

# **ASX:CWX**

Directors:

Mr Will Burbury Non-Executive Chairman

Mr David Boyd Managing Director

Mr Bruce McQuitty
Mr David Archer
Non-Executive Directors

#### **Capital Structure**

Ordinary Shares: 55.8M Unlisted Options: 11.3M Unlisted Performance Rights: 2.2M

> Market Capitalisation: A\$10M Cash Reserves: A\$2.7M (at 31 December 2018)

#### **Registered Office**

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#### **Enquiries**

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# PATERSON OAKOVER FRASER RANGE JV

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# QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2018

#### **HIGHLIGHTS**

### Jamieson Project

- First diamond drill hole of Phase 2 drilling program completed at Hill 800, targeting high-grade gold and copper mineralisation in the Footwall Stringer Zone intersected in previous drilling, e.g.:
  - 43m @ 4.24g/t Au, 0.3% Cu from 177m including 10m @ 5.66g/t Au, 0.9% Cu and 5m @ 24.1g/t Au, 0.4% Cu (drill hole H8DD002)
- Downhole electromagnetic (DHEM) survey to confirm conductor target completed
- Assay and geophysical results due in coming weeks
- Expert technical review confirms strong similarities with the Henty gold deposit and potential for further discovery
- ▶ Phase 2 diamond drilling program to re-commence early February

# Paterson Project

- Major tenement holding granted in Paterson province
  - Strategic tenement package covers an area of 1,137km<sup>2</sup>
  - One of the largest remaining 100%-owned tenement holdings in the region
  - Tenements adjacent to active explorers Rio Tinto Exploration, Antipa Minerals Ltd and Metals X Ltd
  - Tenements cover host formations to all major deposits in the area and recent high-profile discoveries
- Target generation in progress, including re-processing and interpretation of historic airborne electromagnetic and magnetic surveys
- On-ground work planned to commence Q2 2019

#### Oakover Project

- Assay results from RC drilling at Western Star prospect received
- Narrow, breccia-style copper mineralisation intersected, best interval 4m @ 1.0% Cu from 52m

#### Fraser Range JV (IGO 51%, earning to 70%)

Assay results from regional aircore drilling program at Red Bull tenements (20km south of the Nova mine) received

# Corporate

Cash position of A\$2.7 million as at 31 December 2018

#### **SUMMARY**

Carawine Resources Limited ("Carawine", or "the Company") is a mineral exploration company focussed on building value through the discovery and development of economic gold, copper, cobalt, manganese and base metal deposits within Australia. The Company's four exploration projects are in well-established mineralised provinces in Western Australia and Victoria, each targeted for their potential high-value deposit styles and commodity groups (Figure 1).

The Company's activities during the quarter included completion of the first hole of the second phase of diamond drilling at the Hill 800 prospect in Victoria, completion of a reverse circulation (RC) drilling program at the Western Star prospect in the Eastern Pilbara, and commencement of target generation activities for the Company's significant tenement package in the Paterson Province of Western Australia.

At the Jamieson Project in northeast Victoria, the first diamond drill hole of the Company's Phase 2 drilling program was completed at the Hill 800 gold prospect. The drill hole, H8DD015, was drilled from the western side of the prospect area and targeted high-grade gold and copper mineralisation in the Footwall Stringer Zone discovered earlier this year (see ASX announcement dated 28 November 2018 for details). Also at Hill 800, a downhole electromagnetic (DHEM) survey using drill hole H8DD015 designed to pinpoint the location of a historic conductor below the current mineralised system was also completed. Assay results from H8DD015 and results from the survey are expected in coming weeks.

At the Paterson Project, located in the Paterson Province of Western Australia, target generation activities including re-processing of historic airborne electromagnetic and magnetic geophysical surveys has commenced. Results of this work will be announced from Q1 2019, with a number of target areas expected to be identified and prioritised for on-ground exploration from Q2 2019 onwards.

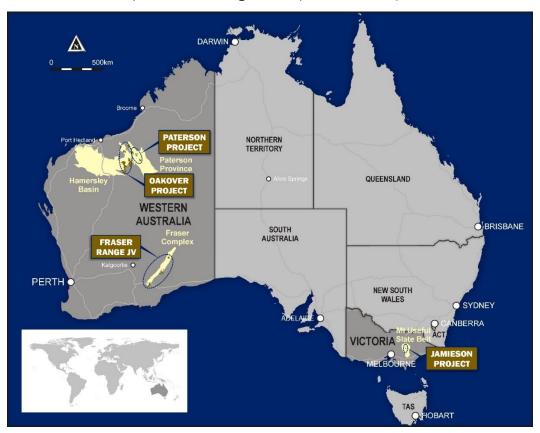


Figure 1: Carawine's project locations.

