

**10/12/2013**

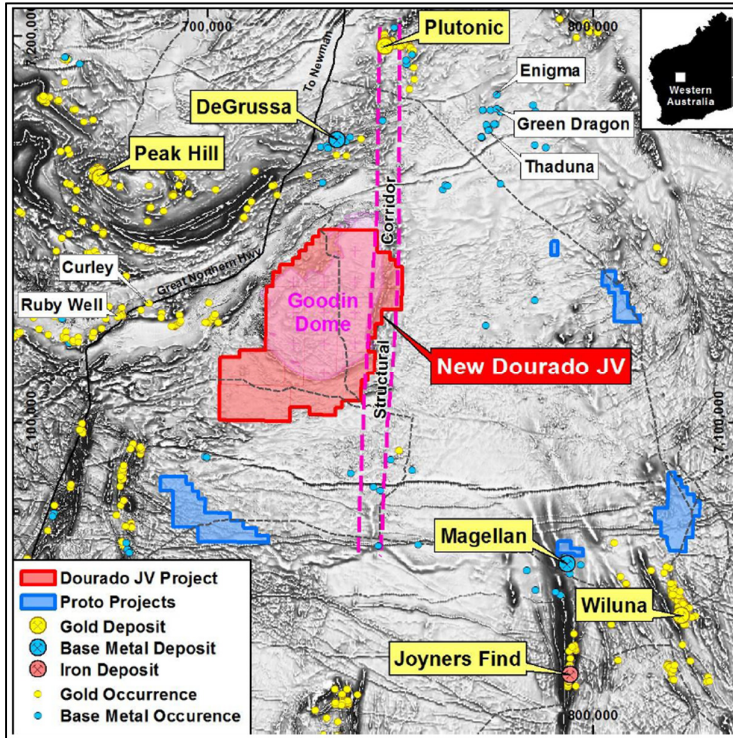
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## **ENCOURAGING RESULTS AT THE MOOLOGOOL PROJECT**

- **First geological field reconnaissance and outcrop sampling completed over Mooloogool tenements.**
- **The different geological structures sampled (e.g. quartz veins, gossan breccia shears) returned a metallogeny of close affinity (i.e. Zn, Cu ± As, Mo, Au) with each other. This suggests that the spaced-out anomalies may relate to a single mineralization event.**
- **Very high purity silica outcrops were identified. Proto is now examining the potential of a silica mineralisation as an avenue for revenue generation.**

The Board of Proto Resources & Investments Ltd ("**Proto**", the "**Company**", **ASX:PRW**) is pleased to announce the very encouraging results of first outcrop sampling on the Mooloogool project in Western Australia. The Mooloogool Project is located approximately 85km North East of the regional centre of Meekatharra in Western Australia. The trip was intended to identify outcropping geological features and/or structures with potential to host copper gold mineralisation.

Proto has acquired a 51% interest in the Mooloogool Project, which is composed of eight exploration licenses (E51/1185, E51/1186, E51/1213, E51/1215, E51/1325, E51/1340, E51/1341 and E51/1342) covering 1,461 square kilometres. Mooloogool is a joint venture with Dourado Resources Limited ("**Dourado**", **ASX:DUO**). The licenses cover deformed Proterozoic metasediments arranged around the Goodin Dome, a large ellipsoidal granite that may have acted as a fluid source for mineralising solutions in the region (see **Figure 1**).



