

## Quarterly Activities Report for period ending 30<sup>th</sup> September 2019

Buxton Resources Limited (ASX: BUX or “Buxton”) is pleased to release the quarterly activities report and Appendix 5B for the period ended 30<sup>th</sup> September 2019 (the Quarter).

### Merlin Prospect

- 17km<sup>2</sup> ground electromagnetic survey completed

### Quick Shears Prospect

- 26km<sup>2</sup> ground electromagnetic survey completed
- 3,016m of reconnaissance Air Core drilling completed

### West Kimberley JV (IGO-BUX)

- First-ever airborne electromagnetic surveys flown over 1,900km<sup>2</sup> of prospective ground; Numerous conductors identified
- Ground follow-up commenced, initially at Sentinel (E04/2408)
- Belt scale airborne magnetics-radiometrics survey commenced

### Fraser Range JV (IGO-BUX)

- Multiple high priority targets, including “Solar” large EM anomaly along strike from Creasy Silver Knight discovery
- Deep drilling and downhole EM completed at Solar
- BUX 10% free carried to Decision to Mine

### West Kimberley JV Restructure

- Buxton and IGO strike new Joint Venture over Merlin
- All Buxton’s remaining West Kimberley tenure, which covers most known occurrences of the prospective Ruins Dolerite, is now to be vested into the West Kimberley Joint Venture
- The WKJV to be managed by IGO with exploration to be accelerated substantially
- Buxton to be free carried to the completion of a feasibility study
- Buxton to receive \$1,275,000 consideration from IGO for the Quick Shears Tenements, Fissure Tenement and Buxton’s Kimberley-based field equipment
- Buxton’s cash reserves will be >\$6m at bank
- Major exploration push by IGO intended to continue on Buxton’s assets at both the Fraser Range and now, West Kimberley, without further expenditure by Buxton

## West Kimberley Exploration Update

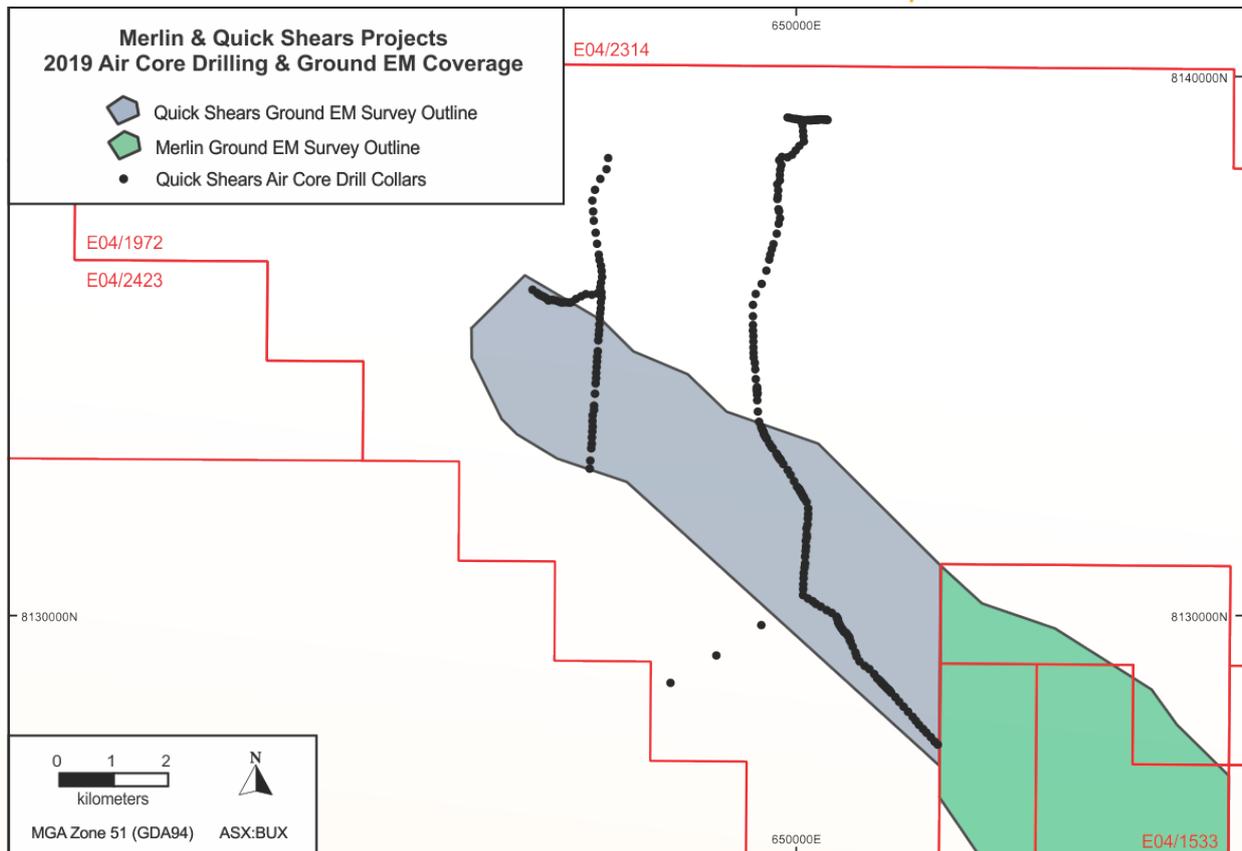
Buxton Resources Limited confirmed that ground electromagnetic surveys (low temperature SQUID Moving Loop EM) and a reconnaissance Air Core drilling program were completed at the Quick Shears Project (Figure 1).

