



SDI Review Form 1.6

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	Ms_BJAST_31343
Title of the Manuscript:	The Delineation of Potential Groundwater Aquifers within Basement Complex in ABU Zaria, Nigeria
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	This manuscript made used of one of the existing geophysical prospecting methods to delineate the potential groundwater aquifer within the Basement Complex of ABU Zaria in Nigeria. The paper is o.k. and the results are straight forward. However, like all manuscripts, there are some major, minor and optional corrections which will upgrade the quality of this paper. Abstract The abstract was poorly written. Remove all the sub-topics embedded within the abstract and restructure the texts such that you avoid tautology while presenting your idea. It is imperative to start the abstract with the opening sentence(s) that would address the necessity for groundwater exploration in Basement Complex while other ideas such as aims, location, methods employed, results and conclusion would come after the introductory sentence(s). Introduction The facts that were raised in the first paragraph of the introduction (lines 12 -16) needs to be referenced. Line 27: the quickest and the most economical technique for groundwater exploration. Replace the words there with the highlighted words. Include the geological map of Nigeria showing the Basement Complex rocks of Northern Sector that was stated on lines 27-28. Furthermore, the geological map of the study area revealing all its geological compositions must also be shown. Materials and Methods	Thank you. Acknowledge. Noted. Noted.



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	<u>Line 43</u>: ... Generally, (NOT General,) <u>Line 48</u>: ... deduced (NOT deduces) <u>Line 50</u>: what are the definitions of the parameters on this line? <u>Line 76</u>: ...Schlumberger configuration Fig. 2. This configuration... Remove the highlighted word. <u>Line 77</u>: ...is illustrated on Fig. 2. Replace the word there with the highlighted word. The base map of the study area should be included and the number of VES points occupied and spread of the array needs to be included under Materials and Methods Section. <u>Line 105/106, 108</u>: The second sentence on that line is grammatically incorrect. Rather use: The resulting curves and their final model parameters after quantitative interpretation were established, and the final model geoelectric parameters across the sections of the area were used for the preparation of the geoelectric sections (Fig. 3 - 6). <u>Results and Discussion</u> The interpreted VES curves in Sections 3.1 to 3.4 need to be classified according to their curve types before proceeding to Aquifer Evaluation discussed in Section 3.5. Sections 3.1 to 3.4 should be merged as Section 3.1 (probably as 'Evaluation of VES Curves') while Section 3.5 should be written as Section 3.2 ('Aquifer Evaluation'). Please re-interpret the 'Sounding curve of VES 2 (Staff School, Zaria)' (Fig. 4). I sense some error in the interpretation or kindly attach its data with the manuscript while sending the revised copy for clarification. The data points used in this study are too small. I don't know if it will be possible for the author(s) to re-occupy the four locations using the same technique to compare	Acknowledge Acknowledge Acknowledge Noted Noted Noted Acknowledge Acknowledge Noted
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	the variations within the aquifer units as at 2005 and the one gotten in recent time (bearing it in mind that the data has been acquired since 2005) or integrate it with other geophysical technique.	Yes is possible but the Equipments at a moment is undisposed.
<u>Minor</u> REVISION comments	<u>Abstract</u> <u>Line 2 of Abstract:</u> The word there is groundwater (NOT ground water). <u>Line 9 of Abstract:</u> Separate value from its corresponding unit. E.g. AB/2 = 100 m. <u>Line 14 of Abstract:</u> ...from 113.3 to 43789.1 Ω m <u>Line 15 of Abstract:</u> ...from 6.2 to 12.2 m. <u>Introduction</u> Line 38: Groundwater (NOT ground water) <u>General</u> Recast the citations on line 17, and 41/42. Line 122: Separate value from its corresponding unit. <u>Note</u> Is it possible for the author(s) to re-occupy the study area in order to increase the data points used or integrate it with other geophysical technique? Because using four data points to publish.	Done Done Noted Noted Done Acknowledge Yes is possible but the Equipments are undisposed
<u>Optional/General</u> comments	About three recent citations on groundwater exploration in Basement Terrain should be added to the write up in order to upgrade the paper's quality to recent trend.	Acknowledge