use in QA/QC for polymetallic deposits is questionable.
	• Failures for blanks are noted at greater than ten times the detection limit or recommended upper limit for the certified blank material for each analyte. Such failures indicate that the blanks may not be suitable in the context for polymetallic deposits.
	• A range of CRM are submitted at a rate of 1:40 samples to monitor assay accuracy. The CRM failure rate is very low depending on analyte, demonstrating reliable laboratory accuracy.
	• The nature and quality of assaying and laboratory procedures are appropriate for supporting the disclosure of exploration results.
Verification of sampling and assaying	• Core photos of the entire hole are reviewed by alternative company personnel (modelling geologists) to verify significant intersections and finalise the geological interpretation of core logging.
	• The sampling is digitally recorded and uploaded to an Azure SQL project customised database (Plexer) via an API provided by the ALS laboratory and the external laboratory information management system (LIMS). Digitally transmitted assay results are reconciled upon upload to the database.
	No adjustment to assay data has been undertaken.

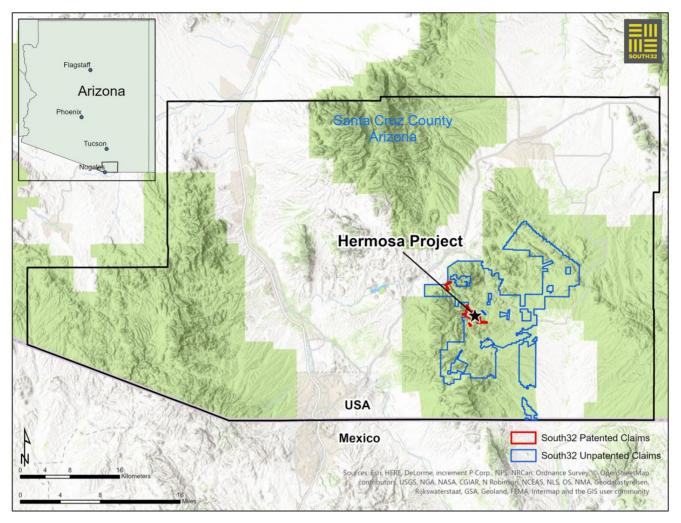
Criteria	Commentary
Location of data points	<ul> <li>Drill hole collar locations are surveyed by registered surveyors using a GPS Real Time Kinematic (RTK) rover station, which correlates with the Hermosa project RTK base station and Global Navigation Satellite Systems with up to 1cm accuracy.</li> <li>Downhole surveys were completed every 100 ft (~30m) using the Reflex EZ-Gyro.</li> </ul>
	• The Hermosa project employs the Arizona State Plane (grid) Coordinate System, Arizona Central Zone, International Feet as its coordinate system. The datum is NAD83, and the vertical heights are converted from the ellipsoidal heights to NAVD88 using GEOID12B.
	<ul> <li>All drill hole collar and downhole survey data was audited against source data.</li> <li>Survey collars have been compared against a one-foot topographic aerial map. Any discrepancies exceeding 1.8m were assessed against a current aerial flyover and the differences attributed to surface disturbance from construction development and/or road building.</li> </ul>
Data spacing and distribution	• Drill hole spacing ranges from 10m to 200m. The spacing supplies sufficient information for the assessment of exploration results.
	No compositing has been applied to samples.
Orientation of data in relation to geological structure	• Drill holes have been drilled with varying dips throughout the project area, ranging between 60° and 90°. Most drilling is oriented vertically and at a sufficiently high angle to provide an accurate representation of the grade and thickness.
	• Angled, oriented core drilling has been introduced from October 2018, and is designed to improve understanding of the relevance of structures to mineralisation.
Sample security	• Samples are tracked and reconciled through a sample numbering and dispatch system from the site to the ALS sample distribution and preparation facility. The ALS LIMS assay management system provides an additional layer of sample tracking from the point of sample receipt. The movement of sample material from the site to the distribution and preparation facility is a combination of ALS dedicated transport and project contracted transport. Distribution to other preparation facilities and Vancouver is managed by ALS dedicated transport.
	• Assays are reconciled and results processed in an Azure SQL project customised database (Plexer) which has password and user level security.
	• Core is stored in secured onsite storage prior to processing. After sampling, the remaining core, returned sample rejects and pulps are stored at a purpose-built facility that has secured access.
	• All sampling, assaying and reporting of results are managed with procedures that provide adequate sample security.
Audits or reviews	• During the drilling campaign, the ALS laboratory sample preparation and analysis procedures were audited by internal South32 Geoscientists. No significant issues were identified during the audit. The outcomes of the audit were communicated to ALS, and recommendations were implemented.
	• Recent changes have been implemented to improve duplicate performance, including increasing sub-sample and pulverising volumes.

