## **ACTIVITY REPORT** For the period ending 31 March 2022



### STRONGER NICKEL PRICE GENERATES FREE CASHFLOW

Western Areas ("WSA" or the "Company") (ASX: WSA) is pleased to provide the March Quarterly Activity report.

### MARCH QUARTER 2022 HIGHLIGHTS

- Development of the Odysseus mine continued to achieve positive progress, with first concentrate remaining on track to be produced in the December 2022 quarter.
- Significant infrastructure progress at Odysseus included completion of the winder house building, near completion of the haulage shaft reaming, introduction of gas to the power plant, and continued refurbishment and expansion of the processing plant.
- AM6 Feasibility Study advanced and will be integrated with the FY23 Odysseus mining budget to provide scheduling and production synergies.
- Record monthly revenue of A\$52 million in March, with operating cashflow for the quarter increasing by A\$15.2m to A\$50.1 million, underpinned by the robust nickel price environment.
- Nickel sales were 3,412 tonnes in concentrate at an average realised nickel price of A\$18.44/lb (Dec Q: A\$13.16/lb).
- Forrestania mine production was 3,254 nickel tonnes in ore, compared to 4,200 nickel tonnes in the prior quarter, as the higher nickel price facilitated the ability to mine in lower grade areas.
- Mill production of 3,339 nickel tonnes in concentrate, compared to 4,025 nickel tonnes in the prior quarter, included the impact of lower grade material and a planned shutdown coinciding with major Western Power maintenance.
- Unit cash cost of nickel in concentrate increased to A\$5.52, reflecting increased costs related to Western Power planned maintenance and COVID-19 related productivity issues increasing costs. Also the decision to access lower grade mining areas and process lower grade stockpiles whilst nickel prices are elevated.
- Cash at bank of A\$151.8m and no drawn debt, a \$9.1 million increase for the quarter after A\$38.3m of capex, feasibility study and exploration expenditure.
- Western Areas and IGO Limited (ASX: IGO) agreed to increase the Scheme Consideration post quarter end to \$3.87 cash per Western Areas share for IGO to acquire 100% of the share capital of Western Areas, subject to shareholder approval, the Independent Expert continuing to conclude the scheme is in the best interests of shareholders and in the absence of a superior proposal.

# Western Areas Managing Director, Mr Dan Lougher said the Company continued to methodically progress the development of its long-life Odysseus mine during the quarter, in tandem with capitalising on the buoyant nickel market conditions across its existing operations and corporate activity.

"We are continuing to build on the positive momentum in the development of Odysseus, de-risking the construction schedule further during the quarter, and we have received an excellent response from potential offtake partners for Odysseus' initial production in an evolving and positive nickel price environment. Further upside at our emerging operations is on the horizon, with the AM6 Feasibility Study reaching a very advanced stage during the quarter. The strengthening nickel market conditions enabled us to deliver enhanced operating cash flow from Forrestania, with a record revenue result achieved in March."

At Odysseus, 1,301m of lateral and decline development was achieved during the quarter. The Company completed the winder house construction, with the electrical fit out nearing completion, and shaft fit out commencing early this month.

Production from the Forrestania operation for the quarter was 3,339 nickel tonnes in concentrate, down from 4,025 nickel tonnes in the prior quarter, which included the impact of a planned shutdown at the Cosmic Boy concentrator during January and COVID-19 related productivity issues. The Company significantly reduced its low-grade ore stockpile during the current strong nickel price environment, which in turn impacted unit costs.

Nickel concentrate sales to offtake customers comprised 3,412 nickel tonnes at an average realised, prepayable, nickel price of A\$18.44/lb, up from A\$13.16/lb in the December quarter. The nickel market continues to show signs of tight supply in both the short and long term, with the ongoing Russian invasion of Ukraine impacting short term supply and sustained growth in demand from the EV battery market impacting longer term demand.



### **PRODUCTION OVERVIEW**

Itom	Unit	FY 21			YTD	
item	Unit	YTD	Sep Qtr	Dec Qtr	Mar Qtr	Total
Total Ore Mined	tonnes	522,855	117,009	123,671	102,848	343,528
Mined Grade	Ni %	3.2%	3.2%	3.4%	3.2%	3.3%
Total Nickel Mined	tonnes	16,812	3,741	4,200	3,254	11,195
Ore Processed (Milling/Concentrator)	tonnes	581,058	148,124	151,417	150,104	449,645
Processed Grade	Ni %	3.2%	3.1%	3.1%	2.6%	2.9%
Average Processing Recovery	%	87%	84%	86%	84%	85%
Total Nickel in Concentrate	tonnes	16,180	3,804	4,025	3,339	11,168
Total Nickel Sold	tonnes	15,509	3,962	4,511	3,412	11,885
Contained Nickel in Stockpiles	tonnes	2,772	2,079	1,442	1,023	
Cash Cost Ni in Concentrate (ex MREP)	A\$/lb	4.20	4.90	4.88	5.48	5.07
Total Cash Cost Ni Conc (inc. MREP)	A\$/lb	4.23	4.95	4.87	5.52	5.10
Total Cash Cost Ni Conc (inc. MREP)	US\$/lb	3.16	3.63	3.55	3.99	3.71
Exchange Rate	US\$/A\$	0.75	0.73	0.73	0.72	0.73
Realised Nickel Price (before payability)	A\$/lb	10.07	11.90	13.16	18.44	14.26

Western Areas is an Australian based nickel sulphide miner, supplying local and international smelter and refinery operators with high grade nickel concentrates. Its main production asset, the 100%-owned Forrestania Nickel Operation, is located 400km east of Perth in Western Australia. Western Areas is Australia's second largest independent sulphide nickel miner, producing approximately 15,000 to 16,000 nickel tonnes in concentrate per annum from its high grade Flying Fox and Spotted Quoll mines.

The Company's key growth project is the long-life Odysseus mine located at the Cosmos Nickel Operation. With a mine life in excess of ten years and expected low operating cost, the Odysseus mine will underpin the Company's nickel production well into the future.

The Company is an active explorer across its significant tenement holding at Forrestania, Cosmos and Western Gawler in Australia. The Company also holds a 19.9% interest in Panoramic Resources Ltd, the owner of the Savanah Nickel mine in Western Australia, and exploration interests in Canada via a 4.7% holding in Grid Metals Corp (TSXV:GRDM). Additionally, the Company has exposure to the emerging lithium market via an exploration joint venture with Wesfarmers Chemicals Energy and Fertilizers (WES CEF) across Forrestania's northern tenements.

The Board remains focused on the core business of economic, 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 strict cost control. Its latest Company presentation can be found at <u>https://www.westernareas.com.au/investor-centre/presentations</u>.

#### The announcement was authorised for release by the MD/CEO and CFO. For further details, please contact:

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### **COVID-19 UPDATE**

During the quarter, the Company continued to manage the adverse operational impacts at the Cosmos and Forrestania operations caused by personnel in close contact quarantine, exacerbating the ongoing skills shortage, including front line operators, maintenance staff, as well as supervisory staff. With the Western Australian borders reopening during the latter part of the quarter, rigorous standards implemented across both operations were effective in minimising the impact of the virus across the Company's activities.

COVID-19 pre-flight screening was implemented at both operations and purchase of Rapid Antigen Tests (RAT) for use by all personnel has enabled timely identification and quarantine of symptomatic cases.

It is pleasing that all contract and Company staff are fully vaccinated and have had, or are currently scheduling, their booster shots, in compliance with Western Australian mandatory COVID-19 vaccination directions.

With the imminent further relaxation of Western Australia's COVID-19 restrictions, these risks are expected to remain for the foreseeable future and are being managed accordingly.