At the Oakover Project in the Eastern Pilbara region of Western Australia, a 16-hole / 1,270m RC drilling program was completed at the Western Star prospect, testing surface copper, cobalt and manganese mineralisation. Assay results included several anomalous copper, manganese and cobalt intervals confirming the presence of the targeted mineralisation, albeit narrower and lower-grade than that

indicated by the surface sampling (see ASX announcement dated 23 November 2018 for details). Target generation work continues at Oakover, while exploration focus shifts to the higher priority Paterson and Jamieson Projects.

At the Fraser Range Joint Venture ("FRJV"), manager and operator Independence Group NL ("IGO"; ASX:IGO) advise all assay results have been received from regional aircore drilling at Red Bull. No significant intervals were returned, however the program was successful in its main objective which was to map basement lithologies and obtain geochemical data. At the Big Bullocks tenement a moving loop electromagnetic (MLEM) survey commenced during the quarter over the Knifejaw magmatic Ni-Cu target, and is expected to be completed during Q1 2019.

#### **JAMIESON PROJECT**

The Jamieson project is located approximately 50km by road to the east of the Jamieson township in northeastern Victoria. The region was founded on gold mining in the 1850s, and a number of gold mines have operated or are currently in production in the region. The project comprises granted exploration licence EL5523, covering an area of 34 km² dominated by Cambrian-aged volcanic rocks considered similar in age, depositional style and setting to the Mt Read Volcanic belt in western Tasmania – host to a number of world-class gold and base metal deposits (Figure 2).

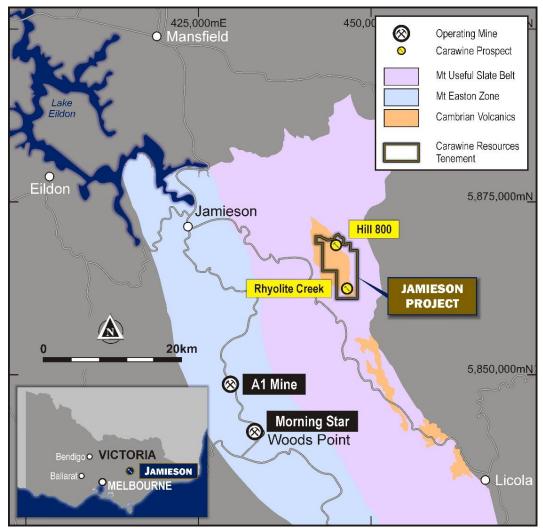


Figure 2: Location of the Jamieson Project.

#### Hill 800 Prospect

The most advanced prospect at Jamieson and the initial focus of Carawine's exploration program is the Hill 800 gold prospect, a volcanic-hosted massive sulphide (VHMS) gold-copper system with many similarities in host rock, age and mineralisation style to the Henty gold deposit in western Tasmania.

Carawine's maiden diamond drilling program of 14 holes for a total 2,376m was completed in June 2018, with the outstanding assay results exceeding the Company's expectations of both the width and grade of gold mineralisation at Hill 800, including:

- 92.7m @ 3.22g/t Au from 2.3m (0.3g/t Au cut off), hole H8DD006 including 11.7m @ 5.59g/t
   Au from 2.3m and 31m @ 6.64g/t Au from 58m (1g/t Au cut off)
- 50.1m @ 3.08g/t Au from 16.9m (0.3g/t Au cut off), hole H8DD009 including 3.2m @ 4.97g/t Au from 19m and 6.2m @ 2.57g/t Au from 26m and 5m @ 1.84g/t Au from 36m and 22.7m @ 4.82g/t Au from 44.3m (1g/t Au cut off)
- 43m @ 4.24g/t Au, 0.3% Cu from 177m (0.3g/t Au cut off), hole H8DD002 including 10m @ 5.66g/t Au, 0.9% Cu from 182m and 5m @ 24.1g/t Au, 0.4% Cu from 203m (1g/t Au cut off) (Downhole widths may not represent true width, for a full listing of intervals and further details see ASX announcements dated 7 June, 25 June, 10 July, 6 August and 20 August 2018.)

