

TABLE DR1. COMPARISON BETWEEN HIGH-Mg ROCKS OF THE GLENELG RIVER COMPLEX (GRC) AND BONINITES FROM TYPE LOCALITIES

	GRC HGD*	GRC HD†	GRC HT§	Average Setouchi	Mariana trench	Bonin Islands	Mount Dryden
wt%							
SiO <sub>2</sub>	53.97	54.76	60.31	55.87	54.75	56.20	53.70
TiO <sub>2</sub>	0.31	0.43	0.72	0.63	0.26	0.23	0.29
Al <sub>2</sub> O <sub>3</sub>	7.19	13.92	15.50	15.38	13.28	10.57	14.00
Fe <sub>2</sub> O <sub>3t</sub>	7.82	7.92	7.24	6.88	8.31	8.87	9.53
MgO	13.90	9.25	3.81	8.25	10.72	11.19	9.80
CaO	13.24	7.98	6.34	6.94	8.11	7.44	9.38
Na <sub>2</sub> O	1.20	2.13	2.51	2.79	1.50	1.54	3.15
K <sub>2</sub> O	0.51	1.74	2.80	1.72	0.91	0.71	0.77
Mg#	0.78	0.70	0.51	0.70	0.71	0.71	0.67
CaO/Al <sub>2</sub> O <sub>3</sub>	1.84	0.57	0.41	0.45	0.61	0.70	0.62
Al <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub>	23	32	22	24	51	46	48
ppm							
Sc	69	33	28	22	30	38	34
V	194	207	169	N.D.#	164	164	165
Cr	1795	660	60	451	548	695	359
Ni	181	164	23	173	184	194	66
Rb	15	67	102	75	N.D.	9	18
Sr	116	194	273	275	90	61	167
Y	14	15	21	15	10	5	4
Zr	49	53	172	94	50	20	38
Nb	2.5	3	9	5	4	1	N.D.
Ba	130	245	690	269	N.D.	30	N.D.
La	9	7.4	24	12.5	N.D.	0.8	N.D.
Th	2	2.8	10	4.5	N.D.	0.1	N.D.
Ti/Zr	40	49	25	40	31	69	46
Ti/Sc	27	78	154	172	52	36	51
Ti/V	9.6	12	25	N.D.	9.5	8.4	11

*Note:* The Glenelg River Complex gabbro-diorite is a cumulate rock, the hornblende diorite is phenocryst-free and approaches a liquid composition, whereas the tonalite has undergone considerable fractionation. Samples are stored in the collections of the Department of Geology, the Australian National University, Canberra. The Setouchi average (n = 31) is calculated from data in Tatsumi and Ishizaka (1982) and Shimoda *et al.* (1998); other analyses are from the sources quoted in Table 1.1 of Crawford *et al.* (1989). The Mount Dryden high-Mg andesite (Mount Stavelly Greenstone belt, western Victoria) is the most primitive sample quoted by Crawford (1988).

\* Hornblende gabbro-diorite, sample 97-320

† Hornblende diorite, sample 97-236

§ Hornblende tonalite, sample 98-CP12

#N.D. = no data available