### MINE SAFETY AND ENVIRONMENT

#### SAFETY

The Company's Lost Time Injury Frequency Rate (LTIFR) increased from zero to 0.63 and the Total Recordable Injury Frequency Rate (TRIFR) increased from 10.60 to 13.25. The TRIFR includes all recordable injuries that require medical assessment, medical treatment and/or restricted duties that result in lost time across the Company

#### Forrestania (FNO)

There was one Lost Time Injury (LTI) recorded, which increased the LTI Frequency Rate from zero to 1.05. The LTI was as a result of infection from a small puncture wound through the glove while cleaning an acid line at the demonstration heap leach. The Total Recordable Injury Frequency Rate (TRIFR) increased from 8.10 to 11.53.

Health initiatives during the quarter included pilates, personalised exercise programmes, cardiovascular testing, circuit training and trigger point therapy. Safety initiatives included the development of Rapid Antigen Testing (RAT) procedures, updating the FNO Psychosocial Risk Assessment, ergonomic and manual handling workshops, and Job Hazard Analysis (JHA) training for mill maintenance teams. A site-specific Business Continuity Plan (BCP) was also developed, aligning with the Group COVID-19 Management Plan.

Accredited first aid training was completed for site personnel and emergency response team (ERT) training included medical and triage mitigation, breathing apparatus, surface fire, confined space and vertical rescue. ERT members also responded to a simulated aerodrome emergency and participated in the FNO emergency response assault course.



Aerodrome mock emergency training



Aerodrome mock emergency training





Confined space training



First aid training

#### Cosmos (CNO)

No Lost Time Injuries were recorded and the LTIFR remained at 0.00, while the TRIFR increased from 17.45 to 19.15.

Two new emergency/medical personnel were added to the Health and Safety team to meet the needs of the growing on-site workforce and increased workload resulting from COVID-19 requirements, e.g., establishing rapid antigen test (RAT) facilities and isolation rooms.

Safety initiatives included a mock fire emergency drill, updating the road travel and site access procedures and a site wide COVID-19 risk assessment to update the COVID-19 preparation and business continuity plans.

CNO completed accredited BG4 training, worked on new and updated mutual aid agreements (including the department of fire and emergency services (DFES)). An arc flash audit was undertaken across site to verify and identify improvements to electrical infrastructure.

#### ENVIRONMENT

Neither site had reportable environmental incidents during the quarter and the environmental team completed all required compliance monitoring and reporting.

#### Forrestania (FNO)

Mining Proposal and clearing permit approvals were received from the Department of Mines, Industry Regulation and Safety (DMIRS) for new areas to supply sand to the paste plant. Rehabilitation of the Lounge Lizard West sandpit was completed over an area of approximately 5ha.

An aboriginal heritage survey with the Ballardong people was successfully undertaken over the planned New Morning project and Carstairs exploration programme areas, and snake relocation training was also completed.



New Morning Daybreak and Carstairs heritage survey with FNO environment team



#### Cosmos (CNO)

Works approvals from the Department of Water and Environmental Regulation (DWER) were received for the paste plant and the revised Cosmos groundwater licence operating strategy.

Discussions with the Tjiwarl Aboriginal Corporation on a draft mining agreement continued. A Section 18 application was submitted to the Department of Planning, Lands and Heritage (DPLH) for a surface powerline corridor for potential onsite renewable energy (wind and solar).



Power station emissions testing

### **COSMOS OPERATIONS**

#### **Odysseus Offtake**

Final discussions are well advanced with short-listed parties for the first two years of nickel concentrate production from the Odysseus mine, in advance of offtake contract award.

#### **Odysseus Mine Development**

Total lateral jumbo development was 1,301m, which included 282m in the Odysseus declines and 1,019m of other capital development, including access to the 23 (base of haulage shaft), 25 and 26 levels. Several long-hole rises and a raise bore ventilation shaft were completed, extending the return airway network to level 21. The raise-bore contractor also completed an escapeway raise-bore (57m at 1.5m diameter) to level 13.





#### Surface Infrastructure

Gas was introduced to the dual fuel power station and the gas/diesel ratio has been steadily increased to near the optimal 80/20 level. Contract negotiations for the life-of-mine power supply are ongoing, while progress also continued on the various approvals required for the revised configurations.

The detailed engineering for the life-of-mine refrigeration plant was completed and preparations to commence site works in the next quarter are ongoing. The second of the two 850kW primary ventilation fans was also commissioned early in the quarter and a full spare fan set was delivered to the mine-site.

The overhead power line infrastructure was completed and the high voltage cable supply contract awarded. In addition, the contract for the engineering and supply of the surface paste plant was awarded. Design finalisation is ongoing, with the construction scope of work being further developed. The construction package will be tendered in the June quarter.

#### **Underground Infrastructure**

Contract negotiations for the fabrication, supply, construction, and commissioning of the underground materials handling system continued, with expected completion in the June quarter.

The surface drill pad for the dedicated paste line reticulation drill-hole was completed and drilling commenced.

#### **Hoisting Shaft Project**

Construction and fit-out of the winder house building were completed and the overhead crane was tested and registered. The phase 2 civils package was completed, including the final surface box-cut backfill and compaction, together with the shaft terrace works.

Back reaming of the 5.8m diameter, second leg of the shaft barrel progressed well, with only 6m remaining at quarter end. The raise-bore construction team has commenced mobilisation, with the initial focus on assembly and installation of the brace and sub-brace steel structures.



Shaft sinking stage



Shaft terrace layout with box-cut backfilled



Shaft sub-brace concrete and steel-work

### AM6 Feasibility Study (FS)

The principal mining contractor submitted an initial set of AM6 contract rates, representing a key input for the mine operating and capital cost estimate. The finalised AM6 mining schedule and cost estimates will be integrated with the FY23 Odysseus mining budget to provide scheduling and production synergies.

Heritage survey discussions and early planning are underway for the drilling of the surface geotechnical drill-holes for the two surface ventilation shafts (intake and return).

#### Process Plant Refurbishment and Upgrade (900ktpa)

The refurbishment and expansion of the Cosmos concentrator continued, with further demolition and removal of redundant sections, including the small ISA mill, skim air flotation cell, various tanks, pumps, pipes and electrical cabling.

Mill construction civil works are expected to commence in May.



Delivery of the new mill equipment has commenced with the secondary crusher arriving at site in early April whilst further orders have been placed for steel work and civils as the design packages are made available.



Secondary Crusher delivery onsite



Spare ball-mill at FNO being transported to Perth for refurbishment and re-use at Cosmos operations.

### **GROWTH PROJECTS**

#### **Odysseus Massive Sulphide**

The underground drilling programme of the massive sulphide below the Odysseus orebodies, has been delayed due to the higher priority of operational grade control and geotechnical drilling associated with the main Odysseus orebodies. Assay results from the first massive sulphide drill-hole intersections are still pending, due to the industry wide back-log at assay laboratories.

#### Mt Goode Scoping Study

Metallurgical composites have been sent for assay, beneficiation test work and mineralogy, with results expected in the June quarter. Once the beneficiation tests are complete, a series of flotation tests will then be conducted. Work will also be conducted to evaluate potential hydrometallurgical processing routes in conjunction with flotation work.

### FORRESTANIA OPERATIONS

### **New Morning Feasibility Study**

A metallurgical drilling program (nine drill-holes) will start in late April to test if the deeper transitional ore is amenable to flotation in the existing concentrator, potentially enabling an increase in underground ore tonnes for the project. The hydrological drilling program has been completed and packer testing will commence early in the following quarter.

The project is still awaiting State and Federal clearing permits, which are expected in the Sept quarter.

#### Mill Recovery Enhancement Project (MREP)

The MREP combined nickel production was 145 nickel tonnes (sulphide precipitate and cyclone underflow). The sulphide precipitate is currently being sold into premium spot contracts to refineries in Asia and Europe.