Aircore drilling at Quick Shears was completed on 23<sup>rd</sup> August. This work provided new geological and litho-geochemical (handheld XRF) data on the extensive areas of Ruins Dolerite and Marboo Formation rocks under shallow soil and transported cover in the area immediately northwest and along strike from Buxton's Merlin prospect. This drilling program followed up on recent surface mapping and exciting identification of disseminated Ni-Cu sulphides in outcrop at Quick Shears (ASX 9/07/19). Apart from vastly improving understanding of local geology, results have also enabled more confident ranking of the many known airborne and ground EM conductors identified at Quick Shears. The recently completed LT-SQUID MLEM provides maximum depth of penetration utilising world-class low noise receivers. The results of the survey are being assessed and integrated with other geophysical and geological models to generate targets for drilling.

Regionally, a large, belt-scale airborne EM survey has been completed over 1,900km<sup>2</sup> of West Kimberley Joint Venture (WKJV) tenements (Figure 2). This survey was flown using the industry-leading high-power Spectrem equipment and DC-3 aircraft (Figure 3) mobilised from overseas by IGO (Independence Group NL). A second airborne survey (aeromagnetics and radiometrics) is due to commence this quarter, providing the first high-resolution information on rock types and structures in these as-yet unexplored areas aside from Buxton's 2018 aeromagnetics survey at Sentinel (ASX 20/09/18). No detailed government or multi-client datasets exist for the West Kimberley, greatly handicapping Buxton's regional exploration to date. The upcoming high-quality, belt-scale aerial work planned by the WKJV represents a major and historic step forward in exploration of the region.

