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## QUARTERLY REPORT 3 Months Ending 31 December 2005

### HIGHLIGHTS

#### Tooloom Gold Project, NSW

##### ➤ PHOENIX

- 1,258m of drilling completed in November/December.
- 5 new holes tested "Breccia Zone" at greater depth.
- One previous hole deepened to test "Creek Zone" at depth.
- Assay results awaited.

##### ➤ CHEVIOT HILLS

- 1,232m of drilling completed in December.
- 19 holes tested 6 separate lodes.
- Mineralised or altered lode zone intersected in most holes.
- Some holes encountered old workings at depth.
- Assay results awaited.

##### ➤ NINE MILE

- One 300m drill hole completed as initial test at Nine Mile.

#### Pluton Gold Project, Queensland

- 443m of drilling completed in November.
- Five holes tested gold-bearing breccia body at depth.
- Anomalous gold and base metals intersected but grades generally low.

#### Oberon Project, New South Wales

- Application lodged for new EL over possible Phoenix gold analogue, with associated tungsten and bismuth.

#### Corporate

- \$553,000 in new capital was raised pursuant to placements.
  - Net exploration expenditure for the Quarter was approximately \$740,000
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### **Tooloom Gold Project, NSW (Malachite 100%)**

The Tooloom Gold Project was the main focus of exploration activity for the Company during the past Quarter, with 2,790m of drilling completed in 26 holes at 3 prospects. The majority of expenditure was incurred at the Phoenix Prospect, where a follow up diamond drilling program tested previously identified gold-antimony mineralisation in the Phoenix breccia pipe at greater depth. A single diamond drill hole was completed at the Nine Mile Prospect, about 10km south of Phoenix, aimed at testing the depth extent of a gold-bearing sheeted quartz vein zone identified in trenching at surface. The third area of activity was at Cheviot Hills, near the southern end of the Tooloom exploration licence and about 15km north of Drake, where 6 separate lodes were tested with 19 relatively shallow reverse circulation percussion (“RC”) drill holes.

At **Phoenix**, most of the drilling was directed at intersecting the Breccia Zone, previously drilled to about 100m below surface, at greater depth. As shown in Figures 1 and 2, the new drill holes extended the mineralised Breccia Zone to about 250m below surface. Although assay results are still awaited for these holes, visual inspection of the drill core suggests that the tenor of gold mineralisation will at least equal that of shallower drilling and will possibly exceed it. Stibnite (the ore mineral of antimony) occurs in the breccia matrix and also as late (post-brecciation) veinlets up to about 2cm wide, especially near the breccia margins. Chalcopyrite (copper sulphide) and sphalerite (zinc sulphide) are locally prominent but the dominant sulphides in the breccia are pyrite and arsenopyrite. Importantly, hydrothermal alteration is very strongly developed in the deeper holes and, in contrast to shallower holes, strong alteration extends across the entire width of the breccia pipe in holes PHRD23A and PHRD25A. Due to a backlog at the assay laboratory, it is not expected that all assays will be received until later in January.

The Breccia Zone target at Phoenix is defined by a strong soil geochemical anomaly at surface, with antimony and especially bismuth the best indicators of buried gold mineralisation. A second target area, also defined by soil geochemistry, has been outlined about 400m south of the breccia pipe and is known as the “Creek Zone”. The bismuth anomaly in this area is larger but of lower intensity than that over the Breccia Zone, suggesting a deeper target. Previous drilling has tested only the margins of the Creek Zone and has done so only at shallow depth. Accordingly, one of those early holes (PHRC01; see Figure 1) was deepened in the recent program with a 210m diamond tail (taking the hole to a final depth of 414m) to provide some information about the composition of the Creek Zone at depth. That hole intersected sporadic mineralisation for most of its length, with the most promising zone being around 350-400m, where the hole penetrated a broad zone of relatively porous sedimentary breccia with significant sulphide mineralisation in the matrix, including pyrrhotite, arsenopyrite, traces of chalcopyrite and locally, very prominent sphalerite. This intercept may represent a bedded horizon that could host significant stratabound mineralisation emanating from a buried intrusive, possibly reflected by the aeromagnetic high that underlies the central part of the Phoenix prospect area.