#### Mill Scats Heap Leach Project (MSP)

Pregnant leach solutions greater than 10 g/L, were pumped to the MREP precipitation circuit resulting in 6.2t of nickel recovered into NSP.



### FORRESTANIA OPERATIONS

### MINE AND MILL PRODUCTION STATISTICS AND CASH COSTS

Tonnos minod	Unit	FY 21		FY 22		YTD
		YTD	Sep Qtr	Dec Qtr	Mar Qtr	Total
Flying Fox						
High Grade Ore Mined	tonnes	176,473	29,967	43,794	38,254	112,015
Grade	Ni%	3.3%	3.1%	2.4%	2.2%	2.5%
Low Grade Ore Mined			13,721	998	342	15,061
Grade			1.2%	1.2%	1.2%	1.2%
Flying Fox Nickel Mined	tonnes	5,739	1,099	1,077	853	3,029
Spotted Quoll						
Ore Mined	tonnes	346,382	73,321	78,879	64,252	216,452
Grade	Ni%	3.2%	3.6%	4.0%	3.7%	3.8%
Spotted Quoll Nickel Mined	tonnes	11,073	2,642	3,123	2,401	8,166
Total Ore Mined	tonnes	522,855	117,009	123,671	102,848	343,528
Grade	Ni%	3.2%	3.2%	3.4%	3.2%	3.3%
Total Nickel Mined	tonnes	16,812	3,741	4,200	3,254	11,195

### **FLYING FOX**

#### **Mine Production**

Total ore production was **38,596 tonnes of ore at an average grade of 2.2% nickel for 853 nickel tonnes,** with the mined grade adversely impacted by lower tenor and thinner ore in some production areas. Lower grade ore was also mined during the quarter, providing good blending material for the concentrator.

#### **Mine Development**

Total jumbo development was 532m, which included 266m of capital development (1050 access, 640 Access, 655 Access & 090 Access), 176m of operating waste development and paste-fill development (970, 885, 641, 180, 160, 150, and 130 levels) and 89m of ore drive development (970 and 641 levels).

#### Infrastructure

No capital infrastructure work was undertaken during the quarter.



641 south ore drive (4.0mW x 4.5mH) with a face grade 2.5%



#### SPOTTED QUOLL

#### Mine Production

Production was **64,252 tonnes of ore at an average grade of 3.7% nickel for 2,401 nickel tonnes.** Ore production was sourced predominately from long-hole stoping (96%) with the remainder (4%) from ore drive development. Ore production was impacted by operational staff absenteeism due to COVID-19 isolation requirements and maintenance issues with front line equipment.

In addition, isolated areas suffered from poor ground conditions, as a result of an isolated seismic event on the 490 level, that subsequently required additional ground support installation and re-optimisation of the near term mine plan into some lower grade areas during the quarter. No loss of nickel metal is expected to result following the event, rather the re-optimisation only relates to the timing of access to the affected level.

In the 'twin-boom area' (TBA) production continued from the 580 to 375 levels (twelve ore drives).

The 'single-boom area' (SBA) had continued production from the 842 to the 717 levels (seven ore drives).

#### **Mine Development**

Total jumbo development was 215m, which included 51m of ore driving in the 842, 770 and 550 Levels, 42m of operating waste development in the 550 Level and 122m of paste-fill development to facilitate slot drilling.

#### Infrastructure

The pump station in the 390 level was successfully commissioned.

#### **FY 21 FY 22** YTD Tonnes milled Unit **YTD** Sep Qtr Dec Qtr Mar Qtr Total Total Milled Ore tonnes 581,058 148,124 151,417 150,104 449,645 Grade % 3.2% 3.1% 3.1% 2.6% 2.9% % 84% 85% 87% 84% 86% Ave. Recovery Nickel in Concentrate Produced (i) tonnes 16,180 3,804 4,025 3,339 11,168 Nickel in Concentrate Sold tonnes 15.509 3.962 4.511 3.412 11,885

#### COSMIC BOY NICKEL CONCENTRATOR

(i) Includes MREP Nickel tonnes produced.

The Cosmic Boy Concentrator processed **150,104 tonnes of ore at an average grade of 2.6% nickel** for a total of **24,709 tonnes of concentrate grading 13.5% nickel**, resulting in 3,339 nickel tonnes produced at a recovery of 84.2% and an average concentrator availability of 97.3%.

As previously noted, the planned December 2021 concentrator shutdown was re-scheduled to mid-January to coincide with the major 11-day Western Power shutdown to undertake necessary maintenance on the Kondinin and Bounty sub-stations. During the 45-hour concentrator shutdown, the following tasks were undertaken: trash screen replacement, mill trunnion liner inspection, mill feed conveyor replacement, cyclone feed pipe replacement, mill internal inspection, flotation cell inspections, mill feed chute replacement and mill guarding repairs.

During the 11-day Western Power shutdown the concentrator was powered by leased 11.8 MVA diesel generator sets. The increased costs of running diesel gensets for the 11 day period, originally planned for 7 days, has increased the operating costs for the quarter.

A total of **24,707 tonnes of concentrate was delivered for sale during the quarter, containing 3,412 nickel tonnes**, inclusive of the MREP product. Other unit sales costs for the quarter were royalties of A\$0.45/lb, concentrate transport and marketing costs of A\$0.66/lb nickel in concentrate delivered to customers. Concentrate transport costs continue to be impacted by elevated global sea freight rates and fuel prices.



#### **Stockpiles**

High grade ore stockpiles at the end of the quarter totalled 6,090 tonnes of ore at 3.1% nickel for 190 nickel tonnes. The concentrate stockpile at FNO was 6,091 tonnes at an average grade of 13.7% nickel, containing 833 nickel tonnes.

Stockpiles	Unit	FY21	Sep Qtr	Dec Qtr	Mar Qtr
Ore	tonnes	43,320	23,277	13,497	6,090
Grade	%	3.1%	3.0%	3.1%	3.1%
Concentrate	tonnes	10,263	9,273	7,115	6,091
Grade	%	13.9%	14.9%	14.3%	13.7%
Contained Nickel in Stockpiles	tonnes	2,772	2,079	1,442	1,023

#### **Cash Costs**

Einancial Statistics	Unit	FY 21		FY 22	VTD	
	Omt	YTD	Sep Qtr	Dec Qtr	Mar Qtr	
Group Production Cost/lb						
Mining Cost (*)	A\$/lb	3.09	3.69	3.73	3.91	3.77
Haulage	A\$/lb	0.08	0.09	0.08	0.10	0.09
Milling	A\$/lb	0.76	0.83	0.76	1.10	0.89
Admin	A\$/lb	0.27	0.29	0.31	0.37	0.32
Flotation Cash Cost Ni in Con (***)	A\$/lb	4.20	4.90	4.88	5.48	5.07
Total Cash Cost Ni in Con (***) incl MREP	A\$/lb	4.23	4.95	4.87	5.52	5.10
Cash Cost Ni in Con/Ib (***)	US\$/lb(**)	3.16	3.63	3.55	3.99	3.71
Exchange Rate US\$ / A\$		0.75	0.73	0.73	0.72	0.73

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

(\*\*) US\$ FX for Relevant Quarter is RBA average daily rate (Mar Qtr = A\$1:US\$0.72)

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

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

As has been guided to the market, due to the maturity of Forrestania the unit cash cost of production will continue to vary quarter on quarter in line with production and head grade variability from the mature Flying Fox mine. Furthermore, the Company is taking the opportunity to extract increased lower grade material while the nickel price remains strong. While increased volume of lower grade material reports a higher unit cost, the material remains strongly cash-flow positive at the currently high nickel price. The flotation cash cost of nickel per pound reported at A\$5.48/lb for the quarter and total cash cost of production for nickel in concentrate, including MREP (but excluding smelting/refining charges, concentrate logistics and royalties), was A\$5.52/lb (US\$3.99/lb).

