



SDI Review Form 1.6

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	Ms_BJAST_21520
Title of the Manuscript:	HEAVY METAL PROFILE OF SOME MEDICINAL PLANTS FOUND IN THE VICINITY OF QUARRY SITE IN DEMSA LOCAL GOVERNMENT AREA OF ADAMAWA STATE
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	Abstract Lines 9 -12 to be written as: The highest value for Mn was obtained from <i>Anogeissus leiocarpus</i> sample with 5.31mg/l from the Quarry site, followed by <i>sterculia tomentosa</i> with 1.6mg/l , <i>Tamarindus indica</i> with 1.56mg/l, <i>Prosopis oblonga</i> with 1.46mg/l and least is <i>Bauhinia reticulate</i> with 1.22mg/l. Introduction Line 30 to read: Heavy metals/metalloids include..... Line 60: toxic substance', to toxic substances, The author(s) should endeavour t highlight some medicinal values of the various plants used for the study, citing relevant references. Materials and Methods. Study Area. Description of the study area should come before Materials and Methods. Materials Line 71: The laboratory equipment's to read: The laboratory equipment..... Line 74: sieve or mechanical shaker?? Sieve and mechanical shaker perform different functions, so be explicit about which of them you used. Reagents Lines 78 – 81 should read: The reagents used for the purpose of this research were of analytical grade, these include:- NaOH solution, KOH solution, HNO₃, HClO₄, HCl, H₂SO₄, distilled water, light petroleum, hexane, ether, acetone, methanol and ethanol, FeCl₃ solution, Fehling solutions A and B, solutions of Pb(NO₃)₂, CUSO₄.5H₂O, CdCl₂, KMnO₄,	



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	ZnSO₄, and K₂Cr₂O₇. Sample collection Lines 94 – 97 should read: Leave samples of <i>Bauhinia reticulate</i>, <i>Prosopis oblonga</i>, <i>Sterculia tomentosa</i>, <i>Tamarindus indica</i> and <i>Anogeissus leocarpus</i> were collected from the Quarry site (N R C) along Numan road in Demsa L.G.A and transported to Modibbo Adama University of Technology, Yola, where they were authenticated by a taxonomist from forestry department. Sample Preparation Lines 101 – 102 should be corrected as: The samples were then cut into smaller pieces and air dried for some days. The dried samples were ground into powder and stored in labeled polythene bags. Line 107: The digests was should be changed to: The digests were Line 109 should read: A calibration curve was constructed using standard Determination of essential and heavy elements in the sample Line 118 should read: Three glass cuvettes were Lines 121 – 122 should read: Calibration curve for each metal was prepared from which unknown concentration in the samples was extrapolated. Results and Discussion. Line 131 – 132 should read: Tables 1 and 2 show the summaries of the mean concentrations of the heavy metals that are found in the plant samples. Most of heavy metals analyzed were below Line 133: Except Manganese (Mn) and Lead (Pb) that were significantly Line 135: Lead (Pb): Lead concentration..... should read: Lead concentration Lines 136 – 139 should read: Levels for Mn accumulation during the present study as contained in tables 1 and 2 revealed that <i>Anogeissus leiocarpus</i> sample collected from	
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	the quarry site had the highest Mn content of 5.31mg/l while the sample of <i>Anogeissus leiocarpus</i> collected away from the quarry site had the least Mn content of 0.03mg/l. Lines 142 – 145 should be adjusted as: Most of the heavy metals analyzed were not detected except in few plants where Mn and Pb were noted. High values of Mn and Pb were found in plant samples collected within the vicinity of the quarry site. The levels recorded for Mn and Pb were observed to exceed the permissible limit of [9, 12]; therefore, the plants should not be used for medicinal purposes due to their suspected toxicity to the consumers. Conclusion and Recommendation Lines 148 – 152 should read: The medicinal plants within the vicinity of the quarry site contain elevated levels of lead and manganese above their threshold levels and therefore the plants are not recommended for consumption by animals in order to avoid bioaccumulation in their body systems which could lead to health hazards. It is recommended that another study should be carried out on other edible plants that are cultivated around the quarry site in order to know if they are safe to be consumed or not.	
<u>Minor</u> REVISION comments	The title of the work is suggested as: Heavy metal profiles of medicinal plants found within the vicinity of quarry site in Demsa, Adamawa State, Nigeria.	
<u>Optional/General</u> comments		

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