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

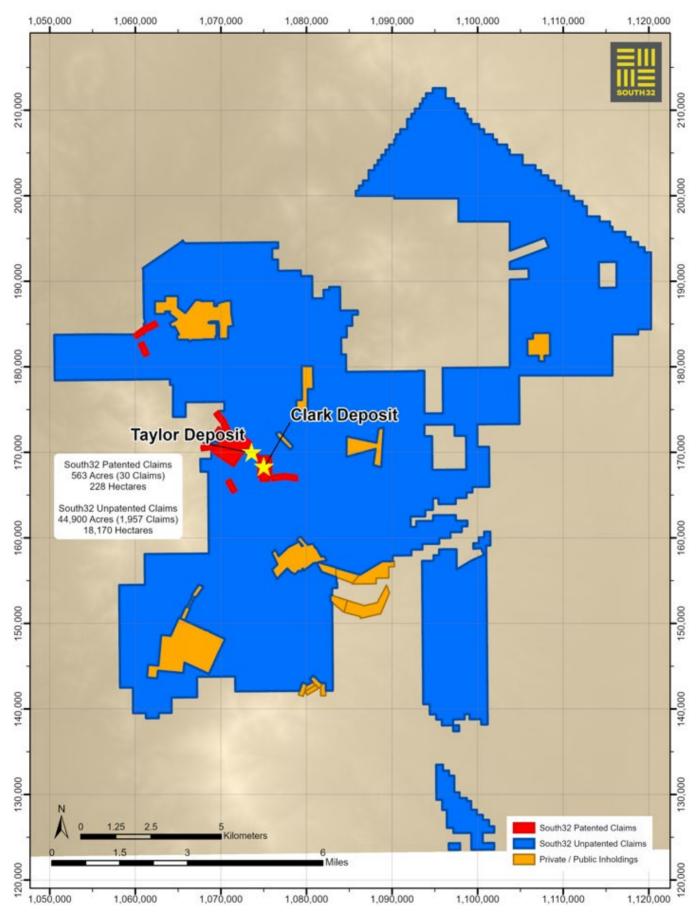
Criteria	Commentary
Mineral tenement and land tenure status	• The Hermosa project mineral tenure (Figure 2) is secured by 30 patented mining claims totalling 228 hectares that have full surface and mineral rights owned fee simple. These claims are retained in perpetuity by annual real property tax payments to Santa Cruz County in Arizona and have been verified to be in good standing until 31 August 2023.
	• The patented land is surrounded by 2,492 unpatented lode mining claims totalling 17,985 hectares. These claims are retained through payment of federal annual maintenance fees to the Bureau of Land Management (BLM) and filing record of payment with the Santa Cruz County Recorder. Payments for these claims have been made for the period up to their annual renewal on or before 1 September 2022.
	• Title to the mineral rights is vested in South32's wholly owned subsidiary, South32 Hermosa Inc. No approval is required in addition to the payment of fees for the claims to be in good standing.
Exploration done by other parties	• ASARCO LLC (ASARCO) acquired the Property in 1939 and completed intermittent drill programs between 1940 and 1991.
	• In March 2006, Arizona Mining Inc. (AMI) purchased the ASARCO property and conducted drilling and other activity until 2012.
Geology	• The regional geology is set within Lower-Permian carbonates that are underlain by Cambrian sediments and Proterozoic granodiorites. The carbonates are unconformably overlain by Triassic to late-Cretaceous volcanic rocks, as shown in Figures 3. The regional structure and stratigraphy are a result of late-Precambrian to early-Palaeozoic rifting, and subsequent widespread sedimentary aerial and shallow marine deposition through the Palaeozoic Era. This was followed by Mesozoic volcanism and late batholitic intrusions of the Laramide Orogeny. Mineral deposits associated with the Laramide Orogeny tend to align along regional NW and NE structural trends.
	• Cretaceous-age intermediate and felsic volcanic and intrusive rocks cover much of the Hermosa project area, hosting low-grade disseminated silver mineralisation, epithermal veins, and silicified breccia zones that were the source of historic silver and lead production.
	• Mineralisation styles in the immediate vicinity of the Hermosa project include the zinc-lead- silver base metal sulphides of the Taylor Deposit, which are of the carbonate replacement deposit (CRD) style, the deeper skarn-style copper-zinc-lead-silver base metal sulphides of the Peake prospect, and an overlying manganese-silver oxide manto deposit of the Clark Deposit.
	• The Clark Oxide Deposit is hosted within approximately a 150m thickness of Palaeozoic carbonates that dip 30°NW, identified as the Concha, Scherrer and Epitaph Formations, and extends to a depth of around 600m
	• Clark Deposit manto-style zinc-manganese-silver mineralisation is predominantly distributed along the contact between the Palaeozoic carbonate sequence and the upper volcanic units referred to as the Hardshell volcanic rocks (HSVOL). While the majority of this mineralisation is controlled by the channelling of fluids along the lithological contacts, some appears related to structural features. Higher silver grades are associated with the HSVOL.
	• The mineralising system has yet to be fully drill tested in multiple directions. At Clark, the oxide mineralisation is constrained up-dip where it intersects a fault that offsets mineralisation and down-dip as it merges into the underlying Sulphide mineralisation of the Taylor Deposit, representing a single contiguous mineralising system.
	• The north-bounding edge of the thrusted carbonate rock is characterised by a thrust fault that ramps up over the Jurassic/Triassic 'Older Volcanics' and 'Hardshell Volcanics'. This interpreted pre-mineralising structure that created the sequence of carbonates also appears to be a key mineralising conduit.

