

# UC Berkeley

## Archaeological X-ray Fluorescence Reports

### Title

An Energy-Dispersive X-Ray Fluorescence Analysis of Obsidian Artifacts from AZ T:4:392 (ASM), Central Arizona

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<https://escholarship.org/uc/item/3xh4130k#supplemental>

# BERKELEY ARCHAEOLOGICAL



## XRF LAB

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### ***LETTER REPORT (ADDENDUM)***

### **AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM AZ T:4:392 (ASM), CENTRAL ARIZONA**

26 May 2004

John Rapp  
Logan Simpson Design, Inc.  
51 West Third Street  
Tempe, AZ 85281

Dear John,

Quite typical for sites of this time period, the artifacts were produced from Vulture and Government Mountain obsidian (Shackley 1995, 2005; Table 1 here).

The samples were analyzed with a Spectrace (ThermoNoran) *QuanX* EDXRF spectrometer in the Archaeological XRF Laboratory, University of California, Berkeley. Specific instrumental methods can be found at <http://www.swxrflab.net/analysis.htm>, and Shackley (2005). Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Govnidaraju 1994; Table 1 here).

Sincerely,

M. Steven Shackley, Ph.D.  
Director

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<http://www.swxrflab.net/>

## REFERENCES CITED

Govindaraju, K.

1994 1994 Compilation of Working Values and Sample Description for 383 Geostandards. *Geostandards Newsletter* 18 (special issue).

Shackley, M.S.

1995 Sources of Archaeological Obsidian in the Greater American Southwest: An Update and Quantitative Analysis. *American Antiquity* 60:531-551.

2005 *Obsidian: Geology and Archaeology in the North American Southwest*. University of Arizona Press, in press.

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

Sample	Ti	Mn	Fe	Rb	Sr	Y	Zr	Nb	Source
AZT-4-392-25	1141	379	6561	118	35	13	124	22	Vulture
AZT-4-392-26	774	587	8201	100	71	19	74	52	Government Mtn
AZT-4-392-150	1196	418	7112	137	46	14	123	18	Vulture
AZT-4-392-17	1150	398	7031	126	45	16	122	19	Vulture
AZT-4-392-183	1032	447	7374	140	41	11	129	29	Vulture
RGM1-S1	1640	304	13207	152	112	21	217	9	standard