ARGENT MINERALS LIMITED

ASX Code: ARD

20th January 2025 **ASX Release**

VOLCANIC MASSIVE SULPHIDE (VMS) DISCOVERED AT HENRY'S & SUGARLOAF HILL PROSPECTS

Henry's New VMS System delineated 2km east from Kempfield's Lode 300 Mineralised Block

HIGHLIGHTS

Henry's New VMS Zone

- Based on the maiden 6 reverse circulation ('RC') drillhole completed, Argent Minerals Ltd has Discovery of **shallow high-grade VMS gold-silver-lead-zinc mineralisation zone** over the Henry's Prospect area.

- Drilling at Henry's **intersected a 24m thick high-grade Volcanogenic Massive Sulphide (VMS) style mineralisation zone, which remains open along strike and depth.**

- Henry's significant results from the RC drilling include: -
  - Drillhole AKRC270: 1m @ **23.60 g/t Ag** & **1.61% Cu+Pb+Zn** from 15m
  - Drillhole AKRC271: **24m @ 11.84 g/t Ag** & **1.44% Cu+Pb+Zn** from 25m
    inc **7m @ 37.83 g/t Ag** & **4.13% Cu+Pb+Zn** from 13m
  - Drillhole AKRC272: **2m @ 1.72 g/t Au** from 62m
  - Drillhole AKRC274: **1m @ 1.48 g/t Au** from 2m
    and **21m @ 0.85% Cu+Pb+Zn** from 31m,
    inc **12m @ 10.22 g/t Ag**, 0.1 g/t Au & **1.26% Cu+Pb+Zn** from 40m
    inc **3m @ 15.10 g/t Ag**, 0.2 g/t Au & **2.46% Cu+Pb+Zn** from 40m

Sugarloaf Hill New VMS Zone

- Results from the last 5 RC drillhole completed to date, have extended the newly discovered VMS Ag-Pb-Zn mineralisation zone to a **strike length of 520m trending in NE direction with confirmation of steeply west plunging zone down to 100 vertical metres in depth – zone remains open along strike and depth**.

- RC drilling at Sugarloaf Hill has intersected **an additional 46m thick Volcanogenic Massive Sulphide (VMS) style mineralisation** from surface.

- **All drillholes to date have ended within oxide material** with no basement lithologies encountered. Further drilling is required to intersect sulphides at depth and extensional drilling programs are planned to delineate the full extent of mineralisation.

- Sugarloaf Hill significant results from the RC drilling include: -
  - Drillhole AKRC275: **4m @ 18.10 g/t Ag** from 50m
    and **9m @ 0.4% Cu+Pb+Zn** from 94m
  - Drillhole AKRC276: **3m @ 26.70 g/t Ag** from 52m
    and **27m @ 0.21% Cu+Pb+Zn** from 52m
  - Drillhole AKRC278: **31m @ 0.32% Cu+Pb+Zn** from 2m
  - Drillhole AKRC279: **46m @ 0.32% Cu+Pb+Zn** from surface
    inc **23m @ 0.48% Cu+Pb+Zn** from 22m

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Argent Minerals Limited (**ASX: ARD**) ("**Argent**" or "**the Company**") is pleased to announce that it has received all assay results from the latest RC drilling program its 100%-owned Henry's and Sugarloaf Hill Prospects within the Kempfield Project in NSW.

Reverse Circulation (RC) Drilling Program

During September 2024, a total of 11 scout reconnaissance RC drillholes totalling 724m were completed at Henry's and Sugarloaf Hill Prospects. This marked the first drilling activity conduction in the area which had previously remained untested. The drillholes targeted high-grade surface geochemical anomalies identified during the second and third quarters of 2024. All completed RC drillholes with assay results locations are illustrated in Figure 1. Cross sections are shown in Figures 2 & 6, along with the significant drilled intersections shown in Tables 1 and 2.

Table 1: Significant RC Drilling Intersections from Sugarloaf Hill
(Intercepts using 10 g/t Ag, 0.10 g/t Au and/or 0.1% Cu+Pb+Zn% cut-off)

Prospect	Hold Id	From (m)	To (m)	Interval (m)	Ag (g/t)	Cu %	Pb %	Zn %	Au (g/t)	Cu+Pb+Zn %
Henry's	**AKRC270**	15	16	**1**	**23.60**	0.00	**1.52**	0.09	0.01	**1.61**
Henry's	**AKRC271**	1	25	**24**	**11.84`**	0.01	**1.11**	**0.32**	0.03	**1.44**
	incl.	13	20	**7**	**37.83**	0.03	**3.23**	**0.86**	0.05	**4.13**
Henry's	**AKRC272**	62	64	**2**	0.425	0.01	0.00	0.06	**1.72**	0.08
Henry's	**AKRC274**	2	3	**1**	0.05	0.00	0.00	0.00	**1.48**	0.03
	and	31	52	**21**	7.3	0.01	**0.55**	**0.29**	0.07	**0.85**
	incl.	40	52	**12**	**10.22**	0.02	**0.82**	**0.42**	**0.10**	**1.26**
	incl.	40	43	**3**	**15.10**	0.02	**1.06**	**1.37**	**0.20**	**2.46**

Table 2: Significant RC Drilling Intersections from Sugarloaf Hill
(Intercepts using 10 g/t Ag and/or 0.1% Cu+Pb+Zn% cut-off)

Prospect	Hold Id	From (m)	To (m)	Interval (m)	Ag (g/t)	Cu %	Pb %	Zn %	Cu+Pb+Zn %
Sugarloaf Hill	**AKRC275**	8	21	13	2.9	0.00	0.01	**0.15**	0.16
	and	45	55	**10**	**11.70**	0.00	0.01	0.06	0.07
	incl.	50	54	**4**	**18.10**	0.00	0.01	0.07	0.08
	and	85	103	**39**	6.7	0.00	0.07	**0.11**	**0.19**
	incl.	94	103	**9**	3.0	0.00	0.09	**0.31**	**0.40**
	incl.	85	86	**1**	**80.20**	0.00	0.06	0.08	0.14
Sugarloaf Hill	**AKRC276**	35	49	**14**	**12.10**	0.00	0.08	0.01	0.09
	incl.	35	38	**3**	**26.70**	0.00	0.06	0.01	0.07
	and	52	79	**27**	3.3	0.00	**0.14**	0.07	**0.21**
	incl.	58	59	**1**	**23.40**	0.00	**0.14**	0.03	0.17
Sugarloaf Hill	**AKRC278**	2	33	**31**	2.0	0.00	0.01	**0.31**	**0.32**
Sugarloaf Hill	**AKRC279**	0	46	**46**	2.3	0.00	0.01	**0.31**	**0.32**
	and	22	45	**23**	2.5	0.00	0.01	**0.47**	**0.48**

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Argent Managing Director Mr Pedro Kastellorizos commented:

"We are extremely pleased with the recent VMS discoveries east and southeast of the main Kempfield Polymetallic Deposit. The assay results from the limited drilling completed by Argent Minerals, reinforce the significant upside potential of the Kempfield Project as we continue to expand the mineralised footprint well beyond the current Kempfield Deposit".

"The high-grade silver and base metal discovery at Henry's Prospects represents a significant regional exploration success. The discoveries have potential for a major VMS cluster system with the team planning to test additional regional targets. We look forward to updating the market with further drilling results from the Kempfield NW Prospect."

