

Table 6. Whole-rock analyses of basalts, Site 756.

Pellet Hole	L11726	L11727	L11728	L11729	L11730	L11731	L11732	L11733	L11734	L11735	L11736	L11737	L11738	L11739	L11740	L11741	L11742	L11743	L11744	L11745	L11746	L11747
Core, section	756C	756C	756C	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D	756D
Interval (cm)	10N-1	10N-2	12N-1	4R-1	4R-1	4R-1	5R-1	6R-2	6R-3	7R-1	7R-2	7R-4	8R-1	9R-2	9R-3	9R-4	10R-3	11R-1	12R-2	12R-2	12R-3	
Unit	756C-1	756C-1	756C-2	756D-1	756D-1	756D-2	756D-2	756D-5	756D-5	756D-5	756D-6	756D-6	756D-6	756D-7	756D-9	756D-9	756D-10	756D-12	756D-13	756D-14	756D-14	756D-14
SiO ₂	47.9	48.6	48.8	48.9	48.2	49.2	49.3	48.4	48.7	49.2	49.4	49.4	49.1	49.5	50.6	49.2	48	49.5	49.2	49.6	49.5	50
TiO ₂	2.54	2.69	2.18	2.6	2.65	2.59	2.84	2.09	2.14	2.12	2.41	2.27	2.26	2.06	2.07	2.03	2.19	1.99	1.93	2.06	2.06	2.07
Al ₂ O ₃	15.2	15.3	16	15.9	15.3	15.6	15.7	15.4	15.3	15.9	16	15.6	15	15.1	15.4	14.7	16.3	14.6	15.3	15	14.9	14.8
*Fe ₂ O ₃	1.4	1.6	1.6	1.5	1.7	1.5	1.8	1.5	1.5	1.5	1.4	1.5	1.5	1.6	1.4	1.5	1.7	1.5	1.5	1.5	1.5	1.5
*FeO	9.4	10.9	10.5	10.3	11.3	10.1	11.7	10.2	10.3	9.7	9.7	9.7	10.3	10.6	9.2	10	11.5	10	10	9.7	9.8	10
MnO	0.18	0.17	0.16	0.15	0.17	0.15	0.16	0.17	0.17	0.17	0.13	0.15	0.17	0.13	0.14	0.18	0.15	0.18	0.16	0.15	0.17	0.16
MgO	6	6.6	6.8	5.3	5.4	6.5	5.6	7.4	7	7.3	6.8	6.6	7.3	7.2	7.1	7.8	5.1	7.7	7.6	7.5	8	7.3
CaO	11.5	10.9	10.2	10.8	11.1	10.5	9.4	10.8	11.1	11.1	10.5	11.1	10.7	10.4	11.4	11.6	11.6	11.4	11.3	10.9	11.4	11.2
Na ₂ O	2.8	2.7	2.4	3	2.9	2.8	2.5	2.6	2.5	2.6	2.9	2.7	2.6	2.4	2.5	2.5	2.7	2.4	2.4	2.2	2.6	2.5
K ₂ O	0.46	0.48	0.64	0.65	0.47	0.59	0.63	0.22	0.5	0.3	0.21	0.2	0.37	0.55	0.36	0.65	0.44	0.2	0.76	0.21	0.36	0.53
P ₂ O ₅	0.24	0.25	0.2	0.26	0.24	0.24	0.24	0.18	0.18	0.19	0.21	0.17	0.17	0.21	0.17	0.17	0.16	0.17	0.16	0.24	0.18	0.45
LOI	0.35	0.99	2.07	0.58	0.66	1.26	1.64	1.01	1.18	0.91	0.85	0.52	0.91	2.01	0.89	0.87	3.29	0.65	1.31	1.19	0.66	1.07
Total	97.62	100.19	99.48	99.36	99.43	99.77	99.87	98.96	99.39	100.08	99.82	99.77	99.68	99.85	100.42	99.88	100.16	99.65	99.91	99.38	100.29	100.16
*CIPW norms																						
Qz	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Or	2.7	2.8	3.8	3.9	2.8	3.5	3.8	1.3	3	1.8	2.2	3.2	3.3	3.9	2.6	1.2	4.5	1.3	2.1	3.1	1.1	2.7
Ab	23.9	22.5	20.3	25.1	24.4	23.8	21.2	22.3	21.3	21.7	24.9	23.2	21.8	20.7	20.9	20.9	23.2	20.7	20.1	18.4	21.7	21
An	27.5	28.4	31.1	28.3	27.5	28.1	29.8	29.6	28.9	31.1	29.5	28.5	27.8	28.4	29.6	28.6	29.8	28.4	30	29.7	28.6	28
Ne	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Di	22.8	20	14.9	19.7	21.7	18.6	12.7	18.8	20.4	18.8	17.3	20.9	19.8	18.1	21.2	22.9	22.2	22.3	20.7	18.7	21.8	21.8
Hy	6	11	17.6	8.5	6.6	12.3	23.1	11.9	11.3	14.2	12.6	10.7	13.2	17.3	19.3	13.4	0.5	16.7	14.9	22.5	14.4	17
Ol	7.2	7.4	4.9	6.4	8.5	5.9	0	8.5	7.8	6	6.4	6.3	6.8	4.9	0.4	6.6	13	4.1	6	0.5	6.2	3.2
Mt	2.04	2.38	2.28	2.24	2.46	2.2	2.54	2.21	2.25	2.11	2.1	2.11	2.23	2.3	1.99	2.18	2.5	2.17	2.18	2.11	2.14	2.17
