

PROTO



RESOURCES & INVESTMENTS LTD

STOCK EXCHANGE ANNOUNCEMENT

January 31, 2012

Quarterly Activity Report ending 31 December 2011

ASX Release: PRW

Proto Resources & Investments Ltd ("Proto", "the Company") achieved important milestones across its projects in the last quarter of 2011 and the New Year looks extremely promising as the Barnes Hill project moves closer towards development. Drilling at Lindeman's Bore and the recent grant of two more Doolgunna tenements were also important exploration events during the quarter.

Highlights

- Barnes Hill (Tasmania) – Proto continued to advance the Barnes Hill nickel-cobalt-iron project towards development during the quarter. An increased mining rate of 500,000 tonnes per annum was accepted by Proto and joint venture partners Metals Finance Limited ("Metals Finance", "ASX:MFC") resulting in substantial enhancements to the project's economics. This revised throughput will be incorporated into the Definitive Feasibility Study ("DFS") currently underway and due for completion in Q2 2012. The recently shipped bulk samples of Barnes Hill saprolite ore are currently undergoing a series of leaching tests to confirm both the rate of nickel recovery and the acid consumption of the ore for incorporation into the DFS.
- Barrier Bay Technology - Important advancements were achieved with respect to the innovative processing technology currently being developed by Proto's 50%-owned subsidiary, Barrier Bay Pty Ltd ("Barrier Bay"). The first commercial Barrier Bay pilot operated on a batch system, with the five-stage process broken down into five components. The design of an integrated cell has now been completed to allow the reconstruction of the pilot plant to operate on a continuous production basis. The Barrier Bay technology positions Proto to facilitate the economic exploitation of a variety of global mineral resources using sulphuric acid as a reagent.
- Waterloo (NT) – On 18 October 2011, Proto announced the finalisation of a research sponsorship including the linked professional secondment of leading volcanologist Dr Mike Widdowson. Dr Widdowson is to be seconded to Proto as part of an exploration collaboration that will include the funding of a dedicated PhD project focused on the Waterloo project area.
- Lindeman's Bore & Wave Hill (NT) – On the exploration front Proto continued an active exploration campaign with the commencement of a 600-800m diamond core hole (LBD-3) targeting a 500m by 500m bedrock conductor at the Lindeman's Bore project. Proto believes the anomaly may represent a sulphide target with the presence of base metal sulphides in in drill hole LBD-1 where minor copper mineralisation of a Mississippi Valley style was intersected.

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- Doolgunna Projects (WA) – During the quarter Proto received grant of two more projects within the historical Glengarry Basin, being Mt Killara (135.4 km²) and Magellan North (18.44 km²). These additions to Proto's portfolio build on earlier acquisitions in the region and Proto's belief that a significant portion of the broader region is prospective for Sandfire-style mineralisation.

Barnes Hill, Tasmania (Nickel Laterite, Cobalt and Iron)

Feasibility/Approvals Milestones & Increase in Mine Throughput

Proto received the mining license for Barnes Hill in the middle of the year and then quickly signed with Caterpillar Financial SARL (the financing arm of Caterpillar Inc.) to arrange the debt funding for the project. Proto's joint venture partner Metals Finance has signed a letter of intent with The Dow Chemical Company (NYSE: DOW) that provides assistance to Metals Finance that Proto expects will positively impact on the Barnes Hill project. Proto has already lodged the Development Application and Environmental Management Plan for Barnes Hill and the Company expects the approvals process to be relatively swift.

During the quarter Proto and joint venture partners Metals Finance agreed to substantially increase the feasibility study throughput for the Barnes Hill project. Under the joint venture agreement it is the responsibility of Metals Finance to complete various developmental milestones, including feasibility studies, in order to earn a 50% equity interest in the project. Work to date has focussed on costing and modelling the project at 250,000tpa. This work has demonstrated that an increased scale of 500,000tpa is desirable to optimise the economies of scale of the project's economics. Under the increased rate of throughput, project payback is expected to occur within three years. Desktop analysis has suggested that this increased throughput is practically achievable with additional leaching and feasibility study work now underway to confirm parameters. The DFS, based on this increased throughput and detailed engineering of a final flow sheet, is on target for completion by June 30, 2012.

