FIGURE CAPTIONS: (data repository)

Figure DR1. Mg# and Mn contents of (a) biotites and (b) hornblendes from the MWIS.

Figure DR2. Comparison of observed and modeled major and trace-element abundances in sample Kmd-3 of the Forester Pass quartz-diorite. Model composition is a mixture of 50.1 wt. % Paradise Granodiorite (average of samples P-15 and P-19; Table DR2) and 49.9 wt. % Onion Valley basalt (average of samples 86S50a, 86S40a, 87S26, 87S35b, 87S35a, 87S25, and 86S54; Sisson et al., 1995). Σr^2 for the major-element oxides = 0.292.

Figure DR3. Discrete displacement model for emplacement of the tabular model intrusion. As the column of shaded cells on the right side of the model is moved one space to the right by crustal extension, each of the other cells moves one space along the dashed paths to accommodate emplacement of an 8 × 0.25 km horizontal sill (gray.) Crustal rocks above and below the intrusion (not divided into blocks) remain stationary as it grows and are separated from it by horizontal slip surfaces. Thermal contributions from magmas flowing up through the dike system beneath the intrusion have been ignored. Inset at the bottom shows the location of the detailed part of diagram in the larger solution space.

Figure DR4. Chondrite-normalized REE abundances in typical samples of granodiorite, granite, and leucogranite from the Whitney pluton. Chondritic abundances are from Boynton (1984).

Figure DR 5. Comparisons of major and trace-element abundances in (a) granodiorite from the marginal part of the northern Paradise pluton with those in a model granodiorite calculated by adding about 13% leucogranite to the relatively mafic granodiorite near the

center of the pluton (Σr^2 for major elements = 0.054); and (b) granite from the central Whitney pluton with those in a model granite calculated by adding about 18% leucogranite to the relatively mafic granite sampled at localities W-51 and 57 (Σr^2 for major elements = 0.148).

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TABLE DR1: MODAL AND SELECTED MINERAL COMPOSITIONS—MOUNT WHITNEY INTRUSIVE SUITE

Sample	S-9	S-7	S-6	S-12M	S-11	S-2	S-5	S-4	S-8e
northing[†]	4066130	4065890	4065287	4064880	4064250	4064430	4063217	4062760	4054610
easting	349090	349470	351610	354870	356700	358380	359153	360500	364870
quartz[‡]	20.1	nd	19.0	nd	nd	20.6	21.2	23.2	6.4
alkali-feldspar	13.9	nd	12.4	nd	nd	16.3	16.1	20.7	0.0
plagioclase	47.9	nd	49.7	nd	nd	46.5	47.0	42.5	52.3
biotite	9.0	nd	9.5	nd	nd	6.8	4.9	8.4	27.7
hornblende	7.5	nd	7.2	nd	nd	8.0	8.8	3.7	7.2
magnetite	0.99	nd	1.03	nd	nd	1.09	1.07	0.87	2.62
titanite	0.33	nd	0.65	nd	nd	0.41	0.73	0.49	0.24
apatite	0.24	nd	0.14	nd	nd	0.19	0.14	0.15	0.48
augite	0.01	nd	0.39	nd	nd	0.13	0.08	0.00	3.1
zircon	0.03	nd	0.02	nd	nd	tr	0.01	tr	tr
allanite	0.00	nd	0.00	nd	nd	0.00	0.00	0.00	0.00
total	100.0		100.0			100.0	100.0	100.0	100.0
af megacrysts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

enclaves	nd	nd	2.78	nd	nd	nd	0.85	0.86	nd
pl core (*An* %)[§]	36	nd	38	nd	nd	45	nd	43	nd
pl rim (*An* %)	nd	nd	28	nd	nd	26	nd	23	nd
bt Mg#	0.543	0.544	0.567	0.566	0.562	0.569	0.568	0.580	nd
bt Mn (per 22 O)	0.039	0.040	0.048	0.056	0.057	0.049	0.049	0.051	nd
hb Mg#	0.624	0.598	0.649	0.640	0.642	0.639	0.642	0.669	nd
hb Mn (per 23 O)	0.072	0.061	0.056	0.072	0.078	0.056	0.057	0.065	nd

Notes: S–Granodiorite of Sugarloaf; LP–Granodiorite of Lone Pine Creek; P–Paradise Granodiorite; W–Whitney Granodiorite; WL–Whitney leucogranite; WP–Whitney Granite Porphyry; e–Quartz-diorite enclave; Kmd–Quartz-diorite dikes near Forester Pass.

† UTM coordinates refer to NAD 27, zone 11S.

‡ Volume percent estimated from outcrop (enclave), slab, and thin-section counts (Hirt, 1989). nd–not determined; tr–trace.

§ Calculated from standard energy and wavelength-dispersive microprobe analyses; Mg# = molar Mg/(Mg+Fe_{total}).

TABLE DR1: MODAL AND SELECTED MINERAL COMPOSITIONS—MOUNT WHITNEY INTRUSIVE SUITE

Sample	LP-15	LP-5	LP-4	LP-9	LP-8	LP-11	LP-4e	P-6	P-7
northing[†]	4050197	4050165	4050185	4051100	4052565	4051756	4050185	4030100	4031200
easting	389510	390650	390680	391265	391290	391290	390680	377315	377880
quartz[‡]	nd	26.5	21.4	21.1	20.4	19.6	9.3	24.1	24.4
alkali-feldspar	nd	20.7	13.1	14.9	19.0	17.5	tr	19.0	24.1
plagioclase	nd	41.4	50.2	47.8	45.1	45.7	51.1	45.8	42.4
biotite	nd	5.0	8.1	8.4	8.4	7.3	27.4	6.1	5.4
hornblende	nd	5.2	5.7	6.4	5.7	8.2	7.6	3.4	2.5
magnetite	nd	0.79	1.05	0.81	0.81	0.84	1.87	0.86	0.75
titanite	nd	0.40	0.25	0.45	0.30	0.63	0.54	0.48	0.27
apatite	nd	0.08	0.20	0.08	0.18	0.16	0.27	0.22	0.19
augite	nd	0.00	0.12	0.19	0.16	0.07	1.9	0.00	0.00
zircon	nd	tr	0.04	tr	0.06	tr	0.03	tr	tr
allanite	nd	0.00	0.00	0.00	0.00	0.00	tr	tr	tr
total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
af megacrysts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	3.5

enclaves	0.28	nd	nd	nd	2.43	nd	nd	nd	nd
pl core (*An* %)[§]	41	42	nd	38	nd	42	40	41	37
pl rim (*An* %)	30	26	nd	31	nd	30	34	19	16
bt Mg#	0.568	0.579	0.565	0.569	nd	0.562	0.553	0.578	nd
bt Mn (per 22 O)	0.050	0.066	0.048	0.045	nd	0.042	0.043	0.057	nd
hb Mg#	0.635	0.648	0.607	0.574	nd	0.596	0.608	0.659	nd
hb Mn (per 23 O)	0.068	0.078	0.065	0.059	nd	0.059	0.048	0.083	nd

