

# PROTO



RESOURCES & INVESTMENTS LTD

## STOCK EXCHANGE ANNOUNCEMENT

January 18, 2011

### Drilling and a New Cu-Pb-Zn Anomaly at Barnes Hill

#### ASX Release Stock Code: PRW

*Reverse Circulation ("RC") drilling is currently underway at the Barnes Hill Project in Tasmania completing a programme for bulk sample collection. This ore will be used in the pilot plant of the optimised circuit that will commence in early February.*

*Soil sampling results for the Barnes Hill Extension Prospect have been received from the laboratory. These first soil results have identified a coincident Cu-Pb-Zn anomaly that is now being covered by infill sampling.*

#### **Executive Summary**

- Reverse Circulation drilling is currently underway at the Barnes Hill Project completing a programme for bulk sample collection for metallurgical test work purposes.
- The full pilot plant of the optimised circuit, operating on the raw nickel laterite ore to produce the finished outputs, will commence in early February.
- The first soil sampling results have been received from the laboratory at the Barnes Hill West and Barnes Hill Project areas.
- These soil results from the Barnes Hill Extension Prospect have identified a coincident Cu-Pb-Zn anomaly that is now being covered by infill sampling.

#### **Bulk Sample Drilling**

The Directors of Proto Resources & Investments Ltd ("Proto", "the Company") are pleased to announce that a programme of RC drilling is almost complete at the Barnes Hill Nickel Project in Tasmania. This drilling is being completed to collect further mineralised Nickel ore for pilot leach test work. The drilling from the southern mine area has now been completed and the RC drill rig is now being moved to the north mine pit area (see Figure 1).

Proto's acid and water recycling and iron and magnesium technology is progressing well with further power cost savings identified. The first set of ore for the pilot plant has already been sent to the laboratory. Approximately 2.5 tonnes has been received and is being processed to create a representative blended sample for the first pilot plant leach batches. The pilot plant of the Barnes Hill ore will reach full-operation in

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## STOCK EXCHANGE ANNOUNCEMENT

early February and this will be the last test prior to the completion of the full feasibility study and detailed engineering that is now planned to be completed in the middle of this year.

Positive results have encouraged the fast-tracking of this work. In particular, Rio Tinto's purchase of Metals Finance's low pH nickel system (which is the same front-end system that Proto will be using at Barnes Hill) has given confidence to complete this feasibility and engineering work. A Rio Tinto subsidiary jointly operated a low pH nickel system with Metals Finance at the Palabora Mine in South Africa for two and a half years before purchasing it outright. Proto is very pleased to see this commercial endorsement of the nickel processing technology that will be used at Barnes Hill. This front-end also complements the separate innovative back-end technology which treats the iron and magnesium that has slashed reagent requirements for Barnes Hill.

The back-end technology perfectly meshes with the high recovery front-end and provides a seamlessly integrated iron and magnesium sulphate processing solution. The technology has received intellectual property protection under an International Patent published on 29 July 2010 and its innovativeness acknowledged through the receipt of competitive funding from the Commonwealth Government of Australia. The back-end process will produce iron and magnesium saleable product that add to the profitable economics of the project. Without this technology these sulphate by-products would have to be neutralised and stored at great expense. Acid recycling of over 80% has already been achieved from this back-end technology, with an optimised processing system about to go into pilot plant production.

Proto is continuing to liaise with government on achieving the Mining Licence and development proposal milestones. The Chairman, Mr Andrew Mortimer, commented that: "2011 promises to be an important year for Proto, having already achieved our Mineable Reserve and JORC Resource milestones during 2010, we are on course to shortly pass several other critical stages on our way to mining at Barnes Hill".

### ***First Soil Sampling Results Identify Anomaly***

The Company is also pleased to announce that the results of the first 145 soil samples collected at the Barnes Hill Extension Prospect in Tasmania in December 2010 have been received. The Barnes Hill Extension Prospect was one of the four separate prospect areas being geochemically explored at the Barnes Hill West and Barnes Hill Projects (see Figure 2). These results have been received from 145 of the 551 samples that have been sent to ALS Laboratory Group from across the four prospect areas. These soil programmes are exploring for nickel, gold and base metals (Zn-Pb-Cu).

The Barnes Hill Extension Prospect is located on the boundary between Proto's flagship Barnes Hill Ni-Co Project on EL17/2006 and the Barnes Hill West Project on exploration licence EL53/2008.

