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EXPLORATION LICENCE 12/2017
RINGVILLE, TAS

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EXECUTIVE SUMMARY

The Ringville Project Exploration Licence (EL) 12/2017 (1995) is located 6km west of Rosebery, Tasmania.

The exploration strategy applied by Argent Minerals Limited at EL 12/2017 is primarily focused on the targeting of Renison intrusion related skarn tin and vein lode, and Averbury nickel sulphide within Cambrian sediments of western Tasmania.

During the reporting period 6 December 2019 to 5 December 2020, Argent Minerals Limited conducted only desktop activities totaling \$ \$21,890.33 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 2020-2021 reporting period.

Results have proven promising permitting the Company to continue its exploration of the Ringville Project. Activities planned for the 2020-2021 reporting period are:

- Detailed 1:10,000 geological and structural field mapping to confirm previous authors observations and improve our understanding of the region.
- Stream sediment and grid-based sampling campaign and analysis.
- Resource calculation for Salmons Lode
- Drilling assessment Salmons Lode and other prospects

1 BACKGROUND

1.1 Location and access

The Ringville tenement EL 12/2017 is located approximately 6km west from the town of Rosebery, Western Tasmania. The tenement is situated between the Rosebery VHMS Polymetallic Mine in the east and intrusion related Renison Bell Tin Mine in the west (Figure 1) and spans 11 kilometres further south. The tenement area covers 33 square kilometres under a category 1 Exploration Licence granted for a five-year term.

Main access on to the E12/2017 tenement is from the Murchison Highway which runs east-west across the northern end of the licence or via main dirt 4WD tracks of Ring River Road (Salmons/Pieman Deposit access) Williamsford Road (Colebrook Hill deposit access) or Dundas Road and North East Dundas Tramway track (southern Access). The environment is comprised of dense temperate rainforest, numerous creeks and streams with an undulating topography. Much of the Renville tenement is inaccessible due to thick vegetation and variable terrain. West Coast Tasmania’s annual high rainfall can result in difficult ground condition which can impede activities for much of the year.

Datum used in this report is GDA 94.

