

Appendix A. Quality-control data

Appendix A1. Quality-control data for percent dry weight of sediment in samples collected during distribution, source, and spatial studies at Ohio beaches, 2000 and 2001

[--, no data]

Beach	Location or beach area sampled	Date	Percent dry weight			
			Jan 1	Jan 1 split	Jan 2	Jan 2 split
Lake-bottom sediment						
Edgewater	Area 1	8/8/00	75.3	75.3	77.5	77.1
Edgewater	Area 1	8/28/00	77.6	--	77.0	--
Edgewater	Area 2	8/29/00	80.7	--	75.5	--
Mosquito	South Lakeshore	7/31/00	56.0	56.8	56.4	57.0
Mosquito	Area 3	6/13/01	84.6	--	86.4	--
Mosquito	Area 3	8/28/01	87.0	86.4	--	--
Huntington	Area 4	8/7/00	79.9	--	79.6	--
Edgewater	Area 4	8/5/01	78.5	--	79.3	--
Edgewater	Area 4	8/6/01	78.8	--	79.2	--
Subsurface sediment from near the swash zone						
Mosquito	Area 1	8/2/00	83.3	--	82.9	
Mosquito	Area 1	6/13/01	83.9	83.6	--	--
Mosquito	Area 1	6/13/01	89.7	89.3	--	--
Mosquito	Area 2	8/2/00	88.2	87.8	88.3	88.0
Edgewater	Area 4	8/5/01	74.7	--	75.8	--

Appendix A2. Quality-control data for concentrations of *Escherichia coli* in water samples collected during routine studies, at Ohio beaches, 2000 and 2001

[K, results based on colony count outside the ideal range of 20-80 colonies per plate; --, no data]

Beach	Location or beach area sampled	Date	Concentration of <i>Escherichia coli</i> (colonies per 100 milliliters)			
			Bottle 1	Bottle 1 split	Bottle 2	Bottle 2 split
Edgewater	Area 2	5/24/01	35	38	--	--
Edgewater	Area 2	6/25/01	28	32	--	--
Edgewater	Area 2	8/14/01	76	76	--	--
Edgewater	Area 3	7/16/01	K14	K15	--	--
Edgewater	Area 3	8/7/01	74	69	--	--
Edgewater	Area 3	8/13/01	330	360	--	--
Edgewater	Area 3	8/15/01	K28	K24	--	--
Villa Angela	Area 2	8/13/01	90	130	--	--
Villa Angela	Area 3	6/5/01	K4700	K4900	--	--
Villa Angela	Area 3	6/13/01	78	70	--	--
Villa Angela	Area 3	6/19/01	200	220	--	--
Villa Angela	Area 3	7/24/01	400	510	--	--
Villa Angela	Area 3	8/14/01	140	130	--	--
Huntington	Area 2	6/20/01	160	110	--	--
Huntington	Area 1	6/20/01	500	480	--	--
Huntington	Area 1	7/18/01	K880	K930	--	--
Huntington	Area 1	8/14/01	K140	--	K110	--
Huntington	Area 1	8/15/01	K5	K5	--	--
Huntington	Area 1	8/16/01	K24	K20	--	--

Appendix A2. Quality-control data for concentrations of *Escherichia coli* in water samples collected during routine studies, at Ohio beaches, 2000 and 2001 —Continued

[K, results based on colony count outside the ideal range of 20-80 colonies per plate; --, no data]

Beach	Location or beach area sampled	Date	Concentration of <i>Escherichia coli</i> (colonies per 100 milliliters)			
			Bottle 1	Bottle 1 split	Bottle 2	Bottle 2 split
Huntington	Area 1	8/29/01	170	190	--	--
Huntington	Area 1	7/18/01	K840	K910	--	--
Huntington	Area 1	8/14/01	250	--	K160	--
Huntington	Area 2	8/15/01	K3	K3	--	--
Huntington	Area 2	8/16/01	K17	K14	--	--
Huntington	Area 2	8/29/01	200	210	--	--
Mosquito	Area 2	7/5/00	K9	K1	K1	K1
Mosquito	Area 2	7/24/00	120	80	110	140
Mosquito	Area 2	7/10/01	K12	--	K8	--
Mosquito	Area 2	7/30/01	K11	--	K12	--
Mosquito	Area 2	8/9/01	52	--	73	--
Mosquito	Area 2	8/16/01	18	--	21	--
Mosquito	Area 3	7/10/01	K15	--	K12	--
Mosquito	Area 3	7/30/01	K13	--	K23	--
Mosquito	Area 3	8/9/01	37	--	43	--
Mosquito	Area 3	8/16/01	19	--	23	--

Appendix A3. Quality-control data for concentrations of *Escherichia coli* in water and sediment samples collected during distribution, source, and spatial studies at Ohio beaches, 2000 and 2001

[K, results based on colony count outside the ideal range of 20-80 colonies per plate;< , concentration reported is less than that indicated; --, no data]