Hm	4.82	5.11	4.14	4.94	5.03	4.92	5.39	3.97	4.06	4.03	4.58	4.31	4.29	3.91	3.93	3.86	4.16	3.78	3.67	3.91	3.91	3.93
Ap	0.56	0.59	0.46	0.6	0.56	0.55	0.55	0.41	0.42	0.43	0.49	0.46	0.44	0.48	0.39	0.39	0.37	0.38	0.36	0.56	0.41	0.41
Trace elements in parts per million																						
Nb	12	13	10	13	13	12	13	10	9	10	11	10	11	9	9	9	7	8	8	8	10	
Zr	160	170	123	163	165	163	167	118	123	120	146	135	137	118	117	111	120	111	107	114	117	
Y	34	38	31	44	38	36	37	32	32	30	28	32	35	29	30	29	26	29	28	29	28	32
Sr	201	182	156	198	194	178	156	171	174	176	192	194	181	154	171	167	174	167	163	168	165	163
Rb	8	12	28	14	10	47	19	1	21	3	8	61	60	24	14	6	12	3	12	44	3	21
Th (XRF)	2	5	1	3	2	1	1	2	0	1	3	3	2	2	1	2	2	5	1	3	4	3
Ga	25	24	22	25	24	23	24	23	20	20	24	24	22	22	22	21	23	23	21	22	21	19
Zn	117	111	108	189	142	121	117	70	63	100	101	98	102	104	99	97	105	98	97	95	96	95
Ni	78	66	89	64	60	58	77	70	67	67	86	75	78	106	79	79	73	77	85	76	80	75
V	373	365	315	409	421	383	326	318	317	326	347	319	308	277	313	316	311	306	313	315	333	324
Cr	220	205	281	168	150	164	222	274	268	275	241	226	223	284	258	258	315	258	278	213	237	213
Ba	66	61	31	48	40	37	57	44	40	46	47	59	53	47	38	39	38	39	29	39	39	41
La (XRF)	10	13	9	12	11	11	12	9	9	11	8	8	11	9	8	6	8	9	8	8	6	9
Ce (XRF)	24	31	20	35	25	32	26	22	23	18	26	24	27	27	20	18	18	19	17	20	19	17
Nd (XRF)	20	21	12	21	19	19	18	11	15	14	17	15	16	16	13	15	11	11	12	12	13	14
La (NAA)	n.d.	11.8	8.2	12.2	n.d.	11.6	n.d.	n.d.	n.d.	8.3	n.d.	10.4	n.d.	9	n.d.	8.9	n.d.	n.d.	n.d.	9	n.d.	n.d.
Ce (NAA)	n.d.	32.8	24.6	33.3	n.d.	29	n.d.	n.d.	n.d.	24.9	n.d.	23.5	n.d.	15.9	n.d.	15	n.d.	n.d.	n.d.	21.6	n.d.	n.d.
Nd (NAA)	n.d.	16.6	14.9	21.9	n.d.	20.2	n.d.	n.d.	n.d.	15.2	n.d.	17.4	n.d.	4.12	n.d.	4.1	n.d.	n.d.	n.d.	14.7	n.d.	n.d.
Sm (NAA)	n.d.	5.43	4.24	5.72	n.d.	5.1	n.d.	n.d.	n.d.	4.22	n.d.	4.59	n.d.	4.12	n.d.	4.1	n.d.	n.d.	n.d.	4.21	n.d.	n.d.
Eu (NAA)	n.d.	1.71	1.35	1.72	n.d.	1.52	n.d.	n.d.	n.d.	1.31	n.d.	1.42	n.d.	1.23	n.d.	1.23	n.d.	n.d.	n.d.	1.2	n.d.	n.d.
Tb (NAA)	n.d.	1.05	0.94	1.18	n.d.	0.95	n.d.	n.d.	n.d.	0.82	n.d.	0.88	n.d.	0.81	n.d.	0.72	n.d.	n.d.	n.d.	0.73	n.d.	n.d.
Yb (NAA)	n.d.	3.56	2.92	3.73	n.d.	3.33	n.d.	n.d.	n.d.	0.64	n.d.	0.64	n.d.	0.64	n.d.	0.64	n.d.	n.d.	n.d.	0.48	n.d.	n.d.
Lu (NAA)	n.d.	0.46	0.36	0.62	n.d.	0.47	n.d.	n.d.	n.d.	0.39	n.d.	0.42	n.d.	0.39	n.d.	0.41	n.d.	n.d.	n.d.	0.39	n.d.	n.d.
Ta (NAA)	n.d.	0.88	0.62	0.95	n.d.	0.85	n.d.	n.d.	n.d.	0.64	n.d.	0.72	n.d.	0.76	n.d.	0.64	n.d.	n.d.	n.d.	0.63	n.d.	n.d.
Hf (NAA)	n.d.	4.28	2.71	3.87	n.d.	4.2	n.d.	n.d.	n.d.	3.09	n.d.	3.08	n.d.	2.89	n.d.	2.51	n.d.	n.d.	n.d.	2.92	n.d.	n.d.
Th (NAA)	n.d.	1.31	0.68	1.17	n.d.	1.2	n.d.	n.d.	n.d.	0.9	n.d.	1.13	n.d.	1.09	n.d.	0.86	n.d.	n.d.	n.d.	0.96	n.d.	n.d.
U (NAA)	n.d.	0.17	0.38	0.39	n.d.	0.39	n.d.	n.d.	n.d.	0.55	n.d.	0.95	n.d.	0.12	n.d.	0.47	n.d.	n.d.	n.d.	0.48	n.d.	n.d.