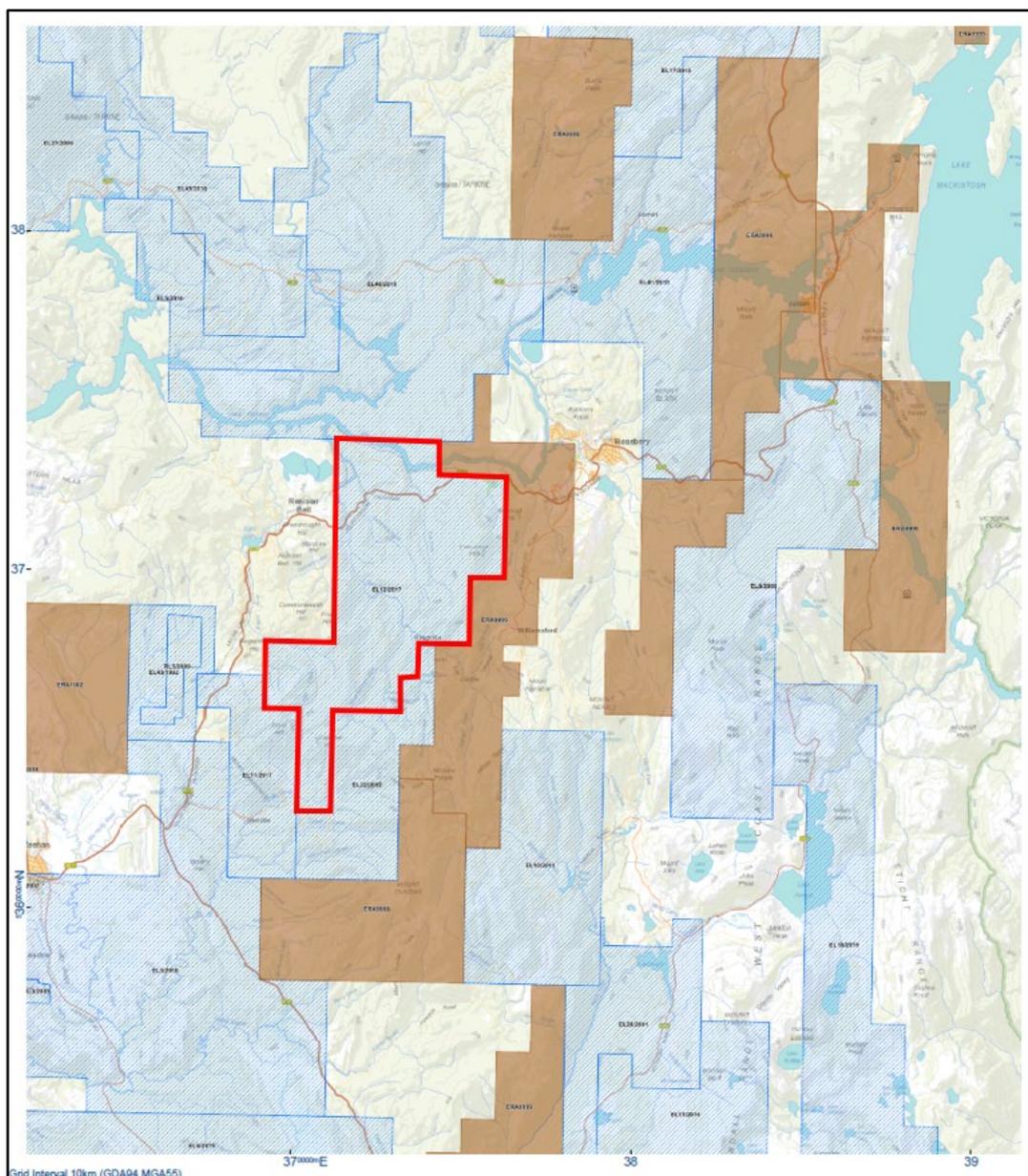


Figure 1. EL 12/2017 tenement location / areas of activity on the NW coast of Tasmania

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) (McNeil, 2012) and; Triassic/Tertiary coal (Seymour, Green and Calver, 2006). In brief, Western Tasmania’s geological basement is made up of Precambrian low-grade (up to greenschist facies) meta-sediments and a 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 Cambrian syn-collision convergence; a Mid Cambrian MRV N–S compression, E–W extension and graben formation; and Late Cambrian E–W compression and basin inversion (McNeil 2012).

1.3 Local Geology

The current interpretation of the geology within the EL 12/2017 Ringville tenement is as follows (figure 2).

The geology in the area is comprised of Early Cambrian to Devonian rocks capable of containing mineral deposits comparable to the Renison intrusion related skarn tin and vein lode, and Avebury style nickel sulphide. The tenement contains 52 known mineral occurrences, including three deposits to which pre-JORC historical mineralisation estimates have been attributed, featuring tin, copper, zinc, lead and silver (Table 1).

The western half of EL 12/2017 contains the Cambrian Crimson Creek Formation of volcanoclastic greywackes, feldspathic tuffs, mudstones, siltstones and shales which overlies the Cambrian Success Creek Group. The Success Creek Group is made up of siliceous clastics and carbonate sequence of siltstones, mudstones, dolomite clast-bearing, oolitic and chert breccia units. Both the Crimson Creek Formation and Success Creek group are intruded by Cambrian Ultramafics and gabbro complexes (north-south belts) identified from historic mapping and airborne magnetics. The area has also subsequently undergone alteration from a buried ridge of Devonian-Carboniferous ENE trending quartz porphyry granite at an assumed depth of approximately one kilometre. The Devonian granite has no known outcrop within the licence (found at Pine Hill in the west) although has been intercepted by several historic drillholes. The Crimson Creek Formation is known to host Renison intrusion related skarn tin (Pieman) and vein lode (Salmons) mineralisation in the Northwest. Quaternary alluvials and fluvioglacials covered the northern section of the tenement partially.

