

# Mill Recovery Enhancement Project commissioned, Odysseus early works commenced, positive cashflow and FY18 guidance

#### March Quarter 2018 Highlights:

- ZERO lost time injuries, resulting in a LTIFR of ZERO.
- Mine production of 6,236 nickel tonnes, the highest volume in twelve months.
- Mill production 4,827 nickel tonnes.
- Unit cash cost of nickel in concentrate of A\$2.71/lb.
- Positive cashflow from operations of A\$16.9m.
- Cash at Bank and nickel sales receivables increased A\$5.0m to A\$154.1m.
- Mill Recovery Enhancement Project (MREP) commenced commissioning, with 97 nickel tonnes estimated in circuit.
- Early capital works program of A\$32.0m at Odysseus approved and underway.

Managing Director, Mr Dan Lougher, said the March quarter was critical in readying the Company for its next evolution of growth.

"These growth efforts were primarily focussed on commissioning the Mill Recovery Enhancement Project, utilising our globally patented BioHeap process, and advancing Odysseus feasibility work, which has provided confidence to commence an early capital works program."

"At the same time, I am very pleased to report that our operations have continued to run safely with the LTIFR back at ZFRO."



Western Areas ("WSA" or the "Company") (ASX: WSA) is pleased to report another quarter of free cashflow generation with cash at bank increasing to A\$135.7m, after capital expenditure, feasibility study and exploration costs of A\$13.6m. With cash and receivables in excess of A\$150m, no debt and a substantial equity investment in Kidman Resources Limited, the Company's balance sheet is in a strong position to assist with its organic growth plans.

Total nickel mined was 6,236 tonnes, being the highest production volume in twelve months. This resulted in total nickel contained in stockpiles increasing to 4,311 tonnes, being the highest level since March 2015.

Consistent with forecast expectations provided at the half-year results in February, nickel in concentrate production of 4,827 nickel tonnes was lower than prior quarters, as a result of lower ore feed grade and mill throughput. Consequently unit cash cost of production naturally increased in the quarter, notwithstanding total cash operating expenditure fell A\$1.2m from the prior period.

The Company has reviewed all FY18 guidance metrics and advises that nickel in concentrate production is expected to be marginally lower by ~0.5k nickel tonnes (~2% of production guidance) to around 21,000 nickel tonnes for the year. Exploration expenditure is expected to come in A\$3m to A\$5m lower due to approval delays at Western Gawler and Cosmos (all approvals now received). Other guidance metrics remain unchanged with further details provided on page 4.

Following construction completion of the MREP, commissioning was undertaken and successfully achieved after quarter end. Focus now turns to building additional filtration and bagging facilities to enable the high grade sulphide product to be sold into new offtake contracts, where the Company expects premium pricing terms compared to existing contracts.

The definitive feasibility study (DFS) team made excellent progress on the Odysseus Project at Cosmos, which culminated in the decision to commence the early capital works program, as announced on 10 April 2018. The DFS is due to be released in the September quarter and is expected to detail an operation with a mine life in excess of ten years and average annual production in excess of 12,000 nickel tonnes per annum, post a project ramp up period.

The nickel market remains volatile from a pricing standpoint, but traded within a consistent range during the quarter. Importantly LME and SHFE nickel stockpiles have recently fallen dramatically to their lowest levels in many years, which is another indicator of the positive outlook for the nickel market.

For the period ending 31 March 2018



#### **Production Overview**

| No.  | 1126     |         | 2017/2018 | YTD     |         |  |
|--|----------|---------|-----------|---------|---------|--|
| Item   | Unit     | Sep Qtr | Dec Qtr   | Mar Qtr | Total   |  |
| Total Ore Mined                              | tonnes   | 139,451 | 143,476   | 163,479 | 446,406 |  |
| Mine Grade                                   | Ni %     | 4.2%    | 4.2%      | 3.8%    | 4.0%    |  |
| Total Nickel Mined                           | tonnes   | 5,855   | 5,970     | 6,236   | 18,061  |  |
|  |          |         |           |         |         |  |
| Ore Processed (Milling/Concentrator)         | tonnes   | 154,872 | 161,218   | 148,083 | 464,173 |  |
| Processed Grade                              | Ni %     | 4.0%    | 4.0%      | 3.9%    | 3.9%    |  |
| Average Processing Recovery                  | %        | 87%     | 86%       | 86%     | 86%     |  |
| Total Nickel in Concentrate                  | tonnes   | 5,338   | 5,527     | 4,827   | 15,692  |  |
| MREP Nickel in Circuit                       | tonnes   | -       | -         | 97      | 97      |  |
| Total Nickel Sold                            | tonnes   | 5,348   | 5,266     | 4,750   | 15,364  |  |
|  |          |         |           |         |         |  |
| Contained Nickel in Stockpiles               | tonnes   | 3,585   | 3,717     | 4,311   |         |  |
|  |          |         |           |         |         |  |
| Cash Cost Nickel in Concentrate              | A\$/lb   | 2.49    | 2.50      | 2.71    | 2.57    |  |
| Cash Cost Nickel in Concentrate              | US\$/lb  | 1.97    | 1.92      | 2.13    | 2.00    |  |
| Exchange Rate                                | US\$/A\$ | 0.79    | 0.77      | 0.79    | 0.78    |  |
|  |          |         |           |         |         |  |
| Net Nickel Price (before payability applied) | A\$/lb   | 6.43    | 7.22      | 7.80    | 7.12    |  |

Western Areas (ASX:WSA) is Australia's highest grade, lowest cash cost nickel producer and its main asset, the 100% owned Forrestania Nickel Project, is located 400km east of Perth in Western Australia. Western Areas is also Australia's second largest sulphide nickel miner producing approximately 22,000 to 25,000 nickel tonnes per annum from its Flying Fox and Spotted Quoll mines - two of the lowest cost and highest grade nickel operations in the world.

An active nickel explorer at Cosmos and Western Gawler in Australia, the Company also holds significant exploration interests in Canada through shareholdings in Mustang Minerals.

The Board remains focused on the core business of low cost, long life nickel production, new nickel discoveries and generating returns to shareholders. It has put in place the cost structure and capabilities to prosper throughout the cycle by adopting prudent capital management and an opportunistic approach. Its latest presentation can be found at http://www.westernareas.com.au/investor-centre/corporate-presentations.html.

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For the period ending 31 March 2018



### **Corporate and financing**

#### Cashflow

Positive free cashflow for the quarter of A\$16.9m was achieved mainly due to a higher average (pre-payable deduction) nickel price for the quarter of A\$7.80/lb (December quarter A\$7.22/lb¹), and the effective completion of the major, non-recurring, capital projects. Cash at bank was A\$135.7m (December quarter A\$132.6m) while cash at bank plus nickel sales receivables totalled A\$154.1m (December quarter A\$149.1m).

Capital and mine development expenditure was A\$11.6m (December quarter A\$13.6m). Consistent with guidance, capital expenditure reduced from prior quarters with the completion of the MREP plant and the Spotted Quoll ventilation shaft neared completion. Total exploration expenditure for the quarter was A\$1.3m and DFS expenditure at Odysseus was A\$0.7m. Exploration expenditure is expected to be higher in the June quarter as a number of exploration programs are established at Forrestania, Cosmos and Western Gawler.

#### Hedging

When pricing is supportive, the Company manages nickel price and foreign exchange risk with a combination of short term quotation period (QP) hedging and a set limit of medium term hedging. The policy allows the use of forward sales, bought options and collar style options:

- QP hedging is used to manage the risk of price fluctuations for nickel already shipped to offtake partners where the nickel price is yet to be finalised.
- Medium-term hedging is used to manage the risk of nickel price fluctuations, with a maximum 25% of expected nickel sales per month hedged out for a maximum of 12 months.

Details of hedging in place at quarter end are as follows:

| Hedging Details - FY 2018 |                 |      |                |                |
|---------------------------|-----------------|------|----------------|----------------|
| Nickel Hedging -          | Collar Options  |      | US\$ Hedging - | Collar Options |
| Ni Tonnes Hedged          | 1,800           |      | US\$ Hedged    | 22,500,000     |
| Average Floor             | US\$12,175 / tn |      | Average Put    | US\$0.7910     |
| Average Cap               | US\$14,843 / tn |      | Average Call   | US\$0.7425     |
| Nickel Hedging -          | - Forward Sale  |      |                |                |
| Ni Tonnes Hedged          | 600             |      |                |                |
| Average forward           | US\$13,000 / tn |      |                |                |
|                           | Hedging Deta    | ails | - FY 2019      |                |
| Nickel Hedging -          | Collar Options  |      | US\$ Hedging - | Collar Options |
| Ni Tonnes Hedged          | 600             |      | US\$ Hedged    | 15,000,000     |
| Average Floor             | US\$13,000 / tn |      | Average Put    | US\$0.7915     |
| Average Cap               | US\$15,000 / tn |      | Average Call   | US\$0.7443     |
|                           |                 |      |                |                |

#### **Kidman Resources Limited (Kidman)**

The Company owns 17.4m shares in Kidman with a market value of A\$35.8m based on Kidman's closing share price at 29 March 2018 of \$2.06 (A\$32.8m at 31 December 2017).

<sup>&</sup>lt;sup>1</sup> The December 2017 quarterly report value of A\$6.85/lb has been restated to A\$7.22/lb as a result of the accounting standard requirement to revalue the December 2017 half nickel sales, based on the January 2018 nickel price.