At **Nine Mile**, some 10km south of Phoenix, earlier soil geochemistry, trenching and rock sampling had defined a linear zone of sheeted, gold-bearing quartz veins, approximately 20m wide. These veins are hosted by highly fractured sedimentary rocks of the Emu Creek Formation and individual veins range from 1mm to 3cm in width. Assays of the quartz veins produced gold results generally in the range from 1 to 30 g/t Au and the vein density within the zone is of the order of 3 to 6 veins per metre. A single, pre-collared diamond drill hole was drilled at Nine Mile in December to test this zone at depth. The hole extended to 300m and penetrated a weakly mineralised intrusive porphyry rock for most of its length, with no clearly recognisable sheeted vein zone. The porphyry is exposed at the surface a few hundred metres to the east, but it was not expected at such shallow depth beneath the Nine Mile ridge. It appears that the gold-bearing structure exposed in the surface trenches is contained only within the overlying Emu Creek Formation rocks and does not extend into the underlying porphyry. Future testing of this structure will need to take account of the intrusive phase and drilling should take place some distance to the southwest, where there

is evidence for the presence of the mineralised structure but the porphyry intrusive body seems to be absent.

The last drilling completed in 2005 was at **Cheviot Hills**, 28km south of Phoenix and close to the small town of Drake on the Bruxner Highway. The Cheviot Hills area contains a number of narrow but possibly high grade gold-antimony veins, having strong analogy with the lodes at the Hillgrove gold-antimony mine near Armidale. A total of 1,232m was drilled at Cheviot Hills in December, comprising 19 reverse circulation percussion holes that tested 6 lodes at depths of up to 100m. Many of these holes intersected quartz vein or sulphide mineralised and altered lode material over several metres, while others penetrated old workings. A few holes did not cut lode material or intersected only zones of alteration with little quartz or sulphide. Assay results for this drilling are not expected before the end of January, but the Company is encouraged by the appearance of the lodes where intersected. The scope for a modest tonnage of economic grade gold-antimony ore seems to be quite promising.

Just before the drilling started at Tooloom the Company carried out a soil geochemical program, linking the targets at Nine Mile and Back Creek (the latter characterised by visible gold in outcrop). The results indicate a larger than expected target at Back Creek and also detected and reinforced the southwestern extension of the sheeted vein zone at Nine Mile.

### **Pluton Gold Project, Queensland (Malachite Earning 50%)**

In August 2005 the Company entered into an agreement with Mr R. De Lacey under which Malachite undertook to conduct exploration on Mr De Lacey's Pluton Gold Prospect, located about 20km southwest of Mareeba in north Queensland. Pluton is contained within EPM 14648, of four sub-blocks, and comprises a breccia body with gold values up to about 10 g/t Au in surface outcrops. The agreement committed Malachite to a minimum expenditure of \$50,000 at Pluton, including not less than three reverse circulation percussion drill holes, to be completed by February 2006. The Company has the right to earn a 50% interest in Pluton by the expenditure of a total of \$300,000 (including the initial \$50,000) by February 2007.

In November 2005, a program of 443m of RC drilling, comprising 5 holes to a maximum depth of 90m, was completed. Assays have now been received from that drilling and the results are disappointing. Although all of the holes reported anomalous arsenic and weakly to moderately anomalous copper, lead and zinc, gold values were generally low, the highest results (for a 3m composite) being 0.86 g/t Au. The highest arsenic, copper, lead, zinc and silver values (for separate 3m composites) were 1.87% As, 0.10% Cu, 0.11% Pb, 0.18% Zn and 5 g/t Ag, respectively. The best results overall for each of gold, silver, arsenic, copper, lead and zinc were reported from an altered porphyry rock intersected mainly in PLRC05, but also partly in holes PLRC01 and PLRC02. The background gold level in that rock is of the order of 0.2-0.3 g/t Au.

The gold values in the drill hole intercepts at Pluton are surprisingly low, given the level of gold values in outcrop. It is assumed that Pluton is yet another example of the surface enrichment phenomenon that plagues gold exploration in north Queensland. As the drill results do not justify further work at Pluton, Malachite will withdraw from the joint venture after completion of rehabilitation at the site.

