

Northwest Research Obsidian Studies Laboratory

Results of XRF Studies: Ixtepeque Obsidian Source, Guatemala

Site	Specimen		Trace Element Concentrations											Ratios		Geochemical Source
	No.	Catalog No.	Zn	Pb	Rb	Sr	Y	Zr	Nb	Ti	Mn	Ba	Fe ₂ O ₃ ^T	Fe:Mn	Fe:Ti	
Ixtepeque	6	K1	38 ± 6	20 2	98 3	154 7	19 3	161 7	11 2	1207 97	418 47	960 13	1.23 0.11	29.2	33.4	Ixtepeque
Ixtepeque	7	K2	32 ± 7	15 3	96 3	152 7	17 3	165 7	9 2	937 96	316 47	1069 14	0.88 0.11	29.4	31.4	Ixtepeque
Ixtepeque	8	K3	33 ± 7	21 2	107 3	157 7	19 3	165 7	12 2	1172 97	422 47	1125 13	1.18 0.11	27.8	33.0	Ixtepeque
Ixtepeque	9	K4	40 ± 7	20 3	99 3	153 7	20 3	163 7	10 2	1110 97	399 47	990 13	1.13 0.11	28.4	33.6	Ixtepeque
Ixtepeque	10	K5	32 ± 7	17 3	103 3	153 7	20 3	164 7	14 2	1010 97	332 47	1171 14	0.95 0.11	29.8	31.3	Ixtepeque
Ixtepeque	11	K6	37 ± 7	17 3	107 3	159 7	18 3	163 7	13 2	866 96	327 47	1041 14	0.86 0.11	27.8	33.3	Ixtepeque
Ixtepeque	12	K7	28 ± 7	19 2	101 3	156 7	16 3	161 7	10 1	1274 97	435 48	993 13	1.35 0.11	30.5	34.6	Ixtepeque
Ixtepeque	13	K8	45 ± 6	16 2	90 3	174 7	18 3	154 7	9 2	1919 98	436 48	964 13	1.89 0.11	41.7	31.7	Ixtepeque
Ixtepeque	14	K9	38 ± 7	17 3	103 3	158 7	17 3	161 7	11 2	1114 97	358 47	1034 14	1.00 0.11	28.9	30.0	Ixtepeque
Ixtepeque	15	K10	34 ± 6	13 3	103 3	150 7	17 3	162 7	7 2	985 96	378 47	1100 14	1.05 0.11	28.1	35.1	Ixtepeque
Ixtepeque	1	K11	29 ± 7	17 3	106 3	155 7	17 3	168 7	12 2	918 96	352 47	958 13	0.96 0.11	28.1	34.7	Ixtepeque
Ixtepeque	2	K12	34 ± 7	18 3	106 3	158 7	20 3	172 7	11 2	1046 96	329 47	1046 14	0.91 0.11	29.0	29.1	Ixtepeque
Ixtepeque	3	K13	42 ± 6	17 2	94 3	149 7	20 3	165 7	12 1	1864 98	632 48	1051 13	1.74 0.11	25.7	30.1	Ixtepeque
Ixtepeque	4	K14	40 ± 6	17 3	99 3	158 7	18 3	165 7	10 2	955 96	350 47	1168 14	0.93 0.11	27.5	32.4	Ixtepeque
Ixtepeque	5	K15	35 ± 6	17 3	106 3	155 7	20 3	164 7	13 1	1206 97	422 47	1044 13	1.25 0.11	29.2	33.8	Ixtepeque
Ixtepeque	6	K16	32 ± 7	17 3	105 3	153 7	19 3	169 7	12 2	1084 97	380 47	1008 13	1.15 0.11	30.4	34.7	Ixtepeque

All trace element values reported in parts per million; ± = analytical uncertainty estimate (in ppm). Iron content reported as weight percent oxide.
NA = Not available; ND = Not detected; NM = Not measured.; * = Small sample.

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Ixtepeque	7	K17	36 ± 7	16 3	102 3	155 7	20 3	164 7	9 2	1102 97	415 47	989 13	1.18 0.11	28.4	35.3	Ixtepeque
Ixtepeque	8	K18	33 ± 7	15 3	107 3	166 7	19 3	170 7	9 2	799 96	301 47	1102 15	0.83 0.11	29.5	34.8	Ixtepeque

All trace element values reported in parts per million; ± = analytical uncertainty estimate (in ppm). Iron content reported as weight percent oxide.
NA = Not available; ND = Not detected; NM = Not measured.; * = Small sample.