This 500,000tpa flow sheet will be based on the Dow Chemical (Australia) ("Dow") Ion Exchange Resin ("IER") separation technology being pioneered by Metals Finance at their Lucky Break nickel laterite project in Queensland (see diagram 1 below). On 14 October 2011 Metals Finance announced completion of a letter of intent with Dow, a global leader in speciality chemicals and advanced materials. Dow is contributing technical know-how and process engineering input associated with the use of its IER technology that facilitates production of nickel under lower cost atmospheric operating conditions. Metals Finance is using this same resin technology on the Barnes Hill feasibility studies. Indeed, the draft feasibility study at the 250,000tpa level was based on the same IER approach developed for Lucky Break.



Figure 1 – Dow Chemical selective nickel low-pH Ion Exchange Resin



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Proto also continued work on the ironstone cap at Barnes Hill, with bulk metallurgical samples collected in the quarter. This ironstone cap was already drilled during the Barnes Hill drill-out and a resource will be easily estimated once beneficiation testing has been proven to a JORC-compliant standard.

Interestingly, Proto was recently contacted by a historian from Tasmania who is preparing a publication about the ironstone hills of the Beaconsfield district of which Barnes Hill is a part. The book reveals that this was the site of the first iron ore discovery in Australia in 1805, and in fact the first operating metal mine in Australia that same year. One prominent pioneer was Sir Joseph Banks who had a keen interest in the area and not only had early explorers send samples of minerals from Proto's lease area back to him but also was instrumental in shipping the first drill rig to Australia to evaluate resources in the area. Subsequently, the area was host to Australia's first hot blast iron smelter in the 1870s using coal from Newcastle and Wollongong in iron production for the first time.

Technology Commercialisation

The Barrier Bay Technology, controlled by Proto through the private company, Barrier Bay, achieved several significant milestones during the quarter culminating in the completed design of an integrated cell allowing the pilot plant to operate on a continuous production basis. The first commercial Barrier Bay pilot was designed for the treatment of third party material from Western Australia and was consequently built with the five-stage process broken down into five distinct components that were operated under batch production methods, one for each stage as follows, that form part of the wider flowsheet shown in Figure 2:

- Stage 1 – Reduction of Fe^{3+} to Fe^{2+}
- Stage 2 – Ion Exchange (extraction of nickel and cobalt)
- Stage 3 – Extraction of FeO and Fe_2O_3 (mixed iron oxide product)
- Stage 4 – Extraction of mixed hydroxide product ("MHP")
- Stage 5 – Extraction of $Mg(OH)_2$ (magnesium hydroxide)

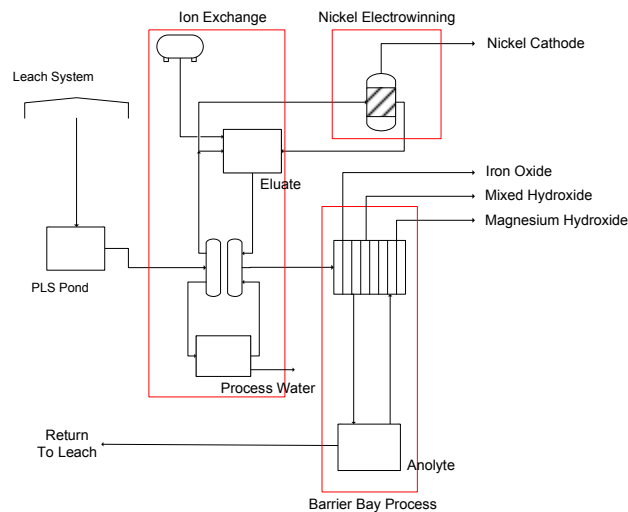


Figure 2 – Process flow diagram of the reconstructed pilot plant

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As announced on 20 December 2011 the Barrier Bay technology comprising the four stages listed above (other than stage 2 which comprises the IER technology being developed by Metals Finance and Dow) will now take place in one integrated cell. This new cell (Figure 3 below), consisting of 22 individual cells, will allow the pilot plant to operate on a continuous production basis. With the completion of this reconfiguration, the pilot plant has, subsequent to the end of this reporting period, commenced operation.



Figure 3 – The new cell designed for the Barnes Hill flowsheet moving into position

Another key milestone completed during the period was the acceptance of the second batch of anion exchange membranes supplied by General Electric (“GE”, NYSE: GE) after extensive quality control testing. The membranes are of key importance to the Barrier Bay process as they provide a means for sulphuric acid to accumulate in one half of the cell (the anolyte), from where it can be recycled, and for water to accumulate in the other half of the cell (the catholyte), from where it can be recycled.