### **Mt Ramsay Project, Tasmania (Malachite farming-in)**

No new field work was conducted at Mt Ramsay but some time was spent during the Quarter writing up the results of the program conducted in the September Quarter. Also, 12 samples of core from drill hole MRDD01 that had been previously assayed for tin and tungsten were tested for nickel. This was prompted by the recognition that the Avebury nickel deposit, which is located in the region, occurs in a geological setting not dissimilar to that at Mt Ramsay. Slightly anomalous nickel was reported for the 12 samples tested, in

the range of 40-80 ppm Ni. Future work will therefore allow for the possibility of nickel mineralisation in the targets to be tested.

### **Conrad Silver Project, NSW (Malachite 100%)**

No field work was carried out. The Company continues to await the Minister's approval to enter native title land for exploration purposes.

### **Elsmore Tin Project, NSW (Malachite 100%)**

No new work was carried out on this project during the December Quarter. However, plans are being developed to conduct bulk sampling of the tin-tungsten-molybdenum mineralisation discovered by the Company at Sheep Station Hill early in 2006.

### **Lynd River, Queensland (Malachite 100%)**

No new work has taken place.

### **Boonoo Boonoo Gold-Silver Project, NSW (Malachite 40%):**

### **Rivertree Silver Project, NSW (Malachite 40%)**

These two properties have been farmed out to Macmin Silver Ltd., which carried out a short drilling program at Boonoo Boonoo in December. No results are available as yet. Macmin plans to drill at Rivertree around the end of January, 2006.

### **AGI Database Project**

This is no longer an active project, although the Company continues to have access to the AGI Database for research when required.

### **Oberon Project**

In December 2005 the Company lodged an application for an exploration licence near Oberon, in the NSW Central West. This resulted from a literature and database review in which analogues of the Phoenix prospect's geological, geochemical and geophysical setting were sought. The Oberon ELA includes the **Duckmaloi** prospect, where drilling by previous explorers has intersected significant grades of tungsten and bismuth, with anomalous gold, silver and copper. The best results from prior drilling at Duckmaloi were 8.6m of 0.49% WO<sub>3</sub>, 0.1% Cu and 5.5 g/t Ag and 10m of 0.32% WO<sub>3</sub> and 0.3% Bi. The Duckmaloi prospect occurs as a limestone-hosted skarn deposit, adjacent to a small granitic intrusive body that displays some of the characteristics of the intrusive phase at Phoenix. Once the tenement is granted the Company proposes to investigate the potential for intrusion-related gold deposits in the Oberon vicinity.

### **Forward Plans**

In the forthcoming Quarter the Tooloom Gold Project will continue to be the main focus for the Company. It is clear that proper testing of Phoenix will require a substantial amount of deep drilling, at considerable expense, and it is therefore appropriate for Malachite now to seek a joint venture partner to fund that further work. Establishment of such a joint venture, ideally with a major gold company, will be a high priority for the first Quarter of 2006.

It is not proposed to include the Cheviot Hills area in the joint venture package, as the mineralisation at Cheviot Hills is geographically well separated from the Tooloom prospects and is quite different in character. If encouraging assay results emerge from the recent drilling of gold-antimony lodes at Cheviot Hills the Company will return to the area as soon

as possible for follow up exploration, including further drilling. The Company has a drill rig booked for new drilling to commence in late March or early April.

Elsewhere, bulk sampling at Sheep Station Hill will be given priority, as that prospect offers good scope for cash flow if economic tin-tungsten-molybdenum grades can be confirmed.

Some new target definition surface exploration work will probably take place at Mt Ramsay, but no new drilling is planned for the area before late 2006.

### Corporate

During the past Quarter \$552,900 in new capital was raised pursuant to placements, resulting in the issue of 5,529,000 new shares at 10 cents, with attaching new options having an exercise price of 20 cents and an expiry date of 31 August 2008. These represent part of the shortfall from the rights issue undertaken in the September Quarter, 2005. The Company now has approximately 67 million shares on issue. All the new shares and new options are listed on the ASX.

Net exploration expenditure during the period under review (after recovery of joint venture contributions) amounted to approximately \$740,000.

### Further Information

For further information please contact Garry Lowder on (02) 9415 6833 or by email at [glowder@malachite.com.au](mailto:glowder@malachite.com.au).