Soil sampling results from the Barnes Hill Extension Prospect have identified a coincident Cu-Pb-Zn soil anomaly which corresponds with a northwest trending fault identified from airborne magnetics data (see Figures 3 & 4). The soil anomaly although moderate in intensity is well above background levels and has returned a peak zinc result of 415ppm, peak lead result of 198ppm and a peak copper result of 137ppm. The coincident Pb and Zn anomaly extends over four soil lines or a length of 1.4km at the +50ppm Pb contour and +100ppm Zn contour while the Cu anomaly extends over two soil lines or 400m at the +50ppm Cu contour. The anomaly occurs near the contact between sedimentary rocks of the Proterozoic Badger Head Block to the west and the Cambrian Andersons Creek Ultramafic Complex.

Seven east-west oriented soil lines were initially completed with the northern three lines 400m apart and the four southern lines 200m apart. Individual sample points were spaced at 50m. A further 13 infill soil

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## STOCK EXCHANGE ANNOUNCEMENT

lines have now also been completed to provide further insight into the anomaly identified at the Barnes Hill Extension Prospect with assays pending. The Company is awaiting the results of the infill sampling programme to ascertain the importance of this identified soil anomaly.

The remaining soil sampling results from the 406 soil samples collected at the Pandora Prospect, Kelly's Lookout Prospect and Anderson's Creek Prospect are expected to be received towards the end of January. The Company looks forward to providing further updates on its exploration and development projects.

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*The information in this report that relates to Exploration Results is based on information compiled by Andrew Jones, who is a Member of the Australasian Institute of Mining & Metallurgy. Mr Jones is a full-time employee of TasEx Geological Services Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Jones consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

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*Figure 1 – Reverse Circulation drill rig at the Barnes Hill Project, Tasmania.*

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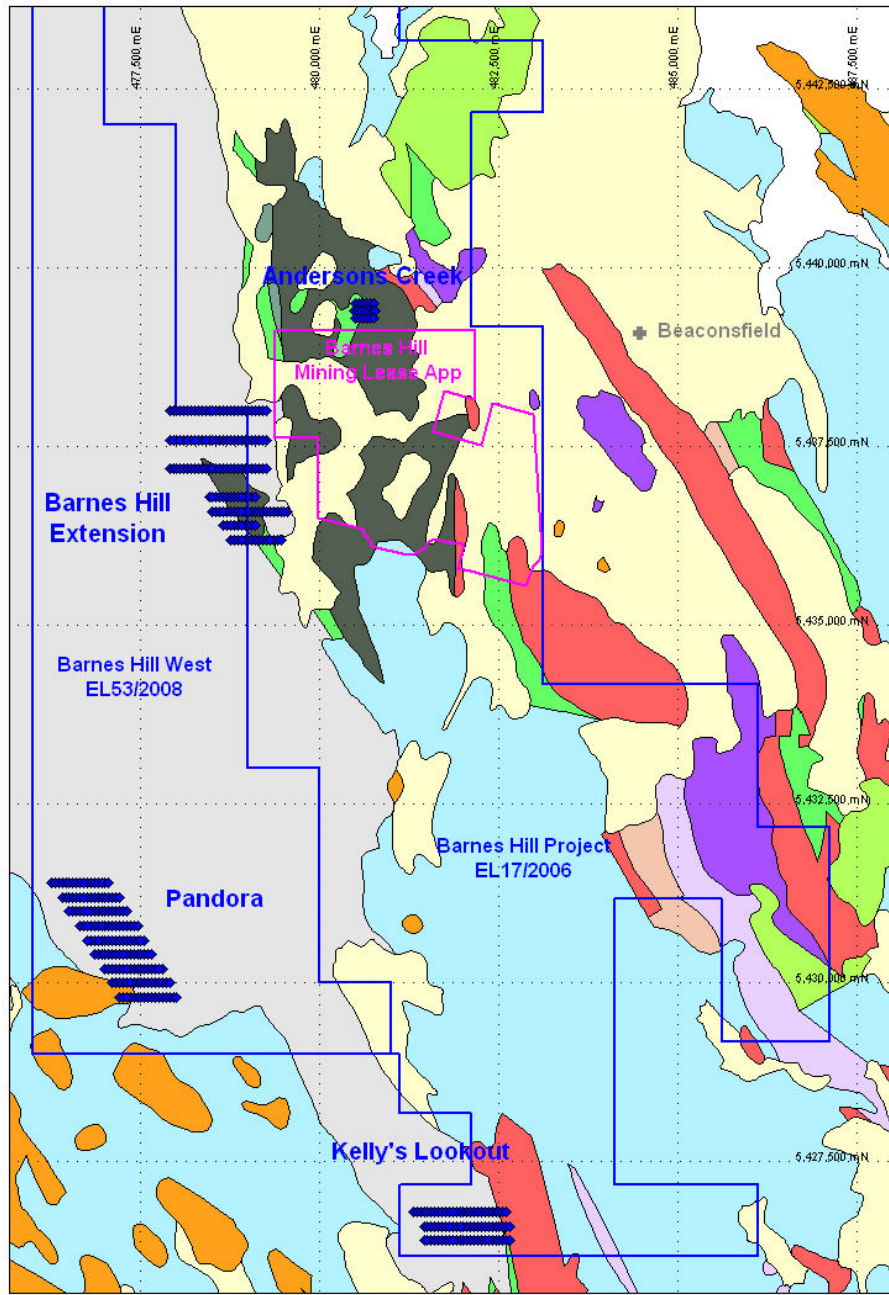


