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EXPLORATION LICENCE 9/2016
QUEENSBURY, TAS

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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.

During the reporting period 17 January 2020 to 16 January 2021, Argent Minerals Limited conducted only desktop activities totaling \$22,554.45, due to the COVID19 Tasmanian boarder closures between NSW and W.A, which included:

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

Mapping, Soil and stream sampling due to COVID19 Boarder restrictions has been deferred until 2021-2022 reporting period.

Results continue to prove promising permitting the Company to continue its exploration of the Queensberry Project. Activities planned for the 2021-2022 reporting period are:

- Commencement of deferred 1:10,000 geological and structural field mapping
- Commencement of deferred stream sampling campaign and analysis.
- Commencement of deferred soil sampling campaign and analysis.

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.

1.2 Regional geology

The geological history of Tasmania has had four major economic mineralisation episodes; Iron and magnesium during the Proterozoic ("Wichham" Orogeny); Basemetals/gold/PGE during the Cambrian (Tyennan Orogeny); Gold/base metal during the Devonian (Tabberabberan Orogeny) (McNeill, 2012) and; Triassic/Tertiary coal (Seymour, Green and Calver, 2006). The VHMS Cambrian and Devonian mineralisation episodes are the focus of Argent Minerals exploration activities and will be summarised in more detail in Section 1.3.

In brief, Western Tasmania's geological basement is made up of Precambrian low-grade (up to greenschist facies) meta-sediments and with minor high-grade (up to eclogite facies) of mafic meta-igneous metamorphic assemblages. These basement units are overlain by volcanic and sedimentary rocks of the early Cambrian Crimson creek formation and late Cambrian Mt Read Volcanics.

Structurally, the Cambrian period's Tyennan Orogeny is comprised of three dominate phases; an Early

1.4 Authority history and previous exploration

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.

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

Table 1. Summary of authority history and previous exploration

1.5 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.

1.6 Exploration philosophy and objectives

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.

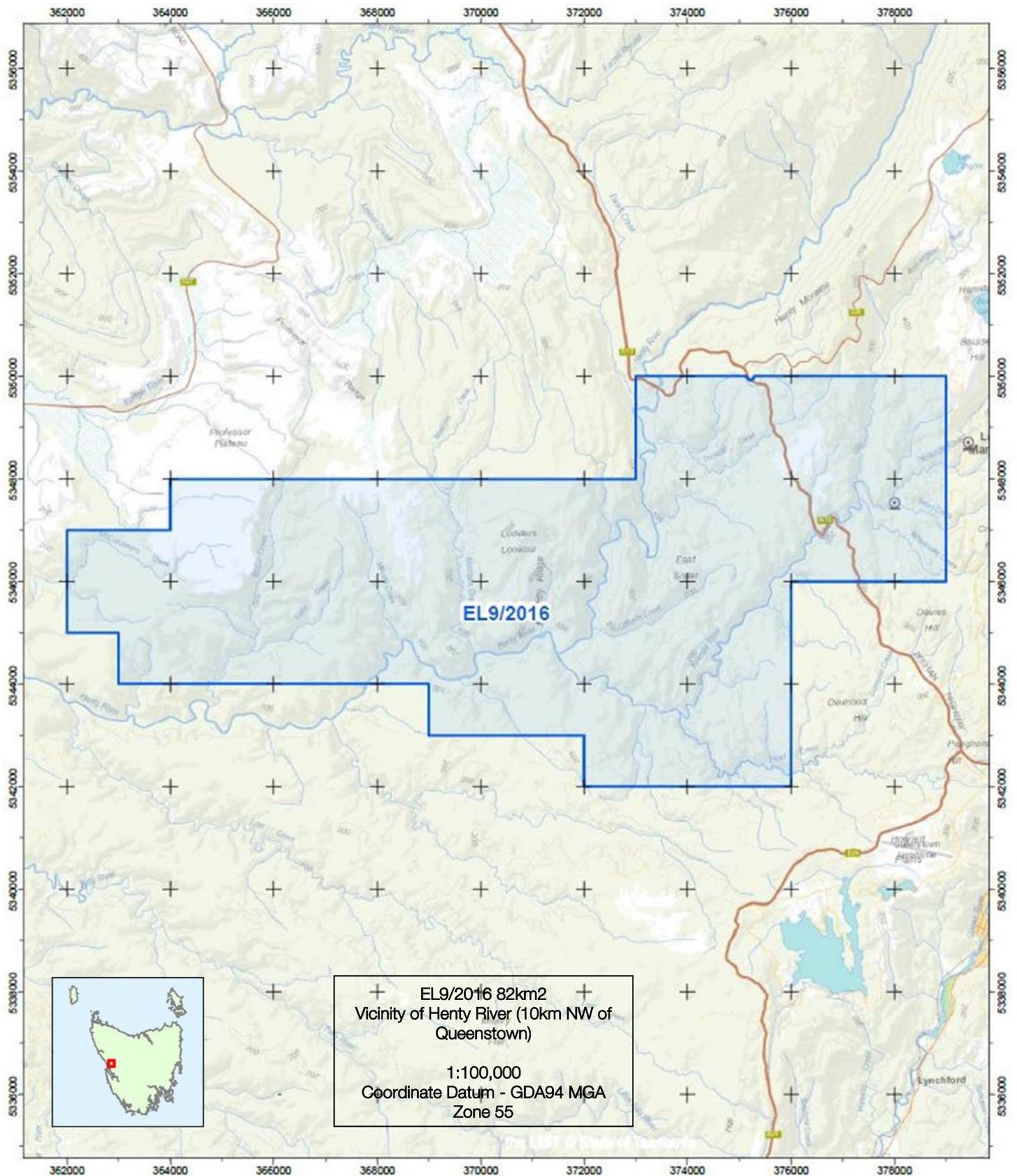


Figure 2. EL9/2016 tenement location / areas of activity on the NW coast of Tasmania

2 EXPLORATION COMPLETED IN REPORTING PERIOD

During the reporting period 17 January 2020 to 16 January 2021, Argent Minerals conducted the following exploration activities (figure 2):

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.

3 RESULTS AND DISCUSSION

3.1 Continued review of historical data and previous exploration.

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, polarimetric, synthetic-aperture radar (POL SAR) 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.

3.3 Expenditure during the reporting period

During the current reporting period of 17 January 2020 to 11 January 2021 (date of report generated) Argent Minerals had a total exploration expenditure of \$22,554.45

4 RECOMMENDATIONS AND FUTURE EXPLORATION WORK

EL 9/2016 has known mineral deposits and limited exploration justifying further exploration by the Company in 2021. Planned exploration work will encompass:

- Commencement of the detailed 1:10,000 geological and structural field mapping to confirm previous authors observations and improve our understanding of the region.
- Commencement of the deferred stream sampling campaign and analysis.
- Commencement of the deferred soil sampling campaign and analysis.

5 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. None-the-less, Argent Minerals endeavours to leave any tenement in its possession in the same condition or better.

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