TABLE DR1: MODAL AND SELECTED MINERAL COMPOSITIONS—MOUNT WHITNEY INTRUSIVE SUITE

Sample	P-29	P-8	P-32	P-3	P-9	P-10	P-11	P-12	P-13
northing[†]	4031660	4033520	4033740	4034960	4035100	4035725	4036865	4049585	4049715
easting	378685	378375	380000	380420	381660	382175	383070	390595	390670
quartz[‡]	nd	24.0	nd	24.8	24.1	25.0	22.5	23.7	nd
alkali-feldspar	nd	20.0	nd	18.9	20.2	20.1	20.1	25.1	nd
plagioclase	nd	45.7	nd	45.5	46.2	45.4	46.6	42.0	nd
biotite	nd	6.6	nd	6.6	5.2	4.7	6.3	5.5	nd
hornblende	nd	2.4	nd	2.4	2.6	3.2	3.0	2.5	nd
magnetite	nd	0.88	nd	1.16	1.11	0.98	0.93	0.76	nd
titanite	nd	0.39	nd	0.56	0.41	0.44	0.47	0.44	nd
apatite	nd	0.10	nd	0.09	0.18	0.21	0.11	0.11	nd
augite	nd	0.00	nd	0.00	0.00	0.00	0.00	0.00	nd
zircon	nd	0.02	nd	0.05	0.02	0.02	0.04	tr	nd
allanite	nd	tr	nd	0.00	0.00	0.00	0.00	0.00	nd
total		100.0		100.0	100.0	100.0	100.0	100.0	

af megacrysts	nd	3.8	nd	2.3	3.5	4.0	5.6	8.6	nd
enclaves	nd	nd	0.18	nd	nd	nd	nd	nd	0.18
pl core (*An* %)[§]	nd	nd	34	45	nd	35	40	39	nd
pl rim (*An* %)	nd	nd	nd	26	nd	30	26	20	nd
bt Mg#	0.573	0.580	0.580	0.585	nd	0.581	0.592	0.585	0.575
bt Mn (per 22 O)	0.062	0.063	0.057	0.069	nd	0.059	0.060	0.066	0.061
hb Mg#	0.681	0.660	0.681	0.674	nd	0.693	0.688	0.665	0.626
hb Mn (per 23 O)	0.106	0.088	0.095	0.088	nd	0.092	0.084	0.094	0.074

TABLE DR1: MODAL AND SELECTED MINERAL COMPOSITIONS—MOUNT WHITNEY INTRUSIVE SUITE

Sample	P-15	P-17	P-27	P-21	P-19	W-25	W-48	W-47	W-21
northing[†]	4055265	4057640	4060875	4063355	4066075	4036895	4038680	4039875	4041855
easting	390920	366375	368735	370135	372610	383270	384305	384180	385795
quartz[‡]	nd	nd	nd	nd	nd	24.7	25.6	24.8	30.0
alkali-feldspar	nd	nd	nd	nd	nd	17.8	22.5	23.2	20.6
plagioclase	nd	nd	nd	nd	nd	49.8	45.8	45.7	43.9
biotite	nd	nd	nd	nd	nd	4.6	3.7	4.2	3.8
hornblende	nd	nd	nd	nd	nd	1.9	0.5	0.5	0.5
magnetite	nd	nd	nd	nd	nd	0.63	1.12	0.92	0.59
titanite	nd	nd	nd	nd	nd	0.53	0.55	0.43	0.37
apatite	nd	nd	nd	nd	nd	0.09	0.17	0.13	0.22
augite	nd	nd	nd	nd	nd	0.00	0.00	0.00	0.00
zircon	nd	nd	nd	nd	nd	tr	0.02	0.01	tr
allanite	nd	nd	nd	nd	nd	0.00	0.04	0.00	0.00
total						100.0	100.0	100.0	100.0
af megacrysts	nd	nd	nd	nd	nd	5.6	8.6	7.6	7.3

enclaves	nd	nd	nd	nd	nd	0.01	nd	nd	0.03
pl core (*An* %)[§]	36	34	35	36	38	33	30	31	28
pl rim (*An* %)	28	18	20	24	33	19	13	13	12
bt Mg#	0.581	0.576	0.589	0.567	0.564	0.592	0.614	0.582	0.607
bt Mn (per 22 O)	0.072	0.074	0.050	0.068	0.063	0.066	0.093	0.101	0.091
hb Mg#	0.680	0.678	0.681	0.668	0.665	0.685	0.654	0.653	0.664
hb Mn (per 23 O)	0.120	0.105	0.106	0.104	0.105	0.089	0.110	0.096	0.119

TABLE DR1: MODAL AND SELECTED MINERAL COMPOSITIONS—MOUNT WHITNEY INTRUSIVE SUITE

Sample	W-18	W-51	W-57	W-15	W-16	W-45	W-44	W-17	W-50
northing[†]	4043463	4045390	4045905	4046110	4046450	4047000	4047570	4048380	4049100
easting	386772	387115	387445	387465	388675	388910	389535	390000	390235
quartz[‡]	27.7	nd	nd	26.9	nd	27.4	nd	22.9	nd
alkali-feldspar	23.4	nd	nd	25.1	nd	26.2	nd	21.3	nd
plagioclase	43.0	nd	nd	41.9	nd	41.0	nd	47.8	nd
biotite	4.2	nd	nd	4.3	nd	4.2	nd	4.4	nd
hornblende	0.7	nd	nd	0.5	nd	0.1	nd	2.0	nd
magnetite	0.41	nd	nd	0.60	nd	0.58	nd	0.76	nd
titanite	0.50	nd	nd	0.47	nd	0.33	nd	0.53	nd
apatite	0.16	nd	nd	0.17	nd	0.13	nd	0.26	nd
augite	0.00	nd	nd	0.00	nd	0.00	nd	0.00	nd
zircon	tr	nd	nd	0.01	nd	tr	nd	0.03	nd
allanite	0.00	nd	nd	0.00	nd	0.00	nd	0.03	nd
total	100.0			100.0		100.0		100.0	
af megacrysts	9.8	nd	nd	11.2	nd	10.1	nd	10.9	nd

enclaves	nd	nd	nd	nd	nd	nd	nd	nd	nd
pl core (*An* %)[§]	30	30	28	nd	30	nd	29	33	34
pl rim (*An* %)	16	19	19	nd	15	nd	12	18	17
bt Mg#	0.590	0.608	0.591	nd	0.587	nd	0.600	nd	0.591
bt Mn (per 22 O)	0.102	0.064	0.084	nd	0.087	nd	0.085	nd	0.069
hb Mg#	0.686	0.674	0.674	nd	0.661	nd	0.672	nd	0.653
hb Mn (per 23 O)	0.107	0.109	0.116	nd	0.112	nd	0.127	nd	0.086

TABLE DR1: MODAL AND SELECTED MINERAL COMPOSITIONS—MOUNT WHITNEY INTRUSIVE SUITE

Sample	W-23	WL-1	WL-3	WL-8
northing[†]	4037444	4048690	4047430	4043830
easting	402224	384520	384395	386665
quartz[‡]	24.7	33.7	33.0	32.8
alkali-feldspar	27.7	32.5	32.0	31.0
plagioclase	43.1	32.7	33.3	35.4
biotite	3.6	0.7	1.3	0.6
hornblende	0.04	0.0	0.0	0.0
magnetite	0.53	0.37	0.34	0.25
titanite	0.27	tr	0.04	tr
apatite	0.07	0.04	0.05	tr
augite	0.00	0.00	0.00	0.00
zircon	0.02	tr	tr	tr
allanite	0.04	tr	0.04	0.00
total	100.0	100.0	100.0	100.0
af megacrysts	8.4	0.00	tr	0.00

enclaves	nd			
pl core (*An* %)[§]	nd	14	nd	nd
pl rim (*An* %)	nd	12	nd	nd
bt Mg#	nd	0.588	nd	nd
bt Mn (per 22 O)	nd	0.114	nd	nd
hb Mg#	nd			
hb Mn (per 23 O)	nd			

TABLE DR1: MODAL AND SELECTED MINERAL COMPOSITIONS—MOUNT WHITNEY INTRUSIVE SUITE

Sample	WP-6	WP-7	Kmd-2	Kmd-3
northing[†]	4061295	4068230	4063060	4063035
easting	375220	387250	377845	377505
quartz[‡]	3.1	nd	3.6	0.5
alkali-feldspar	2.8	nd	0.0	0.4
plagioclase	30.0	nd	12.7	9.6
biotite	4.1	nd	1.7	0.9
hornblende	tr	nd	0.4	0.7
magnetite	0.89	nd	nd	nd
titanite	0.25	nd	0.18	0.04
apatite	0.09	nd	nd	nd
augite	0.00	nd	nd	nd
zircon	tr	nd	nd	nd
allanite	0.00	nd	nd	nd
groundmass	58.8	nd	81.4	87.9
total	100.0		100.0	100.0

enclaves				
pl core (*An* %)[§]	27	nd	nd	nd
pl rim (*An* %)	23	20	nd	nd
bt Mg#	0.529	0.530	nd	nd
bt Mn (per 22 O)	0.069	0.057	nd	nd
hb Mg#	nd	nd	nd	nd
hb Mn (per 23 O)	nd	nd	nd	nd

