Neutron Activation Analysis of Ceramics from Dominica, Guadeloupe, Martinique, St. Martin, and Ile des Saintes, French West Indies

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Introduction

This report describes the reanalysis of the 85 ceramic samples from the islands of Dominica, Guadeloupe, Martinique, St. Martin, and Ile des Saintes reported by Descantes and Glascock (2006). We also incorporate an additional 36 samples recently submitted. The methods involved in neutron activation analysis as well as the background information on the statistical techniques can be found in an earlier report (Descantes and Glascock 2005) and are not repeated here.

Results

Previous analyses of portions of these data did not adjust the elemental concentrations to account for the dilution due to calcium. Calcium values vary from 0.3 to almost 10% with an average of 1.6%. A calcium adjustment would alter the elemental data by an average of 4%, but by as much as 25% for the sample with the highest calcium concentration. We therefore completely re-evaluated the original 85 samples and projected the new 36 samples on those compositional groups. We came to largely the same conclusions as Descantes and Glascock (2005). Following the calcium adjustment, we removed calcium and strontium (which is highly correlated with calcium) from the analysis. Nickel was also eliminated due to a large percentage of the samples with concentrations below the detection limit.

We have identified four compositional groups among the original dataset (Groups 1-4). The addition of the new 36 samples revealed on additional group (Group 6). Group 5 was eliminated and the samples reassigned upon further analysis. Table 1 lists the samples and their new compositional group assignments, their previous assignments according the Descantes and Glascock (2006), and some descriptive information. The relationship between the new and old compositional groups is shown in Table 2.

The compositional groups are very well-separated in principal component space, particularly in a bivariate plot of principal components 1 and 4 (Figure 1). The groups also separate in an elemental bivariate plot of thorium and chromium (Figure 2). The groups are extremely robust when examined by Mahalanobis distance calculations and projections. The first eight principal components account for more than 90% of the variance in the total dataset (Table 3), and thus we used this number of components when calculating probabilities of group membership. This prevented the direct comparison of Group 1 because it does not contain enough samples to satisfy the requirements of the Mahalanobis distance calculations. One word of caution, because we used the complete dataset to calculate the principal components, the values we present here are different than those presented in previous reports where the principal component values were calculated on smaller datasets.

Table 4 lists the probability of group membership for each of the members of the four larger groups (Groups 2, 3, 4, and 6). This is very strong separation of the groups as shown by very little overlap in membership probabilities. Table 5 lists the probability of membership in the four larger groups for the members of Group 1 and the unassigned

samples. There are only two unassigned samples with noteworthy probabilities of membership in a group, and they are intermediate between Groups 4 and 6.

We have little information as to the specific research questions of interest, other than to compare the new samples to the previous samples. We present tallies of the compositional group members by site, type and form in Tables 6-8, respectively. We encourage you to examine these tables as well as any potential patterns you think might be meaningful. If there are any additional tests of examinations of the data you would like us to do please do not hesitate to ask.

Conclusions

In a reanalysis of 85 samples previously reported as well as the 36 new samples we have found five very distinct compositional groups and only have 14% of the samples could not be assigned to a compositional group..