The quarter on quarter unit cost of production increased due to the impact of the two week power outage by Western Power with the operations utilising gensets at higher than expected diesel prices for power generation during the period, and the continued inclusion of low grade mining areas and stockpile material in the mill blend. Looking forward, quarterly unit rates are expected to continue to vary, depending on the head grade and throughput rates.



## 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**

The Flying Fox high grade Mineral Resource and Ore Reserve estimates (depleted for mining) at the end of the March quarter are as follows.

- Mineral Resource: 1.05Mt of ore at a grade of 3.6% nickel for 38,257 tonnes of nickel; and
- Ore Reserve: 0.11Mt of ore at a grade of 3.2% nickel for 3,550 tonnes of nickel.

The longitudinal section below shows the Flying Fox mine with mineral resources and ore reserves, depleted for mining production during the quarter:





#### SPOTTED QUOLL

The Spotted Quoll high grade Mineral Resource and Ore Reserve estimates (depleted for mining) at the end of the March quarter are as follows:

- Mineral Resource: 0.72Mt at a grade of 5.9% Ni for 42,305 nickel tonnes; and
- <u>Ore Reserve:</u> 0.61Mt of ore at a grade of 3.7% Ni for 22,660 nickel tonnes.

The longitudinal section below shows the Spotted Quoll mine with Mineral Resources and Ore Reserves, depleted for mining production during the quarter:





### **EXPLORATION**

#### OVERVIEW

Significant momentum has been maintained within the Company's Metal Hawk JV project, with the completion of one diamond hole and the partial completion of a second at Kanowna East. This exciting government co-funded Exploration Incentive Scheme (EIS) program is designed to test for the presence of nickel sulphide mineralisation within the interpreted southern extension of the ultramafic sequence that hosts nickel sulphide mineralisation at Silver Swan, 18km to the north.

Within the Western Gawler project in South Australia, the Company successfully confirmed the presence of anomalous base metals values (nickel and copper) along a corridor extending 1,500m northeast of the discovery diamond drilling program at Sahara. The Company also commenced a regional magneto telluric (MT) survey, designed to test for the presence of major mantle-tapping geological structures that are known globally to relate to major mineral provinces.



Western Areas Exploration Projects



#### METAL HAWK FARM-IN AND JOINT VENTURE

The Company executed a Farm-In and Joint Venture (FIJV) agreement with Metal Hawk Ltd in September 2020, incorporating three project areas; earning in to all non-gold interests at Kanowna East (including tenure extending to within 12km of the Silver Sawn/Black Swan nickel mine), all non-gold interests at Emu Lake (incorporating tenure 10km from the high-tenor Binti Binti nickel prospect) and all mineral interests at Fraser South. The Fraser South project incorporates a portfolio of greenfield tenements interpreted to be positioned over the southern structural extension of the Fraser Zone component of the broader Albany-Fraser Orogen. During the March quarter, the Company advanced past the halfway point of Stage 1 of the FIJV, whereby it can earn a 51% interest by committing \$3 million over three years.

#### Kanowna East

The Kanowna East Project, located 12km south of the Black Swan/Silver Swan nickel mine, represents a significant base metals exploration opportunity. Comprising two tenements (E27/596 and P27/2428), Kanowna East contains over 9km strike length of historically shallowly tested, prospective ultramafic stratigraphy, interpreted to represent the southern extension of the ultramafic corridor hosting the high-grade, high-tenor Silver Swan nickel mine.

In the March quarter, the Company completed an extensive reverse circulation (RC) drilling program, comprising 15 RC holes for 1,939m. Assay results were returned for all RC drilling, including 24 holes drilled during the previous quarter. Elevated oxide nickel results in shallow drilling were returned from six holes.

A diamond drilling program co-funded by the WA Government's Exploration Incentive Scheme (EIS) commenced in February 2022. Early encouragement was received from the first hole completed, with KEDD001 intersecting a 220m zone of trace fine cloud sulphides to minor blebby stringers of sulphide (typically 0.1% to 0.3% sulphide by volume) from 560m to 780m down hole depth. The ultramafic units hosting these fine sulphides at Kanowna East bear strong visual similarities to the descriptions of the known sequence hosting mineralisation at Black Swan, approximately 18km north of KEDD001. Handheld pXRF analysis has confirmed that the sulphides encountered are nickel bearing, but final assay results remain pending. Unfortunately, poor ground conditions (at a depth from 780m) prevented this first drill hole from reaching the basal contact target, with drilling activities terminated at 793.4m, still within the ultramafic rocks. A short daughter hole commenced from 787.7m also failed to advance, terminating at 793.4m.

A second EIS co-funded diamond hole, KEDD002 was commenced and drilled to 690m depth during the quarter, with planned end of hole depth at 950m expected in mid-April. A total of 1,489.5m were drilled with the diamond drill rig during the quarter.

Downhole electromagnetic (DHEM) surveys are scheduled for the June quarter. Planning is currently underway to determine the nature and extent of nickel sulphides encountered in KEDD001, to definitively test the basal contact and to identify positions where larger accumulations of nickel sulphides might be encountered.

	Significant Exploration Results – Kanowna East (Ni) March Quarter FY22											
HOLE ID	Prospect	Easting	Northing	RL	EOH	Туре	Dip	Azi	Width (m)	Ni (%)	From (m)	Comments
KERC020	Kanowna East	373386	6620801	339	127	RC	-55.6	278.2	4	0.54	40	oxide
KERC023	Kanowna East	373241	6619197	333	87	RC	-54.6	268	8	0.67	4	oxide
KERC027	Kanowna East	373047	6616622	336	128	RC	-60.2	270.7	12	0.6	12	oxide
KERC028	Kanowna East	373361	6616628	339	161	RC	-55.4	92.3	8	0.54	20	oxide
KERC030	Kanowna East	373058	6617167	334	137	RC	-49.3	271	28	0.87	0	oxide
KERC040	Kanowna East	373284	6621662	338	162	RC	-60	269.9	8	0.54	28	oxide
KERC052	Kanowna East	373155	6618800	333	199	RC	-54	268.8	12	0.6	16	oxide





Kanowna East program - Metal Hawk JV



#### Emu Lake

The Emu Lake Project incorporates two exploration licenses extending over a 16.5km strike length, located approximately 35km east of the Black Swan/Silver Swan mines. Additionally, the southern edge of the project lies 5km north of the Binti Binti Gossan deposit. The project area is significantly under-explored, with only the extreme southern margin of the project drill tested.

No new work was completed at Emu Lake during the quarter. Planning for a moving loop electro-magnetic (MLEM) ground geophysical survey to cover areas of prospective ultramafic stratigraphy identified during the previous quarter commenced, with the survey itself planned for early in the September quarter of 2022.

#### **Fraser South**

A heritage agreement was executed with the Ngadju Native Title Aboriginal Corporation in February 2022. Heritage surveys are planned during the June quarter to allow access for a reconnaissance aircore drill program to commence in spring. Detailed planning for magnetic and gravity surveys is also underway, with field programs scheduled for the September quarter.

#### FORRESTANIA

The Company focused significant time and effort on completing mechanised drill site and track rehabilitation activities across several locations, including New Morning, Takeshi and Hatters Hill.

In March, a three day heritage survey was conducted with the Ballardong people covering two areas of interest at New Morning and Carstairs (located approximately 30km south of the Spotted Quoll mine).

#### WESTERN GAWLER (SOUTH AUSTRALIA)

# Iluka Farm-in and Joint Venture (WSA holds 75%) EL 5878, EL 5879, EL 6251, EL 6376, EL 6543, EL 6544 and EL 6545.

The Company has previously reached a significant milestone within its Farm-In and Joint Venture with Iluka, with the successful completion of Stage 2 earn-in achieved during the September 2020 quarter, resulting in the Company earning 75% interest in the project (excluding heavy mineral sands).

