



**SDI Review Form 1.6**

Journal Name:	<a href="#">Asian Journal of Applied Chemistry Research</a>
Manuscript Number:	<b>Ms_AJACR_41402</b>
Title of the Manuscript:	<b>ASSESSMENT OF HEAVY METAL CONCENTRATIONS IN LEACHATES AND SOILS OF CENTRAL BANK OF NIGERIA DUMPSITE ALONG UNIVERSITY OF AGRICULTURE ROAD- MAKURDI</b>
Type of the Article	<b>Original Research Article</b>

**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)
<b>Compulsory</b> REVISION comments	<p>Line 8: kindly add "... <b>some</b> heavy metals..."</p> <p>Line 9-11: Recast as "...Makurdi, were determined using Atomic Absorption Spectrometer...while Cold Vapour and Hydride Generation techniques were used for Hg and Se <b>respectively</b>"</p> <p>Line 10: Kindly state if Flame AAS or GF-AAS was used.</p> <p>The abstract MUST be revised to follow the appropriate abstract outline:</p> <ul style="list-style-type: none"> <li>- Simple introduction</li> <li>- Method applied</li> <li>- Concise description of major findings</li> <li>- Synopsis including abridged recommendation</li> </ul> <p>The <b>introduction</b> lacks the major ingredient required for such a title. For instance, the authors focussed on <b>landfilling</b> instead of dumpsite. These are two different terms; as they rightly mentioned, "landfills are <b>designed</b> to check leachate from entering groundwater..." In Nigeria, you would hardly see a landfill; there are dumpsites. Therefore, in the introduction, the authors should focus on dumpsite generally, then in Makurdi, how it has affected the environment including the University of Makurdi, what is being done, the need for the assessment, and the benefits of the research. However, attention MUST be paid to grammatical errors as seen in the abstract and main work.</p> <p>Line 63: The authors mentioned three leachate samples collected from "leachate points"...and then in three months. Please clarify! If only one sample was collected from the points monthly for three months, then it could be said that " leachate sample was collected on monthly basis for three consecutive months (June – August 2016), making a total of three leachate samples."</p> <p>Line 66: what type of hand trowel? Authors should be aware the improper sampling or sampling materials could ruin good work.</p> <p>Line 71-74: If only "rinsing" was done on the sample containers, then there is a problem; appropriate pre-treatment procedure was not followed. Also, the authors mentioned that samples for heavy metals were acidified; are there other parameters determined? They also mentioned "1 mL/L of water", where is water coming from?</p> <p>Line 82: "...and these samples were added continuously..." which samples were those?</p> <p>Line 86: it is "Aqua regia"</p> <p>Line 92: what is FIAS-AAS? The description of equipment should comprise equipment parameters used.</p> <p>The authors should give the names, models and country of manufacture of the equipment used. Reagents should be mentioned including their assay, manufacturer and country of manufacture.</p> <p>Line 99: There wouldn't have been any need for the water blank. According to your method, 5 mL of leachate was used; in that case, the acid and peroxide would have been added to 5 mL of distilled to make a "digest blank" only.</p>	<p>Line 8-11 has been revised</p> <p>This section has been revised</p> <p>This section has been revised</p> <p>Line 63 has been revised</p> <p>Line 66 has been revised</p> <p>Line 71-99 has been revised</p>



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	"Quality control" is deficient of what was required to produce acceptable results	
<b>Minor</b> REVISION comments	<p>Line 18: statement should read "However, the concentration of Cr and Cd were found to be higher than the permissible limits..."</p> <p>Line 52: Kindly revise the statement "...physiographic characteristics span..." Physical geography of a region could relate to soil, water level, etc.</p> <p>Line 53: kindly verify the population again "500.791"</p> <p>Line 54: Kindly follow same format in reporting longitude and latitude; distinguish between apostrophe (') and minute (').</p> <p>Line 111- 112: AAS is equipment not a machine.</p>	Line 18- 112 has been revised
<b>Optional/General</b> comments	<p>Tables are not well presented; discussion of results should be improved on. If other works had been done on the site or elsewhere in Makurdi or Nigeria, authors should compare and contrast.</p> <p>Authors should please revise the work for grammatical and general correction and improvement.</p>	This section has been revised