Title
An Energy-Dispersive X-Ray Fluorescence Analysis of Obsidian Artifacts from LA 49839 Northwest, New Mexico

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LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM LA 49839 NORTHWEST, NEW MEXICO

13 January 2006

Jesse Murrell
Supervisory Archaeologist
ZCRE
PO Box 1149
Zuni, NM 87327

Dear Jesse,

The four obsidian artifacts from LA 49839 were produced from either El Rechuelos obsidian from the northern Jemez Mountains, or from Government Mountain in the San Francisco Volcanic Field, not from the nearest sources in the Mount Taylor Volcanic Field (see Shackley 2005). The Armijo/San Jose point (FS 73-187) is from the El Rechuelos source.

The samples were analyzed with a Spectrace (ThermoNoran) QuanX EDXRF spectrometer in the Archaeological XRF Laboratory, University of California, Berkeley. Instrumental methods can be found at http://www.swxrflab.net/anlysis.htm. Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Govnidaraju 1994; Table 1 here). Source determination was made using source standards at Berkeley, and reference to Shackley (1995, 2005).

Sincerely,

M. Steven Shackley
Professor and Director

VOICE: (510) 642-2533
INTERNET: shackley@berkeley.edu
http://www.swxrflab.net/
REFERENCES CITED

Govindaraju, K.

Shackley, M.S.


Table 1. Elemental concentrations for the archaeological samples. All measurements in parts per million (ppm).

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<tr>
<th>Sample</th>
<th>Ti</th>
<th>Mn</th>
<th>Fe</th>
<th>Rb</th>
<th>Sr</th>
<th>Y</th>
<th>Zr</th>
<th>Nb</th>
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