Figure 2 – Location of soil sampling programs across four prospect areas at the Barnes Hill West and Barnes Hill, Tasmania (blue dots).



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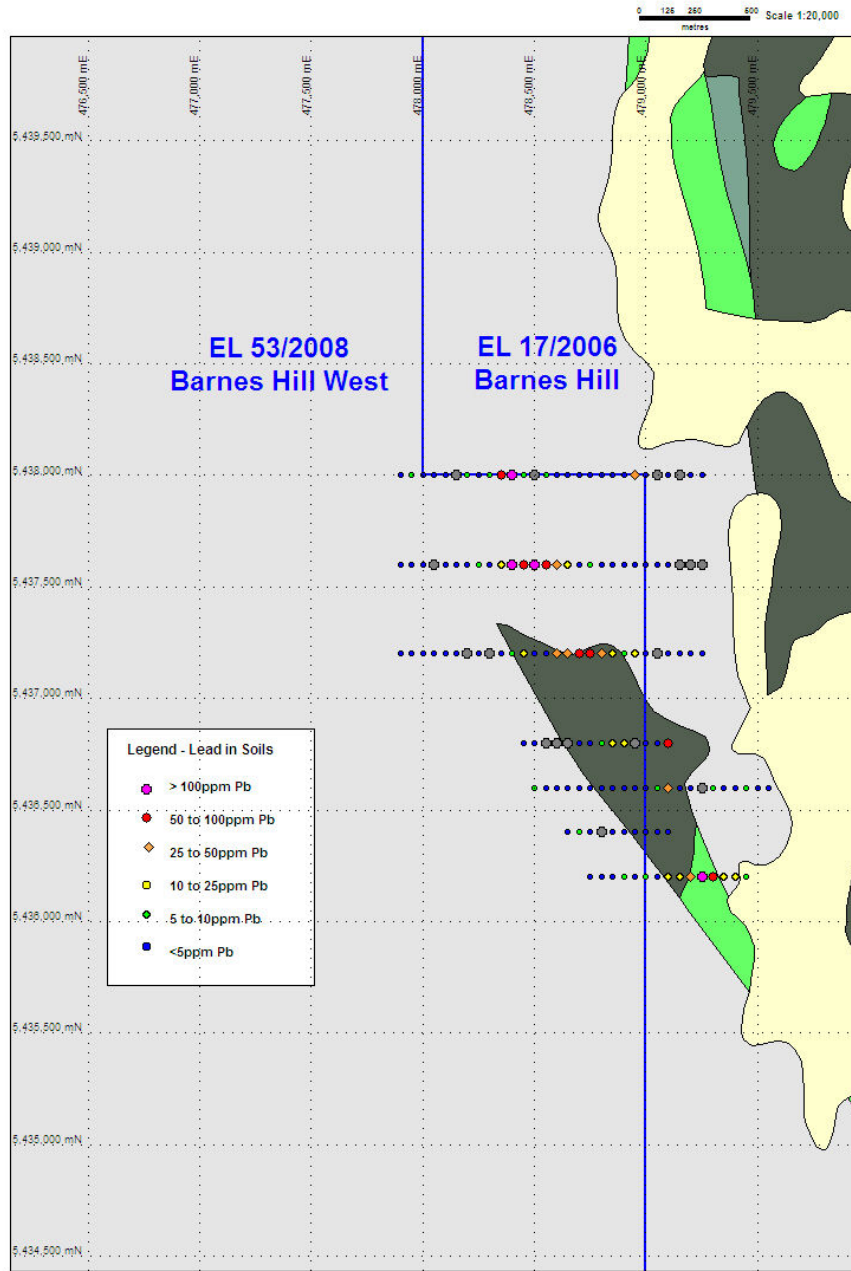


Figure 3 – Lead in soils at the Barnes Hill Extension Prospect with geology as background (light grey colour is Badger Head Block and the dark grey and green colours are the Andersons Creek Ultramafic Complex).



