



# **Albina Creek (EL8/2018) Annual & Relinquishment Report on Exploration 2020**

**Sorell Peninsula, Tasmania**

**For the period 4th February 2019 to 4th February 2020**

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4/2/2020. Datum used: GDA94, Zone 55

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## Summary

This is the first annual and relinquishment report on Albina Creek EL8/2018.

Exploration work during the year to 4/2/2020 on Albina Creek (EL8/2018) involved historical review and reporting, associated with GIS-based data compilation, interpretation, target generation and planning. No field work has been undertaken following the tenement granting; largely since the company's focus had been upon ongoing field work, including drilling on the nearby EL06/2013. Research has initially focused upon identified targets with Cu, Fe and Au potential within the tenement. There is obvious potential to upgrade digital data sets, likely resulting in large gains in understanding of the area.

EL8/2018 was explored as part of the company's Mt Read Project, comprising four adjacent exploration licences; EL6/2013, EL7/2018, EL8/2018 and EL9/2018, located on the Sorell Peninsula in western Tasmania, approximately 25km south of the township of Strahan.

Accelerate Resources Ltd. plan to relinquish EL8/2018 and consequently no work is proposed.

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## Introduction

This annual and relinquishment report on Albina Creek EL8/2018 (139km<sup>2</sup>; granted 4/2/2019) for Accelerate Resources Ltd details work undertaken during the tenure year to 4<sup>th</sup> February 2020. The tenement is located on the Sorell Peninsula ~25km south of Strahan, western Tasmania (Figure 1) and is held 100% by Accelerate Resources Limited.

The company explores EL8/2018 as part of its Mt Read Project, comprising four adjoining exploration licences; EL6/2013, EL7/2018, EL8/2018 and EL9/2018. The company's focus of exploration activity in the first year of operation after the company's IPO and January 2018 ASX listing, has been two main prospects on nearby EL6/2013; being Thomas Creek Cu-Co-Au and Henrietta Ni-Co-Cu (including Young Henry) prospects.

The annual expenditure commitment was \$105,000 over the first two years of licence tenure. All located data in the report uses the GDA 94 (Zone 55) reference datum.

The region is largely unknown, due to difficult access and minimal exploration to-date. Mapping by Mineral Resources Tasmania in the 1990's provides a regional scale geological framework. The most significant exploration to-date has been undertaken by Pacific Nevada, involving widespread stream sediment and rock chip surveys resulting in gridding and IP surveys followed up by drilling.

The area is prospective for Cambrian Cu-Fe and Au deposits. Reassessment of the gold and basemetal potential of the Pelius Cove and North Butler Prospects is warranted, along with testing of previously little visited faulted strike extent between North Butler and the magnetite bearing Anomaly 128.

## Location and Access

Access to the project area can be achieved via Macquarie Harbour coastal landing by boat or by helicopter from Strahan (Figure 1). Access within the project areas is achieved on foot via cut lines and limited historical exploration tracks (all of which are currently largely overgrown and unsuitable for vehicular egress).

The area has a high annual rainfall of approximately 1750 millimetres. The natural vegetation is dominated by rainforest and related scrub, most dominantly Nothofagus rainforest. Additionally there are areas of wet eucalypt forest and woodland flora types, heathland and coastal vegetation complexes. Bauera scrub areas are very thick and generally impenetrable without prior line cutting work. Where tree canopy is high, undergrowth is significantly less and access over the ground can be achieved with some effort.

## Land Tenure

The tenement lies within the Southwest Conservation Area and is part of the Cape Sorell, Strategic Prospectivity Zone, which is protected by the Mining (strategic Prospectivity Zones) Act 1993 – An Act to ensure continuing access for mining purposes to areas of the State having high potential for mineral exploration. The Franklin Gordon Wild Rivers National Park and the Macquarie Harbour Historical Site are located approximately 12 and 5 kilometres east of the tenement, respectively.

