

**TABLE 1** Comparison of a subset of hydrothermal vent compositions

	Units	Seawater	TAG <sup>a</sup> black smoker	TAG <sup>a</sup> white smoker	East <sup>b</sup> Pacific Rise	Endeavor <sup>c</sup>	Lost City <sup>d</sup>
Temp	°C		290–369	270–301	308–403	346–370	40–75
pH		7.5	3–3.8	<3–3	2.06–5.69	4.2–4.5	9.0–9.8
Alk	meq/kg	2.41				–0.994–<2.27	
Cl	mmol/kg	541.5	633.5–659	636	29.9–863	253–505	546–549
H <sub>2</sub> S	mmol/kg	0	2.5–3.5	0.5–3	0.374–81.6	0–8.1	0.064
Si	mmol/kg	0.174			2.70–19.8	0.174–17	
Li	μmol/kg	27.5	367–411	352	4.01–1270	160–439	
Na	mmol/kg	461 (2)	543–584	549	22–721	216–461	479–485
K	mmol/kg	9.9	17–20	17–20	–0.974–42.2	13.5–29.1	
Ca	mmol/kg	10.31	26–31	27	–0.803–51.9	13.8–42.9	21.0–23.3
Sr	μmol/kg	87	99–103	91–95	–12.8–197	60–149	
Mn	μmol/kg	.002	666–1000	750–762	61.7–1003	194–550	
Fe	μmol/kg	.005	1640–5590	3830–3840	6.95–4330	177–1362	
Cu	μmol/kg	<0.002	>83–150	3		7–21	
Zn	μmol/kg	<0.002	>36–46	300–400		25–35	
B	μmol/kg	420 (2)				698–798	
NH <sub>3</sub>	μmol/kg	<5				500–633	
CO <sub>2</sub>	mmol/kg	2.5 (.05)				8.4–22	
SO <sub>4</sub>	mmol/kg	28.6			–9.02–13.8		5.9–12.9
CH <sub>4</sub>	μmol/kg	4 × 10 <sup>–7</sup>			28.1–1380	1.8–3.4	0.13–0.28

<sup>a</sup>Data from Humphris & Tivey 2000.<sup>b</sup>Data from Von Damm 2000.<sup>c</sup>Data from Butterfield et al. 1994.<sup>d</sup>Data from Kelley et al. 2001.