

TABLE 2.

SEWAGE INFECTED WATER TREATED WITH 0.4 PARTS PER MILLION AVAILABLE CHLORINE
REDUCTION OF BACTERIAL GROWTH.

Date of Experiment.	Source of Available Chlorine.							
	Bleaching Powder.				Liquid Chlorine.			
	Initial Count.	20 min. Action.	50 min. Action.	90 min. Action.	Initial Count.	20 min. Action.	50 min. Action.	90 min. Action.
December 31, 1914.....	520	18°-22°C. count.	100	200	600	200	400	
January 4, 1915.....	7,200	200	70	200	1,400	120	400	
.. 5	5,000	4,000	5,200	average	6,400	1,700	4,800	
.. 6	8,738	3,400	1,200	1,600	8,738	2,400	2,200	1,200
.. 7	5,600	1,800	480	3,600	1,800	720	1,800	720
.. 8	400	150	80	1,600	1,800	180	1,800	180
Average.....	450	180	200	4,000	2,800	140	4,000	2,800
Per cent. Reduction.....	8,738	2,261	1,057	806	8,738	2,371	1,335	1,112
		74.1	87.9	90.7		72.8	84.8	87.3

37°-40° Count.

December 31, 1914.....	800	520	28	22	400	440	43	
January 4, 1915.....	5,066	3,200	650	650	3,600	1,600	1,600	
.. 5	3,866	2,500	2,000	1,200	3,000	1,600	400	
.. 6	4,600	2,000	1,000	600	2,400	1,000	400	
.. 7	2,200	1,050	120	5,376	170	50	40	
.. 8	10,866	40	0	60	30	40	50	
Average.....	2,966	200	280	150	600	2,400	100	
Per cent. Reduction.....	9,466	2,800	100	240	400	400	170	
		2,400	150	200	500	500	130	
	5,376	1,785	708	312	5,376	1,124	1,077	430
		66.8	86.8	94.3		79.0	79.9	91.9

Colon Group. (per 100 c.c.)

December 31, 1914.....	100	20	0	0	20	0	0	
January 4, 1915.....	100	100	100	100	20	100	0	
.. 5	100	100	100	100	100	100	100	
.. 6	4,664	100	20	4,664	100	20	20	
.. 7	100	20	4	0	100	100	20	
.. 8	100	100	0	0	100	100	0	
Average.....	4,664	89	52	42	4,664	77	74	21
Per cent. Reduction.....		98.1	98.8	99.3		98.3	98.4	99.5

TABLE 4.

SEWAGE INFECTED WATER TREATED WITH 0.8 PARTS PER MILLION AVAILABLE CHLORINE
REDUCTION OF BACTERIAL GROWTH.

Date of Experiment.	Source of Available Chlorine.							
	Bleaching Powder.				Liquid Chlorine.			
	Initial Count.	20 min. Action.	50 min. Action.	90 min. Action.	Initial Count.	20 min. Action.	50 min. Action.	90 min. Action.
December 31, 1914.....	120	18°-22°C. count.	10	10	56	16	20	
January 4, 1915.....	average.	10	6	3	25	4	18	
.. 5	8,738	320	180	8,738	320	160	10	
.. 6	100	34	9	48	40	10	3	
.. 7	14	4	0	14	8	4	4	
.. 8	15	6	0	10	4	1	1	
Average.....	10	2	2	4	1	1	1	
Per cent. reduction.....	1	16	0	3	1	0	0	
	4	2	0	0	0	0	0	
	60	40	8	400	160	120	100	
	45	25	8	230	100	100		
	8,738	74	38	16	8,738	133	37	21
		99.1	99.6	99.8		98.5	99.6	99.9

37°-40° Count.

December 31, 1914.....	12	7	7	4	4	4		
January 4, 1915.....	average.	16	5	4	12	10	2	
.. 5	5,376	32	22	6	22	11	4	
.. 6	68	63	24	18	19	6	4	
.. 7	70	30	14	40	6	4	10	
.. 8	40	30	0	20	5	2	2	
Average.....	30	15	1	22	2	2	2	
Per cent. reduction.....	7	6	0	24	6	0	0	
	5	2	1	3	1	1	1	
	19	30	4	8	80	30	30	
	5	6	8	4	20	2	2	
	80	24	24	80	100	24	24	
	12	14	12	28	32	22		
	5,376	30	19	8	5,376	24	22	8
		99.4	99.6	99.8		99.5	99.6	99.8

Colon Group. (per 100 c.c.)

December 31, 1914.....	average.	20	0	0	average.	4	0	0
January 4, 1915.....	4,664	0	0	0	4,664	4	0	0
.. 5	100	0	0	0	100	0	0	0
.. 6	100	4	0	0	20	4	0	0
.. 7	20	20	4	0	20	4	20	0
.. 8	100	4	0	0	4	20	0	0
Average.....	4,664	51.4	4.5	3.4	4,664	24.4	7	3
Per cent. reduction.....		98.8	99.9	99.9		99.5	99.9	99.9

TABLE 3.

