

Quarterly Report

for the period ended 30 September 2009



Highlights

Further encouragement from gold exploration at Mount Windsor Project:

- 45 strong gold targets located from new geological interpretation and exploration targeting exercise within Liontown's extensive tenement package
- Geological mapping and geochemical sampling programmes completed over the most promising gold targets, which lie within the prolific Charters Towers gold field
- Geochemical signatures indicative of possible vertically zoned epithermal-style gold systems (e.g., Vera Nancy, Pajingo) identified at Mt Redan
- Further intrusive-related, breccia-style targets identified from airborne geophysical data and field checking
- Ground position consolidated with new tenement applications lodged

1.0 Mount Windsor Volcanics Project (Liontown 100%)

The Mount Windsor Volcanics Project comprises an extensive tenement package located in the prolific Charters Towers gold field of North Queensland which has yielded over 15 million ounces of gold to date from world-class mines such as Charters Towers (+6Moz), Kidston (+4Moz), Pajingo (+3Moz), Ravenswood (+2Moz) and Mt Leyshon (2.7Moz). The Project also includes the Liontown base metal deposit, located near Kagara Limited's Waterloo and Thalanga Projects.

Exploration on the Mount Windsor Volcanics Project ("MWV Project") during the Quarter again focused on the gold potential of the area yielding further encouraging results.

The geological interpretation and exploration targeting exercise by the Company's consultant was expanded eastwards from previous coverage, leading to new EPM applications.

This interpretation uses new regional aeromagnetic and radiometric data to identify potential gold-bearing Carbo-Permian breccia, intrusive or epithermal systems.

Twenty six targets have now been defined within the Company's granted tenements and uncontested applications have been lodged over a further 19 targets. Field checking and grid-based geological mapping and geochemical sampling have been conducted on the most promising targets within our granted tenements.

These included G-3 (Sunset), G-5, G-12 (The Donut), G-14, G-20 (Mosquito Hill), G-22a (Mt Redan), G-38 and G-45. These targets were selected for priority follow-up because they are located in areas

Liontown Resources Limited

Level 2 1291 Hay Street, West Perth, Western Australia 6005

t: 08 9322 7431 f: 08 9322 5800

w: www.ltresources.com.au

of outcrop or shallow cover and are therefore accessible to traditional surface exploration techniques.

Results from work conducted during the Quarter have provided significant encouragement that several of these targets may represent the tops of vertically zoned gold systems:

1. **Target G-22A (Mt Redan)** - soil sampling has outlined an extensive strongly arsenic-antimony-mercury anomalous zone approximately 1.5 x 1.7 km in area. Rock chips from silicified breccias confirm the anomaly, with assays up to 3,890 ppm arsenic and 443 ppm antimony associated with mercury up to 13 ppm. This form of alteration and the levels of path-finder anomalism are consistent with the top of a low-sulphidation epithermal system, with the gold zone, if developed, located several hundred metres below the current surface (as at the Vera Nancy deposit at Pajingo). The results indicate that further in-fill and step-out sampling is strongly warranted, prior to conducting Induced Polarisation (IP) geophysics to guide deep drilling.
2. **Target G-14** - results from soil sampling suggest there is a gold-copper-lead-antimony-bismuth-molybdenum-tungsten-tellurium anomaly possibly related to a sheeted quartz vein system hosted by granitic rocks, and a separate silver-lead-bismuth soil anomaly associated with a breccia pipe. Rock chip samples from ferruginous stockworks within this breccia returned assays to 5.92 g/t silver, 1.9% lead, 376 ppm arsenic and 31 ppm antimony. Further work is warranted, including mineral spectral analysis to investigate hydrothermal alteration zoning patterns, followed by IP surveys and drilling.
3. **Target G-20 (Mosquito Hill)** - soil sampling at this target was designed to search for evidence of distal alteration above a blind breccia system as illustrated in Figure 1. Results suggest that there is a coincident weak arsenic-antimony-silver-tin-bismuth-molybdenum-barium signature with a lithium-manganese halo, and partially developed outer barium-copper-zinc-gold anomaly. The data is consistent with a magmatic source of hydrothermal fluids at depth, and follow up work is warranted, including IP and deep drilling.
4. **Target G-3 (Sunset)** - sampling to date has outlined a molybdenum-rich core to a felsic porphyry. This is surrounded by a zone of silver-copper-lead-zinc-bismuth-molybdenum-tellurium anomalism associated with fresh pyrite in silicified andesite over an extensive area surrounding the porphyry. Other arsenic-bismuth-tellurium-tin-indium-thallium anomalous areas lie along the southern margin of the porphyry. While the geochemical signature suggests that the core of the porphyry is too deep for breccia-hosted gold mineralisation, there is potential for gold mineralisation to be developed in zones outward from the porphyry. Further work is warranted to confirm the existence of this zonation model.

