ARGENT MINERALS LIMITED

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Final report for EL09/2016 Queensberry, TAS

Report by:

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EL9/2016 Annual Report 2022

EXECUTIVE SUMMARY

The Queensberry Exploration Licence (EL) 9/2016 is located 15km northeast of Queenstown, Tasmania. The exploration strategy applied by Argent Minerals Limited at EL 9/2016 is primarily focused on the targeting of volcanic hosted massive sulphide (VHMS) mineral systems within the Mount Read Volcanics (MRV) belt of western Tasmania.

Argent has concluded the ground is not prospective enough to continue exploration thus has surrendered the total exploration licence area.

1 BACKGROUND

1.1 Location and access

The Queensbury Project is located approximately 15km northeast of Queenstown, Western Tasmania and positioned within the Mt Dundas Regional Reserve which is open to exploration under the Mineral Resources Development Act 1995.

Main access on to the EL9/2016 tenement is via the Zeehan-Strahan link, Henty Road (B27), highlighted in figure 1. There is a 9km long gated track (Queensbury Mine Track) which finishes at the historic Queensbury Mine workings in the approximate centre of the tenement. The gate key is held by Parks and Wildlife Ulverstone Office and the track is characterised by a steep rise onto the Professor Plateau with deeply incised gutters, well-constructed gravel roads across the open button grass plains, and variable soft marshy to hard gravel sections through the temperate rainforest descents/ascents into Queensberry site. Datum used in this report is GDA 94.