Criteria	Commentary
Drill hole Information	• A drill hole plan (Figure 4) provides a summary of drilling collar locations that support the drilling results in relation to the Clark FY20 Mineral Resource domains. Figure 5 shows a cross section relative to key inputs in Figure 4, along with simplified geology.
	• Table 1 summarises the drill holes that support the representative section in Figure 5, including the holes used in the last resource update in the vicinity of the new infill drilling.
	• Table 2 summarises all significant intersections for the drillholes included in Table 1.
	• Hole depths vary between 100m and 950m.
Data aggregation methods	• Significant assay intercepts are reported as length-weighted averages exceeding Mn grades at a 10% cutoff. All intervals start and end with a sample >= 10% Mn, internal dilution < 20%, minimum single intercept width is 3.5 meters.
	No top cuts are applied to intercept calculations.
Relationship between mineralisation widths and intercept lengths	• Near vertical drilling (75–900) amounts to the majority of holes. Where they intersect the low to moderately dipping (30°) stratigraphy the intersection length can be up to 15% longer than true-width.
Diagrams	Relevant maps and sections are included with this market announcement.
Balanced reporting	• The exploration results are reported considering infill drill holes completed within the defined mineral resource estimate. Historic and recent drill hole intersections are considered in this assessment for balanced reporting. A list of drill holes is included in Table 1 and Table 2 in this announcement.
Other substantive exploration data	• The geological model, in addition to drilling, is compiled from local and regional mapping, geochemistry sampling and analysis, and geophysical surveys.
	• Quantec Geosciences Inc conducted magneto-telluric (MT) and induced polarisation surveys (IP) according to industry standard practices. In most areas, the MT stations were collected along N–S lines with a spacing of 200m. Spacing between lines is 400m. Some areas were collected at 400m spacing within individual lines. IP has also been collected, both as 2D lines and as 2.5D swaths, collected with a variable spacing of data receivers.
	• The quality control of geophysical data involves using a third-party geophysical consultant to verify data quality and provide secondary inversions for comparison to Quantec interpretations.
Further work	• The ongoing resource infill resource and geotechnical drilling are intended to support subsequent study phases.