Acknowledgements

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References Cited

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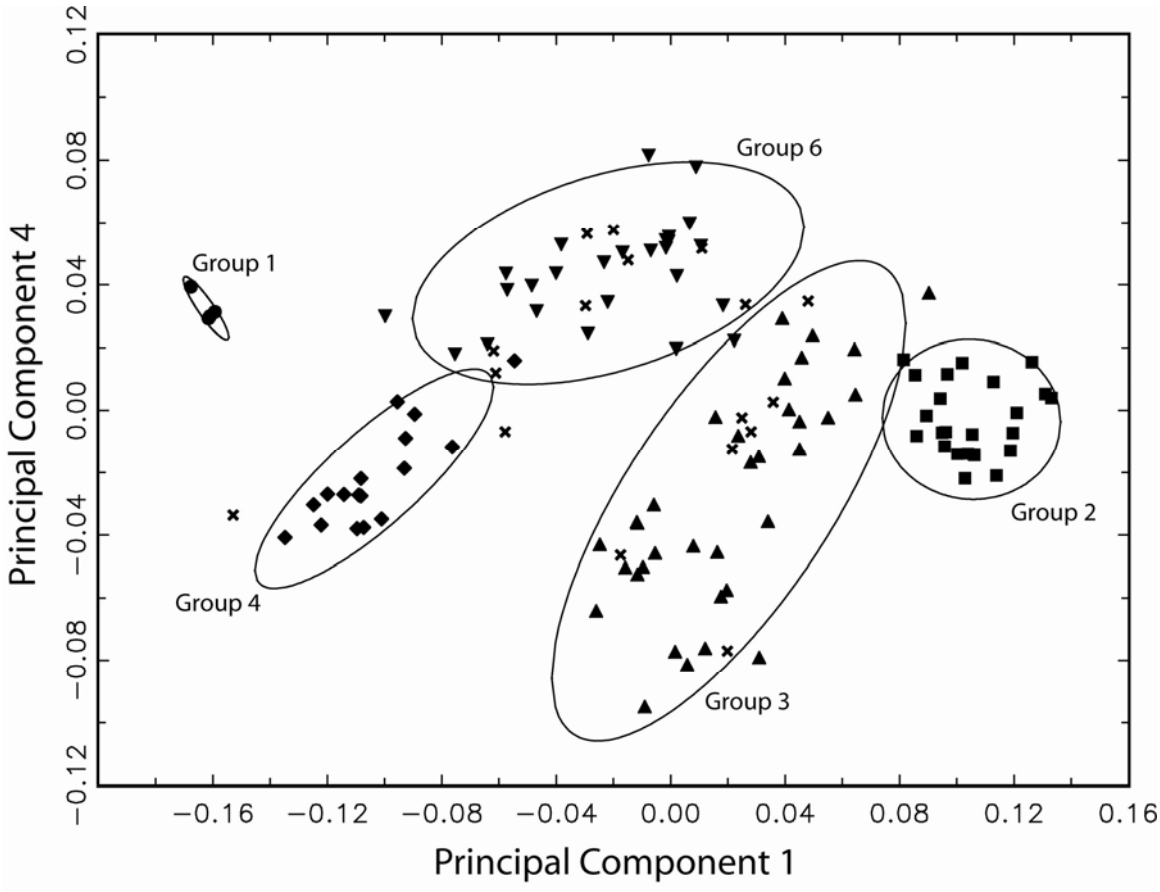


Figure 1: Bivariate plot of principal components 1 and 4 showing the five compositional groups and the unassigned samples (plotted with an "x" symbol). Ellipses represent 90% confidence intervals for membership in the groups.

