

AUSTRALIA

Project: Microbiological challenge test - Water Filtration bottle

Laboratory: PathCentre Water Examination laboratory (WEL) is located in Nedlands, Western Australia, and is accredited by the National association of Testing Authorities (NATA) to ISO 17025 standard. As such the laboratory uses *Standards Australia* methods (or validated equivalents) for the microbiological testing of all types of water participates in NATA External Proficiency program, employs suitably qualified scientists; and has comprehensive Quality system in place.

Date tested: 22nd April 2003

Materials and Methods

Bottle Tested - labeled *Water Filtration*. Sealed in plastic. Tag attached to bottle stated "featuring the SILVERATOR". Some condensation was noted on the inner surface of the bottle. Prior to use, the bottle was flushed with one liter of sterile demineralised water.

Water Sample - untreated raw water collected from a dam in Parkerkervil, an outer suburb of perth, W.A.

Parasite Challenge Protocol

Five ampoules of ColorSeed were added to two sterile containers, each containing 500mL of water sample. One of these aliquots was added to the *Water Filtration* bottle, processed as per the WEL method MWM017 (based on the US EPA method 1623). Both the control and test aliquots were made up to 4 liters with sterile demineralised water and

Results

Microorganism	Control (not filtered)	Test (filtered)	Percentage Reduction
Cryptosporidium spp. *	99	0	100%
Giardia spp. *	243	0	100%

Note

*Recovery rate for Cryptosporidium and Giardia spp. Was 20% and 40% respectively.

There are no guidelines set by the NH&MRC for Cryptosporidium and Giardia spp. In drinking water. However, these are recognized pathogens and the Water Filtration bottle successfully prevented them from passing through the filter at the concentrations used.