

## An Australian first for WorkCover's Laboratory!

New Testing Equipment at WorkCover's Thornleigh laboratory will now make it possible to more accurately assess worker risks at worksites with hazardous substances.

Many pesticides and industrial chemicals like solvents that were previously either difficult or impossible to analyse, will now be able to be tested at the low parts per billion level. Low level hazardous chemical tests in biological samples such as blood, urine and air can now be performed. So too can accurate monitoring of worker breathing zone air samples, which are commonly collected to assess the risk of working with hazardous substances.

The equipment that makes all this possible is known as a Triple Quadrupole Liquid Chromatograph Mass Spectrometer instrument (LCMSMS). It is the first time that a laboratory in Australia is dedicating an LCMSMS instrument specifically for the testing of samples coming from workers or workplaces.

The LCMSMS is a very sophisticated separation and identification scientific instrument. The LC component of the instrument does the separating part of the analysis by isolating the chemical of interest from all the other background chemicals and substances that might otherwise interfere in the test. Once the chemical of interest is separated it is then directed into the MSMS chamber of the instrument. The MSMS (or mass spectrometer) definitively identifies the chemical, then goes on to produce a quantitative result that advises how much of the chemical is in the test sample.



*Robbie Geyer, Manager Thornleigh Laboratory standing next to the Triple Quadrupole Liquid Chromatograph Mass Spectrometer instrument*

WorkCover has two testing facilities, TestSafe Australia and Thornleigh Laboratory Services.

The Thornleigh laboratory is a specialized occupational health analytical service to assist industry with illness and injury prevention. Its main focus is the presence of hazardous substances in the workplace and it is accredited with the National Association of Testing Authorities, Australia (NATA).