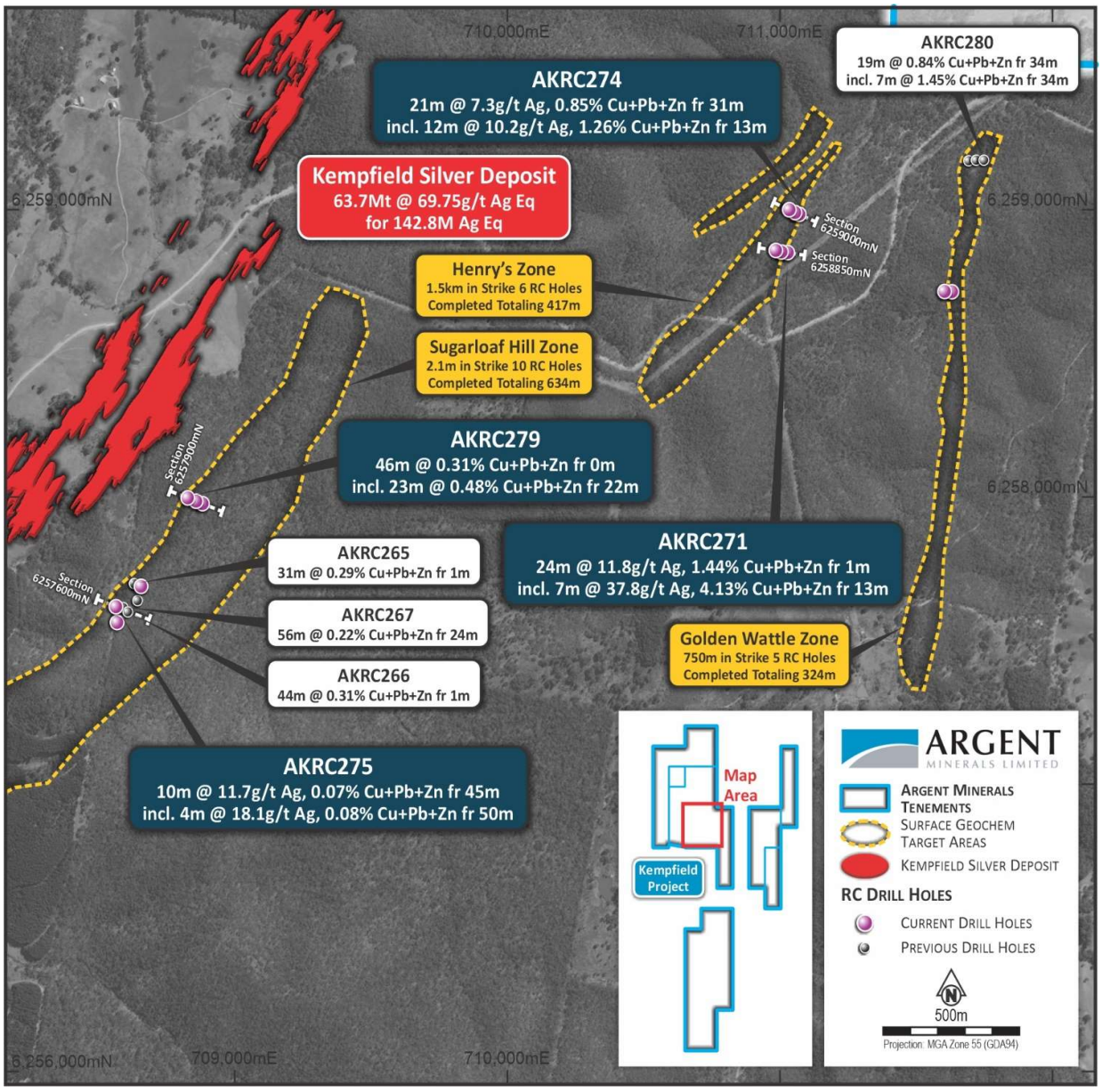

Figure 1 – Kempfield Prospect Location Map highlighting all significant Mineralised Intersections at Sugarloaf Hill and Henry's Zones

Henry's Prospect

At the Henry's Prospect, a new VMS system has been discovered only 2km east of Kempfield. The overall surface geochemical anomaly extends approximately 1.2km in length and up to 300m wide, with extensive shallow surface historical workings. Best results across all previous rock chips included 14 g/t Au, 85 g/t Ag, 0.5% Cu, 0.6% Pb and 0.3% Zn.

The maiden drilling here targeted a small portion of the anomaly, with only six holes drilled over two lines 150m apart and successfully intersected mineralisation with base metals and silver. Drillhole AKRC271 intersected **24m @ 11.80 g/t Ag, 1.44% Cu+Pb+Zn from 1 metre including 7m @ 37.80 g/t Ag, 4.13% Cu+Pb+Zn from 13 metres**. Drillhole AKRC274 also intersected **21m @ 7.30 g/t Ag, 0.85% Cu+Pb+Zn from 31 metres including 12m @ 10.20 g/t Ag, 1.26% Cu+Pb+Zn from 31 metres**.

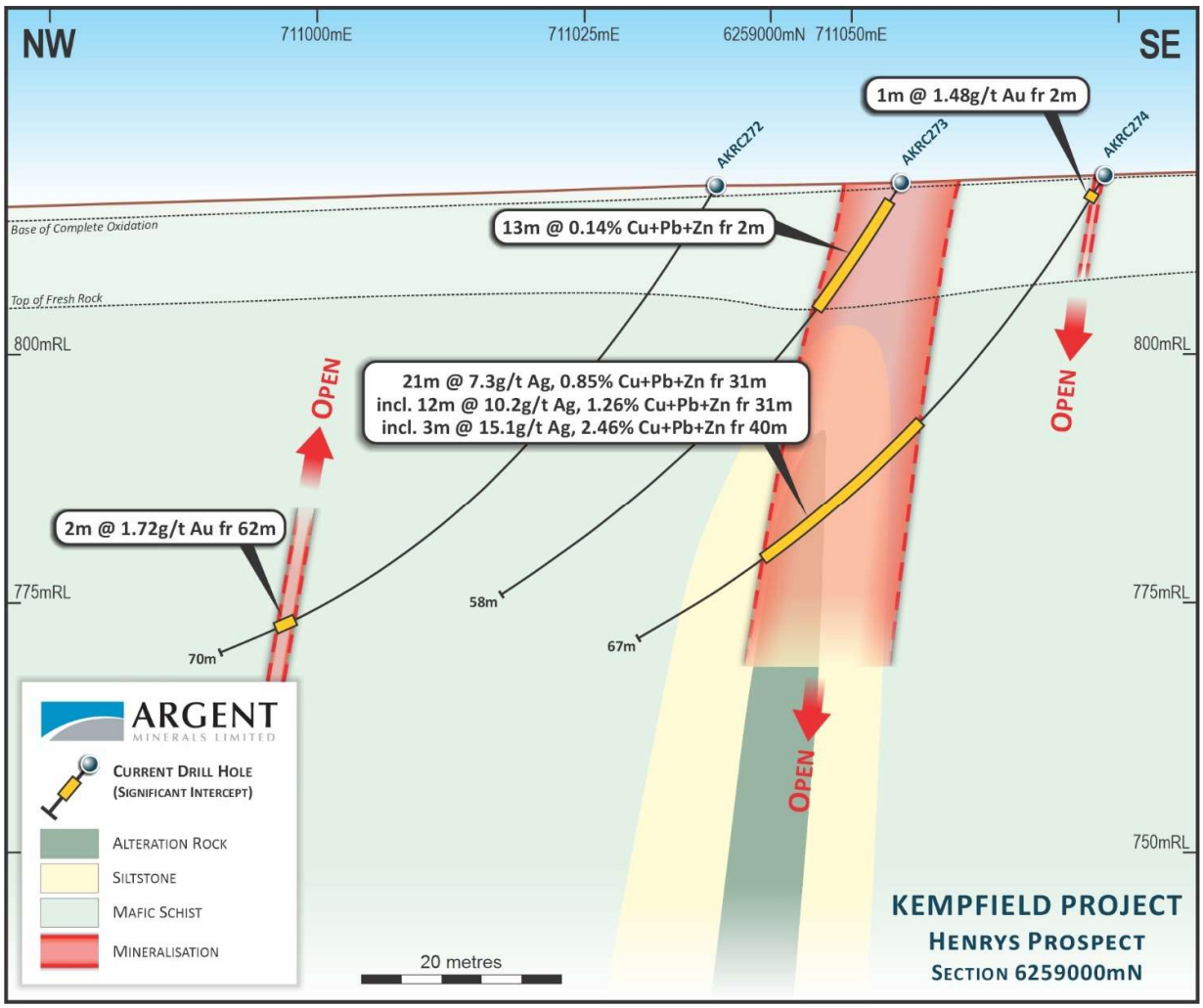

Figure 2 – Henry's Cross Section 6259000N highlighting mineralised intervals

The mineralisation intersected remains open to the north, south and at depth, while surface geochemical anomalies to the west of the current drilling area remains untested. The best mineralisation is hosted in a heavily bleached and altered rock, predominately greywacke with siltstone. The current mineralisation extending from the surrounding sediments into the schist is based on structural deformation. Minor gold mineralisation was also intersected in sub-parallel structures with **2m @ 1.72 g/t Au from 62m** in AKRC272

and **1m @ 1.40 g/t Au from 2m** in AKRC274. Further drilling is planned to investigate this new system, targeting further surface geochemical anomalies.