Proto is pleased with the level of progress that is being made on the Barrier Bay processing technology and is eagerly awaiting the results of the pilot. A significant amount of laboratory and bench scale test work on the technology has been completed over the past four years, with the results now having been largely pulled together into a single interpretative study. The work to date has concluded as follows:

- Laboratory testwork shows clear advantages for the technology as an enabling technology for nickel laterite processing. While the primary function of the process is the regeneration and recovery of sulphuric acid, a range of significant benefits result from this. Through regeneration and recovery of the acid, and the recovery and recycling of water, the volume and level of contamination of process tailings is sufficiently reduced to allow viable development of laterite deposits that may otherwise not be environmentally feasible.
- The process also favours recovery of the contained metals as oxide/hydroxide products that adhere to a cathode and hence facilitate solid liquid separation at very high solid: liquid ratios, hence minimising or removing conventional solid liquid separation processes. The incorporation of Ion Exchange into the circuit results in a high value nickel product and subsequently allows satisfactory recovery of a primarily iron component, and a second primarily magnesium component that represent a significant economic advantage when markets can be secured.



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- The laboratory work has provided a valid basis for Barrier Bay to commission a preliminary Independent Technical Review (“ITR”) of the results to date, and the technology’s potential for commercial application. This has been carried out by a widely regarded metallurgical consultant based in Tasmania, who will continue to perform an overview role as the technology progresses.

Bulk Sample Collection

In the quarter, Proto completed the collection and transportation of bulk samples of Barnes Hill saprolite ore to the Australian BioRefining Pty Ltd facilities in northern New South Wales. In total 26 bulka bags weighing approximately 1 tonne each were collected and shipped. The ore was collected through trench excavation and sampling of nickeliferous ultramafic (serpentinite) saprolite from selected sites at the north and south pit locations at Barnes Hill. By October 20, 2011 all 26 bulka bags had been shipped. This comprised 22 bags containing saprolitic nickel ore with an additional four bags containing caprock iron ore. This iron caprock material is a lump mixture of haematite-goethite-limonite up to approximately 30cm in size (see Figure 4 for site location). Proto has been encouraged to undertake testwork as air core drill holes BHA140, 552 and 553 delivered assays of Fe₂O₃ up to 61.2% within the upper few metres of the holes. The saprolite ore is presently undergoing leaching tests to confirm the rate of nickel recovery and its acid consumption.

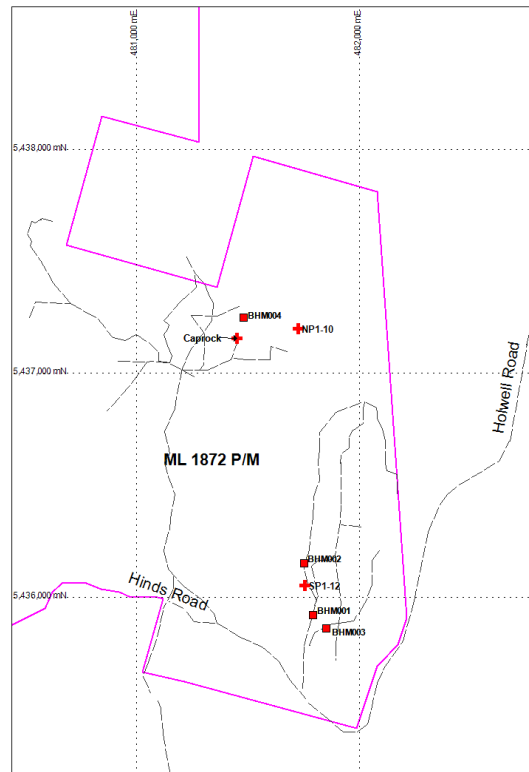


Figure 4 – Location of Bulk Sample Trench Sites (SP1-12 for south pit and NP1-10 for north pit) and Caprock Sites (by excavator at main caprock site and drilling at BHM001-BHM004).

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Wave Hill & Lindeman's Bore, NT (Nickel Sulphide, Copper and PGEs)

After two years of hard work, the Company has returned to the Lindeman's Bore project in the Northern Territory to drill a third diamond drill hole into a large electromagnetic anomaly. Drilling of a 600-800m diamond core hole commenced on 13 December 2011. Proto is drilling this new third hole in joint venture with Peak Mining who is providing the funding for the drilling campaign. Proto is targeting a tabular 500m by 500m electromagnetic anomaly, the top of which is relatively close to surface. This drilling followed geophysical work on both Lindeman's Bore, which sits on granted exploration licence EL25307, and on the three granted tenements at Wave Hill (EL27413, EL27617 and EL27618), which are all located 380km south-west of Katherine. The Company believes that this electromagnetic ("EM") target is potentially sulphide bearing and that its prospectivity is suggested by the minor base metal mineralisation uncovered during Proto's previous exploration at Lindeman's Bore.

