



# Nickel Australia Limited

## QUARTERLY REPORT

FOR THE PERIOD ENDED June 30, 2004

### HIGHLIGHTS

#### Exploration

- Intensive field exploration continues at **Norseman Project**.
- Anomalous nickel mineralisation intersected in aircore drilling.
- Numerous conductors identified in surface electromagnetic surveys.

#### Corporate

- Joint Venture formed for nickel and other metals around the historic **Bounty** mine located in the Forrestania Greenstone Belt.
- Right of First Refusal exercised to acquire all outstanding interests in the **Splinter** gold project.
- Joint Venture formed with Hannans Reward NL for nickel and other metals on the **Maggie Hays South** project located in the Lake Johnston Greenstone Belt.

### EXPLORATION

#### Norseman (NKL 100% nickel rights)

Nickel Australia Limited (ASX: **NKL**) continued its intensive exploration program on the **Norseman Project** during the quarter. Norseman is prospective for high-grade massive nickel sulphide deposits, as it contains the southern extensions of the ultramafic rocks which, further to the north, host several operating nickel mines at Widgiemooltha and Kambalda.

Exploration comprised diamond core drilling (7 holes for 2,106m), reconnaissance aircore drilling (96 holes for 3,721m), and surface electromagnetic (EM) and downhole electromagnetic (DHEM) surveying.

The initial surface EM survey, comprising a 12 week program covering the Talbot, Jimberlana and Polar Bear prospects, was completed during the quarter. This survey was designed to identify electromagnetic conductors which could represent bodies of massive nickel sulphides. Interpretation of the data resulted in the identification of numerous conductor bodies at Talbot and Polar Bear, some of which represent high priority drill targets, as they are located in favourable geological settings and are coincident with geochemical anomalies generated by the aircore drilling.

Diamond drilling was carried out at Talbot (4 holes for 1,335m) and Polar Bear (3 holes for 771m) to follow up geochemical and geophysical anomalies. Finely disseminated sulphide mineralisation was observed in several holes with some anomalous nickel grades being returned.

Further aircore drilling was also undertaken at the Talbot, Jimberlana, Polar Bear and Killaloe prospects. The program was designed to complete reconnaissance coverage of these areas to a 400m x 50m pattern, defining the locations and boundaries of ultramafic units with nickel sulphide potential and testing for anomalous geochemistry. All samples were collected as four metre composites and analysis of one metre re-splits from anomalous zones is currently in progress. Several holes intersected strongly anomalous grades of nickel and other pathfinder elements at Polar Bear and Killaloe, with disseminated and stringer sulphide mineralisation being observed within ultramafic rocks.

During the forthcoming quarter, Nickel Australia will continue to focus an intense exploration program on the Norseman project area. This will include a 7 hole diamond drilling program (approximately 2,000m) commencing in mid-July to test the remaining surface EM conductors and follow-up geochemical anomalism at Talbot and Polar Bear. DHEM surveys will be undertaken in all diamond holes.

Aircore drilling will recommence in August to follow up the anomalous results at Killaloe, and to start reconnaissance exploration at the Pioneer and Woodcutters prospects. The latter two prospects are located in the northwestern part of the Norseman project area, and contain the southern extensions of the ultramafic rocks which host the nickel mineralisation at Widgiemooltha and Pioneer.

Surface EM surveying will also recommence in the next quarter, with the program principally working at Pioneer and Woodcutters.

## **CORPORATE**

### **Bounty Nickel Joint Venture (NKL earning 70% nickel rights)**

In May, Nickel Australia entered into a joint venture on the Bounty Project in the Forrestania Greenstone Belt of Western Australia with private company, Montague Resources Pty Ltd (Montague). The project comprises applications for five Mining Leases, two General Purpose Leases, and two Miscellaneous Licences.

Under this agreement, Nickel Australia acquired the right to earn a 70% interest in the Bounty tenements and in all metals (except gold and silver) by sole funding exploration through to completion of a Bankable Feasibility Study (BFS) by June 2014. Following completion of the BFS, Montague will retain a 30% interest in nickel minerals, and will elect to either contribute or dilute according to a standard industry formula. Montague will retain 100% of the gold and silver rights.

Nickel Australia paid Montague \$300,000 cash upon execution of the agreement and will pay a further \$300,000 cash upon the grant of M77/1066 (the tenement upon which the Bounty Gold Mine is located). The Company has a further option to increase its interest by 10%, from 70% to 80%, by paying to Montague the sum of \$4 million following the completion of the BFS.

The Bounty Project is situated within the northern part of the Forrestania greenstone belt, adjacent to the Forrestania nickel projects held by Western Areas NL and LionOre Mining International Ltd. The project area covers 42km<sup>2</sup> and contains more than 24km strike length of ultramafics known to be prospective for nickel sulphide mineralisation. It includes the northern extensions of the ultramafic unit hosting the Cosmic Boy and Digger Rocks nickel sulphide deposits previously mined by Outokumpu and currently the subject of a feasibility study by Western Areas.