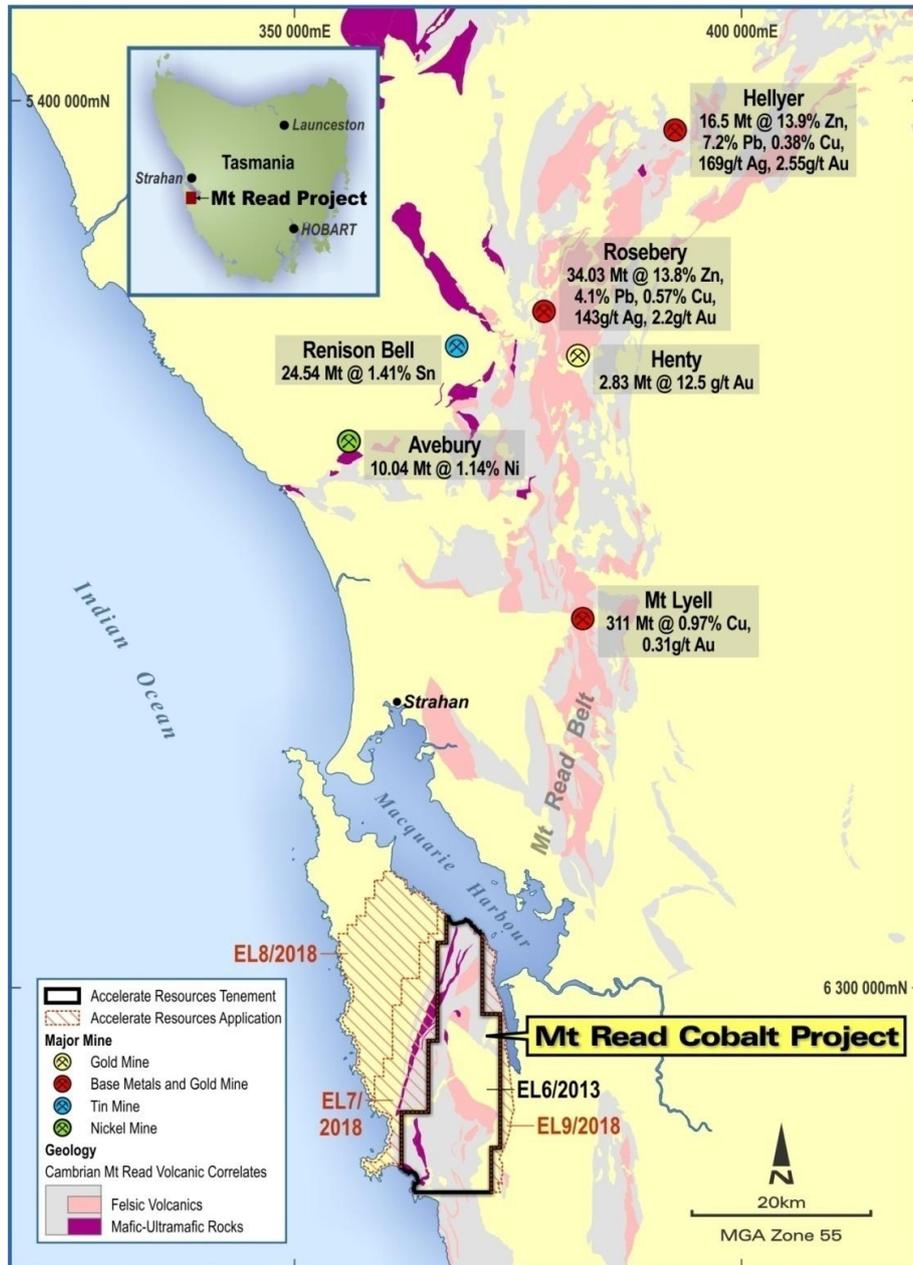


Figure 1: Location of EL8/2018.

## Geology

The geology of the broader Sorell Peninsula area (Figure 2) encompassing EL8/2018 has been described in unpublished company reports of BHP and Amoco/Cyprus, and in White's (1975) PhD thesis. Mapping in the late 1960's by BHP was largely based on coastal exposures and a few inland traverses, with a large component relying upon aerial photo interpretation. Subsequent explorers have relied heavily upon BHP's initial mapping, with a re-interpretation provided by Close and Reid (1995). Limited description of the regional geology is given in Corbett and Solomon (1989).

