Averages of reported endmember concentrations from the literature and this work. Location Avg. E.M. Avg. E.M. H₂ Avg. E.M. DIC Equil. Temp. Horibe Avg. E.M. Avg. E.M. (mmol/kg)b modeling (°C)^d pH^a (25 °C) (µmol/kg)^c formate (µmol/L)^e acetate (µmol/L)e

55

79

104 [10, n = 1]

124 [12, n = 1]

36 [4, n = 1]

34 [3, n = 1]

10 [1, n = 1]

21 [2, n = 1]

Table 2

LC-H

LC-8

LC-IF/2

9.5 (Mg = 28.9)

9.7 (Mg = 29.1)

the Section 3. Propagated errors are reported.

10.9

1.3 [0.8, n=6]

3.7 [0.3, n = 4]

4.2 [0.1, n = 2]

LC-B 9.1 [0.1, n = 3]0.1 [n = 1]146 [7, n = 3] 8 [0.4, n=3]10.7 106 LC-C 10.0 (Mg = 12.9)11.2 [4.6, n = 2] 0.1 [n = 1]115[8, n=2]8 [0.6, n = 2]101 LC-3 4 [0.4, n=1]10.8 12.3 [0.8, n = 3] 18 [11, n = 2] 105 158 [16, n = 1]

1.3 [1.0, n = 2]

0.8 [n = 1]

0.55 [0.6, n = 2]

^a Endmember pH values reported for samples with <10% seawater entrainment. For samples with >10% seawater entrainment, the pH value of the best sample is reported, with the corresponding Mg concentration (mmol/kg) in parenthesis. ^b From Proskurowski et al. (2006, 2008); averages and standard deviations are calculated from reported endmember concentrations of multiple samples.

^c From Proskurowski et al. (2008); averages and standard deviations are calculated from reported endmember concentrations of multiple samples.

d From Proskurowski et al. (2006). Temperatures listed here the averages of H₂O-H₂ and CH₄-H₂ geothermometry calculations using the

model of Horibe and Craig (1995). e Averages of calculated endmembers are given with the exception of LC-3, where endmember of the best sample is reported, as discussed in