Table 5.--Chemical analyses and calculations of normative minerals, Barth's cations, Niggli values, and color index for selected samples from the Crater Flat Tuff and flow breccia in USW-G1

[Analyst: J. S. Wahlberg, J. Taggart, J. Baker; computer calculations made by methods reported by Stuckless and Van Trump, 1979; stratigraphic symbols defined on pl. 1; leaders (---) indicate minerals not identified]

Stratigraphic unit	Tcfp	Tcfb	Tcfb	Tcfb	Tcfb	Tcft	Tcfb	Tcfb	Tcft	Tcft	Tcft	Tcft	Tcft	Tfb	Tfb
Depth	1,943.4	2,354.6	2,397.4	2,461.5	2,470.6	2,678.3	2,507.0	2,557.0	2,678.0	2,772.6	2,851.7	2,931.4	3,013.9	3,724.0	3,908.2
SiO_2	74.70	75.00	74.30	75.20	75.20	74.20	74.50	69.80	69.40	73.10	73.80	74.40	74.50	56.30	53.70
Fe_2O_3	1.29	1.21	1.37	1.14	1.36	1.14	1.21	1.18	1.35	1.32	1.70	1.45	1.42	5.80	7.34
MgO	.19	.19	.19	.15	.14	.15	.16	.21	.27	.50	.31	.31	.35	2.15	2.34
CaO	.52	.64	.65	.57	.61	.61	.60	1.34	1.11	1.18	.91	.89	1.17	4.61	4.90
Na_2O	3.51	3.15	3.42	3.52	3.69	3.70	3.67	3.73	3.09	2.38	3.02	3.15	2.66	3.88	3.60
K_2O	5.10	4.94	4.77	4.79	4.87	5.00	4.92	3.15	4.62	4.38	5.17	4.97	4.64	1.36	1.02
TiO_2	.10	.11	.12	.10	.11	.10	.10	.11	.16	.15	.22	.17	.15	.93	.97
P_2O_5	---	---	---	---	---	---	---	---	---	---	.06	---	---	.06	.31
MnO	.02	.08	.07	.08	.08	.08	.09	.04	.03	.05	.08	.04	.04	.04	.05
H_2O	.91	.70	.88	.72	.58	.67	.57	7.34	5.84	3.15	.87	.89	2.28	5.54	6.20
TOTAL(-O)	99.44	98.82	98.97	99.17	99.84	98.95	99.02	99.40	98.57	99.11	99.14	99.07	99.61	99.22	99.03
ADJUSTED OXIDES - H_2O FREE															
SiO_2	75.81	76.44	75.75	76.38	75.76	75.50	75.67	75.82	74.84	76.18	75.10	75.78	76.54	60.10	57.85
Al_2O_3	13.30	13.05	13.46	13.10	13.30	13.53	13.41	13.58	13.70	13.44	13.23	13.04	12.74	19.53	20.04
Fe_2O_3	1.31	1.23	1.40	1.16	1.37	1.16	1.23	1.28	1.46	1.38	1.73	1.48	1.46	6.19	7.91
MgO	.19	.19	.19	.15	.14	.15	.16	.23	.29	.52	.32	.32	.36	2.30	2.52
CaO	.53	.65	.66	.58	.61	.62	.61	1.46	1.20	1.23	.93	.91	1.20	4.92	5.28
Na_2O	3.56	3.21	3.49	3.58	3.72	3.76	3.73	4.05	3.33	2.48	3.07	3.21	2.73	4.14	3.88
K_2O	5.18	5.03	4.86	4.87	4.91	5.09	5.00	3.42	4.98	4.56	5.26	5.06	4.77	1.45	1.10
TiO_2	.10	.11	.12	.10	.11	.10	.10	.12	.17	.16	.22	.17	.15	.99	1.04
P_2O_5	---	---	---	---	---	---	---	---	---	---	.06	---	---	.33	.33
MnO	.02	.08	.07	.08	.08	.08	.09	.04	.03	.05	.08	.04	.04	.04	.05
NORMATIVE MINERALS - H_2O FREE															
Q	33.867	36.810	35.148	35.500	33.834	32.573	33.317	35.699	33.393	40.872	34.808	35.332	39.291	17.419	16.960
C	.873	1.129	1.253	.902	.755	.704	.758	.563	.645	2.187	.941	.632	.899	2.995	3.670
Or	30.587	29.751	28.736	28.751	28.993	30.063	29.531	20.220	29.441	26.972	31.089	29.914	28.171	8.579	6.493
Ab	30.144	27.165	29.503	30.254	31.457	31.856	31.543	34.284	28.197	20.987	26.004	27.149	23.126	35.046	32.815
An	2.618	3.236	3.287	2.872	3.049	3.079	3.023	7.221	5.938	6.100	4.195	4.497	5.964	22.251	24.005