Following a pause in diamond drilling towards the end of 2021 at Sahara, efforts in the March 2022 quarter focused on interpretation of recently received geochemical and DHTEM data from this earlier program of drilling. Additionally, a regional aircore program (which had commenced in the December quarter) was concluded, focusing on drill testing numerous targets across the broader Firefly and LP-1 prospect areas.

#### Sahara Overview (EL 5878)

Assay results were received for 21WGDD019 (Firefly), 21WGDD020 (F1-7 South) and 21WGDD021 (F1-7 North) drill holes during the quarter, with a summary of geological observations and notable assay intersections contained below.

#### 21WGDD0019 (Firefly)

Drilling Intersected a distinct pyroxenitic layer from 174-205m downhole. Within this zone, significant results include 0.23m @ 0.195% Ni, 274 ppm Cu and 193.5 ppm Co (from 182.21) and 2.35m @ 0.1% Ni, 769 ppm Cu (from 194.95m). The pyroxenite layer is an important target horizon at Firefly, which has been identified along strike in recent aircore drilling.

#### 21WGDD0020 (F1-7 South)

Drilling was designed to test a shallow, flat-lying conductor (100-200 siemens) measuring 300m x 400m.

- Drilling intersected approximately 1% sulphides (pyrite) at the target plate depth from 82-101.3m.
- No significant intercepts were recorded, with a maximum downhole value of 369ppm Cu (from 216.6m), associated with 1-2% disseminated sulphide zones.

#### 21WGDD0021 (F1-7 North)

Completed in 2021, drilled to test a low conductance electromagnetic (EM) target (50-100 siemens) with dimensions of 600m x 800m.

Anomalous copper results were reported, including 0.34m @ 786ppm Cu from 199.67m, which are associated with 2-8% disseminated to stringer sulphide intervals observed throughout the hole.



#### 21WGDD0024 and 21WGDD025 (Sahara)

Both drill holes were completed in 2021, co-funded through the South Australian Government's Accelerated Discovery Initiative (ADI). Drilling was designed to target the Ni-Cu-PGE mineral system south of Sahara and test whether a magma conduit may be present, with an additional aim of understanding the geometry and internal variation within the Sahara intrusion to assess its potential to host further accumulations of nickel and copper sulphides.

No significant results were recorded for 21WGDD0024 with low levels of Ni and Cu within 21WGDD0025.

Following the return of all outstanding diamond drill hole assay results, an updated 3D model of the main mineralised corridor and associated lithological units was completed at Sahara. This updated 3D model, coupled with geochemical vectors from recent air-core drilling has highlighted targets to the north of the existing diamond drilling coverage at Sahara. Further work is planned for this corridor.

	Exploration Results												
Hole ID	Easting	Northing	RL	EOH	Туре	Dip	Azi	Width (m)	Ni %	Cu (ppm)	Pt+Pd (ppb)	Co (ppm)	From (m)
21WGDD0019	306306	6600844	215	288.5	DDH	-60	99.7	0.23	0.195	274	0	193.5	182.21
and								2.35	0.1	769	10	334	194.15
			and					1.7	0.1	87	12	79	203
21WGDD0021	303401	6594507	170	267.5	DDH	-65	322	0.35	0.03	758	17	97	68.80
			and					3.57	0.01	335	0	59	91.35
			and					0.34	0.30	786	4	172	199.67
21WGDD025	304344	6601489	215	681.3	DDH	-60	285	0.09	0.05	300	0	124	313.87
								and	0.18	0.02	549	7	72

#### **Regional Targets – Air Core Drilling**

An extensive air-core drilling campaign was completed during the period. The primary aim of the drilling program was to define and further delineate the mafic-ultramafic stratigraphy across the broader Sahara, Firefly and LP1 prospects, with the secondary aim of identifying elevated nickel and copper anomalism that may indicate the presence of primary sulphide mineralisation at depth. A total of 72 drillholes were completed for 2,950m.

A summary of recently returned assay results are contained in the table below.

	Exploration Results – 2021 & 2022 Aircore Drilling													
HOLE ID	Easting	Northing	RL	Prospect	EOH	Туре	Dip	Azi	Width (m)	Ni (ppm)	Cu (ppm)	Pt + Pd (ppb)	Co (ppm)	From (m)
21WGAC0940	305458	6603800	214.03	Sahara	56	AC	-90	0	3	102	529	-	25	48
21WGAC0949	306374	6604227	202.02	Sahara	66	AC	-90	0	15	1526	41	12	250	45
		in	cluding						3	2290	12	16	220	51
21WGAC0966	305397	6600993	216.01	Firefly	69	AC	-90	0	4	1585	57	407	21	60
21WGAC0997	306332	6600250	218.95	Firefly	22	AC	-90	0	16	256	593	21	83	6
		in	cluding						1	119	742	25	18	7
and						1	670	786	-	383	21			
21WGAC1017	306742	6601115	205.52	Firefly	42	AC	-90	0	6	1011	72	4	610	21
		in	cluding						3	1470	62	3	926	24



#### **Regional Sahara**

Drilling at the Sahara prospect extended coverage 1,500m to the northeast of the Sahara diamond drilling. Anomalous results were recorded including 3m @ 529ppm Cu (from 48m) within 21WGAC0940.

Importantly, drilling intersected an ultramatic unit approximately 1,500m along strike from Sahara on the northernmost traverse, which intersected 3m @ 0.23% Ni and 3580Cr, 14.9% MgO (from 51m) within drill hole 21WGAC0949.

This location is on the margin of a gravity anomaly and will be the focus for additional work.

These observations and findings are encouraging, as it demonstrates that prospective ultramafic host-rocks are increasing to the north of Sahara, with this area being a focus for future exploration activity.



Sahara - Firefly Regional Targets and March Quarterly Drilling Locations

#### Firefly

Reconnaissance air-core drilling was completed across the Firefly intrusion, to expand drilling coverage following identification of primary Ni-Cu sulphides initially observed in drill hole 21WGDD0019.

Recently returned assay results have revealed anomalous copper values along the eastern flank of the Firefly intrusion, associated with an internal pyroxenite layer, with 16m @ 593ppm Cu (from 6m), including 1m @ 786ppm Cu (from 7m) returned from in drill hole 21WGAC0997.

Several additional zones of anomalous nickel were identified across the broader Firefly prospect area (see table of significant results above). Future drilling will target these zones to test for primary mineralisation at depth.

#### LP1

A total of two air-core traverses were completed across LP1, identifying prospective mafic host units. All assay results are pending and will be reported in the June quarter.



#### Magneto Telluric and Passive Seismic Survey

Magneto telluric (MT) and passive seismic surveys commenced during the quarter as part of the South Australian Government's (Department of Energy and Mining) co-funded Accelerated Discovery Initiative (ADI).

Three regional traverses will be completed in total, with two located in the Joint Venture Project Area. A third traverse will be completed across the Mystic prospect to the south in the Western Gawler Project (100% WSA).

The MT survey crew from the University of Adelaide are being assisted by members of the Far West Coast Aboriginal Community.



MT survey data acquisition - Sahara



Magneto Telluric Survey Line Locations



### **CORPORATE AND FINANCING**

#### **IGO SCHEME OF ARRANGEMENT**

On 16 December 2021, Western Areas announced it had entered into a Scheme Implementation Deed ("SID") with IGO Limited ("IGO") under which a wholly-owned subsidiary of IGO, IGO Nickel Holdings Pty Ltd ("IGO Nickel"), will acquire 100% of the share capital of Western Areas by way of scheme of arrangement, subject to shareholder approval and in the absence of a superior proposal.

Under the initial terms of the Scheme, Western Areas shareholders would have received A\$3.36 per Western Areas share in cash (**Initial Scheme Consideration**).

