TABLE 1. TRACER CONCENTRATION AND SOURCE TERM ESTIMATES FOR TIME-INTEGRATED FLUID FLUX INVERSION

Sample number*	Grade†	Coordinates§ X (km)	Coordinates§ Y (km)	X CO_2 (mol CO_2/mol CO_2+H_2O)	R CO_2 x 10^{-3} (mol CO_2/cm^3 rock)	$\delta^{18}O_{fl}$ (‰)	R ^{18}O x 10^{-1} (‰ mol O/cm^3 rock)	$\delta^{13}C_{fl}$ (‰)	R ^{13}C x 10^{-2} (‰ mol C/cm^3 rock)	R CO_2 + H_2O x 10^{-3} (mol CO_2+H_2O/cm^3 rock)
8-3	Olig	14.73	40.94	0.024	0.000	16.00	0.507	0.502	4.177	0.000
8-4	Olig	14.98	37.36	0.055	0.000	18.54	-1.277	4.152	-1.429	0.000
8-7	Bt	11.49	27.70	0.187	1.928	17.79	0.506	-0.378	3.419	1.673
8-6	Olig	12.07	27.26	0.039	0.037	16.36	0.343	1.917	1.690	0.070
3-3	Amph	8.62	21.62	0.219	0.315	18.45	-1.081	1.017	-0.919	0.155
4-7	Amph	10.62	21.26	0.173	1.839	16.82	-0.135	2.497	-3.633	1.326
4-8	Bt	10.90	21.14	0.108	2.735	14.21	2.811	-1.002	2.749	2.059
BMG	N.A.#	9.78	21.12	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
BMG	N.A.#	10.31	21.12	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
BMG	N.A.#	9.35	20.83	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
BMG	N.A.#	8.84	20.08	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
3-4	Di	8.29	19.77	0.069	3.565	11.23	4.509	-3.098	3.017	4.516
BMG	N.A.#	10.76	19.52	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
4-11	Di	8.14	18.98	0.077	3.032	11.69	3.917	-4.008	2.774	3.671
BMG	N.A.#	8.60	18.80	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
BMG	N.A.#	9.82	18.39	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
BMG	N.A.#	8.87	18.21	*0.076*	*3.365*	*11.56*	*4.175*	*-3.468*	*2.626*	*4.191*
4-4	Di	9.55	18.07	0.082	3.498	11.75	4.098	-3.298	2.086	4.386
4-12	Bt	7.85	17.27	0.122	1.078	13.35	2.981	1.738	0.183	0.322
4-6	Olig	11.51	16.64	0.029	0.036	16.01	0.563	2.014	2.216	0.068
4-13	Bt	7.59	15.83	0.167	0.403	17.89	-0.392	3.464	-2.675	0.001
4-5	Bt	11.13	15.30	0.146	0.235	16.28	0.820	0.410	2.306	0.194
4-1	Olig	12.06	14.59	0.028	0.000	14.57	1.862	1.479	2.640	0.000
3-11	Bt	7.17	11.35	0.121	1.509	19.05	-1.488	1.529	0.187	1.208
4-14	Olig	9.62	11.27	0.023	0.029	14.15	2.107	1.853	1.966	0.056
3-2	Amph	5.98	10.66	0.186	0.585	19.34	-2.111	0.917	-0.801	0.100
3-12	Amph	7.60	9.99	0.167	1.405	18.76	-1.969	1.197	-1.287	0.985
3-13	Bt	5.07	9.28	0.132	2.315	18.35	-0.390	0.438	1.379	2.142
4-16	Bt	9.47	7.00	0.130	1.625	14.61	2.496	-0.715	4.505	1.610
3-10	Amph	2.78	6.65	0.268	0.396	17.66	0.038	-1.583	2.112	0.185
3-1	Amph	7.80	6.07	0.186	1.227	14.13	2.297	-0.753	1.056	1.151
4-2	Bt	9.72	5.32	0.179	0.008	15.09	2.128	0.078	2.518	0.006
3-7	Amph	4.12	3.98	0.203	2.145	16.24	0.487	0.597	-0.863	0.539
3-8	Bt	2.94	3.89	0.191	1.471	16.97	0.912	-0.451	2.477	0.975
4-15	Bt	9.50	3.84	0.132	0.427	14.98	2.039	-0.710	3.241	-0.009
3-6	Olig	1.85	2.89	0.069	0.039	15.53	1.488	1.035	3.475	0.075
3-9	Bt	6.75	1.13	0.111	2.614	14.95	2.238	-0.097	2.139	2.443
3-5	Amph	0.00	0.00	0.191	2.160	17.83	-0.780	0.577	-0.649	0.543

Note: All estimates were either taken directly or calculated from data reported in Ferry (1992) for CO_2 *and Stern et al. (1992) for* $\delta^{18}O$ *and* $\delta^{13}C$. *Table entries in italics represent averages of the corresponding Di-zone sample entries and were included in the calculation to accurately capture potential flux variability at the margins of the Black Mountain pluton.*

* Samples denoted BMG define the boundary of the grid around the Black Mountain pluton.

† Metamorphic grade as based on the presence of the characteristic mineral: oligoclase (Olig); biotite (Bt); amphibole (Amph); Diopside (Di).

§ Coordinates defined in reference to the most southwesterly sample (3-5).

N.A. = not applicable.