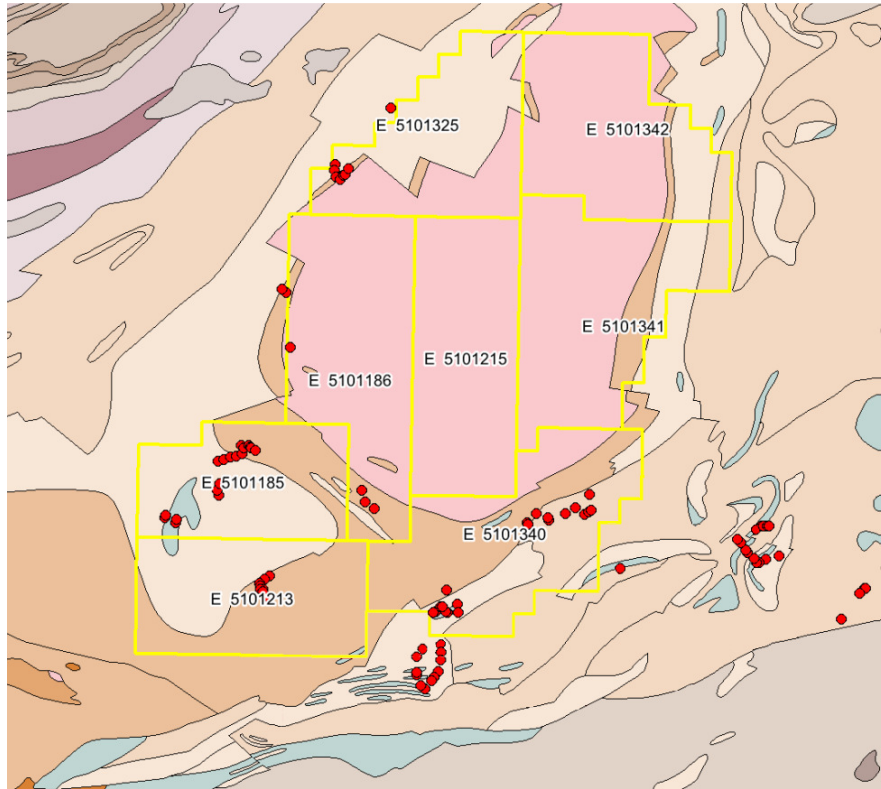
**Figure 1:** Joint Venture licenses and existing Proto licences in the Yerrida-Goodin Dome Region

### **Field Sampling Trip Completed**

From the 22nd of September 2013 to the 3rd of October 2013, walking traverses were conducted across the tenements in areas of expected outcrop and geological features of interest as identified from previous auger/soil samples, geophysics and landsat data sets. Waypoints for the reconnaissance trip are shown in **Figure 2**.

A number of interesting prospects (industrial, base metal and precious metal) were located during many walking traverses. These included breccia shear structures (Cu-Zn +- Au), magnetite pisolith laterite layers (Fe-Mg) and silica quartz sedimentary beds (Silica). Rock chip samples from features of interest were taken and submitted for lab assaying at the Genalysis Intertek facility in Perth.

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**Figure 2:** Tenement map with waypoint (red dots) localities over GSWA regional 1:500,000 scale geology map.

Follow up programs have been recommended for the prospects in tenements E51/1325, E51/1185, E51/1340. This would include detailed, systematic mapping and sampling over outcropping prospects and lag sampling surveys along projected geological trends to these prospects.

### **Prospects Identified**

In the mid north of Tenement E51/1185 there are two features that have potential for anomalism in Cu ± Au and Fe-Mg. The interpreted Cu ± Au feature is associated with a quartz vein system (~1000m length) that has mixed textures (milky, breccia, fractured, vuggy) and varies in width from 0.5m to 2m (**Figure 3**). In the South-East of the same tenement, there are additional outcrops for the potential of Cu ± Au and Fe-Mg anomalism.

The second feature of note on E51/1185 is a broad flat layer of magnetite pisolith laterite concretions, with an estimated 70% magnetite composition. The area is roughly 500m x 250m x 2m thick, with its true extent not yet determined. A mafic intrusive was observed in close proximity to this feature (both on surface

