### Accepted Manuscript

Geochemistry of Woranso-Mille Pliocene Basalts from West-Central Afar, Ethiopia: Implications for Mantle Source Characteristics and Rift Evolution

Mulugeta Alene, William K. Hart, Beverly Z. Saylor, Alan Deino, Stanley Mertzman, Yohannes Haile-Selassie, Luis B. Gibert

 PII:
 S0024-4937(17)30091-9

 DOI:
 doi:10.1016/j.lithos.2017.03.005

 Reference:
 LITHOS 4254

To appear in: *LITHOS* 

Received date:27 September 2016Accepted date:4 March 2017

An international course of Merice electrony description of Mer

Please cite this article as: Alene, Mulugeta, Hart, William K., Saylor, Beverly Z., Deino, Alan, Mertzman, Stanley, Haile-Selassie, Yohannes, Gibert, Luis B., Geochemistry of Woranso-Mille Pliocene Basalts from West-Central Afar, Ethiopia: Implications for Mantle Source Characteristics and Rift Evolution, *LITHOS* (2017), doi:10.1016/j.lithos.2017.03.005

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## **ACCEPTED MANUSCRIPT**

#### Geochemistry of Woranso-Mille Pliocene Basalts from West-Central Afar, Ethiopia:

#### **Implications for Mantle Source Characteristics and Rift Evolution**

Mulugeta Alene <sup>a</sup>\*, William K. Hart <sup>b</sup>, Beverly Z. Saylor <sup>c</sup>, Alan Deino <sup>d</sup>, Stanley Mertzman <sup>e</sup>, Yohannes Haile-Selassie <sup>f</sup>, Luis B. Gibert <sup>g</sup>

<sup>a</sup> School of Earth Sciences, Addis Ababa University, P. O. Box 1176, Addis Ababa, Ethiopia,

(\*Correspondence: mulugeta\_alene@yahoo.com)

<sup>b</sup> Department of Geology and Environmental Earth Science, Miami University, Oxford, OH 45056, USA, hartwk@miamioh.edu

<sup>c</sup> Department of Earth, Environmental and Planetary Sciences, Case Western Reserve University, Cleveland, OH 44106, USA, bzs@case.edu

<sup>d</sup> Berkeley Geochronology Center, 2455 Ridge Road, Berkeley, CA 94709, USA, alan.deino@gmail.com

<sup>e</sup> Department of Earth and Environment, Franklin and Marshall College Lancaster, PA 17603-2827, USA, stan.mertzman@fandm.edu

<sup>f</sup> Department of Physical Anthropology, Cleveland Museum of Natural History, Cleveland, OH 44106,

USA, YHaileselassie@cmnh.org

<sup>g</sup> Dept. de Mineralogia, Petrologia i Geologia Aplicada, Barcelona Univ., Barcelona, Spain,

lgibert@ub.edu

#### Abstract

The Woranso-Mille (WORMIL) area in the west-central Afar, Ethiopia, contains several Pliocene basalt flows, tuffs, and fossiliferous volcaniclastic beds. We present whole-rock majorand trace-element data including REE, and Sr-Nd-Pb isotope ratios from these basalts to Download English Version:

# https://daneshyari.com/en/article/5784128

Download Persian Version:

https://daneshyari.com/article/5784128

Daneshyari.com