Malachite Resources NL

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QUARTERLY REPORT
3 Months Ending 30 June 2004

HIGHLIGHTS

Tooloom Gold Project, NSW

- **AT THE PHOENIX PROSPECT DRILL HOLE PHRD08A INTERSECTED 150m OF MINERALISED BRECCIA, FROM 376m TO 526m DOWN-HOLE.**
  - **The breccia appears to be a pipe-like body with surface dimensions of about 300m x 70m and a depth extent of more than 450m.**
  - **The breccia in PHRD08A is more weakly mineralised than in the earlier hole PHRC02, but contains values up to 1.4 g/t Au over 1m lengths.**
  - **Mineralisation in the breccia pipe appears to be unevenly developed and the greater part of the pipe remains to be drilled.**
  - **It is still very early days in the exploration of a prospect as large and diverse as Phoenix and the breccia pipe alone is large enough to host a world class gold resource.**

Elsmore Tin Project, NSW

- **POTENTIAL FOR ECONOMIC HARD ROCK TIN-SILVER DEPOSITS AT ELSMORE ENHANCED BY DRILLING AND OUTCROP SAMPLING.**
  - **Drilling at the Elsmore tin mine intersected interesting tin values in hard rock, with significant associated copper, molybdenum and silver.**
  - **High grade tin mineralisation (up to 2.16% Sn), with associated silver (up to 66 g/t Ag) and base metal values (up to 1.28% Cu), has been identified in greisen outcrop outside the Elsmore mine area but within the Company's EL 6196.**

Mt Ramsay Joint Venture, Tasmania

- **MALACHITE HAS JOINED TASGOLD LTD. TO FARM-IN TO BHP BILLITON'S MT RAMSAY PROJECT IN TASMANIA.**
  - **Mt Ramsay is believed to be highly prospective for major tin deposits like those at the nearby Renison Bell tin mine.**

Corporate

- **Exploration expenditure for the Quarter was $461,000.**

Tooloom Gold Project, NSW (Malachite 100%)

Key Results:

- **Diamond drill hole PHRD08A intersected mineralised hydrothermal breccia from 376m to 526m down-hole;**
- **The breccia seems to form a near vertical, pipe-like body, about 300m long, 60-80m wide and at least 450m deep;**
- **Geologically the breccia pipe looks very promising, with up to 30% quartz-carbonate-sulphide matrix enclosing very angular fragments of different rock types;**
- **Pyrite, pyrrhotite and arsenopyrite are the main sulphides in the breccia, but stibnite is also common and there are small amounts of chalcopyrite and sphalerite;**
- **Grades overall in the latest hole are low (av. 0.14 g/t Au over 150m) but there are individual 1m lengths assaying up to 1.4 g/t Au;**
- **These results are lower than for earlier holes in the breccia, implying uneven development of mineralisation;**
- **Only the western end of the breccia pipe has so far been drilled;**
- **The remainder of the Phoenix gold system, including some of the best soil geochemistry, has also been only partly tested by drilling;**
- **Reconnaissance drilling at Joes Gully, Cullens and Watsons prospects proved inconclusive.**

During the past Quarter drilling has taken place at several prospects within the Company's Tooloom gold project in northern NSW. The most important of these prospects, called "Phoenix" (previously called "Phelps"), consists of a large gold-bearing sulphide system where five relatively shallow reconnaissance holes, all anomalous in gold, were drilled in December, 2003 and an IP survey was conducted in early 2004. Three further holes have now been drilled at Phoenix, the first two aimed at testing parts of the IP chargeability anomaly and the third hole was drilled as a deeper test of the breccia-hosted mineralisation intersected in PHRC02 (Figure 1).

PHRD06 intersected mainly hornfelsed[1] sandstone and related sedimentary rock from surface to its final depth at 340m, with the most continuously mineralised intercept being from 10 to 170m down-hole, for 160m of 0.19 g/t Au, with some higher grade zones. Further down the hole there are sporadic anomalous values, to a maximum of 3.4 g/t Au over 1m, but gold values are generally below 0.1 g/t Au. PHRC07 was drilled to 142m to test the system at a point where the IP chargeability is relatively low. Only weak gold mineralisation was intercepted.