The program also resulted in a significant, new interpretation of the geometry and orientation of the mineralised system with three distinct mineralised zones identified: the 800, 740 and Footwall Stringer Zones.

During the quarter the first diamond drill hole of the Company's Phase 2 drilling program was completed. The drill hole, H8DD015, was drilled from the western side of the prospect area and targeted high-grade gold and copper mineralisation in the Footwall Stringer Zone discovered earlier this year. Initially planned to be drilled to 330m downhole depth with mineralisation targeted from around 270m to 300m downhole, the hole was extended to 449.6m after intersecting host units at and beyond the initial target zone considered favourable for repeats of both the 800/740 Zone and Footwall Stringer Zone mineralisation styles (Figure 3; see ASX announcements dated 28 November and 21 December 2018 for details). Assay results from this drill hole are expected early in February 2019.

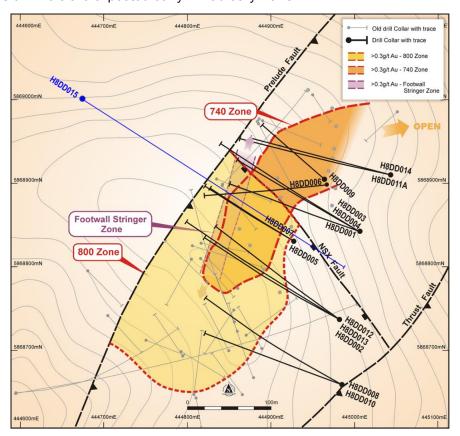


Figure 3: Hill 800 plan with drill holes and mineralised zones projected to surface1.

A DHEM survey using drill hole H8DD015 was also completed during the quarter, designed to pinpoint the location of a historic conductor below the current mineralised system such that it can be effectively targeted with drilling. Results from the survey will be also be available in early February.

The phase 2 diamond drilling program will resume early in February and continue throughout Q1 2019, and is planned to target the following, in order:

- Strike and dip extents of the Footwall Stringer Zone which is currently open in all directions, by drilling extension and step-out holes
- Faulted offsets or repeats of 740 Zone-style mineralisation either along strike or below currently defined mineralisation by drilling step-out and exploratory holes
- DHEM conductor target beneath the system (dependent on results of the recently completed DHEM survey) by drilling extension, step-out or exploratory holes.
- Near-surface, high-grade mineralisation in the 800 and 740 zones, including closing off the northeast extent of the 740 Zone and twinning of historical drill holes by drilling step out and infill holes

The objectives of the phase 2 drilling program are therefore to determine the areal extents of mineralisation, including any additional zones discovered, and ensure there is sufficient drilling information for the estimation of a Mineral Resource by mid-2019.

Also during the quarter results were received from a petrographic study of core samples from Hill 800 by Dr. Anthony Crawford, an expert in ore deposit petrology and geochemistry and an Honorary Professor at the University of Tasmania. In his report Dr. Crawford remarked:

"Strong similarities are demonstrated between the Hill 800 alteration-mineralisation system, and the volcanic-hosted 1.3Moz Henty Au deposit in similar-aged rocks in western Tasmania. The observations herein, and the similarities to the Henty deposit, strongly encourage further exploration to better constrain the extent, and variations in grade and alteration, of the Hill 800 alteration-mineralization system" (see ASX announcement dated 28 November 2018 for details).

# **PATERSON PROJECT**

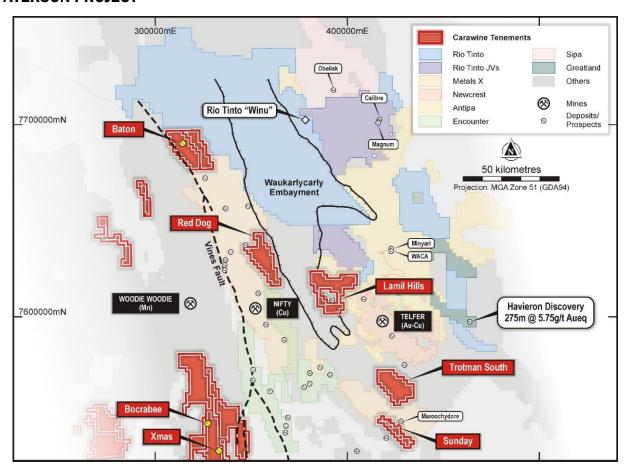


Figure 4: Carawine's Paterson project tenements with respect to those of selected other explorers in the region.