In the eastern half the Colebrook Hill area consists of the Crimson Creek Formation and Early Cambrian basaltic lithiwackes, siltstones, mudstones intruded by theolitic basalts and mafic intrusives. The area is host to many mines and uneconomic deposits of axinite-actinolite skarns within the Crimson Creek Formation (Drake 1979).

In the middle of the tenement lies the Godkin Mine area and is also considered to be part of the Crimson Creek Formation. The area is home to numerous small sulphides mineralisation deposits, while further south within the tenement are the Kapi Creek Copper Mines and Dundas Mineral Field Crocoite Mine (in operation).

1.4 Mineralisation

Notable deposits within the EL 12/2017 tenement have been briefly summarised below:

1.4.1 Salmon Deposit

The Salmon Deposit (Table 1) located in the north of the tenement is a series of sub-parallel Ag-Pb-Zn and Cu rich veins hosted within Cambrian upper Crimson Creek Formation sediments. These veins have been developed in an intensely altered ultramafic unit, striking roughly north-south and lying immediately east of the Renison Tin Mine.

1.4.2 Pieman Deposit

The Pieman deposit (Table 1) occurs along strike from, and partially overlaps, the Salmon deposit and is a structurally hosted Sn carbonate replacement.

1.4.3 Colebrook Hill Deposit(s)

The Colebrook Hill Cu-As deposit group is a skarn alteration system. Noteworthy mines within area include the Colebrook Copper Mine, Clifton Copper Mine, Lynton Lead Mine, Olympic Tine Mine, and Athenic Tin Mine.

1.4.4 Godkin Deposit(s)

The Godkin Sn deposit (Table 1) and the surrounding area is home to numerous small sulphides mineralisation deposits. Mineralisation coincides with a north trending shear zone which is thought to broadly aligned along the trend of the Federal Bassett Fault associated with the Renison Sn Mine. (Purvis, 1989).

The following mineralisation assemblages in the area having been reported:

- Narrow arsenopyrite and quartz-arsenopyrite dominated veins.
- Fracture-filled and replacement pyrrhotite, arsenopyrite and cassiterite.
- Quartz-pyrrhotite pyrite veins, metasomatic veins