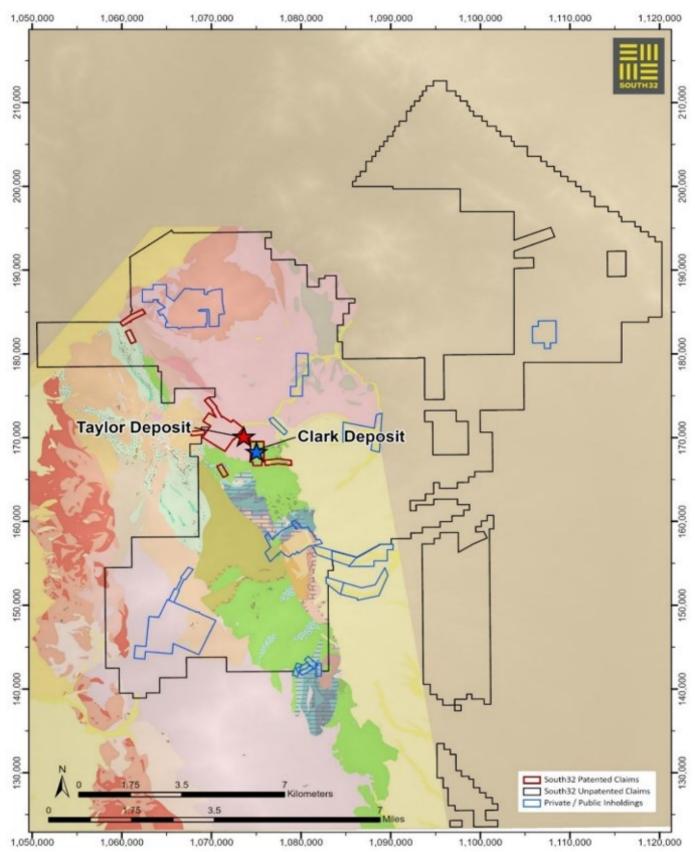
### Figure 1: Regional Location Plan



### Figure 2: Hermosa Project Tenement Map



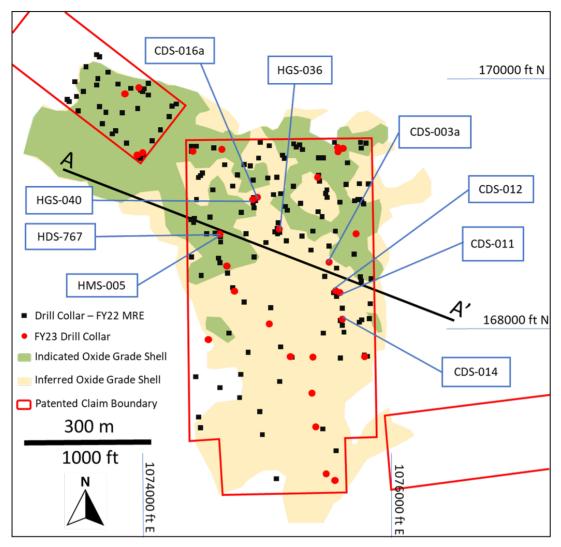
# Figure 3: Hermosa project regional geology



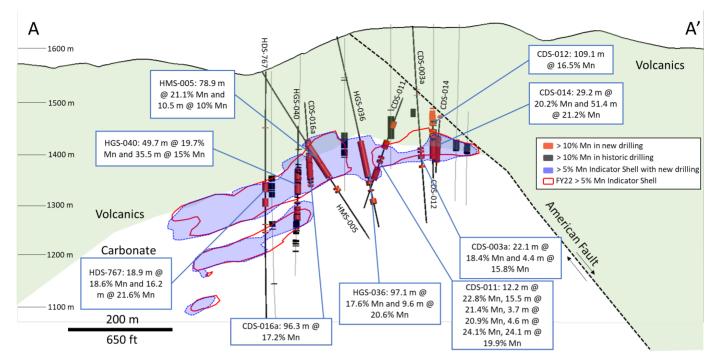
## Figure 4: Hermosa Project Regional Geology Map Legend