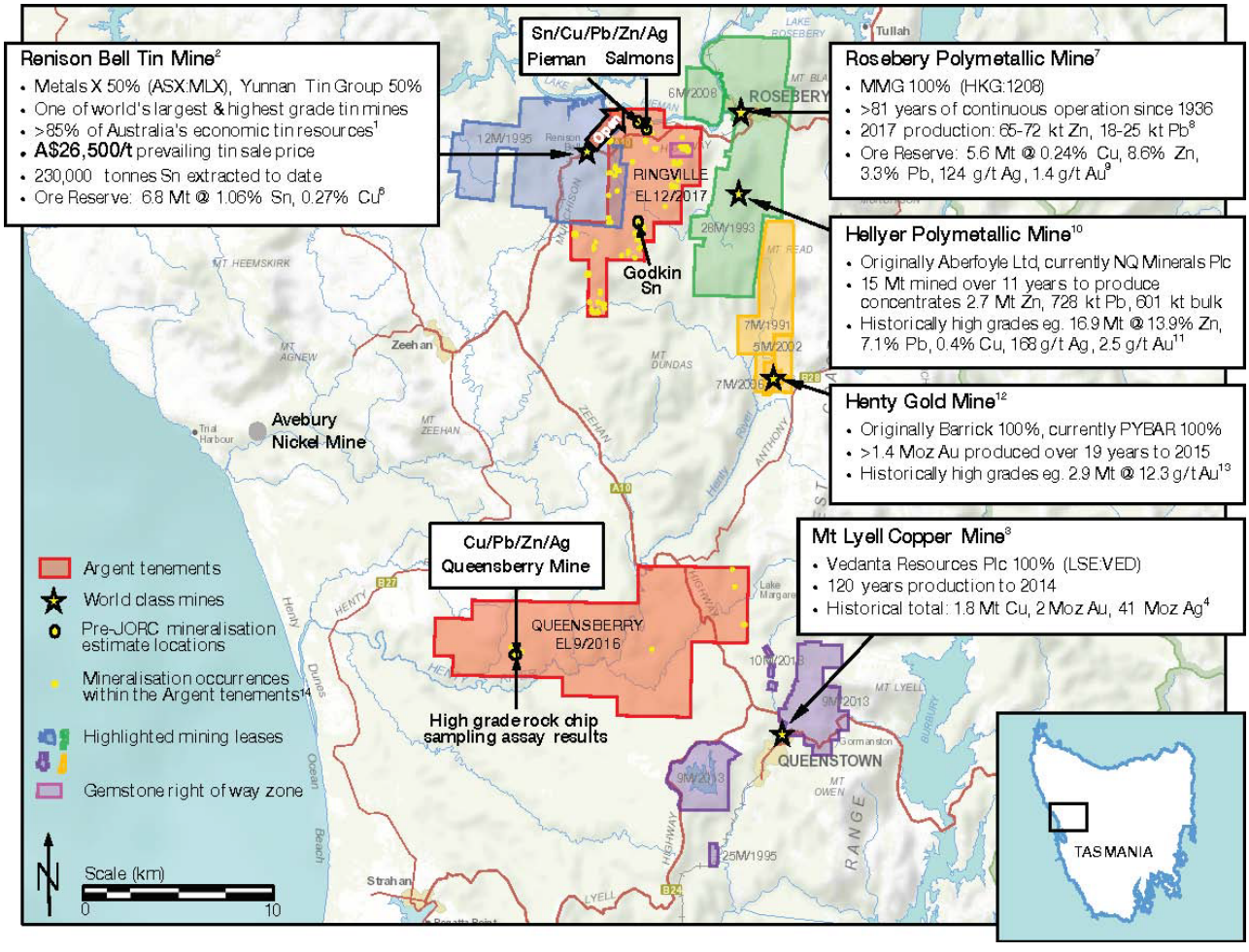

Figure 1. Location of EL12/2017

1.2 Regional Geology and Mineralisation

The geological history of Tasmania has had four major economic mineralisation episodes; magnesium during the Proterozoic ("Wichham" Orogeny); basemetals/gold/PGE during (Tyennan Orogeny); gold/base metal during the Devonian (Tabberabberan Orogeny) (McNeil, Triassic/Tertiary coal (Seymour, Green and Calver, 2006). In brief, Western Tasmania's basement is made up of Precambrian low-grade (up to greenschist facies) meta-sediments grade (up to eclogite facies) of mafic meta-igneous metamorphic assemblages. These overlain by volcanic and sedimentary rocks of the early Cambrian Crimson Creek Formation Cambrian Mt Read Volcanics.

Structurally, the Cambrian period's Tyennan Orogeny is comprised of three dominate phases; Cambrian syn-collision convergence; a Mid Cambrian MRV N–S compression, E-W extension formation; and Late Cambrian E–W compression and basin inversion (McNeil 2012).

