MALRAD SCENARIO 2

Background:

Customs officials stop a car at a border crossing driven by a man known to be involved in international smuggling and criminal activities. A search of the car is made and a steel cylinder is found hidden in the car. The accompanying materials suggest that the cylinder may contain radioactive materials and the cylinder is taken away for analysis. The cylinder is some 4 cm in diameter and 5 cm in height and is welded shut such that it cannot be opened.

It was measured on a standard HPGe detector of some 50% relative efficiency with resolution of 1.9 keV at 1332 keV by being suspended centrally some 15 cm above the detector face and measured.

A point source of ^{241}Am, ^{109}Cd, ^{137}Cs, ^{60}Co and ^{88}Y had earlier been taken at a distance of 10 cm from the detector face.

Materials provided:

Two spectra, in a number of formats are provided.

Scenario_2_source.(range of formats) - the spectrum obtained from the cylinder.

Scenario_2_point.(range of formats) - spectrum of the point source taken earlier.