Beach	Location or beach area sampled	Date	Concentration of <i>Escherichia coli</i>			
			Bottle or jar 1	Bottle or jar 1 split	Bottle or jar 2	Bottle or jar 2 split
Lake water (colonies per 100 milliliters)						
Edgewater	Area 3	6/27/01	K9	K6	K11	K9
Edgewater	Area 3	6/28/01	K4	K3	K1	K5
Edgewater	Area 3	8/5/01	38	32	37	33
Edgewater	Area 3	8/6/01	27	28	20	22
Edgewater	Area 4	8/4/01	K66	100	150	100
Huntington	Area 2	6/19/00	560	480	460	--
Mosquito	Area 1	8/28/01	K120	K100	K110	K140
Mosquito	Area 2	6/13/01	K7	K7	K14	K7
Mosquito	North Lakeshore	6/6/00	K4	K1	K4	K6
Mosquito	North Lakeshore	8/1/00	<3	K2	<3	K2
Villa Angela	Area 2	8/7/00	1,800	2,200	2,200	1,500
Interstitial water (colonies per 100 milliliters)						
Edgewater	Area 1	8/6/01	4,300	4,100	4,600	2,900
Edgewater	Area 2	7/26/00	700	--	770	--
Edgewater	Area 2	7/26/00	72,000	--	40,000	--
Edgewater	Area 3	8/4/01	2,300	2,700	2,000	2,300
Mosquito	Area 1	7/31/00	K420,000	K78,000	230,000	440,000
Villa Angela	Area 4	7/26/00	K410	--	K140	--
Villa Angela	Area 4	7/26/00	K160	--	K180	--

Appendix A3. Quality-control data for concentrations of *Escherichia coli* in water and sediment samples collected during distribution, source, and spatial studies at Ohio beaches, 2000 and 2001 —Continued

[K, results based on colony count outside the ideal range of 20-80 colonies per plate;< , concentration reported is less than that indicated; --, no data]

Beach	Location or beach area sampled	Date	Concentration of <i>Escherichia coli</i>			
			Bottle or jar 1	Bottle or jar 1 split	Bottle or jar 2	Bottle or jar 2 split
Lake sediment (colonies per gram dry weight of sediment)						
Edgewater	Area 1	8/8/00	140	300	110	77
Edgewater	Area 1	8/28/00	7	--	9	--
Edgewater	Area 1	6/28/01	36	49	37	30
Edgewater	Area 4	8/5/01	9	--	13	--
Edgewater	Area 4	8/6/01	6	--	23	--
Mosquito	Area 2	8/2/00	82	85	10	7
Mosquito	Area 3	6/13/01	42	--	61	--
Mosquito	South Lakeshore	7/31/00	K20	<62	<62	<61
Subsurface sediment near the swash zone (colonies per gram dry weight of sediment)						
Edgewater	Area 2	7/26/00	K15	--	K15	--
Edgewater	Area 2	7/26/00	K16	--	29	--
Edgewater	Area 4	8/5/01	55	--	60	--
Villa Angela	Area 4	7/26/00	21	--	19	--
Villa Angela	Area 4	7/26/00	K7	--	K15	--

Appendix A4. Quality-control data for caffeine concentrations in water samples collected at Ohio beaches during distribution, source, and spatial studies in 2000 and routine studies during 2001

[µg/L, micrograms per liter; Westerly, Westerly Wastewater Treatment Plant, Cleveland, Ohio; --, no data or not applicable]

Beach	Beach area sampled	Date	Caffeine (µg/L)			Percent difference between bottles
			Bottle 1	Bottle 2	Difference between bottles	
Replicates						
Edgewater	Area 2	7/16/01	0.380	0.156	0.224	84
Edgewater	Area 2	8/13/01	.139	.072	.067	63
Edgewater	Area 2	8/27/01	.104	.108	.004	4.1
Huntington	Area 2	5/30/01	.152	.148	.004	2.7
Huntington	Area 2	7/17/01	1.02	.584	.431	54
Huntington	Area 2	7/25/01	.638	.495	.143	25
Huntington	Area 2	7/31/01	.103	.136	.033	28
Huntington	Area 2	8/30/01	.124	.130	.006	4.4
Villa Angela	Area 3	6/18/01	.295	.320	.025	8.1
Villa Angela	Area 3	7/16/01	.183	.214	.031	16
Villa Angela	Area 3	7/25/01	.136	<.008	.136	100
Villa Angela	Area 3	7/30/01	.082	.088	.005	6.4
Villa Angela	Area 3	8/6/01	.125	.120	.004	3.6
Villa Angela	Area 3	8/13/01	.135	.055	.079	83
Villa Angela	Area 3	8/21/01	.126	.156	.030	21

Appendix A4. Quality-control data for caffeine concentrations in water samples collected at Ohio beaches during distribution, source, and spatial studies in 2000 and routine studies during 2001 —Continued

[µg/L, micrograms per liter; Westerly, Westerly Wastewater Treatment Plant, Cleveland, Ohio; --, no data or not applicable]

Beach	Beach area sampled	Date	Caffeine (µg/L)			Percent difference between bottles
			Bottle 1	Bottle 2	Difference between bottles	
Spikes						
Edgewater	Area 1	8/7/00	0.143	0.125	0.018	13.4
Huntington	Area 3	8/8/00	.102	.107	.005	4.8
Villa Angela	Area 1	8/17/00	1.84	--	--	--
Westerly	--	6/20/00	12.9	--	--	--
Blanks						
Edgewater	Area 2	5/30/01	<0.008	--	--	--
Edgewater	Area 2	7/17/01	<.008	--	--	--
Huntington	Area 2	6/6/01	.220	--	--	--
Huntington	Area 2	7/16/01	<.008	--	--	--
Villa Angela	Area 3	7/19/01	.094	--	--	--
Villa Angela	Area 3	8/27/01	<.008	--	--	--