The third hole, PHRD08A (PHRD08 was abandoned at 153m due to excessive steepening), was collared in the northeastern part of the IP anomaly and was aimed at intercepting the intense breccia at depth beneath PHRC02. The hole penetrated hornfelsed sediments and a number of dykes from surface to 376m, including a broad shear zone from 192 to about 250m. At 376m the hole intersected a sharp contact with mineralised breccia, which continued down-hole to 526m, where the hole then entered a granitic intrusive, for a true

[1] Hornfels: a rock that has essentially been "baked" by the proximity of a hot igneous intrusion.

width of breccia of 60-70m. Fragments of the granitic rock occur in the breccia and sparse, mineralised veins occur in the granite, indicating that the breccia and mineralisation are younger than the granite and are not cut off by it.

From a geological perspective, the 150m of mineralised breccia intercepted in PHRD08A looks very promising (see photos below). It consists of unsorted, angular fragments of sandstone, siltstone and intrusive rocks, in a matrix of quartz and carbonate, with variably developed but common sulphide minerals, mainly pyrite, pyrrhotite and arsenopyrite. Stibnite is a minor but common constituent and there are traces of chalcopyrite and sphalerite. Very little open space remains in the breccia and most of the quartz is finer than the coarse grained, crystalline quartz seen at surface.

PHRD08A at 391.4m

PHRD08A at 405.6m

Scale: Both sections of drill core are approximately 20cm in length.

The breccia intercepted in PHRD08A is thought to be part of a breccia pipe. Assays for the breccia zone in this hole are only weakly anomalous overall, generally in the range 0.05 to 0.5 g/t Au, with several 1m intercepts having gold values of the order of 0.5 to 1.4 g/t Au. These gold values are lower than the results for PHRC02, as are the copper and antimony values, and indicate that mineralisation is unevenly developed within the breccia pipe. This is to be expected by comparison with other breccia pipe-hosted gold deposits, such as Kidston in North Queensland, where only part of the pipe carries ore grades. Kidston has been classified as a reduced-intrusive related gold deposit, which is a relatively newly recognised class with distinctive characteristics, many of which are well displayed at Phoenix, making it a very attractive exploration target.

The Phoenix breccia pipe alone is large enough to host a world class gold resource but is only part of a much larger gold-bearing system, more than 1km across, where exploration is still in its early stages. Some of the best soil geochemistry, for example, is situated to the southeast of the breccia pipe in the central part of the larger Phoenix system, where drilling is yet to take place. The IP anomaly itself also requires more testing, possibly including a deep hole in the centre of the system to look for the driving force behind all of this mineralisation, thought to be a mineralised intrusive rock, possibly represented by certain fragments seen in the breccia but not yet seen as a separate phase at surface or in core.