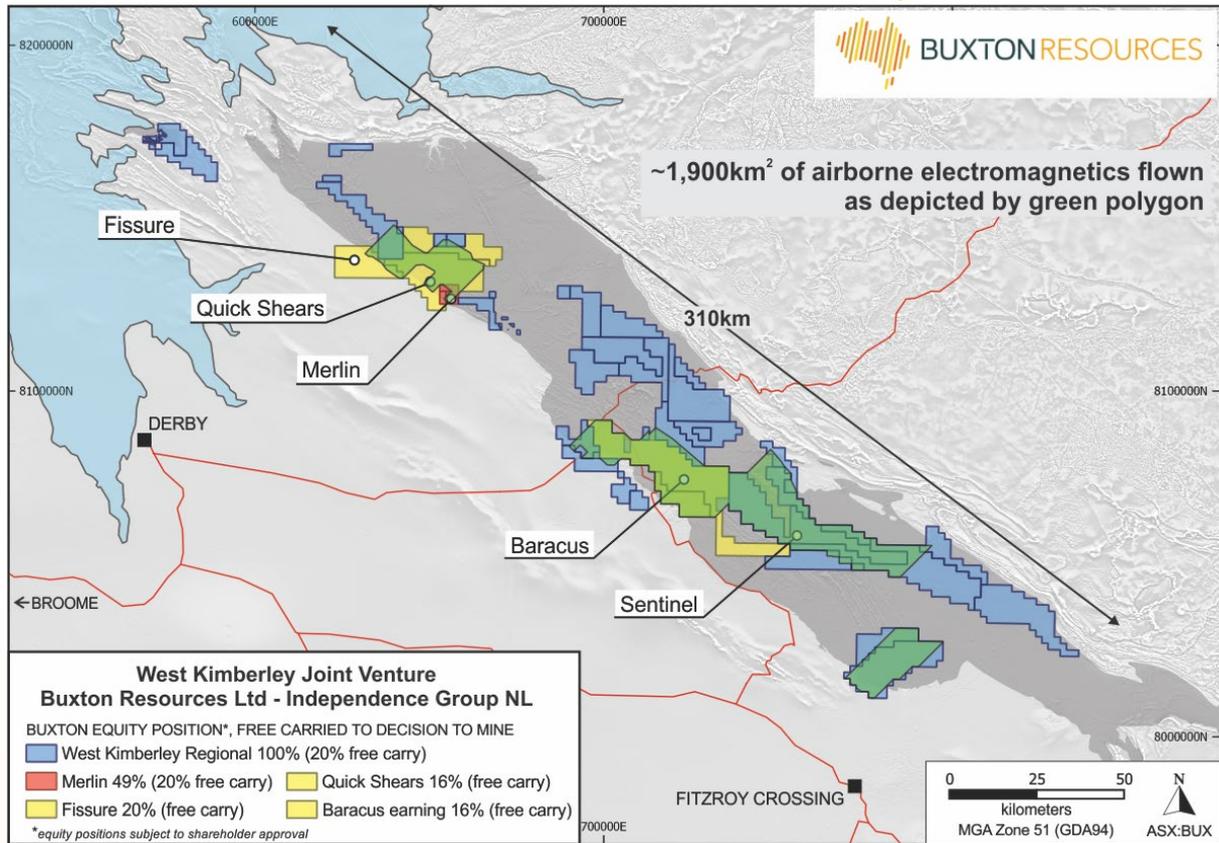
Analysis of results from the large Spectrem EM survey is at an early stage and will be further informed by the high-resolution aeromagnetics results as they become available. However, numerous promising EM conductors have already been identified on multiple tenements. Anomaly assessment, ranking and target generation is underway, with this work to be completed over the next quarter. Ground follow-up on selected anomalies at Sentinel is already underway, with systematic ground assessment and ranking of targets throughout the belt to be completed during the 2020 field season.

IGO are planning a busy field season for the WKJV in 2020 throughout the belt (King Leopold Orogen) which will include mapping, surface geochemistry, ground EM, drilling and downhole EM. Buxton eagerly awaits the results from these planned large-scale exploration programs in this highly prospective, under-explored, magmatic nickel-copper province.

