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AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM AZ AA:12:85 (ASM), CENTRAL, ARIZONA

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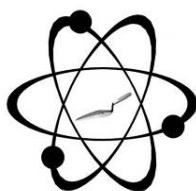
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LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM AZ AA:12:85 (ASM), CENTRAL, ARIZONA

29 September 2017

Barbara Montgomery
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The one piece of obsidian debitage was produced from the Sand Tanks source located in western Maricopa County, Arizona (Shackley 2005, Shackley and Tucker 2001). This source is relatively uncommon in archaeological contexts, but has occurred in central Arizona sites (Shackley and Tucker 2001).

Specific instrumental methods can be found at <http://www.swxrflab.net/analysis.htm>, and Shackley (2005). Source assignment was made by comparison to source standard data in the laboratory. Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Table 1 here).

Sincerely,

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Director

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REFERENCES CITED

Shackley, M.S. 2005, *Obsidian: Geology and Archaeology in the North American Southwest*. Tucson: University of Arizona Press.

Shackley, M.S., and D.B. Tucker, 2001, Limited prehistoric procurement of Sand Tank obsidian, southwestern Arizona. *Kiva* 66(3):345-374.

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

Sample	Ti	Mn	Fe	Zn	Rb	Sr	Y	Zr	Nb	Ba	Source
2015-0283	1165	52	11287	91	166	20	38	250	29	57	Sand Tanks
RGM1-S4	1542	302	13367	40	153	110	24	221	13	809	standard