

XRD DETERMINATION OF ASBESTOS FORMING MINERALS

1. INTRODUCTION

Four samples were received from BV WA with a request for the identification of potential asbestos forming minerals by X-ray diffraction analysis. For reference, these samples were submitted on Ref No:TFE EX902.

2. PROCEDURE

The sample was ashed, pulverised and mounted onto a sample holder and analyzed by X-ray diffraction to identify the presence of any asbestos forming minerals, namely amphiboles and serpentine.

3. RESULTS

Minerals within the serpentine group are structurally similar. Amphiboles also have similar structures within their group. Where detected serpentine and/or amphibole may or may not be fibrous. The fibrous nature of minerals cannot be determined by XRD, only their internal crystalline structures. To determine whether any of the amphibole or serpentine is fibrous or not, it is recommended that an optical method be applied.

The results contained in this report relate only to the sample submitted for testing. Adhesives, polishes and other substances found on the surfaces and undersides of tiles have been removed and are not tested as part of this procedure. Bureau Veritas-Minerals Limited accepts no responsibility for whether or not the submitted sample is representative.

The test results are tabulated below and the XRD pattern is attached.

Sample ID	Serpentine $\text{Mg}_3\text{Si}_2\text{O}_5(\text{OH})_4$	Amphibole silicate – variable composition
TFE 232528	ND	ND
TFE 232258	ND	ND
TFE 232047	ND	ND
TFE 232257	ND	ND

Abbreviations

D = Detected.

ND = Not Detected.