Previous companies working in this part of the Forrestania belt were mostly gold-focused, and consequently the majority of historical exploration concentrated on gold. However some nickel exploration was carried out including shallow RAB drilling, surface and underground diamond core drilling, and some surface electromagnetic surveying.

Diamond drilling carried out during the 1990's intersected nickel sulphide mineralisation about 250 metres east of the Bounty underground mine workings. Following its successful takeover of Forrestania Gold NL, LionOre reported in its 1996 Annual Report that this mineralised zone had "an extent of about 200 metres along strike and down to 300 metres beneath the surface".

Significant intercepts reported by Aztec Mining Company Ltd and LionOre include the following:

- **13.25 metres @ 1.23% nickel** in MD 69;
- **4.2 metres @ 1.11% nickel** in MD 99; and
- **3.5 metres @ 1.19% nickel** in BUG 29.

These intercepts confirm that the ultramafic units within the project area contain nickel sulphide mineralisation. In addition, surface EM surveys carried out in the mid-1990's identified several strong conductors which may indicate the presence of massive nickel sulphide bodies, and to date these anomalies remain untested.

Nickel Australia will commence an intensive exploration program on the Bounty Project immediately the tenement applications are granted. This work will include detailed surface and downhole EM surveys, surface diamond core drilling, and underground diamond drilling via the Bounty underground workings.

### **Splinter (NKL 100%)**

In June Nickel Australia exercised its Right of First Refusal under the terms of the Splinter Joint Venture Agreement to acquire all outstanding interests in the Splinter gold project in Western Australia. Under the terms of the agreement, the Company held the right to earn an initial 51% interest in the project and then to proceed to an 85% interest by meeting certain expenditure conditions.

The Splinter Project is considered by the board of Nickel Australia to have significant potential, and consequently it exercised its Right of First Refusal to acquire the outstanding interests for a consideration of \$59,500. Nickel Australia now holds 100% of this project.

Splinter comprises one granted Exploration Licence and adjoining applications for a further three Exploration Licences covering approximately 840 square kilometres. The project area is situated 120km northeast of Esperance.

The target is a large (8.5km x 5.5km) gold-in-calcrete geochemical anomaly located at the intersection of major structural trends. It is considered very prospective for shear-hosted gold mineralisation. The dimension and magnitude of the Splinter anomaly is comparable to those that led to gold discoveries at Tropicana (Independence Group Ltd / AngloGold Australia Ltd), Tunkillia (Helix Resources Ltd), Barnes and Baggy Green (Adelaide Resources Ltd / Newmont Australia Ltd).

Nickel Australia will commence exploration at Splinter in the second half of 2004. Work will include an airborne magnetic survey and detailed surface geochemical (calcrete) sampling designed to infill and define the existing geochemical anomaly, to be followed by an aircore drilling program.

### **Maggie Hays South (NKL earning 55% nickel rights)**

Nickel Australia announced in early July that the Company had entered into a Joint Venture with Hannans Reward NL on the Maggie Hays South Project in the Lake Johnston Greenstone Belt of Western Australia.

Under the agreement, Nickel Australia acquired the right to earn a 55% interest in nickel minerals (all minerals except gold and silver) by sole funding exploration through to completion of a Bankable Feasibility Study (BFS) within five years. Following completion of a BFS and upon the Company making a Decision to Mine, HNR will retain a 35% interest in the nickel minerals and may elect to either contribute or revert to a 2% Net Smelter Royalty.

The remaining 10% interest in the Maggie Hays South Project is held by two private entities, Murchison Resources Pty Ltd and D M Edwards. Both are also free carried to a Decision to Mine, whereupon they will elect to either contribute or dilute according to a standard industry formula.

The Maggie Hays South Project comprises applications for seven Prospecting Licences. The project area is situated in the central part of the Lake Johnston greenstone belt, approximately 110 km west of Norseman, and about 25km south of the Maggie Hays and Emily Ann nickel mines operated by LionOre.

The project area covers 12km<sup>2</sup> and contains a 4km strike length of the southern extensions of the rock units which host LionOre's mines. Previous exploration for nickel at Maggie Hays South has been minimal. A RAB drilling program returned anomalous nickel and copper geochemistry from along the ultramafic footwall contact, and a surface EM survey identified four conductor anomalies, also located near the basal ultramafic contact.

None of these targets have been tested by deep drilling, and Nickel Australia will commence an intensive exploration program immediately the tenement applications are granted. This will include diamond core drilling and downhole EM surveys to test the already identified targets. Further target generation comprising infill aircore drilling and detailed fixed loop EM surveys will be undertaken.