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	S-9	S-6	S-10	S-12m	S-12l	S-11	S-2
northing[†]	4066130	4065287	4065210	4064880	4064880	4064250	4064430
easting	349090	351610	352495	354870	354870	356700	358380
SiO_2[‡]	63.51	63.18	nd	nd	nd	nd	63.76
TiO_2	0.712	0.673	nd	nd	nd	nd	0.682
Al_2O_3	16.13	16.59	nd	nd	nd	nd	16.07
FeO	4.52	4.57	3.96	4.38	3.45	2.94	4.67
MnO	0.100	0.079	nd	nd	nd	nd	0.083
MgO	2.38	2.24	nd	nd	nd	nd	2.29
CaO	4.60	4.63	nd	nd	nd	nd	4.71
Na_2O	3.57	3.91	3.61	3.53	3.91	3.87	3.58
K_2O	3.14	3.19	nd	nd	nd	nd	3.20
P_2O_5	0.209	0.220	nd	nd	nd	nd	0.212
sum	98.85	99.28	nd	nd	nd	nd	99.24
Sc[§]	10.7	10.0	7.2	8.5	5.6	5.1	9.6
V	95	85	nd	nd	nd	nd	103
Rb	127	121	nd	nd	nd	nd	106
Sr	485	602	nd	nd	nd	nd	576
Ba	764	789	nd	nd	nd	nd	757
La	33.73	33.4	34.5	29.9	25.3	26.9	33.0
Ce	65.51	65.5	60.3	58.3	60.2	53.6	64.8
Pr	7.18	nd	nd	nd	nd	nd	nd
Nd	26.86	29.3	26.8	25.4	33.6	21.9	25.7
Sm	5.38	4.67	3.51	4.51	4.17	3.89	5.08
Eu	1.26	1.16	1.01	1.04	1.34	0.99	1.18

Gd	4.09	nd	nd	nd	nd	nd	nd
Tb	0.65	0.36	nd	0.43	0.48	0.40	nd
Dy	3.80	nd	nd	nd	nd	nd	nd
Ho	0.71	nd	nd	nd	nd	nd	nd
Er	1.97	nd	nd	nd	nd	nd	nd
Tm	0.26	nd	nd	nd	nd	nd	nd
Yb	1.76	1.62	1.80	1.81	1.60	1.67	1.58
Lu	0.27	0.24	0.24	0.25	nd	0.29	nd
Y	20.4	16	nd	nd	nd	nd	18
Zr	170	172	nd	nd	nd	nd	161

Notes: Abbreviations as in Table DR1 except: PL–Paradise leucogranite; and MW94–Quartz-diorite intrusion associated with Granodiorite of Lone Pine Creek.

† UTM coordinates refer to NAD 27, zone 11S.

‡ Weight percent, total Fe as FeO. XRF analyses except Na_2O and FeO by INA.

§ ppm; INA analyses except: V, Rb, Sr, Ba, Y, and Zr by XRF; REE and Y in S-9, LP-6, P-3,W-19 and WL-1 by ICPMS.

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	S-5	S-4	LP-5	LP-4	LP-12	LP-6	LP-9
northing[†]	4063217	4062760	4050165	4050185	4050212	4050415	4051100
easting	359153	360500	390650	390680	390757	391210	391265
SiO_2[‡]	65.59	67.26	67.84	64.24	nd	65.70	65.68
TiO_2	0.640	0.478	0.494	0.657	nd	0.520	0.55
Al_2O_3	15.48	15.31	15.26	16.20	nd	16.16	15.69
FeO	4.32	3.13	3.33	4.71	3.98	3.96	4.24
MnO	0.074	0.064	0.067	0.082	nd	0.075	0.073
MgO	1.93	1.58	1.46	2.22	nd	1.85	1.73
CaO	4.54	3.49	3.45	4.65	nd	4.23	4.25
Na_2O	3.63	3.47	3.53	3.74	3.69	3.79	3.73
K_2O	3.12	4.20	3.86	3.15	nd	3.27	3.11
P_2O_5	0.228	0.143	0.144	0.207	nd	0.178	0.179
sum	99.55	99.13	99.44	99.86	nd	99.73	99.23
Sc[§]	9.1	6.6	6.6	9.3	9.5	8.2	7.9
V	nd	62	60	101	nd	65	nd
Rb	nd	135	138	111	nd	112	nd
Sr	nd	448	420	560	nd	508	nd
Ba	nd	813	654	742	nd	703	nd
La	31.3	24.8	37.0	34.0	29.4	29.96	21.3
Ce	63.0	44.7	60.3	66.1	66.3	50.05	37.1
Pr	nd	nd	nd	nd	nd	5.28	nd
Nd	26.3	15.9	22.4	28.4	33.1	20.25	14.3
Sm	5.11	3.07	3.83	4.74	5.25	4.40	2.91

Eu	1.10	0.69	0.87	1.10	1.24	0.90	0.80
Gd	nd	nd	nd	nd	nd	3.66	nd
Tb	0.58	nd	nd	nd	nd	0.60	0.39
Dy	nd	nd	nd	nd	nd	3.39	nd
Ho	nd	nd	nd	nd	nd	0.65	nd
Er	nd	nd	nd	nd	nd	1.79	nd
Tm	nd	nd	nd	nd	nd	0.25	nd
Yb	1.98	0.78	1.13	1.68	2.10	1.51	1.21
Lu	0.29	nd	nd	nd	0.35	0.24	0.18
Y	nd	11	14	16	nd	18.6	nd
Zr	nd	123	123	164	nd	155	nd

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	LP-8	LP-11	MW9415	MW9416	LP-4e	SL-1	P-6
northing[†]	4052565	4051756	4051595	4051595	4050185	4064880	4030100
easting	391290	391290	391355	391355	390680	354870	377315
SiO_2[‡]	65.21	64.47	58.75	55.57	54.56	nd	67.67
TiO_2	0.604	0.686	0.848	1.029	1.181	nd	0.523
Al_2O_3	15.95	16.00	16.67	16.84	18.73	nd	15.73
FeO	3.91	4.33	6.78	7.46	7.90	0.47	3.42
MnO	0.073	0.078	0.106	0.119	0.138	nd	0.071
MgO	2.02	2.17	3.90	5.25	4.03	nd	1.47
CaO	4.29	4.44	6.16	6.65	5.92	nd	3.70
Na_2O	3.48	3.70	3.69	3.24	4.59	2.81	3.83
K_2O	3.45	3.46	1.78	2.51	2.36	nd	3.52
P_2O_5	0.188	0.207	0.189	0.214	0.410	nd	0.175
sum	99.18	99.54	98.87	98.88	99.82		100.11
Sc[§]	8.9	9.4	17.9	26.9	13.6	0.7	6.5
V	99	95	163	197	179	nd	67
Rb	121	149	88	116	187	nd	128
Sr	566	512	641	618	463	nd	500
Ba	813	840	367	584	174	nd	813
La	39.6	31.2	16.5	18.8	38.9	11.3	28.4
Ce	67.5	61.4	38.1	35.7	62.2	18.4	49.0
Pr	nd	nd	nd	nd	nd	nd	nd
Nd	25.2	25.4	19.7	18.3	22.7	nd	18.5
Sm	4.49	4.97	3.88	3.98	4.10	1.60	3.28

Eu	0.99	1.11	1.09	1.06	0.71	0.08	0.85
Gd	nd	nd	nd	nd	nd	nd	nd
Tb	nd	nd	0.46	0.49	nd	0.32	0.33
Dy	nd	nd	nd	nd	nd	nd	nd
Ho	nd	nd	nd	nd	nd	nd	nd
Er	nd	nd	nd	nd	nd	nd	nd
Tm	nd	nd	nd	nd	nd	nd	nd
Yb	1.56	1.38	1.23	1.40	1.14	0.80	1.22
Lu	nd	nd	0.20	0.21	nd	0.11	0.19
Y	16	18	15	17	14	nd	11
Zr	156	172	106	119	175	nd	146

