

# Environmental Initiatives: Lead Pathways Study – Phase 3 (Water)

March 2010



The *Lead Pathways Study* is an independent research program being undertaken by the University of Queensland's Centre for Mined Land Rehabilitation (CMLR), in collaboration with the National Research Centre for Environmental Toxicology.

The study aims to provide a better understanding of potential pathways of lead in the Mount Isa community from both naturally occurring minerals and those from mining operations.

Phase Three of the study is investigating the water quality of the Leichhardt River catchment area. The study includes testing for aquatic toxicity as well as investigating the bioavailability of lead and other metals to humans and to aquatic flora and fauna.

Bioavailability refers to the percentage of lead which the body will actually absorb. This is important, as the risk to human health is not directly related to the total amount of lead ingested, but rather the amount that can be absorbed by the body as it passes through the stomach and gastrointestinal tract.

The CMLR is using Diffusive Gradient Thin-Film (DGT) technique sampling to assess the heavy metal concentration and bioavailability of samples to aquatic flora and fauna.

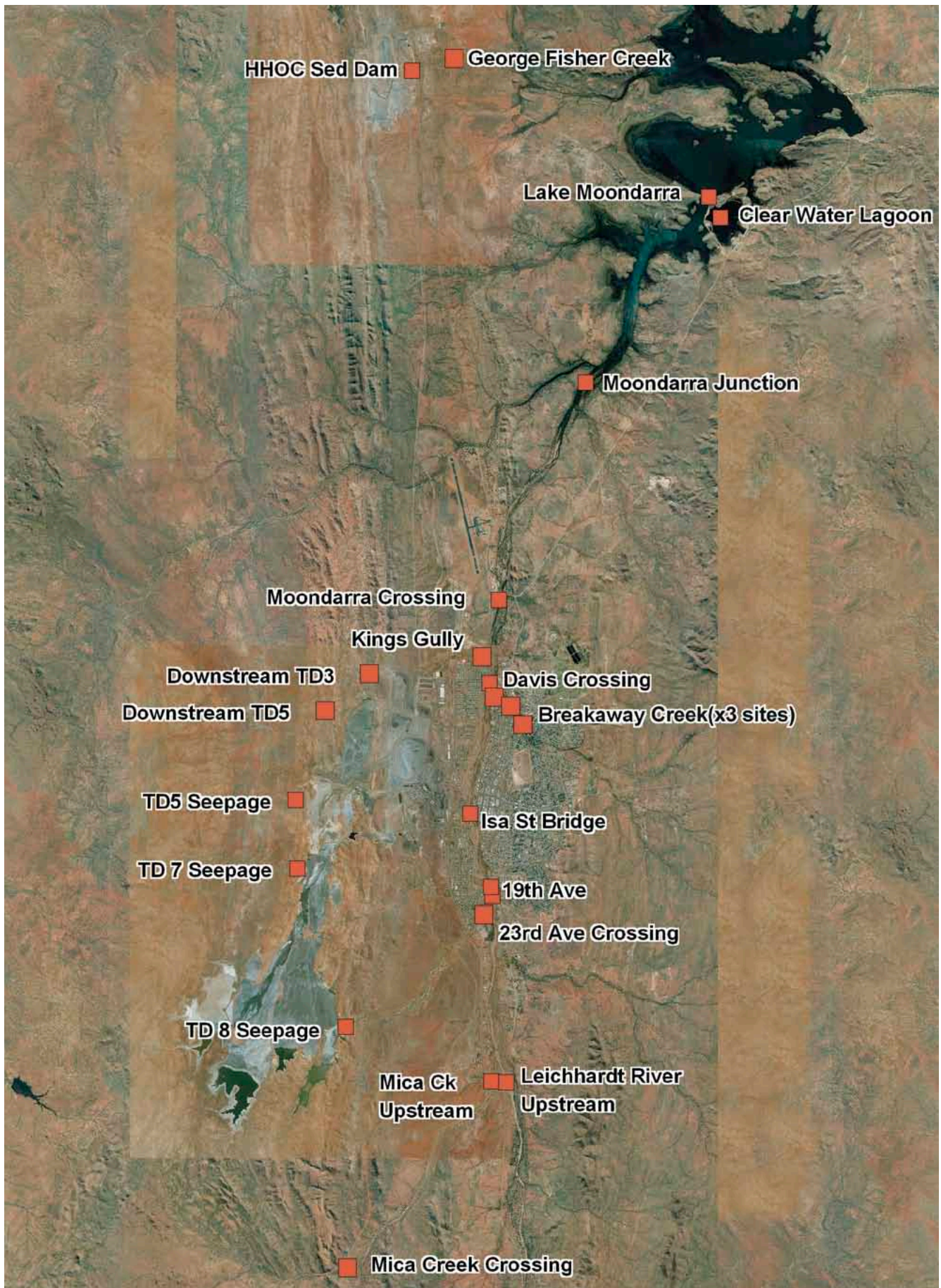
The DGT sampling was completed in the Leichhardt River, upstream and downstream of Xstrata Mount Isa Mines, Lake Moondarra and Clearwater Lagoon. This sampling was repeated during and after the wet seasons to assess any changes in water quality with changed flow.

Once the results from this sampling program undergo a comprehensive analysis, the CMLR will compile the findings into a draft Phase Three (Water) report, which will then be the subject of an independent peer review process.

It is anticipated that the Phase Three (Water) report will be completed, peer reviewed and available in early 2011.

Xstrata Mount Isa Mines will continue to update the Mount Isa community on the progress of the study and its findings. Should the results show a need for corrective action, we will take immediate steps to address any recommendations.

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DGT sampling was undertaken at key points throughout the Leichhardt River catchment area