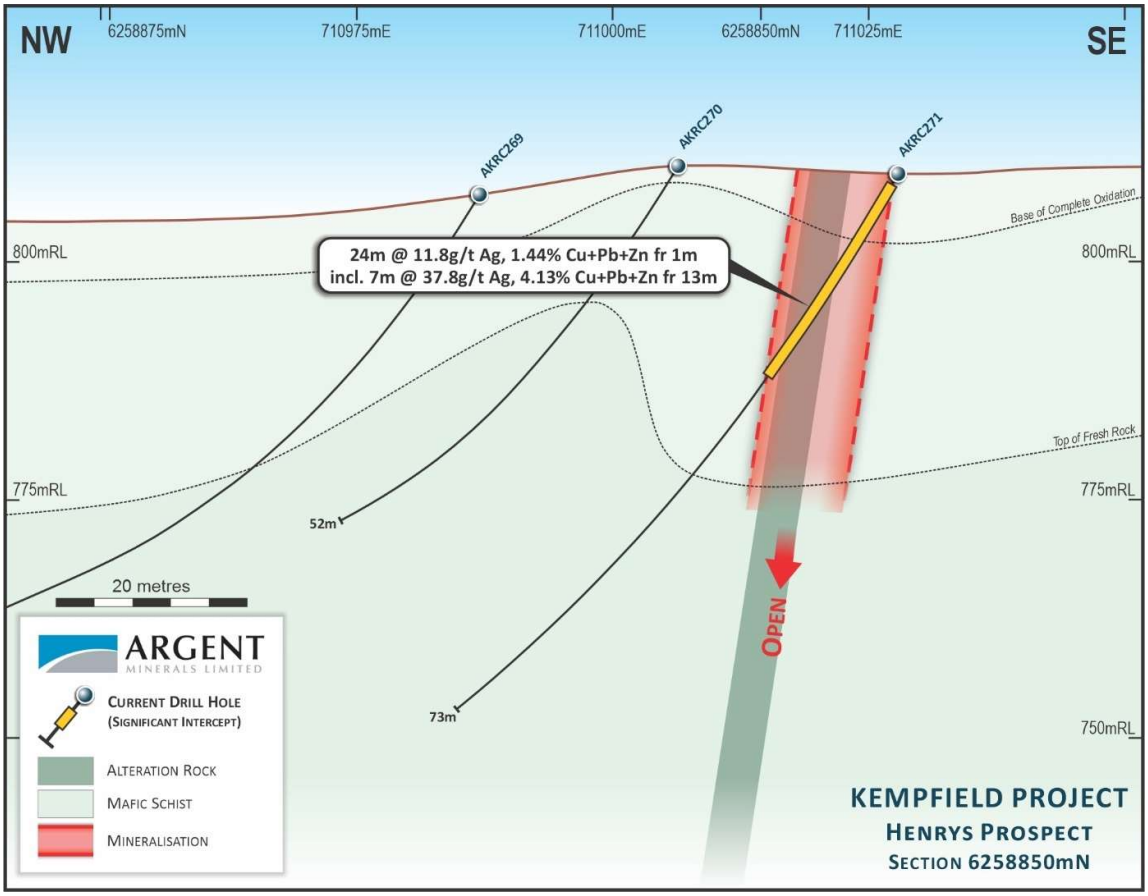

Figure 3 – Henry's Cross Section 6258850N highlighting mineralised intervals

Sugarloaf Hill Prospect

RC drillholes AKRC275 to AKRC279 were designed to test the geochemical silver-base metal anomalies delineated by the rock chip sampling programs over the Sugarloaf Hill Prospect. All completed drillholes, to date, have intersected highly oxidised interbedded siltstone and sandstones (almost clay). Diamond drilling is required to intersect the transitional and fresh rock to delineate sulphides at depth. **All drillholes were terminated within the oxide zone** based on poor drilling conditions.

Drillhole AKRC279 intersected the largest mineralised zone containing **anomalous base metal averaging 0.32% zinc** from surface, including **23m @ 0.47% lead** from 22m, confirming steep mineralisation dipping to the west. Drillhole AKRC278 **intersected 31m of 0.32% lead-zinc** (Figures 1 & 5).

AKRC275 located 520m southwest from AKRC278 & AKRC279, intersected **10m of 11.70 g/t Ag** from 45m, including **4m @ 18.10 g/t Ag** from 50m and 1m @ 80.2 g/t Ag from 85m. AKRC276 intersected **14m @ 12.1 g/t Ag** from 35m, including **3m @ 26.70 g/t Ag** from 35m and **27m @ 0.21% Pb-Zn** from 52m. (Figures 1 & 4).

This system remains open along strike and at depth. Further drilling will be continued to penetrate bedrock lithologies in order to locate the source of the mineralisation delineated to date.

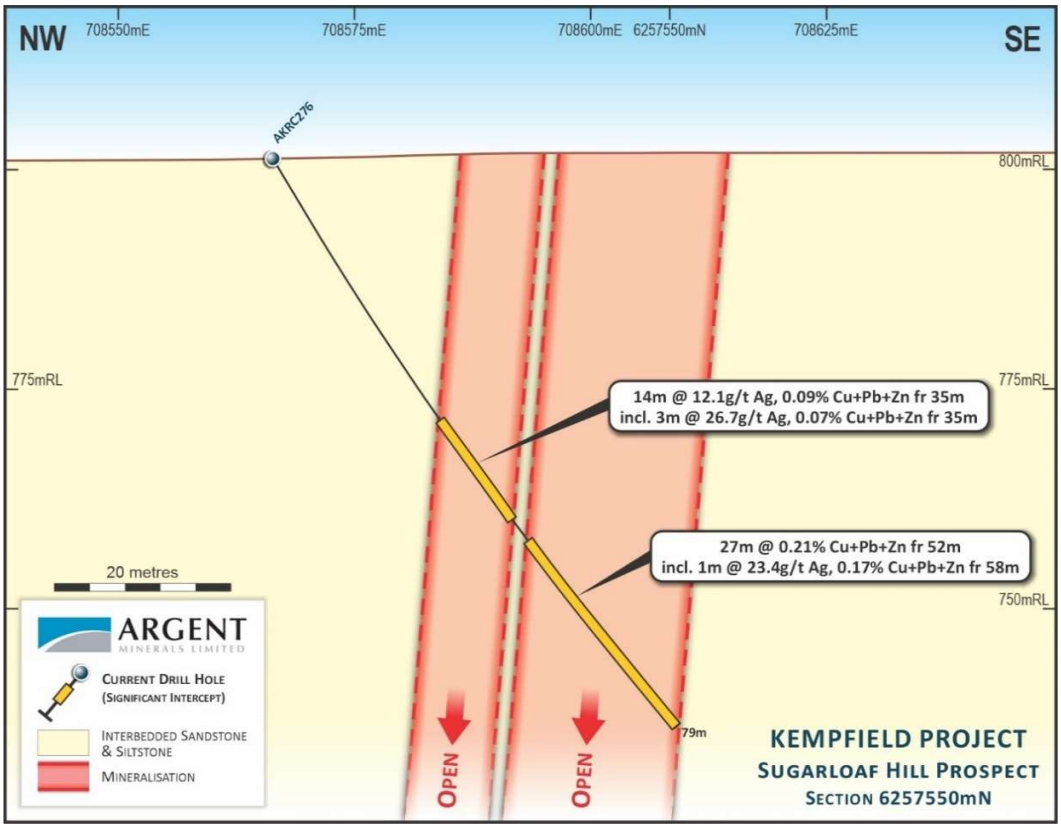

Figure 4 – Sugarloaf Hill Cross Section 6258850N highlighting mineralised intervals