South of the Sorell Peninsula is little known. Regional mapping by the Mines Department at 1:50,000 covers the area to the north of Varna Bay ("Macquarie Harbour" map sheet; McClenaghan and Findlay, 1989) and to the south of High Rocky Point ("Montgomery" map sheet; Brown, 1988). In between the Hibbs 1:50,000 sheet, encompassing the Thomas Creek area, has been partially

mapped but remains incomplete due to lack of funding. A report by Brown et al. (1991) supplements this mapping and provides extensive discussion and interpretation of the Sorrell Peninsula geology. Brown et al. (1991) recognised two Precambrian rock successions and six Eocambrian-Cambrian volcano-sedimentary associations in the region (Figure 4). The four volcanic associations are: -

1. Andesite-rhyolite association (Noddy Creek Volcanics);
2. Boninitic association (Timbertops Volcanics);
3. Picritic basalt- basalt association (Birch's Inlet-Mainwaring River Volcanics);
4. Serpentinised ultramafic rock-gabbro association incorporating sheared blocks of 1. and 2. (Point Hibbs Melange Belt).

These multiple-deformed associations are bounded by a series of NE to NNE-trending faults and the distribution of these associations is interpreted by Brown et al (1991) to result from thrust sheet stacking. Their structural model of "thin skinned tectonics" probably incorporates a pre-Ordovician thrusting event, reworked by late (Devonian?) thrusting. Thrusts in the Point Hibbs area are interpreted as eastward dipping and west/north-west directed. Younger transcurrent faulting further disrupted the Point Hibbs Melange Belt.

The Cambrian andesites and rhyolites of the Noddy Creek Volcanics (NCV) crop out in the southern portion of the Sorrell Peninsula and are inferred to extend further south past Point Hibbs (Brown et al., 1991; Close and Reid, 1995). The NCV hosts a series of diorite intrusions, and an extensive intrusive complex of diorites occurs within the southern portion of the NCV, south west of the Ordovician – aged Timbertops Syncline. The Thomas Creek Cu Prospect is believed to be hosted by a roof pendant within this intrusive complex.

The relationship of the NCV to the Mt Read Volcanics (MRV) is somewhat enigmatic. The MRV crops out in a N-S trending belt to the east, and extends from Mount Darwin, disappearing beneath a Tertiary Graben to re-emerge further south in the D'Aguillar Range area. Corbett and Solomon (1989) have correlated the NCV with the MRV based on similar calc-alkaline composition, and suggest the NCV could be a smaller, separate arc or sub-arc west of the main Mt Read Belt. More recent work by Brown et al (1991) has suggested a more direct correlation based on geochemical similarities of the southernmost NCV to volcanics of the Que River-Hellyer area.

Cambrian volcanic are mapped as overlain by Ordovician-aged upper Owen Sandstone forming the Timbertops Syncline, north east of Thomas Creek. Here, Calver (etal., 2014) report siliceous conglomerate and quartz arenite overlain by grey siltstone, dated as likely oldest within the Gordon Group. The upper heavy mineral banded quartz sandstone of the maybe a Pioneer / Moina correlate (Corbett in Calver etal. 2014 & McClenaghan and Findlay, 1993).



Table 1: Geology Legend Sorell Peninsula Region (source MRT 1:250,000 scale digital geology)

