

**Supplementary Table 7. Frequency that each archaeal sequence or OTU was retrieved by cultivation or by culture-independent methods.**

Phylum	Sequences			OTUs		
	Cultured	Uncultured	Total	Cultured	Uncultured	Total
Euryarchaeota	3352	25071	28423	319	1533	1852
Thaumarchaeota	48	17853	17901	12	739	751
Miscellaneous Crenarchaeotic Group	0	3738	3738	0	724	724
Woesearchaeota	6	628	634	1	301	302
Aenigmarchaeota	2	340	342	2	212	214
Crenarchaeota	220	969	1189	41	128	169
Aigarchaeota	8	308	316	2	56	58
Marine Hydrothermal Vent Group	0	267	267	0	51	51
SM1K20	0	33	33	0	27	27
Diapherotrites	2	42	44	2	23	25
Miscellaneous Euryarchaeotic Group	0	85	85	0	23	23
Nanohaloarchaeota	2	77	79	2	14	16
Korarchaeota	2	212	214	2	10	12
Nanoarchaeota	1	137	138	1	8	9
Parvarcheota	0	9	9	0	7	7
Marine Hydrothermal Vent Group 1	0	13	13	0	5	5
Unclassified	0	4	4	0	4	4
Ancient Archaeal Group	0	191	191	0	3	3
TVG8AR30	0	2	2	0	2	2
Marine Hydrothermal Vent Group 2	0	3	3	0	1	1
Total	3643	49982	53625	384	3871	4255