For the period ending 31 March 2018



#### FY18 Guidance

As outlined on page 1, the Company has reviewed its guidance metrics for FY18 as per the table below.

| Category   | Original FY18 Guidance   | YTD Actual | Updated FY18 Guidance |
|--|--------------------------|------------|-----------------------|
| Mine Production (Nickel tonnes in Ore)               | 23,500 to 25,000         | 18,061     | Within guidance       |
| Nickel tonnes in Concentrate Production              | 21,500 to 22,500         | 15,692     | Around 21,000         |
| Unit Cash Cost of Production (Nickel in Concentrate) | A\$2.40/lb to A\$2.65/lb | A\$2.57/lb | Within guidance       |
| Sustaining and Mine Development Capital Expenditure  | A\$30.0m to A\$36.0m     | \$26.3m    | Within guidance       |
| Mill Recovery Enhancement Project                    | A\$14.0m                 | A\$14.0m   | On guidance           |
| Feasibility Studies & Odysseus Early Works           | A\$3.0m                  | A\$1.9m    | On guidance           |
| Exploration  | A\$12.0m                 | \$5.1m     | A\$7.0m to A\$9.0m    |

Mine production, unit cash costs, capital expenditure, feasibility study costs and the MREP are all expected to be delivered within guidance. Mine production is expected to be around the midpoint of the range and unit cash costs will be at the upper end of original guidance, with nickel in concentrate production being lower than plan, due mainly to lower feed grade, an increase in scats and mill throughput volume. While not a guidance metric, it is important to note that actual cash operating expenditure will be lower than plan due to our ongoing work around cost reduction initiatives.

Nickel in concentrate is the first operational guidance metric miss for the Company in over 30 quarterly reports, and while disappointing, this variance is minor in nature being a marginal drop of 0.5kt tonnes or ~2% compared to the lower end of original guidance, and we will be working to recover that nickel shortfall from other sources over the next year, such as the Scats Project outlined later in this report.

## Mine safety and environment

#### Safety

There were no Lost Time Injuries (LTI) recorded during the quarter, resulting in a LTIFR of ZERO and Total Recordable Injury Frequency Rate of 8.5. The Company was 384 days LTI Free at the end of March.

Key safety management initiatives included facilitation of operational risk management and associated safety workshops for the MREP team, which was an important component of construction completion in the quarter.

Safety re-induction sessions were also conducted at both underground mines for 120 personnel who had been on site for two years or more.

The Emergency Response Team (ERT) training focused on open and closed circuit breathing apparatus, underground search and rescue, rope rescue and hazardous materials.









**ERT hazardous materials training** 

#### **Environment**

#### **Forrestania**

No reportable environmental incidents were recorded during the quarter.

All regulatory commitments were completed including the annual water quality monitoring, quarterly Declared Rare Flora (DRF) monitoring, annual potable water report for the Department of Health and monitoring for chuditch, mallee fowl and stygofauna.

New Morning/Daybreak stygofauna baseline environmental monitoring was also completed and preliminary planning commenced for other environmental studies to support the approvals process for a potential open pit mine.

The summer seed collection programme was completed and the seeds delivered to the local nursery in preparation for the annual rehabilitation programme. The seeds will be propagated at the local nursery and the seedlings returned in readiness for the rehabilitation programme.

The Company also conducted 1,080 baitings for feral predator eradication as part of the Western Shield Programme.

#### Cosmos

No reportable environmental incidents were recorded during the quarter.

Stage 1 dewatering and compliance monitoring of the open pit commenced in January with the water discharging to Water Management Pond 6. New water level data loggers were also installed on each monitoring bore to improve the monitoring network around the ponds.

The annual groundwater monitoring was completed and the Annual Report submitted to the Department of Water.

Discussions with the Tjiwarl Aboriginal Corporation continued, which included detailed planning for exploration activities commencing in the June quarter including the Neptune prospect and a gold exploration programme.



### Mine and mill production statistics and cash costs

| TONNES MINED               | TONNES MINED |         | 2017/2018 |         |         |  |
|----------------------------|--------------|---------|-----------|---------|---------|--|
| TOWNES WIINED              |              | Sep Qtr | Dec Qtr   | Mar Qtr | Total   |  |
| Flying Fox                 |              |         |           |         |         |  |
| Ore Mined                  | tonnes       | 60,890  | 65,681    | 66,858  | 193,429 |  |
| Grade                      | Ni%          | 4.1%    | 3.7%      | 3.7%    | 3.8%    |  |
| Flying Fox Nickel Mined    | tonnes       | 2,510   | 2,453     | 2,466   | 7,429   |  |
|                            |              |         |           |         |         |  |
| Spotted Quoll              |              |         |           |         |         |  |
| Ore Mined                  | tonnes       | 78,561  | 77,795    | 96,621  | 252,977 |  |
| Grade                      | Ni%          | 4.3%    | 4.5%      | 3.9%    | 4.2%    |  |
| Spotted Quoll Nickel Mined | tonnes       | 3,345   | 3,517     | 3,770   | 10,632  |  |
|                            |              |         |           |         |         |  |
| Total Ore Mined            | tonnes       | 139,451 | 143,476   | 163,479 | 446,406 |  |
| Grade                      | Ni%          | 4.2%    | 4.2%      | 3.8%    | 4.0%    |  |
| Total Nickel Mined         | tonnes       | 5,855   | 5,970     | 6,236   | 18,061  |  |

#### **Flying Fox**

#### **Mine Production**

Production was **66,858 tonnes of ore at an average grade of 3.7% nickel for 2,466 nickel tonnes.** Ore production was predominately (90%) from long-hole stoping (LHS) with the remaining 10% from ore drive development.

The LHS production was sourced solely from the T5 area, namely from the 455, 410, 385, 255 (7.5kt @ 5.2% Ni), 245, 230 and 215 (4.6kt @ 4.1% Ni) stopes. The lower grade for the quarter was in line with the mine plan, which has limited flexibility due to the planned stoping sequence and maturity of the mine.

Associated paste-filling of stope voids resulted in 22,200m<sup>3</sup> of paste poured.

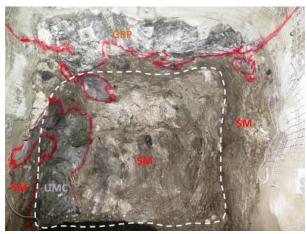
#### Mine Development

Total single-boom jumbo development was 182m, which included:

- 26m of operating waste development at the 455, 255 and 180 levels;
- 61m in paste-fill (455, 410, 385, 255, 245,230 and 215 levels) to facilitate slot drilling; and
- 95m of ore drive development at the 410, 370 and 180 levels, which produced just over 6.1kt at 4.6% Ni for 294 nickel tonnes. There was also ongoing jumbo rehabilitation ground support installation on the 370, 285 and 200 levels to re-establish new production areas.

No vertical capital development was undertaken during the guarter.





370 S1 SOD at Flying Fox grading 7.6% Ni

#### **Spotted Quoll**

#### **Mine Production**

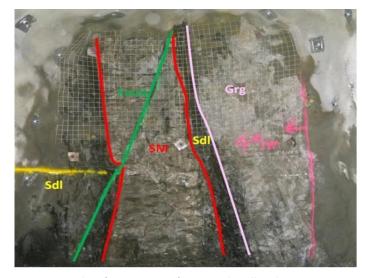
Spotted Quoll production was **96,621 tonnes of ore at an average grade of 3.9% nickel for 3,770 nickel tonnes**. Ore production was sourced predominately from long-hole open stoping (80%) with the remainder from ore drive development.

The 'twin-boom area' (TBA) saw the 955 level completed, with ongoing production from the 1020, 944 and 932 levels and jumbo rehabilitation commenced to re-open the 1215 and 920 levels.

The 'single-boom area' (SBA) saw ongoing production from the 881, 871, 862, 852 and 842 levels, and successful opening of the 841 and 833 levels early in the quarter.



774 ore drive (4.0mW x 3.5mH) at Spotted QuoII grading 6.1% Ni



660 ore drive (4.5mW x 4.5mH) at Spotted QuoII grading 4.3% Ni

### Mine Development

Total jumbo development for the quarter was 1,061m, which included 165m of capital decline development. During the quarter, 343m of lateral capital development and 191m of operating waste development occurred, which included 98m of paste-fill development to facilitate slot drilling.

The 'Stage 2' 643 and 627 ore drive levels were established from the 640 level off the main decline, with 13m of 627 ore drive development by quarter end.

A total of 318m of SBA ore drive development was completed between the 777 and 770 levels, including development at the 774 level beyond the northern ore reserve boundary (1.5kt at 4.6% Ni).

For the period ending 31 March 2018



#### Infrastructure

The primary surface fan concrete sub-footings and plinths, mechanical fan installation, electrical switch room installation and electrical installation were completed during the quarter. The commissioning of the electrical and mechanical surface fans is planned for the June quarter.

The primary underground magazine was also completed with commissioning planned for early in the June quarter.



New primary fans at Spotted Quoll

#### **Cosmic Boy Nickel Concentrator**

| TONNES MILLED AND SOLD           |        |         | YTD     |         |         |
|----------------------------------|--------|---------|---------|---------|---------|
| TONNES WILLED AND SOLD           |        | Sep Qtr | Dec Qtr | Mar Qtr | Total   |
| Ore Processed – Mined Ore        | tonnes | 141,151 | 136,816 | 144,925 | 422,892 |
| Ore Sorter & Low Grade Stockpile | tonnes | 13,721  | 24,402  | 3,158   | 41,281  |
| Total Ore Milled                 | tonnes | 154,872 | 161,218 | 148,083 | 464,173 |
| Grade                            | %      | 4.0%    | 4.0%    | 3.9%    | 3.9%    |
| Ave. Recovery                    | %      | 87%     | 86%     | 86%     | 86%     |
| MREP Nickel in Circuit           | tonnes | -       | -       | 97      | 97      |
| Nickel in Concentrate Produced   | tonnes | 5,338   | 5,527   | 4,827   | 15,692  |
| Nickel in Concentrate Sold       | tonnes | 5,348   | 5,266   | 4,750   | 15,364  |

The Cosmic Boy Concentrator processed 148,083 tonnes of ore at an average grade of 3.9% nickel for a total of 32,027 tonnes of concentrate grading 15.4% nickel. This resulted in 4,827 nickel tonnes produced at a metallurgical recovery of 86% with average concentrator availability of 97%. During the quarter a planned maintenance shutdown of 1.5 days was required to conduct a mill re-line and fine ore bin inspection as part of the concentrator structural integrity program, which required the fine ore bin to be emptied. There were no issues encountered.