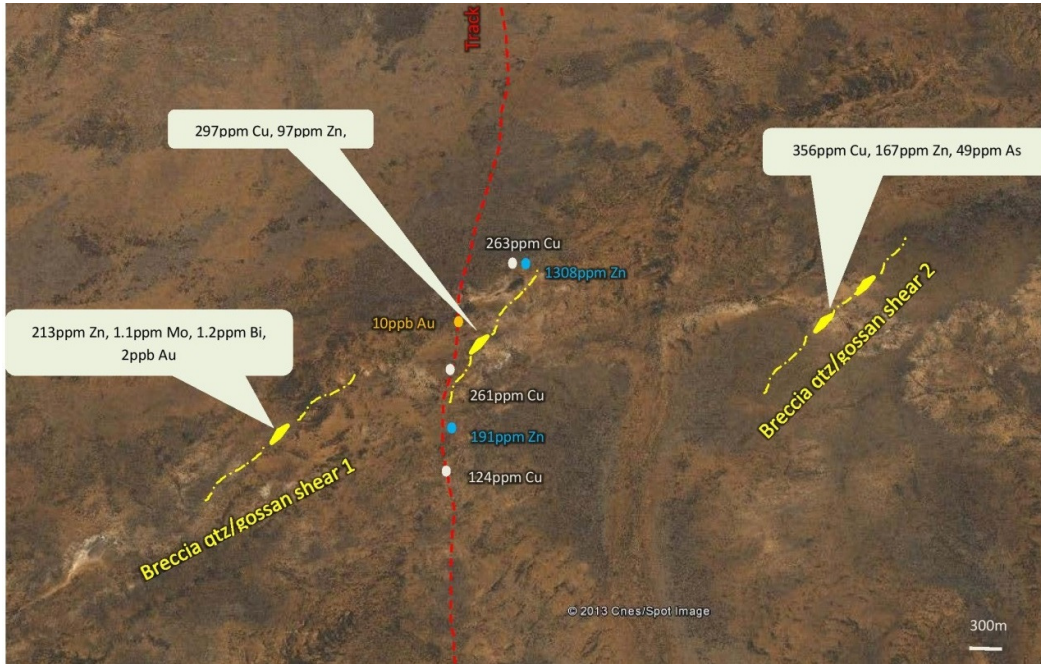


and at bottom-of-hole in historical Air-core drill chips): this may be a possible source for the laterite magnetite layer.



**Figure 3:** Prospects (Cu ± Au in veins, Fe-Mg in laterite) in the north of tenement E51/1185. New rock chip results in balloons, with results from historical auger and soil samples marked.

In the mid-east of Tenement E51/1340 there are two features that have potential for anomalism in Cu-Zn ± Au (see **Figure 4**). Here breccia/shear structures with quartz vein and ferruginous/gossan infill (e.g., **Figure 5**) were observed in low relief hills within a few kilometres of a track that had previous Auger and soil samples taken along it. Samples returned anomalism in Cu, Zn and Au (263ppm Cu, 0.13% Zn and 10ppb Au). The breccia/shear systems extend approximately 800m to >1000m with portions of the trend being obscured by transported sediments and drainages. The structures are 0.2m to 1.5m wide and exist in high strain zones within carbonaceous fine grained bedded sediments.



**Figure 4:** Prospects (Cu-Zn ± Au in breccia shear) in the mid-East of tenement E51/1340. New rock chip results in balloons, with results from historical auger and soil samples written as numbers.



**Figure 5:** Field Photo of Cu-oxide minerals from the breccia/shear quartz/gossan structure in E51/1340 (co-ordinate at 734359mE, 7110841mN).

In the east of Tenement E51/1325 there are two parallel beds of coarse grain silica quartz rich sandstone that have potential for industrial quarrying of high purity silica product (i.e., as an exploration target for a quartz silica deposit). These beds are situated unconformable along the margin of the Archean Goodin Inlier. The observed outcrops at the prospect are estimated at 1500m length x 8m to 10m wide. The depth extension of the silica beds is unknown.

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Of particular interest is that the different geological structures sampled (e.g. quartz veins, gossan breccia shears) returned a metallogeny of close affinity (i.e. Zn, Cu ± As, Mo, Au) with each other. This suggests that the mineralization event in the area may all be related to a single cause. These results also have a good correlation to surface geochemical anomalies reported by neighbouring prospects by Rubianna, Great Western and Ventnor Resources.

## **Conclusions and Next Steps**

Proto will now move quickly to extend geochemical sampling and initiate detailed (1: 2,500) mapping of priority outcropping prospects. Work has already begun to design systematic lag sampling over areas of identified prospective trends to delineate additional anomalism, and define the system extent of current identified anomalies. This work will allow stronger targeting of structures for the first drill program. Drilling would then will form part of the 2014 exploration strategy, subject to continued good results from this planned follow-up surface work.

