Title
An Energy-Dispersive X-Ray Fluorescence Analysis of an Obsidian Artifact from LA 125753, in the Carrizalillo Hills, Southwestern New Mexico

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LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF AN OBSIDIAN ARTIFACT FROM LA 125753, IN THE CARRIZALILLO HILLS, SOUTHWESTERN NEW MEXICO

10 May 2012

Alexander Kurota
Office of Contract Archaeology
1717 Lomas Blvd., NE
University of New Mexico
Albuquerque, NM 87131-0001

Dear Alex,

The one obsidian artifact was produced from obsidian produced from the Antelope Wells-El Berrendo source approximately 45 km to the southwest. (Shackley 2005; Table 1 here). All analyses for this study were conducted on a ThermoScientific Quant’X XRF spectrometer, at the University of California, Berkeley. Specific instrumental methods can be found at http://www.swxrflab.net/anlysis.htm, and Shackley (2005). Source assignment was made by comparison to source standard data in the Archaeological XRF Laboratory. Analysis of the USGS RGM-2 standard indicates high machine precision for the elements of interest (USGS; Table 1 here).

Sincerely,

M. Steven Shackley, Ph.D.
Director

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http://www.swxrflab.net/
REFERENCE CITED

Shackley, M.S.

Table 1. Elemental concentrations for the archaeological sample, and the USGS RGM-2 standard. All measurements in parts per million (ppm).

<table>
<thead>
<tr>
<th>Sample</th>
<th>Ti</th>
<th>Mn</th>
<th>Fe</th>
<th>Zn</th>
<th>Rb</th>
<th>Sr</th>
<th>Y</th>
<th>Zr</th>
<th>Nb</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>459</td>
<td>1539</td>
<td>851</td>
<td>2239</td>
<td>201</td>
<td>360</td>
<td>6</td>
<td>131</td>
<td>1194</td>
<td>97</td>
<td>Antelope Wells-El Berrendo standard</td>
</tr>
<tr>
<td>RGM-2</td>
<td>1570</td>
<td>279</td>
<td>1374</td>
<td>44</td>
<td>149</td>
<td>108</td>
<td>24</td>
<td>217</td>
<td>9</td>
<td>standard</td>
</tr>
</tbody>
</table>