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	P-7	P-8	P-4	P-3	P-9	P-10	P-11
northing[†]	4031200	4033520	4034335	4034960	4035100	4035725	4036865
easting	377880	378375	379490	380420	381660	382175	383070
SiO_2[‡]	68.51	67.83	68.42	68.09	67.93	68.14	67.55
TiO_2	0.441	0.508	0.510	0.482	0.560	0.540	0.504
Al_2O_3	15.35	15.74	15.28	15.70	15.44	15.21	15.93
FeO	2.85	3.18	3.29	2.94	3.01	3.17	3.00
MnO	0.066	0.066	0.076	0.059	0.065	0.060	0.059
MgO	1.15	1.34	1.32	1.25	1.33	1.38	1.19
CaO	3.31	3.57	3.42	3.39	3.65	3.44	3.52
Na_2O	3.63	3.87	3.11	3.77	3.91	3.89	3.91
K_2O	3.83	3.51	3.80	3.60	3.29	3.44	3.62
P_2O_5	0.149	0.167	0.168	0.160	0.168	0.173	0.184
sum	99.29	99.78	99.39	99.44	99.35	99.44	99.47
Sc[§]	5.5	6.1	nd	5.5	6.2	5.9	5.5
V	55	73	nd	36	nd	nd	73
Rb	127	130	nd	119	nd	nd	117
Sr	476	518	nd	486	nd	nd	592
Ba	885	779	nd	770	nd	nd	952
La	29.2	27.2	nd	27.91	29.4	30.0	29.7
Ce	47.7	51.2	nd	44.75	52.6	52.1	51.8
Pr	nd	nd	nd	4.55	nd	nd	nd
Nd	16.6	20.3	nd	16.59	20.5	20.2	20.6
Sm	3.10	3.53	nd	2.96	3.76	3.43	3.51

Eu	0.77	0.88	nd	0.75	0.93	0.86	0.87
Gd	nd	nd	nd	2.15	nd	nd	nd
Tb	0.34	nd	nd	0.31	0.31	0.23	0.29
Dy	nd	nd	nd	1.70	nd	nd	nd
Ho	nd	nd	nd	0.31	nd	nd	nd
Er	nd	nd	nd	0.81	nd	nd	nd
Tm	nd	nd	nd	0.11	nd	nd	nd
Yb	1.20	0.88	nd	0.72	0.97	0.92	1.06
Lu	0.17	nd	nd	0.13	0.15	0.13	0.15
Y	10	10	nd	9.2	nd	nd	9
Zr	131	134	nd	139	nd	nd	152

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	P-12	P-13	P-16	P-15	P-30	P-17	P-24
northing[†]	4049585	4049715	4055210	4055265	4056500	4057640	4059170
easting	390595	390670	364885	364920	365375	366375	366935
SiO_2[‡]	68.41	66.26	70.58	68.59	68.30	68.13	67.81
TiO_2	0.432	0.559	0.349	0.440	0.416	0.455	0.475
Al_2O_3	15.68	16.24	14.63	15.34	15.72	15.68	15.64
FeO	2.55	3.26	2.50	2.88	2.95	2.91	3.01
MnO	0.054	0.069	0.052	0.068	0.063	0.064	0.064
MgO	0.92	1.50	1.01	1.33	1.30	1.30	1.29
CaO	3.00	3.93	2.62	3.33	3.61	3.35	3.42
Na_2O	3.96	3.88	3.48	3.65	3.79	3.83	3.83
K_2O	4.09	3.45	4.15	3.68	3.55	3.62	3.70
P_2O_5	0.153	0.195	0.100	0.144	0.167	0.160	0.156
sum	99.25	99.34	99.47	99.45	99.87	99.50	99.40
Sc[§]	4.4	6.8	4.6	5.7	nd	5.8	5.7
V	48	79	41	58	75	50	63
Rb	140	104	152	125	123	136	125
Sr	549	581	349	454	499	482	477
Ba	997	1004	690	699	693	753	749
La	25.6	29.8	31.4	32.0	nd	27.7	25.9
Ce	43.5	54.8	59.8	52.1	nd	46.7	47.0
Pr	nd	nd	nd	nd	nd	nd	nd
Nd	17.3	22.5	25.0	23.5	nd	22.3	24.5
Sm	2.96	3.91	3.55	3.96	nd	3.66	3.38

Eu	0.70	1.04	1.14	0.79	nd	0.79	1.22
Gd	nd	nd	nd	nd	nd	nd	nd
Tb	0.24	0.40	0.64	0.38	nd	0.30	0.92
Dy	nd	nd	nd	nd	nd	nd	nd
Ho	nd	nd	nd	nd	nd	nd	nd
Er	nd	nd	nd	nd	nd	nd	nd
Tm	nd	nd	nd	nd	nd	nd	nd
Yb	0.89	1.21	nd	1.10	nd	1.14	nd
Lu	0.15	0.17	0.31	0.13	nd	0.14	0.26
Y	8	10	11	11	9	11	11
Zr	136	154	117	128	122	134	127

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	P-23	P-27	P-20	P-21	P-25	P-18	P-26
northing[†]	4060275	4060875	4061722	4063355	4064455	4064350	4065355
easting	367355	368735	369333	370135	370600	370780	371830
SiO_2[‡]	67.53	67.16	67.57	67.26	67.31	68.78	67.66
TiO_2	0.517	0.584	0.507	0.513	0.526	0.400	0.538
Al_2O_3	15.61	15.91	15.64	15.82	15.62	15.59	15.82
FeO	3.37	3.33	3.12	3.09	3.09	2.57	3.04
MnO	0.067	0.070	0.066	0.065	0.063	0.058	0.065
MgO	1.44	1.41	1.60	1.49	1.30	0.91	1.30
CaO	3.65	4.05	3.55	3.54	3.32	3.09	3.78
Na_2O	3.77	4.07	3.87	3.90	3.54	3.92	3.97
K_2O	3.63	2.94	3.60	3.56	4.50	3.90	3.35
P_2O_5	0.171	0.184	0.173	0.174	0.173	0.140	0.172
sum	99.76	99.71	99.70	99.41	99.44	99.36	99.70
Sc[§]	6.1	nd	6.5	6.1	nd	4.1	nd
V	71	62	61	60	63	41	56
Rb	120	104	105	120	135	127	107
Sr	510	521	529	530	546	460	531
Ba	863	551	911	800	1463	993	657
La	28.8	nd	33.7	26.6	nd	27.8	nd
Ce	53.9	nd	54.6	48.4	nd	49.6	nd
Pr	nd	nd	nd	nd	nd	nd	nd
Nd	19.5	nd	20.8	19.9	nd	28.9	nd
Sm	3.50	nd	3.49	3.28	nd	3.79	nd

Eu	1.47	nd	0.89	0.86	nd	1.34	nd
Gd	nd	nd	nd	nd	nd	nd	nd
Tb	nd	nd	0.30	0.27	nd	0.70	nd
Dy	nd	nd	nd	nd	nd	nd	nd
Ho	nd	nd	nd	nd	nd	nd	nd
Er	nd	nd	nd	nd	nd	nd	nd
Tm	nd	nd	nd	nd	nd	nd	nd
Yb	nd	nd	0.98	0.91	nd	nd	nd
Lu	0.29	nd	0.16	0.13	nd	0.24	nd
Y	10	12	12	12	10	10	9
Zr	129	146	139	148	137	139	137