Proto chairman Andrew Mortimer said, "Proto is very excited at the discovery of silica mineralisation on the Mooloogool project and work will commence immediately to bulk sample this material and assess its readiness for marketing. The copper gold zinc and iron mineralisation are also of very great interest and we will commence further ground mapping and sampling immediately."

Shareholders and interested parties should direct their enquiries to:

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## **Competent Persons Statement**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information reviewed by Mr Tony Treasure, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Treasure is a self-employed independent contractor providing geological services to exploration companies. Mr Treasure has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Treasure 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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## Appendix 1: JORC Code Table 1 Details

### Section 1: Sampling Techniques and Data

Criteria	Explanation
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>• <i>Nature and quality:</i> The sample technique was composite grab rock chipping of outcrop material, perpendicular to the trend of the geological feature of interest. Independent laboratory, Genalysis, used a 25g charge applying Aqua Regia digestion with Graphite Furnace AAS finish (for Au analysis). 41 samples were collected, of which</li> <li>• <i>Measures taken to ensure sample representivity:</i> It is sparse reconnaissance sampling. This sampling is purposive and not intended to be representative across the areas of interest. Instead, the rock chip sampling is verifying the auger and soil anomalies completed previously across the tenement areas and locating possible outcrop sources to these anomalies.</li> </ul>
<i>Drilling techniques</i>	Not applicable
<i>Drill sample recovery</i>	Not applicable
<i>Logging</i>	Not applicable
<i>Sub-sampling techniques and sample preparation</i>	Not applicable
<i>Quality of assay data and laboratory tests</i>	Genalysis Laboratory Service, an accredited NATA (National Association of Testing Authorities, Australia) and ISO9001 certified laboratory (Number 3244), was directed to use Aqua Regia with Graphite Furnace AAS finish (for Au analysis) on the base and precious metal analysis, using 25g charge. XRF analysis for the Fe laterite samples, and XRD analysis for the silica sample.
<i>Verification of sampling and assaying</i>	Limited verification was utilized for this first exploratory work. Samples have been stored to allow future verification during later stages of exploration. The lab conducted duplicate and standard analyses for the sample batch. No field duplicates were submitted.
<i>Location of data points</i>	A Garmin GPS was used to identify the position of outcrops using WGS84 zone 50s datum. This was verified with aerial imagery of the plotted data points.
<i>Data spacing and distribution</i>	The information contained in this document is based on preliminary, sparse data that is only suggestive of possible significant mineralised geological features. Samples were taken from purposive points and no systematic spacing system was applied. Consequently, the data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for estimation of a Mineral Resource or Ore Reserve.
<i>Orientation of data in relation to geological structure</i>	Outcrop material was sampled perpendicular to the trend of the geological feature of interest. It is not expected that any bias has been introduced, though a consideration of this is not necessary at this time.
<i>Sample security</i>	Standard safety procedures were undertaken to maintain sample security. This included a careful labelling system, sufficient for these rock chip samples.
<i>Audits or reviews</i>	No audits or reviews were considered necessary. The sampling techniques were reviewed by an independent consulting geologist, who did not consider any additional steps necessary.

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## Section 2: Reporting of Exploration Results

