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## Archaeological X-ray Fluorescence Reports

### Title

An Energy-Dispersive X-Ray Fluorescence Analysis of Obsidian Artifacts from the Jack Allen Site, Texas

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### Author

Shackley, M. Steven

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GEOARCHAEOLOGICAL XRF LAB

ARCHAEOLOGICAL 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 OBSIDIAN ARTIFACTS FROM THE JACK ALLEN SITE, TEXAS**

26 January 2013

Dr. Charles Frederick  
2901 FM 1496  
Dublin, TX 76446

Dear Charles,

As you surmised, the two artifacts were produced from one of the Jemez Mountains, New Mexico source, Cerro Toledo Rhyolite group and El Rechuelos.

All analyses for this study were conducted on a ThermoScientific Quant'X XRF spectrometer at the Archaeological XRF Laboratory, Albuquerque, New Mexico. Specific instrumental methods and source standard data can be found at <http://www.swxrflab.net>, and Shackley (2005).

### **REFERENCE CITED**

Shackley, M.S.

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

Sincerely,

M. Steven Shackley, Ph.D.  
Director

VOICE: 510-393-3931  
INTERNET: [shackley@berkeley.edu](mailto:shackley@berkeley.edu)  
<http://www.swxrflab.net/>

Table 1. Elemental concentrations for the archaeological samples and USGS RGM-1 obsidian rock standard. Measurements parts per million.

Sample	Mn	Fe	Zn	Rb	Sr	Y	Zr	Nb	Pb	Th	Source
A654-411-1	446	1035 3	157	204	10	60	166	95	32	25	Cerro Toledo Rhy
A654-41-2	419	7907	49	154	13	27	74	46	24	17	El Rechuelos
RGM1-S4	278	1330 7	35	149	111	26	214	8	24	14	standard