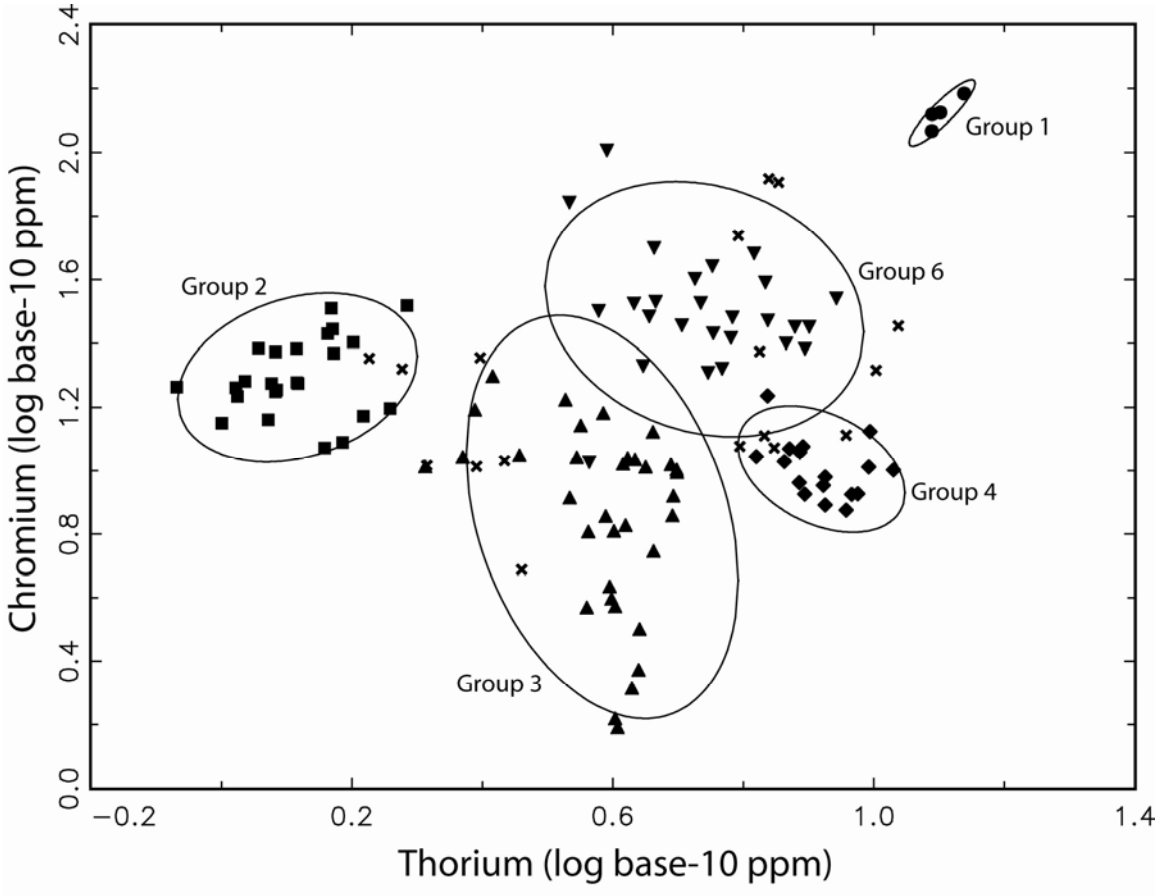


Figure 2: Bivariate plot of thorium and chromium showing the five compositional groups and the unassigned samples (plotted with an "x" symbol). Ellipses represent 90% confidence intervals for membership in the groups

Table 1: Compositional Group assignments and descriptive information.

ANID	New Comp. Groups	2005 Comp. Groups	Site Name	Type	Form
GUA101	3	2	Capucin, DM	Industrial	Storage
GUA102	3	2	Capucin, DM	Industrial	Storage
GUA103	3	2	Capucin, DM	Industrial	Storage
GUA104	Unas	5	Capucin, DM	Domestic Coil	Unkown
GUA105	Unas	3	Capucin, DM	Domestic Coil	Bowl
GUA106	1	4	Woodford Hill, DM	Industrial	Tile
GUA107	2	1	Woodford Hill, DM	Industrial	Storage
GUA108	Unas	5	Woodford Hill, DM	Industrial	Storage
GUA109	3	2	Woodford Hill, DM	Domestic Coil	Pot
GUA110	2	1	Woodford Hill, DM	Domestic Wheel	Pot
GUA111	3	Unas	Bois Cotlette, DM	Industrial	Storage
GUA112	Unas	Unas	Bois Cotlette, DM	Industrial	Storage
GUA113	Unas	3	Bois Cotlette, DM	Industrial	Storage
GUA114	4	3	Bois Cotlette, DM	Domestic Wheel	Pitcher
GUA115	4	3	Tartane, DM	Domestic Wheel	Pitcher
GUA116	3	5	Tartane, DM	Industrial	Storage
GUA117	3	Unas	Indian River, DM	Domestic Coil	Unkown
GUA118	3	Unas	Indian River, DM	Domestic Coil	Unkown
GUA119	3	Unas	Indian River, DM	Domestic Coil	Unkown
GUA120	6	Unas	Bois Cotlette, DM	Domestic Coil	Pot
GUA121	1	4	Landoff, DM	Industrial	Tile
GUA122	3	2	Landoff, DM	Domestic Wheel	Pitcher
GUA123	3	2	Landoff, DM	Industrial	Storage
GUA124	1	4	Everton, DM	Industrial	Tile
GUA125	1	4	Everton, DM	Industrial	Tile
GUA126	2	1	Creve Coure, MT	Domestic Wheel	Pitcher
GUA127	Unas	Unas	Creve Coure, MT	Domestic Wheel	Unkown
GUA128	2	1	Creve Coure, MT	Industrial	Storage
GUA129	4	3	Creve Coure, MT	Industrial	Sugar Cone
GUA130	4	3	Creve Coure, MT	Industrial	Tile
GUA131	2	1	Creve Coure, MT	Domestic Coil	Coc au Neg
GUA132	2	1	Creve Coure, MT	Domestic Coil	Coc au Neg
GUA133	2	1	Creve Coure, MT	Domestic Coil	Coc au Neg
GUA134	Unas	Unas	Creve Coure, MT	Domestic Coil	Coc au Neg
GUA135	2	1	Creve Coure, MT	Domestic Coil	Coc au Neg
GUA136	2	1	Isle Chancel, MT	Domestic Wheel	Bowl
GUA137	2	1	Isle Chancel, MT	Domestic Wheel	Unkown
GUA138	2	1	Isle Chancel, MT	Domestic Wheel	Bowl
GUA139	2	1	Isle Chancel, MT	Domestic Wheel	Pitcher
GUA140	2	1	Isle Chancel, MT	Domestic Wheel	Pitcher
GUA141	2	1	Isle Chancel, MT	Industrial	Jar
GUA142	2	1	Isle Chancel, MT	Industrial	Sugar Cone
GUA143	2	1	Isle Chancel, MT	Industrial	Sugar Cone
GUA144	2	1	Isle Chancel, MT	Industrial	Sugar Cone

