

**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	25062	28414	319	1533	1852
Thaumarchaeota	46	17837	17883	11	739	750
Miscellaneous Crenarchaeotic Group	0	3738	3738	0	724	724
Woesearchaeota	0	618	618	0	297	297
Aenigmarchaeota	0	339	339	0	212	212
Crenarchaeota	215	965	1180	40	129	169
Aigarchaeota	0	302	302	0	58	58
Marine Hydrothermal Vent Group	0	267	267	0	51	51
SM1K20	0	33	33	0	27	27
Miscellaneous Euryarchaeotic Group	0	85	85	0	23	23
Diapherotrites	0	39	39	0	22	22
Nanohaloarchaeota	2	77	79	2	14	16
Korarchaeota	2	212	214	2	10	12
Nanoarchaeota	1	137	138	1	8	9
Parvarchaeota	0	9	9	0	7	7
Marine Hydrothermal Vent Group 1	0	13	13	0	5	5
Ancient Archaeal Group	0	191	191	0	3	3
Unclassified	0	3	3	0	3	3
TVG8AR30	0	2	2	0	2	2
Marine Hydrothermal Vent Group 2	0	3	3	0	1	1
Total	3618	49932	53550	375	3868	4243