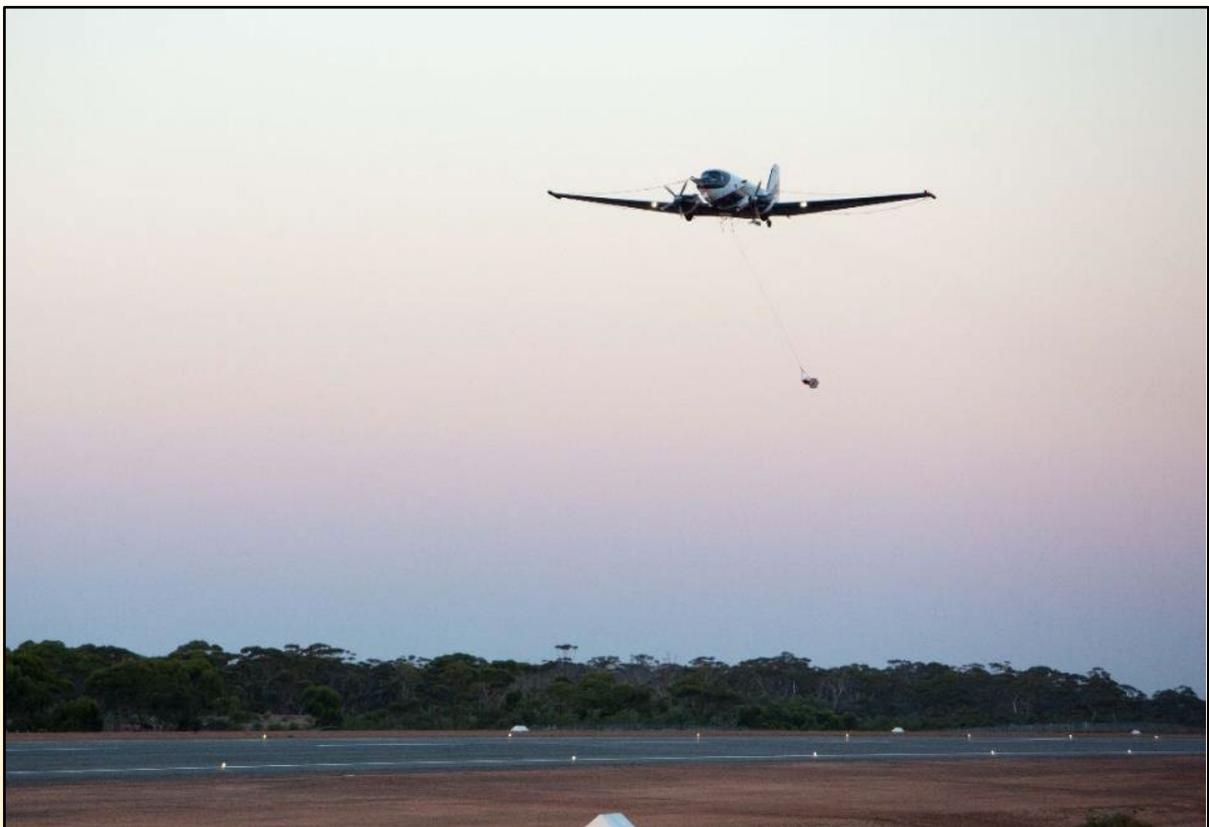


**Figure 1.** Air Core drill collars and ground EM survey areas at the Quick Shears and Merlin Projects

The systematic MLTEM survey across Merlin (Figure 1) has confirmed all previously identified conductors, including those previously only detected by down-hole EM. One new conductor was detected by the new survey, a deep source which is difficult to resolve using surface EM methods. This result shifts the search space at Merlin deeper, most likely in excess of 600 metres below surface. This in turn means a different approach to future drill targeting at Merlin is needed, with deep, step-back drill holes designed to provide a platform for deep down-hole EM, as well as ideally intersecting geological and geochemical targets in conventional ways. The commitment required for this type of drilling and down-hole EM is substantial, as multiple deep holes will be required. Buxton is evaluating ways to get the best possible value for shareholders at Merlin.



**Figure 2.** Buxton-Independence Group West Kimberley Joint Venture tenure over the King Leopold Orogen (in dark grey), highlighting the area covered by the recent regional electromagnetic Spectrem survey

