contamination. The second clean-up step was not found necessary in the case of the Canadian blood samples used initially to develop the analytical procedure.

3.3.2.3 GC/MS Analysis

The cleaned-up extracts were chromatographed (without being derivatized) on a DB-5 capillary column, the eluted analyte being ionized in an oxygen atmosphere using a Townsend Discharge Ionizer. Minor fragmentation of the ions occurred, with both HT-2 and T-2 producing one high intensity ion (M + 32) at 456 and 498 m/z respectively, and lower intensity ions (M) at 424 and 466 m/z respectively. A Multiple Ion Detection (MID) profile of Monoacetoxyscirpenol (MAS), Diacetoxyscirpenol (DAS), T-2 toxin and HT-2 toxin was devised to monitor these four characteristic ions. Instrumental conditions for the gas chromatograph and mass spectrometer have already been given in section 3.3.1.

Each residue after clean-up was taken up in 50 ul EtAc and 1 ul was taken into a gas chromatographic syringe which had already been loaded with 1 ul EtAc followed by a small plug of air. The sample was injected directly on- column using an on-column injector system (J & W Scientific Inc., Brockville, Ontario) and the column temperature was programmed. When data acquisition was completed, the GC column temperature was increased to remove contaminants, and 5 ul hexane was injected to aid this process. GC column