W (NAA)	n.d.	n.d.	4.9	3.2	n.d.	n.d.	n.d.	n.d.	n.d.	5.5	n.d.	3.2	n.d.	8.9	n.d.	3.7	n.d.	n.d.	n.d.	6.2	n.d.	n.d.
Sc (NAA)	n.d.	44.4	42.3	49.1	n.d.	43.2	n.d.	n.d.	n.d.	n.d.	42.1	n.d.	42.1	n.d.	40.3	n.d.	41.8	n.d.	n.d.	44.1	n.d.	n.d.
La (ICP)	n.d.	10.4	8.3	10.8	n.d.	9.8	n.d.	n.d.	n.d.	8.3	n.d.	8.9	n.d.	9.								

Table 7. Whole-rock analyses of basalts, Site 757.

	L11748	L11749	L11750	L11751	L11752	L11753	L11754	L11755	L11756	L11757	L11758	L11759	L11760	L11761	L11762	L11763	L11764	L11765	L11766	L11767	L11768	L11769	L11770	L11771	L11772	L11773	L11774	L11775	L11776	L11777
Pellet	757B	757B	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	757C	
Hole	41X-1	41X-1	8R-2	9R-1	9R-2	9R-2	9R-4	9R-5	9R-6	9R-6	9R-7	9R-7	9R-8	10R-1	10R-2	10R-2	10R-2	10R-3	11R-1	11R-1	11R-2	11R-2	11R-2	11R-3	12R-1	12R-1	12R-2	12R-3	12R-4	
Core, section	54-58	123-127	146-150	15-19	0-10	88-92	64-68	26-30	12-15	107-110	57-61	77-81	48-54	54-58	51-55	98-102	112-116	82-87	115-118	118-122	118-122	128-132	104-109	39-43	104-110	17-21	32-37	36-41	74-78	
Interval (cm)	757B-1	757B-1	757C-2	757C-2	757C-2	757C-2	757C-3	757C-4	757C-5	757C-5	757C-5	757C-5	757C-6	757C-6	757C-6	757C-8	757C-9	757C-10	757C-11	757C-12	757C-12	757C-13	757C-14	757C-17	757C-18	757C-18	757C-18	757C-19	757C-19	
Unit	757B-1	757B-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-II	757C-II	757C-II	757C-II	757C-II	757C-II	757C-II	
Chemical type	757B-1	757B-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-1	757C-II	757C-II	757C-II	757C-II	757C-II	757C-II	757C-II	
Plagioclase	41.8	27	28.4	39	n.d.	33.6	44.9	48.5	49	44	38	42.4	42.5	44	41	42.2	37.2	31.2	27.4	24.8	34.2	30.2	n.d.	18.2	n.d.	n.d.	20.3	17.3	18.6	13.2
SiO ₂	49	48.9	48.9	49.4	48.9	47.9	46.5	47.8	49	48.2	46.1	48.8	49	47.7	48.9	48	49.1	48.9	50.2	49.3	49.1	49.2	49.2	48.6	51.9	52	51.6	49.7	51.5	49.5
TiO ₂	0.7	0.71	0.78	0.8	0.76	0.76	0.72	0.7	1.45	0.77	0.69	0.77	0.78	0.67	0.72	0.69	0.79	0.79	1.01	0.94	0.97	1.09	0.92	0.97	0.97	0.93	0.93	0.99	0.98	1.01
Al ₂ O ₃	22.8	23.3	22.9	22.8	22.5	22.9	23.2	23.5	16.1	23.1	21.9	22.7	22.2	24.2	24.2	24.2	23.9	23.4	21.3	21.6	20.8	19.5	1	18.9	18.7	18.9	19	19.3	19.3	
*Fe ₂ O ₃	0.8	0.8	0.8	0.8	0.8	0.7	0.9	0.9	1.5	0.8	1	0.8	0.9	0.7	0.8	0.7	0.8	0.9	1	1	1	1.2	1	1.1	1	1.1	1.1	1.1	1.1	1.2
*FeO	5.4	5	5.5	5.2	5.5	4.9	5.8	6	9.9	5.2	7	5.5	5.8	4.5	5.1	5	5.5	5.8	6.8	6.8	6.9	8.1	6.4	7	6.7	6.1	7.4	7.5	7.9	
MnO	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.06	0.12	0.07	0.09	0.07	0.08	0.06	0.06	0.05	0.06	0.07	0.09	0.09	0.09	0.08	0.11	0.09	0.18	0.17	0.1	0.09	0.1	0.1
MgO	6.2	6.5	6.4	6.1	6	6	4.9	5.1	7.3	5.6	5.3	6	5.8	5.6	5.1	5.8	5.9	6.3	7.2	7.1	6.7	7.1	5.7	6.2	5.7	5.4	5.8	5.9	5.8	5.9
CaO	13.6	12.7	12.9	13.4	13.8	13.6	12.9	12.9	9.3	13.4	13.7	12.8	12.6	13.7	11.2	10	9.1	9.9	7.4	9.3	9.8	10.1	10.1	11	12.2	10.1	9.5	8.9	9.5	9.5
Na ₂ O	1.8	1.9	1.8	1.9	1.9	1.9	3.4	3.6	2	2	1.9	2.1	2.3	3.2	3.2	3.4	2.7	2.8	2.8	3.4	3.7	4	3.5	2.5	2.6	2.5	2.9	3	4	4
K ₂ O	0.26	0.25	0.88	0.22	0.13	0.26	1	1.06	1.62	0.92	0.29	0.86	0.99	0.96	1.3	1.71	1.6	1.51	1.79	1.11	1.57	2.83	1.08	1.97	1.13	0.7	1.74	1.85	1.9	1.32
P ₂ O ₅	0.06	0.06	0.07	0.07	0.07	0.07	0.08	0.14	0.07	0.08	0.07	0.08	0.07	0.08	0.09	0.12	0.1	0.07	0.09	0.09	0.07	0.08	0.09	0.09	0.09	0.09	0.08	0.09	0.1	0.1