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	P-19	PL-1	PL-4	W-25	W-55	W-58	W-48
northing[†]	4066075	4056890	4064470	4036895	4037095	4038510	4038680
easting	372610	366070	370665	383270	383500	384025	384305
SiO_2[‡]	68.34	76.43	76.68	67.38	69.31	69.99	69.75
TiO_2	0.454	0.107	0.050	0.445	0.484	0.416	0.396
Al_2O_3	15.64	12.90	12.83	16.43	15.26	15.49	15.59
FeO	2.88	0.86	0.61	2.64	2.62	2.15	2.17
MnO	0.062	0.018	0.016	0.053	0.063	0.055	0.047
MgO	1.34	0.30	0.21	0.90	1.05	0.80	0.91
CaO	3.40	1.02	0.83	2.96	3.23	2.62	2.64
Na_2O	4.01	3.35	3.54	4.09	3.97	4.05	4.34
K_2O	3.44	4.87	4.83	4.70	3.33	4.09	3.61
P_2O_5	0.159	0.033	0.006	0.158	0.174	0.154	0.148
sum	99.73	99.89	99.60	99.76	99.49	99.82	99.60
Sc[§]	5.6	1.4	nd	4.8	4.7	3.4	3.1
V	60	12	3	47	63	33	35
Rb	120	195	198	132	122	150	134
Sr	500	96	30	639	509	551	568
Ba	690	103	13	1940	558	841	701
La	34.8	20.6	nd	31.2	31.1	34.7	36.3
Ce	52.4	25.2	nd	52.9	63.0	56.9	59.9
Pr	nd	nd	nd	nd	nd	nd	nd
Nd	20.8	7.7	nd	21.6	36.0	24.8	20.0
Sm	3.00	1.77	nd	3.35	3.45	3.45	3.60

Eu	0.78	0.15	nd	0.89	0.88	1.26	0.79
Gd	nd	nd	nd	nd	nd	nd	nd
Tb	0.24	nd	nd	0.28	0.68	0.58	0.26
Dy	nd	nd	nd	nd	nd	nd	nd
Ho	nd	nd	nd	nd	nd	nd	nd
Er	nd	nd	nd	nd	nd	nd	nd
Tm	nd	nd	nd	nd	nd	nd	nd
Yb	0.95	1.17	nd	0.87	0.90	nd	1.06
Lu	0.14	0.15	nd	0.13	0.15	0.17	0.13
Y	10	5	1	9	9	7	9
Zr	131	71	28	141	155	148	158

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	W-47	W-22	W-21	W-20	W-18	W-19	W-56
northing[†]	4039875	4041255	4041855	4042645	4043463	4044635	4045245
easting	384180	385335	385795	386135	386772	386620	386840
SiO_2[‡]	69.33	70.75	70.09	70.95	70.41	71.24	70.38
TiO_2	0.413	0.370	0.372	0.407	0.381	0.341	0.393
Al_2O_3	15.61	15.29	15.24	15.04	15.14	15.04	15.03
FeO	2.24	2.05	1.95	2.23	2.05	1.90	2.04
MnO	0.048	0.053	0.048	0.059	0.051	0.047	0.052
MgO	0.54	0.75	0.86	0.64	0.79	0.53	0.73
CaO	2.79	2.39	2.50	2.73	2.61	2.29	2.60
Na_2O	4.48	4.24	4.21	4.27	4.24	3.95	4.01
K_2O	3.73	4.13	4.01	3.31	3.55	4.03	3.84
P_2O_5	0.146	0.130	0.139	0.150	0.143	0.120	0.138
sum	99.33	100.15	99.42	99.79	99.37	99.49	99.21
Sc[§]	3.1	3.0	3.2	3.3	3.2	2.7	3.4
V	37	nd	48	33	39	14	49
Rb	130	136	126	124	135	142	143
Sr	613	nd	551	535	523	459	478
Ba	849	nd	806	542	554	744	589
La	31.8	33.4	32.5	33.7	37.8	27.53	35.7
Ce	53.8	51.8	50.7	53.7	56.3	41.66	62.3
Pr	nd	nd	nd	nd	nd	4.06	nd
Nd	19.9	17.8	23.1	22.0	17.9	14.67	30.0
Sm	3.10	3.07	3.30	3.33	3.59	2.45	3.29

Eu	0.86	0.72	0.80	0.79	0.77	0.60	0.71
Gd	nd	nd	nd	nd	nd	1.67	nd
Tb	0.24	0.28	0.25	0.25	0.26	0.20	0.38
Dy	nd	nd	nd	nd	nd	1.09	nd
Ho	nd	nd	nd	nd	nd	0.20	nd
Er	nd	nd	nd	nd	nd	0.52	nd
Tm	nd	nd	nd	nd	nd	0.07	nd
Yb	0.84	0.95	0.93	0.95	1.06	0.48	0.97
Lu	0.11	0.18	0.13	0.19	0.15	0.08	0.12
Y	8	nd	9	8	7	6.1	8
Zr	160	nd	145	154	143	130	143

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	W-51	W-57	W-15	W-16	W-45	W-44	W-17
northing[†]	4045390	4045905	4046110	4046450	4047000	4047570	4048380
easting	387115	387445	387465	388675	388910	389535	390000
SiO_2[‡]	69.20	69.16	71.61	70.56	70.12	69.84	69.36
TiO_2	0.407	0.462	0.370	0.410	0.372	0.440	0.480
Al_2O_3	15.58	15.52	14.82	14.97	15.45	14.96	15.49
FeO	2.31	2.46	2.15	1.98	2.10	2.28	2.71
MnO	0.054	0.066	0.050	0.050	0.044	0.056	0.056
MgO	0.73	0.91	0.75	0.84	0.51	0.86	1.06
CaO	2.80	3.24	2.35	2.65	2.35	2.73	3.00
Na_2O	4.14	4.35	4.09	4.26	4.07	4.38	4.30
K_2O	3.95	2.88	3.78	3.40	4.53	3.16	3.61
P_2O_5	0.146	0.171	0.134	0.160	0.133	0.157	0.159
sum	99.32	99.22	100.10	99.28	99.68	98.86	100.22
Sc[§]	3.7	3.8	3.1	3.1	3.1	3.6	4.2
V	24	52	nd	nd	37	nd	nd
Rb	136	112	127	122	158	121	117
Sr	532	601	nd	nd	556	nd	nd
Ba	965	597	nd	nd	1245	nd	nd
La	28.2	35.0	34.9	36.4	33.8	39.4	34.0
Ce	50.0	58.0	54.1	57.9	58.1	65.7	52.5
Pr	nd	nd	nd	nd	nd	nd	nd
Nd	18.1	35.4	19.4	21.0	24.0	24.1	21.2
Sm	3.13	3.40	3.00	3.13	3.11	3.79	3.55

Eu	0.77	1.05	0.71	0.75	0.78	0.87	0.84
Gd	nd	nd	nd	nd	nd	nd	nd
Tb	0.28	0.45	0.24	0.27	0.21	0.30	0.28
Dy	nd	nd	nd	nd	nd	nd	nd
Ho	nd	nd	nd	nd	nd	nd	nd
Er	nd	nd	nd	nd	nd	nd	nd
Tm	nd	nd	nd	nd	nd	nd	nd
Yb	0.91	1.10	0.93	0.91	0.95	1.06	0.93
Lu	0.15	0.14	0.12	0.10	0.17	0.14	0.15
Y	8	8	nd	nd	8	nd	nd
Zr	141	153	nd	nd	145	nd	nd

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	W-50	WL-1	WL-5	WL-7	WL-8	WP-6	WP-7
northing[†]	4049100	4048690	4038845	4038845	4043830	4061295	4068230
easting	390235	384520	388960	388960	386665	375220	387250
SiO_2[‡]	67.82	77.33	77.60	77.72	76.74	68.95	68.60
TiO_2	0.476	0.074	0.070	0.070	0.072	0.400	0.350
Al_2O_3	15.84	12.90	13.58	13.49	13.17	16.32	15.44
FeO	2.60	0.62	0.46	0.44	0.58	2.51	2.01
MnO	0.057	0.029	0.019	0.032	0.028	0.034	0.058
MgO	1.21	0.16	0.17	0.05	0.11	0.50	0.66
CaO	3.29	0.81	0.49	0.36	0.77	2.85	2.04
Na_2O	4.40	3.53	4.11	3.97	4.10	4.64	4.06
K_2O	3.36	4.95	4.66	4.87	4.62	3.69	5.21
P_2O_5	0.182	0.023	0.012	0.000	0.009	0.150	0.134
sum	99.24	100.43	101.17	101.00	100.20	100.04	98.56
Sc[§]	4.8	1.2	1.7	1.6	1.5	3.1	nd
V	57	0	nd	nd	5	22	nd
Rb	113	242	244	392	243	99	nd
Sr	586	60	nd	nd	82	642	nd
Ba	587	43	nd	nd	37	1268	nd
La	31.6	28.06	30.5	17.2	18.1	38.5	nd
Ce	51.1	26.61	35.2	20.2	22.9	71.2	nd
Pr	nd	1.6	nd	nd	nd	nd	nd
Nd	19.9	3.76	17.1	5.3	6.5	26.5	nd
Sm	3.42	0.42	1.49	nd	1.13	3.99	nd