GUA145	2	1	Isle Chancel, MT	Industrial	Storage
GUA146	3	5	Chateau du Buc	Domestic Wheel	Unkown
GUA147	Unas	Unas	Chateau du Buc	Domestic Wheel	Unkown
GUA148	3	Unas	Chateau du Buc	Domestic Coil	Unkown
GUA149	Unas	Unas	Chateau du Buc	Domestic Coil	Unkown
GUA150	3	2	Trois Riviers, GD	Industrial	Jar
GUA151	3	Unas	Trois Riviers, GD	Industrial	Storage
GUA152	3	2	Trois Riviers, GD	Industrial	Jar
GUA153	3	2	Trois Riviers, GD	Industrial	Storage
GUA154	3	2	Trois Riviers, GD	Industrial	Jar
GUA155	Unas	3	Pointe Borgnesse	Industrial	Jar
GUA156	4	3	Pointe Borgnesse	Industrial	Jar
GUA157	4	3	Pointe Borgnesse	Industrial	Jar
GUA158	4	3	Pointe Borgnesse	Industrial	Sugar Cone
GUA159	Unas	3	Morne Cabrit	Industrial	Jar
GUA160	Unas	3	Morne Cabrit	Industrial	Jar
GUA161	6	3	Morne Cabrit	Industrial	Jar
GUA162	Unas	3	Morne Cabrit	Industrial	Jar
GUA163	3	2	Grand Baie	Industrial	Sugar Cone
GUA164	3	2	Grand Baie	Industrial	Sugar Cone
GUA165	3	2	Grand Baie	Domestic Wheel	Pitcher
GUA166	3	2	Grand Baie	Domestic Wheel	Pitcher
GUA167	3	2	Grand Baie	Domestic Wheel	Unkown
GUA168	3	2	Grand Anse	Industrial	Storage
GUA169	3	2	Grand Anse	Industrial	Unkown
GUA170	3	2	Grand Anse	Industrial	Unkown
GUA171	4	3	Point Peteit Potterie	Industrial	Unkown
GUA172	4	3	Point Peteit Potterie	Industrial	Storage
GUA173	4	3	Point Peteit Potterie	Industrial	Storage
GUA174	6	3	Point Peteit Potterie	Industrial	Jar
GUA175	3	2	Trois Ilet	Industrial	Sugar Cone
GUA176	3	2	Trois Ilet	Industrial	Storage
GUA177	3	2	Trois Ilet	Industrial	Storage
GUA178	3	2	Trois Ilet	Industrial	Storage
GUA179	3	2	Trois Ilet	Domestic Wheel	Pitcher
GUA180	2	1	Madame Trime	Domestic Coil	Coc au Neg
GUA181	2	1	Madame Trime	Domestic Coil	Coc au Neg
GUA182	2	1	Madame Trime	Domestic Coil	Coc au Neg
GUA183	Unas	3	Toucari, DM	Industrial	Unkown
GUA184	3	5	Toucari, DM	Industrial	Unkown
GUA185	Unas	3	Grand Fond, DM	Industrial	Unkown
GUA301	2		Creve Coure, MT	Domestic Coil	Coc au Neg
GUA302	2		Creve Coure, MT	Domestic Coil	Coc au Neg
GUA303	2		Creve Coure, MT	Domestic Coil	Coc au Neg
GUA304	Unas		Creve Coure, MT	Domestic Coil	Coc au Neg
GUA305	6		Pointe Petite Potterie	Domestic Coil	Pot
GUA306	6		Pointe Petite Potterie	Clay	Clay
GUA307	6		Pointe Petite Potterie	Industrial	TILE