LOI	1.2	1.5	2.3	1.1	1	1.3	7.1	4.8	6.9	3	3.1	2.2	2.1	5.4	6	7.9	7.1	6.8	6.1	6.3	8.4	6.8	6.2	7.1	0.6	1.4	1.5	3.7	3.4	6
Total	100.7	100.2	101.01	100.77	100.44	99.06	99.46	100.5	100.03	100.13	98.14	100.28	100.32	100.47	100.66	99.44	100.27	100.37	99.66	100.13	100.42	98.39	100.08	98.51	99.87	99.99	100.25	98.62	100.38	99.83
*CIPW norms																														
Qz	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0.9	0	0	0	0
Cor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Or	1.5	1.5	5.2	1.3	0.7	1.5	5.9	6.3	9.6	5.4	1.7	5.1	5.9	5.7	7.7	10.1	9.5	8.9	10.6	6.6	9.3	16.7	6.4	11.7	6.7	4.2	10.3	10.9	11.3	7.8
Ab	15.6	15.7	15.2	16.3	16.3	16.4	11	15.9	21.4	16.5	16.4	15.7	17.6	13.7	20.2	17.8	23.9	22.7	23.8	23.8	20.8	25.2	23.1	17.4	21.5	21.8	20.7	24.4	25.7	24.6
An	53.3	54.6	51.7	53	52.6	53.1	45.3	50	23	51.6	50	51.1	48.4	52.8	47.9	46.5	44.5	47.2	36.1	43.2	36.8	26.8	37.4	30.2	36.3	38	35.5	33.4	34	31.1
Ne	0	0	0	0	0	0	9.5	2.5	5	0	0.2	0	0	3.3	3.8	5.1	2.4	0.3	0	0	4.4	3.3	6	0	0	0	0	0	0	4.8
Di	11	6.5	9.4	10.8	12.4	11.2	14.8	10.9	18.3	11.6	14.3	9.8	10.9	11.9	5.7	2.2	0	0.8	0	1.7	9.3	0	10.2	15.7	14.4	17.9	11.6	10.6	7.9	12.7
Hy	12.4	16.1	8.3	14.2	11.9	6.8	10.2	12	17.6	10.5	12.4	8.7	5.8	0	0	0	0	0	13.8	6.3	0	0	0	0	17.3	13.9	14.2	1	7	0
Ol	4.4	3.3	8.2	2.6	3.8	6.8	10.2	12	17.6	10.5	12.4	8.7	5.8	0	0	0	0	0	13.8	6.3	0	0	0	0	17.3	13.9	14.2	1	7	0
Mt	1.2	1.1	1.2	1.1	1.2	1.1	1.3	1.3	2.2	1.1	1.5	1.2	1.3	1	1.1	1.1	1.2	1.3	1.5	1.5	1.5	1.8	1.4	1.5	1.5	1.3	1.6	1.6	1.6	1.7
Ilm	1.3	1.4	1.5	1.5	1.4	1.4	1.4	1.3	2.8	1.5	1.3	1.5	1.5	1.3	1.4	1.3	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9
Ap	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Trace elements in parts per million																														
Nb	3	3	3	4	3	3	4	3	6	3	3	4	3	4	3	2	3	3	5	3	5	4	9	9	10	10	12	11	10	10
Zr	38	38	43	44	41	41	31	32	63	41	37	42	42	31	27	27	29	34	48	40	39	55	44	151	168	159	154	201	199	156
Y	12	10	12	13	14	12	12	12	21	12	14	15	11	11	11	11	14	13	15	17	15	28	30	32	30	37	35	34	34	34
Sr	185	186	190	191	181	193	412	280	731	225	178	235	189	235	470	404	543	297	185	393	500	180	327	302	167	166	163	188	170	186
Rb	3	5	27	6	3	2	16	17	27	5	13	22	19	19	19	18	24	26	16	20	27	15	18	17	10	22	12	17	10	
Th (XRF)	1	0	1	3	0	0	0	6	0	0	3	0	4	2	2	0	2	2	0	1	1	1	1	1	3	0	0	3	0	5
Ga	20	19	19	19	19	19	17	18	16	19	18	18	18	17	15	17	14	18	15	18	16	15	18	19	20	19	22	23	19	19
Zn	47	47	47	51	48	48	44	45	83	45	45	49	48	39	42	41	45	47	54	52	55	58	52	70	72	67	70	88	80	73
Ni	68	71	62	70	68	64	51	57	88	60	60	68	61	54	47	41	55	54	39	42	41	45	42	43	43	43	43	43	43	44
V	178	177	171	199	173	199	142	260	538	162	161	160	134	141	111	133	142	205	183	205	223	211	210	216	208	203	189	174	194	
Cr	187	214	175	191	183	194	162	171	290	168	178	179	175	158	171	173	198	182	126	114	110	138	102	103	106	107	117	104	114	114
Ba	17	20	27	21	22	18	14	18	39	33	20	34	27	26	24	27	26	24	5	4	5	4	3	12	14	12	15	14	14	
La (XRF)	5	5	6	4	3	5	5	5	5	3	5	1	4	4	5	4	5	4	5	8	6	8	6	5	17	18	15	20	18	16
Ce (XRF)	8	12	5	11	12	9	9	10	15	10	6	12	8	10	6	10	8	12	12	11	11	7	30	31	26	26	31	33	25	25
Nd (XRF)	5	8	5	9	5	5	7	11	7	6	6	5	5	5	5	6	5	5	8	6	8	6	5	17	18					

Table 8. Whole-rock analyses of basalts, Site 758.