On 4 April 2022 the Company received a draft Independent expert report that formed a draft conclusion that the Initial Scheme Consideration was not in the best interests of Western Areas shareholders and entered a trading halt. Western Areas announced on 11 April 2022 that, following a consultation process required under the Scheme Implementation Deed, Western Areas and IGO had negotiated to increase the Scheme Consideration to \$3.87 cash per Western Areas Share (Increased Scheme Consideration), with consequential amendments to the Scheme Implementation Deed (**Increased Scheme Announcement**). On the same day, IGO announced that the Increased Scheme Consideration of \$3.87 per Western Areas Share is IGO's "last and final" offer in the absence of a superior proposal.

If the Scheme is implemented, each Western Areas shareholder on the Scheme Record Date will receive a cash amount of A\$3.87 per Western Areas share.

The Increased Scheme Consideration implies an equity value on a 100% fully diluted basis of approximately A\$1,263 million, and represents a 56.0% premium to Western Areas' undisturbed closing share price of A\$2.48 per Western Areas share on 18 August 2021, the day prior to Western Areas announcing it was in preliminary discussions with IGO regarding a potential change in control transaction.

The Directors of Western Areas unanimously recommend that Western Areas shareholders vote in favour of the Scheme at the Scheme meeting, in the absence of a Superior Proposal and subject to an independent expert concluding in the Independent Expert's Report (and continuing to conclude) that the Scheme is in the best interests of Western Areas shareholders. Subject to those same qualifications, each member of the Western Areas Board intends to vote, or cause to be voted, all Western Areas shares held or controlled by them in favour of the Scheme.

A scheme booklet containing important information in relation to the Scheme and the Scheme Meeting was released to the ASX on 28 April 2022, and will be sent to Western Areas shareholders 2 May 2022. The Scheme is subject to (among other things) approval by Western Areas shareholders at the Scheme Meeting, to be held Wednesday, 1 June 2022.

#### CASHFLOW

Cash at bank at quarter end increased by \$9.1m to A\$151.8m (Dec Q – A\$142.6m). Operating cashflow for the quarter increased by A\$15.2m to A\$50.1m (Dec Q – A\$34.9m), predominantly as a result of the increased nickel price. The realised average, prepayable, nickel price for the quarter was A\$18.44 (Dec Q – A\$13.16).

Capital expenditure for the quarter totalled A\$38.3m with the major investment being at the Company's key long-life nickel production assets at the Cosmos Nickel Operation. As planned, activity continues to ramp up at Cosmos, with construction and development works occurring across all major project areas, including underground mine development, concentrator refurbishment and underground shaft equipping. Paste-fill plant construction and permanent refrigeration plant civil works have also commenced.

At Forrestania, total sustaining capital expenditure was A\$4.4m.

The significant cashflow items for the quarter included:

- Odysseus mine development, concentrator refurbishment and shaft haulage equipment construction expenditure totalling A\$29.3m (Dec Q – A\$29.3m);
- Exploration and feasibility study expenditure of A\$4.6m;
- Sustaining mine development at Forrestania of A\$3.3m (Dec Q A\$1.4m), primarily related to ore access development at new areas of Flying Fox; and
- Other capital expenditure at Forrestania of A\$1.1m, primarily related to various sustaining capital items across the operation.



#### **BANK FINANCE**

The Company executed documentation establishing a secured A\$75m Revolving Credit Facility (RCF) with Commonwealth Bank of Australia (CBA). Western Areas final condition precedent to funding drawdown relates to one third-party consent deed that will enable the establishment of the final security position over selected Forrestania project tenements. The Company consistently works with its lenders to ensure banking facilities provide financial flexibility and working capital options to the Company as it continues to develop the Odysseus mine at the Cosmos operations.

#### INVESTMENT IN PANORAMIC RESOURCES

The Company owns a strategic 19.9% equity interest in Panoramic Resources Limited ("Panoramic"). At 31 March 2022, the investment was valued at A\$122.4m. The investment continues to provide Western Areas with strategic optionality and exposure to Panoramic's significant nickel, copper and cobalt resources.

#### 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; and
- Medium-term hedging is used to manage the risk of nickel price and foreign exchange fluctuations, with a maximum 50% of expected nickel sales per month hedged out for a period of 12 to 18 months.

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

Hedging Details – FY22						
Nickel Hedging – Collar Options						
Nickel Tonnes Hedged	600					
Average Call	US\$21,500					
Average Put	US\$18,500					



#### 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 is a Fellow of AusIMM, Mr Orunesu Preiata is a member of AusIMM and Mr Gribbin is a member of AIG. Mr Wulfse, Mr Orunesu Preiata and Mr Gribbin are all full time employees 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.

Examples of forward looking statements used in this report include: "Development of the Odysseus mine continued to achieve positive progress, with first concentrate remaining on track to be produced in the December 2022 quarter", and, "AM6 Feasibility Study advanced and will be integrated with the FY23 Odysseus mining budget to provide scheduling and resource synergies", and, "The nickel market continues to show signs of tight supply in both the short and long term, with the ongoing Russian invasion of Ukraine impacting short term supply and sustained growth in demand from the EV battery market impacting longer term demand".

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.

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



### WESTERN AREAS ORE RESERVE AND MINERAL RESOURCE STATEMENT

	Tonnes	Grade Ni%	Ni Tonnes	Classification	JORC Code
Ore Reserves					
1. Flying Fox Area	109,900	3.2	3,550	Probable Ore Reserve	2012
2. Spotted Quoll Area	614,400	3.7	22,660	Probable Ore Reserve	2012
3. Diggers Area					
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	2,833,300	2.0	57,010		
4. Cosmos area					
Odysseus South	4,483,700	1.9	85,620	Probable Ore Reserve	2012
Odysseus North	3,651,900	2.2	78,900	Probable Ore Reserve	2012
AM6	2,098,500	2.2	47,100	Probable Ore Reserve	2012
TOTAL COSMOS ORE RESERVE	10,234,100	2.1	211,620		
TOTAL WESTERN AREAS ORE RESERVE	13,067,400	2.1	268,630		
Mineral Resources					
1. Flying Fox Area					
T1_T6 Massive Zone	793,121	4.3	34,486	Indicated Mineral Resource	2012
T7 Massive Zone	259,568	1.5	3,771	Inferred Mineral Resource	2012
Total High Grade	1,052,689	3.6	38,257		
T5 Flying Fox Disseminated Zone	197,200	0.8	1,590	Indicated Mineral Resource	2004
	357,800	1.0	3,460	Inferred Mineral Resource	2004
T5 Lounge Lizard Disseminated Zone	4,428,000	0.8	36,000	Indicated Mineral Resource	2004
Total Disseminated	4,983,000	0.8	41,050		
Total Flying Fox/Lounge Lizard	6,035,689	1.3	79,307		
2. New Morning / Daybreak					
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
I otal New Morning / Daybreak	6,233,319	1.4	87,928		
3. Spotted Quoll Area	500 707		05 077		0040
Spotted Quoll	569,797	6.2	35,077	Indicated Mineral Resource	2012
T ( ) 0	147,724	4.1	6,041	Inferred Mineral Resource	2012
Total Spotted Quoli	/1/,521	5./	41,118		0004
Beautiful Sunday	480,000	1.4	6,720	Indicated Mineral Resource	2004
I otal Spotted Quoli/Beautiful Sunday	1,197,521	4.0	47,838		
4. Cosmic Boy Area	400.000		5 050	Indiante d Minerel Deserves	0004
	180,900	2.8	5,050	Indicated Mineral Resource	2004
Seaguii	195,000	2.0	3,900	Indicated Mineral Resource	2004
F Diarozo Aroa	375,900	2.4	8,950		
Diggers Alea	2 704 500	1.1	27 570	Indicated Mineral Resource	2004
Digger South Core	2,704,500	1.4	4 5 2 0	Indicated Mineral Resource	2004
Digger Booko Coro	302,700	1.2	4,550	Interned Mineral Resource	2004
Digger Rocks - Core	202,940	1.7	4,790	Indicated Mineral Resource	2004
Diggel Rocks - Cole	560,000	1.5	5 040	Indicated Mineral Resource	2004
	3 960 740	0.9	52 600	Indicated Mineral Resource	2004
	17 803 169	1.5	276 623		
6 Cosmos Area	17,003,103	1.0	210,023		
AM5	1 449 751	2.0	28 217	Indicated Mineral Resource	2012
,	1 832 451	2.0	40 578	Inferred Mineral Resource	2012
AM6	2 889 733	21	59 397	Indicated Mineral Resource	2012
,	118 518	1.5	1 718	Inferred Mineral Resource	2012
Odysseus South Disseminated	4 016 949	21	84 767	Indicated Mineral Resource	2012
	219 641	2.0	4 302	Inferred Mineral Resource	2012
Odvsseus North - Disseminated	3 128 943	2.6	81 156	Indicated Mineral Resource	2012
	225 248	27	6 111	Inferred Mineral Resource	2012
Odysseus North - Massive	70 106	12.6	8 814	Indicated Mineral Resource	2012
	124 900	11.0	14 002	Inferred Mineral Resource	2012
Total Cosmos Area	14.076 240	23	329 062		,
7. Mt Goode Area	,070,240	2.0	010,002		
Mt Goode	13,563.000	0.8	105.791	Measured Mineral Resource	2012
	27,363.000	0.6	158.705	Indicated Mineral Resource	2012
	12,009,000	0.5	62,447	Inferred Mineral Resource	2012
Total Mt Goode Area	52,935,000	0.6	326,943		
TOTAL COSMOS MINERAL RESOURCE	67,011,240	1.0	656,005		
TOTAL WESTERN AREAS MINERAL RESOURCE	84,814,409	1.1	932,628		