Additional first-pass reconnaissance sampling has also been undertaken on Targets G-11, 12, 15, 35, 36, 46, 52, 54, 55 and 56. This work is part of a program designed to complete reconnaissance work over the bulk of the targets in outcrop, either in granted tenements or in application. Two exciting prospects are emerging from this work:

Target G-56 (Scartwater) - comprising a large circular topographic and magnetic feature, approximately 6.5km across, formed from a series of shallow in-ward dipping sediments and felsic flows and/or conformable intrusives (the Scartwater Formation), interpreted to be

some form of Carbo-Permian caldera infill. A series of gold and base metal anomalies are located around the rim of the complex, including the Native Bee anomaly on the southern edge, within LTR tenements. This is a similar geological environment to Conquest Mining's Mt Carlton project, some 90 km to the east.

Target G-11 - where a series of late quartz-sulphide or quartz breccia veins are developed within a large area of strong silicification developed on the edge of a large magnetic low, and straddling the contact between Seventy Mile Range Group and granites. The rock chip sample results include 162 g/t silver and 2.0 g/t gold associated with highly anomalous arsenic, antimony, mercury, tellurium and very high bismuth (to 481 ppm). Further reconnaissance work is planned, plus grid sampling once the tenement is granted.

Numerous other targets beneath later cover such as the Campaspe Formation remain to be tested but will require ground geophysics and drilling.

2.0 Fort Constantine South (Liontown 100%)

In April 2008 Liontown entered into an option agreement with Exco, whereby Exco has the right to earn up to a 70% interest in the project by spending \$3.2 million over 4.5 years. Exco has announced it intends to drill test a number of prospective geophysical anomalies during the next Quarter as part of its ongoing exploration program.

3.0 Sheep Mountain Copper-Molybdenum Project (Liontown option to acquire 100%)

Sheep Mountain is a large-scale copper-molybdenum project located in Arizona, USA.

The Company continues to examine various options to advance its Sheep Mountain Project, including bringing in a partner to fund a major drilling programme.

As previously announced, Sheep Mountain contains an Inferred Resource of 40,300,000 tonnes at an average copper grade of 1.4% and an average molybdenum grade of 0.035% above a cut-off grade of 0.8% copper equivalent (equating to approximately 1.2 billion lb of copper and 31 million lb of molybdenum).

4.0 Corporate

Please refer to the attached Form 5B for details of cash flow for the Quarter ended 30 September 2009.



Dr Douglas A Jones
Managing Director

October 23, 2009 The information in this report that relates to Exploration Results is based on information compiled by Dr Douglas A Jones, a full-time employee and Director of Liontown Resources Limited, who is a Member of the Australian Institute of Mining and Metallurgy and is a Chartered Professional Geologist. Dr Jones has sufficient experience in the field of activity being reported to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and consents to the release of information in the form and context in which it appears here.

The resource estimation quoted herein for the Sheep Mountain Project has been carried out by Denver, Colorado based Geological Consultant, William F Tanaka. Mr Tanaka is a Member of the Australasian Institute of Mining and Metallurgy and has extensive experience in the area of porphyry copper deposits from both a consulting and operational perspective. As such he is qualified to be considered a Competent Person as defined in the December 2004 edition of the JORC Code. Mr Tanaka consents to the release of the information in the form and context in which it appears here.

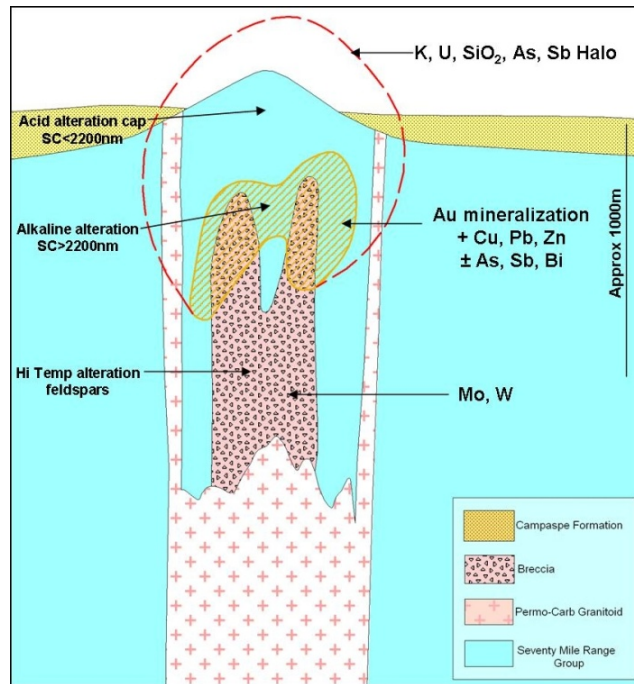


Figure 1: Schematic showing vertical zonation through a breccia-hosted gold deposit, based on the Mosquito Hill Prospect.