SEWAGE INFECTED WATER TREATED WITH 0.6 PARTS PER MILLION AVAILABLE CHLORINE
REDUCTION OF BACTERIAL GROWTH.

Date of Experiment.	Source of Available Chlorine.							
	Bleaching Powder.				Liquid Chlorine.			
	Initial Count.	20 min. Action.	50 min. Action.	90 min. Action.	Initial Count.	20 min. Action.	50 min. Action.	90 min. Action.
December 31, 1914.....	26	18°-22°C. count.	4	10	440	10	40	
January 4, 1915.....	average.	10	10	3	90	4	60	
.. 5	8,738	300	240	500	1,600	2,400	240	
.. 6	800	120	70	8,738	200	240	60	
.. 7	200	240	60	200	300	30	30	
.. 8	700	120	30	6	12	10	10	
Average.....	400	80	0	6	12	10	10	
Per cent. reduction.....	8	1	2	5	5	2	2	
	0	4	0	5	25	2	2	
	2	2	4	4	7	0	0	
	450	240	54	320	120	100	100	
	520	180	80	400	120	70		
	8,738	295	107	80	8,738	313	318	68
		96.6	98.7	99		96.4	96.3	99.2

37°-40° Count.

December 31, 1914.....	140	6	10	480	28	10		
January 4, 1915.....	average.	110	18	7	410	48	5	
.. 5	200	200	80	1,200	240	150		
.. 6	180	80	40	1,800	280	110		
.. 7	5,376	360	200	10	5,376	160	200	40
.. 8	360	60	50	80	180	0	0	
Average.....	70	30	20	300	10	20		
Per cent. reduction.....	50	30	20	120	30	0		
	16	3	2	30	20	4		
	6	2	1	15	2	2		
	8	12	16	80	20	5		
	6	16	15	50	22	15		
	240	100	36	320	200	20		
	200	60	38	220	80	16		
	5,376	139	58	24	5,376	98	28	
		97.4	98.9	99.5		93.0	98.1	99.5

Colon Group. (per 100 c.c.)

December 31, 1914.....	average.	20	0	0	20	0	0	
January 4, 1915.....	4,664	100	20	20	100	4	0	
.. 5	100	20	20	20	20	20	4	
.. 6	20	0	0	20	0	0	0	
.. 7	20	20	4	100	20	4	0	
.. 8	100	20	0	100	100	0	0	
Average.....	4,664	65	14	7	4,664	54	21	1
Per cent. reduction.....		98.6	99.7	99.8		98.8	99.5	99.9

TABLE 5.

SEWAGE INFECTED WATER TREATED WITH 1.0 PARTS PER MILLION AVAILABLE CHLORINE
REDUCTION OF BACTERIAL GROWTH.

Date of Experiment.	Source of Available Chlorine.							
	Bleaching Powder.				Liquid Chlorine.			
	Initial count.	20 min. action.	50 min. action.	90 min. action.	Initial count.	20 min. action.	50 min. action.	90 min. action.
December 31, 1914.....	average.	3	5	5	8,738	50	2	7
January 4, 1915.....	8,738	2	3	3	12	2	19	
.. 5	80	40	6	6	50	3	5	
.. 6	48	3	10	60	7	6	6	
.. 7	12	28	1	30	15	4		
.. 8	40	6	1	12	2	1		
Average.....	4	1	0	0	3	2		
Per cent. reduction.....	5	3	0	1	3	1		
	16	9	0	10	4	1		
	8	3	0	8	4	2		
	1	4	0	6	0	0		
	1	3	0	0	0	1		
	6	2	7	50	15	8		
	10	6	11	16	7	4		
	8,738	17	9	3	8,738	22	5	3
		99.8	99.9	99.9		99.7	99.9	99.9

37°-40° Count.

December 31, 1914.....	average.	9	2	3	5,376	8	7	5
January 4, 1915.....	5,376	11	3	7	4	3	4	
.. 5	8	5	8	5	14	4	4	
.. 6	6	4	3	7	4	3		
.. 7	30	18	7	40	10	7		
.. 8	20	7	10	22	7	7		
Average.....	18	12	0	5	9	5		
Per cent. reduction.....	6	6	2	25	5	1		
	6	6	1	6	2	1		
	4	0	0	5	7	3		
	14	20	2	5	38	5		
	15	6	4	10	10	3		
	14	12	8	20	20	5		
	16	11	10	12	12	14		
	5,376	13	8	5	5,376	12	11	5
		99.7	99.9	99.9		99.7	99.9	99.9

Colon Group. (per 100 c.c.)

December 31, 1914.....	average.	0	0	0	20	0	0	
January 4, 1915.....	8,664	0	0	0	100	0	0	
.. 5	100	4	0	0	4	0	0	
.. 6	4	4	20	20	4	0	0	
.. 7	20	0	0	20	0	0	0	
.. 8	4	4	0	4	4	4	4	
Average.....	4,644	16.5	1.7	2.8	4,644	24	7	1
Per cent. Reduction.....		99.7	99.9	99.9		99.5	99.9	99.9