| Symbol | Description   |
|--------|---|
| Qh     | Sand gravel and mud of alluvial, lacustrine and littoral origin.  |
| Ts     | Dominantly non-marine sequences of gravel, sand, silt, clay and regolith.   |
| Jd     | Dolerite (tholeiitic) with locally developed granophyre.  |
| Pl     | Lower glaciomarine sequences of mudstone, pebbly mudstone, pebbly sandstone, minor limestone and tasmanite oil shale.   |
| SD     | Undifferentiated shallow marine quartz sandstone, siltstone and shale (Eldon and Tiger Range Groups and correlates).  |
| DI     | Lamprophyre dykes and intrusive bodies.   |
| OI     | Shallow marine limestone sequence with minor siltstone and sandstone (Gordon Group).  |
| Os     | Shallow marine sandstone- mudstone +/- conglomerate +/- limestone sequences, typically grey, trace fossils and tubicular burrows in places. Ordovician fossils in places. Includes Moina Sandstone, Pioneer beds, Butler Island Formation.                    |
| COms   | Marine sandstone-siltstone-conglomerate sequences, typically turbiditic, siliciclastic to polymict, Late Cambrian fossils in places. Includes Newton Creek Sandstone, Middle Owen Sandstone, much of upper Dundas Group, much of ſRosebery Groupſ and Great D |
| Cba    | Boninitic lavas   |
| Ccwb   | Tholeiitic basalt within Cleveland- Waratah Association and correlates. Includes Motton Spilite.  |
| Cda    | Dominantly andesitic volcanic, volcanoclastic and intrusive rocks. Includes Que-Hellyer Volcanics, Beulah andesites.  |
| Cdai   | Major andesitic to dacitic intrusives, including "Beulah Granite" and Lobster Creek Intrusives.   |
| Cdsv   | Dominantly marine volcanosedimentary sequences of sandstone, siltstone, conglomerate and breccia with some volcanic rocks, felsic to andesitic. Middle Cambrian fossils in places. Western Volcano-Sedimentary Sequences and correlates, including Yolande Ri |
| Cdsvl  | Felsic lava within Western Volcano-Sedimentary Sequence and correlates.   |
| Cg     | Gabbroic rocks.   |
| Cqfp   | Quartz-feldspar porphyry.   |
| Cs     | Layered peridotite, serpentinite and associated rocks.  |
| Ldb    | Tholeiitic basalt.  |
| Lds    | Shallow-water quartz sandstone and siltstone with carbonate and chert beds (Success Creek Group and correlates).  |
| Lds    | Shallow-water quartz sandstone and siltstone with carbonate and chert beds (Success Creek Group and correlates).  |
| Lo     | Unmetamorphosed quartzwacke turbidite sequences ( Burnie and Oonah Formations and correlates).  |
| Lod    | Dolomitic mudstone, siltstone and sandstone.  |
| Lt     | Undifferentiated pelitic rocks and quartzite sequences, with greenschist facies metamorphism.   |

## Previous Work and Exploration History

EL08/2018 covers the central portion of the Sorell Peninsula. The exploration history below provides highlights from the general surrounding region and is largely derived from Reid (et al., 2016).

The lack of road access, absence of any permanent settlements, the difficult and scrubby nature of much of the country, have all served to inhibit exploration of the area. Knowledge and understanding of the geology has mostly come in the last four decades from several regional mineral exploration programs by large companies and by regional mapping surveys by Mineral Resources Tasmania through the 1990's.

Sporadic small-scale mining/prospecting was carried out around the beginning of the 20th century for asbestos at Asbestos Point, copper at Birthday Bay (where a few tonnes of chalcopyrite, bornite and copper carbonates were produced from near-shore workings and alluvial osmiridium, gold, and chrome along the Spero River south of Point Hibbs and on creeks along the north coast near Gravelly Beach and parts of Birch's Inlet.

### 1956–1962 Lyell-EZ Explorations (LEE)

A large helicopter-based exploration program was undertaken by Lyell-EZ Explorations (LEE) over an area stretching from Queenstown to Port Davey from 1956 to 1962. This ambitious program greatly expanded knowledge of the geology of South West Tasmania, which was largely unknown country at that time, but did not result in any commercial mineral discoveries. Airborne magnetics (the first over the southwest), EM and scintillometer surveys were flown over much of the area in 1958, and a variety of ground geophysical methods were used. The ultramafic belt between Point Hibbs and Macquarie Harbour was discovered (Hibbs Ultramafic Belt).

Six shallow drill holes tested gossanous hematite outcrop at Pelius Cove, with very poor recoveries returning a best intersection of 5ft @ 2.59% Cu.

