

6.0 Waimate Water Pollution Control Works

Pond Temperature and Dissolved Oxygen Levels

Consent ref CRC 000168,000169

The following pages show results obtained during a monitoring period covering March, April and May of 2004.

Week ending Saturday 22nd May 2004.

Date and Time 18/05/04 0900 and 21/05/04 1000

	Dissolved Oxygen (ppm)		Temperature (°Celsius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday	3.68	3.70	9.80	9.70
Friday	6.82	6.70	9.60	9.70
Pond 1 Location B (Pond outlet)				
Tuesday	3.83	4.02	9.40	9.40
Friday	7.10	7.95	9.60	9.60
Pond 2 Location A (10m downstream of inlet)				
Tuesday	4.35	4.17	9.20	9.20
Friday	7.04	6.42	9.70	9.40
Pond 2 Location B (Outlet)				
Tuesday	4.21	4.17	9.20	9.20
Friday	6.69	4.94	9.00	8.90
Pond 3 Location A (Outlet)				
Tuesday	2.96	3.18	9.40	9.40
Friday	3.08	3.58	9.20	9.10
Pond 4 Location A (Outlet)				
Tuesday	3.67	3.77	9.20	9.20
Friday	3.24	2.42	9.20	9.00
Pond 5 Location A (Final effluent)				
Tuesday	4.62	4.83	9.40	9.40
Friday	3.04	3.50	9.20	9.30

Waimate 2020

Week ending Saturday 15th May 2004.

Date and Time 11/05/04 0840

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday	1.78	1.88	10.30	10.30
Friday	2.15	2.14	10.00	10.10
Pond 1 Location B (Pond outlet)				
Tuesday	1.23	1.26	10.20	10.20
Friday	3.11	2.95	10.10	10.10
Pond 2 Location A (10m downstream of inlet)				
Tuesday	5.78	5.87	9.60	9.60
Friday	5.90	5.91	9.80	9.90
Pond 2 Location B (Outlet)				
Tuesday	9.47	9.25	9.50	9.60
Friday	7.66	7.68	9.50	9.60
Pond 3 Location A (Outlet)				
Tuesday	5.62	5.91	9.50	9.50
Friday	6.01	6.21	9.50	9.50
Pond 4 Location A (Outlet)				
Tuesday	6.68	6.46	9.80	9.80
Friday	6.73	6.66	9.70	9.70
Pond 5 Location A (Final effluent)				
Tuesday	6.69	6.66	9.60	9.50
Friday	6.61	6.62	9.60	9.60

Week ending Saturday 8th May 2004.

Date and Time 04/05/04 1000 and 07/05/04 1300

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday	3.14	3.14	11.70	11.70
Friday	5.40	5.43	10.70	10.70
Pond 1 Location B (Pond outlet)				
Tuesday	2.95	3.11	11.60	11.50
Friday	5.69	5.50	10.70	10.70
Pond 2 Location A (10m downstream of inlet)				
Tuesday	7.90	7.50	11.70	11.60
Friday	11.03	10.90	10.20	10.20
Pond 2 Location B (Outlet)				
Tuesday	9.31	9.32	11.00	10.90
Friday	8.99	8.30	9.20	9.70
Pond 3 Location A (Outlet)				
Tuesday	3.71	3.67	11.00	10.90
Friday	8.93	8.99	10.00	9.90
Pond 4 Location A (Outlet)				
Tuesday	4.70	4.80	11.00	10.80
Friday	6.90	7.13	10.00	9.90
Pond 5 Location A (Final effluent)				
Tuesday	5.20	5.20	10.70	10.70
Friday	8.12	7.73	10.70	10.30

Waimate 2020

Week ending Saturday 1st May 2004.

Date and Time 27/04/04 1035

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday	4.30	4.33	12.20	12.20
Friday	4.80	4.81	12.00	11.90
Pond 1 Location B (Pond outlet)				
Tuesday	5.14	5.53	12.30	12.20
Friday	4.99	4.95	12.10	12.00
Pond 2 Location A (10m downstream of inlet)				
Tuesday	16.10	14.49	12.60	12.30
Friday	9.91	9.96	11.90	11.80
Pond 2 Location B (Outlet)				
Tuesday	10.89	8.89	12.10	11.70
Friday	7.73	7.75	11.90	11.80
Pond 3 Location A (Outlet)				
Tuesday	8.84	5.46	12.20	11.90
Friday	6.15	5.20	11.90	11.90
Pond 4 Location A (Outlet)				
Tuesday	8.31	5.28	11.70	11.50
Friday	7.21	5.96	11.90	11.80
Pond 5 Location A (Final effluent)				
Tuesday	7.04	6.52	12.20	11.50
Friday	6.82	6.61	11.90	11.90

Week ending Saturday 24th April 2004.

Date and Time 20/04/04 1000 and 23/04/04 0910

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday	1.82	1.87	13.00	13.00
Friday	1.20	1.19	13.40	13.40
Pond 1 Location B (Pond outlet)				
Tuesday	1.55	1.63	13.00	13.00
Friday	0.68	0.88	13.30	13.40
Pond 2 Location A (10m downstream of inlet)				
Tuesday	7.17	7.25	12.40	12.40
Friday	9.90	9.91	12.40	13.20
Pond 2 Location B (Outlet)				
Tuesday	7.94	8.15	12.30	12.40
Friday	11.11	10.89	12.90	12.90
Pond 3 Location A (Outlet)				
Tuesday	7.38	6.47	12.10	12.10
Friday	6.65	6.51	12.60	12.30
Pond 4 Location A (Outlet)				
Tuesday	6.74	8.04	12.30	12.20
Friday	8.44	8.33	12.60	12.60
Pond 5 Location A (Final effluent)				
Tuesday	5.94	5.88	12.20	12.20
Friday	8.11	7.84	12.60	12.60

Waimate 2020

Week ending Saturday 17th April 2004.