GUA308	3	Pointe Petite Potterie	Industrial	NA
GUA309	4	Pointe Petite Potterie	Industrial	BASE
GUA310	6	Pointe Petite Potterie	Industrial	DRIP JAR
GUA311	6	BB02	Domestic Coil	BOWL
GUA312	4	BB02	Domestic Wheel	BOWL
GUA313	6	BB02	Domestic Coil	TILE
GUA314	6	Pointe Petite Potterie	Domestic Coil	NA
GUA315	4	BB02	Domestic Wheel	BOWL
GUA316	4	BB02	Domestic Wheel	BOWL
GUA317	4	BB02	Domestic Wheel	BOWL
GUA318	4	BB02	Domestic Wheel	BOWL
GUA319	6	BB02	Domestic Coil	TILE
GUA320	6	BB02	Domestic Coil	NA
GUA321	6	BB02	Domestic Coil	Coc au Neg
GUA322	4	BB02	Industrial	SUGAR JAR
GUA323	6	BB02	Domestic Coil	BOWL
GUA324	6	BB02	Domestic Coil	BOWL
GUA325	6	BB02	Domestic Coil	BOWL
GUA326	6	BB02	Domestic Coil	BOWL
GUA327	6	BB02	Domestic Coil	BOWL
GUA328	6	BB02	Domestic Coil	NA
GUA329	6	BB02	Domestic Coil	BOWL
GUA330	Unas	BB02	Industrial	SUGAR JAR
GUA331	6	BB02	Domestic Coil	Open Bowl
GUA332	6	BB02	Domestic Coil	Restricted Bowl
GUA333	6	BB02	Domestic Coil	Flat
GUA334	6	BB02	Domestic Coil	Open Bowl
GUA335	6	BB02	Domestic Coil	NA
GUA336	6	BOISE COTLETTE	Domestic Coil	NA
GUA337	3	BOISE COTLETTE	Industrial	NA

Table 2: A comparison of the previous and new compositional groups. The new compositional groups are listed on the left.

	Previous Compositional Groups							
	1	**2**	**3**	**4**	**5**	**Unas**	**New**	total
1				4				4
2	21						3	24
3		23			3	6	2	34
4			10				7	17
6			2			1	23	26
Unas			8		2	5	2	17
total	21	23	20	4	5	12	37	122

Table 3: Variances and eigenvalues for the first ten principal components.

Simultaneous R-Q Factor Analysis Based on Variance-Covariance Matrix

Eigenvalues and Percentage of Variance Explained:

	Eigenvalue	%Variance	Cum. %Var.
1	0.6915	40.0808	40.0808
2	0.2562	14.8471	54.9279
3	0.2263	13.1186	68.0465
4	0.1734	10.0474	78.0940
5	0.0844	4.8944	82.9883
6	0.0566	3.2802	86.2686
7	0.0461	2.6745	88.9431
8	0.0366	2.1198	91.0629
9	0.0301	1.7429	92.8058
10	0.0276	1.6004	94.4062

Eigenvectors (largest to smallest):