Pellet	L11778	L11779	L11780	L11781	L11782	L11783	L11784	L11785	L11786	L11787	L11788	L11789	L11790	L11791	L11792	L11793	L11794	L11795	L11796	L11797	L11798	L11799	L11800	L11801	L11802	L11803	L11804	L11805	L11806	L11807	L11808	L11809	L11810	L11811	L11812	L11813	L11814	L11815	L11816	L11817	L11818	L11819	L11820	L11821	L11822	L11823	L11824	L11825	L11826	L11827	L11828	L11829	L11830	L11831																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Core (section)	558-1	558-2	558-3	558-4	558-5	558-6	558-7	558-8	558-9	558-10	558-11	558-12	558-13	558-14	558-15	558-16	558-17	558-18	558-19	558-20	558-21	558-22	558-23	558-24	558-25	558-26	558-27	558-28	558-29	558-30	558-31	558-32	558-33	558-34	558-35	558-36	558-37	558-38	558-39	558-40	558-41	558-42	558-43	558-44	558-45	558-46	558-47	558-48	558-49	558-50	558-51	558-52	558-53	558-54	558-55	558-56	558-57	558-58	558-59	558-60	558-61	558-62	558-63	558-64	558-65	558-66	558-67	558-68	558-69	558-70	558-71	558-72	558-73	558-74	558-75	558-76	558-77	558-78	558-79	558-80	558-81	558-82	558-83	558-84	558-85	558-86	558-87	558-88	558-89	558-90	558-91	558-92	558-93	558-94	558-95	558-96	558-97	558-98	558-99	558-100	558-101	558-102	558-103	558-104	558-105	558-106	558-107	558-108	558-109	558-110	558-111	558-112	558-113	558-114	558-115	558-116	558-117	558-118	558-119	558-120	558-121	558-122	558-123	558-124	558-125	558-126	558-127	558-128	558-129	558-130	558-131	558-132	558-133	558-134	558-135	558-136	558-137	558-138	558-139	558-140	558-141	558-142	558-143	558-144	558-145	558-146	558-147	558-148	558-149	558-150	558-151	558-152	558-153	558-154	558-155	558-156	558-157	558-158	558-159	558-160	558-161	558-162	558-163	558-164	558-165	558-166	558-167	558-168	558-169	558-170	558-171	558-172	558-173	558-174	558-175	558-176	558-177	558-178	558-179	558-180	558-181	558-182	558-183	558-184	558-185	558-186	558-187	558-188	558-189	558-190	558-191	558-192	558-193	558-194	558-195	558-196	558-197	558-198	558-199	558-200	558-201	558-202	558-203	558-204	558-205	558-206	558-207	558-208	558-209	558-210	558-211	558-212	558-213	558-214	558-215	558-216	558-217	558-218	558-219	558-220	558-221	558-222	558-223	558-224	558-225	558-226	558-227	558-228	558-229	558-230	558-231	558-232	558-233	558-234	558-235	558-236	558-237	558-238	558-239	558-240	558-241	558-242	558-243	558-244	558-245	558-246	558-247	558-248	558-249	558-250	558-251	558-252	558-253	558-254	558-255	558-256	558-257	558-258	558-259	558-260	558-261	558-262	558-263	558-264	558-265	558-266	558-267	558-268	558-269	558-270	558-271	558-272	558-273	558-274	558-275	558-276	558-277	558-278	558-279	558-280	558-281	558-282	558-283	558-284	558-285	558-286	558-287	558-288	558-289	558-290	558-291	558-292	558-293	558-294	558-295	558-296	558-297	558-298	558-299	558-300	558-301	558-302	558-303	558-304	558-305	558-306	558-307	558-308	558-309	558-310	558-311	558-312	558-313	558-314	558-315	558-316	558-317	558-318	558-319	558-320	558-321	558-322	558-323	558-324	558-325	558-326	558-327	558-328	558-329	558-330	558-331	558-332	558-333	558-334	558-335	558-336	558-337	558-338	558-339	558-340	558-341	558-342	558-343	558-344	558-345	558-346	558-347	558-348	558-349	558-350	558-351	558-352	558-353	558-354	558-355	558-356	558-357	558-358	558-359	558-360	558-361	558-362	558-363	558-364	558-365	558-366	558-367	558-368	558-369	558-370	558-371	558-372	558-373	558-374	558-375	558-376	558-377	558-378	558-379	558-380	558-381	558-382	558-383	558-384	558-385	558-386	558-387	558-388	558-389	558-390	558-391	558-392	558-393	558-394	558-395	558-396	558-397	558-398	558-399	558-400	558-401	558-402	558-403	558-404	558-405	558-406	558-407	558-408	558-409	558-410	558-411	558-412	558-413	558-414	558-415	558-416	558-417	558-418	558-419	558-420	558-421	558-422	558-423	558-424	558-425	558-426	558-427	558-428	558-429	558-430	558-431	558-432	558-433	558-434	558-435	558-436	558-437	558-438	558-439	558-440	558-441	558-442	558-443	558-444	558-445	558-446	558-447	558-448	558-449	558-450	558-451	558-452	558-453	558-454	558-455	558-456	558-457	558-458	558-459	558-460	558-461	558-462	558-463	558-464	558-465	558-466	558-467	558-468	558-469	558-470	558-471	558-472	558-473	558-474	558-475	558-476	558-477	558-478	558-479	