The Company's Paterson Project, situated in the Paterson Province at the eastern edge of the Pilbara Craton. The Paterson area is host to the Telfer Au-Cu, Nifty Cu and Maroochydore Cu-Co deposits, and has seen a marked recent increase in exploration activity notably the widely reported rumoured "Winu" discovery by Rio Tinto Exploration<sup>1</sup>, and the Havieron discovery by AIM-listed Greatland Gold PLC (AIM:GGP)<sup>2</sup> (Figure 4).

During the quarter the Company provided an update of its on four granted exploration licences at Baton, Red Dog and Trotman South, which directly adjoin tenure held by Rio Tinto Exploration, Metals X Limited and Antipa Minerals (Figure 4). These tenements, together with two exploration licence applications at Lamil Hills and Sunday, bring Carawine's total tenement coverage in the Paterson region to an area of 1.137 km<sup>2</sup>.

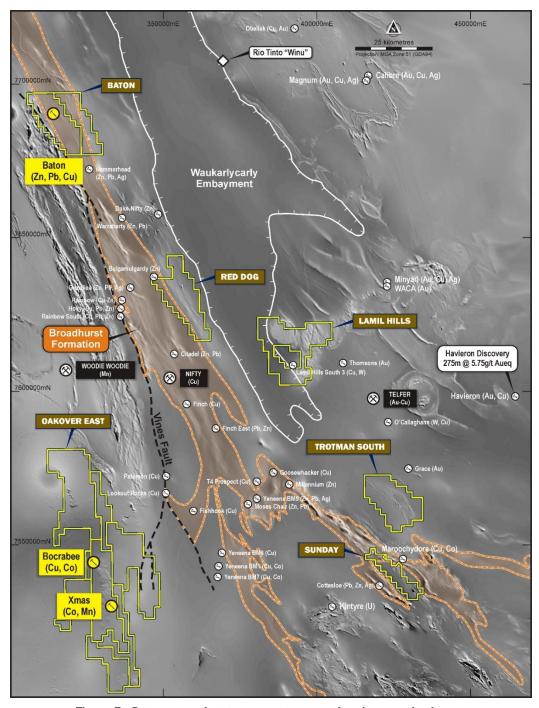


Figure 5: Paterson project tenements over regional magnetics image.

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<sup>&</sup>lt;sup>1</sup> "Major investment points to major discovery by Rio" Miningnews.net, 8 December 2018.

<sup>&</sup>lt;sup>2</sup> "Results from First Drill Hole of Current Campaign at Havieron" 19 November 2018.

Carawine's tenements are within the Yeneena Basin and cover host formations and structures common to major mineral deposits in the area. Preliminary reviews of historic exploration activities and open-file geophysical datasets indicate prospectivity for stratabound copper, cobalt and zinc mineralisation and intrusion-related gold-copper mineralisation (see ASX announcement dated 14 November 2018 for details). Importantly, these tenements were applied for prior to the current increase in activity in the region and were selected on the basis of having relatively shallow depths to basement (<150m) and evidence of regionally prospective stratigraphic units and structure (Figure 5).

Target generation activities continued during the quarter, including re-processing of historic airborne electromagnetic and magnetic geophysical surveys and compilation of historic exploration drill data. These activities are expected to identify and prioritise prospects for on-ground exploration from Q2 2019 onwards.

# **OAKOVER PROJECT**

Neighbouring the Paterson Project, also in Eastern Pilbara region of Western Australia, the Company's Oakover Project comprises nine granted exploration licences and six exploration licence applications with a total area of about 3,270km², held 100% by the Company (Figure 6). The Oakover Project is considered prospective for copper, cobalt, manganese and iron.

