



SDI Review Form 1.6

PART 1:

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	2013_BJAST_5079
Title of the Manuscript:	The impact of pit latrines on groundwater quality in Foko-slum, Ibadan, Southwestern Nigeria
Type of the Article	Research paper

General guideline for Peer Review process is available in this link:

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

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	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>
Compulsory REVISION comments	Title: - Title should be revised. The authors are suggested to modify the title as "Impact of Pit Latrine on Ground Water Quality of Ibadan, Nigeria" Abstract: - Major findings are not included in the abstract. Include the findings with numerals. - Writing skill is poor. Suggested to improve language and maintain the flow of writing. Introduction: - The authors have used many unscientific terminologies and words at many places. Being scientific report such words and terminologies should be avoided. Never use any words which have dual meaning. Use references when and where required. - There are many grammatical and typographic errors at many places. It needs improvement. Materials and method: - Materials (sample bottles, chemicals, solvents) used in the field and also for laboratory analysis are not mentioned. It is suggested to include the materials and chemicals with their analytical grades. The title "Materials" should be placed between "Materials and methods" and "Methodology" (page 4, line 96). - How the samples were collected, preserved, and transported to the laboratory? Mention in brief. "The water samples.....methods" (page 5, line 112). In this sentence it is not mentioned that which chemical and physical parameters were analyzed and how the analysis was carried out. The method for bacteriological analysis is not clear and reference is also not given. "For chemical analysis.....divided into two" (page 5, line 115 and 116). This sentence is incomplete. Similarly, in the same line "the first portion was acidified.....spectrometry analysis". Why need acidification to pH <2 and what was analyzed by ICP-MS, the authors should make it clear. In the same page of line 118, the	The topic is re-written. The new topic was developed from reviewer 2 and reviewer 3 comments and suggestion. Some numerical values have been introduced into the abstract. Few typographical mistakes identified have been corrected. Major findings in the work have also been included. Sampling method and method of analysis have been explained. Chemical analysis method has also been re-written. The tables were re-organised; the useful component of table one that was identified by the three reviewers was taken and integrated into table two which was now splitted because it has now contained minimum, maximum and average value of the parameters. The references were re-presented in the journal format.



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	authors have used Ion chromatography (IC), what was analyzed using this technique. • Purified water.....way with the sample (page 5, line 119 and 120). This sentence is not clear, re-write it with complete sense. • The authors have used ICP-MS, ICP-OES for analysis of the cations of concentration $\leq 0.01 \mu\text{g/l}$ and $\geq 0.1 \text{ mg/l}$ respectively. Similarly, the anions were analyzed using IC Dimex (page 5 and 6, line 120-123). As far as concern the ICP, it can detect trace amount of metals without any interferences. Why the authors used two different accessories of ICP? The authors should make it clear. • Methodology is not systematically presented. The presentation is poor and methods are not described in detail. The authors should re-organize entire methodology section following the instructions given in the comments. Results and discussion: • Presentation is poor. • Authors are suggested to re-organize the caption of table 1 as "Shallow wells profile in the Foko-slum area" (page 6, line 130). In the table 1, no need the column "owner/donor", "Depth to water, depth to bottom, well diameter, and well features". These columns have no meaning in the table. • Therefore, some form.....treatment can be done (page 7, line 140-142). What kind of treatment is needed, it should be specified. The authors are suggested to use scientific language while writing scientific reports. • Nitrate is a nitrogenous compound.....(page 7, line 145). Which nitrogenous compounds are there and what is their source? • Both lowest and.....in unlined wells (page 7, line 151 and 152). The authors also have claimed that low pH is due to addition of rain water into wells. These may not be reasons for the variation of pH. Re-write these sentences with correct reasons and support your findings by appropriate references. • These observations.....coming from pit latrines (page 7, line 156-158). This sentence is not clear, re-write with some sense. The authors have claimed that the depth of well do not affect the pH (page 7, line 158). This sentence is written without any experimental data and evidence. Re-write the sentence as per the comment. • Table 2 should include maximum, minimum, and average values of physical, chemical and microbiological parameters. Also, World Health Organization (WHO) standard values should be in this table. • As concentration.....conductivity increases (page 8, line 170). I agree with this sentence, however, in your case this is not in agreement with the data presented in table 2. If the text you have presented is true, the EC should increase with increase of	In the map, we have included the scale and pit latrine was used consistently in the whole article and not interchangeably with privy as suggested by this reviewer.
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	sulphate content. But this is quite different from the sentence what has said. • High TDS....for drinking (page 9, line 173). Support by any reference(s). • It could be adduced that.....conductivity values (page 9, line 173-175). This explanation is completely different from the data presented in table 2. The authors are suggested to look the data carefully, compare those data with each other and write the results based on judgment and finally support your findings with references. • High values of alkalinity.....(page 9, line 182). Specify the value of alkalinity. Are there any health implications of alkalinity? If so, specify. • WHO (2004).....and E-coli (page 9, line 185). This recommendation is for what applications? Specify. • Equation 1, Is this established formula? Define the meaning of -86.16 and 1714 (page 10, line 204). • Furthermore.....by the residence (page 10, line 215-219). Delete the sentence written in bracket. The authors are suggested to correlate water borne diseases with your findings. • Re-organize figure caption of figure 2 (page 11, line 221). • Findings are poorly presented and not in systematic order. Discussion part is completely missing and supporting references are not given. It is suggested to re-write the results and discussion part. Conclusions and recommendation: • Conclusion is the summary of findings which contain basic results. The authors have presented this section very poorly. The presentation is not in systematic order and numerals are completely missing. I suggest the authors to re-write this part. • Recommendation is poorly presented. The authors are suggested to write recommendations based on the issues existed in the study area and findings of the research. References: • There is mistake in punctuation. It is suggested to correct it (page 12 and 13).	
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<u>Minor</u> REVISION comments	Abstract: • Re-write the sentence “Ten shallow wells.....from privies” (Line 6 and 7, page 1). • The term “privies” is not clear (Line 7, page 1). Please use simple words with scientific meaning and terminologies. Introduction: • Introduction part is too lengthy. The authors are suggested to reduce introduction to 1.5 pages. • Reference in the text (page 3, line 55) is different than others. Correct the reference cited at the place mentioned. • Magnify study area map and locate the sites from where ground water samples were collected (page 4, figure 1). Show scale in the map. Materials method: • Few sentences in this section give contradictory information. For example: In the page 4, line 98, the authors have mentioned “two wells were marked...” but on the other hand, in line 103 of the same page it has said that “30 water samples were collected”. How to interpret these two sentences? • Why only five pit latrines and two wells were selected for the study, why not the numbers other than the numbers mentioned for latrines and wells?	
<u>Optional/General</u> comments	Results and discussion: • No need to write sub-titles “shallow wells profile and proximity to privies (line 126), water quality status (line 135), and physico-chemical quality (line 136)” of page 6. • No need to write sub-title “bacteriological quality” (page 9, line 184). • No need to write sub-title “minimum distance between pit latrine and shallow wells” (page 9, line 199).	