#### For the period ending 31 March 2018



Nickel recovery was adversely impacted during the quarter with an increase in ball mill 'scats', which are harder fine grained ore that limit mill throughput unless removed from the circuit. The scats have been stockpiled adjacent to the tailings storage facility, with project work underway to minimise scat generation and investigate options to recover the contained nickel. One of these options is leaching the scats, where the nickel will be recovered in a pregnant liquor that can be processed at the MREP into a high grade sulphide.

A total of 31,408 tonnes of concentrate was delivered for sale containing 4,750 nickel tonnes.

Other sales unit costs during the quarter were royalties at A\$0.25/lb and transportation of A\$0.39/lb in concentrate.

#### **Stockpiles**

Ore stockpiles at the end of the quarter totalled **127,504 tonnes of ore at 3.1% nickel for 3,955 nickel tonnes**, located at the mine ore pads and the concentrator run-of-mine pad, which represents more than two months of mill feed, enabling the selection of an optimal mill feed blend.

The concentrate stockpile at quarter end was 2,426 tonnes at an average grade of 14.7% nickel, containing 356 nickel tonnes.

| STOCKPILES -                   |        | 2017/2018 |         |         |  |  |
|--------------------------------|--------|-----------|---------|---------|--|--|
| STOCKFILES                     |        | Sep Qtr   | Dec Qtr | Mar Qtr |  |  |
| Ore                            | tonnes | 102,290   | 108,950 | 127,504 |  |  |
| Grade                          | %      | 3.4%      | 3.1%    | 3.1%    |  |  |
| Concentrate                    | tonnes | 453       | 1,829   | 2,426   |  |  |
| Grade                          | %      | 14.5%     | 15.7%   | 14.7%   |  |  |
| Contained Nickel in Stockpiles | tonnes | 3,585     | 3,717   | 4,311   |  |  |

#### **Cash Costs**

| FINANCIAL CTATISTICS      | FINANCIAL STATISTICS |         | 2017/2018 |         |        |  |  |
|---------------------------|----------------------|---------|-----------|---------|--------|--|--|
| FINANCIAL STATISTICS      |                      | Sep Qtr | Dec Qtr   | Mar Qtr |        |  |  |
| Group Production Cost/lb  |                      |         |           |         |        |  |  |
| Mining Cost (*)           | A\$/lb               | 1.75    | 1.81      | 1.89    | 1.82   |  |  |
| Haulage                   | A\$/lb               | 0.06    | 0.07      | 0.07    | 0.07   |  |  |
| Milling                   | A\$/lb               | 0.51    | 0.47      | 0.57    | 0.51   |  |  |
| Admin                     | A\$/lb               | 0.20    | 0.18      | 0.21    | 0.20   |  |  |
| By Product Credits        | A\$/lb               | (0.03)  | (0.03)    | (0.03)  | (0.03) |  |  |
| Cash Cost Ni in Con (***) | A\$/lb               | 2.49    | 2.50      | 2.71    | 2.57   |  |  |
| Cash Cost Ni in Con (***) | US\$/lb(**)          | 1.97    | 1.92      | 2.13    | 2.00   |  |  |
| Exchange Rate US\$ / A\$  |                      | 0.79    | 0.77      | 0.79    | 0.78   |  |  |

<sup>(\*)</sup> Mining Costs are net of deferred waste costs and inventory stockpile movements.

Note: Grade and recovery estimates are subject to change until the final assay data are received.

<sup>(\*\*)</sup> US\$ FX for Relevant Quarter is RBA average daily rate (Mar Qtr = A\$1:US\$0.79).

<sup>(\*\*\*)</sup> Payable terms are not disclosed due to confidentiality conditions of the offtake agreements. Cash costs exclude royalties and concentrate logistics costs.



Overall total cash operating costs were A\$1.2m lower than the December quarter. However in line with forecast expectations provided at the half-year results, the unit cash cost of production of nickel in concentrate (excluding smelting/refining charges, concentrate logistics and royalties) increased to A\$2.71/lb (US\$2.13/lb). The higher unit cost than prior quarters was marginally impacted by the lower head grade and reduced ore throughput (associated with a planned shutdown) that occurred during the quarter. Year to date, unit cash cost of production is A\$2.57/lb (US\$2.00/lb), which is within the FY18 guidance range.

#### **Forrestania Mineral Resources and Ore Reserves**

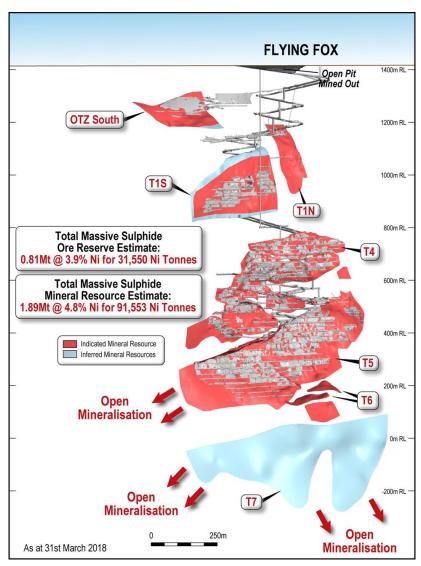
A full summary of the Company's Mineral Resource and Ore Reserve estimates is included at the end of this report.

#### Flying Fox

A total of 2,046m (thirteen drill-holes) of resource definition and resource extension drilling was completed from two underground drilling platforms during the quarter, targeting further extensions to the T5Z51 domain and T6/T7 domains. Remodelling of these two domains is currently underway and will be included in an updated Mineral Resource to be reported later in the year.

The total current Flying Fox Massive Sulphide Mineral Resource, including depletion to the end of March 2018, stands at 1.89 Mt of ore at a grade of 4.8% Ni for 91,553 nickel tonnes.

The Flying Fox Massive Sulphide Ore Reserve, including depletion to the end of March 2018, stands at **0.81 Mt of ore at a grade of 3.9% Ni for 31,550 nickel tonnes.** 



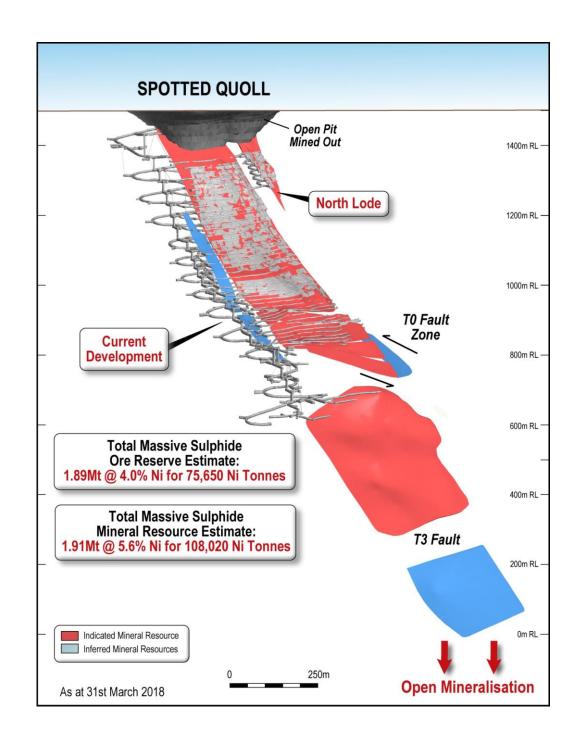


#### Spotted Quoll

No resource holes were drilled during the quarter.

The total Spotted Quoll **Mineral Resource**, including depletion to the end of March 2018, stands at **1.91 Mt of ore at a** grade of **5.6% Ni for 108,020 nickel tonnes**.

The Spotted Quoll **Ore Reserve**, including depletion to the end of March 2018, stands at **1.89Mt of ore at a grade of 4.0% Ni for 75,650 nickel tonnes**.





### **Growth Projects**

#### Mill Recovery Enhancement Project (MREP)

The MREP achieved construction completion on time and within budget at the end of the quarter, and early commissioning activities were able to commence, such as slurry commissioning from the Cosmic Boy Mill to the MREP. Other main activities during the quarter included:

- Start-up inoculum was provided to the main leach tanks from the bacterial farm;
- Main leach tanks were filled and brought to operating temperature before fresh slurry was introduced;
- Slurry commissioning for the residue filter completed; and
- Completed water testing and electrical drive testing ready for final commissioning of the sulphide precipitation circuit early in the June quarter.

With full commissioning now completed subsequent to quarter end, the short term plan (in line with previous ASX announcements) is to blend the high grade nickel sulphide product with the existing concentrate from the Cosmic Boy Mill, and sell it into the existing offtake agreements with Tsingshan and BHP Nickel West.

The Company is currently finalising plans to include an additional process step to enable separate bagging of the high grade nickel sulphide concentrate and then to separately sell this product into a new offtake agreement targeting EV battery pre-cursor suppliers or producers. The associated capital works are expected to cost A\$3.0m and will be completed during the September quarter.

During the quarter, offtake discussions were active with several parties, which included site visits to Forrestania.



**MREP Practical completion** 

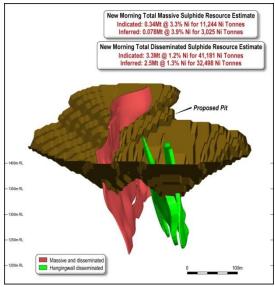


#### New Morning/Daybreak Project

An internal Scoping Study (Study) was completed during the quarter delineating a potential open pit to mine the shallow ore at New Morning. The indicative open pit schedule would mine approximately 11,400 nickel tonnes at an average grade of 1.1% nickel to a depth of 110m over a 3 to 4 year period. The Study assumed that the mined ore would be trucked to nearby pads where it would be crushed and agglomerated and placed into leach-pads.

Using Western Areas' patented BioHeap process, the ore would be leached to liberate a nickel sulphate pregnant liquor (PLS). The PLS would then be pumped up to the MREP plant for processing into a 45-50% nickel sulphide. Production capacity at the back end (sulphidation section) of the MREP plant is potentially up to 4,000 tonnes of contained nickel per annum, meaning that the MREP does not require expansion to meet potential New Morning throughput.