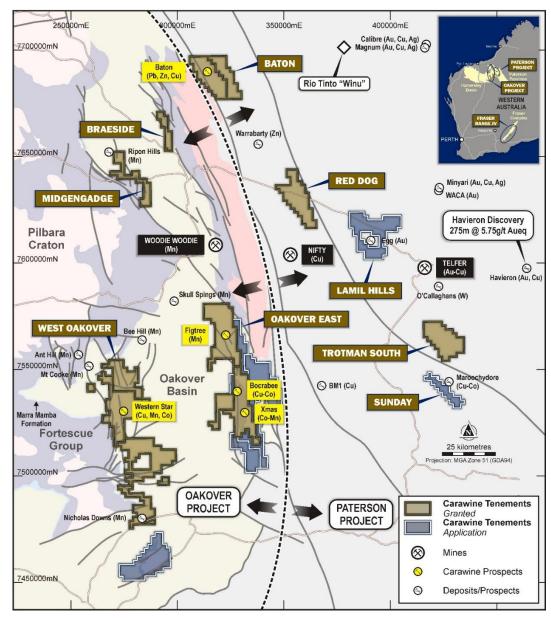


Figure 6: Oakover and Paterson Project tenement location plan.

During the quarter the Company completed an RC drilling program at the Western Star Prospect, located on the western margin of the Oakover Basin (Figure 6)

# **Western Star Prospect**

The Western Star prospect is located about 160km northeast of Newman and comprises an area of about 2km x 1km of Carawine Dolomite, Pinjian Chert Breccia and Manganese Group sediments, host to a number of historic copper workings and exploration costeans.

During the quarter a 16-hole / 1,270m RC drilling program was completed at Western Star, testing surface copper, cobalt and manganese mineralisation (Figure 7). Assay results from the program, also received during the quarter, included several anomalous copper, manganese and cobalt intervals that confirm the presence of the targeted mineralisation and demonstrate exploration potential associated with major regional structures.

A historic copper working targeted at depth returned 4m @ 1.0% Cu from 52m in altered and brecciated dolomite in drill hole WSRC001. A follow-up drill hole (WSRC014) intersected a 6m-wide cavity at the interpreted down-dip position of the mineralisation in WSRC001 (Figure 7), demonstrating the depth extent of the interpreted breccia and associated hydrothermal dissolution but at narrower widths than that indicated at surface.

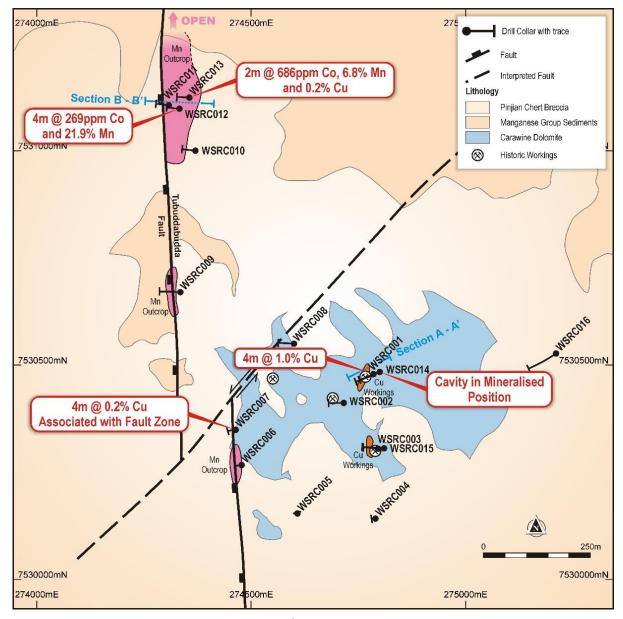


Figure 7: Western Star drill hole location plan.

On the northern-most line of drilling, which targeted depth extensions of manganese outcrops, intervals of 4m @ 21.9% Mn and 269ppm Co from surface (WSRC012) and 2m @ 6.8% Mn, 686ppm Co, and 0.2% Cu from 20m (WSRC013) were returned (Figure 7). Again, the high grades and widths indicated at surface were not repeated at depth, however the intervals are closely associated with a major north-south fault which has several additional manganese occurrences located along its strike, representing a potential new target area (Figure 8; for details see ASX announcement dated 23 November 2018).

The results from this program have downgraded the Western Star prospect to a lower priority for follow-up work, especially when assessed against the Company's Paterson Project tenements. No further work is planned in the short term, however target generation work continues on the Oakover project including regional geological reconnaissance and rock chip sampling programs.