558-480	558-481	558-482	558-483	558-484	558-485	558-486	558-487	558-488	558-489	558-490	558-491	558-492	558-493	558-494	558-495	558-496	558-497	558-498	558-499	558-500	558-501	558-502	558-503	558-504	558-505	558-506	558-507	558-508	558-509	558-510	558-511	558-512	558-513	558-514	558-515	558-516	558-517	558-518	558-519	558-520	558-521	558-522	558-523	558-524	558-525	558-526	558-527	558-528	558-529	558-530	558-531	558-532	558-533	558-534	558-535	558-536	558-537	558-538	558-539	558-540	558-541	558-542	558-543	558-544	558-545	558-546	558-547	558-548	558-549	558-550	558-551	558-552	558-553	558-554	558-555	558-556	558-557	558-558	558-559	558-560	558-561	558-562	558-563	558-564	558-565	558-566	558-567	558-568	558-569	558-570	558-571	558-572	558-573	558-574	558-575	558-576	558-577	558-578	558-579	558-580	558-581	558-582	558-583	558-584	558-585	558-586	558-587	558-588	558-589	558-590	558-591	558-592	558-593	558-594	558-595	558-596	558-597	558-598	558-599	558-600	558-601	558-602	558-603	558-604	558-605	558-606	558-607	558-608	558-609	558-610	558-611	558-612	558-613	558-614	558-615	558-616	558-617	558-618	558-619	558-620	558-621	558-622	558-623	558-624	558-625	558-626	558-627	558-628	558-629	558-630	558-631	558-632	558-633	558-634	558-635	558-636	558-637	558-638	558-639	558-640	558-641	558-642	558-643	558-644	558-645	558-646	558-647	558-648	558-649	558-650	558-651	558-652	558-653	558-654	558-655	558-656	558-657	558-658	558-659	558-660	558-661	558-662	558-663	558-664	558-665	558-666	558-667	558-668	558-669	558-670	558-671	558-672	558-673	558-674	558-675	558-676	558-677	558-678	558-679	558-680	558-681	558-682	558-683	558-684	558-685	558-686	558-687	558-688	558-689	558-690	558-691	558-692	558-693	558-694	558-695	558-696	558-697	558-698	558-699	558-700	558-701	558-702	558-703	558-704	558-705	558-706	558-707	558-708	558-709	558-710	558-711	558-712	558-713	558-714	558-715	558-716	558-717	558-718	558-719	558-720	558-721	558-722	558-723	558-724	558-725	558-726	558-727	558-728	558-729	558-730	558-731	558-732	558-733	558-734	558-735	558-736	558-737	558-738	558-739	558-740	558-741	558-742	558-743	558-744	558-745	558-746	558-747	558-748	558-749	558-750	558-751	558-752	558-753	558-754	558-755	558-756	558-757	558-758	558-759	558-760	558-761	558-762	558-763	558-764	558-765	558-766	558-767	558-768	558-769	558-770	558-771	558-772	558-773	558-774	558-775	558-776	558-777	558-778	558-779	558-780	558-781	558-782	558-783	558-784	558-785	558-786	558-787	558-788	558-789	558-790	558-791	558-792	558-793	558-794	558-795	558-796	558-797	558-798	558-799	558-800	558-801	558-802	558-803	558-804	558-805	558-806	558-807	558-808	558-809	558-810	558-811	558-812	558-813	558-814	558-815	558-816	558-817	558-818	558-819	558-820	558-821	558-822	558-823	558-824	558-825	558-826	558-827	558-828	558-829	558-830	558-831	558-832	558-833	558-834	558-835	558-836	558-837	558-838	558-839	558-840	558-841	558-842	558-843	558-844	558-845	558-846	558-847	558-848	558-849	558-850	558-851	558-852	558-853	558-854	558-855	558-856	558-857	558-858	558-859	558-860	558-861	558-862	558-863	558-864	558-865	558-866	558-867	558-868	558-869	558-870	558-871	558-872	558-873	558-874	558-875	558-876	558-877	558-878	558-879	558-880	558-881	558-882	558-883	558-884	558-885	558-886	558-887	558-888	558-889	558-890	558-891	558-892	558-893	558-894	558-895	558-896	558-897	558-898	558-899	558-900	558-901	558-902	558-903	558-904	558-905	558-906	558-907	558-908	558-909	558-910	558-911	558-912	558-913	558-914	558-915	558-916	558-917	558-918	558-919	558-920	558-921	558-922	558-923	558-924	558-925	558-926	558-927	558-928	558-929	558-930	558-931	558-932	558-933	558-934	558-935	558-936	558-937	558-938	558-939	558-940	558-941	558-942	558-943	558-944	558-945	558-946	558-947	558-948	558-949	558-950	558-951	558-952	558-953	558-954	558-955	558-956	558-957	558-958	558-959	558-960	558-961	558-962	558-963	558-964	558-965	558-966	558-967	558-968	558-969	558-970	558-971	558-972	558-973	558-974	558-975	558-976	558-977	558-978	558-979	558-980	558-981	558-982	558-983	558-984	558-985	558-986	558-987	558-988	558-989	558-990	558-991	558-992	558-993	558-994	

Table 9. Whole-rock analyses of basalts, DSDP Sites 214, 216, 253, and 254.