Indicative capital estimates for the project are expected to be extremely low given the shallow nature of the orebody. The current target is to produce a feasibility study by the end of 2018 which will then be released to the market outlining capital expenditure, operating costs and project returns. Part of that feasibility study involves regulatory environmental base-line flora and fauna surveys, plus hydrological and geotechnical reviews.



View of the scoping study open-pit

### Cosmos Nickel Complex ("Cosmos")

#### Odysseus Definitive Feasibility Study ("DFS")

The DFS progressed well during the quarter with completion of metallurgical testwork and further assessment of a 'top-down,' long-hole stoping strategy using paste fill as the primary mining method, whereas the PFS assumed a 'bottom-up' mining method. This assessment follows the development of an updated mining rock mass model and definition of geotechnical structures. Site visits of similar mines were conducted in the quarter and more are planned for the June quarter in line with best practice principles.

In addition, various decline and shaft access scenarios were further developed following our previous announcement that Odysseus is now likely to be a larger mine with over 10 year mine life at an average production rate in excess of 12,000t of contained nickel in concentrate, following a period of project ramp-up.

As part of the hydrogeological studies, pumping from the Cosmos open-pit commenced in January with a submersible pump located in the Cosmos open-pit, discharging to the existing water management ponds (WMP), which by quarter end had dropped the water level 5.2m at an average pumping rate of over 40 litres per second.

### For the period ending 31 March 2018



The Company also fielded a number of offtake inquiries and received expressions of interest, including potential indicative terms for the nickel concentrate. While the Company's expectation is that nickel pricing fundamentals beyond 2021 will move in favour of nickel sulphide producers when Odysseus comes into operation, the indicative terms received today will be used for DFS purposes.

The DFS remains on schedule to be completed in the September quarter.

#### **Odysseus Early Capital Works**

Subsequent to quarter end, the Company announced that an early capital works program at Odysseus had been approved and would commence shortly. A substantial portion of the March quarter was used in preparation for that early works decision. Some of the key takeaways from this decision include:

- Confidence that Odysseus will become Western Areas' third operating mine and second production centre.
- Eighteen-month program with an estimated cost of A\$32m.
- Program focused on evaporation ponds, mine camp readiness, dewatering and decline rehabilitation.
- Tender process for the larger work packages have commenced.
- Key government approvals are in place.
- Early works program will bring Odysseus to development ready status.

A breakdown of the costs, split into the work programs, is summarised in the table below.

| Program | Description  | A\$m |
|---------|--|------|
| 1       | Village Readiness, Refurbish Existing Ponds and In-Pit Pumping | 8.3  |
| 2       | Construct Evaporation Ponds and Decline Dewatering             | 10.5 |
| 3       | Decline Infrastructure and Rehabilitation                      | 13.2 |

The decision to commence the early capital works program before completion of the DFS, demonstrates the Company's confidence in the robustness of the project and confidence in the class one nickel sulphide market now and in the future.





Dewatering of the Cosmos open-pit & disposal WMP



### **Exploration**

#### Overview

A significant ramp-up in drilling took place across several exploration projects in the March quarter, with programs commencing late in the quarter across both the Western Gawler and Forrestania projects, and the imminent commencement of Phase 2 drilling within the Neptune project at Cosmos. Additional high-grade nickel sulphide intersections were reported by St George Mining Limited at its Cathedral prospect within the Mt Alexander JV (WSA 25% free-carried). Kidman Resources Limited continued exploration activities for lithium-bearing pegmatites across the quarter, completing a deep, ground penetrating radar (DGPR) survey and a Reverse Circulation (RC) drilling campaign within the Forrestania Lithium Farm-In tenements.

Most notable exploration highlights over the quarter include:

- Completion of final preparations to support Phase 2 of exploration on the Cosmos Neptune project.
- Heritage planning to support a targeted gold program across several identified prospects at Cosmos.
- Commencement of the underground Flying Fox exploration program, aiming to test the potential for the downplunge extension of the Flying Fox mineralised channel below existing mine workings.
- Advancement of a targeted, prospect-focused air-core program across Western Gawler, testing recently identified bedrock conductors acquired from ground-based Electromagnetic (EM) surveys.
- Advanced planning to support broad-scale, Heli-borne EM surveys to be conducted across the Parker Dome and Western Gawler regions, designed to detect buried ore deposits beneath younger sedimentary cover.

#### Cosmos

Exploration drilling activities are expected to recommence shortly, following the completion of the Section 18 process and other required statutory approvals relating to the Neptune project. The next phase of exploration at Neptune, due to commence early in the June quarter, will incorporate a 9,000m step-out program to test the down-dip interpreted channelised target environment, considered one of the most prospective corridors for its potential to host significant accumulations of nickel sulphides.

#### **Exploration at Neptune**

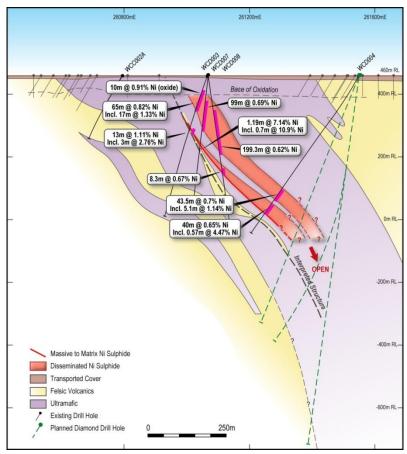
The Neptune project is located approximately 2km south of the Prospero high grade nickel mine and is interpreted to contain the highest volume of cumulate ultramafic bodies within the Cosmos Nickel Complex. The mineralised channel that hosts the Prospero and the Alec Mairs deposits (AM1, 2, 5 and 6) has the potential to extend towards, and link with the mineralisation observed at Neptune.

The Neptune project will receive a diamond drill rig in April to commence the next phase of drilling. The purpose of the program is twofold:

- 1. To test the interpreted southern channel location for cumulate ultramafic hosted stringer (through to massive and semi-massive) sulphide mineralisation, similar to that previously identified and mined at Prospero Tapinos; and
- 2. Simultaneously, to further delineate the spatial extent of the broad, low-grade disseminated mineralised system encountered within the, previously reported, Phase 1 Neptune drilling program that contained intervals including 199m @ 0.62% Ni (within WCD008).



The first phase of this drill program will include an initial series of three drill holes (two parent holes and one daughter hole), targeting the down-dip extent of mineralisation delineated in 2017 as shown below on section 6938500mN. Down-hole EM surveys will be undertaken on the completion of each hole to guide subsequent drilling.



Neptune interpreted cross section (6938500mN) with initial Phase 2 planned drill holes

#### **Forrestania**

Exploration within the Forrestania Nickel Belt continued during this quarter, with activities focused on in-mine underground diamond drilling of targets at Flying Fox, along with the completion of a surface RC drilling program at Parker Dome. Additional to this drilling activity, the Company engaged in a process of compiling all existing aeromagnetic datasets across the entire northern Forrestania - Parker Dome region, for the purpose of reprocessing and enhancing the imagery to aid future exploration targeting.

#### **Exploration at Parker Dome**

Following on from an air-core program completed in the December quarter, a targeted RC program was completed in February and March, with 14 RC drill-holes completed (for 2,288m) within E77/1734. These follow-up RC holes were designed to test identified ultramafic units from bottom-of-hole air-core samples and, additionally, test beneath anomalous nickel values intersected within saprolitic horizons. Assay results have been received from approximately half of this program, with no elevated values returned to date.

#### **Exploration at Flying Fox**

An underground exploration drilling and down-hole EM program commenced at Flying Fox in March. This program aims to test for the interpreted down plunge extension of the Flying Fox mineralised channel, with three diamond holes (two parent holes and one daughter) planned for a total of 2,440m.

During the quarter, drill-hole LUG088 reached 667m hole depth, with the final basal contact environment expected to be interected at approximately 800m. This hole will also serve as a down-hole EM platform, with this work scheduled to be completed in the June quarter.

For the period ending 31 March 2018



#### Western Gawler Nickel-Copper Joint Venture (WSA earning up to 100% interest)

The Western Gawler Project lies within the Fowler Domain of western South Australia. The Fowler Domain is a Proterozoic aged orogenic belt overlain by recent sedimentary cover, which is known to host mafic and ultramafic intrusive rocks. Similarly aged orogenic belts in Australia contain significant mafic-ultramafic related intrusive nickel and copper deposits including Nova-Bollinger and Nebo-Babel. The Company's exploration strategy is to explore for these deposits through systematic evaluation of targets undercover, using modern geophysical techniques and targeted drilling campaigns.

Results of exploration completed to date have identified the presence of mafic-ultramafic intrusive rocks including olivine gabbro-norites and associated geochemical anomalism, confirming the prospectivity of the Western Gawler region for intrusive-related nickel, copper (and gold) mineralisation. Additional to this, ongoing surface EM programs are identifying anomalous bedrock conductors that, in conjunction with existing magnetics and gravity datasets, allow planned drilling programs to evolve from a regional approach to more focused, prospect-scale targeting.

Key highlights for the quarter include:

- Air-core drilling underway with an additional 33 holes (for 1,930m) of drilling completed during the quarter at the Bullet Farm Prospect and targets within EL 5880.
- Continuation of a Moving Loop EM (MLEM) survey across multiple target areas with bedrock conductors identified within the Bullet Farm Prospect.
- Initial planning to support an upcoming heli-borne EM Survey.

#### **Moving Loop EM Survey**

Recent exploration activities include high-powered surface EM surveys across high priority aeromagnetic and gravity features interpreted as possible mafic-ultramafic intrusions. These broad-spaced EM surveys are capable of screening large target areas to detect bedrock conductors to a depth of 600m. The MLEM program is ongoing and designed to test up to ten priority target areas. The location and layout of these surveys have also been guided by updated geological interpretations, generated from re-processed aeromagnetic and gravity data.