Date and Time 16/04/04 0900

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday	3.84	3.94	12.70	12.80
Friday	3.73	3.87	12.40	12.30
Pond 1 Location B (Pond outlet)				
Tuesday	3.87	3.95	12.30	12.20
Friday	3.46	3.54	12.10	12.10
Pond 2 Location A (10m downstream of inlet)				
Tuesday	10.57	11.09	11.70	11.50
Friday	10.46	10.24	11.50	11.60
Pond 2 Location B (Outlet)				
Tuesday	13.25	13.87	11.60	11.70
Friday	12.87	12.54	11.70	11.70
Pond 3 Location A (Outlet)				
Tuesday	5.23	8.30	11.50	11.40
Friday	8.94	8.96	11.40	11.40
Pond 4 Location A (Outlet)				
Tuesday	6.27	6.51	11.30	11.20
Friday	5.91	5.92	11.00	11.10
Pond 5 Location A (Final effluent)				
Tuesday	8.15	9.20	11.60	11.50
Friday	7.91	7.80	11.70	11.70

Week ending Saturday 10th April 2004.

Date and Time

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday				
Friday	8.95	8.94	12.50	12.60
Pond 1 Location B (Pond outlet)				
Tuesday				
Friday	10.30	10.30	12.40	12.50
Pond 2 Location A (10m downstream of inlet)				
Tuesday				
Friday	10.50	10.30	12.40	12.30
Pond 2 Location B (Outlet)				
Tuesday				
Friday	12.10	12.10	12.20	12.30
Pond 3 Location A (Outlet)				
Tuesday				
Friday	9.30	9.30	13.00	13.10
Pond 4 Location A (Outlet)				
Tuesday				
Friday	9.40	9.30	13.00	13.10
Pond 5 Location A (Final effluent)				
Tuesday				
Friday	7.10	7.20	13.00	13.00

Waimate 2020

Week ending Saturday 27th March 2004.

Date and Time

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday	1.34	1.40	16.50	16.50
Friday	4.90	4.35	15.30	15.80
Pond 1 Location B (Pond outlet)				
Tuesday	1.14	1.18	16.40	16.4
Friday	4.30	4.30	15.80	15.80
Pond 2 Location A (10m downstream of inlet)				
Tuesday	3.94	3.79	16.00	16.00
Friday	4.51	4.77	14.60	14.50
Pond 2 Location B (Outlet)				
Tuesday	6.78	7.86	15.80	15.90
Friday	8.95	9.31	15.40	15.30
Pond 3 Location A (Outlet)				
Tuesday	5.17	5.27	15.70	15.90
Friday	7.31	7.56	14.80	14.90
Pond 4 Location A (Outlet)				
Tuesday	5.41	5.61	15.30	15.60
Friday	9.71	9.63	15.50	15.70
Pond 5 Location A (Final effluent)				
Tuesday	6.70	6.69	15.30	15.40
Friday	9.98	9.51	15.30	15.20

Week ending Saturday 20th March 2004.

Date and Time 19/03/04 0850

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday				
Friday	1.17	1.23	6.80	6.90
Pond 1 Location B (Pond outlet)				
Tuesday				
Friday	0.72	0.72	6.80	6.80
Pond 2 Location A (10m downstream of inlet)				
Tuesday				
Friday	4.03	3.99	6.40	6.40
Pond 2 Location B (Outlet)				
Tuesday				
Friday	7.12	6.66	6.20	6.10
Pond 3 Location A (Outlet)				
Tuesday				
Friday	7.17	7.13	6.20	6.20
Pond 4 Location A (Outlet)				
Tuesday				
Friday	8.84	8.17	6.20	6.10
Pond 5 Location A (Final effluent)				
Tuesday				
Friday	8.26	7.56	6.20	6.10

Waimate 2020

Week ending Saturday 13th March 2004.

Date and Time Cloudy

	Dissolved Oxygen (ppm)		Temperature (°Celcius)	
	Surface	500mm deep	Surface	500mm deep
Pond 1 Location A (10m downstream of sludge basin)				
Tuesday				
Friday	4.80	4.70	17.80	17.80
Pond 1 Location B (Pond outlet)				
Tuesday				
Friday	5.10	5.30	17.80	17.70
Pond 2 Location A (10m downstream of inlet)				
Tuesday				
Friday	8.40	16.90	10.00	17.10
Pond 2 Location B (Outlet)				
Tuesday				
Friday	8.10	6.60	16.90	16.80
Pond 3 Location A (Outlet)				
Tuesday				
Friday	7.40	7.30	16.40	16.40
Pond 4 Location A (Outlet)				
Tuesday				
Friday	7.10	7.00	16.70	16.20
Pond 5 Location A (Final effluent)				
Tuesday				
Friday	6.20	6.70	16.00	16.10