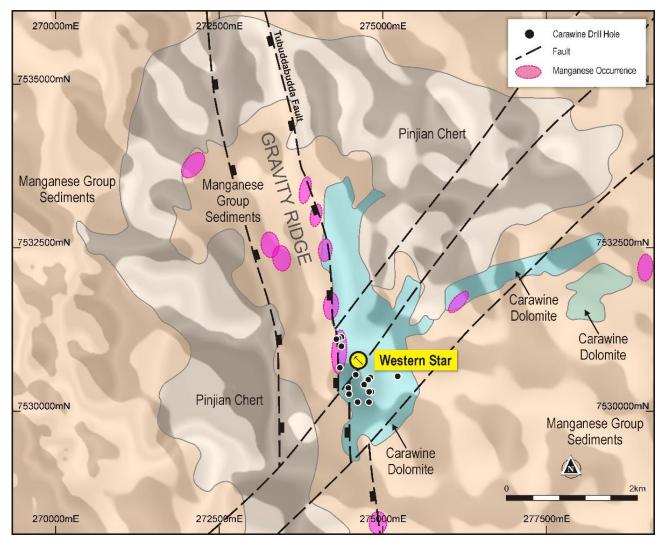


Figure 8: Regional geological interpretation superimposed on an image of residual gravity.

#### FRASER RANGE PROJECT

The Fraser Range Project includes 5 granted exploration licences in four areas: Red Bull, Bindii, Big Bullocks and Similkameen (Fraser Range Joint Venture tenements); and one exploration licence application Big Bang (100% Carawine), in the Fraser Range region of Western Australia. The Project is considered prospective for magmatic nickel-sulphide deposits such as that at Independence Group NL's (ASX:IGO; "IGO") Nova nickel-copper-cobalt operation (Figure 9). Carawine has a joint venture with IGO for the five granted tenements (the Fraser Range Joint Venture). IGO currently hold a 51% interest and can earn an additional 19% interest in the tenements by spending \$5 million by the end of 2021.

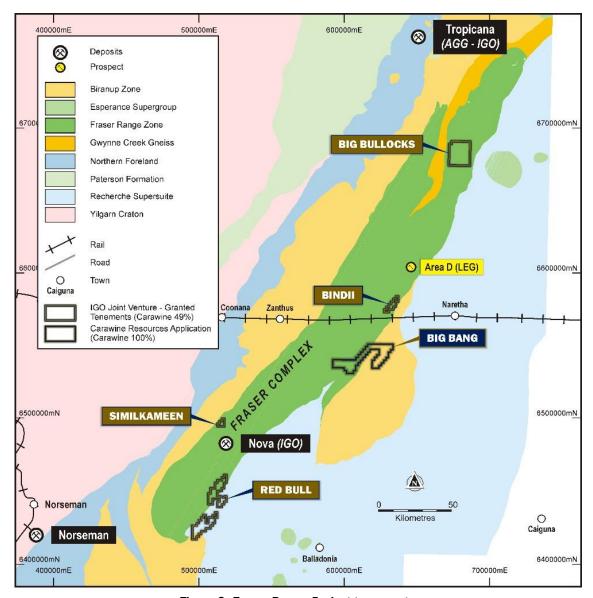


Figure 9: Fraser Range Project tenements.

#### Fraser Range Joint Venture (IGO 51%, earning to 70%)

IGO have advised that assay results were received during the quarter from a regional aircore drilling program completed over the northern Red Bull tenement (E69/3052) in the previous (September) quarter, comprising 137 holes drilled for a total 4,470m on lines oriented east-west at a nominal 3km (N-S) x 400m (E-W) spacing. Holes were drilled to blade refusal / basement with hole depths ranging from 2m to 110m and intersecting dominantly felsic gneiss lithologies with lesser mafic-ultramafic lithologies, especially in the north of the tenement.

The assay results did not return any significant intervals, however the program was successful in its main objective which was to map basement lithologies and obtain geochemical data throughout the tenement. Two Spectrem airborne electromagnetic (AEM) anomalies remain untested on the tenement, with further work including ground-based moving-loop electromagnetic (MLEM) surveys planned for Q4 2019. Also during the quarter a compulsory 40% reduction of E69/3052 was completed.

At Big Bullocks (E39/1733) two target areas have been identified from previous work: Knifejaw, which comprises anomalous nickel assay results from regional aircore drilling, and Cenote, which comprises a 1.6km wide discrete circular feature located from ground gravity data. During the quarter a ground-based moving loop electromagnetic (MLEM) survey commenced over Knifejaw, and is expected to be completed during Q1 2019 with results to follow. A Spectrem AEM survey is planned for the tenement during Q1 2019.

# **CORPORATE**

The Company's Annual General Meeting was held during the quarter on 29 November 2018.