During the quarter MLEM survey work continued in the Bullet Farm Area, where a bedrock anomaly was detected on the margin of a co-incident magnetic and gravity feature. Modelling of the anomaly indicates a broad, low-conductive source at depth. Additional surveying continued during the quarter at Thunderdome North, however no conductors have been identified. This phase of MLEM surveying will be completed in the upcoming quarter, and will incorporate work at Thunderdome North, Morrowland, Crack in the Earth and Citadel prospects.

#### Air-Core Drilling

A regionally extensive air-core drilling program comprising up to 8,000m commenced during March. The regional-scale programme is designed to test recently defined MLEM anomalies and a number of prospect-scale targets.

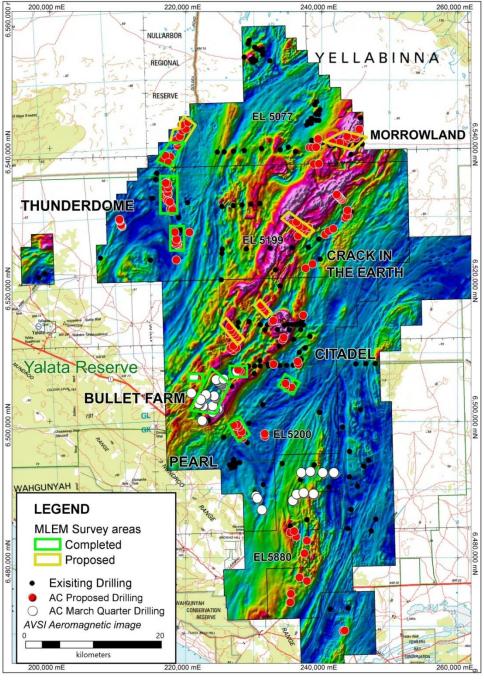
In total 33 holes were completed (for 1,930m) at Bullet Farm and multiple target areas within EL5880. At Bullet Farm, drilling has focussed upon the recently defined MLEM conductor on the margin of a prominent co-incident magnetic/gravity anomaly. Geological interpretation is ongoing, with early observations noting granite and felsic gneiss across the target area; no sulphides have been observed. Drilling within EL 5880 has predominantly intersected granite and amphibole-bearing gneissic rocks, which contain varying degrees of hydrothermal alteration and trace sulphides. Assay results are expected in the coming quarter.

Subsequent to this drilling, an additional 120 holes are planned across multiple targets for completion in the June quarter.



#### Airborne EM (Advanced Planning)

During the quarter, planning commenced to complete a state of the art, heli-borne electromagnetic survey, scheduled for the June quarter. Heli-borne electromagnetic surveys generate high-quality data, with fast survey completion over large areas, and are designed to detect buried ore deposits beneath younger sedimentary cover. The survey is planned across five priority survey areas for a total area of 900km².



Western Gawler - Drilling and Moving Loop EM activity

#### For the period ending 31 March 2018



#### COMPETENT PERSON'S STATEMENT:

The information within this report as it relates to mineral resources, ore reserves and exploration results is based on information compiled by Mr Andre Wulfse, Mr Marco Orunesu Preiata and Mr Graeme Gribbin of Western Areas Ltd. Mr Wulfse and Mr Orunesu Preiata are members of AusIMM and are full time employees of the Company. Mr Gribbin is a member of AIG and a full time employee of Western Areas. Mr Wulfse, Mr Orunesu Preiata and Mr Gribbin have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Gribbin, Mr Wulfse and Mr Orunesu Preiata consent to the inclusion in the report of the matters based on the information in the form and context in which it appears.

#### FORWARD LOOKING STATEMENT:

This release contains certain forward-looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. These forward-looking statements are subject to a variety of risks and uncertainties beyond the Company's ability to control or predict which could cause actual events or results to differ materially from those anticipated in such forward-looking statements.

These forward-looking statements are subject to a variety of risks and uncertainties beyond the Company's ability to control or predict which could cause actual events or results to differ materially from those anticipated in such forward-looking statements. Western Areas Ltd undertakes no obligation to revise these forward-looking statements to reflect subsequent events or circumstances.

Examples of forward looking statements used in this report include, but are not limited to: The Company has reviewed all FY18 guidance metrics and advises that nickel in concentrate production is expected to be marginally lower by ~0.5k nickel tonnes (~2% of production guidance) to around 21,000 nickel tonnes for the year.", and, "The DFS is due to be released in the September quarter and is expected to detail an operation with a mine life in excess of ten years and average annual production in excess of 12,000 nickel tonnes per annum, post a project ramp up period.", and, "LME and SHFE nickel stockpiles have recently fallen dramatically to their lowest levels in many years, which is another indicator of the positive outlook for the market." and "Mine production, unit cash costs, capital expenditure, feasibility study costs and the MREP are all expected to be delivered within guidance. Mine production is expected to be around the midpoint of the range and unit cash costs will be at the upper end of original guidance, with nickel in concentrate production being lower than plan, due mainly to lower feed grade, an increase in scats and mill throughput volume. While not a guidance metric, it is important to note that actual cash operating expenditure will be lower than plan due to our ongoing work around cost reduction initiatives."

This announcement does not include reference to all available information on the Company, the Forrestania Nickel Operation or the Cosmos Nickel Complex and should not be used in isolation as a basis to invest in Western Areas. Potential investors should refer to Western Areas' other public releases and statutory reports and consult their professional advisers before considering investing in the Company.

