

**REPORT ON DUST SWABBING AND SOIL SAMPLING UNDERTAKEN IN
ESPERANCE ON THE WEEKEND OF
14 AND 15 APRIL 2007
BY TOXICOLOGY BRANCH
DEPARTMENT OF HEALTH
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The Department of Health's Lead Blood Monitoring Program identified a range of properties in Esperance where the residents had elevated blood lead levels.

The residents were either adults with blood lead levels greater than 10 micrograms per decilitre or children younger than 5 years of age with blood lead levels at five or greater than five micrograms per decilitre.

Local properties were visited on the weekend of 14-15 April 2007 and a range of dust samples taken from inside and outside the premises as well as a range of soil samples. Sampling was undertaken by the Chemistry Centre with analyses also undertaken by the Chemistry Centre.

Twenty one dust swabs were taken inside homes from a variety of surfaces including cupboards, shelves, appliances, windows, venetians and door frames. Lead content of swabs ranged from 0.014 to 1.1 micrograms per square centimetre.

Twenty two swab samples were taken from a variety of locations on or outside dwellings including windows, doors, beams, cubby houses and other outdoor structures. Lead content in these swabs range from 0.16 to 34 micrograms per square centimetre.

Fourteen soil samples were taken from six residential properties. Areas sampled included vegetable gardens, sandpits, driveways and other soils that were frequented by children. Soil analysis found lead in the range of 0.9 to 9.8 mg/kg and nickel in the range of less than 0.2 to 12 mg/kg.

No Australian Standards have been established for lead in dust around homes. However the Department of Health would consider a clean up goal for lead in dust on surfaces accessible to young children to be 0.04 micrograms per square centimetre. For other surfaces around the home that would be readily accessed by adults but not young children, the clean up goal for lead in surfaces would be 0.4 micrograms per square centimetre.

The lead swab results indicate that properties near the Port of Esperance have been impacted by lead containing dust. Results from dust samples taken on external surfaces of homes, indicate that for some residences dust contained significant amounts of lead. Results of dust swabs from inside homes indicated that some lead containing dust did enter homes. The Department of Health therefore recommends that in order to prevent any further exposure of occupants in homes, particularly young children, it is important to be able to clean any sources of dust in and around the home.

The Department of Health has produced a brochure of managing possible lead dust in and around the home. This brochure is available from the Department of Health by calling (08) 9388 4997 or accessing the brochure directly on the web at <http://www.health.wa.gov.au/envirohealth/home>. A copy of this brochure will also be sent to every residence in Esperance along with a government newsletter. The brochure also contains information regarding HEPA vacuum cleaners that the Department of Health has purchased and made available to the community of Esperance for vacuuming dust in homes. HEPA vacuum cleaners are a high efficient particulate air vacuum that does not recirculate dust within the home. The Department of Health has made these vacuum cleaners available free of charge to residents for a 24 hour period at a time available through Coates Hire on (08) 9071 5000.

There are Australian Standards (National Environmental Protection Measures (NEPM)) for residential soils. The NEPM guideline for lead is 300 milligrams per kilogram and for nickel is 600 milligrams per kilogram. The soil results indicate that the levels of lead and nickel were well below national guidelines for residential properties and would not pose a health hazard.