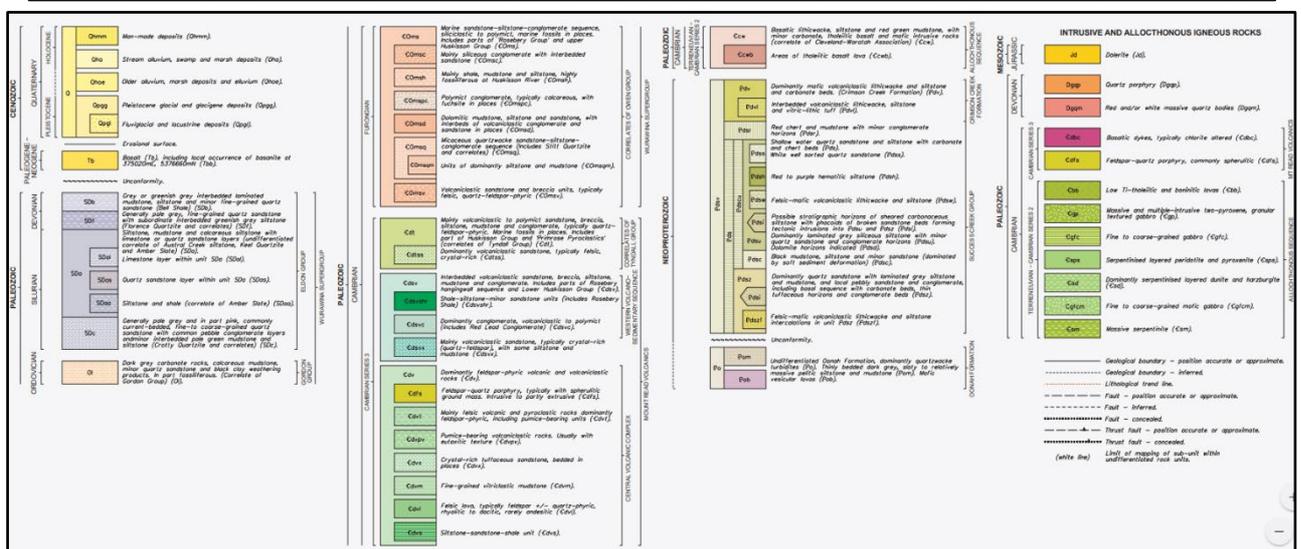
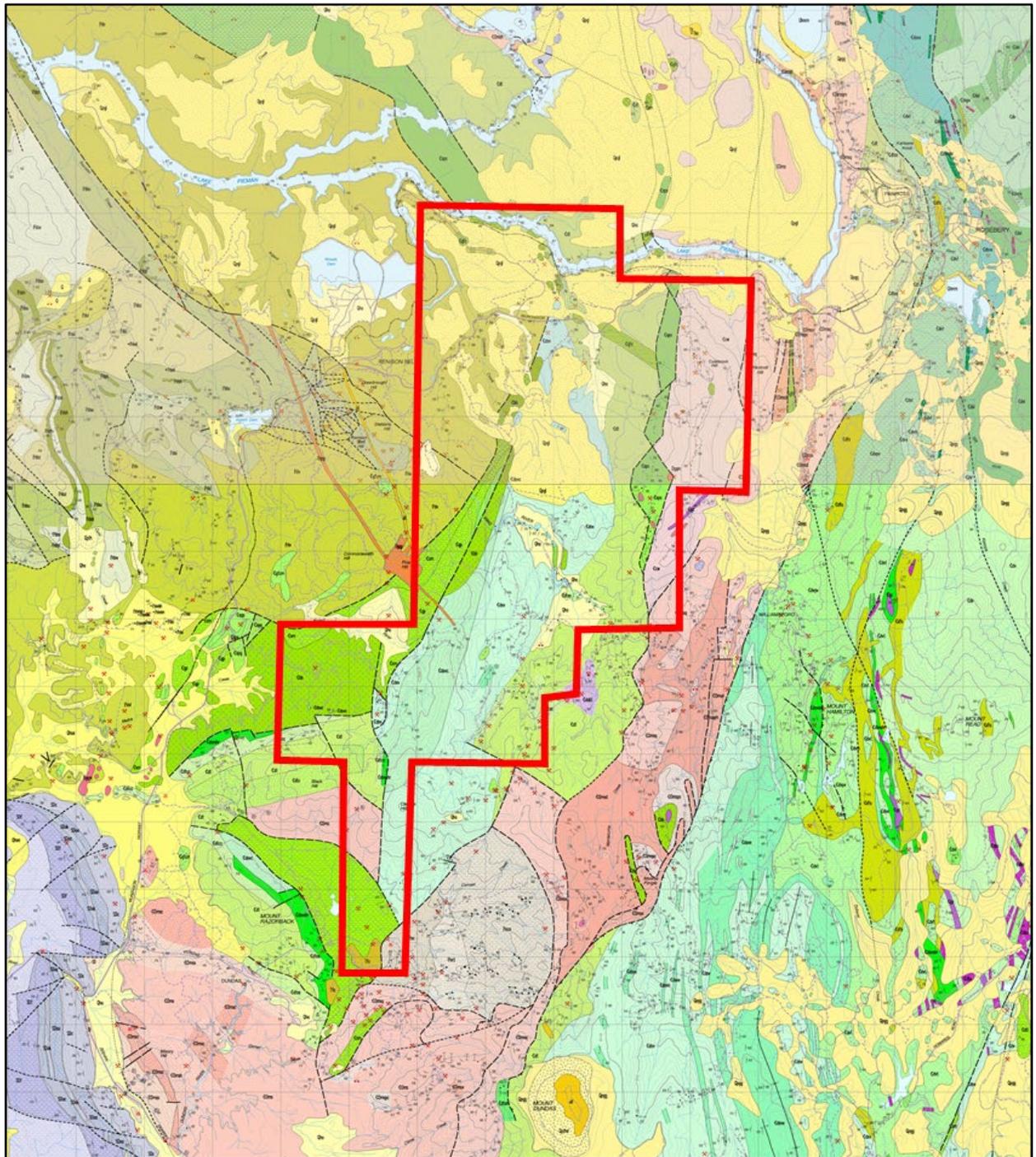