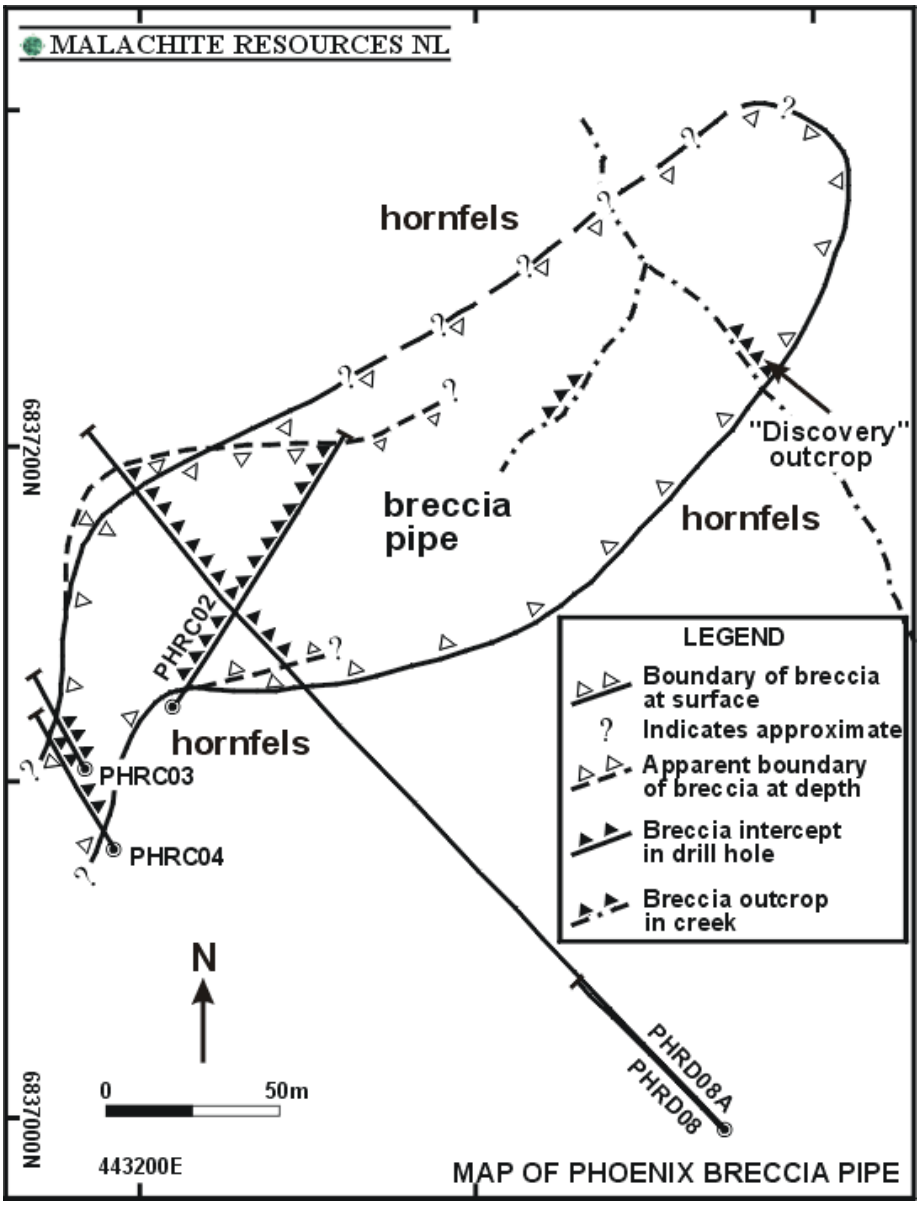

Figure 1: Sketch map of the Phoenix breccia pipe at surface, showing the locations of the existing drill holes and breccia intercepts in those holes. Approximate locations of breccia margins at depth, as indicated by drilling, are also shown.

Elsewhere at Tooloom, a total of 1,243m of RC percussion drilling was carried out at Joes Gully, Cullens and Watsons prospects. No economic intercepts were obtained at any of these three prospects and Watsons and Cullens were significantly downgraded by the results. In the case of Joes Gully a key hole had to be terminated before reaching the prime target and the results are generally inconclusive. More drilling is justified at Joes Gully but will have low priority in relation to Phoenix.

Elsmore Tin Project, NSW (Malachite 100%)

Elsmore Tin Mine - Early in the Quarter a ten-hole, 631m reverse circulation percussion drilling program was conducted at the Elsmore Tin Mine, where the Company holds an option to purchase a 100% interest. This program was aimed at providing preliminary

information on the potential for economic tin values in the hard rock greisen[2] that underlies a large part of the previously mined and remaining alluvial tin deposits at Elsmore. The holes were generally targeted on surface outcrops of greisen veins and quartz veins, which individually range up to about 1 m in width but tend to occur in clusters over several metres.

Tin grades up to 0.66% Sn over 1 metre were intersected, together with significant values of copper and molybdenum, up to 0.72% Cu and 0.30% Mo. Traces of silver are also present, with values up to 19 g/t Ag, and anomalous values of tungsten, lead and zinc were also reported. Table 2 sets out the better intercepts obtained in the Elsmore drilling.

