An Energy Dispersive X-Ray Fluorescence (EDXRF) Analysis of Obsidian Artifacts from CA-SBR-1913, San Bernardino County, California

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The data associated with this publication are in the supplemental files.

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LETTER REPORT

AN ENERGY DISPERSIVE X-RAY FLUORESCENCE (EDXRF)
ANALYSIS OF OBSIDIAN ARTIFACTS FROM CA-SBR-1913, SAN BERNARDINO COUNTY, CALIFORNIA

18 September 1996
updated 5 October 1996

Dr. Mark Sutton
Department of Sociology/Anthropology
California State University
9001 Stockdale Highway
Bakersfield, CA 93311-1099

Dear Mark:

As shown in Table 1 and Figure 1, most of the artifacts are produced from obsidian procured from the San Felipe (Arroyo Matomí) source in northern Baja California. It seems unusual that the samples would be derived from such a distant source that has not occurred in any known context this far north. A second analysis of 10 more samples did indicate Coso material in the assemblage, but much still from San Felipe. Source assignment was made with data in the Berkeley XRF library and Hughes 1988. Instrument methodology is discussed in Shackley (1994, 1995).

Sincerely,

M. Steven Shackley, Ph.D.
Associate Research Archaeologist

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http:\obsidian.pahma.berkeley.edu/xrflab.htm
http:\obsidian.pahma.berkeley.edu/swobsrsc.htm
REFERENCES CITED

Hughes, Richard E.

Shackley, M. Steven


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

<table>
<thead>
<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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<td>X174-1</td>
<td>543.83</td>
<td>226.29</td>
<td>11064.476</td>
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Figure 1. Rb, Sr bivariate plot of archaeological samples and San Felipe source standards.