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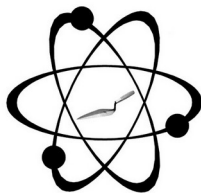
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LETTER REPORT

AN ENERGY-DISPERSIVE X-RAY FLUORESCENCE ANALYSIS OF OBSIDIAN ARTIFACTS FROM CHASE ORCHARD PUEBLO (LA 37319), NEW MEXICO

25 July 2017

Sara Cullen
Department of Anthropology
University of Colorado
Boulder, Colorado

Dear Sara,

All three artifacts were produced from Valles Rhyolite (Cerro del Medio) or El Rechuelos Rhyolite obsidian in the Jemez Mountains of northern New Mexico (Table 1).

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

Sincerely,

M. Steven Shackley, Ph.D.
Director

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REFERENCE CITED

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 samples and USGS RGM-1 obsidian rock standard. Measurements in parts per million (ppm) or wt. % as noted.

Sample	Ti	Mn	Fe	Zn	Rb	Sr	Y	Zr	Nb	Source
	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	
22	614	389	0.56	87	150	11	21	71	44	El Rechuelos Rhy
23	563	386	0.82	67	150	14	43	167	54	Valles Rhy (Cerro del Medio)
26	858	435	0.60	82	158	11	21	81	48	El Rechuelos Rhy
RGM1-S5	1476	318	1.29	37	145	104	22	210	3	standard