As	-0.3967	0.3363	-0.0805	-0.1673	0.1501	-0.0469	-0.4495	-0.4033	0.1186	-0.1416
La	-0.1918	-0.1582	-0.1645	-0.0758	-0.1225	-0.0732	-0.0496	0.0555	0.1481	-0.1224
Lu	0.0751	-0.1016	-0.2227	-0.1369	0.0670	-0.0360	-0.0101	0.1332	-0.0919	-0.0234
Nd	-0.1165	-0.1605	-0.2240	-0.1681	-0.0100	-0.1358	-0.0308	0.0440	0.1327	-0.1460
Sm	-0.0397	-0.1230	-0.2506	-0.1514	0.0122	-0.0978	-0.0282	0.0475	0.0815	0.0001
U	-0.1643	0.0374	-0.1204	-0.0094	-0.0812	-0.1152	-0.0863	0.0203	-0.0403	0.0724
Yb	0.0964	-0.1075	-0.2651	-0.1630	0.0885	-0.0379	0.0096	0.1361	-0.0833	-0.0529
Ce	-0.1775	-0.1733	-0.1107	-0.0483	-0.0334	-0.1571	-0.0300	-0.0242	0.0701	-0.1179
Co	0.0989	-0.1514	-0.0953	0.1676	0.1370	-0.3769	0.1040	-0.2901	-0.1248	-0.0077
Cr	-0.0542	0.0045	-0.3854	0.7348	0.1065	0.2589	-0.1576	0.0356	0.1918	-0.2788
Cs	-0.4059	-0.1250	0.0530	0.2043	-0.0162	-0.0892	0.3716	0.0491	0.1548	0.3481
Eu	0.0399	-0.1666	-0.2014	-0.0740	0.1061	-0.0291	-0.0609	0.1259	0.2296	0.0010
Fe	0.1006	0.0599	-0.0854	0.0423	-0.0181	-0.0937	0.0358	-0.1012	-0.1602	0.0824
Hf	-0.1023	-0.0180	0.0076	0.0679	-0.0870	-0.0684	-0.0318	0.1675	-0.1647	-0.1331
Rb	-0.3162	-0.3438	0.0306	0.0032	-0.0098	0.2414	0.2017	-0.1531	0.2180	0.3192
Sb	-0.3329	0.4632	-0.0727	-0.0892	0.5642	-0.0490	0.4125	0.1244	-0.0874	-0.0973
Sc	0.1453	0.0744	-0.1899	0.1404	0.0215	-0.0203	0.1040	-0.1510	0.0096	0.1423
Ta	-0.2615	-0.0487	0.0324	0.1330	-0.3011	-0.1596	0.0299	0.0845	-0.2597	-0.2325
Tb	0.0364	-0.1120	-0.2935	-0.1150	0.1075	-0.1630	0.1477	0.1028	-0.1305	0.0216
Th	-0.3270	-0.0325	0.0837	0.0912	-0.2948	-0.1667	0.0988	0.0405	-0.2100	-0.1687
Zn	-0.0326	-0.0432	-0.0715	0.0163	0.0312	-0.1427	-0.1122	-0.2532	0.2991	0.1820
Zr	-0.0754	-0.0345	-0.0302	0.0756	-0.0570	-0.0784	-0.0386	0.1543	-0.1326	-0.1292
Al	0.0348	0.0424	-0.0209	0.0476	-0.0439	0.0459	-0.0100	0.0050	0.0530	0.0637
Ba	-0.1617	-0.0652	0.0407	0.1752	0.2699	-0.1210	-0.5315	0.3448	-0.3172	0.5357
Dy	0.0468	-0.0599	-0.3721	-0.1575	0.0126	0.0883	0.0662	0.1963	-0.0011	0.0615
K	-0.1859	-0.3667	-0.0748	-0.1661	0.1465	0.4722	-0.0586	-0.3681	-0.4839	-0.0890
Mn	0.0727	-0.2169	0.1264	0.0300	0.1566	-0.5194	-0.0766	-0.2412	0.0360	-0.0677
Na	0.0585	-0.3765	0.3814	0.1299	0.4936	0.0005	0.0312	0.1454	0.0820	-0.3279
Ti	0.0545	0.0825	-0.1436	0.1873	-0.0973	-0.0737	0.0999	-0.0820	-0.1462	0.0731
V	0.1629	0.0215	-0.1665	0.1860	0.0798	-0.0477	0.1734	-0.3206	-0.2795	0.1142

Table 4: Probability of Group membership based on a Mahalanobis distance calculation using the first eight principal components.

MAHALANOBIS DISTANCE CALCULATION AND POSTERIOR CLASSIFICATION
FOR TWO OR MORE GROUPS.

Variables used:
Principal components 1-8

Probabilities are jackknifed for specimens included in each group.

The following specimens are in Group 2

	Probabilities:			
ID. NO.	Group 2	Group 3	Group 4	Group 6
GUA107	22.887	0.001	0.000	0.001
GUA110	80.520	0.005	0.000	0.001
GUA126	16.661	0.000	0.000	0.000
GUA128	71.101	0.000	0.000	0.000
GUA131	25.366	0.000	0.000	0.000
GUA132	83.135	0.002	0.000	0.000
GUA133	51.093	0.009	0.000	0.004
GUA135	47.597	0.000	0.000	0.000
GUA136	80.526	0.000	0.000	0.000
GUA137	61.273	0.000	0.000	0.000
GUA138	5.197	0.000	0.000	0.000
GUA139	71.044	0.000	0.000	0.000
GUA140	32.235	0.000	0.000	0.000
GUA141	55.463	0.000	0.000	0.000
GUA142	44.551	0.000	0.000	0.000
GUA143	35.552	0.000	0.000	0.000
GUA144	72.993	0.000	0.000	0.000
GUA145	19.526	0.000	0.000	0.000
GUA180	95.103	0.003	0.000	0.000
GUA181	71.602	0.001	0.000	0.000
GUA182	53.779	0.001	0.000	0.000
GUA301	49.395	0.021	0.000	0.000
GUA302	25.072	0.044	0.000	0.000
GUA303	11.135	0.000	0.000	0.006