### 1964–1972 BHP Exploration

A second major helicopter-based exploration program, covering most of South West Tasmania (9,600 km<sup>2</sup>), followed soon after, and was conducted by BHP between 1964 and 1972. The project resembled a geological survey in many ways, and much regional mapping was undertaken. BHP based their exploration on follow-up of the LEE aeromagnetics and EM surveys, with stream sediment geochemistry as their other main regional technique, however, Au and Sn were not assayed.

BHP spent considerable resources cutting tracks and costeans along the northern part of the Hibbs Ultramafic Belt, concentrating on the nickel and chrysotile asbestos potential (Langlands, 1971).

Asbestos was discovered in the northern part of the ultramafics and this became a major focus of further exploration by BHP in the area. Significant drilling targeting asbestos was undertaken, with 9 holes totalling 1335m, culminated in the outlining of 8.5 million tonnes of 2.3% asbestos.

A single drill hole targeting magnetite at Anomaly 128 was abandoned at 101m.

BHP's interest in the Sorell Peninsula was relinquished in 1972.

## 1998-2001 - Pacific-Nevada Mining Pty Ltd

Pacific Nevada undertook tenement wide stream sediment and rock chip sampling.

Significant gold in panned concentrates was identified near Pelius Cove, with subsequent gridding, soil sampling and an IP survey providing targets. Three drill holes for 761m were completed targeting 2 resistive anomalies beneath tertiary gravels and a base metal soil anomaly. An approximately 50m wide silica flooded fault zone was discovered, but no significant analyses were returned. One IP anomaly remains untested (Morritt, 1999).

Six drill holes for 1955m were completed in January 2000 at North Butler Creek, following up significant alluvial gold and extensive disseminated pyrite in outcrop. Intersected was a major silica-carbonate – pyrite alteration zone within a mafic volcanic sequence overlying black graphitic shales and siltstones, grading into siltstones, sandstones and debris flow units. Best intersections were NB001: 4m @ 0.13g/t Au, NB002: 3m @ 0.1g/t Au and NB003: 6m @ 0.14g/t Au (Newnham, 2000).

## Work Conducted

Exploration work during the year to 4/2/2020 on Albina Creek (EL8/2018) involved historical review and reporting, associated with ongoing GIS-based data compilation, interpretation, target generation and planning. This work was part of a region wide assessment covering 4 contiguous company tenements. No field work has been undertaken following the tenement granting; largely since the company's focus had been upon ongoing field work, including drilling on the nearby EL06/2013.

Limited historical review has identified a number of digital data capture requirements to benefit regional interpretation; early BHP and Amoco data still needing digitisation. Stream sediment sample coverage is scattered, whilst associated rock chip sampling and geology reporting is also sparse. Compilation of historic exploration data including Amoco, Plutonic, Pacific Nevada, MHM data is incomplete. There is obvious potential to upgrade GIS data sets, likely resulting in large gains in understanding of the area, enabling targeting for further ground-based exploration.

## Environment

No field work has been undertaken to-date.

## Proposed Exploration

Accelerate Resources Ltd. plan to relinquish EL8/2018 and consequently no work is proposed.

