



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
Manuscript Number:	Ms_PSIJ_28074
Title of the Manuscript:	The Radiological Impact of a Municipal Solid Waste dumpsite on Soil and Groundwater using Gamma Ray Spectroscopy.
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	Figure 2.0 is low quality, the letters are unintelligible. Figures 2, 3 and 4 are obsolete because the data presented in these figures is already stated in the tables 1, 2 and 3. Section 3.1 describes the method of sample counting and therefore should be a part of Section 3.2. In Section 3.1 the authors should describe the sample preparation: - Were water and leachate samples evaporated or otherwise concentrated or were they just placed in the Marinelli beakers in their native state? - Were the soil samples dried, sieved, mineralized? Was the total mass of the sample 100g or were the samples of larger quantity from which an aliquot of 100g was taken? How was the efficiency calibration of the gamma spectrometer performed? The equation 1.0 uses activity concentration, full peak count and mass of the standard. That means that the standard contained the same elements, emitting the same gamma energies. If that is not the case, an efficiency calibration curve has to be obtained before calculation. Please explain in more details. Tables 1, 2 and 3: The measurement uncertainty should be rounded to one significant figure and the results should be rounded accordingly, for example, 95.65 ± 15.44 should be rounded to 100 ± 20, or 274.12 ± 24.91 should be 270 ± 20 or 23.16 ± 7.92 should be 23 ± 8 etc.	Noted Noted Noted Described accordingly Noted



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	How was the measurement uncertainty calculated? There should be an uncertainty budget. Section 5. line 226: The authors cannot claim that there is a contamination with 228-Ra just by measuring 208-Tl. Moreover, in Section 5, lines 197 – 200 it is stated that the activity concentration of 238-U and 226-Ra is lower than reported in [16], which could indicate that there is no contamination due to landfill. This section should be rewritten.	Noted Noted Observation noted
Minor REVISION comments	Grammatical and orthographic errors should be corrected.	Noted
Optional/General comments		