Table 11. Major (wt.%) and trace element (ppm) composition of metasedimentary and metavolcanic rocks from the Mbé – Sassa-Mbersi area.

Sample NB14 NB14 MM14 NB14 NB14 N14 NB14 NB14

01b 26ab 01 01a 02 01c 27a 27b

Type grt gn grt gn grt gn grt gn grt gn gn csr csr

SiO2 53.04 62.58 62.91 64.38 66.08 71.70 41.34 46.19

Al2O3 21.58 15.51 15.63 15.25 14.80 12.71 16.07 8.13

Fe2O3tot 6.31 8.73 8.28 9.17 7.26 5.47 9.30 8.74

MnO 0.07 0.18 0.15 0.17 0.12 0.08 0.16 0.24

MgO 2.63 3.91 3.28 3.08 2.41 1.17 7.88 8.22

CaO 5.28 2.26 3.17 2.31 2.67 1.60 16.32 19.79

Na2O 4.49 3.12 2.97 1.91 2.63 4.46 0.55 1.56

K2O 3.45 1.86 1.49 2.24 1.74 1.46 1.69 0.88

TiO2 1.50 0.96 0.99 1.10 1.01 0.50 0.80 0.74

P2O5 0.86 0.20 0.21 0.17 0.06 0.07 1.31 4.10

LOI 1.55 0.54 0.55 0.74 0.99 1.22 3.87 1.60

Total 100.75 99.84 99.64 100.51 99.77 100.44 99.30 100.19

Ba 2513 570 597 727 726 750 805 465

Be 1.2 0.7 0.8 0.7 0.6 1.0 1.6 2.0

Co 16.0 25.3 26.2 24.9 20.1 16.0 23.6 28.5

Cr 19 440 498 120 241 1247 240 817

Cs 1.1 0.5 0.2 1.3 0.8 0.1 0.2 0.2

Ga 30.5 18.8 17.9 20.1 19.4 17.5 32.8 23.6

Hf 8.3 4.9 5.3 6.4 8.7 17.3 10.1 5.6

Mo - 33.1 40.5 0.6 19.1 138.3 24.8 87.9

Nb 15.2 9.2 9.6 13.1 14.1 7.7 56.7 22.7

Ni 15.8 248 270 61 134 732 153 483

Rb 101 55 40 82 68 28 57 37

Sc 5.6 23.7 21.0 23.7 16.8 5.4 19.9 21.6

Sn 0.8 0.9 2.9 1.5 1.0 2.9 7.7 4.0

Sr 1348 303 504 205 355 406 1672 895

Ta 1.3 0.7 0.4 1.2 1.2 0.2 4.5 1.6

Th 2.1 6.0 3.6 9.8 23.3 5.7 12.5 12.6

U 0.7 0.9 0.3 1.5 1.5 0.5 2.7 3.5

V 102 160 128 170 138 37 80 93

W 0.9 1.1 0.9 1.0 1.0 3.1 1.0 2.4

Y 14.6 38.0 34.4 38.4 26.9 28.4 64 103

Zn 117 136 104 119 104 110 147 133

Zr 395 183 209 242 347 695 413 191

La 31.54 25.91 24.26 33.96 62.49 46.19 114.20 292.20

Ce 76.35 55.79 52.48 72.43 126.30 104.70 300.70 703.40

Pr 10.53 6.87 6.52 8.60 13.85 12.56 43.66 97.19

Nd 45.54 27.80 26.23 32.86 50.46 51.29 200.10 386.00

Sm 11.06 5.98 5.69 6.77 8.60 10.32 42.37 70.19

Eu 2.88 1.47 1.60 1.64 1.78 2.36 11.88 14.56

Gd 7.54 5.64 5.34 6.32 6.17 8.47 30.21 47.60

Tb 0.83 0.96 0.90 1.05 0.86 1.14 3.80 5.77

Dy 3.61 6.43 5.84 6.80 5.04 6.22 17.86 26.74

Ho 0.54 1.42 1.29 1.45 1.02 1.19 2.78 4.15

Er 1.22 3.86 3.47 3.89 2.77 2.93 5.76 8.82

Tm 0.14 0.57 0.52 0.58 0.41 0.38 0.61 0.91

Yb 0.91 3.94 3.58 3.98 2.75 2.55 3.38 5.16

Lu 0.13 0.61 0.55 0.60 0.42 0.41 0.44 0.69

Fe2O3tot = total iron as Fe3+; LOI = lost on ignition; - = below detection limit; gn = gneiss; csr = calc-silicate rock; grt = garnet.