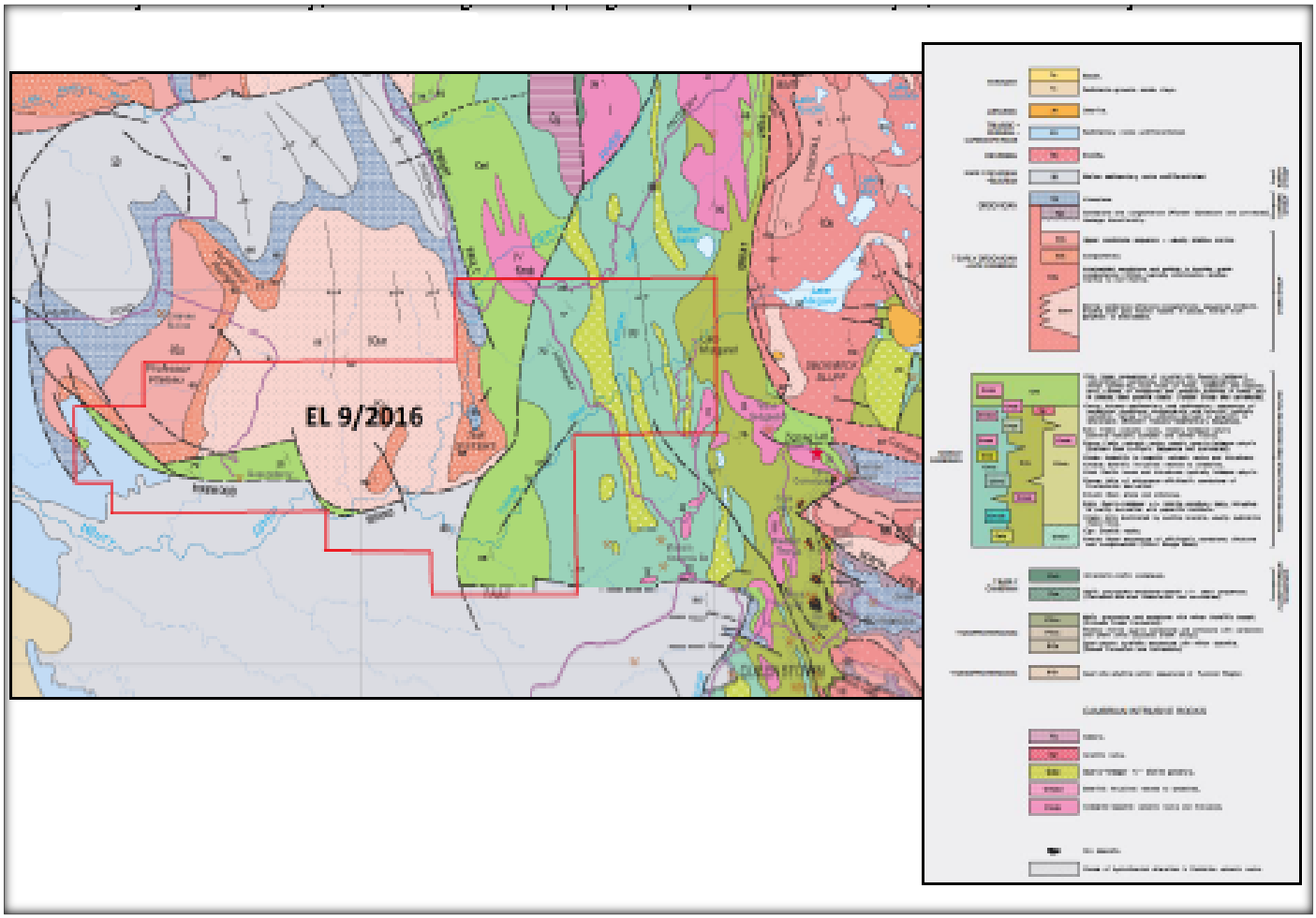

Figure 2. Regional Geological Interpretation over EL12/2017

1.3 Local Geology

Structurally, the Queenberry region and tenement is structurally dominated by the Firewood Siding Fault (FSF) system which is estimated to extend from Queenstown to Trial Harbour. The FSF typically trends E-W and is offset by several NW and NNE faults (McNeill 2002). In reference to the FSF, EL 9/2016 can be separated into three lithological domains; Devonian Bell Shale, an Ordovician sedimentary sequence correlated to the Denison Group and the Cambrian Tyndall Group (McNeill 2002).

The geology of can be subdivided into 3 lithological domains (McNeil 2002):

- Correlates of the Devonian Bell, interbedded quartz sandstone and mudstones south of the Firewood Siding Fault.

- A ~2.7 sq km fault bounded block of Mount Read Volcanic (Tyndall Group) correlates in the Firewood Siding Fault system.
- A marine sedimentary sequence north of the Firewood Siding Fault, with fossils of Upper Cambrian age, which is correlated with the Denison Group. Of these three, domain 2 is considered VHMS prospective. Lithologies from domain 2 have been described in some detail by Baillie et al (1985) and include siltstone, slate, lithicwacke (with a minor volcanogenic component) and volcaniclastics. The volcaniclastics are feldspar-quartz-phyric crystal-rich sandstones, shard-rich ashy siltstones and lesser coarse sandstones, with a volcanolithic component. Poor outcrop and complex structure have prevented the location or tracing of any marker horizons (Baillie et al., 1985).