## JORC 2012 TABLE 1: WESTERN GAWLER JOINT VENTURE SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code Explanation	Commentary
Sampling 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>Exploration targets were tested and sampled from diamond drilling (DD) core and Airecore (AC). Holes were mostly drilled perpendicular to the strike (NE-SW) of the stratigraphy.</li> <li>Drill holes were located with handheld GPS.</li> <li>AC holes were used to test regional exploration targets</li> <li>DD holes were used to obtain high quality samples that were fully oriented and logged for lithological, structural, geotechnical attributes. Each sample of diamond drill core submitted to ALS laboratories at Malaga, Perth. All sampling was conducted under WSA QAQC protocols which are in accordance with industry best practice.</li> <li>Diamond drill core (NQ2) is 1/4 core sampled on geological intervals (0.2m - 1.5m) to achieve sample weights under 3kgs.</li> <li>AC holes sampled initially as 4m composites with 1m splits generated at the rig</li> <li>Samples were crushed, dried and pulverised (total prep) to produce a sub sample for analysis by 4 acid digest with an ICP/MS and FA/ICP (Au, Pt, Pd) finish.</li> </ul>
Drilling Techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Exploration targets are tested using both DD and AC drilling methods. Holes were drilled between 60-90 degrees.</li> <li>A track-mounted Sandvik DDH rig is used (DD).</li> <li>X350 track mounted rig for AC drilling.</li> <li>Diamond drilling comprises PQ2, HQ3 and NQ2 sized core.</li> </ul>
Drill sample 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>Diamond core and aircore recoveries have been logged and recorded in the database</li> <li>Overall recoveries are &gt;95% and there was no core loss issues or significant sample recovery problems. Core loss and AC sample loss are noted where it occurs.</li> <li>Diamond core was reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.</li> <li>The drilling by diamond core method has high recoveries.</li> </ul>



		<ul> <li>Sample loss during aircore drilling is possible, particularly where water is encountered. Although water occurrence isn't a significant issue, all occurrences are recorded.</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 'Ocris' Logging Software (Toughbook platform) &amp; stored in an Acquire database.</li> <li>Drill intervals are logged for lithology, mineralogy, mineralisation, weathering, fabric, grainsize, colour, structure (DD), and other relevant features.</li> <li>Geotechnical logging was not completed due to the nature of drill method.</li> <li>Core is photographed both in wet and dry form.</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 techniques and sampling 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 sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, 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>	<ul> <li>Diamond core is sampled as either quarter or half core; cut by ALS Perth .</li> <li>Sample preparation follows industry best practice involving oven drying, coarse crushing and pulverising.</li> <li>The field crew prepares and inserts the QAQC certified reference materials into the relevant calico bags.</li> <li>OREAS and Geostats standards have been selected based on their grade range and mineralogical properties, with approximately 12 different standards used.</li> <li>Standards and Blanks are inserted approximately every 25 samples.</li> </ul>
Quality of assay data laboratory 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 and ME-MS61r for selected EOH samples) 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> <li>Certified reference materials are included in all batches dispatched at an approximate frequency of 1 per 25 samples, with a minimum of two per batch.</li> <li>Field duplicates are inserted into submissions at an approximate frequency of 1 in 25, with placement determined by Nickel grade and homogeneity. 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	<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 Ocris logging software 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 an Acquire 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 handheld GPS, and cross referenced with local topographical maps,</li> <li>Downhole Survey Data is collected using a digital Reflex survey tool,</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>Drillhole spacing varies according to the nature of the target type.</li> </ul>
Orientation of data in relation to geological 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 at 60 degrees to achieve the best possible intersection angle in steeply dipping terrane.</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	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>All samples are captured and prepared for transport onsite under the supervision of WSA staff.</li> </ul>
Audits and Reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Adrian Black of Newexco Pty Ltd (a member of the AIG), an independent exploration company, has reviewed the data and sampling techniques employed by WSA.</li> </ul>



### SECTION 2: REPORTING OF EXPLORATION RESULTS

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

Criteria	JORC Code Explanation	Commentary				
Mineral tenement and land tenure 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 comprise covering some 4,448km2 (100% WS, EL 6249, EL 6494 and EL 6617.</li> <li>The Fowler JV Project consists of 8 Farm In and Joint Venture Agreeme (Eucla Basin) Pty Limited and Wester of the tenements are held by Iluka (E(EL5878, EL5879, EL 6251, EL 6376, and one tenement in the process of Areas Limited to Iluka (Eucla Basin)</li> </ul>	ses 6 explorati A). EL 5939, EL exploration lic nt (FIJVA) betw ern Areas Limit Eucla Basin) Pt EL 6543, EL 65 transferring fro Pty Limited (E	on lice . 6087, enses veen II ed. Se y Limi i44, EL om We L 6702	enses , EL 6248, under a uka even (7) ited _ 6545) estern 2).	
Exploration done by other parties.	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The project area was originally explored its extensive gold, titanium, Iron a work, and more recently by Gunson Equinox (Base Metals and Gold) and Sands). It is deemed that the previous effectiveness.</li> <li>The South Australian Government h stratigraphic diamond drilling along tenure</li> <li>The success rate of historical RC dr Diamond drilling was effective.</li> <li>Gravity, Magneto Tellurics and Airbe been used in selective locations wit</li> <li>The historical geophysics is deemed</li> </ul>	ored by BHP B and nickel targ Resources Lin d Iluka Resourc us exploration as performed w a number of tr filling is low, wh orne Electro-m hin the project d to have been	illiton et gen nited ( ces Lto was o widely avers hile th agneti area. effect	as part eration (Nickel), d (Mineral f variable r spaced es in the e AC and ics have ive.	
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Western Gawler Project lies with western South Australia. The Fowler Mesoproterozoic orogenic belt com metamorphic grade basement litholis mafic and ultramafic intrusives.</li> <li>Similarly aged terranes globally con accumulations of nickel and copper</li> <li>Whilst not primary target types, the for orogenic gold, IOCG and skarn r</li> </ul>	hin the Fowler r Domain is a prised of mediu ogies and your tain significant sulphides. area may also related minerali	Doma um to nger fe t be pro satior	in of high elsic, ospective ı.	
Drill hole 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 balact.</li> </ul>	All collar related information pertainin reported assay results are included wi able contained within the body of this	g to the locatio ithin the explor report.	n of th ation	ne results	
	Easting and northing of the drill hole	HOLEID Easting Northing RL	EOH Depth Type (m)	DIP	Azimuth	
	<ul> <li>elevation or RL (Reduced Level –</li> </ul>	21WGDD0015 304907 6602916 215	477.5 DD	-60	288.7	
	elevation above sea level in metres)	21WGDD0016 305038 6603032 215	489.4 DD	-60	295	
	<ul> <li>din and azimuth of the hole</li> </ul>	21WGDD0017 304963 6602886 215 21WGDD0018 304969 6602870 215	309.9 DD	-60	290	
		21WGDD0019 306306 6600844 215	288.5 DD	-60	99.7	



