

Spatial extent and eruptive potential of hydrothermal system at Numanotaira Crater, Adatara Volcano, Japan, inferred from shallow resistivity structure and diffuse soil gas flux measurement

Hiromasa Kawada, Wataru Kanda, Masahiro Ichiki, Hiroki Nagaike, Tatsuki Ishigo

In this Supplementary Material, the measurement data of diffuse soil CO₂ flux, 30-cm-deep ground temperature, and water resistivity and temperature along the Iwo River (Fig 2) are presented in Tables S1 and S2.

Table S1. Diffuse soil CO₂ flux and 30-cm-deep ground temperature measured in and around the Numanotaira Crater.

No	Longitude (°)	Latitude (°)	log(CO ₂ flux) (g/m ² /day)	CO ₂ flux (g/m ² /day)	Temperature @30cm (°C)
1	140.2752	37.6282	2.096	124.76	14.8
2	140.2752	37.6280	0.847	7.03	15.0
3	140.2754	37.6276	3.061	1151.10	18.5
4	140.2753	37.6273	2.487	307.21	24.4
5	140.2754	37.6269	-6.000	0.00	14.3
6	140.2751	37.6267	0.146	1.40	14.2
7	140.2758	37.6266	1.061	11.50	15.4
8	140.2758	37.6261	2.695	495.49	15.8
9	140.2759	37.6272	1.326	21.19	17.0
10	140.2760	37.6269	2.262	182.75	19.2
11	140.2763	37.6266	1.506	32.05	15.1
12	140.2763	37.6261	-0.088	0.82	14.7
13	140.2768	37.6264	-6.000	0.00	14.5
14	140.2767	37.6260	-0.417	0.38	14.8
15	140.2774	37.6263	-6.000	0.00	13.9
16	140.2777	37.6259	-6.000	0.00	14.5
17	140.2779	37.6265	0.793	6.21	14.9
18	140.2786	37.6267	-0.748	0.18	14.6
19	140.2794	37.6267	-6.000	0.00	14.6
20	140.2786	37.6273	-6.000	0.00	15.7
21	140.2793	37.6278	-1.594	0.03	14.7
22	140.2793	37.6285	0.048	1.12	14.5
23	140.2786	37.6280	-6.000	0.00	14.0
24	140.2787	37.6287	-0.121	0.76	15.3
25	140.2789	37.6293	0.171	1.48	14.2
26	140.2783	37.6293	0.580	3.80	15.1
27	140.2785	37.6299	0.132	1.35	14.6
28	140.2782	37.6289	-6.000	0.00	15.0
29	140.2784	37.6284	-0.277	0.53	14.6
30	140.2789	37.6283	-0.343	0.45	15.0

31	140.2781	37.6281	-0.201	0.63	15.3
32	140.2785	37.6277	-6.000	0.00	15.0
33	140.2779	37.6278	-6.000	0.00	14.4
34	140.2780	37.6274	0.045	1.11	15.1
35	140.2780	37.6270	0.544	3.50	14.7
36	140.2775	37.6267	0.384	2.42	15.2
37	140.2770	37.6268	-1.598	0.03	15.7
38	140.2765	37.6270	2.836	685.36	15.8
39	140.2758	37.6272	2.952	895.98	19.8
40	140.2757	37.6276	2.510	323.54	16.9
41	140.2756	37.6280	1.383	24.17	15.1
42	140.2757	37.6285	1.279	18.99	15.1
43	140.2760	37.6282	1.827	67.12	15.2
44	140.2761	37.6278	2.627	423.75	15.6
45	140.2763	37.6274	3.005	1010.75	15.2
46	140.2768	37.6273	1.830	67.65	15.9
47	140.2772	37.6272	0.003	1.01	15.2
48	140.2777	37.6271	-0.321	0.48	14.7
49	140.2776	37.6275	0.478	3.01	15.3
50	140.2771	37.6277	1.172	14.87	15.1
51	140.2776	37.6280	0.496	3.13	14.9
52	140.2778	37.6284	-6.000	0.00	15.2
53	140.2776	37.6289	-1.299	0.05	15.7
54	140.2776	37.6295	-0.559	0.28	15.6
55	140.2775	37.6300	-0.902	0.13	15.2
56	140.2771	37.6294	-1.600	0.03	15.1
57	140.2770	37.6289	-0.095	0.80	14.8
58	140.2772	37.6284	1.639	43.53	14.7
59	140.2767	37.6277	2.808	643.13	15.4
60	140.2767	37.6281	1.886	76.94	14.8
61	140.2765	37.6286	0.692	4.92	14.8
62	140.2764	37.6290	2.737	546.26	17.4
63	140.2765	37.6297	-6.000	0.00	15.0
64	140.2761	37.6294	-0.694	0.20	15.2
65	140.2759	37.6297	0.486	3.06	16.3