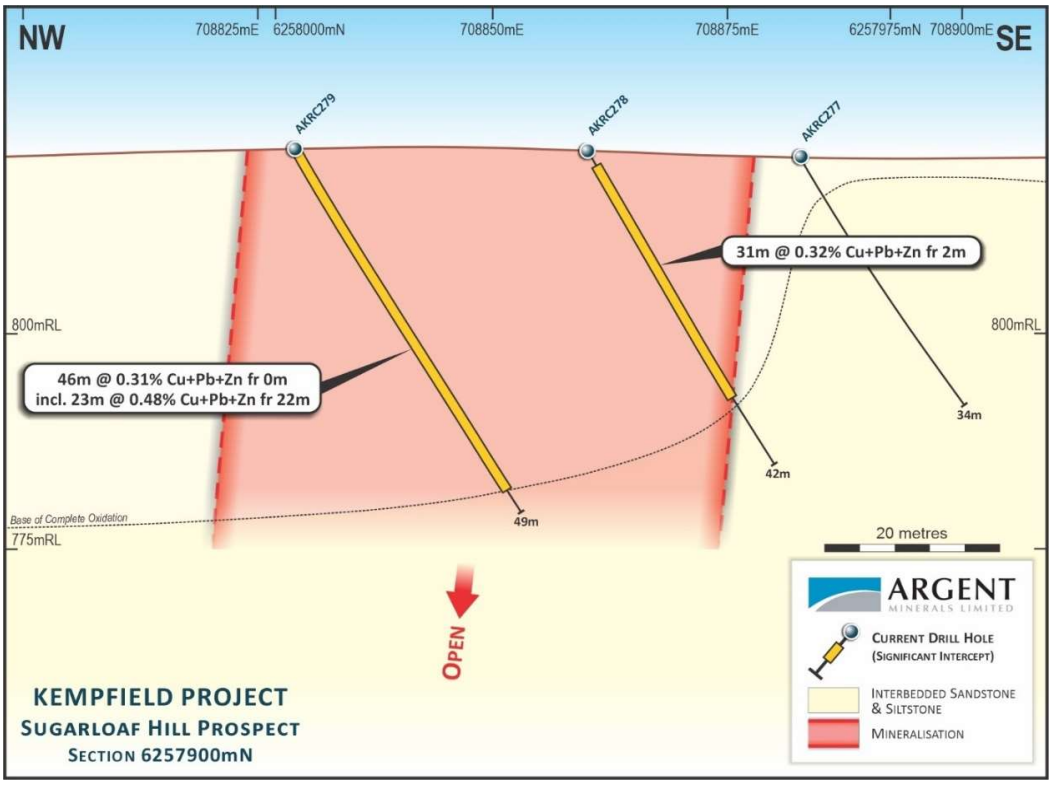

Figure 5 – Sugarloaf Hill Cross Section 6257900N highlighting mineralised intervals

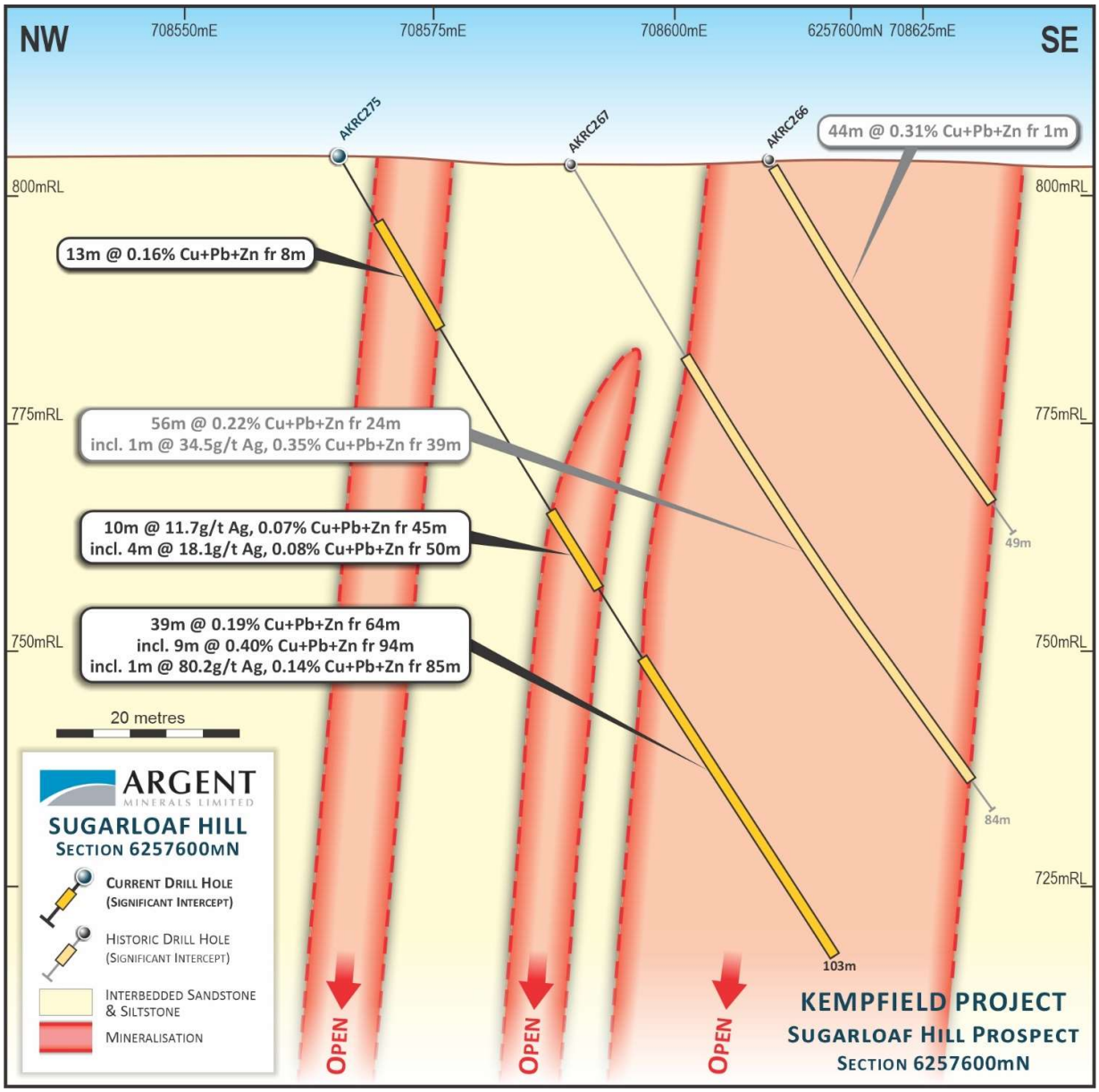

Figure 6 – Sugarloaf Hill Cross Section 6257600N highlighting mineralised intervals

AKRC275 located 520m southwest from AKRC278 & AKRC279, intersected 3 mineralised silver-base metal lodes dipping sub-vertically to the west. These mineralised zones comprise of **10m of 11.70 g/t Ag** from 45m, including **4m @ 18.10 g/t Ag** from 50m and 39m @ 0.19% Cu+Pb+Zn from 64m & **1m @ 80.2 g/t Ag** from 85m. (Figures 1 & 6). The hole ended in mineralisation at 103m.

This system is still open along strike and at depth. Further drilling will be continued to penetrate bedrock lithologies in order to locate the source of the mineralisation delineated to date.

