

Table S2. Taxonomic affiliation of core OTUs that contributed $\geq 2\%$ to core sequences.

OTU Rank	OTU taxonomic affiliation					Percent of core sequences
	Phylum	Class	Order	Family	Genus	%
BASAL AQUIFER						
1	Nitrospirae	Nitrospira	Nitrospirales	0319-6A21		9.2
2	Bacteroidetes	Sphingobacteriia	Sphingobacteriales	Chitinophagaceae	<i>Sediminibacterium</i>	8.0
3	Chloroflexi	SAR202 clade				6.5
4	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Gallionellaceae	<i>Gallionella</i>	4.8
5	Omnitrophica					4.2
6	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Gallionellaceae	<i>Sideroxydans</i>	3.9
7	Chloroflexi	SAR202 clade				3.9
8	Proteobacteria					3.8
9	Cyanobacteria	Melainabacteria	Caenarcaniphilales			3.5
10	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillales	<i>Reyranella</i>	2.7
11	Omnitrophica					2.4
12	Nitrospirae	Nitrospira	Nitrospirales	Nitrospiraceae	<i>Leptospirillum</i>	2.3
13	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium</i>	2.1

14	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	<i>Aquabacterium</i>	2.1
15	Chloroflexi	SAR202 clade				2.0
DIKE AQUIFER						
1	Nitrospirae	Nitrospira	Nitrospirales	Nitrospiraceae	<i>Leptospirillum</i>	38.6
2	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	uncultured	23.1
3	Nitrospirae	Nitrospira	Nitrospirales	Nitrospiraceae	<i>Leptospirillum</i>	5.6
4	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Gallionellaceae	uncultured	4.5
5	Nitrospirae	Nitrospira	Nitrospirales	0319-6A21		2.9
6	Proteobacteria	Alphaproteobacteria	4-Org1-14			2.9
7	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillales	<i>Reyranella</i>	2.4
8	Proteobacteria					2.3
9	Cyanobacteria	Melainabacteria	Caenarcaniphilales			2.3
10	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Gallionellaceae	<i>Sideroxydans</i>	2.2