G.G. LOWDER  
Managing Director  
12 January 2006

*The information in this report that relates to Exploration Results is based on information compiled by Dr Garry Lowder and Mr Russell Meares, both of whom are Fellows of the Australasian Institute of Mining and Metallurgy. Dr Lowder and Mr Meares each have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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.' Dr Lowder and Mr Meares each consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.*

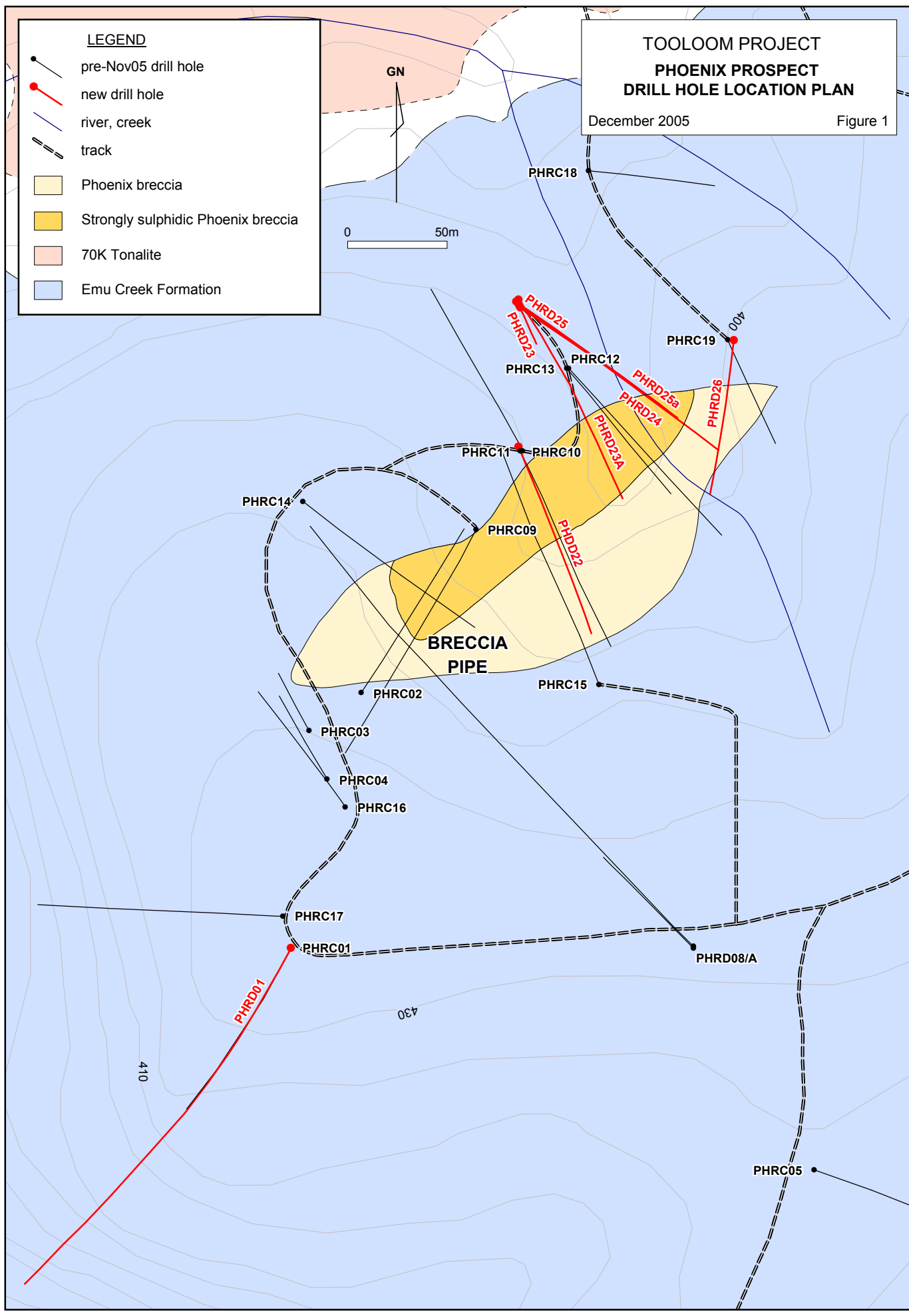
**TOOLOOM PROJECT  
PHOENIX PROSPECT  