This drilling followed the released on 4 November 2011 of the results of ground electromagnetic surveys completed on Lindeman's Bore. Two FLTEM ground surveys were completed at the Lindeman's Bore project area during September-October 2011 by Outer Rim Exploration Services Pty Ltd. The aim of the FLTEM surveys was to confirm/delineate bedrock anomalies of potential interest coincident with or adjacent to the priority ZTEM target defined at Lindeman's Bore 1.5km southeast of the original LBD-01 deep drill hole.

Assessment of the FLTEM survey data highlighted the presence of a broad, deep bedrock type anomaly within the vicinity of the ZTEM priority target area. Initial modelling of this FLTEM anomalous using both transmitter loop datasets indicates that the associated bedrock source has a large area (size >500x500m), is situated at a reasonably significant depth (~250-400m from surface), appears to be tabular in nature (having the potential to be a thick conductive unit), is likely to be steeply orientated and lies in a NNE-SSW direction. Modelled conductance levels were low to moderate across the conductor (~50-500S+). Figure 5 shows the location of FLTEM surveying completed and the locations of the ZTEM priority target, previous drill holes LBD-01 and LBD-02 and the new LBD-03 hole.

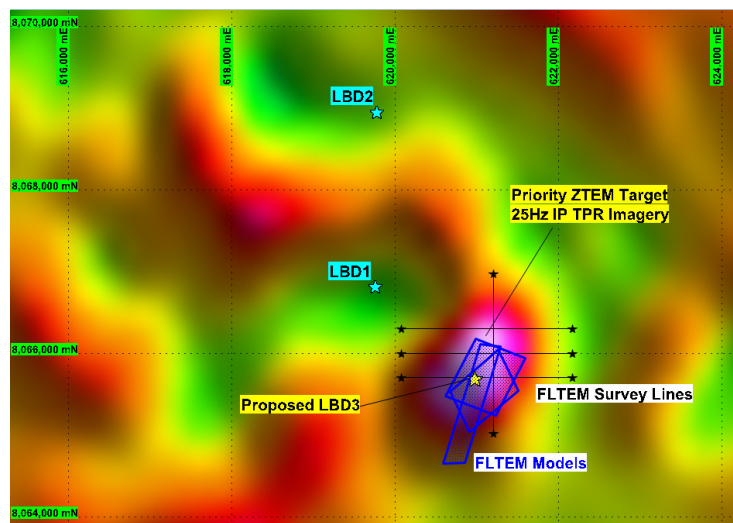


Figure 5 – Lindeman's Bore FLTEM Surveying with proposed LBD03 location and ZTEM Imagery

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Doolgunna Projects, WA (Copper, Gold and Lead)

Proto received grant of two more licenses out of the five it applied for in 2010 within the historical Glengarry Basin, being Mt Killara E53/1580 (135.4 km²) and Magellan North E53/1581 (18.44 km²). These followed the granting on 29 September 2011 of the Casey project (E51/1457) consisting of 63 sub-blocks (192 km²) and the Great Doolgunna license (E51/1455) covering 2 sub-blocks (6 km²) with the Station Bore application (ELA69/2872) still in process.

Proto will be exploring these tenements in pursuit of copper and gold mineralisation associated with hydrothermal or volcanic massive sulphide events directly and in joint venture. Proto believes that a significant portion of the broader region is prospective for Sandfire-style mineralisation as other companies, such as Sipa Resources Limited (ASX: SRI), Ventnor Resources Ltd (ASX: VRX) and Dourado Resources Limited (ASX: DUO), have already returned promising results in nearby drilling. Proto is targeting copper as its secondary focus (after nickel) on the basis of its commercial potential and strong forward outlook.

Waterloo, NT (Nickel Sulphide, Copper and PGEs)

On 18 October 2011, Proto announced the finalisation of a research sponsorship including the linked professional secondment of leading volcanologist Dr Mike Widdowson to further exploration on Proto's Northern Territory tenements. Dr Widdowson is to be seconded to Proto as part of an exploration collaboration that will include the funding of a dedicated PhD project focused on the Waterloo project area. The research project is entitled: "Architecture, chemostratigraphy, and economic prospectivity of the Central Kalkarindji flood basalt province, Australia".