The following specimens are in Group 3

	Probabilities:			
ID. NO.	Group 2	Group 3	Group 4	Group 6
GUA101	0.000	93.865	0.003	0.035
GUA102	0.000	96.099	0.002	0.027
GUA103	0.000	6.789	0.000	0.000
GUA109	0.000	52.294	0.007	0.017
GUA111	0.000	57.585	0.032	0.004
GUA116	0.000	3.302	0.000	0.002
GUA117	0.257	1.816	0.009	0.521
GUA118	0.004	2.836	0.067	0.026
GUA119	0.018	27.145	0.065	0.035
GUA122	0.000	98.406	0.001	0.003
GUA123	0.000	94.806	0.010	0.030
GUA146	0.038	34.167	0.001	0.143
GUA148	0.028	50.068	0.001	0.081
GUA150	0.000	90.208	0.001	0.001
GUA151	0.000	0.192	0.001	0.018
GUA152	0.000	97.490	0.019	0.362
GUA153	0.000	20.094	0.000	0.000
GUA154	0.039	69.936	0.010	0.985
GUA163	0.000	47.431	0.000	0.001
GUA164	0.000	32.948	0.075	0.063
GUA165	0.000	86.647	0.008	0.073
GUA166	0.000	74.058	0.019	0.355
GUA167	0.000	57.608	0.005	0.152
GUA168	0.005	41.205	0.018	0.222
GUA169	0.000	90.522	0.004	0.030
GUA170	0.001	74.287	0.050	5.376
GUA175	0.000	95.497	0.020	0.091
GUA176	0.001	91.980	0.021	0.911
GUA177	0.000	3.831	0.031	0.022
GUA178	0.000	87.123	0.000	0.001
GUA179	0.000	79.767	0.022	0.208
GUA184	0.070	2.727	0.009	0.571
GUA308	0.595	31.013	0.003	2.083
GUA337	0.000	23.761	0.000	0.000

The following specimens are in Group 4

	Probabilities:			
ID. NO.	Group 2	Group 3	Group 4	Group 6
GUA114	0.000	0.000	65.963	0.042
GUA115	0.000	0.000	4.274	0.008
GUA129	0.000	0.000	2.979	0.015
GUA130	0.000	0.000	53.733	4.200
GUA156	0.000	0.000	43.815	0.030
GUA157	0.000	0.000	39.610	0.001
GUA158	0.000	0.000	19.982	0.044
GUA171	0.000	0.000	48.981	0.562
GUA172	0.000	0.000	44.862	0.015
GUA173	0.000	0.000	69.389	0.129
GUA309	0.000	0.000	95.433	0.032
GUA312	0.000	0.000	99.860	2.738
GUA315	0.000	0.000	5.923	0.019
GUA316	0.000	0.001	67.393	0.154
GUA317	0.000	0.001	67.868	0.195
GUA318	0.000	0.000	61.073	1.597
GUA322	0.000	0.001	52.558	0.449

