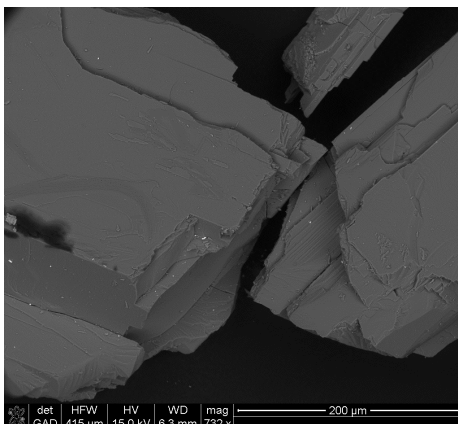




## Hornblende (Arenal) NMNH 111356

SiO <sub>2</sub> :	41.46
Al <sub>2</sub> O <sub>3</sub> :	15.47
Fe <sub>2</sub> O <sub>3</sub> :	5.60
FeO:	6.43
MgO:	14.24
CaO:	11.55
Na <sub>2</sub> O:	1.91
K <sub>2</sub> O:	0.21
TiO <sub>2</sub> :	1.41
P <sub>2</sub> O <sub>5</sub> :	<0.01
MnO:	0.15
H <sub>2</sub> O:	1.21
<b>Total</b>	<b>99.64</b>



### Size fractions available:

0.5 mm - 0.25 mm  
0.25 mm - 0.149 mm  
0.149 mm - 0.074 mm

Analyst: E. Jarosewich (Jarosewich *et al.* 1980)  
Source: Arenal Volcano, Costa Rica

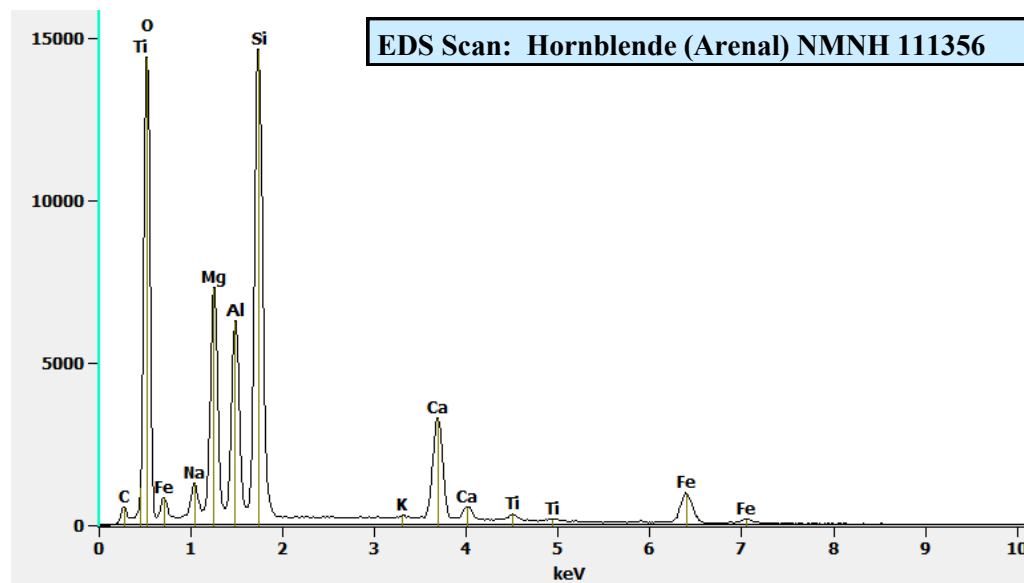
### Standard Specifics:

This note was distributed by Gene Jarosewich with a number reference materials:

“Based on our experience the oxides in the standards listed below may give inferior results. Other oxides in the same standards give excellent results.

Al<sub>2</sub>O<sub>3</sub> hornblende, Arenal volcano”

Above image is of unpolished grains.



### References:

Jarosewich, E., *et al.* (1980) Reference Samples for Electron Microprobe Analysis. *Geostand. Newslett.* 4, p. 43-47.