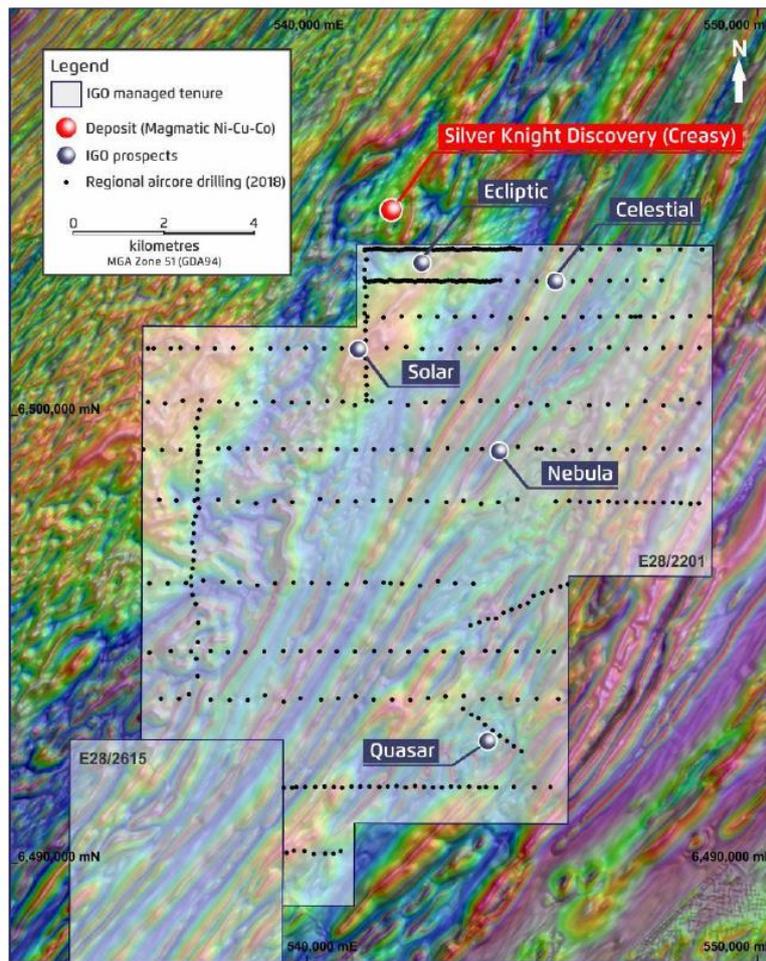


**Figure 3.** Spectrem aircraft used to survey WKJV tenements

## Fraser Range Joint Venture

Independence Group has been undertaking systematic greenfields exploration in the Fraser Range targeting Nova style (magmatic Ni-Cu-Co sulphide) discoveries within over ~15,000km<sup>2</sup> of regional tenure. Exploration spend has been in the region of ~\$20m per annum for several years.

Buxton and IGO entered into a joint venture agreement for two tenements in the Fraser Range, Widowmaker E28/2201 and Zanthus E28/1959, in 2016 whereby Buxton retained a 10% free carry to decision to mine and IGO manages all exploration (refer to *BUX ASX announcement 24 August 2016*).



**Figure 4.** Drill targets at the Widowmaker (E28/2201) BUX-IGO joint venture in the Fraser Range, high priority targets include Ecliptic and Solar Prospects along strike from the Creasy Group Silver Knight Discovery (figure from IGO RIU conference presentation: <https://www.asx.com.au/asxpdf/20190221/pdf/442twqw68jgtlq.pdf>).

Buxton and IGO entered into a joint venture agreement for two tenements in the Fraser Range, Widowmaker E28/2201 and Zanthus E28/1959, in 2016 whereby Buxton retained a 10% free carry to decision to mine and IGO manages all exploration (refer to *BUX ASX announcement 24 August 2016*).

## Goldmember Project (formally known as Woodline West Project)

Two exploration licences were pegged in the southern Yilgarn based on widespread gold anomalism defined in auger sampling by AngloGold during their belt-scale Viking Project. A soil program was completed during the quarter.



*Figure 8: Soil Sampling at Buxton's Goldmember Project*

## West Kimberley JV Restructure

As per the announcement released on 2 October 2019, Buxton has entered into three further commercial binding agreements with Independence Newsearch Pty Ltd (**INPL**), a wholly owned subsidiary of Independence Group NL (**IGO**) (ASX:IGO), with respect to Buxton's Merlin and Quick Shears assets as well as amending the broader West Kimberley Joint Venture.

Buxton Managing Director Eamon Hannon said,

*"Buxton has made a great choice of JV partner with IGO. Not only will Buxton's cash reserves now be over \$6 million, IGO has already spent more than anything Buxton could have sensibly raised for work on our ground in the West Kimberley or the Fraser Range. These binding deals mean that exploration will be accelerated still further, while also freeing Buxton from any ongoing financial or management commitments. Buxton has reduced operational expenses to a drip, has ample cash at bank, a solid share structure and has two multi-billion-dollar corner stone investors owning a combined 23% of our register. Buxton will now be actively looking for the company's next frontier, re-applying the formula which has been so successful for us in the West Kimberley since 2015."*

Whilst the transactions have been fully endorsed by Buxton's Senior Management and Board, Buxton shareholder approval is still required in order to complete these deals, with a formal notice to shareholders to be issued imminently.

Buxton will be released from any further financial contributions and will either be free carried to completion of feasibility studies for both the Merlin JVA and WKJVA or, with respect to any newly acquired properties within the WKJVA, granted a net smelter royalty (NSM) of 0.25% (where held by IGO and other parties) and 0.5% (where acquired wholly by IGO).

Buxton plans to hold the necessary Shareholder Approval meeting for these transactions in December 2019.

Buxton intends to use funds received from these transactions to fund work on existing projects as well as assessing and/or acquiring further resource projects which complement existing activities of the Company.