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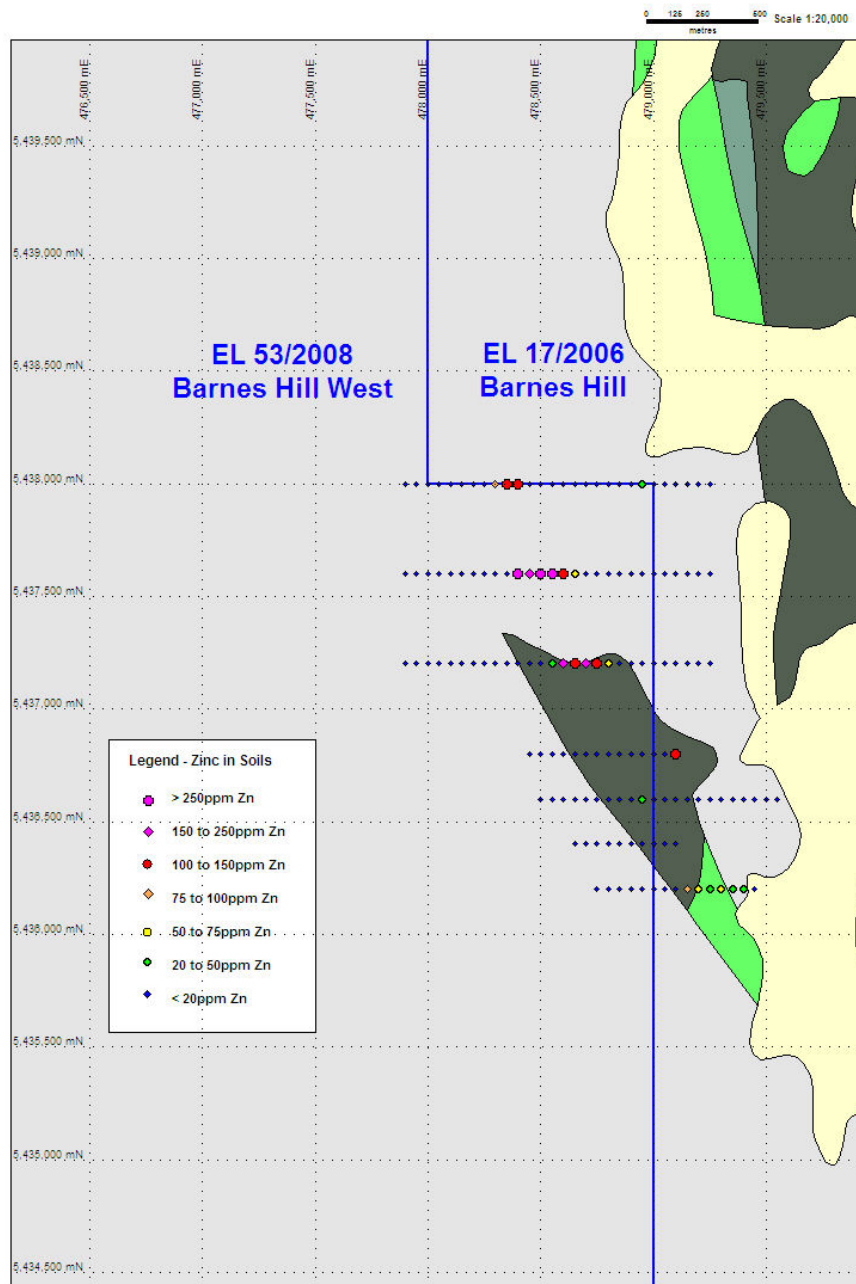


Figure 4 – Zinc in soils at the Barnes Hill Extension Prospect with geology as background (light grey colour is Badger Head Block and the dark grey and green colours are the Andersons Creek Ultramafic Complex).