Criteria	Explanation
<i>Mineral tenement and land tenure status</i>	<p>Proto has acquired a 51% interest in the Mooloogool Project, which is composed of eight exploration licenses (E51/1185, E51/1186, E51/1213, E51/1215, E51/1325, E51/1340, E51/1341 and E51/1342) covering 1,461 square kilometres. Mooloogool is a joint venture with Dourado Resources Limited ("Dourado", ASX: DUO) who retains a 49% stake.</p> <p>Land tenure is secure under the mining titles system of Western Australia. No impediment to renewal of licenses is expected, subject to usual compliance with rents due and expenditure expected.</p>
<i>Exploration done by other parties</i>	The rock chip sampling is verifying the auger and soil anomalies completed previously across the tenement areas and locating possible outcrop sources to these anomalies.
<i>Geology</i>	The licenses cover deformed Proterozoic metasediments arranged around the Goodin Dome, a large ellipsoidal granite that may have acted as a fluid source for mineralising solutions in the region. Mooloogool is situated approximately 90 kilometres south of the southern end of the Plutonic Well Greenstone belt. Examination of regional magnetics suggests the possibility that this greenstone belt may extend under cover on the eastern side of the Goodin Dome.
<i>Drill hole Information</i>	Not applicable
<i>Data aggregation methods</i>	Aggregation has not been used, nor cut-offs applied. Selection of results was based on materiality in terms of the purpose of identifying present outcrops.
<i>Relationship between mineralisation widths and intercept lengths</i>	Not applicable
<i>Diagrams</i>	No significant discovery was reported and so such diagrams are not judged necessary. Sampling locations have been shown.
<i>Balanced reporting</i>	In order to provide balance, comprehensive reporting of full results (for all samples) is included in Appendix 2. Due to materiality and relevance concerns, these purposive samples have not been included in the summary report, as they are unplanned rock chips of encountered geology.
<i>Other substantive exploration data</i>	All other relevant and material obligations have been noted.
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work:</i> Drilling will form part of the next year's strategy if continued good results are received from follow up exploration surface work. Substantially more sampling and mapping is required before drilling can be undertaken. Drilling cannot be planned from this sampling alone, as the geological confidence is not yet high enough.</li> <li><i>Diagrams clearly highlighting the areas of possible extensions:</i> Not applicable at this time.</li> </ul>

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**Appendix 2: Comprehensive Sample Assay Results**

Sample ID	Anomalous Assay Results	Lithology
<b>Prospect 1</b>		
M1409	125ppm Zn, 124ppm Cu, 7ppm As, 1.6ppm Mo	Quartz vein subcrop hosted in basalt
M1410	174ppm Cu, 33ppm As, 1.8ppm Mo, 0.66ppm Sb	Lag of shale
M1413	153ppm Cu, 1ppb Au, 22ppm As, 1.1ppm Mo	Sheared, oxidised carbonaceous shale
M1417	57.2% FeO <sub>2</sub>	Magnetite laterite layer
M1419	202ppm Cu, 1.8ppm Mo, 77ppm Zn	Breccia oxidised quartz vein
<b>Prospect 2</b>		
M1421	245ppm Cu, 19ppm As, 85ppm Zn	Breccia quartz vein array in carbonaceous siltstone
M1424	428ppm Cu, 24ppm As, 0.7ppm Mo	Oxidised quartz breccia vein
<b>Prospect 3</b>		
M1428	213ppm Zn, 1.2ppm Bi, 2ppb Au, 1.1ppm Mo	Gossan shear in graphitic and carbonaceous shale
M1429	238ppm Cu, 167ppm Zn	Quartz gossan breccia shear
M1430	167ppm Zn, 49ppm As,	Quartz gossan breccia shear north extension
M1431	356ppm Cu, 160ppm Zn, 0.96ppm Sb	Quartz gossan breccia shear
M1433	297ppm Cu, 1ppb Au, 97ppm Zn	Laterite quartz gossan breccia shear
<b>Prospect 4</b>		
M1434	53.4% FeO <sub>2</sub>	Magnetite laterite layer
M1435	237ppm Cu, 147ppm Zn, 16ppm As, 0.58ppm Sb	Milky, vuggy quartz vein array
M1436	249ppm Cu, 1.9ppm Mo, 86ppm Zn	Milky, vuggy quartz vein array
<b>Prospect 5</b>		
M1439	123ppm Zn, 106ppm Cu	Thin quartz gossan breccia
<b>Prospect 6</b>		
M1441	~97% SiO <sub>2</sub>	High purity quartz silica (quartzite) sandstone beds

Note: 17 of 41 samples returned anomalous results. Samples returning non-anomalous results were: M1401-08, M1411-12, M1414-16, M1420, M1422-23, M1425-27, M141432, M1437-38 and M1440.