

ASX Release – 9 December 2009

EXPLORATION UPDATE NICKEL SULPHIDE PROJECTS

Highlights

- Disseminated nickel sulphides intersected at both Kalpini and Avoca Downs.
- 16 metres at 0.32% nickel and 0.05% copper from 246 metres in Hole KPD001 at Kalpini.
- Petrology and geochemistry confirm magmatic source for Kalpini and Avoca Downs nickel sulphides
- Further EM and drilling planned to follow up
- Helicopter VTEM survey planned for Rocky Gully in January.

Heron Resources Limited (**ASX: HRR**) (**Heron**) is pleased to announce results from two of its nickel sulphide exploration programs located in the Kalgoorlie area of Western Australia.

Kalpini Nickel Project

At the Kalpini Nickel Project, located 70km north-east of Kalgoorlie, three holes for 1,076m of diamond core were completed. Drilling targeted the basal contact of an ultramafic flow 5 kilometres south, along strike from the Emu Lake nickel sulphide occurrence. Emu Nickel Limited have recently reported several high-grade (+5% nickel) narrow massive sulphide diamond drill intercepts from this project.

Hole KPDD01 intersected 16 metres of disseminated nickel, copper and iron sulphides making up to 5% of the rock adjacent to a contact with a felsic porphyry unit (see a drilling cross section in Figure 1 and a photograph of the disseminated sulphides in Figure 2).

This result is encouraging since in the Eastern Goldfields disseminated sulphides often occur in proximity to massive sulphides within the base of ultramatic flows (see Figure 4). Further work is currently being undertaken to follow-up this result including down-hole electro-magnetic surveying and litho-geochemical studies which can provide vectors to massive sulphide mineralisation. Further drilling will be undertaken at Kalpini early in the New Year.

Table	1	Down-hole	Nickel	(Ni),	Copper	(Cu),	Platinum	(Pt)	and	Palladium	(Pd)	results	for	the	zone	of
disseminated sulphides at Kalpini																

Hole	North	East	From (m)	To (m)	Interval (m)	Ni (%)	Cu (ppm)	Pt (ppb)	Pd (ppb)
KPDD01	6643070	403450	246	262	16	0.32	455	27	60

Avoca Downs Nickel Project

At the Avoca Downs Nickel Project, located 80km east of Kalgoorlie, assay results for diamond core drilling were received. Three holes for a total of 420m were completed.

As previously reported, the diamond drilling intersected several thin (<20cm) stringers of massive sulphide mineralisation within an ultramafic unit (Figure 1). Assays for this sulphide stringer zone confirm that nickel and copper sulphides are

present with results up to 0.97% nickel and 0.78% copper (with associated elevated platinum and palladium). The key intervals for these results are shown in Table 2 below.

The Avoca Downs Nickel Project comprises a large ground package wholly owned by Heron and future work will focus on placing these drilling results in a broader regional context and thence identifying key areas for follow-up work. The stringers of massive sulphide appear to be remobilised along a fold hinge and future work will aim to map out this hinge zone and identify zones where the primary massive sulphides have accumulated.

Hole	North	East	From (m)	To (m)	Interval (m)	Ni (%)	Cu (%)	Pt (ppm)	Pd (ppm)
ADD02	6585405	435306	61.17	61.4	0.23	0.81	0.26	0.11	0.48
ADD02	6585405	435306	62.17	62.38	0.21	0.53	0.78	0.09	0.44
ADD02	6585405	435306	62.49	62.61	0.12	0.97	0.22	0.19	1.00
ADD02	6585405	435306	62.80	62.93	0.13	0.47	0.05	0.07	0.38
ADD02	6585405	435306	65.44	65.62	0.18	0.53	0.24	0.10	0.43

Table 2 Selected Down-hole Nickel (Ni), Copper (Cu), Platinum (Pt) and Palladium (Pd) results for sulphide stringers in Avoca Downs Diamond Core drilling

It is highly encouraging to have demonstrated a fertile ultramafic unit so early in the exploration program. Preliminary geological studies suggest that the sulphides have been remobilised along the fold hinge of the ultramafic unit. Further surveys are underway to investigate the possible presence of larger accumulations of massive nickel sulphide.

In addition to these nickel programs in the Eastern Goldfields, a helicopter VTEM (electromagnetic) survey is scheduled in January for the Rocky Gully Nickel Project, 80km northwest of Albany.

Heron's managing director Mathew Longworth said; "These results are very encouraging early stage nickel sulphide exploration results that are the culmination of work completed at the Company's projects over the last 12 months. We look forward to further encouraging drill results as these projects mature over the next twelve months. Heron controls the largest ultramafic tenement holding in one of the world's prime nickel sulphide provinces, the Eastern Goldfields, and that holding is 100% Heron, and is now fully unencumbered and is being systematically explored".

N. Mith Longwort

N. Mathew Longworth Managing Director Heron Resources Limited +61 8 9215 4444

The information in this report that related to Exploration is based on information compiled by David von Perger who is a member of Australian Institute of Mining and Metallurgy. David von Perger is a full time employee of Heron Resources Limited. David von Perger has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the exploration activity that he is undertaking to qualify as Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. David von Perger consents to the inclusion in this report of the matters based on his information in the form and context that it appears.

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Figure 1 Kalpini Cross Section showing zone of desseminated sulphides in KPDD01

Figure 2 Photo of desseminated sulphides in KPDD01 Aggregate of pyrite, millerite and chalcopyrite in interstitial spaces of the ultramafic rock Field of View = 1.3mm



Figure 3 Example of Nickel Sulphide Bands in Avoca Downs Drill Core





Figure 4 Nickel Sulphide Exploration Model – Showing Possible Relationship of Desseminated Sulphides and Massive Sulphide zones

adapted from Cowden 1988