# **CASH POSITION**

As at 31 December 2018, the Company had cash reserves of approximately \$2.7 million.

Mr David Boyd

Managing Director 25 January, 2019

Schedule 1: Interests in Mining Tenements at the end of the quarter as required under ASX Listing Rule 5.3.3.

Project	Tenement	Holder	Interest	Location <sup>3</sup>	Status
Fraser Range JV	E 28/2374-I	Carawine Resources Ltd	49%1	Western Australia	Live
Fraser Range JV	E 28/2563	Carawine Resources Ltd	49%1	Western Australia	Live
Fraser Range JV	E 39/1733	Carawine Resources Ltd	49%1	Western Australia	Live
Fraser Range JV	E 69/3033	Carawine Resources Ltd	49%1	Western Australia	Live
Fraser Range JV	E 69/3052	Carawine Resources Ltd	49%1	Western Australia	Live
Jamieson	EL5523	Carawine Resources Ltd	100%	Victoria	Live
Oakover	E 45/4958	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 45/4959	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 46/1041-I	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 46/1042-I	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 46/1044-I	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 46/1069-I	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 46/1099-I	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 46/1116-I	Carawine Resources Ltd	100%	Western Australia	Live
Oakover	E 46/1119-I	Carawine Resources Ltd	100%	Western Australia	Live
Paterson	E 45/4847	Carawine Resources Ltd	100%	Western Australia	Live
Paterson	E 45/4871	Carawine Resources Ltd	100%	Western Australia	Live
Paterson	E 45/4881	Carawine Resources Ltd	100%	Western Australia	Live
Paterson	E 45/4955	Carawine Resources Ltd	100%	Western Australia	Live
Fraser Range	E 28/2759	Carawine Resources Ltd	100%	Western Australia	Pending
Oakover	E 45/5145	Carawine Resources Ltd	100%	Western Australia	Pending
Oakover	E 45/5179	Carawine Resources Ltd	100%	Western Australia	Pending
Oakover	E 45/5188	Carawine Resources Ltd	100%	Western Australia	Pending
Oakover	E 46/1194	Carawine Resources Ltd	100%	Western Australia	Pending
Oakover	E 46/1239	Carawine Resources Ltd	100%	Western Australia	Pending
Oakover	E 46/1245	Carawine Resources Ltd	100%	Western Australia	Pending
Paterson	E 45/5229	Carawine Resources Ltd	100%	Western Australia	Pending
Paterson	E 45/5326	Carawine Resources Ltd	100%	Western Australia	Pending

# Notes:

Details of tenements and/or beneficial interests acquired/disposed of during the quarter are provided in Section 10 of the Company's accompanying Appendix 5B notice.

Independence Group NL hold a 51% interest in the Fraser Range JV tenements and can earn up to 70% through the expenditure of \$5m by the end of 2021.

#### **COMPLIANCE STATEMENTS**

#### PREVIOUSLY REPORTED INFORMATION

This report includes information that relates to Exploration Results prepared and first disclosed under the JORC Code (2012). The information was extracted from the Company's previous ASX Announcements as follows:

- Hill 800 & Paterson: "Jamieson and Paterson Projects Update" 21 December 2018
- Hill 800: "Second Round of Diamond Drilling Underway at Hill 800" 28 November 2018
- Western Star: "Encouraging Drill Results from Western Star" 23 November 2018
- Paterson: "Major Tenement Holding Granted in Paterson Province" 14 November 2018
- Hill 800: "Strong Finish to Maiden Drilling Program at Hill 800" 20 August 2018
- Hill 800: "Latest Results Increase Strike Potential at Hill 800" 6 August 2018
- Hill 800: "Record High-Grade Gold Intersection from Hill 800" 10 July 2018
- Hill 800: "New High Grade Gold-Copper Zone at Hill 800" 25 June 2018
- Hill 800: "Exceptional First Results from Hill 800 Drilling" 7 June 2018

Copies of these announcements are available from the ASX Announcements page of the Company's website: <a href="https://www.carawine.com.au">www.carawine.com.au</a>

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements. The Company confirms that the form and context in which the competent person's findings are presented have not been materially modified from the relevant original market announcements.

# FORWARD LOOKING AND CAUTIONARY STATEMENTS

Some statements in this report regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward-looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this report are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward-looking statements. So there can be no assurance that actual outcomes will not materially differ from these forward-looking statements.