1.4 Mineralisation

McNeill & Skirka (2006) summarised the mineralisation in the area as follows:

Known economic mineralisation on the tenement area is restricted to the Queensberry Mine, discovered in 1891 and worked prior to 1924, producing approximately 767t of Pb-Ag ore. More recently drilling (8 shallow holes) and surface sampling (Lennox, 1970) allowed the calculation of an „inferred resource" of 28,300t @ 0.32% Cu, 11.53% Pb, 8.76% Zn and 52 g/t Ag (Green in Baillie et al., 1985).

Only two Au assays of the ore are available and are in the range 0.2-0.3 g/t Au (Mathison, 1988). The geology of the Queensberry mine has been described in detail by Reid (1927), Forsythe (1968a), Lennox (1970) and Green (in Baillie et al., 1985). The deposit comprises 4 lodes (a fifth was known during initial mining but, has not been relocated in recent times) most of which have a northerly strike and west dip. Mineralogically the lodes comprise pyrite, arsenopyrite, sphalerite chalcopyrite, galena, tetrahedrite and bournonite in a quartz-siderite gangue.

Green (in Baillie et al., 1985) considered the mineralogy, coarse grainsize, textures and paragenetic sequence of minerals was very similar to that of the Zeehan mineral field and concluded that the Queensberry Mine was a Devonian fissure fill deposit.

1.5 Authority History

EL9/2016 was granted to Argent Minerals on 16 January 2017, for a period of six years with a minimum expenditure of $20,000 over the first two years.

The Queensbury Mine lodes were discovered during the early years of exploration of the Western Division, and extracted via shallow adits by R. McKimmie et al from 1891. The deposit consisted of 4 lodes with an additional lode located further east and all typically contained pyrite, arsenopyrite, sphalerite, chalcopyrite, galena, tetrahedrite and bournonite in a quartz-siderite gangue (McNeill 2002).

The authority history and previous exploration for EL9/2016 is summarised in Table 1 below.

Company	Licence No.	Period	Exploration activities completed
New Consolidated Gold Fields (a'sia) Pty. Ltd	ML 11/12M66	1968	Line cutting, mapping, rock-chip and soil + stream sediment sampling
New Consolidated Gold Fields (a'sia) Pty. Ltd	ML 11/12M66	1970	Trenching and side cutting, mapping, soil samples, drilling and met work
New Consolidated Gold Fields (a'sia) Pty. Ltd	ML 11/12M66	1981-82	Mapping, drilling, resource estimation
Amoco Minerals Australi	EL 4/78	1983-84	Stream sediment sampling and Aeromagnetic survey
Oceania Tasmania Pty. Ltd.	EL 10/85	1985-86	Mapping and track cutting
Amoco Minerals Australia Company, Electrolytic Zinc Company of Australasia Ltd	EL 4/78	1987-88	Data review and sampling
CRA Exploration Pty. Ltd & Allegiance Mining N.L	EL 34/88	1989-90	Gradient IP survey
Pasminco/Zinifex	EL 11/01	2001-05	Data review, Pb-Isotope analysis, gridding, mapping, soil and rock chip sampling
McDermott Mining Group	EL 4/07	2007-09	Soil and rock chip sampling
Australian Hualong Pty Ltd	EL 19/10	2010-13	aeromagnetic survey, drilling
Argent Minerals Limited	EL 09/2016	2016-present	Data review, site reconnaissance, hylogger

1.6 Exploration rationale

The MRV is host to several major VHMS deposits (>1 million tonnes) such as Mt Lyell (Cu-Au) and Rosebery (Zn-Pb-Cu) as well as more than thirty sub-million ton VHMS prospects (Large, 1992).

EL 9/2016 Queensbury has the potential to host both Devonian Pb-Zn vein and Zn-Pb-Cu-Au VHMS mineralisation within the MRV. Queensbury will be explored using the blind VHMS concept model based on Pb dating data obtained from McNeill and Skirka (2006) achieving a near Cambrian type signature. Based on prior knowledge of Zeehan mineral field's Oceana Pb-Zn-Ag mine's Pb dating, a concept of exhalative mineralisation or VHMS type mineralisation will be test the area.

