

1. Record Nr.	UNINA9910787997803321
Autore	Mohammed Admu Usman
Titolo	Human exposure to arsenic and other potentially toxic metals in some waters : the effect of leaching from rocks into surrounding waters // Admu Usman Mohammed
Pubbl/distr/stampa	Hamburg, Germany : , : Anchor Academic Publishing, , 2014 ©2014
ISBN	3-95489-676-1
Descrizione fisica	1 online resource (115 p.)
Disciplina	616.994071
Soggetti	Arsenic - Carcinogenicity Arsenic - Health aspects Arsenic - Toxicology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Human Exposure to Arsenic and other Potentially Toxic Metals in some waters of Biu Volcanic Province, North-Eastern Nigeria; Contents; CHAPTER ONE: GENERAL INTRODUCTION; 1.1 INTRODUCTION; 1.2 LOCATION, EXTENT AND ACCESSIBILITY; 1.3 RELIEF AND DRAINAGE; 1.4 CLIMATE AND VEGETATION; 1.5 SETTLEMENT AND LAND USE; CHAPTER TWO: LITERATURE REVIEW; 2.1 INTRODUCTION; 2.2 EFFECTS OF TRACE ELEMENTS IN VOLCANIC AREAS; CHAPTER THREE: DETAILED GEOLOGY AND HYDROGEOLOGY OF THE STUDY AREA; 3.1 DETAILED GEOLOGY; 3.2 HYDROGEOLOGY OF THE STUDY AREA; CHAPTER FOUR: HYDROGEOCHEMISTRY; 4.1 INTRODUCTION 4.2 METHODOLOGY 4.3 ANALYTICAL TECHNIQUE; CHAPTER FIVE: PRESENTATION OF RESULTS/DISCUSSIONS; 5.1 PRESENTATION OF RESULTS; 5.2 Soil Sample Analysis Results; 5.3 DISCUSSION OF RESULT; 5.4 Trace Element Exposure and Human Health; 5.5 Trace Elements and Human Health Impact; CHAPTER SIX: SUMMARY, CONCLUSION/RECOMMENDATION; 6.1 SUMMARY; 6.2 CONCLUSION; 6.3 RECOMMENDATIONS; REFERENCES CITED; APPENDIX
Sommario/riassunto	The Biu Volcanic Province is one of the largest Volcanic Provinces in Nigeria covering an area of 5000 km <sup>2</sup> with a thickness of 250m.

Geochemical analysis of the volcanic soil revealed the complete leaching of the major elements (CaO, K<sub>2</sub>O, MgO, MnO, and TiO<sub>2</sub>) from the surface soil probably into water sources. This may explain the extremely high Ca and K levels especially in the stream water where they display values of 348mg/l and 36 mg/l as against 200mg/l to 12 mg/l respectively of WHO admissible limits for drinking water. The accumulation of transition metals in the soil (Co 84-111ppm; Cr: 2

---