Figure 2. Geology of EL 12/2017. (McClenaghan & Seymour, 2010)

Pre-JORC Code Historical Mineralisation Estimates										
Deposit	Category	Tonnes (t)	Sn (%)	Cu (%)	Au (g/t)	Pb (%)	Zn (%)	Ag (%)	Estimation Method	Estimation Date
Pieman	Probable	433,300	1	0.2	-	0.1	0.3	8		
	Possible	744,900	0.3	0.2	-	0.1	0.3	8	Polygonal	1985
	Total	1,178,200	0.6	0.2	-	0.1	0.3	8		
Salmons	Probable	830,200	0.2	0.6	-	3.2	2.2	104		
	Possible	1,016,000	0.1	0.1	-	1.3	1.4	58	Polygonal	1985
	Total	1,846,200	0.1	0.3	-	2.1	1.8	79		
Godkin	Probable	299,400	0.9	-	-	-	-	-	Polygonal	1983

Table 1. Pre-JORC Code Historical Mineralisation Estimates within EL 12/2017

1.5 Authority history and previous exploration

The tenement area of EL 12/2017, located in West Tasmania has been explored since the late 1800's. Historical exploration has been focused primarily on Sn mineralisation (Pieman / Godkin Deposit), Pb-Zn-Ag mineralisation (Salmon Deposit) and the Cu-As mineralisation (Colebrook Hill). The past ~40 years of exploration in the area of EL 12/2017 has been conducted dominantly by Comstaff Proprietary Limited and Electrolytic Zinc Company of Austrasia Ltd. These two companies have occupied most of the tenements during 1970 and 1980's with both entities focused on base metal exploration.

In more recent times Allegiance Metals Pty Ltd, Eastren Pty Ltd & OZ Minerals Australia Ltd/MMG Australia have explored for VHMS, intrusion related skarn tin and Auebury nickel type sulphides. A drilling history of EL 12/2017 has been summarised in Table 2.

Authority history and previous exploration of EL12/2017		
Company	Period	Previous Exploration Drilling Completed
Tasmania Department of Mines	1958	2 x DDH @ Kapi Mine, 1 x DDH @ Melba Flats
Mines Exploration Pty Ltd	1967	1 x DDH @ Renison Bell Exe River
Texins Development Pty Ltd	1972	2 x DDH @ Dundas Carbine West
Minops Pty Ltd	1974	2 x DDH @ North Dundas
Comstaff Pty Ltd	1974-1983	53 x DDH @ East Renison
Renison Ltd	1977-1978	2 x DDH @ Kapi Mine
Electrolytic Zinc Company of Australasia Ltd	1981-1984	5 x DDH @ Colebrook Hill, 8 DHH @ Mt Black
Goldfields Exploration Pty Ltd	1985	2 x DDH @ Grand Prize
RGC Exploration Pty Ltd	1990	5 x DDH @ Montezuma
Rubicon Mintech Ventures Pty Ltd & Stellar Resources Ltd	2007	2 x DDH @ Black Hill
Allegiance Metals Pty Ltd, East Ren Pty Ltd & OZ Minerals Australia Ltd	2007-2010	7 x DDH @ East Renison, 2 x DDH @ Karlison Riley, 1 x DDH @ Godkin, 1 x DDH @ Ringville
MMG Australia Limited	2013	4 x DDH @ East Renison

Table 2. Summary of authority history and previous exploration drilling

EL 12/2017 was granted to Argent Minerals Limited on 6 December 2017 for a period of five years with a minimum expenditure of \$60,000 required over the first two years.