The presence of geochemical and geophysical anomalies located near a stratigraphic contact associated with large, high grade nickel sulphide deposits elsewhere in the district indicates the Maggie Hays South Project is prospective for hosting significant nickel sulphide mineralisation.

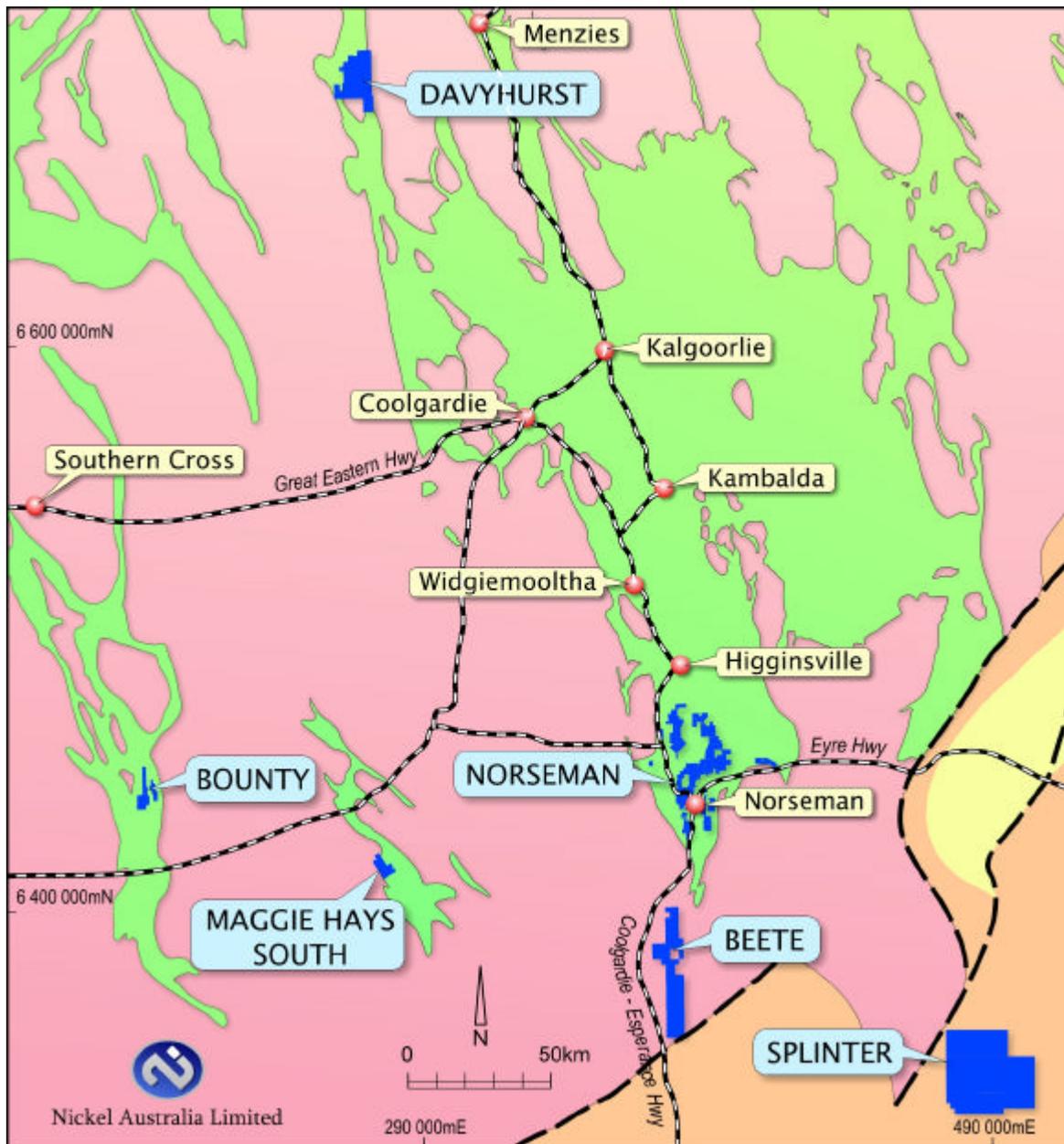
Tony Rovira  
Managing Director  
21 July 2004

*This report has been compiled by Mr Tony Rovira (Managing Director – Nickel Australia Ltd) who is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) with more than 20 years experience in the mining industry. Mr Rovira has relevant experience in relation to the geology and mineralisation being reported on and qualifies as a Competent Person as defined by the Joint Ore Reserve Committee (JORC) of the AusIMM.*



# Nickel Australia Limited

## PROJECT LOCATIONS





# Nickel Australia Limited

## NORSEMAN PROJECT PROSPECT LOCATION PLAN