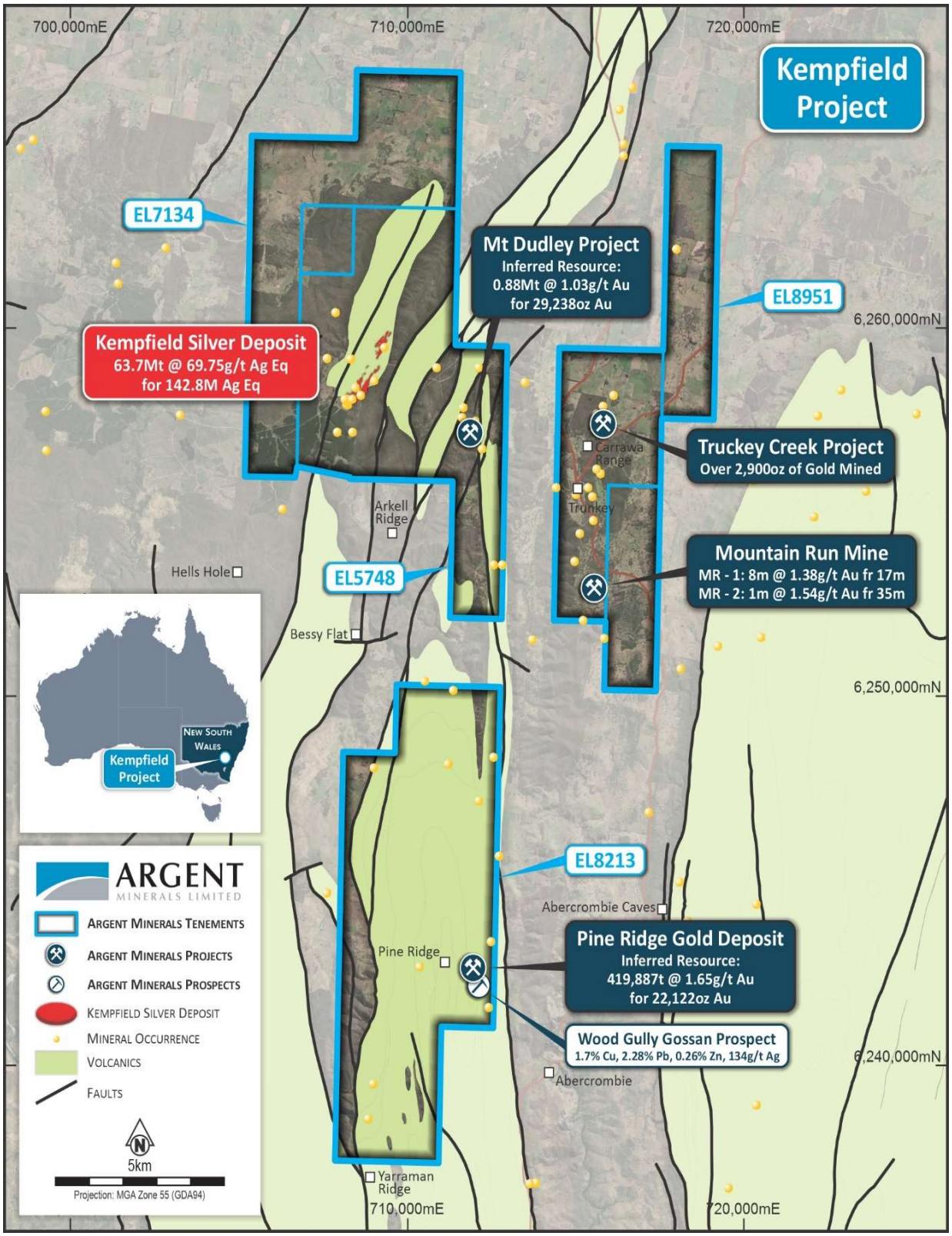

Figure 7 –Kempfield Project Location Map highlighting surrounding nearby Mineral Resources & Prospects held under Argent Minerals Ltd

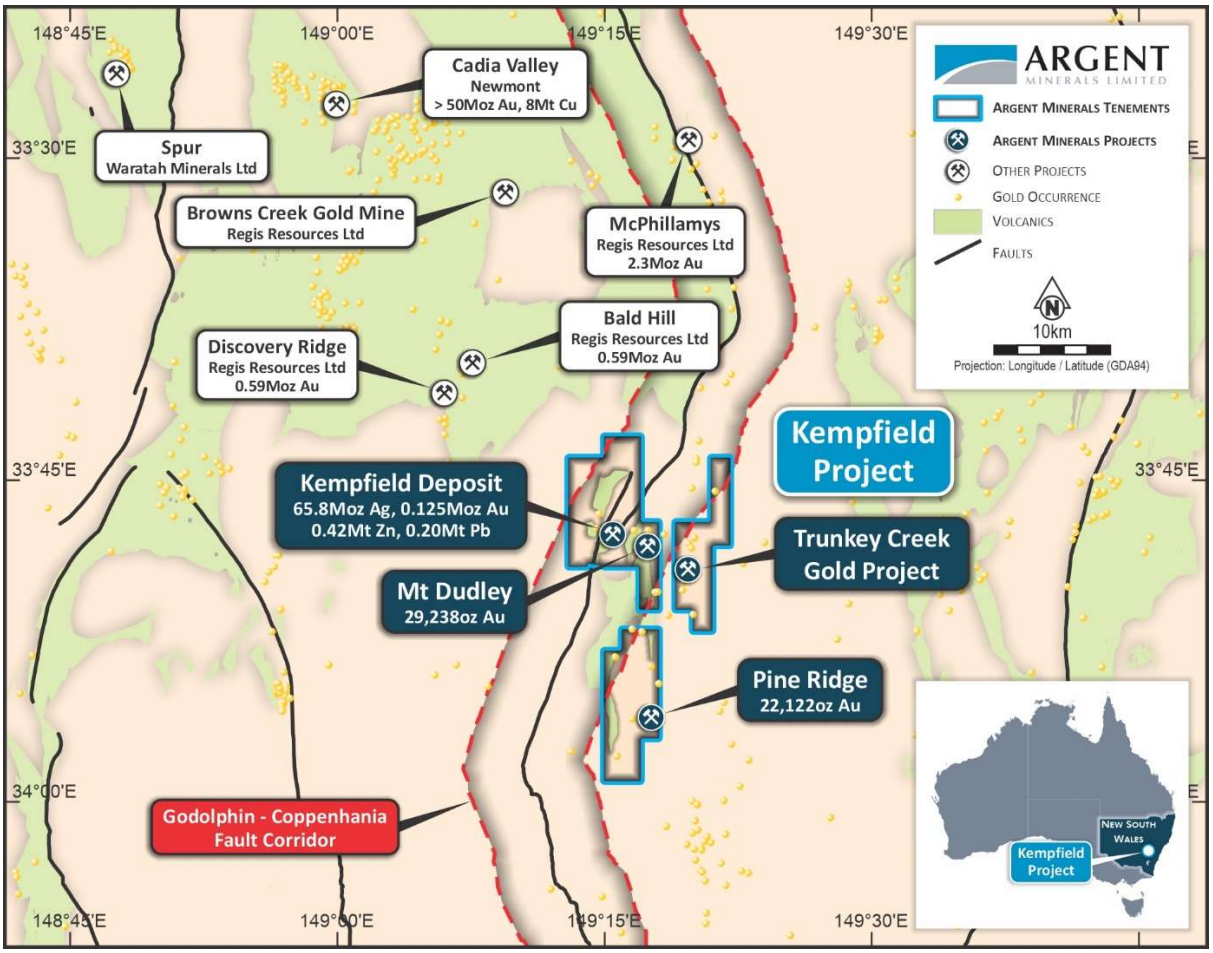

Figure 8 –Kempfield Project Location Map highlighting surrounding nearby Resources

About Kempfield Resource Estimation

The Kempfield Silver Deposit Mineral Resource estimate for all categories was upgraded to **63.7Mt @ 69.75 g/t** silver equivalent **for 142.8 million ounces Ag Eq,** containing of **65.8Moz silver**, **125,192 oz gold**, **207,402t lead & 420,373t zinc** *(ASX Announcement 25 July 2024: Significant Silver Resource Upgrade over Kempfield Deposit).* Table 3 shows the **July 2024** Resource Estimation tonnes/grade by Indicated and Inferred categories.