66	140.2763	37.6302	0.194	1.56	15.0
67	140.2754	37.6302	-6.000	0.00	15.3
68	140.2753	37.6298	0.798	6.28	16.4
69	140.2754	37.6294	0.176	1.50	16.0
70	140.2753	37.6290	0.533	3.41	15.4
71	140.2748	37.6286	-0.553	0.28	15.2
72	140.2747	37.6292	1.851	70.93	16.9
73	140.2746	37.6299	-1.597	0.03	15.3
74	140.2739	37.6298	0.914	8.21	15.0
75	140.2740	37.6292	-6.000	0.00	14.4
76	140.2735	37.6289	0.304	2.01	14.9
77	140.2740	37.6286	1.875	74.91	16.9
78	140.2745	37.6282	1.607	40.47	15.4
79	140.2747	37.6280	0.882	7.63	15.4
80	140.2748	37.6276	-0.386	0.41	17.1
81	140.2761	37.6287	1.415	26.03	15.8
82	140.2768	37.6292	2.992	980.83	16.9
83	140.2767	37.6290	-6.000	0.00	14.3
84	140.2748	37.6272	-0.298	0.50	17.6
85	140.2746	37.6267	2.667	464.42	25.2
86	140.2747	37.6262	0.315	2.06	13.7
87	140.2752	37.6261	-0.299	0.50	14.1
88	140.2749	37.6269	-0.044	0.90	16.8
89	140.2744	37.6271	0.789	6.15	16.8
90	140.2743	37.6275	1.038	10.92	15.5
91	140.2742	37.6280	1.470	29.54	15.4
92	140.2738	37.6282	2.278	189.77	14.7
93	140.2733	37.6282	-6.000	0.00	14.1
94	140.2736	37.6280	2.080	120.16	15.4
95	140.2738	37.6276	0.457	2.86	15.3
96	140.2739	37.6272	1.927	84.58	13.8
97	140.2741	37.6269	1.050	11.21	14.6
98	140.2742	37.6266	1.296	19.77	13.5
99	140.2739	37.6262	2.020	104.60	14.4
100	140.2731	37.6279	0.483	3.04	14.5

101	140.2723	37.6282	-6.000	0.00	13.9
102	140.2731	37.6285	0.780	6.03	13.8
103	140.2728	37.6285	-1.575	0.03	14.5
104	140.2727	37.6281	-1.576	0.03	14.7
105	140.2723	37.6284	-6.000	0.00	15.8
106	140.2717	37.6285	-0.975	0.11	13.6
107	140.2726	37.6292	1.672	47.01	15.6
108	140.2728	37.6295	-0.204	0.62	15.6
109	140.2732	37.6298	-0.982	0.10	15.1
110	140.2732	37.6294	-0.106	0.78	15.3
111	140.2736	37.6295	-0.628	0.24	14.8
112	140.2734	37.6292	-6.000	0.00	14.7
113	140.2730	37.6290	0.831	6.77	14.9
114	140.2729	37.6292	-0.584	0.26	15.7
115	140.2727	37.6288	-1.283	0.05	15.2
116	140.2723	37.6287	-0.805	0.16	15.1
117	140.2721	37.6290	-1.585	0.03	15.4
118	140.2718	37.6287	0.262	1.83	15.4

Table S2. Water resistivity and temperature measured along the Iwo River.

No	Longitude (°)	Latitude (°)	Resistivity (Ω m)	Temperature (°C)
1	140.27127	37.62845	18.7	7.8
2	140.27111	37.62864	13.4	9.6
3	140.27087	37.62884	12.4	11.3
4	140.26975	37.62882	11.4	13.8
5	140.26907	37.62920	25.0	13.6
6	140.26851	37.62890	21.9	15.2
7	140.26784	37.62904	18.8	15.6
8	140.26737	37.62931	5.8	20.5
9	140.26723	37.63027	44.4	13.8
10	140.26592	37.63028	8.3	16.2
11	140.26537	37.63068	21.6	17.0
12	140.26501	37.63075	13.0	17.1
13	140.26392	37.63073	10.5	14.9
14	140.26314	37.63060	11.6	15.8
15	140.26243	37.62992	11.0	17.2
16	140.26246	37.62981	12.2	14.1
17	140.26227	37.62959	22.1	11.8
18	140.26164	37.62926	18.3	12.8
19	140.26083	37.62874	3.0	26.9
20	140.26080	37.62880	2.0	40.8
21	140.26060	37.62858	1.3	46.7
22	140.25894	37.62811	2.5	34.9
23	140.25749	37.62837	2.5	33.1
24	140.25404	37.62918	1.3	56.6