TABLE 2: SUMMARY OF BEST DRILL INTERCEPTS AT ELSMORE

HOLE No.	FROM	TO	LENGTH metres	Sn %	Ag g/t	Cu %	Mo ppm
EMRC01	36	37	1	0.04	4	0.06	548
EMRC03	26	31	5	0.23	10	0.23	858
Including	27	28	1	**0.66**	12	0.53	218
And	28	29	1	0.08	7	0.25	**2980**
EMRC04	14	22	8	0.04	8	0.16	67
	45	49	4	0.03	7	0.25	28
EMRC05	15	17	2	0.07	9	0.39	54
Including	15	16	1	0.09	16	**0.72**	62
	27	28	1	0.56	4	0.38	156
EMRC08	52	53	1	0.19	4	0.008	647
EMRC10	26	27	1	0.15	1	0.007	25

Note: 1000 ppm is equivalent to 0.1%

The association of copper, molybdenum and silver with some of the better tin values was not expected, as surface sampling had not really reflected this potential. These metals could add significantly to the value of mineralised greisen zones at Elsmore and their presence enhances the potential of the property. Copper, molybdenum and silver seem to be better developed on the eastern and northern sides of Elsmore hill.

Elsmore District – Work also commenced during the Quarter on the new exploration licence (EL 6196) granted to Malachite in February 2004. Initially attention has been focussed on the Newstead area, about 5 km southeast of Elsmore, where a tin-bearing greisen similar to but separate from that at Elsmore is present. Some work was also conducted at Sheep Station Hill, between Elsmore and Newstead, where outcropping greisen is probably an easterly extension of the Elsmore system.

Sampling of oxidised greisen outcrops and dumps at Newstead has returned tin values of the order of 500-1000 ppm Sn (but with two samples reporting much higher results of 4600 and 9600 ppm Sn), accompanied by significant silver values of up to 66 g/t Ag. At Sheep Station Hill, sampling of greisen outcrops also returned highly anomalous results, with a number of samples reporting tin values in the range 0.17% Sn to 2.16% Sn, accompanied by silver values up to 29 g/t Ag and locally enriched copper, up to 1.28% Cu. Given the oxidised nature of these samples, and the substantial upgrading in silver content from surface to depth at the Elsmore mine (as indicated by the Company's drilling, reported above), the Newstead and Sheep Station Hill results are seen as most encouraging and lend support to the hypothesis that bulk tonnage type silver (-copper) mineralisation may be associated with primary tin mineralisation in this district.

Conrad Silver Project, NSW (Malachite 100%)

In late June, 2004, Company personnel met on site with representatives of the claimants of the native title claim affecting Conrad. The meeting was very cordial and constructive and a follow up meeting with the legal representative of the claimants took place in Sydney in July. While no agreement has yet been signed, the native title claimants were sympathetic with

[2] The term "greisen" refers to granite that has been strongly altered by hydrothermal activity, producing a rock rich in quartz and mica and commonly carrying significant tin values.

the Company's objectives at Conrad and saw no reason why work should not be able to proceed on native title land. It is hoped that an agreement under Section 31 of the Native Title Act can be signed in the near future, allowing the Minister to give his consent to Malachite conducting exploration on native title land anywhere within the Conrad exploration licence.

Mt Ramsay Project, Tasmania (Malachite farming-in)

On the 2nd of June, 2004, the Company signed a joint venture agreement with Tasgold Limited and BHP Billiton. Under this agreement, Malachite and Tasgold are jointly farming-in to an exploration licence held by BHP Billiton and located at Mt Ramsay in western Tasmania's renowned West Coast mineral belt.

The Mt Ramsay tenement (EL 42/2002) was taken up in 2003 by BHP Billiton, utilising data generated by the Tasmanian Government's airborne electromagnetic ("EM") geophysical survey conducted in 2002. The tenement covers two newly recognised groups of attractive EM anomalies located within the well mineralised sequences of western Tasmania. The principal anomaly group lies within the Cambrian-aged Crimson Creek Formation, which also hosts the Renison Bell tin deposit 23 km to the south. The second group of anomalies lies within the Proterozoic-aged Oonah Formation, which hosts the Mt Bischoff tin deposit 17 km to the north. Until recently, Renison Bell was the world's largest underground tin mine, with an estimated pre-mining resource of 26 million tonnes at 1.46% Sn, while Mt Bischoff, once one of the richest tin mines in the world, had an estimated pre-mining resource of 10.5 million tonnes at 1.1% Sn. The ore bodies at both Rension Bell and Mt Bischoff comprised cassiterite-bearing massive sulphide lenses that are electrically conductive, allowing detection by EM surveys.