For the period ending 31 March 2018



# Western Areas ore reserve / mineral resource statement - Effective date 31st March 2018

|                                 |                                    | Tonnes                   | Grade Ni%                               | Ni Tonnes         | Classification             | JORC Cod |
|---------------------------------|------------------------------------|--------------------------|---|-------------------|----------------------------|----------|
| re Reserves                     |                                    |                          |   |                   |                            |          |
| . Flying Fox Area               |                                    | 810,200                  | 3.9                                     | 31,550            | Probable Ore Reserve       | 2012     |
| . Spotted Quoll Area            |                                    | 143,700                  | 4.0                                     | 5,780             | Proved Ore Reserve         | 2012     |
|                                 |                                    | 1,746,400                | 4.0                                     | 69,870            | Probable Ore Reserve       | 2012     |
| . Diggers Area                  |                                    |                          |   |                   |                            |          |
| 33.                             | Digger South                       | 2,016,000                | 1.4                                     | 28,950            | Probable Ore Reserve       | 2004     |
|                                 | Digger Rocks                       | 93,000                   | 2.0                                     | 1,850             | Probable Ore Reserve       | 2004     |
| TOTAL                           | FORRESTANIA ORE RESERVE            | 4,809,300                | 2.9                                     | 138,000           | 1.020210 0.0 11000110      | 2001     |
|                                 | TORRESTAINA ORE RESERVE            | 4,009,300                | 2.5                                     | 130,000           |                            |          |
| lineral Resources               |                                    |                          |   |                   |                            |          |
| . Flying Fox Area               |                                    |                          |   |                   |                            |          |
|                                 | T1 South                           | 132,279                  | 4.6                                     | 6,085             | Indicated Mineral Resource | 2012     |
|                                 |                                    | 55,219                   | 3.9                                     | 2,154             | Inferred Mineral Resource  | 2012     |
|                                 | T1 North                           | 55,779                   | 5.9                                     | 3,290             | Indicated Mineral Resource | 2012     |
|                                 | OTZ Sth Massive Zone               | 20,560                   | 4.1                                     | 843               | Inferred Mineral Resource  | 2012     |
|                                 | OTZ Sth Massive Zone               | 162,338                  | 4.0                                     | 6,574             | Indicated Mineral Resource | 2012     |
|                                 | T4 Massive Zone                    | 191,535                  | 5.5                                     | 10,580            | Indicated Mineral Resource | 2012     |
|                                 | T5 Massive Zone + Pegs             | 945,124                  | 5.6                                     | 52,820            | Indicated Mineral Resource | 2012     |
|                                 | T6 Massive Zone                    | 75,707                   | 5.2                                     | 3,905             | Indicated Mineral Resource | 2012     |
|                                 | T7 Massive Zone                    | 256,977                  | 2.1                                     | 5,303             | Inferred Mineral Resource  | 2012     |
| Total High                      | Grade                              | 1,895,518                | 4.8                                     | 91,553            |                            |          |
|                                 | T5 Flying Fox Disseminated Zone    | 197,200                  | 0.8                                     | 1,590             | Indicated Mineral Resource | 2004     |
|                                 | .,g                                | 357,800                  | 1.0                                     | 3,460             | Inferred Mineral Resource  | 2004     |
|                                 | T5 Lounge Lizard Disseminated Zone | 4,428,000                | 0.8                                     | 36,000            |                            | 2004     |
| Total Disco                     | eminated Flying Fox/Lounge Lizard  | 4,983,000                | 0.8                                     | 41,050            | aloutou Williolai Nesoulce | 2004     |
|                                 |                                    |                          |   |                   |                            |          |
| Total FF/LL                     |                                    | 6,878,518                | 1.9                                     | 132,603           |                            |          |
| 2. New Morning / Daybr          |                                    |                          |   |                   | 1 15 / 15 5                |          |
|                                 | Massive Zone                       | 340,126                  | 3.3                                     | 11,224            | Indicated Mineral Resource | 2012     |
|                                 |                                    | 78,067                   | 3.9                                     | 3,025             | Inferred Mineral Resource  | 2012     |
|                                 | Disseminated Zone                  | 3,318,468                | 1.2                                     | 41,181            | Indicated Mineral Resource | 2012     |
|                                 |                                    | 2,496,658                | 1.3                                     | 32,498            | Inferred Mineral Resource  | 2012     |
| Total New I                     | Morning / Daybreak                 | 6,233,319                | 1.4                                     | 87,928            |                            |          |
| S. Spotted Quoll Area           |                                    |                          |   |                   |                            |          |
|                                 | Spotted Quoll                      | 416,494                  | 5.9                                     | 24,358            | Measured Mineral Resource  | 2012     |
|                                 | ·                                  | 1,322,173                | 5.6                                     | 73,525            | Indicated Mineral Resource | 2012     |
|                                 |                                    | 181,013                  | 5.6                                     | 10,137            | Inferred Mineral Resource  | 2012     |
| Total Spotte                    | ed Quall                           | 1,919,680                | 5.6                                     | 108,020           |                            |          |
| rotar opott                     | Beautiful Sunday                   | 480,000                  | 1.4                                     | 6,720             | Indicated Mineral Resource | 2004     |
| T-4-110/4                       |                                    |                          | 2.2                                     |                   | Indicated Mineral Resource | 2004     |
| Total Wester                    | in Beit                            | 15,511,517               | 2.2                                     | 335,271           |                            |          |
| I. Cosmic Boy Area              | 0 . 5                              | 400.000                  | 0.0                                     | F 050             | 1 5 4 115 15               | 0004     |
|                                 | Cosmic Boy                         | 180,900                  | 2.8                                     | 5,050             | Indicated Mineral Resource | 2004     |
|                                 | Seagull                            | 195,000                  | 2.0                                     | 3,900             | Indicated Mineral Resource | 2004     |
| Total Cosm                      | ic Boy Area                        | 375,900                  | 2.4                                     | 8,950             |                            |          |
| 5. Diggers Area                 |                                    |                          |   |                   |                            |          |
|                                 | Diggers South - Core               | 3,000,000                | 1.5                                     | 44,700            | Indicated Mineral Resource | 2004     |
|                                 | Diggers South - Halo               | 4,800,000                | 0.7                                     | 35,600            | Indicated Mineral Resource | 2004     |
|                                 | Digger Rocks - Core                | 54,900                   | 3.7                                     | 2,030             | Indicated Mineral Resource | 2004     |
|                                 | Digger Rocks - Core                | 172,300                  | 1.1                                     | 1,850             | Inferred Mineral Resource  | 2004     |
|                                 | Digger Rocks - Halo                | 1,441,000                | 0.7                                     | 10,350            | Inferred Mineral Resource  | 2004     |
|                                 | Purple Haze                        | 560,000                  | 0.9                                     | 5,040             | Indicated Mineral Resource | 2004     |
| Total Digge                     | •                                  | 10,028,200               | 1.0                                     | 99,570            |                            |          |
|                                 | RRESTANIA MINERAL RESOURCE         | 25,915,617               | 1.7                                     | 443,791           |                            |          |
|                                 |                                    | 20,010,011               | • | 440,101           |                            |          |
| . Cosmos Area                   | AM5                                | 470.014                  | 2.6                                     | 12.420            | Indicated Mineral Poscuras | 2012     |
|                                 | AM5                                | 479,914                  | 2.6                                     | 12,430            | Indicated Mineral Resource |          |
|                                 | ANG                                | 26,922                   | 1.9                                     | 509               | Inferred Mineral Resource  | 2012     |
|                                 | AM6                                | 1,704,548                | 2.7                                     | 45,171            | Indicated Mineral Resource | 2012     |
|                                 | Odraca and Oscillation             | 329,443                  | 2.5                                     | 8,203             | Inferred Mineral Resource  | 2012     |
|                                 | Odysseus South Disseminated        | 4,016,949                | 2.1                                     | 84,767            | Indicated Mineral Resource | 2012     |
|                                 | 2.1                                | 219,641                  | 2.0                                     | 4,302             | Inferred Mineral Resource  | 2012     |
|                                 | Odysseus North - Disseminated      | 3,128,943                | 2.6                                     | 81,156            | Indicated Mineral Resource | 2012     |
|                                 |                                    | 225,248                  | 2.7                                     | 6,111             | Inferred Mineral Resource  | 2012     |
|                                 | Odysseus North - Massive           | 145,830                  | 6.1                                     | 8,836             | Indicated Mineral Resource | 2012     |
|                                 |                                    | 124,900                  | 11.2                                    | 14,002            | Inferred Mineral Resource  | 2012     |
|                                 | os Area                            | 10,402,338               | 2.6                                     | 265,487           |                            |          |
| Total Cosm                      |                                    |                          |   |                   |                            |          |
|                                 | Mt Goode                           | 13,563,000               | 0.8                                     | 105,791           | Measured Mineral Resource  | 2012     |
| Total Cosm<br>'. Mt Goode Area  | IVIL GOODE                         |                          |   |                   | Indicated Mineral Resource | 2012     |
|                                 | Wil Goode                          | 27 363 000               | 0.6                                     | 120 702           |                            |          |
|                                 | Wit Goode                          | 27,363,000<br>12,009,000 | 0.6<br>0.5                              | 158,705<br>62 447 |                            |          |
| . Mt Goode Area                 |                                    | 12,009,000               | 0.5                                     | 62,447            | Inferred Mineral Resource  | 2012     |
| 7. Mt Goode Area<br>Total Mt Go |                                    |                          | 0.5<br>0.6                              |                   | Inferred Mineral Resource  |          |



# JORC 2012 TABLE 1 – Forrestania Exploration

**Section 1: Sampling Techniques and Data** 

| Criteria                       | JORC Code explanation   | Commentary  |
|--------------------------------|---|---|
| Sampling<br>techniques         |   | <ul> <li>Exploration targets were sampled using Reverse Circulation (RC) drilling methods and holes were typically drilled close to perpendicular to the strike (north-northeast – south-southwest) of the stratigraphy, at dip angles ranging between -60° and -90°.</li> <li>Drill holes were located initially with hand held GPS and later surveyed by differential GPS. Samples were submitted to ALS laboratories at Malaga, Perth. All sampling was conducted under WSA QAQC protocols which are in accordance with industry best practice.</li> </ul> |
|                                | Include reference to measures taken to ensure<br>sample representivity and the appropriate<br>calibration of any measurement tools or systems<br>used.  | <ul> <li>All samples were prepared and assayed by independent commercial laboratories whose instruments are regularly calibrated</li> <li>Geophysical survey QC parameters were reviewed by independent supervising geophysicists from Newexco Services Pty Ltd</li> </ul>  |
|                                | Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. | Samples were crushed, dried and pulverised (total prep) to produce a sub<br>sample for analysis by 4 acid digest with an ICP/AES and FA/ICP (Au, Pt, Pd)<br>finish.   |
| Drilling<br>techniques         | <ul> <li>Drill type (e.g. core, reverse circulation, open-hole<br/>hammer, rotary air blast, auger, Bangka, sonic,<br/>etc) and details (e.g. core diameter, triple or<br/>standard tube, depth of diamond tails, face-<br/>sampling bit or other type, whether core is oriented<br/>and if so, by what method, etc).</li> </ul>  | <ul> <li>A KWL 350 rig with Atlas Copco 2100CFM / 800PSI Booster / Auxiliary was used.</li> <li>RC drilling comprises nominally 140mm diameter face sampling hammer drilling</li> </ul>   |
| Drill sample<br>recovery       | <ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>  | <ul> <li>RC recoveries are visually estimated and logged and recorded in the database along with comments relating to moisture and contamination.</li> <li>The style of mineralisation and the consistency of the mineralised intervals are considered to preclude any issue of sample bias due to material loss or gain.</li> <li>Drilling in the oxidised profile results in more incomplete core recoveries.</li> </ul>  |
| Logging                        | Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.   | <ul> <li>All geological logging was carried out to a high standard using well established geology codes in LogChief software.</li> <li>All logging recorded in a Panasonic Toughbook PC.</li> </ul>   |
|                                | <ul> <li>Whether logging is qualitative or quantitative in<br/>nature. Core (or costean, channel, etc)<br/>photography.</li> </ul>  | Drill chips are logged for lithology, mineralogy, alteration, weathering, fabric type and intensity, grainsize, colour and other relevant properties.   |
|                                | The total length and percentage of the relevant intersections logged.   | All holes are logged from surface to end of hole.   |
| Sub-sampling<br>techniques and | If core, whether cut or sawn and whether quarter,<br>half or all core taken.  | Not applicable owing to drilling method.  |
| sample<br>preparation          | If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.   | <ul> <li>RC samples were collected on the rig using cone splitters. Composite<br/>samples are collected via riffle splitting or spearing to generate a single<br/>sample of less than3kg.</li> </ul>  |
|                                | <ul> <li>For all sample types, the nature, quality and<br/>appropriateness of the sample preparation<br/>technique.</li> </ul>  | Sample preparation follows industry best practice involving oven drying, coarse crushing and pulverising.   |
|                                | <ul> <li>Quality control procedures adopted for all sub-<br/>sampling stages to maximise representivity of<br/>samples.</li> </ul>  | <ul> <li>The field crew prepares and inserts the QAQC certified reference materials<br/>into the relevant calico bags.</li> </ul>   |

