AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM AZ M:8:60 AND AZ M:8:62 (ASM), WESTERN ARIZONA

7 February 2006

Greg Whitney
Desert Archaeology, Inc.
3975 N. Tucson Blvd.
Tucson, AZ 85716

Dear Greg,

Both the artifacts from these two sites were produced from a newly discovered site in western Arizona, Bull Creek, located northwest of Bagdad, possibly part of the Burro Complex, but distinct chemically and spatially (Shackley 2005:37-39). Artifacts produced from this source have been recovered in the region (Shackley 2005).

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, and in Shackley (2005). Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Govindaraju 1994; Table 1 here).

Sincerely,

M. Steven Shackley, Ph.D.
Director

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REFERENCES CITED

Govindaraju, K.

Shackley, M.S.

Table 1. Elemental concentrations for the archaeological samples. All measurements 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>
<th>Source</th>
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<tr>
<td>M:8:60-33</td>
<td>794</td>
<td>540</td>
<td>8309</td>
<td>211</td>
<td>24</td>
<td>28</td>
<td>76</td>
<td>33</td>
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<tr>
<td>M:8:62-PP1</td>
<td>760</td>
<td>523</td>
<td>6977</td>
<td>189</td>
<td>19</td>
<td>26</td>
<td>74</td>
<td>29</td>
<td>Bull Creek</td>
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<tr>
<td>RGM1-S1</td>
<td>1595</td>
<td>304</td>
<td>12952</td>
<td>150</td>
<td>111</td>
<td>19</td>
<td>225</td>
<td>10</td>
<td>standard</td>
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