

Review Form 3

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_121921
Title of the Manuscript:	Multivariate statistical analysis of the hydrochemical characteristics of a sedimentary aquifer: the case of Pala (Burkina Faso)
Type of the Article	

Review Form 3

PART 1: Review Comments

<u>Compulsory</u> REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<p>The methodology chosen is very good, but at least one of the methodologies requires adequate data. The conclusion in this article, especially with regard to factor analysis, has suffered from adequate data. It should be noted that this methodology is applied to extract the principal factors affecting groundwater quality amongst all those that affect its quality. But how can this be known with such a small database? Likewise, cluster analysis, and dendrograms will benefit from a much larger database.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>In Figure 1, the legend for the study area is mixed with the legend for the geology. The arrow from Burkina Faso indicates to a black spot, and the study area shows orange colour.2) Figure 2, is too busy to detect what is what.</p>	
<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>It is hard to imagine that in Figure 3 and in Figure 6, you have clusters of samples far away from a single sample and nothing in between. This makes it almost impossible to get a concrete conclusion from factor analysis. Especially, if it is desired to indicate the effect of water source (spring, groundwater, contaminated water, etc.) more data is needed, else a piper diagram is enough.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The statement "Concentrations of Al, Mn, Ba, CN- are very low and variable and well above WHO standards" is not clear. What does low and above indicate? Also, when making such statements, it is advisable to provide actual numbers (concentrations and standards).</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>Figures indicated under Environmental survey are not at all necessary, because the chemistry does not correspond to the pictures shown there. Besides, it makes the whole study politically motivated and very unscientific.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. :</p>	<p>The conclusion contains generic statements like " It is important to note that anthropogenic activities are potential sources of pollution that could have an impact on groundwater quality in the long term. But, the statement "anthropogenic activities have not yet had a significant negative impact on groundwater." Then what is the significance of the environmental survey in this study?</p>	
<p><u>Minor</u> REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p><u>Optional/General</u> comments</p>		

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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