Man	units	(1. j.)	Jtgb—Breccia, in granite of Three R Canyon (unit Jtg) of granite of Cumero Canyon
	bol, Unit name	· /›. `	Jcm—Porphyritic granite in granite of Cumero Canyon
	Qal—Younger alluvium and talus		Jcs—Equigranular alkali svenite, in granite of Cumero Canyon
	QTal—Older alluvium	8.0	Jcsb-Breccia, in equigranular alkalik syenite (unit Jcs) of granite of Cumero Canyon
	QTg—Gravel and conglomerate		Jcg—Equigranular granite, in granite of Cumero Canyon
	TI—Limestone	4.9	Jcgb—Breccia, in equigranular granite (unit Jcg) of granite of Cumero Canyon
	Tt—Biotite rhyolite tuff		Jhm—Hornblende monzonite of European Canyon
1480	si—Silicification		JTRv-Volcanic rocks, in silicic volcanic rocks
10055	Tv—Volcaniclastic rocks of middle Alum Gulch		ha—Hornblende andesite dike and (or) plug, in volcanic rocks (unit JTRv)
Pola	Tib—Intrusive breccia of middle Alum Gulch	de.	b-Volcanic breccia, in volcanic rocks (unit JTRv)
	Tqp—Quartz feldspar porphyry of middle Alum Gulch		s—Sedimentary rocks, in volcanic rocks (unit JTRv)
	Tqpx—Xenolithic quartz feldspar porphyry of middle Alum Gulch	200	cg-Limestone conglomerate, in volcanic rocks (unit JTRv)
	Tqmp—Quartz monzonite porphyry, in granodiorite of the Patagonia Mountains		qz—Quartzite, in volcanic rocks (unit JTRv)
0	Tqmpb—Breccia, in quartz monzonite porphyry (unit Tqmp) of granodiorite of the Patagonia Mountains	<u> </u>	Is—Exotic blocks of upper Paleozoic limestone, in volcanic rocks (unit JTRv)
	Tg—Granodiorite, in granodiorite of the Patagonia Mountains		w—Rhyolitic welded(?) tuff, in volcanic rocks (unit JTRv)
5.27	Tgb—Breccia, in granodiorite (unit Tg) of granodiorite of the Patagonia Mountains	154	lp—Latite(?) porphyry, in volcanic rocks (JTRv)
	Tlp-Latite porphyry, in granodiorite of the Patagonia Mountains	22.0	JTRvs-Volcanic and sedimentary rocks, in silicic volcanic rocks
	Tbq-Biotite quartz monzonite, in granodiorite of the Patagonia Mountains		TRm-Mount Wrightson Formation
5.0	Tbqb—Breccia, in biotite quartz monzonite (unit Tbq) of granodiorite of the Patagonia Mountains	382) 382)	q—Quartzite, in Mount Wrightson Formation (unit TRm)
	Tbg—Biotite granodiorite, in granodiorite of the Patagonia Mountains	τ <sup>1</sup> κ [	a-Biotite(?)-albite andesite lava(?), in Mount Wrightson Formation (unit TRm)
1 10	Tibx—Intrusion breccia, in granodiorite of the Patagonia Mountains		t-Coarse volcaniclastic beds, in Mount Wrightson Formation (unit TRm)
	Tsy-Syenodiorite or mangerite, in granodiorite of the Patagonia Mountains		TRms—Sedimentary rocks, in the Mount Wrightson Formation (unit TRm)
× ۲.	Tag—Biotite augite quartz diorite, in granodiorite of the Patagonia Mountains		Pcn—Concha Limestone
	Tmp—Quartz monzonite porphyry of Red Mountain		Ps—Scherrer Formation
	TKr—Rhyolite of Red Mountain		Pe—Epitaph Dolomite
	TKggt—Gringo Gulch Volcanics		Pc—Colina Limestone
	Ka—Trachyandesite		PPe—Earp Formation
	r—Rhyolite or latite, in trachyandesite (unit Ka)		Ph—Horquilla Limestone
	Km—Pyroxene monzonite		Me—Escabrosa Limestone
	KI—Biotite quartz latite(?)		Dm—Martin Limestone
	Kv—Silicic volcanics		Ca—Abrigo Limestone
	la—Biotite latite(?), in silicic volcanics (unit Kv)	10800	Cb—Bolsa Quartzite
	Kpg—Porphyritic biotite granodiorite		pCq—Biotite or biotite-hornblende quartz monzonite
	Kb—Bisbee Formation		pCh—Hornblende-rich metamorphic and igneous rocks
***	Kbc—Conglomerate, in Bisbee Formation (unit Kb)		pCm—Biotite quartz monzonite
	Jtg—Granite of Three R Canyon, in granite of Cumero Canyon		pCd—Hornblende diorite