Argent Minerals Limited is an ASX listed Company focused on creating shareholder wealth through the discovery, extraction and marketing of precious and base metal products within the highly productive Eastern Australian Palaeozoic VHMS geologic terrane (Large et al, 1998).

Argent's strategy to achieve this goal comprises of three key elements; exploration, capital efficiency and production, with exploration featuring as the key immediate driver of growth. The exploration strategy of Argent Minerals at EL 9/2016 is primarily focused on the targeting of VHMS Ag-Pb-Zn-Cu and Au mineraliation similar to what has been previously discovered at the historic Queensbury Mine.

2 EXPLORATION COMPLETED IN REPORTING PERIOD

During the reporting period 17 January 2020 to 16 January 2021, Argent Minerals conducted the following exploration activities:

Exploration for the 2019-2020 reporting period was a selection of non-invasive geological activities due to the COVID19 Tasmanian boarder closures between NSW and W.A:

- Continued review of historical data and previous exploration.
- Integration of LIDAR and geophysical data with 3D geological model

Proposed exploration not yet completed:

1. Soil and stream sampling
2. Detailed 1:10,000 geological and structural field mapping

2.1 Continued review of historical data and previous exploration

The titles previous mining efforts date back to the late 1800's where mining of historic Queensberry Mine commenced. More recent and better documented exploration activities have occurred from the 1960's and has now been all reviewed.

2.2 Integration of LIDAR and geophysical data with 3D geological model.

A consultant from Internode Seismic has been contracted to complete a tenement wide review of historic geophysics completed. Available seismic, IP, magnetic, radiometric, LIDAR and gravity data will be compiled and incorporated into the geological model with the intent to further define stratigraphic and resource targets. The report is due early 2021. In accordance with s.26 of the Mineral Resources Development Act 1995, the minimum expenditure for the first two years of the licence has been determined to be $60,000. Argent is endeavoring to continue this minimum expenditure over the life of the grant. For current expenditures and expenditure breakdown, please see the Annual Rental Return (Appendix 1).

3 RESULTS AND DISCUSSION

3.1 Continuing review of existing data collected, and work conducted

The Company has reviewed all known existing data to maximise the Company's budget and the potential for discovery. Much of the past exploration activities were non-invasive geological activities such as mapping, soil sampling and geophysical surveys. From the late 1950's, 99 diamond drillholes have been drilled within the tenement. Much of the data was in paper log form with some data sets such as structure or assays either not completed or missing. The data has helped bring insight to the project, however there are concerns with the lack of QAQC data which includes assay method and confidence of results as well as overall hole positioning.

3.2 Integration of LIDAR and geophysical data with 3D geological model.

As the geophysical report and integrated 3D package is not due until early 2021. Preliminary commentary from the consultant is that prospectivity throughout the Mt Read Volcanics area (and beyond) is almost entirely dependent upon fault proximity (as evidenced by the prolific drilling of faults yet absence over faultless areas). The fundamental problem is that on the geology maps, almost every fault is dashed, so a means of accurately mapping their surface expression is required, especially over Ringville and Queensberry areas where dense vegetation and daunting topography are pervasive. Therefore the geophysist has begun reprocessing hi-res, L and C band, poliametric, synthetic-aperture radar (POLSAR) to see whether this helps as well as the potential of switching to 2m LiDAR. Both methods are unaffected by clouds, atmosphere, tree canopies, vegetation and to a large extent topography and have the data density (via GLCM feature extraction) to detect faults, fractures and lineations.

Argent has concluded the ground is not prospective enough to continue exploration thus has surrendered the total exploration licence area

4 ENVIRONMENTAL MANAGEMENT

All exploration activities completed during the reporting period were of low disturbance with no notable environmental impact and therefore subsequently did not require rehabilitation.

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