The following specimens are in Group 6

	Probabilities:			
ID. NO.	Group 2	Group 3	Group 4	Group 6
GUA120	0.000	0.002	0.002	15.345
GUA161	0.000	0.001	0.302	3.320
GUA174	0.000	0.077	0.060	84.073
GUA305	0.000	0.026	0.023	64.080
GUA306	0.002	0.628	0.040	24.920
GUA307	0.000	0.021	0.006	82.697
GUA310	0.000	0.126	0.017	39.201
GUA311	0.000	0.011	0.008	18.614
GUA313	0.000	0.000	0.000	54.721
GUA314	0.001	1.654	0.058	78.590
GUA319	0.000	0.003	0.001	81.725
GUA320	0.000	0.005	0.001	20.017
GUA321	0.000	0.001	0.004	33.821
GUA323	0.000	0.004	0.115	49.126
GUA324	0.000	0.232	0.018	72.685
GUA325	0.000	0.000	0.001	6.995
GUA326	0.000	0.028	0.024	64.964
GUA327	0.000	0.014	0.001	96.746
GUA328	0.000	0.093	0.002	40.455
GUA329	0.000	0.016	0.000	33.874
GUA331	0.000	0.472	0.003	56.272
GUA332	0.000	0.676	0.001	26.187
GUA333	0.000	0.001	0.001	84.459
GUA334	0.000	0.003	0.001	95.583
GUA335	0.000	0.008	0.000	38.218
GUA336	0.001	0.350	0.084	15.864

Table 5: Probability of Group membership based on a Mahalanobis distance projection using the first eight principal components.

MAHALANOBIS DISTANCE CALCULATION FOR MISCELLANEOUS SPECIMENS
PROJECTED AGAINST TWO OR MORE GROUPS.

Variables used:
Principal components 1-8

The following specimens are in Group 1

	Probabilities:			
ID. NO.	Group 2	Group 3	Group 4	Group 6
GUA106	0.000	0.000	0.000	0.000
GUA121	0.000	0.000	0.000	0.000
GUA124	0.000	0.000	0.000	0.000
GUA125	0.000	0.000	0.000	0.000

The following specimens are Unassigned

	Probabilities:			
ID. NO.	Group 2	Group 3	Group 4	Group 6
GUA104	0.000	0.134	0.008	0.173
GUA105	0.000	0.396	0.000	0.001
GUA108	0.007	0.532	0.001	0.005
GUA112	0.003	0.001	0.000	0.008
GUA113	0.000	0.001	4.524	14.086
GUA127	0.000	0.000	0.000	0.000
GUA134	0.975	0.001	0.000	0.000
GUA147	0.000	0.000	0.000	0.000
GUA149	0.000	0.002	0.000	0.000
GUA155	0.000	0.000	0.010	1.387
GUA159	0.000	0.000	0.015	0.918
GUA160	0.000	0.000	0.015	0.281
GUA162	0.000	0.000	0.064	0.413
GUA183	0.000	0.087	0.000	0.001
GUA185	0.000	0.029	0.000	0.000
GUA304	0.446	0.060	0.012	1.081
GUA330	0.000	0.000	2.257	6.470

Table 6: Tally of compositional group by site.

Site	**1**	**2**	**3**	**4**	**6**	**Unas**	total
Boise Cotlette, DM			2	1	2	2	7
Capucin, DM			3			2	5
Everton, DM	2						2
Grand Fond, DM						1	1
Indian River, DM			3				3
Landoff, DM	1		2				3
Tartane, DM			1	1			2
Toucari, DM			1			1	2
Woodford Hill, DM	1	2	1			1	5
Creve Coure, MT		9		2		3	14
Isle Chancel, MT		10					10
Trios River, GD			5				5
BB02				6	17	1	24
Chateau du Buc			2			2	4
Grand Anse			3				3
Grand Baie			5				5
Madame Trime		3					3
Morne Cabrit					1	3	4
Pointe Peteit Potterie			1	4	6		11
Pointe Borgnesse				3		1	4
Trios Ilet			5				5
total	4	24	34	17	26	17	122

Table 7: Tally of compositional group by type.

Type	**1**	**2**	**3**	**4**	**6**	**Unas**	total
Clay					1		1
Domestic Coil		10	5		21	5	41
Domestic Wheel		7	6	7		2	22
Industrial	4	7	23	10	4	10	58
total	4	24	34	17	26	17	122

Table 8: Tally of compositional group by form.

Form	**1**	**2**	**3**	**4**	**6**	**Unas**	total
Base				1			1
Bowl		2		5	7	1	15
Clay					1		1
Coc au Neg		10			1	2	13
Drip Jar					1		1
Flat					1		1
Jar		1	3	2	2	4	12
Open Bowl					2		2
Pitcher		3	4	2			9
Pot		1	1		2		4
Restricted Bowl					1		1
Storage		3	12	2		3	20
Sugar Cone		3	3	2			8
Sugar Jar				1		1	2
Tile	4		9	1	3		17
Unknown		1		1		6	8
NA			2		5		7
total	4	24	34	17	26	17	122