1.6 Exploration rationale

The EL 12/2017 Ringville area is host to many deposits such as Pieman/Salmons, Godkin, Colebrook Hill and Kapi Creek. The project has the potential to host further Renison intrusion related skarn tin and vein lode, and Avebury type nickel sulphides.

1.7 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 geologic terrane.

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 12/2017 is primarily focused on the targeting of Sn carbonate replacement and vein styles and Cu-As skarn mineralisation similar to what has been previously discovered at Renison and the historical Godkin and Colebrook Hill areas.

2 EXPLORATION COMPLETED IN REPORTING PERIOD

During the reporting period 6 December 2019 to 5 December 2020, Argent Minerals conducted the following exploration activities (figure 1 & 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:

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

2.1 Continued review of historical data and previous exploration

The titles previous exploration and mining efforts date back to the late 1800's / early 1900's where mining of historic locations such as Colebrook Hill and Godkin had commenced. More recent and better documented exploration activity has 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 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 (POLARSAR) 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 06 December 2019 to 5 November 2020 (date of report generated) Argent Minerals had a total exploration expenditure of \$21,890.33 and \$42,793.16 over the past 2 years. This tenements spending meets the 2-year minimum expenditure requirements of \$60,000.00.

4 RECOMMENDATIONS AND FUTURE EXPLORATION WORK

Despite the lack of ground activities during the current reporting period EL 12/2017 holds known mineral deposits and the work completed by the Company to date justifies further exploration in 2020. Planned exploration work will encompass:

- Detailed 1:10,000 geological and structural field mapping to confirm previous authors observations and improve our understanding of the region.
- Stream sediment and grid-based sampling campaign and analysis.
- Resource calculation for Salmons Lode
- Integration of LIDAR and geophysical data with 3D geological model
- Collection of data (digitising) on numerous prospects within the tenement.
- Drilling assessment Salmons Lode and other prospects

5 ENVIROMENTAL 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 maintain/leave any tenement in its possession in the same condition or better.

6 REFERENCES

- Australian Government- Geoscience Australia, Australian Stratigraphic Units Database (ASUD 2017). Accessed 20/12/2019. http://dbforms.ga.gov.au/pls/www/geodx.strat_units.sch_full?wher=stratno=34165
- Corbett, K.D., 2004. Updating and revision of the 1:25 000 scale series geological maps covering the Mt Read Volcanics belt in western and northern Tasmania. Geological Survey of Tasmania. Records 2004/03, 10p
- D. B. Seymour, G. R. Green and C. R. Calver, 2006 The Geology and Mineral Deposits of Tasmania: a summary. Geological Survey Bulletin 72.
- Denwer K., 2015 Williamsford EL 48/2011 Annual Report, MMG Australia Limited
- Purvis, J.G. 1989 Tasmanian Tin Prospects, Part 1, West Tasmanian Tin Province Aberfoyle Resources Ltd, Company report
- McClenaghan, M.P., Seymour, D.B. 2010. Strahan, Geological Atlas 1: 25,000 series, Dundas Sheet 3636, Geological Survey of Tasmania, Department of Mines, Hobart.
- McNeill A. W, 2012, An introduction to western Tasmanian geology and mineralization, MMG Inhouse presentation
- M. J. White & J. McPhie, 1996, Stratigraphy and palaeovolcanology of the Cambrian Tyndall group, Mt Read Volcanics, western Tasmania, Australian Journal of Earth Sciences Vol. 43, Issue. 2,