## For the period ending 31 March 2018



| Criteria   | JORC Code explanation  | Commentary  |
|--|--|---|
|  |  | OREAS and Geostats standards have been selected based on their grade range and mineralogical properties, with approximately 12 different standards used.  |
|  | <ul> <li>Measures taken to ensure that the sampling is<br/>representative of the in situ material collected,<br/>including for instance results for field<br/>duplicate/second-half sampling.</li> </ul>   | Standards are inserted approximately every 20 samples or at least one every hole for both diamond and RC drilling. Duplicates are normally inserted every 20 samples in RC drilling Blanks are inserted selectively in RC and diamond programs, at least one and sometimes two samples per hole for regular monitoring and to detect smearing in the laboratory processing.   |
|  | Whether sample sizes are appropriate to the grain size of the material being sampled.  | Based on the grain size of the target style of mineralisation, sample sizes are considered appropriate.   |
| Quality of<br>assay data and<br>laboratory tests | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.   | <ul> <li>All samples are assayed by independent certified commercial laboratories.</li> <li>The laboratories used are experienced in the preparation and analysis of nickel sulphide ores.</li> </ul>   |
|  | For geophysical tools, spectrometers, handheld     XRF instruments, etc, the parameters used in     determining the analysis including instrument     make and model, reading times, calibrations     factors applied and their derivation, etc. | <ul> <li>No Geophysical tools or handheld XRF instruments were used to determine<br/>any element concentrations that were subsequently used for MRE or<br/>exploration reporting purposes.</li> </ul>   |
|  | Nature of quality control procedures adopted<br>(e.g. standards, blanks, duplicates, external<br>laboratory checks) and whether acceptable levels<br>of accuracy (i.e. lack of bias) and precision have<br>been established.                     | <ul> <li>Certified reference materials are included in all batches dispatched at an approximate frequency of 1 per 25 samples, which also equates to at least 1 per drill-hole.</li> <li>Lab checks, both pulp and crush, are taken alternately by the lab at a frequency of 1 in 25.</li> <li>Accuracy and precision were assessed using industry standard procedures such as control charts and scatter plots.</li> <li>Evaluations of standards are completed on a monthly, quarterly and annual basis using QAQCR.</li> </ul> |
| Verification of sampling and assaying            | The verification of significant intersections by<br>either independent or alternative company<br>personnel.  | Geological interpretation using intersections peer viewed by prior company and WSA geologists.  |
| , ,  | The use of twinned holes.  | Not applicable.   |
|  | Documentation of primary data, data entry<br>procedures, data verification, data storage<br>(physical and electronic) protocols.   | <ul> <li>All primary geophysical data were recorded digitally and sent in electronic format to Newexco Services Pty Ltd for quality control and evaluation.</li> <li>All geological logging was carried out to a high standard using well established geology codes in LogChief software.</li> <li>All other data including assay results are imported via Datashed software.</li> <li>Drillholes, sampling and assay data is stored in a SQL Server database located in a dedicated data center.</li> </ul>                      |
|  | Discuss any adjustment to assay data.  | None  |
| Location of data points                          | <ul> <li>Accuracy and quality of surveys used to locate drill<br/>holes (collar and down-hole surveys), trenches,<br/>mine workings and other locations used in Mineral<br/>Resource estimation.</li> </ul>                                      | Drill holes were located using a hand held GPS.   |
|  | Specification of the grid system used.   | <ul> <li>MGA94 Zone 51 grid coordinate system is used.</li> <li>A two point transformation is used to convert the data from AMG84_51 mine grid and vice versa.</li> </ul>   |
|  | Quality and adequacy of topographic control.   | <ul> <li>The project area is flat and the topographic data density is adequate for MRE purposes</li> <li>Collar positions were picked up by suitably qualified surface and underground surveyors.</li> </ul>  |
| Data spacing and distribution                    | Data spacing for reporting of Exploration Results.   | Drill hole spacing at Parker Dome is varied according to the nature of target type. Along east-west oriented drill traverses, drill-hole spacing varied between 100 – 200m, based on the nature of the test target.   |
|  | Whether the data spacing and distribution is<br>sufficient to establish the degree of geological and   | Not applicable. The drilling program at Parker Dome is at an early target<br>generation and testing stage. No resource estimations are being considered   |

# For the period ending 31 March 2018



| Criteria   | JORC Code explanation  | Commentary   |
|--|--|--|
|  | grade continuity appropriate for the Mineral<br>Resource and Ore Reserve estimation procedure(s)<br>and classifications applied.   | at this time.  |
|  | Whether sample compositing has been applied.   | <ul> <li>4m sampling compositing has been applied down-hole for all RC holes, and<br/>pending the final returned results, 1m sample intervals would be completed<br/>where significant results are received.</li> </ul>  |
| Orientation of<br>data in relation<br>to geological<br>structure | Whether the orientation of sampling achieves<br>unbiased sampling of possible structures and the<br>extent to which this is known, considering the<br>deposit type.  | <ul> <li>Based on our current geological understanding of the stratigraphy at Parker<br/>Dome, the majority of the drill holes are orientated to achieve intersection<br/>angles as close to perpendicular as possible. The variable and steep dipping<br/>nature of the stratigraphy at some locations (-70° to -80°) means this is not<br/>always achieved.</li> </ul> |
|  | <ul> <li>If the relationship between the drilling orientation<br/>and the orientation of key mineralised structures is<br/>considered to have introduced a sampling bias, this<br/>should be assessed and reported if material.</li> </ul> | No orientation based sampling bias has been observed in the data, intercepts are reported as downhole lengths.   |
| Sample security  | The measures taken to ensure sample security.  | Standard West Australian mining industry sample security measures were observed  |
| Audits or reviews  | The results of any audits or reviews of sampling techniques and data.  | <ul> <li>Adrian Black of Newexco Pty Ltd (a member of the AIG), an independent<br/>exploration company, has reviewed the data and sampling techniques<br/>employed by the Company.</li> </ul>  |



# JORC 2012 TABLE 1 – Forrestania Exploration

### **Section 2: Reporting of Exploration Results**

(Criteria listed in Section 1, also apply to this section.)

| Criteria   | JORC Code explanation   | Commentary   |
|--|---|--|
| Mineral<br>tenement and<br>land tenure<br>status                         | tenement and ownership including agreements or material issues land tenure with third parties such as joint ventures,   | <ul> <li>Forrestania Nickel Operations comprises approximately 125 tenements covering some 900km2 within the Central Yilgarn Province. The tenements include exploration licences, prospecting licences, general purpose leases, miscellaneous licences and mining leases.</li> <li>Western Areas wholly owns 106 tenements, 55 tenements of which were acquired from Outokumpu in 2002 and a further 51 tenements acquired</li> </ul>   |
|  |   | from Kagara in March 2012 (some which are subject to various third party royalty agreements). The remainder of the tenements are subject to Joint Ventures.  |
|  |   | <ul> <li>A number of the Kagara tenements are subject to third party royalty<br/>agreements.</li> </ul>  |
|  |   | All the tenements are in good standing. Six tenements are pending grant.   |
| Exploration • Acknowledgment and appraisal of exploration other parties. | Acknowledgment and appraisal of exploration by other parties.   | Western Areas has been exploring its wholly owned tenements since 2002. The tenements subject to the Kagara sale which took place in March 2012 were explored by Kagara since 2006 and Lion Ore and St Barbara prior to that time.   |
|  |   | <ul> <li>Western Areas has managed the Mt Gibb JV since 2009 (Great Western<br/>Exploration explored the ground prior to that time).</li> </ul>  |
| Geology  | Deposit type, geological setting and style of<br>mineralisation.  | <ul> <li>The FNO lies within the Forrestania Greenstone Belt, which is part of the Southern Cross Province of the Yilgarn Craton in Western Australia. The main deposit type is the komatiite hosted, disseminated to massive Nickel sulphide deposits, which include the Flying Fox and Spotted Quoll deposits which are currently being mined. The mineralisation occurs in association with the basal section of high MgO cumulate ultramafic rocks.</li> <li>The greenstone succession in the FNO district also hosts a number of orogenic lode gold deposits of which Bounty Gold Mine is the biggest example. Some exploration for this style of deposit is undertaken by Western</li> </ul>   |
| Information understanding of the exploration i                           |   | Drill-hole location summary details for Parker Dome are captured in the enclosed table (see below).  HOLE ID Easting Northing RL_MGA_50 EOH Depth Actual Type Dip Azimuth Comments   |
|  | <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>  | PDRC001 768030.0 6462000.0 392.0 100 RC -60 270 Hole Complete PDRC002 766760.0 6465120.0 394.0 150 RC -60 270 Hole Complete PDRC003 766425.0 6465995.0 401.0 148 RC -60 270 Hole Complete PDRC004 767660.0 6465995.0 395.0 152 RC -60 270 Hole Complete PDRC005 767725.0 6467003.0 399.0 106 RC -60 270 Hole Complete PDRC006 767815.0 6467003.0 399.0 232 RC -60 270 Hole Complete PDRC006 767815.0 6467003.0 399.0 180 RC -60 270 Hole Complete PDRC007 769385.0 6469700.0 419.0 180 RC -60 270 Hole Complete PDRC008 768980.0 6469707.0 425.0 234 RC -60 270 Hole Complete PDRC009 770810.0 6469998.0 429.0 169 RC -60 270 Hole Complete PDRC010 770710.0 6470396.0 435.0 234 RC -60 270 Hole Complete PDRC011 771900.0 6471199.0 440.0 140 RC -60 270 Hole Complete PDRC012 773650.0 6473500.0 400.0 144 RC -60 270 Hole Complete PDRC013 770650.0 6470396.0 435.0 204 RC -55 270 Hole Complete PDRC013 770650.0 6470396.0 435.0 204 RC -55 270 Hole Complete PDRC013 770650.0 6470396.0 435.0 204 RC -55 270 Hole Complete PDRC014 768930.0 6469707.0 425.0 95 RC -55 270 Hole Complete |
| Data<br>aggregation<br>methods   | <ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul> | <ul> <li>Standard weighted averaging of drill hole intercepts were employed. No maximum or minimum grade truncations were used in the estimation.</li> <li>The reported assays have been length and bulk density weighted. A lower arbitrary 0.5% Ni cut-off is applied, with no top cut applied. High grade intercepts internal to broader zones of mineralisation are reported as included intervals. An arbitrary 0.1ppm Au cut-off has been applied for significant reported Au intersections, with no top cut applied.</li> <li>Metal equivalents have not been used</li> </ul>   |
| Relationship   | These relationships are particularly important in   | Drill hole intersections may not be true widths  |

# For the period ending 31 March 2018



| Criteria  | JORC Code explanation   | Commentary   |
|---|---|--|
| between<br>mineralisation<br>widths and<br>intercept<br>lengths | <ul> <li>the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>                     |  |
| Diagrams  | <ul> <li>Appropriate maps and sections (with scales) and<br/>tabulations of intercepts should be included for any<br/>significant discovery being reported These should<br/>include, but not be limited to a plan view of drill<br/>hole collar locations and appropriate sectional<br/>views.</li> </ul>   | No significant results reported for this quarter.  |
| Balanced<br>reporting   | Where comprehensive reporting of all Exploration<br>Results is not practicable, representative reporting<br>of both low and high grades and/or widths should<br>be practiced to avoid misleading reporting of<br>Exploration Results.   | No significant results have been returned for this quarter.  |
| Other<br>substantive<br>exploration<br>data                     | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | <ul> <li>Included within report</li> <li>Information on structure type, dip, dip direction alpha and beta angles, texture, shape, roughness and fill material is stored in the structural logs in the database.</li> </ul> |
| Further work  | <ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>                   | <ul> <li>Follow-up work is at the planning stage, with diagrams outlining this work to be captured in future reports.</li> <li>Future explorations programs may change depending on results and strategy.</li> </ul>       |



