

TABLE 1. Trace-element concentrations (ppm) West to East along the transect.

	Carbonatite						Transitional carbonatite W						Rødbergite						Transitional Rødbergite E						Rødbergite	
	15–82	15–83	15–84	16–21	15–85	16–18	16–20	16–20/2	16–19	16–17	15–86	16–104	15–88	15–88/2	16–23	16–22	15–89	15–90	15–91	15–92	16–110	15–93	16–111	16–112	15–94	
Y	53.6	62.9	50.6	57.1	50.2	76.0	133	128.9	47.2	51.8	214	96.3	270	232	292	214	110	80.6	126	101	108	191	319	144	288	
Zr	281	898.7	71.2	34.4	52.9	37.0	66.2	76.5	52.5	58.6	588.3	96.4	252.7	338.7	167.1	148.5	153.9	214.9	229.6	234.8	135.9	381.8	294.3	208.5	737.2	
Nb	580	989	220	355	84.4	100	47.3	39.7	<dl	<dl	166	331	167	1876	522	696	135	510	156	113	235	108	110	155	1020	
La	313	297	136	284	120	353	113	130	109	149	444	292	502	455	108	1468	1326	2368	3344	2164	2348	3694	3712	2212	2705	
Ce	667	677	355	431	426	733	426	417	406	367	876	453	1308	1234	336	2828	2678	4170	6117	4056	2715	6698	6890	4033	5212	
Pr	60.6	58.9	33.8	51.0	40.7	68.4	41	40	36	39	82	58	179	161	39	316	295	440	651	435	474	706	732	446	550	
Nd	223	220	131	186	148	253	160	155	130	134	323	229	676	602	189	1011	886	1307	2270	1298	1308	2414	2011	1275	1876	
Sm	35.0	38.1	27.6	27.6	22.2	38.3	32.0	31.1	19.7	20.1	69.3	42.1	155.5	137.3	61.5	125.8	111.4	131.2	204.6	131.9	154.8	211.2	260.0	144.2	187.2	
Eu	10.8	11.4	8.39	9.20	6.86	13.2	12.8	12.4	6.35	6.43	27.8	14.5	46.4	41.2	24.4	29.2	26.4	27.7	45.0	30.0	35.6	45.6	47.9	32.0	46.7	
Gd	27.1	27.8	18.9	21.5	18.3	30.0	32.3	31.8	16.2	16.2	63.4	34.4	99.3	87.9	59.0	67.2	52.9	57.8	88.8	58.2	61.5	93.6	94.7	70.1	107.0	
Tb	3.52	3.72	2.63	2.78	2.42	4.06	5.37	5.26	2.27	2.24	9.5	4.6	12.6	11.1	9.5	7.9	5.7	5.0	7.5	5.5	6.1	8.7	12.5	8.1	13.9	
Dy	17.4	19.4	14.5	14.5	12.9	21.8	32.8	32.1	12.6	12.3	55.5	24.5	67.3	59.4	59.4	42.9	26.8	19.4	30.3	24.0	27.1	41.3	63.1	38.9	78.2	
Ho	2.90	3.36	2.59	2.59	2.37	3.92	6.09	5.97	2.36	2.32	10.1	4.5	12.7	11.3	12.0	8.8	4.9	3.6	5.5	4.5	4.9	7.9	10.9	7.1	15.1	
Er	7.14	8.71	7.11	6.78	6.51	10.2	15.3	15.1	6.66	6.50	26.7	12.5	37.9	33.6	36.3	26.8	14.2	11.3	16.1	13.5	14.3	22.7	27.5	19.5	44.3	
Tm	0.855	1.11	0.988	0.911	0.881	1.28	1.83	1.79	0.927	0.883	3.3	1.7	5.4	4.8	5.1	3.8	2.0	1.6	2.3	1.9	2.0	3.0	3.4	2.6	6.3	
Yb	5.34	7.17	7.00	6.07	5.87	8.03	11.1	10.9	6.41	5.93	20.7	11.5	35.9	32.0	32.7	25.3	13.4	11.7	15.7	13.3	13.9	19.8	20.9	17.6	42.9	
Lu	0.732	1.01	1.04	0.933	0.873	1.12	1.54	1.52	0.930	0.847	2.8	1.7	5.1	4.5	4.4	3.6	2.0	1.8	2.3	2.0	2.2	2.8	2.8	2.5	5.9	
Hf	1.70	5.20	1.39	1.24	0.845	0.763	1.30	1.29	0.515	0.881	4.8	1.4	3.9	4.8	3.9	2.7	3.6	2.5	3.2	3.6	2.4	4.4	4.2	3.7	7.2	
Ta	11.9	32.3	1.95	91.0	30.3	6.70	2.06	2.07	5.26	<dl	29.6	74.5	<dl	5.2	0.7	4.0	<dl	2.8	<dl	<dl	2.1	<dl	0.3	2.6	7.6	
Th	117.6	219.7	66.7	35.1	34.3	66.1	192.6	190.2	53.1	25.2	284.5	136.1	773.1	781.1	376.7	919.8	986.8	404.7	452.2	626.9	366.5	494.0	578.4	751.8	928.5	
U	20.6	5.76	2.04	70.1	41.2	73.4	15.9	15.4	32.4	7.20	45.3	20.4	14.2	12.9	22.0	11.7	6.4	6.0	11.9	13.6	13.1	15.6	9.4	6.2	21.8	
La/Yb	59	41	19	47	20	44	10	12	17	25	21	25	14	14	3	58	99	202	213	163	169	186	178	126	63	

<dl: below detection limit for the method (Three times the standard deviation of the total procedural blank).