Eu	0.82	0.10	0.18	0.04	0.09	1.10	nd
Gd	nd	0.31	nd	nd	nd	nd	nd
Tb	0.26	0.04	0.31	nd	nd	nd	nd
Dy	nd	0.22	nd	nd	nd	nd	nd
Ho	nd	0.05	nd	nd	nd	nd	nd
Er	nd	0.15	nd	nd	nd	nd	nd
Tm	nd	0.03	nd	nd	nd	nd	nd
Yb	0.86	0.24	1.10	0.53	0.46	0.79	nd
Lu	0.11	0.05	nd	0.11	0.14	nd	nd
Y	10	1.8	nd	nd	4	9	nd
Zr	155	71	nd	nd	55	196	nd

TABLE DR2: WHOLE-ROCK CHEMISTRY—MOUNT WHITNEY INTRUSIVE SUITE

Sample	Kmd-2	Kmd-3
northing[†]	4063060	4063035
easting	377845	377505
SiO_2[‡]	60.98	59.30
TiO_2	0.905	0.961
Al_2O_3	17.27	17.20
FeO	4.51	5.44
MnO	0.095	0.097
MgO	2.57	3.02
CaO	5.74	6.08
Na_2O	4.13	3.74
K_2O	2.19	2.27
P_2O_5	0.271	0.283
sum	98.66	98.39
Sc[§]	10.4	12.4
V	132	139
Rb	104	69
Sr	669	641
Ba	841	887
La	29.2	28.9
Ce	57.4	55.0
Pr	nd	nd
Nd	28.2	27.6
Sm	4.44	4.83

Eu	1.28	1.41
Gd	nd	nd
Tb	0.48	0.56
Dy	nd	nd
Ho	nd	nd
Er	nd	nd
Tm	nd	nd
Yb	0.99	1.28
Lu	0.12	0.15
Y	13	15
Zr	162	164

TABLE DR3: WHITNEY GRANODIORITE TO GRANITE FRACTIONATION MODEL

	fractionating mineral compositions							rock compositions			
mineral	Pl	Hb	Mag	Ap	Ttn	Zrn	cumulate	Grd	Gr	Gr	r^2
sample	25-4c	25-2c	HGD	WP-6	18c				model		
SiO_2[†]	59.53	48.47	0.08	0.23	30.19	32.78	52.58	68.57	70.33	70.28	0.002
TiO_2		0.96	11.27		37.07		0.930	0.480	0.431	0.384	0.002
Al_2O_3	25.58	6.51	2.34		0.92		18.71	15.55	15.20	15.27	0.005
FeO	0.16	13.95	78.91		1.27		7.99	2.61	2.02	2.08	0.004
MnO		0.59	0.33	0.12	0.16		0.182	0.060	0.047	0.050	0.000
MgO		14.03	1.24				3.95	1.13	0.82	0.69	0.017
CaO	6.63	11.99	0.20	56.50	27.71		8.48	3.26	2.69	2.56	0.016
Na_2O	7.53	1.22		0.06			5.28	4.19	4.07	4.20	0.017
K_2O	0.44	0.67					0.47	3.35	3.67	3.83	0.027
P_2O_5				42.02			0.550	0.178	0.137	0.140	0.000
ZrO_2						67.22	0.027	0.021	0.020	0.020	0.000
sum	99.87	98.39	94.37	98.93	97.32	100.00	99.13	99.38	99.41	99.50	0.089
cum %	65.62	27.69	5.10	1.31	0.24	0.04					
F	0.901										

	partition coefficients‡						bulk D	trace elements§		
Rb	0.09	0.001	0.001	0.001	0.001	0.001	0.06	115	127	130
Sr	5.2	0.5	0.001	3.6	0.5	0.01	3.60	585	446	520
Ba	0.5	0.04	0.07	0.1	2.4	0.001	0.35	573	613	679
Sc	0.07	20	4	0.4	8	18.5	5.82	4.8	2.9	3.1
La	0.32	0.26	0.5	22	60	3.3	0.74	31.6	32.5	33.0
Sm	0.13	2.38	0.9	31	340	3.7	2.01	3.42	3.08	3.10
Yb	0.08	1.31	0.4	12	105	225	0.93	0.86	0.87	0.90
Sm/Yb_N								4.26	3.81	3.69
La/Sm_N								5.81	6.64	6.70

Notes: Mineral abbreviations are from Kretz (1983). cum % = wt. % mineral in cumulate assemblage.

† Weight percent, total Fe as FeO. Mineral analyses are from Hirt (1989) except magnetite (Chesner, 1998) and zircon ($ZrSiO_4$).

‡ Partition coefficients are from: Blundy and Wood (1991), Henderson (1982), Sawka (1988), and Sisson (1994); 0.001 assumed for incompatible elements.

§ ppm, except Sm/Yb and La/Sm ratios which are normalized to chondritic abundances (Boynton, 1984); Granodiorite parent (Grd) is average of samples W-50 and 55; granite daughter (Gr) is average of samples W-18, 19, 20, 21, 45, 47, 48, and 56. Trace-element abundances calculated using the Rayleigh fractionation equation: $C = C_0F^{(D-1)}$ in which: C = concentration of trace element α in daughter (Gr model); C_0 = concentration of trace element α in parent (Grd); F = fraction of melt remaining; and D = bulk distribution coefficient for trace element α in the cumulate assemblage.

TABLE DR4: WHITNEY GRANITE TO LEUCOGRANITE FRACTIONATION MODEL

	fractionating mineral compositions										cumulate	rock compositions			
mineral	Qtz	Sa	Pl	Hb	Bt	Mag	Ap	Ttn	Zrn	Aln		Gr	Lgr	Lgr	r^2
sample		OTT	51-2c	21avg	21avg	OTT	WP6	18m		WL1			model		
SiO_2[†]	100.00	64.88	60.34	48.81	37.44	0.13	0.23	30.48	32.78	30.59	64.08	70.28	76.92	77.04	0.015
TiO_2		0.08		0.77	2.68	7.84		38.08		1.27	0.64	0.384	0.107	0.073	0.001
Al_2O_3		18.46	24.63	5.79	13.96	1.66		1.00		12.24	17.26	15.27	13.14	13.04	0.011
FeO		0.06	0.19	13.11	16.56	83.20		0.95		15.99	3.57	2.08	0.48	0.53	0.003
MnO		0.03		0.96	0.71	0.74	0.12	0.16		1.14	0.09	0.050	0.003	0.029	0.001
MgO		0.03		14.57	14.35	0.33		0.03		1.16	1.24	0.69	0.11	0.14	0.001
CaO		0.21	6.29	11.82	0.00	0.04	56.50	28.63		10.29	4.14	2.56	0.87	0.79	0.006
Na_2O		3.04	7.85	1.20	0.10		0.06			0.04	4.68	4.20	3.68	3.93	0.061
K_2O		12.14	0.42	0.60	9.84						3.07	3.83	4.76	4.79	0.021
P_2O_5							42.02				0.26	0.140	0.016	0.016	0.000
ZrO_2									67.22		0.03	0.019	0.009	0.009	0.000
sum	100.00	98.94	99.75	97.63	95.74	93.94	98.93	99.33	100.00	72.72	99.03	99.59	99.97	100.39	0.119
cum %	17.00	18.53	52.01	2.54	5.94	2.58	0.61	0.65	0.04	0.11					
F	0.483														