The Mt Ramsay EM targets have signatures reminiscent of those at Renison Bell and Mt Bischoff, and they lie in very similar geological settings, but as newly recognised anomalies, they have not been tested previously. Virtually all of the similar anomalies elsewhere in the region identified by Malachite in the Government's EM data set, coincide with existing mines, making the Mt Ramsay targets very attractive from a conceptual point of view. However, it is also possible that the EM anomalies are caused by unmineralised conductive sources, such as graphite-bearing sedimentary rocks or barren pyrite bodies, or that they reflect volcanogenic massive sulphide deposits analogous to those at Rosebery and Hellyer.

Under the agreement, Malachite and Tasgold, on a joint 50/50 basis, must spend a minimum of $25,000 in evaluation of the Mt Ramsay tenement. Once Malachite and Tasgold have spent a total of $500,000 on exploration at Mt Ramsay, including at least 2,000m of drilling, BHP Billiton must either participate in the joint venture, or withdraw. If BHP Billiton participates, it will (unless it later withdraws) fund all future expenditure to completion of bankable feasibility (with expenditure beyond $10 million on a recoupable basis) and Malachite and Tasgold will each hold a 15% interest in the joint venture. If BHP Billiton elects not to participate, it will withdraw and transfer its 100% interest in the Mt Ramsay project equally to Malachite and Tasgold.

Malachite is the Manager of the Mt Ramsay Joint Venture during the farm-in stage and plans to begin field work as soon as weather permits, probably in October, 2004. This will involve geochemical sampling of soils and rocks in the vicinity of the anomalies and a preliminary ground EM survey using portable equipment. Drilling is likely to follow during the 2004-2005 summer.

Copperfield & Lynd River, Queensland (Malachite 100%)

The Company has been advised that it is likely to be granted an exploration tenement at Copperfield, north Queensland, during the September Quarter. No objections to this grant were lodged during the exposure period required by the expedited procedure under the

Native Title Act so Malachite should be able to commence work as soon as title is granted to the area. A preliminary visit for planning purposes is expected to take place in September.

The Lynd River application, further north in Queensland, is also progressing through the expedited procedure but grant of title is not expected to occur until late in 2004.

Boonoo Boonoo Gold-Silver Project, NSW (Malachite 100%); and

Rivertree Silver Project, NSW (Malachite 100%)

No exploration activity took place at the projects in the past Quarter.

AGI Database Project

Only minor activity took place with respect to the AGI Database project in the past Quarter.

Forward Plans

Given the tantalising results achieved recently at the Phoenix prospect, the Tooloom Gold Project will continue to have high priority for the Company's continuing exploration program. It is expected that the next round of drilling will be aimed at further testing of the Phoenix breccia pipe to locate zones of higher grade within it. At the same time, initial drilling of other targets identified on the basis of geophysical and geochemical results or mapped structures will take place. Some of the best surface soil geochemistry at Phoenix is located to the southeast of the breccia pipe in an area of steeper topography. The large size and weight of combination RC percussion/diamond core rigs, like those used to date, prohibits access to such areas with those rigs. In future, therefore, it is hoped to use a much smaller, diamond core only rig that can be more easily manoeuvred into the more difficult sites.

Elsewhere, further mapping and sampling of outcropping, tin-bearing greisen will be carried out at Newstead and Sheep Station Hill on the Elsmore EL 6196 and limited further testing of alluvial tin potential will probably also take place.

At Conrad, once native title clearance has been obtained, it is proposed to carry out a geophysical (IP) survey along much of the strike length of the Conrad structure, from the Davis shaft southeastwards for several kilometres. Any anomalies identified will be ground-checked with mapping and soil geochemistry and, depending on results, further reconnaissance drilling of silver targets should follow at a later date.

The imminent grant of the Copperfield tenement in Queensland should allow a preliminary site visit during the September Quarter. The timing and nature of follow up activity at Copperfield will be decided after that visit.

Expenditure

Exploration expenditure during the period under review amounted to $461,000.

Further Information

For further information please contact Garry Lowder on (02) 9415 6833 or 0417 212 099, or by email at glowder@malachite.com.au.

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