

**Table S2.** The genome information of the organohalide-respiring bacteria represented in Figure 1.

Name	GOLD Analysis Project Id	NCBI Taxon ID	Source	Genome Size (Mb)	GC content (%)	$\sigma^{54}$ - Dependent activator	RDase A
<i>Desulfitobacterium chlororespirans</i> DSM 11544	Ga0008181	1121395	Compost pile, USA	5.61	47.29	40	2
<i>Desulfitobacterium dehalogenans</i> JW/IU-DC1	Ga0024867	756499	Freshwater pond sediment, Georgia USA	4.32	44.97	21	6
<i>Desulfitobacterium dichloroeliminans</i> LMG P-21439	Ga0024953	871963	Soil polluted with 1,2-DCA	3.62	44.22	12	1
<i>Desulfitobacterium hafniense</i> DCB-2	Ga0028500	272564	Municipal sludge, Denmark	5.28	47.54	34	7
<i>Desulfitobacterium hafniense</i> Y51	Ga0028501	138119	Soil contaminated with tetrachloroethene, Japan	5.73	47.36	38	1
<i>Dehalococcoides mccartyi</i> BAV1	Ga0028484	216389	Fresh water, Michigan	1.34	47.17	0	12
<i>Dehalococcoides mccartyi</i> CBDB1	Ga0028485	255470	Anoxic river sediment	1.4	47.03	0	31
<i>Dehalococcoides mccartyi</i> 195	Ga0028483	243164	Anaerobic sewage digester	1.47	48.85	0	18
<i>Dehalobacter restrictus</i> DSM 9455	Ga0025056	871738	PCE-dechlorinating packed-bed column, Netherlands	2.94	44.56	3	24
<i>Dehalobacter</i> sp. CF	Ga0026847	1131462	1,1,1-TCA and TCE contaminated site	3.09	44.31	1	17
<i>Nitratireductor pacificus</i> pht-3B	Ga0012014	391937	Sediment, Indian Ocean	4.47	65.51	5	3
<i>Sulfurospirillum multivorans</i> DSM 12446	Ga0023093	1150621	Activated sludge, Germany	3.18	40.9	4	2
<i>Dehalogenimonas lykanthroporepellens</i> BL-DC-9	Ga0028488	552811	Waste recovery well at the Petro-Processors of Louisiana, Inc. Superfund Site	1.69	55.04	0	22
<i>Shewanella sediminis</i> HAW-EB3	Ga0030285	425104	Sediment at depth of 215m from an unexploded-ordnance-dumping site at Halifax	5.52	46.08	18	5