Table 3 – Kempfield Silver Deposit Mineral Resource Estimate by Classification as at July 2024 (at a >15 g/t Ag cut-off & >0.9% Zn)

Category	Million Tonnes (Mt)	Volume (m^3)	Silver Eq. (g/t)	Silver (g/t)	Gold (g/t)	Lead (%)	Zinc (%)	Million Ounces Silver	Million Ounces Silver Eq.
Indicated	23.7	8,051,549	79.61	40.04	0.08	0.36	0.67	30.5	**60.6**
Inferred	40.0	13,589,739	63.92	27.49	0.05	0.31	0.64	35.4	**82.3**
Total	**63.7**	**21,641,287**	**69.75**	**32.15**	**0.06**	**0.33**	**0.66**	**65.8**	**142.8**

Table 4 is a summary of the updated Kempfield mineral resource as of July 2024 based on the weathering zones, and Table 5 summarises the Mineral Resource by Lodes

Table 4 – Kempfield Silver Deposit Mineral Resource Estimate by Weathering Zone as at July 2024 (>15 g/t Ag cut-off, Zn 0.9% Zn cut-off)											
Weathering Zone	Million Tonnes (Mt)	Grade					Contained Metal				
		Silver Eq. (g/t)	Silver (g/t)	Gold (g/t)	Lead (%)	Zinc (%)	Million Ounces Silver	Thousand Ounces Gold	Thousand tonnes Zinc	Thousand tonnes Lead	Million Ounces Silver Eq.
Oxide	8.3	45.14	38.48	0.08			10.3	20.9			12.1
Transitional	8.8	60.27	38.87	0.09	0.38	0.37	11.0	24.6	32.5	33.6	17.1
Fresh	46.6	75.93	29.75	0.05	0.37	0.83	44.5	79.7	387.9	173.8	113.7
Total	**63.7**	**69.75**	**32.15**	**0.06**	**0.33**	**0.66**	**65.8**	**125.2**	**420.4**	**207.4**	**142.8**

Table 5 – Kempfield Silver Deposit Mineral Resource Estimate by Lode as at July 2024 (>15 g/t Ag cut-off, >Zn 0.9% cut-off)								
Lode	Million Tonnes (Mt)	Silver Eq. (g/t)	Silver (g/t)	Gold (g/t)	Lead (%)	Zinc (%)	Million Ounces Silver	Million Ounces Silver Eq
100	23.9	81.13	31.19	0.12	0.49	0.79	23.9	62.3
200	28.0	66.42	36.03	0.03	0.21	0.57	32.4	59.7
300	11.8	54.62	24.93	0.01	0.26	0.61	9.50	20.8
Total	**63.7**	**69.75**	**32.15**	**0.06**	**0.33**	**0.66**	**65.8**	**142.8**

Notes:

1. The silver equivalent formulas were determined using the following metal prices based on a five-year monthly average: US$22.02/oz silver, US$1,776.93/oz gold, US$2,774.16/t zinc, US$2,066.73/t lead.
2. The silver equivalent formulas were determined using different metallurgical recoveries for each weathering zone from test work commissioned by Argent Minerals Limited. For oxide zone metallurgical recoveries of 86% silver and 90% gold. For transitional zone metallurgical recoveries of 86% silver, 67% zinc and 21% lead, 90% gold. For primary zone metallurgical recoveries of 86% silver, 92% zinc and 53% lead, 90% gold.
3. The silver equivalent formulas were determined using the metal prices and recoveries listed in Notes 1 & 2 for each weathering zone:
   Oxide Zone silver equivalent: Ag Eq (g/t) = g/t Ag + g/t Au x 85.4
   Transitional Zone silver equivalent: Ag Eq (g/t) = g/t Ag + g/t Au x 85.4 + % Zn x 30.53 + % Pb x 7.13
   Primary Zone silver equivalent: Ag Eq (g/t) = g/t Ag + g/t Au x 85.4 + % Zn x 41.92 + % Pb x 17.99
4. In the Company's opinion, the silver, gold, lead and zinc included in the metal equivalent calculations have a reasonable potential to be recovered and sold.
5. Variability of summation may occur due to rounding and refer to Appendices for full details.

This ASX announcement has been authorised for release by the Board of Argent Minerals Limited.

-ENDS-

For further information, please contact:

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Competent Persons Statement

The information in this report / ASX release that relates to Mineral Resources Estimation is based on information compiled and reviewed by Mr. Alfred Gillman, Director of independent consulting firm, Odessa Resource Pty Ltd. Mr. Gillman, a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy (the AusIMM) and has sufficient experience relevant to the styles of mineralisation under consideration and to the activity

being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets and Mineral Resources. Mr Gillman is a full-time employee of Odessa Resource Pty Ltd, who specialises in mineral resource estimation, evaluation, and exploration. Neither Mr Gillam nor Odessa Resource Pty Ltd holds any interest in Argent Minerals Ltd, its related parties, or in any of the mineral properties that are the subject of this announcement. Mr Gillman consents to the inclusion in this report / ASX release of the matters based on information in the form and context in which it appears. Additionally, Mr Gillman confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report. Mr Gillman has completed all the Mineral Resource Estimations for Kempfield, Mt Dudley and Pine Ridge.

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Pedro Kastellorizos. Mr. Kastellorizos is the Managing Director/CEO of Argent Minerals Limited and is a Member of the AusIMM of whom have sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Kastellorizos has verified the data disclosed in this release and consent to the inclusion in this release of the matters based on the information in the form and context in which it appears.

Forward Statement

This news release contains "forward-looking information" within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information, and forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget" "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or indicates that certain actions, events or results "may", "could", "would", "might" or "will be" taken, "occur" or "be achieved." Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, commodity prices, the estimation of initial and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions with respect to currency fluctuations, the timing and amount of future exploration and development expenditures, receipt of required regulatory approvals, the availability of necessary financing for the project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in commodity prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward looking information is made as of the date of this announcement and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws.

References

For further information please refer to previous ASX announcement from Argent Minerals Ltd

ASX Announcement 2008: *Further significant intersections at Kempfield*
ASX Announcement 2009: *Kempfield BJ Zone drilling continues with promising results.*
ASX Announcement 2009: *Argent to Drill Gold Targets at Kempfield*
ASX Announcement 2009: *Significant Results from Kempfield Extension Drilling*
ASX Announcement 2009: *Drilling Results from Kempfield and West Wyalong*
ASX Announcement 2010: *Highest recorded silver grades at Kempfield*
ASX Announcement 2011: *Significant Deep Intersections at Kempfield*
ASX Announcement 2012: *Resource upgrade – Kempfield Silver Project*
ASX Announcement 2013: *Exploration Advances for Kempfield Massive Sulphide Targets*
ASX Announcement 2013: *Resource upgrade – Kempfield Silver Project*
ASX Announcement 2013: *Conductor Targets Identified at Kempfield Silver Project*
ASX Announcement 2013: *Sulphides Intercepted at Kempfield Causeway Target*
ASX Announcement 2013: *Argent Minerals Advances Exploration for Kempfield Massive Sulphide Targets*
ASX Announcement 2013: *Argent Set to Drill Massive Sulphide Targets – Dec Start 2013*
ASX Announcement 2014: *Geophysics Breakthrough in Kempfield Lead/Zinc Detection*
ASX Announcement 2014. *Kempfield Resource Statement Upgraded to JORC 2012 Standard*
ASX Announcement 2014. *Assays confirm third VMS Len group at Kempfield.*
ASX Announcement 2015: *IP Survey confirms Large Copper Gold Target at Kempfield*
ASX Announcement 2015: *Significant Intersections at Kempfield – Including Copper and High-Grade Gold*