DRILL HOLE LOCATION PLAN**

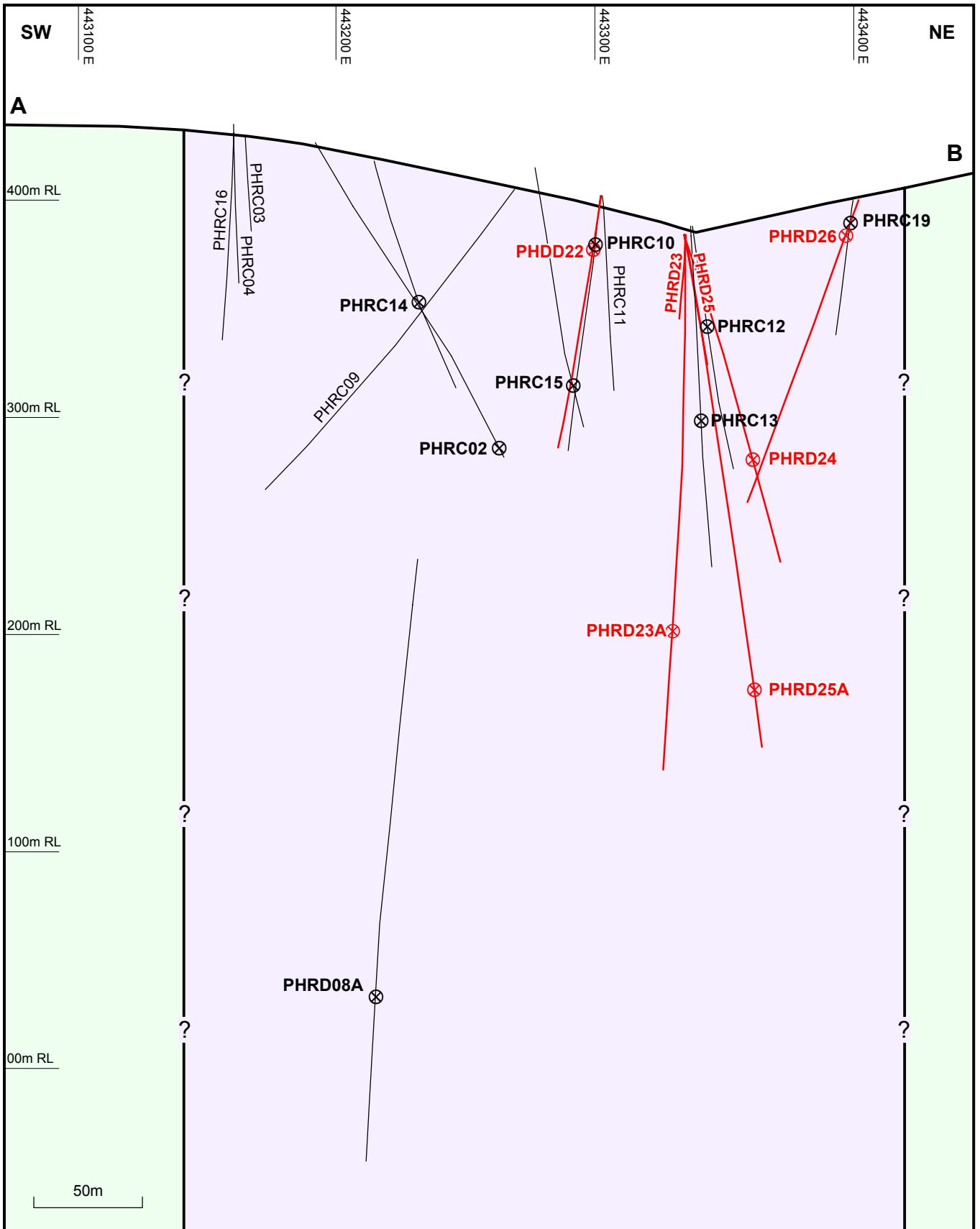
December 2005 Figure 1

**LEGEND**

- pre-Nov05 drill hole
- new drill hole
- river, creek
- track
- Phoenix breccia
- Strongly sulphidic Phoenix breccia
- 70K Tonalite
- Emu Creek Formation

0 50m





**LEGEND**

- Breccia
- Sandstone & siltstone

- X Drill hole intersection with long section
- X New drill hole intersection with long section



**MALACHITE RESOURCES NL**

**TOOLOOM PROJECT**

PHOENIX PROSPECT

Longitudinal Projection  
showing drill hole intersections

Proj/Grid: GDA94/MGA56 Date: 6 December 2005

Scale: 1:2500

Figure 2