

UC Berkeley

Archaeological X-ray Fluorescence Reports

Title

An Energy-Dispersive X-Ray Fluorescence Analysis of an Obsidian Artifact from CA-SBR-12662

Permalink

<https://escholarship.org/uc/item/43q6n6hw>

Author

Shackley, M. Steven

Publication Date

2014-05-09

Supplemental Material

<https://escholarship.org/uc/item/43q6n6hw#supplemental>

Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial License, available at <https://creativecommons.org/licenses/by-nc/4.0/>



GEOARCHAEOLOGICAL XRF LAB

GEOARCHAEOLOGICAL X-RAY FLUORESCENCE SPECTROMETRY LABORATORY

8100 Wyoming Blvd., Ste M4-158
USA

Albuquerque, NM 87113

LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF AN OBSIDIAN ARTIFACT FROM CA-SBR-12662

9 May 2014

Dr. Tiffany Clark
Applied EarthWorks, Inc.
133 N San Gabriel Blvd., Ste 201
Pasadena, CA 91107-3414

Dear Tiffany:

The one piece of obsidian debitage was produced from one of the domes at the Coso Volcanic Field, Inyo County, California. Specific instrumental methods can be found at <http://www.swxrflab.net/analysis.htm>, and Shackley (2005). Source assignment was made by comparison to Ericson and Glascock (2004) and Hughes (1988). Analysis of the USGS RGM-1 standard indicates high machine precision for the elements of interest (Table 1 here).

Sincerely,

M. Steven Shackley, Ph.D.
Director

VOICE: 510-393-3931
INTERNET: shackley@berkeley.edu
<http://www.swxrflab.net/>

REFERENCES CITED

Ericson, J.E., and M.D. Glascock

2004 Subsource Characterization: Obsidian Utilization of Subsources of the Coso Volcanic Field, Coso Junction, California, USA. *Geoarchaeology* 19:779-805.

Hughes, R.E.

1988 The Coso Volcanic Field Reexamined: Implications for Obsidian Sourcing and Hydration Dating Research. *Geoarchaeology* 3:253-265.

Shackley, M.S.

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

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

Sample	Ti	Mn	Fe	Rb	Sr	Y	Zr	Nb	Pb	Th	Source
SBR-12662-1	442	325	9812	269	5	50	115	40	31	35	Coso Volc. Field
RGM1-S4	1571	292	1303	149	105	24	223	9	26	19	standard