### Figure 5: Clark Deposit Plan and Collar Locations



### Figure 6: Cross Section



# Table 1: Hole ID, collar location, dip, azimuth and drill depth

New drilling							
Hole ID	Easting	Northing	Elevation	Dip	Azimuth	Total Depth	
CDS-014	1075588	168044.8	5476.674	-62	5	332	
CDS-012	1075536	168279.6	5456.783	-80	17	305	
CDS-003a	1075486	168523.2	5410.44	-87	114	371	
CDS-011	1075551	168271	5457.775	-65	316	390	
HGS-036	1075077	168790.1	5346.017	-75	140	372	
HMS-005	1074586	168757.8	5130.177	-60	110	408	
CDS-016a	1074903	169019.9	5280.478	-63	185	366	
HGS-040	1074888	169002.1	5285.537 -73		193	349	
HDS-767	1074608	168753.1	5129.909	-90	298	914	
		FY22 Miner	al Resource Estin	nate drilling			
Hole ID	Easting	Northing	Elevation	Dip	Azimuth	Total Depth	
HDS-673	1075743	168051.1	5494	-66	8	1071	
HDS-174	1075751	168396.2	5421.64	-90	360	333	
HDS-123	1075599	168450.8	5424.62	-90	360	293	
HDS-047	1075456	168408.2	5439.51	-90	360	180	
HDS-190	1075365	168421.9	5425.7	-90	360	262	
HDS-141	1075338	168496.9	5419.34	-90	360	271	
HDS-182	1075062	168570	5334.1	-90	360	288	
HDS-210	1074894	168563.1	5248.64	-90	360	328	
HDS-105	1074625	168688.5	5129.32	-90	360	572	
HDS-196	1074830	168749.7	5237.98	-90	360	418	

# Table 2: Significant intersections

New drilling							
Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Manganese (%)	Silver (ppm)
CDS-014	189	218.2	10% Mn	29.2	0.7	20.2	205
CD3-014	256.3	307.7	10% Mn	51.4	1.7	21.2	63
CDS-012	158.8	267.9	10% Mn	109.1	1.7	16.5	120
CDS-003a	228.4	250.5	10% Mn	22.1	3.2	18.4	58
CDS-003a	262.4	266.9	10% Mn	4.4	16.0	15.8	57
	213.1	225.2	10% Mn	12.2	0.7	22.8	258
	252.4	267.9	10% Mn	15.5	5.6	21.4	99
CDS-011	284.7	288.3	10% Mn	3.7	1.2	20.9	7
	292.6	297.2	10% Mn	4.6	1.2	24.1	4
	307.5	331.6	10% Mn	24.1	4.3	19.9	51
HGS-036	204.8	301.9	10% Mn	97.1	2.6	17.6	45
ПСЗ-030	317.1	326.7	10% Mn	9.6	6.6	20.6	147
HMS-005	161.1	240.0	10% Mn	78.9	1.6	21.1	51
HWI3-005	258.5	269.0	10% Mn	10.5	1.9	10.0	48
CDS-016a	196.3	292.6	10% Mn	96.3	2.1	17.2	109
	240.8	290.5	10% Mn	49.7	3.4	19.7	38
HGS-040	305.7	341.2	10% Mn	35.5	5.2	15.0	58
	208.2	227.1	10% Mn	18.9	2.1	18.6	74
HDS-767	238.5	254.7	10% Mn	16.2	2.3	21.6	71

FY22 Mineral Resource Estimate drilling								
Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Manganese (%)	Silver (ppm)	
HDS-673	271.3	290.2	10% Mn	18.9	1.0	20.4	63	
HDS-174	216.7	239.1	10% Mn	22.4	3.1	22.3	126	
HDS-123	179.8	234.7	10% Mn	54.9	4.3	16.9	68	
HDS-047	164.6	179.8	10% Mn	15.2	0.8	17.5	80	
HDS-190	161.5	208.8	10% Mn	47.2	3.1	21.4	46	
HDS-141	172.2	214.9	10% Mn	42.7	2.9	19.6	58	
HDS-182	176.8	224.0	10% Mn	47.2	2.0	18.3	67	
	146.0	163.4	10% Mn	17.4	2.0	15.9	81	
HDS-210	182.7	238.4	10% Mn	55.6	3.2	16.6	58	
	252.1	256.3	10% Mn	4.3	2.5	17.8	69	
HDS-105	195.7	236.8	10% Mn	41.1	2.3	16.2	99	
UD2-102	281.0	297.2	10% Mn	16.2	2.1	13.1	66	
	207.3	262.7	10% Mn	55.5	2.5	12.2	37	
HDS-196	302.2	338.9	10% Mn	36.7	3.4	16.8	105	
	349.6	361.8	10% Mn	12.2	3.9	11.9	71	

### **Competent Persons Statement**

The information in this announcement that relates to the exploration results for Clark is based on information compiled by Mr. David Bertuch, Competent Persons who is Member of The Australasian Institute of Mining and Metallurgy. Mr. Bertuch is a full-time employee of South32 and has compiled all relevant documents to support exploration results. Mr. Bertuch has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Bertuch consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.