Waterloo is being explored under Proto's joint venture with Peak Mining and is situated approximately 80km southeast of Kununurra in the Kimberley region of the Northern Territory. Waterloo sits within the extensive Antrim Plateau Volcanics and comprises two granted exploration licenses (EL27416 and EL27420) and two applications (EL28504 and EL28505) proximal to a major structural feature, the Blackfellow Creek Fault.

In order to support the work that Dr Widdowson is undertaking, Proto has agreed with The Open University ("OU") to jointly fund a postgraduate student in the period from 1 October 2011 to 30 September 2014. In addition to funding 50% of student costs, the OU will also fund 50% of analytical costs that will directly contribute to Proto's exploration of the Waterloo area. The PhD project will include two, month-long, field reconnaissance and sample collection expeditions, and extensive geochemical analyses to be performed at the OU (ICP-MS and Ar/Ar dating work), the Queensland University of Technology ("QUT") (XRF), and Leeds University (sulphur isotope analyses). These detailed analyses will aid in determining the economic potential of the flood basalt succession, the likelihood of crustal sill complexes, and the potential for the presence of associated mineralisation within the surrounding country rocks and basement. In addition to the fieldwork and analytical data generated by the student, this PhD study will use GIS techniques to build a virtual spatial framework into which the broader geological, geophysical and detailed stratigraphical, volcanological and chronological data will be combined.

On 4 October 2011, Proto announced that a team from QUT) led by Dr David Murphy had completed a research expedition over the Company's Waterloo project. As part of the winter 2011 field trip a series of stratigraphic traverses to the south of the previously mapped area in the vicinity of Riedel shears to the east and west of the Blackfellow Creek Fault were conducted. All stratigraphic traverses were extensively sampled for petrological and geochemical investigation. This will include petrological and barometry assessments that are now underway.



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The Waterloo area contains substantial outcrop of the Antrim Plateau Volcanics that represents a Mid-Cambrian Large Igneous Province ("LIP") consisting of a thick pile of tholeiitic lava flows and interbedded sedimentary material. This LIP is believed to be prospective for Noril'sk-style Ni-Cu-PGE mineralisations. Understanding the volcanic stratigraphy and the facies of the lava flows is key to understanding the relationship between faulting in the area and the role of faults in providing loci of extrusion for volcanic feeder vents with the focus being around the Blackfellow Creek Fault. This is integral to identifying the locations of potential shallow intrusions that could be situated beneath feeder vents and would be the potential location for Ni, Cu and PGE mineralisation.

Kiefernberg, Germany (Nickel Laterite, Cobalt and Iron)

On November 2, 2011 Proto announced it had entered an option to purchase the Granulite Mountains license in Saxony, Germany from Deutsche Rohstoff AG. Proto will hold 100% ownership over the project once the license renewal and transfer process is completed. The Granulite Mountains license covers 670.4 km² and contains an advanced nickel-cobalt development project at Kiefernberg as well as several areas of nickel-cobalt mineralisation. The Kiefernberg project is intended to become Proto's second nickel-cobalt development, and will use the same technology as Proto's flagship Barnes Hill Project in Northern Tasmania. The processing circuit and engineering already completed are well suited to Kiefernberg, which shares similar characteristics to Barnes Hill in terms of proximity to roads, water and electricity. Indeed there are roads and electricity passing over the license just a few hundred metres from the mineralisation and a high intensity 220kV power line is located just 1.5km from the project area.

Beak Consultants GmbH ("Beak Consultants") is undertaking tenement management and has compiled the historical data. The license has already been the subject of extensive drilling, with 1,270 holes having been completed to varying depths. Historical drill results at Kiefernberg were assayed at 0.5m intervals, with tight drill spacing of less than 30 x 30m. This should allow rapid completion of the necessary geological work to estimate a JORC-compliant resource and reserve in order to support mine planning and plant engineering. Proto is aiming to complete the necessary confirmatory exploration required to allow the extensive historical geological work to be used to produce a JORC-compliant resource estimate in 2012. A recent field trip considered plant placement and planned exploration. Proto considers that Kiefernberg represents an excellent opportunity to replicate the plant that has been designed for its flagship project at Barnes Hill.