Pellet Hole Core, section Interval (cm)	L10670 214 48-1 55-57	L10671 214 48-2 137-138	L10672 214 49-1 129-130	L10673 214 50-1 133-135	L10674 216 51-1 122-125	L10661 216 36-4 14-16	L10662 216 37-1 23-25	L10663 216 38-1 126-128	L10664 216 38-5 53-55	L10665 216 38-5 53-55	253 24-1	L11404 253 58-CC	L10666 254 31-1 100-103	L10667 254 35-1 100-108	L10668 254 36-3 122-124	L10669 254 38-1 117-119
SiO ₂	57	56.7	56.6	56.2	57	45.2	46.5	49.2	50.4	49.5	52.1	45.8	46.6	48.4	47.1	49.6
TiO ₂	1.43	1.43	1.43	1.42	1.37	2.35	2.33	2.79	2.85	2.48	0.96	0.75	1.86	2.89	2.56	1.94
Al ₂ O ₃	16.2	16	15.7	15.7	16	15.6	14.6	14.5	14.4	14.1	18.2	16.6	14.9	14.3	15.3	15.9
*Fe ₂ O ₃	1.2	1.2	1.1	1.1	1.1	1.1	1.8	1.7	1.6	1.6	0.9	1.4	1.9	1.8	1.8	1.6
*FeO	7.8	7.7	7.4	7.4	7.5	7.6	12.2	11	10.7	10.9	6	9.6	12.4	12.3	11.7	10.8
MnO	0.24	0.24	0.23	0.23	0.24	0.35	0.22	0.32	0.18	0.3	0.09	0.15	0.2	0.2	0.2	0.31
MgO	2.3	2.2	2.1	2.1	1.8	4.9	10.8	6	6.3	6.3	7.1	14.1	8.4	6.3	7.7	8.2
CaO	5.7	5.7	5.8	5.7	5.7	18.6	8.1	9.9	9.5	10.6	10.3	8.8	9.9	8.5	9.9	5.7
Na ₂ O	4.7	4.6	4.5	4.6	4.7	2.9	2	2.8	2.9	2.6	3.2	1.3	2.4	2.8	2.8	2.6
K ₂ O	1.46	1.48	1.6	1.5	1.82	1.3	0.24	1.11	0.5	0.77	0.57	0.37	0.19	1.56	0.16	0.82
P ₂ O ₅	0.67	0.67	0.67	0.68	0.64	0.26	0.24	0.23	0.23	0.22	0.61	0.05	0.21	0.26	0.26	0.16
LOI	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Total	98.62	97.93	97.04	96.6	97.92	100.19	99	99.59	99.49	99.43	99.97	98.83	98.9	99.36	99.51	97.57
*CIPW norms																
Qz	6.3	6.6	7.3	6.6	6	0	0	0	0.8	0	0	0	0	0	0	0.3
Cor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Or	8.6	8.8	9.5	8.8	10.7	0	1.4	6.6	2.9	4.6	3.4	2.2	1.2	9.2	0.9	4.8
An	39.6	39	37.9	39	39.9	0	16.8	24	24.5	22	27.1	10.9	20.4	24	23.3	22
Ab	18.9	18.5	18.1	17.7	17.2	25.8	30.1	23.6	24.8	24.6	33.6	38.3	29.3	21.6	29.1	27.1
Lc	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
Ne	0	0	0	0	0	13.3	0	0	0	0	0	0	0	0	0	0
Di	4.2	4.5	5.2	5	6.1	38.5	7	19.8	17	22	10.8	3.9	15.2	15.7	15.2	0
Cs	0	0	0	0	0	5.6	0	0	0	0	0	0	0	0	0	0
Wo	0	0	0	0	0	4.2	0	0	0	0	0	0	0	0	0	0
Hy	15	14.6	13.2	13.5	12.3	0	23.1	9.9	21.1	15.4	18.9	17	10.6	7.8	9.5	36.2
Ol	0	0	0	0	0	5.3	13	7.5	0	3.3	1.8	22.9	15.6	12.3	13.5	0
Mt	1.7	1.7	1.6	1.6	1.6	1.7	2.7	2.4	2.3	2.4	1.3	2.1	2.7	2.7	2.6	2.4
Hm	2.7	2.7	2.7	2.7	2.6	4.5	4.4	5.3	5.4	4.7	1.8	1.4	3.5	5.5	4.9	3.7
Ap	1.6	1.6	1.5	1.6	1.5	0.6	0.5	0.5	0.5	0.5	1.4	0.1	0.5	0.6	0.6	0.4
Trace elements in parts per million																
Nb	28	27	26	28	29	14	15	15	15	14	n.d.	2	10	10	11	8
Zr	380	374	351	368	385	156	179	178	183	158	n.d.	24	118	138	158	118
Y	67	67	86	67	65	27	42	38	36	33	n.d.	29	41	37	43	31
Sr	295	293	278	286	286	199	178	184	182	180	n.d.	100	171	117	179	111
Rb	38	39	46	44	39	18	25	18	9	13	n.d.	6	4	2	1	17
Th (XRF)	6	4	4	6	5	6	3	5	3	2	n.d.	1	3	0	0	1
Ni	3	2	2	4	3	52	49	40	37	54	n.d.	274	230	249	129	86
V	38	41	42	42	34	335	435	407	417	370	n.d.	254	246	287	325	285
Cr	b.d.l.	b.d.l.	b.d.l.	b.d.l.	2	202	132	45	48	60	n.d.	624	402	506	244	148
Ba	293	287	362	290	305	117	142	120	126	99	n.d.	52	58	75	63	49
La (XRF)	34	34	33	34	33	16	14	13	13	14	n.d.	4	13	10	11	6
Ce (XRF)	84	88	83	82	85	41	31	35	31	31	n.d.	2	26	32	30	19
Nd (XRF)	51	52	51	51	53	20	19	19	21	18	n.d.	3	18	16	21	13
La (NAA)	n.d.	n.d.	35.5	n.d.	n.d.	n.d.	n.d.	n.d.	14.4	n.d.	14.9	4.2	11.9	n.d.	n.d.	n.d.