ASX Announcement 2016: *Kempfield Drilling Update*
ASX Announcement 2016: *High grade Zinc Lead Silver and Gold Added to Kempfield*
ASX Announcement 2016: *Diamond Drilling Results in Major Breakthrough at Kempfield*
ASX Announcement 2017: *Significant Ag Pb Zn Intersections*
ASX Announcement 18 March 2018: *Significant Kempfield Milestone Achieved Separate Commercial Grade Zinc and Lead Concentrates Produced Substantial Boost to Project Economics*
ASX Announcement 30 March 2018: *Significant Kempfield Resource Update Contained Metal Eq Signal Boost to Economic Potential*
ASX Announcement 20 April 2022: *Pine Ridge Inferred Resource*
ASX Announcement 31 May 2022: *New Gold Drill Targets Identified at Trunkey Creek*
ASX Announcement 1 February 2023: *High-grade copper confirmed at Gascoyne Copper Project*
ASX Announcement 1 March 2023: *Extensive New High-Grade Silver-Lead-Zinc at Kempfield*
ASX Announcement 13 April 2023: *Further Extensive New High-Grade Mineralisation over Kempfield*
ASX Announcement 6 September 2023: *Updated Mineral Resource Estimate for Kempfield*
ASX Announcement 29 January 2024: *Kempfield Exploration Update*
ASX Announcement 12 February 2024: *Extensive Mineralisation Confirmed over Sugarloaf Prospect*
ASX Announcement 1 February 2023: *High-grade copper confirmed at Gascoyne Copper Project*
ASX Announcement 1 March 2023: *Extensive New High-Grade Silver-Lead-Zinc at Kempfield*
ASX Announcement 13 April 2023: *Further Extensive New High-Grade Mineralisation over Kempfield*
ASX Announcement 6 September 2023: *Updated Mineral Resource Estimate for Kempfield*
ASX Announcement 29 January 2024: *Kempfield Exploration Update*
ASX Announcement 12 February 2024: *Extensive Mineralisation Confirmed over Sugarloaf Prospect*
ASX Announcement 21 February 2024: *Outstanding Gold-Silver Grades Uncovered at Henry Prospect*
ASX Announcement 28 February 2024: *Golden Wattle delivers Gold-Silver-Lead Mineralisation*
ASX Announcement 18 March 2024: *Second Rock Chip Program completed over Kempfield*
ASX Announcement 27 March 2024: *Massive Silver-Base Metal Discovery NE of Kempfield Deposit*
ASX Announcement 8 April 2024: *Massive Silver Mineralisation Delineated at Sugarloaf Hill*
ASX Announcement 10 April 2024: *Completed RC drilling Program over Kempfield*
ASX Announcement 17 April 2024: *High-Grade Gold & Silver Mineralisation at East of Kempfield*
ASX Announcement 30 April 2024: *New Exceptional High-Grade Drill Results over Kempfield*
ASX Announcement 13 June 2024: *Further Silver-Base Metal Mineralisation Hits at Kempfield*
ASX Announcement 25 July 2024: *Significant Silver Resource Upgrade over Kempfield Deposit*
ASX Announcement 2 October 2024: *Rock Chip Assays Return 24 g/t Gold at Trunkey Creek Project*

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ARGENT MINERALS LIMITED

ASX Code: ARD

About Argent Minerals Ltd (ASX: ARD)

Argent Minerals Limited is an ASX listed public company focused on creating shareholder wealth through the discovery, extraction, and marketing of precious and base metals. Currently, Argent has over 1,734km^2 of exploration ground in NSW and 1,038km^2 in Western Australia, totalling 2,772 km^2 within 2 Australian States.

Kempfield Project EL5645, EL5748 (100% ARD) NSW

The Kempfield Project is located 60km SSW of Cadia Newcrest Gold and Copper Mining Operations in Central West New South Wales, 250 kilometres west of Sydney. This is the Company's flagship project and is registered as a New South Wales State Significant Development Project. Kempfield Silver Deposit Mineral Resource estimate for all categories has been upgraded **63.7Mt @ 69.75 g/t silver** equivalent **for 142.8 million ounces Ag Eq,** containing of **65.8 Moz silver**, **125,192 oz gold**, **207,402t lead & 420,373t zinc** *(ASX Announcement 25 July 2024: Significant Silver Resource Upgrade over Kempfield Deposit)*

Trunkey Creek Project EL5748 (100% ARD) NSW

The Trunkey Creek Gold Project is located 5 kms east of the Kempfield in Central West region New South Wales. The Project lies within the Trunkey Creek Mineral Field which extends for 5.5 km by 500 m wide with over 2,900 oz of gold extracted from small scale mining. New IP model has delineated three distinct resistive/chargeable zones. Sub-parallel main quartz reefs are spaced 30m to 50m apart over a strike length of 2 km *(ASX Announcement 31 May 2022: New Gold Drill Targets Identified at Trunkey Creek)*.

Pine Ridge Project EL8213 (100% ARD), NSW

The Project is located in the Central Tablelands in New South Wales approximately 65 kilometres south of the township of Bathurst and 10 km south-west of Trunkey. Gold mining commenced in 1877 and continued sporadically until 1948, producing a total of 6,864t ore with variable gold grades. Current 2012 JORC Resource (**Inferred Category Only)** is **416,887t @ 1.65 g/t Au containing 22,122 oz Gold** *(ASX Announcement 20 April 2022: Pine Ridge Inferred Resource)*

Mt Dudley Project EL5748 (100% ARD), NSW

The Project is located 5 km northwest of the township of Trunkey, near Blayney NSW. The Mt Dudley mine was worked between 1913-1922 and 1928-1931, with the mine's records indicating an average mined grade of approximately 25 g/t of gold. Current 2012 JORC Resource (**Inferred Category Only)** is **882,636t @ 1.03 g/t Au containing 29,238 oz Gold** *(ASX Announcement 13 September 2022: Maiden JORC Resource Over Mt Dudley Prospect)*

Copperhead Project (100% ARD), WA

The Copperhead Project is located NE of Carnarvon and SW of Karratha in Western Australia Gascoyne Region. The project is proximal to major REE deposits and is considered Elephant country based on its untapped potential.

Helicopter rock-chip sample program has confirmed the extensive copper mineralisation over the Mount Palgrave Prospect. High-grade stratiform copper assays include 2.42%, 4.14%, 5.92%, 8.8%, 14.96% and 21.1% Cu.

The Project is also considered highly prospective for potential ironstone/carbonatite Rare Earth mineralisation. Over Fifty (50) high priority potential ironstone/carbonatite rare earth targets have been delineated and are currently being assessed *(ASX Announcement 1 February 2023: High-grade copper confirmed at Gascoyne Copper Project)*

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ABN: 89 124 780 276

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.* *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.* *In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.*	Reverse Circulation (RC) was completed over 11 holes, totalling 724m. Sample type was drilling cuttings from RC drilling, sampled between 4m in the barren zones and every 1 metre within the ore zones. Every sample weighted between 1 and 3 kgs. Industry standard practices will used to ensure sample representation. ALS Laboratories in Brisbane applied QA-QC for sample preparation and appropriate instrument calibration. Individual samples were collected from the riffle splitter below the cyclone into calico bags for analysis. Duplicates, blanks, and standards will be submitted to ensure results are repeatable and accurate. Laboratory comparison checks will also be completed. With no statistically significant lab errors or biasing shown at this stage. Intervals were geologically logged by geologist currently on the drilling programme.
Drilling techniques	*Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., 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).*	RC drilling was completed by standard RC Drilling techniques. Chief Drilling from Orange NSW used a Bormor 150 drill rig and a 900/350 Sullair auxiliary compressor booster unit – 121.5mm diameter face sampling hammer bit. Drill samples are homogenised by riffle splitting prior to sampling and a 1-3kg split sample is submitted for assay only.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximise sample recovery and ensure representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	All metre intervals were logged, and sample recoveries were estimated by geologist on site based on bag volume estimation and recorded as a percentage. Sample recoveries were classified as satisfactory, and the volume of sample was considered to represent a good composite sample overall. All samples were noted if dry, moist or wet in the geological logging sheets.
Logging	*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.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* *The total length and percentage of the relevant intersections logged.*	All RC drilling is qualitatively and quantitatively logged for a combination of geological and geotechnical attributes in their entirety including as appropriate major & minor lithologies, alteration, vein minerals, vein percentage, sulphide type and percentage, colour, weathering, hardness, grain size. All RC holes were geological logged from the start to the end of hole. All field descriptions are qualitative in nature

