LETTER REPORT (ADDENDUM)

A WAVELENGTH DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM MOHAVE COUNTY, ARIZONA, AND WASHINGTON COUNTY, UTAH

26 August 2002

Adam Berg
Jessica Maggio
SWCA, Inc.
114N. San Francisco St., Suite 100
Flagstaff, AZ 86001

Dear Adam and Jessica:

This analysis of one additional artifact from AZ 4A:4 included in this addendum is from the School Mine source in Utah, similar to the original analysis. All four artifacts were procured from one of two sources in southwestern Utah: School Mine, Mineral Mountains, Beaver County, of the Modena Source in Iron County.

The samples were analyzed with a Philips PW2400 sequential wavelength dispersive x-ray spectrometer in the Department of Geology/Geophysics, University of California, Berkeley. This crystal spectrometer uses specific software written by Philips (SuperQ/quantitative) and modifies the instrument settings between elements of interest. Sample selection is automated and controlled by the Philips software. Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Govnidaraju 1994; Table 1 here). Further information on this instrument is available in Shackley (1998), and at http://obsidian.pahma.berkeley.edu/philipspw2400.htm. Source determination was made using source standards at Berkeley, and reference to Nelson (1984).

Sincerely,

M. Steven Shackley, Ph.D.
Director

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REFERENCES CITED

Govindaraju, K.

Nelson, F.W., Jr.

Shackley, M. S.

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

<table>
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<tr>
<th>Sample</th>
<th>Rb</th>
<th>Sr</th>
<th>Y</th>
<th>Zr</th>
<th>Nb</th>
<th>Ba</th>
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<td>29</td>
<td>129</td>
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<td>134</td>
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<td>540</td>
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<td>145</td>
<td>103</td>
<td>25</td>
<td>218</td>
<td>9</td>
<td>810</td>
<td>standard</td>
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