Ce (NAA)	n.d.	n.d.	93	n.d.	n.d.	n.d.	n.d.	n.d.	35.8	n.d.	31	14.4	26.6	n.d.	n.d.	n.d.
Nd (NAA)	n.d.	n.d.	58	n.d.	n.d.	n.d.	n.d.	n.d.	20.6	n.d.	17.1	10.4	19	n.d.	n.d.	n.d.
Sm (NAA)	n.d.	n.d.	12.9	n.d.	n.d.	n.d.	n.d.	n.d.	5.7	n.d.	4	3.1	5	n.d.	n.d.	n.d.
Eu (NAA)	n.d.	n.d.	3.4	n.d.	n.d.	n.d.	n.d.	n.d.	1.58	n.d.	1.28	1.13	1.56	n.d.	n.d.	n.d.
Gd (NAA)	n.d.	n.d.	11	n.d.	n.d.	n.d.	n.d.	n.d.	7.4	n.d.	5.3	6.02	6	n.d.	n.d.	n.d.
Tb (NAA)	n.d.	n.d.	1.83	n.d.	n.d.	n.d.	n.d.	n.d.	1.08	n.d.	0.92	0.9	1.12	n.d.	n.d.	n.d.
Yb (NAA)	n.d.	n.d.	5.71	n.d.	n.d.	n.d.	n.d.	n.d.	2.8	n.d.	4.09	3.8	3.49	n.d.	n.d.	n.d.
Lu (NAA)	n.d.	n.d.	0.89	n.d.	n.d.	n.d.	n.d.	n.d.	0.52	n.d.	0.67	0.52	0.51	n.d.	n.d.	n.d.
Ta (NAA)	n.d.	n.d.	2.07	n.d.	n.d.	n.d.	n.d.	n.d.	1.01	n.d.	0.4	0.24	0.62	n.d.	n.d.	n.d.
Hf (NAA)	n.d.	n.d.	8.7	n.d.	n.d.	n.d.	n.d.	n.d.	4.2	n.d.	3.4	1.2	3.35	n.d.	n.d.	n.d.
Ti (NAA)	n.d.	n.d.	4	n.d.	n.d.	n.d.	n.d.	n.d.	1.5	n.d.	1.28	0.8	0.84	n.d.	n.d.	n.d.
U (NAA)	n.d.	n.d.	0.46	n.d.	n.d.	n.d.	n.d.	n.d.	0.41	n.d.	1.78	0.1	n.d.	n.d.	n.d.	n.d.
W (NAA)	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	1.6	n.d.	3	2.8	1.9	n.d.	n.d.	n.d.
Sc (NAA)	n.d.	n.d.	18.1	n.d.	n.d.	n.d.	n.d.	n.d.	42.4	n.d.	42.5	65.1	39.1	n.d.	n.d.	n.d.
Selected ratios																
*FeO/MgO	3.41	3.44	3.57	3.46	4.24	1.55	1.13	1.82	1.71	1.73	0.85	0.68	1.49	1.96	1.52	1.32
Zr/Nb	13.8	13.8	13.4	13.1	13.5	11.1	12.2	12.1	12.2	11.7	—	12.4	11.8	13.3	14.1	14.9
La/Ta	—	—	17.1	—	—	—	—	—	14.3	—	37.3	17.5	19.2	—	—	—
Th/Ta	—	—	1.93	—	—	—	—	—	1.49	—	3.2	3.33	1.35	—	—	—
La/Yb _n	—	—	4.16	—	—	—	—	—	3.44	—	2.44	0.74	2.28	—	—	—
Ti/Zr	22.5	22.9	24.5	23.2	21.3	90.1	78	94	93.4	93.9	—	191.3	94.4	125.5	97	98.6
P/Zr	7.72	7.82	8.29	8.02	7.21	7.32	5.73	5.67	5.56	5.98	—	9.66	7.84	8.07	7.17	5.96
Ti/V	223.8	208.1	203.1	201.7	240.9	42	32.1	41.1	41	40.2	—	17.7	45.3	60.5	47.2	40.8

Notes: All analyses by X-ray fluorescence except where indicated (NAA = neutron activation analysis, and ICP = inductively coupled optical-emission plasma spectrometry); *Fe indicates that Fe₂O₃, FeO, CIPW norms, and FeO/MgO ratio have been calculated from total iron using a Fe₂O₃/FeO ratio of 0.15; LOI = total loss on ignition at 800°C; n.d. = not determined; b.d.l. = below detection limit; La_n/Yb_n = chondrite-normalized La/Yb ratio; dashes = not analyzed.