En	.480	.482	.482	.379	.351	.380	.405	.568	.725	1.298	.786	.786	.896	5.716	6.278
Mt	---	---	---	---	---	---	.004	---	---	---	---	---	---	---	---
Hm	1.309	1.233	1.397	1.158	1.370	1.160	1.226	1.282	1.456	1.376	1.730	1.477	1.495	6.191	7.907
Il	.043	.174	.153	.174	.172	.174	.193	.093	.069	.111	.174	.087	.088	.091	.115
Ru	.079	.020	.042	.010	.020	.010	---	.071	.136	.098	.132	.127	.108	.945	.984
Ap	---	---	---	---	---	---	---	---	---	---	.145	---	---	.784	.791
TOTAL	100.000	100.001	100.001	100.001	100.001	100.001	100.001	100.001	100.000	100.001	100.004	100.001	100.001	100.018	100.018
SALIC	98.089	98.091	97.927	98.280	98.087	98.277	98.173	97.987	97.614	97.118	97.038	97.523	97.450	86.291	83.943
FEMIC	1.912	1.910	2.074	1.721	1.914	1.724	1.828	2.013	2.386	2.882	2.967	2.478	2.550	13.727	16.075
BARTH'S CATIONS															
Si	70.90	71.75	70.94	71.50	70.84	70.46	70.69	70.84	70.10	71.90	70.57	71.13	72.20	55.95	54.13
Al	14.65	14.43	14.85	14.46	14.65	14.89	14.76	14.95	15.12	14.95	14.65	14.42	14.16	21.43	22.10
Fe+3	.92	.87	.98	.82	.96	.81	.86	.90	1.03	.98	1.22	1.04	1.04	4.34	5.57
Mg	.27	.27	.27	.21	.20	.21	.23	.32	.41	.73	.44	.44	.51	3.18	3.52
Ca	.53	.66	.66	.58	.62	.62	.61	1.46	1.20	1.24	.93	.91	1.21	4.91	5.29
Na	6.46	5.84	6.33	6.49	6.74	6.81	6.75	7.34	6.05	4.54	5.60	5.84	5.00	7.48	7.04
K	6.18	6.03	5.81	5.81	5.85	6.06	5.96	4.08	5.95	5.50	6.31	6.06	5.74	1.72	1.31
Ti	.07	.08	.09	.07	.08	.07	.07	.08	.12	.11	.16	.12	.11	.69	.74
P	---	---	---	---	---	---	---	---	---	---	.05	---	---	.26	.26
Mn	.02	.06	.06	.06	.06	.06	.07	.03	.03	.04	.06	.03	.03	.03	.04
NIGGLI VALUES															
Al	47.64	48.06	48.00	48.02	47.39	47.74	47.60	47.03	46.60	48.27	45.96	46.25	46.47	38.58	37.28
Fm	7.84	8.04	8.47	7.26	7.92	7.00	7.50	7.88	8.99	11.31	10.85	9.73	10.53	27.20	30.79
C	3.44	4.37	4.30	3.86	3.98	3.98	3.93	9.17	7.41	8.03	5.85	5.85	7.97	17.67	17.85
Alk	41.08	39.53	39.23	40.86	40.71	41.28	40.97	35.92	37.00	32.39	37.34	38.17	35.22	16.56	14.08
Si	461.02	477.87	458.46	475.07	458.10	451.99	455.86	445.67	432.15	464.19	442.71	456.24	435.22	201.39	182.62
Ri	.46	.53	.56	.48	.50	.46	.46	.53	.75	.72	.99	.78	.72	2.50	2.48
P	---	---	---	---	---	---	---	---	---	---	.15	---	---	.47	.45
K	.49	.51	.48	.47	.46	.47	.47	.36	.50	.55	.53	.51	.53	.19	.16
Mg	.22	.22	.21	.19	.16	.19	.19	.25	.28	.42	.26	.29	.32	.42	.39
Si'	264.30	258.13	256.92	263.43	262.86	265.10	263.89	243.66	248.01	229.56	249.37	252.66	240.89	166.23	156.32
Qz	196.71	219.74	201.54	211.63	195.25	186.88	191.97	202.00	184.14	234.62	193.33	203.58	232.93	35.16	26.30
Al_2O_3/SiO_2	.175	.171	.178	.172	.176	.179	.177	.179	.183	.176	.176	.172	.166	.325	.346
FeO/Fe_2O_3															
USER DEFINED VARIABLES															
C.I.	1.833	1.890	2.032	1.711	1.894	1.714	1.828	1.943	2.250	2.785	2.690	2.350	2.442	11.998	14.300