# JORC 2012 TABLE 1: SECTION 1: Sampling Techniques and Data – Western Gawler **Joint Venture**

| Criteria  | JORC Code Explanation  | Comment  |
|---|--|--|
| Sampling<br>techniques                                    | <ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul> | <ul> <li>Air-core (AC) drilling is used for sampling.</li> <li>Each sample interval is split to approximately 3kg using a rig mounted rotary splitter.</li> <li>Each sample is sent for analysis to ALS Global laboratories in Perth, Western Australia.</li> <li>The sample is pulverised in the laboratory (total prep) to produce a sure sample for assaying.</li> <li>All sampling was conducted using WSA QAQC sampling protocols which are in accordance with industry best practice.</li> </ul>   |
| Drilling<br>Techniques                                    | <ul> <li>Drill type (e.g. core, reverse circulation, open-hole<br/>hammer, rotary air blast, auger, Bangka, sonic,<br/>etc) and details (e.g. core diameter, triple or<br/>standard tube, depth of diamond tails, face-<br/>sampling bit or other type, whether core is<br/>oriented and if so, by what method, etc).</li> </ul>   | <ul> <li>Exploration targets are tested using AC drilling. Holes were typically drille vertically.</li> <li>A truck-mounted air-core rig is used with a 3 inch diameter face samplin hammer drilling or Air-Core bit.</li> </ul>   |
| Drill sample<br>recovery                                  | <ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias</li> </ul>  | <ul> <li>Drilling recoveries are digitally logged, recorded and captured within the project database.</li> <li>Overall recoveries are &gt;95% and there has been no significant loss of sample material due to ground or drilling issues.</li> <li>Each individual samples are visually checked for recovery, moisture and contamination.</li> <li>The style of expected mineralisation and the consistency of the mineralise intervals are expected to preclude any issue of sample bias due to material loss or gain.</li> </ul>   |
| Logging   | <ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc)</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>  | <ul> <li>Geological logging is recorded and validated in excel spreadsheet. (Toughbook platform)</li> <li>Drill chips are logged for lithology, mineralogy, mineralisation, weathering fabric, grainsize, colour and other relevant features.</li> <li>Geotechnical logging was not completed due to the nature of drill method.</li> <li>All holes have been logged from the surface to the end of hole.</li> <li>Petrology is used to verify the field geological logging.</li> </ul>  |
| Sub-sampling<br>techniques and<br>sampling<br>preparation | <ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is</li> </ul>  | <ul> <li>The drill samples were collected every metre on the drill rig using a rotary splitter.</li> <li>No composite samples are taken.</li> <li>Field QC procedures involve the use of certified reference material as assay standards, along with blanks, duplicates and barren washes. The insertion rate of these averaged 1:20, with an increased rate in mineralised zones.</li> <li>Field duplicates are conducted on approximately 1 in 25 drill intersections.</li> <li>The sample sizes are considered to be appropriate to correctly represent the geological model based on: the style of mineralisation, the thickness and consistency of the expected intersections, the sampling methodology and percent value assay ranges for the primary elements.</li> </ul> |

representative of the in situ material collected,

# For the period ending 31 March 2018



| Criteria   | JORC Code Explanation  | Comment   |
|--|--|---|
|  | <ul> <li>including for instance results for field duplicate/second-half sampling</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>   |   |
| Quality of assay<br>data laboratory<br>tests                     | <ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul> | <ul> <li>All samples are processed by ALS Minerals (Australian Laboratory Services P/L) in Perth, Western Australia</li> <li>All drill samples are subjected to ICP-MS (ME-MS61) analysis using nitric, perchloric, hydroflouric and hydrochloride acid digest.</li> <li>All samples are also assayed for PGE's using PGM-ICP23</li> <li>Standards and blanks are routinely used to assess company QAQC (approx 1 standard for every 25-50 samples).</li> </ul> |
| Verification of sampling and assaying                            | <ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>  | <ul> <li>Primary data was collected using validated excel spreadsheets, on Toughbook computers.</li> <li>All data is validated by the supervising geologist, and sent to WSA Perth for further validation and integration into a Microsoft Access database.</li> </ul>  |
| Location of data points  | <ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>  | <ul> <li>Drill holes were located using hand held GPS.</li> <li>Elevation data is captured with hand held GPS, and cross referenced with local topographical maps (DMP produced), SRTM data and recently captured DTM models (where covered by the Aeromagnetic Surveys – Thomson Aviation).</li> <li>MGA94 Zone 53 grid coordinate system is used.</li> </ul>  |
| Data spacing and distribution                                    | <ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>   | <ul> <li>Drill holes are located and specifically planned according to target location and stratigraphic location.</li> <li>Samples are collected every metre down hole.</li> <li>Sample compositing has not yet been applied, but may do so depending on the assay information required.</li> </ul>  |
| Orientation of<br>data in relation<br>to geological<br>structure | <ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>   | <ul> <li>The majority of the drill holes are drilled vertically which may reduce range of lithologies or cross section of stratigraphy sampled in areas that are steeply dipping.</li> <li>Heritage and/or environmental constraints may prevent some ideal drilling solutions.</li> <li>No orientation based sampling bias has been observed in the data, intercepts are reported as down-hole lengths.</li> </ul>   |
| Sample Security  | The measures taken to ensure sample security.  | <ul> <li>All samples are captured and prepared for transport onsite under the supervision of WSA staff.</li> <li>All samples are collected in sealed task specific containers (Bulka bags – plastic pallets) and delivered from site to Perth and then the assay laboratory via WSA staff.</li> </ul>   |
| Audits and<br>Reviews  | The results of any audits or reviews of sampling techniques and data.  | <ul> <li>Adrian Black of Newexco Pty Ltd (a member of the AIG), an independent<br/>exploration company, has reviewed the data and sampling techniques<br/>employed by WSA.</li> </ul>   |



#### **Section 2: Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

| Criteria   | JORC 2012 Explanation   | Comment   |
|--|---|---|
| Mineral<br>tenement and<br>land tenure<br>status | <ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>  | <ul> <li>The Western Gawler Project comprises 6 exploration licenses covering some 4,448km2, of which 5 are held 100% WSA. (EL 6087(formerly EL 5077), EL 5199, EL5200, EL5688 and EL5939)</li> <li>A sixth license EL 5880 (formerly EL 4440) is operated under the Strandline Resources Ltd / Western Areas Ltd Farm-In and Joint Venture (JV) Agreement.</li> </ul>  |
| Exploration<br>done by other<br>parties.         | Acknowledgment and appraisal of exploration by<br>other parties.  | <ul> <li>The project area was originally explored by BHP Billiton as part of its extensive gold, titanium, Iron and nickel target generation work, and more recently by Gunson Resources Limited (Nickel), Equinox (Base Metals and Gold) and Iluka Resources Ltd (Mineral Sands). It is deemed that the previous exploration was of variable effectiveness.</li> <li>The South Australian Government has performed widely spaced stratigraphic diamond drilling along a number of traverses in the tenure</li> <li>The success rate of historical RC drilling is low, while the AC and Diamond drilling was effective.</li> <li>Gravity, Magneto Tellurics and Airborne Electro-magnetics have been used in selective locations within the project area.</li> <li>The historical geophysics is deemed to have been effective.</li> </ul> |
| Geology  | Deposit type, geological setting and style of<br>mineralisation.  | <ul> <li>The Western Gawler Project lies within the Fowler Domain of western South Australia. The Fowler Domain is a Mesoproterozoic orogenic belt comprised o medium to high metamorphic grade basement lithologies and younger felsic, mafic and ultramafic intrusives.</li> <li>Similarly aged terranes globally contain significant accumulations of nickel and copper sulphides.</li> <li>Whilst not primary target types, the area may also be prospective for orogenia gold, IOCG and skarn related mineralisation.</li> </ul>   |
| Drill hole<br>Information                        | <ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul> | No exploration results have been returned for this phase of drilling within the quarter. See Figure for drill-hole locations.   |
| Data<br>aggregation<br>methods                   | <ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>   | <ul> <li>Where assays results have been reported, they represent a single sampling interval (1m). In this case, no compositing has been used.</li> <li>No metal equivalents have been used.</li> </ul>  |
| Relationship                                     | These relationships are particularly important in   | Not applicable  |

# For the period ending 31 March 2018



| Criteria   | JORC 2012 Explanation   | Comment   |
|--|---|---|
| mineralisation<br>widths and<br>intercept<br>lengths | <ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>  |   |
| Diagrams   | <ul> <li>Appropriate maps and sections (with scales) and<br/>tabulations of intercepts should be included for<br/>any significant discovery being reported These<br/>should include, but not be limited to a plan view of<br/>drill hole collar locations and appropriate sectional<br/>views.</li> </ul>   | Refer to Figure for drill-hole locations.   |
| Balanced reporting                                   | <ul> <li>Where comprehensive reporting of all Exploration<br/>Results is not practicable, representative reporting<br/>of both low and high grades and/or widths should<br/>be practiced to avoid misleading reporting of<br/>Exploration Results.</li> </ul>   | No significant material results to report.  |
| Other<br>substantive<br>exploration<br>data          | Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | Multi-element analysis was conducted routinely on all samples for a base<br>metal and PGM suite and potentially deleterious elements.   |
| Further work   | <ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>                 | <ul> <li>Exploration within the Western Gawler Project is ongoing.</li> <li>At this stage of the exploration program, the nature of the geological model is evolving. Details of further work and will be forthcoming as the project progresses.</li> </ul> |