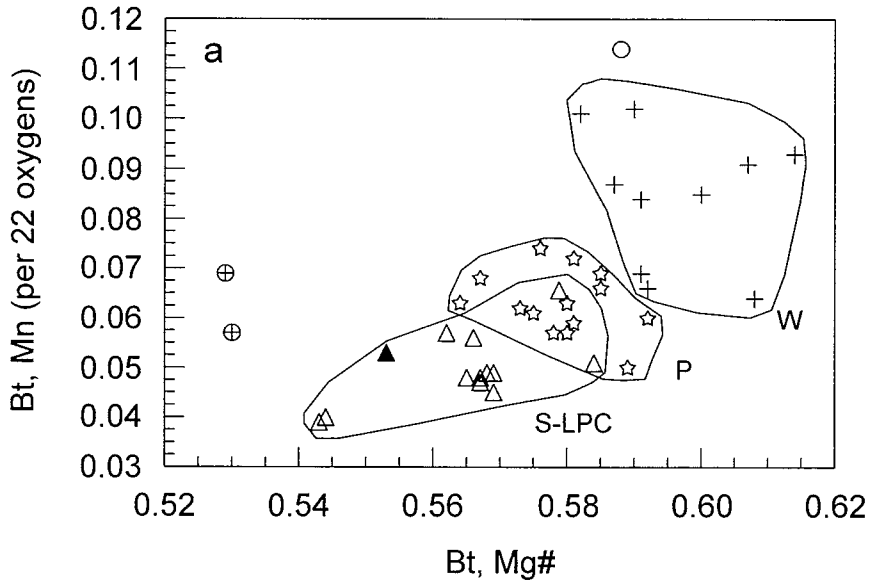
	partition coefficients										bulk D	trace elements[‡]		
Rb	0.001	0.38	0.09	0.001	3.4	0.001	0.001	0.001	0.001	0.001	0.32	130	211	243
Sr	0.001	9	5.2	0.5	0.2	0.001	3.6	0.5	0.01	0.5	4.42	520	45	71
Ba	0.001	12.9	0.98	0.035	8.7	0.07	0.1	2.4	0.001	2.4	3.44	679	119	39

Sc	0.001	0.05	0.07	35	11.3	4	0.45	10	18.5	50	1.84	3.1	1.7	1.5
La	0.001	0.04	0.32	0.83	0.32	0.5	22	60	3.3	820	1.65	33.0	20.7	20.7
Sm	0.001	0.02	0.13	7.2	0.2	0.9	31	340	3.7	205	2.92	3.10	0.79	0.90
Yb	0.001	0.012	0.08	3.1	0.4	0.4	12	230	280	8.9	1.85	0.90	0.49	0.50
Sm/Yb_N												3.69	1.73	1.93
La/Sm_N												6.70	16.46	14.47

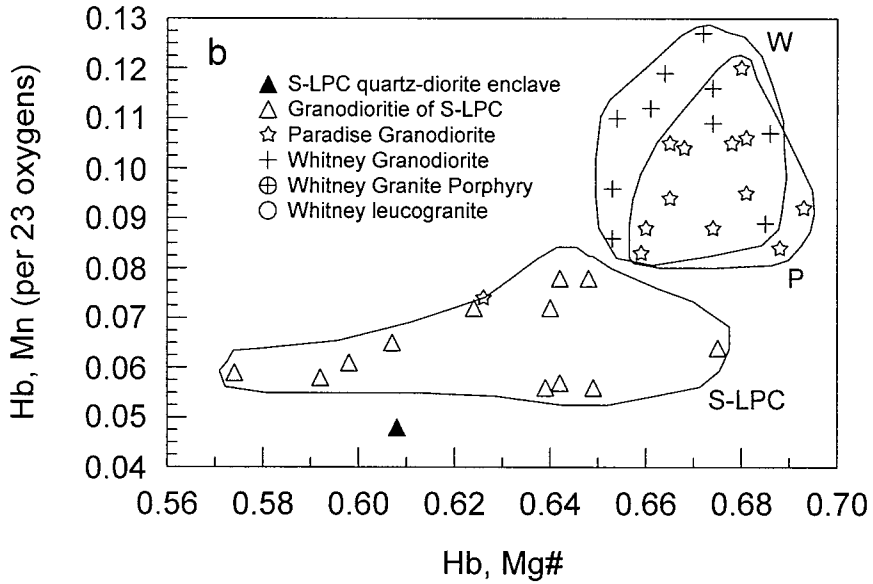
Notes: Mineral abbreviations are from Kretz (1983); other abbreviations are as in Table DR3.

† Weight percent, total Fe as FeO. Mineral analyses are from Hirt (1989) except Sa and Mag from Chesner (1998), Qtz (SiO_2), and Zrn ($ZrSiO_4$). Granite parent (Gr) is as in Table DR3; leucogranite (Lgr) daughter is average of samples WL-1, 5, and 7.

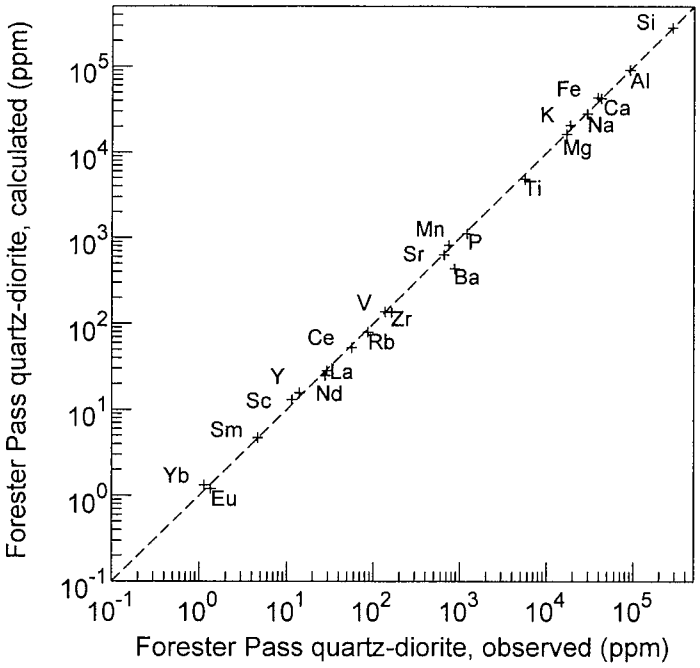
‡ ppm, except Sm/Yb and La/Sm ratios which are normalized to chondritic abundances (Boynton 1984); Trace-element abundances are calculated using the Rayleigh fractionation equation: $C = C_0F^{(D-1)}$ in which: C = concentration of trace element α in the daughter (Lgr model); C_0 = concentration of trace element α in the parent (Gr); F = fraction of melt remaining; and D = bulk distribution coefficient for trace element α in the cumulate assemblage.