**For further information please contact:**

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**Competent Persons**

*The information in this report that relates to Exploration Results is based on information compiled by Mr. Derek Marshall, Member of the Australasian Institute of Geoscientists, and Mr. Eamon Hannon Fellow of the Australian Institute of Geoscientists. Mr. Marshall and Mr. Hannon are full-time employees of Buxton. Mr. Marshall and Mr. Hannon have sufficient experience which is relevant to the activity being undertaken to qualify as a "Competent Person", as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Marshall and Mr. Hannon consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.*

## Appendix 1: Changes in interests in mining tenements - Buxton Resources Ltd 01/07/19 – 30/09/19

| Interests in mining tenements relinquished, reduced or lapsed | Tenement | Location  | % at beginning of quarter | % at end of quarter |
|---------------------------------------------------------------|----------|-----------|---------------------------|---------------------|
|                                                               | E04/2590 | Kimberley | 100                       | 0                   |
|                                                               | E04/2588 | Kimberley | 100                       | 0                   |
|                                                               | E04/2582 | Kimberley | 100                       | 0                   |

| Interest in mining tenements acquired or increased | Tenement | Location  | % at beginning of quarter | % at end of quarter |
|----------------------------------------------------|----------|-----------|---------------------------|---------------------|
|                                                    | E04/2536 | Kimberley | 0                         | 100                 |
|                                                    | E04/2609 | Kimberley | 0                         | 100                 |
|                                                    | E04/2610 | Kimberley | 0                         | 100                 |
|                                                    | E04/2629 | Kimberley | 0                         | 100                 |
|                                                    | E04/2630 | Kimberley | 0                         | 100                 |

| The mining tenements held at the end of the quarter and their location | Tenement    | Location  | % at beginning of quarter | % at end of quarter |
|------------------------------------------------------------------------|-------------|-----------|---------------------------|---------------------|
|                                                                        | E 04/1533   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2026   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2060   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2142   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2407   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2408   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2411   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2466   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2467   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2468   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2469   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2480   | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2583   | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2527 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2530 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2536 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2549 | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2550   | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2578 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2579 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2580 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2581 | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2582   | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2583 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2584 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2585 | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2587 | Kimberley | 100                       | 100                 |
|                                                                        | E 04/2588   | Kimberley | 100                       | 100                 |
|                                                                        | ELA 04/2589 | Kimberley | 100                       | 100                 |

|             |               |     |     |
|-------------|---------------|-----|-----|
| E 04/2590   | Kimberley     | 100 | 100 |
| ELA 04/2629 | Kimberley     | 0   | 100 |
| ELA 04/2630 | Kimberley     | 0   | 100 |
| ELA 04/2631 | Kimberley     | 0   | 100 |
| ELA 04/2636 | Kimberley     | 0   | 100 |
| E 09/1985   | Gascoyne      | 100 | 100 |
| ELA 15/1719 | Yilgarn       | 0   | 100 |
| E 28/1959   | Fraser Range  | 10  | 10  |
| E 28/2201   | Fraser Range  | 10  | 10  |
| E 28/2620   | Yilgarn       | 100 | 100 |
| ELA 28/2922 | Yilgarn       | 0   | 100 |
| ELA 63/1675 | Albany Fraser | 100 | 100 |
| ELA 63/1676 | Albany Fraser | 100 | 100 |
| ELA 63/1677 | Albany Fraser | 100 | 100 |
| ELA 63/1685 | Albany Fraser | 100 | 100 |
| ELA 63/1686 | Albany Fraser | 100 | 100 |
| ELA 63/1687 | Albany Fraser | 100 | 100 |
| E 63/1720   | Albany Fraser | 100 | 0   |
| ELA 77/2237 | Yilgarn       | 100 | 100 |
| ELA 77/2238 | Yilgarn       | 100 | 100 |
| E 77/2549   | Yilgarn       | 100 | 100 |
| E 80/5183   | Kimberley     | 100 | 100 |
| ELA 80/5184 | Kimberley     | 100 | 100 |
| ELA 80/5284 | Kimberley     | 100 | 100 |
| ELA 80/5285 | Kimberley     | 100 | 100 |
| ELA 80/5286 | Kimberley     | 100 | 100 |
| ELA 80/5287 | Kimberley     | 100 | 100 |
| ELA 80/5288 | Kimberley     | 100 | 100 |
| P 04/0269   | Kimberley     | 100 | 100 |
|             |               |     |     |

**Abbreviations and Definitions used in Tenement Schedule:**

E Exploration Licence      ELA Exploration Licence Application      P Prospecting Licence

