

ABSTRACT
SPELEO BRAZIL 2001
Brasília DF, 15-22 de julho de 2001

13th International Congress of Speleology
4th Speleological Congress of Latin América and Caribbean
26th Brazilian Congress of Speleology

**Radon Studies in Jenolan Tourist Caves, New South Wales,
Australia**

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Radon studies have been carried out for the past ten years at the Jenolan Tourist Caves, New South Wales, Australia. Extensive clastic sediment deposits found within the cave system have been identified as being the major radon source. By grab sampling it has been shown that radon levels within the caves vary over a wide range both diurnally and seasonally as well as varying spatially. A number of sites have been continuously monitored for radon and radon progeny in order to determine the average conversion factor necessary to determine radiation doses from radon measurements. Because of the different times that the cave guides and maintenance workers spend at various locations in the caves it is impossible to calculate the dose they would receive from their work place using the data accumulated from grab or continuous in-situ sampling. Thus, in order to fulfil its duty of care, the Jenolan Caves management has instituted a badge program that provides a measure of personal exposure of the cave guides and maintenance workers. The methods, results and conclusions of a one-year study at Jenolan Caves will be used to illustrate the paper.