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	All RC holes were sampled and split every 1 metre using a cone splitter to produce a sample between 1 and 3 kgs sub-sample for submission to ALS Labs in Brisbane. All samples submitted to ALS Labs were dried, crushed and pulverised until sample was classified as homogeneous. Approx 7% of submitted samples are in the form of standards, blanks, and duplicates and will be submitted once the drilling programme has been completed. The sample sizes are appropriate to the grain size of the material been sampled.
Quality of assay data and laboratory tests	*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 model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	Geochemical Analysis of the RC samples conducted by ALS in Brisbane included drying and pulverising to 85% passing 75um. Four acid ICP-AES (ME-ICP61) was used to assay for Ag (ppm), As (ppm), Ba (ppm), Cu (ppm), Pb (ppm), Zn (ppm) and Sb (ppm), When high grade assays results were encountered, ICP-AES Ore Grade Element was used If Ag >= 100 ppm then Method Ag-OG62 was used If Cu >= 10,000 ppm then Method Cu-OG62 was used If Pb >= 10,000 ppm then Method Pb-OG62 was used If Zn >= 10,000 ppm then Method Zn-OG62 was used Acceptable levels of accuracy for all data referenced in this ASX announcement have been achieved given the purpose of the analysis.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	Argent and ALS employ independent QAQC assay checks. Argent uses coarse crush, fine crush and pulp duplicates, blanks and 3 types of CRM's inserted at a ratio of 1:25. Alternative company staff have verified the significant results that are listed in this report. No Twinned Holes were used All drillhole information is stored graphically and digitally in MS excel and MS access formats. No adjustments have been 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.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	Sample positions were recorded by differential GPS (0.1m expected accuracy) which is suitable for this stage of exploration. All data used in this report are in: Datum: Geodetic Datum of Australia 94 (GDA94) Projection: Map Grid of Australia (MGA) Zone: Zone 55 Topographic control was gained using government DTM data with handheld GPS check.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied.*	Data spacing is listed in a text within the body of the report and within Section 2 under Drillhole Information. There are no historic drill holes in the area, thus spacing, and distribution is not considered sufficient to establish geological and grade continuity appropriate to be added to the creation of a JORC 2012 Mineral Resource at this stage.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Samples were taken with consideration of stratigraphy and alteration; samples do not straddle geological or stratigraphic boundaries. The immediate local geological sequence and foliation is steeply westerly dipping. Drillholes were targeted to intersect geology on mildly oblique sections to increase intercept potential and also to test the true vertical depth of the various mineralised lens. The relationship between drilling orientation and mineralisation orientation is not considered to have introduce any material sampling bias during the drilling program.
Sample security	*The measures taken to ensure sample security.*	RC sub-samples were stored on site prior to being transported to the laboratory for analyses. Chain of custody involved graphic and digital sign off sheets onsite, sample transfer protocols onsite, delivery to laboratories by Argent Minerals staff with receipts received from the laboratory. Sample pulps are currently stored at the laboratory and will be returned to the Company and stored in a secure location.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been undertaken.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *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.*	Resource Assessment (AL36) and Exploration Licence, Kempfield / EL5748, Trunkey Creek, NSW, held by Argent (Kempfield) Pty Ltd (100% interest), a wholly owned subsidiary of Argent Minerals Limited. There are no overriding royalties other than the standard government royalties for the relevant minerals. There are no other material issues affecting the tenements. All granted tenure is in good standing and there are no impediments to operating in the area.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Argent Minerals Limited through its wholly owned subsidiary Argent (Kempfield) Pty Ltd is the sole operator of the project. Argent Minerals introduced best industry practice work. Kempfield has been explored for more than forty years by several exploration companies as

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>set out in in the below table:
<table>
<tr><th>Company</th><th>Period</th><th>Exploration activities</th></tr>
<tr><td>Argent Minerals</td><td>2007-current</td><td>Drilling, VTEM survey, pole-dipole IP survey, gravity survey, ground EM and down-hole EM survey</td></tr>
<tr><td>Golden Cross</td><td>1996-2007</td><td>Drilling and high resolution airborne magnetic survey</td></tr>
<tr><td>Jones Mining</td><td>1982-1995</td><td>Drilling</td></tr>
<tr><td>Shell</td><td>1979-1982</td><td>Drilling, ground EM survey, dipole-dipole IP survey, and soil sampling</td></tr>
<tr><td>Inco</td><td>1972-1974</td><td>Drilling</td></tr>
</table></td></tr>
<tr><td>Geology</td><td>Deposit type, geological setting, and style of mineralisation.</td><td>The deposit type is Volcanogenic Massive Sulphide (VMS).

The geological setting is Silurian felsic to intermediate volcaniclastics within the intra-arc Hill End Trough in the Lachlan Orogen, Eastern Australia; and

The style of mineralisation comprises stratiform barite-rich horizons hosting silver, lead, zinc, +/- gold.</td></tr>
<tr><td>Drill hole Information</td><td>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:

○ easting and northing of the drill hole collar
○ elevation or RL (Reduced Level –
○ elevation above sea level in metres) of the drill hole collar
○ dip and azimuth of the hole
○ down hole length and interception depth
○ hole length.

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.</td><td>The drill hole information has been inserted and tubulated within the document for the drill holes reported with drill assay results.

<table>
<tr><th>Prospect</th><th>Hole Id</th><th>Easting (GDA 94)</th><th>Northing (GDA 94)</th><th>RL</th><th>Total Depth</th><th>Dip</th><th>Azimuth (GDA)</th></tr>
<tr><td>Henry's</td><td>AKRC269</td><td>710987</td><td>6258861</td><td>807</td><td>97</td><td>-60</td><td>291</td></tr>
<tr><td>Henry's</td><td>AKRC270</td><td>711007</td><td>6258855</td><td>810</td><td>52</td><td>-60</td><td>291</td></tr>
<tr><td>Henry's</td><td>AKRC271</td><td>711031</td><td>6258853</td><td>809</td><td>73</td><td>-60</td><td>291</td></tr>
<tr><td>Henry's</td><td>AKRC272</td><td>711037</td><td>6259001</td><td>817</td><td>70</td><td>-60</td><td>291</td></tr>
<tr><td>Henry's</td><td>AKRC273</td><td>711054</td><td>6258994</td><td>817</td><td>58</td><td>-60</td><td>291</td></tr>
<tr><td>Henry's</td><td>AKRC274</td><td>711073</td><td>6258986</td><td>818</td><td>67</td><td>-60</td><td>291</td></tr>
</table>

<table>
<tr><th>Prospect</th><th>Hole Id</th><th>Easting (GDA 94)</th><th>Northing (GDA 94)</th><th>RL</th><th>Total Depth</th><th>Dip</th><th>Azimuth (GDA)</th></tr>
<tr><td>Sugarloaf Hill</td><td>AKRC275</td><td>708570</td><td>6257631</td><td>810</td><td>103</td><td>-60</td><td>111</td></tr>
<tr><td>Sugarloaf Hill</td><td>AKRC276</td><td>708566</td><td>6257565</td><td>814</td><td>79</td><td>-60</td><td>111</td></tr>
<tr><td>Sugarloaf Hill</td><td>AKRC277</td><td>708883</td><td>6257980</td><td>787</td><td>34</td><td>-60</td><td>111</td></tr>
<tr><td>Sugarloaf Hill</td><td>AKRC278</td><td>708860</td><td>6257988</td><td>789</td><td>42</td><td>-60</td><td>111</td></tr>
<tr><td>Sugarloaf Hill</td><td>AKRC279</td><td>708829</td><td>6257999</td><td>790</td><td>49</td><td>-60</td><td>111</td></tr>
</table>

Notes:

Easting and Northing coordinates are all referenced to Geodetic Datum of Australia 94 (GDA94), Map Grid of Australia (MGA) projection, Zone 55.</td></tr>
<tr><td>Data aggregation methods</td><td>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and</td><td>No weighting average techniques or cut-off grades are employed at this point.

Results are estimated on visual observation of alteration intensity and number of sulphides by geologist and supported by photographs.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	should be stated. *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalent values employed in this report.
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.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').*	Orientation, true widths and the shape/geometry of the Ag-Pb-Zn mineralisation at Sugarloaf Hill Prospects cannot be interpreted of based on the completed drilling to date. The true thickness of the high-grade zones remains unclear in certain areas. Further drilling is required. In conjunction, Table 1 highlights the true width in metres from the RC Drilling results from the current completed exploration program.
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.*	Drill collar plan and cross section are located as Figures 1 to 5 with intersections >10 g/t silver, 0.1 g/t Au and/with combined 0.1% Copper, Lead and Zinc are detailed in Table 1 and 2.
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 Exploration Results are reported. Table 1 of the announcement contains significant intersections. Significant intersections are continuous intervals of sampling where each individual sample is of an individual grade greater than 0.1% Zn, 0.1% Pb, 0.1% Cu, 10 g/t Ag & 1 g/t Au.
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.*	Metallurgical, groundwater, and geotechnical studies have not commenced as part of the assessment of the project.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further RC/DDH Drilling will be implemented once the drilling program has been completed with all assays received and assessed.

Criteria	JORC Code explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	