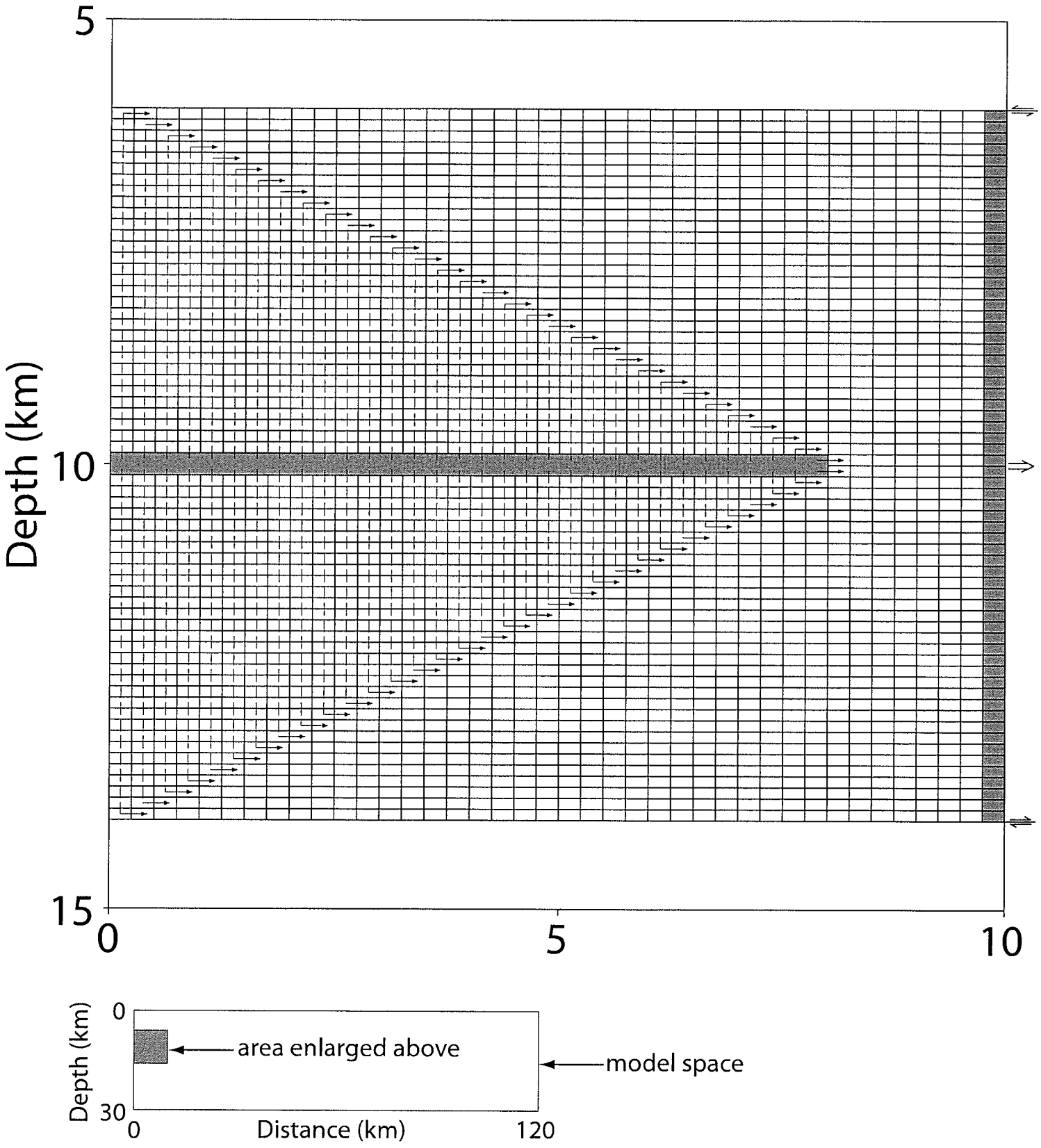
Hint Fig. DR1a



Hint Fig. DR 16

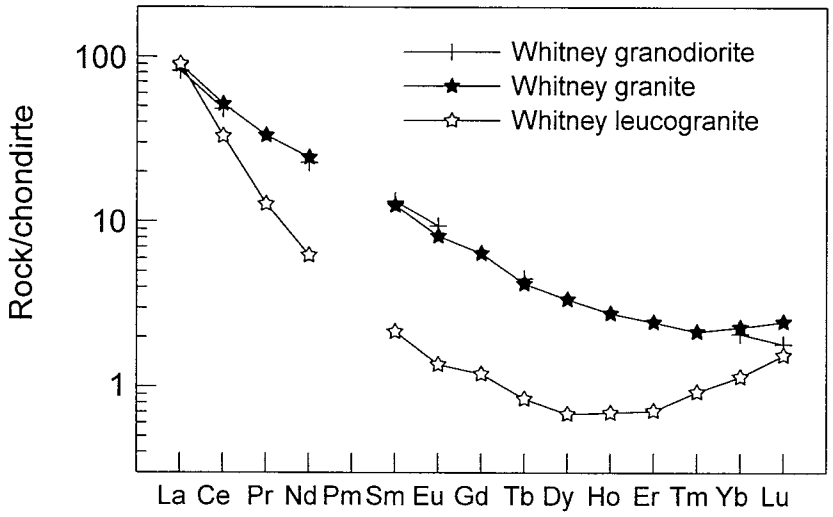

Forester Pass quartz-diorite, calculated (ppm)
Forester Pass quartz-diorite, observed (ppm)
10^{-1}
10^{0}
10^{1}
10^{2}
10^{3}
10^{4}
10^{5}
Si
Al
Fe
Ca
K
Na
Mg
Ti
Mn
P
Sr
Ba
V
Zr
Ce
Rb
Y
La
Sc
Nd
Sm
Yb
Eu

Hit Fig. DR2


5
10
15
Depth (km)
0
5
10

Depth (km)
0
30
area enlarged above
model space
0
Distance (km)
120

Hirt, Fig. DR3


Rock/chondirte
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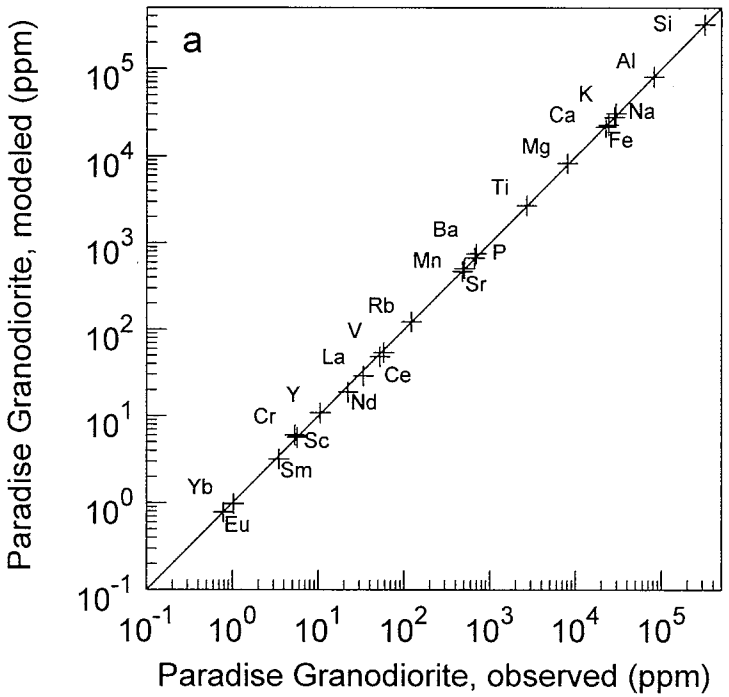
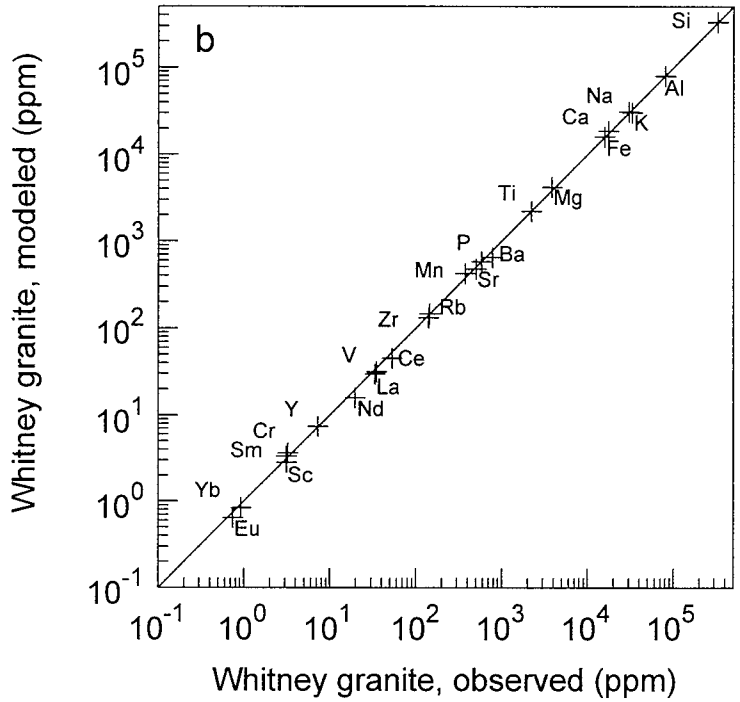
10
1
Whitney granodiorite
Whitney granite
Whitney leucogranite
La Ce Pr Nd Pm Sm Eu Gd Tb Dy Ho Er Tm Yb Lu

Hint Fig. DR4



Hint Fig. DR 5a



Hirt Fig. DR 5b