

**Table S2.** Sulfur parameters for phase 2 samples. R1, R2: petro F76; R3, R4: FT-F76; R5, R6: 1:1 mix of petro- and FT-F76; R7, R8: no added fuel. A. Sulfate Reduction Activity. The average of triplicate samples is shown in units of  $\mu\text{mol S/mL/day}$ . Samples with SRA significantly above baseline values are shown in bold. SRA value of the original seawater used for filling the reactors (Day 0) was  $0.032 \mu\text{mol S/mL/day}$  (average of 5 replicates). B. Concentration of  $\text{H}_2\text{S}$  in aqueous samples (ppm).

<b>A. Sulfate Reduction Activity</b>						
<b>Time (days)</b>	<b>402</b>	<b>431</b>	<b>458</b>	<b>528</b>	<b>591</b>	<b>764</b>
<b>R1: petro-F76</b>	0.037	0.031	0.027	0.039	0.013	0.010
<b>R2: petro-F76</b>	0.040	0.036	0.032	0.029	0.018	0.017
<b>R3: FT-F76</b>	0.023	0.040	0.028	0.019	0.012	0.030
<b>R4: FT-F76</b>	0.021	<b>0.400</b>	0.035	0.022	0.011	0.022
<b>R5: fuel mix</b>	0.040	0.038	0.027	0.019	0.013	0.025
<b>R6: fuel mix</b>	0.046	0.045	0.035	<b>0.260</b>	0.015	0.036
<b>R7: no fuel</b>	0.027	0.024	0.029	0.019	0.083	0.024
<b>R8: no fuel</b>	0.027	0.033	0.023	0.021	0.015	0.025

<b>B. <math>\text{H}_2\text{S}</math></b>						
<b>Time (days)</b>	<b>402</b>	<b>431</b>	<b>458</b>	<b>528</b>	<b>591</b>	<b>750</b>
<b>R1: petro-F76</b>	0	0	0	0	0	0
<b>R2: petro-F76</b>	0	0	0	0	<b>2.5</b>	0
<b>R3: FT-F76</b>	0	<b>5</b>	<b>5</b>	<b>2.5</b>	<b>7.5</b>	<b>5</b>
<b>R4: FT-F76</b>	0	<b>2.5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>R5: fuel mix</b>	0	0	0	0	0	<b>2.5</b>
<b>R6: fuel mix</b>	0	<b>2.5</b>	<b>5</b>	<b>2.5</b>	<b>5</b>	<b>5</b>
<b>R7: no fuel</b>	0	<b>5</b>	0	0	<b>7.5</b>	<b>5</b>
<b>R8: no fuel</b>	0	0	0	0	<b>2.5</b>	<b>5</b>