## References

- Berry, R. F., 2014. Middle Cambrian Tectonics – The Tyennan Orogeny Stage 2. In Corbett, K. D, Quilty, P. G., and Calver, C. R., (eds). 2014. Geological Evolution of Tasmania. Geol Soc Aust. Special Publication 24.
- Brown, A. V. 1988. Geological Atlas 1:50 000 series. Sheet 78 (7912S). Montgomery. Department of Mines Tasmania.
- Brown, A. V.; Findlay, R. H.; McClenaghan, M. P.; Seymour, D. B. 1991. Synopsis of the regional geology of the Macquarie Harbour, Point Hibbs and Montgomery 1:50 000 map sheets. Report Department of Resources and Energy Tasmania 1991/21.
- Brown, A. V.; Findlay, R. H.; McClenaghan, M. P. 1993. Summary of the regional geology of the Macquarie Harbour, Point Hibbs and Montgomery 1:50 000 map sheets. Report Department of Resources and Energy Tasmania 1991/02.
- Calver, C (et al., 2014). In Corbett, K. D, Quilty, P. G., and Calver, C. R., (eds). 2014. Geological Evolution of Tasmania. Geol Soc Aust. Special Publication 24.
- Close, R.J. and Reid, R.O. 1995 Annual Report on Exploration Activity for the 12 months to August 1995. EL's 4/92 and 7/92. Sorell Peninsula. Unpublished Tasmanian Mines Department Report. Plutonic Operations Ltd.
- Corbett, K. D, Quilty, P. G., and Calver, C. R., (eds). 2014. Geological Evolution of Tasmania. Geol Soc Aust. Special Publication 24.
- Corbett, K.D. and Solomon, M. 1989. Cambrian Mt Read Volcanics and Associated Mineral Deposits. In C.F. Burrett and E.L. Martin (Editors), Geology and Mineral Resources of Tasmania. Geol. Soc. Aust. Spec. Publ. 15: 84-153
- Crawford. A. J., Everard. J. L., and Bottrill, R. S. 2014. Mafic-Ultramafic Complexes and Associated Mineral Deposits. in Calver et al., EDs 2014).
- Ferris, B., 1984. Progress Report 12 Months to September 1984, Sorell Peninsula Exploration Licences 35/83, 36/83 and 37/83 Tasmania. Amoco Minerals Australia Company. Unpublished Company Report for MRT.
- Hall, W. D. M., McIntyre, M. I., Corbett, E. B., McGregor, P. W., Fenton, G. R., Arndt, C. D. And Bumstead, E. D. 1969. Report on Field Work in Exploration Licence 13/65, South-west Tasmania during 1967-68 field season. BHP. Unpublished Company Report for MRT.
- Kary, G., 1985. Progress Report Twelve Months to September 1985 Sorell Peninsula Exploration Licences 35/83, 36/83 and 37/83 Tasmania. Amoco Minerals Australia Company. Unpublished Company Report for MRT.
- Langlands, J. G., 1971. E.L. 13/65 Cape Sorell Peninsula, S. W. Tasmania Exploration for Chrysotile Asbestos in the Hibbs Belt Noddy Creek and Pad 2 to Asbestos Point 1970/71. BHP. Unpublished Company Report for MRT.

- McClenaghan, M. P. and Findlay, R. H. 1989 Macquarie Harbour. Geological Atlas 1:50 000 series. Tasmanian Department of Mines.
- McClenaghan, M. P. and Findlay, R. H. 1993. Geological Atlas 1:50 000 series. Sheet 64 (7913S). Macquarie Harbour. Explanatory Report Geological Survey Tasmania.
- Morritt, F. C. 1999. Pelius Cove(EL10/97) & Hill99(EL9/98) Diamond Drilling Program May-July 1999 Cape Sorell, Tasmania. Pacific Nevada Pty Ltd. Unpublished Company Report for MRT.
- Newnham, L. A. 2000. EL10/97 – Cape Sorell Report on Exploration Programs, September 1999 – February 2000. Pacific Nevada Pty Ltd. Unpublished Company Report for MRT.
- Reid, P.W, Van Der Stelt, B.J. and Ascough G.L. 2016. Combined Annual Technical Report– Sorell Project EL6/2013 & EL7/2013, Sorell Peninsula, Tasmania, For the period 22<sup>nd</sup> October 2015 to 21<sup>st</sup> October 2016. Unpublished Company Report, MRT Tasmania
- White, N.C. 1975 Cambrian Volcanism and mineralisation, south-west Tasmania. PhD Thesis (unpublished), University of Tasmania

## Appendix

### List of Appended Digital Files

| Exploration Work Type                                 | Filename                           | File format |
|---|------------------------------------|-------------|
| <b>Report</b>   | EL082018_202002_01_Report.pdf      | <i>pdf</i>  |
| <b>File Verification Listing</b> ( <i>this file</i> ) | EL082018_202002_02_FileListing.xls | <i>xls</i>  |