	<ul> <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>	21WGDD0020 21WGDD0021 21WGDD0022 21WGDD0023 21WGDD0024 21WGDD0025 Datum MGA9	303573 303401 304786 304685 304459 304344 4 (Z53)	6593830 6594507 6602573 6602356 6601435 6601489	156 170 215 215 215 215 215	219.6 267.5 420.4 350.1 153.7 681.3	DD DD DD DD DD DD	-80 -65 -56.7 -55 -60 -60	315       322       284.7       285       288.7       284.7
Data aggregation 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>Standard w employed. used in the</li> <li>The report arbitrary 0. grade inter reported as</li> <li>Metal equiv</li> </ul>	veighted a No maxi e estimati ed assays 2% Ni cu cepts into s included valents ha	averaging mum or n on. s have bee t-off is ap ernal to b d intervals ave not be	of drill ninimur en leng plied, v roader s. een use	l hole ir m grade th weig vith no zones o ed	htercep e trunca hted. <i>A</i> top cut of mine	ts were ations v A lowe applie ralisati	e were r d. High ion are
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in 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>	<ul> <li>Drill hole in</li> </ul>	ntersectio	ons may n	ot be ti	rue wid	ths		
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Included w</li> </ul>	ithin repo	ort					
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>All relevan</li> </ul>	t assay re	esults hav	ve been	reporte	ed		



Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Multi-element analysis is conducted routinely on all samples for a base metal and PGM suite and potentially deleterious elements.</li> </ul>
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>

# JORC 2012 TABLE 1: KANOWNA EAST (METAL HAWK JOINT VENTURE)

### SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code Explanation	Commentary
Sampling 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).</li> </ul>	<ul> <li>Reverse Circulation (RC) and Diamond (DD) drilling were the main sampling techniques employed.</li> </ul>
		<ul> <li>RC sample intervals are split to approximately 3kg using a rig mounted rotary splitter.</li> </ul>
		<ul> <li>Each sample is sent for analysis to ALS Global laboratories in Perth, Western Australia.</li> </ul>
	These examples should not be taken as limiting the broad meaning of sampling	<ul> <li>The sample is pulverised in the laboratory (total prep) to produce a sub sample for assaying.</li> </ul>
<ul> <li>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</li> </ul>	<ul> <li>DD holes were used to obtain high quality samples that were fully oriented and logged for lithological, structural, geotechnical attributes. Each sample of diamond drill core 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>	
	mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple	<ul> <li>Diamond drill core (NQ2) is 1/4 core sampled on geological intervals (0.2m - 1.5m) to achieve sample weights under 3kgs.</li> </ul>
	<ul> <li>Samples were crushed, dried and pulverised (total prep) to produce a sub sample for analysis by 4 acid digest with an ICP/MS and FA/ICP (Au, Pt, Pd) finish.</li> </ul>	



	mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling Techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Regional Exploration targets are tested using aircore (AC) drilling. Holes were drilled between 60-90 degrees.</li> <li>A wheel mounted UDR1200HC rig was used to conduct diamond drilling.</li> <li>Diamond drilling comprises PQ2, HQ3 and NQ2 sized core.</li> </ul>
Drill sample 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 sample is visually checked and logged for recovery, moisture, and contamination.</li> <li>The style of expected mineralisation and the consistency of the mineralised 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 Ocris software (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 techniques and sampling 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 sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, 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>	<ul> <li>RC drill samples were collected every metre on the drill rig using a rotary splitter.</li> <li>When required, composite samples are taken using a sampling spear.</li> <li>Diamond core is sampled as either quarter or half core;</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 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> <li>OREAS and Geostats standards have been selected based on their grade range and mineralogical properties, with approximately 12 different standards used.</li> </ul>



Quality of assay data laboratory 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 and ME-MS61r for selected EOH samples) 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> <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	<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 Ocris logging software 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 an Acquire 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 handheld GPS, and cross referenced with local topographical maps,</li> <li>Downhole Survey Data is collected using a digital Reflex survey tool,</li> <li>MGA94 Zone 51 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>Drillhole spacing within the Metal Hawk JV project areas varies according to the nature of the target type.</li> </ul>
Orientation of data in relation to geological 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> </ul>	<ul> <li>The majority of the drill holes are drilled at 60 degrees to achieve the best possible intersection angle in steeply dipping terrane.</li> <li>Heritage and/or environmental constraints may prevent some ideal drilling solutions.</li> </ul>



	<ul> <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>No orientation-based sampling bias has been observed in the data, intercepts are reported as down-hole lengths.</li> </ul>
Sample Security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>All samples are captured and prepared for transport onsite under the supervision of WSA staff.</li> </ul>
Audits and Reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Adrian Black of Newexco Pty Ltd (a member of the AIG), an independent exploration company, has reviewed the data and sampling techniques employed by WSA.</li> </ul>

### SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure 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 Kanowna East prospect within the Metal Hawk JV comprises 1 exploration license (E27/596) and 1 prospecting license (P272428) held by Metal Hawk Ltd.</li> <li>Western Areas (WSA) has entered into a Joint Venture with Metal Hawk, whereby WSA can earn up to 75% joint venture interest at Emu Lake and Kanowna East (in all non-gold related commodities) by spending a total of \$7million over 5 years.</li> </ul>
Exploration done by other parties.	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The project is located 30km north east of Kalgoorlie, with the northernmost parts of the tenure positioned within 10km along strike of the Silver Swan / Black Swan Nickel Mine.</li> <li>Historical exploration primarily for nickel occurred in the 1970's by Anglo American, with additional exploration concucted by Placer Gold and Lion Ore. S</li> <li>Significant additional exploration occurred after the discovery of Silver Swan and Black Swan in 1995.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The district is considered highly prospective for Kambalda styled, ultramafic (Komatiite) hosted nickel sulphide deposits.</li> </ul>
Drill hole 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> </ul>	All collar related information pertaining to the location of the reported assay results are included within the exploration results table contained within the body of this report. Datum MGA94 (Z51)

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



	<ul> <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>	
Data aggregation 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>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 weighted. A lower arbitrary 0.2% Ni cut-off is applied, with no top cut applied. High grade intercepts internal to broader zones of mineralisation are reported as included intervals.</li> <li>Metal equivalents have not been used</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in 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>	Drill hole intersections may not be true widths
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	Included within report
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or</li> </ul>	<ul> <li>All relevant assay results have been reported</li> </ul>



	widths should be practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Multi-element analysis is conducted routinely on all samples for a base metal and PGM suite and potentially deleterious elements.</li> </ul>
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 Metal Hawk JV 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>