In addition to the area at Kiefernberg, the Granulite Mountains license hosts several other small laterite bodies identified. Proto plans to use geophysical techniques and stream sediment sampling to test the wider mineral potential, including exploring for sulphide mineralisations associated with the rocks that were the source of the nickel that has weathered into the laterite profile. The areas of past exploration and mining in the area around Kiefernberg are shown in Figure 6 below.



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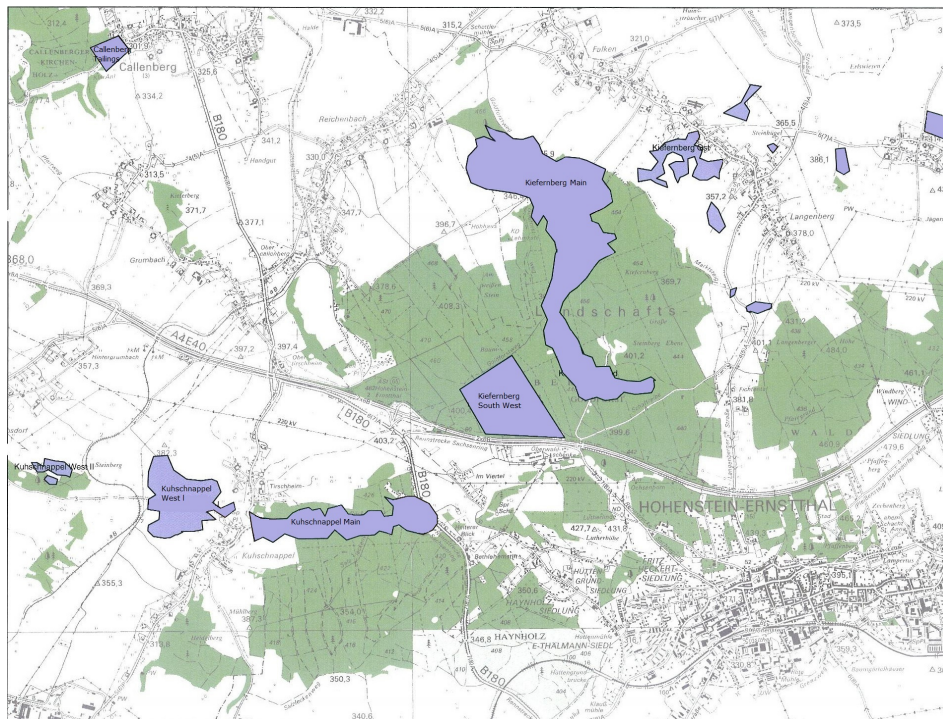


Figure 6 – Sites of Previous Exploration and Mining around Kiefenberg

The agreement was part of Proto’s strategy of expanding nickel tonnage by rolling out the Barrier Bay process to other nickel laterite projects in Australia and around the world. Europe provides some overlooked laterite opportunities and the combination of excellent first-world infrastructure and highly skilled labour forces makes them compelling propositions for the technology.

Corporate Activities

On 24 October 2011, Proto lodged a substantial shareholder notice in relation to its stake in Metals Finance in accordance with corporate reporting regulations. This showed that Proto had increased its stake, and of that date held 10.67% of Metals Finance’s fully paid ordinary shares and consequent voting rights. This is an important strategic stake in Metals Finance, Proto’s joint venture partner at Barnes Hill.

On 28 November 2011, Proto announced that at the Annual General Meeting of Shareholders held Wednesday, 23 November 2011, all resolutions put to the meeting were passed unanimously by a show of hands.

As announced just after the end of the quarter on 3 January, one class of Proto’s listed options (those exercisable at \$0.05 on or before 31 December 2011 (ASX: PRWOB)) expired. A total of 149,651,795 options lapsed unexercised at that time.

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In the quarter, Proto also made personnel changes to provide the resourcing needed to support the upcoming exploration and development milestones that will be passed in the New Year. These included Ms. Lia Darby becoming a Non-Executive Director, Dr. Pierre Richard shifting to a more project oriented role to leverage Proto's nickel expertise across a wider portfolio of projects internationally, and appointing Mr. Hugh Minson to the commercialisation-focused role of Business & Technology Development Manager.

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Competent Persons Statement

The information in this announcement that relates to Exploration Results, Mineral Resources or Ore Reserves, together with any related assessments and interpretations, is based on information reviewed by Mr Peter Peebles a full-time employee of Darlington Geological Services Pty Ltd. Mr Peebles is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation 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 Mineral Resources and Ore Reserves". Mr Peebles consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.