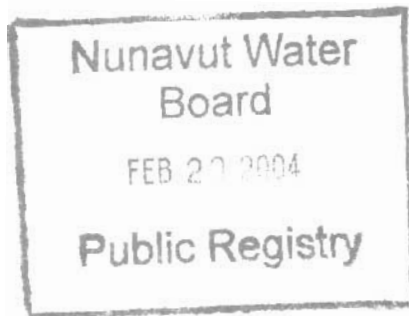




16 February 2004
Executive Director
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0



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Attention: Mr. Phillipe di Pizzo
First Report for Water Licence# NWB3GRA0207

Attached is an annual report titled "*Annual Utilidor Report for the Department of Public Works & Services, Rankin Inlet-Water & Wastewater Volumes & Quality.*"

This report outlines the usage volumes of water drawn from the source, as well as sewage volumes discharged, as required under the conditions of Water Licence NWB3GRA0207. Also included in the attached document are the results of daily water quality monitoring efforts throughout the year which measured fluoride and chlorine concentration, as well as five (5) full spectrum tests conducted by Taiga Labs in Yellowknife.

Still to be submitted under the Licence requirements, is an Operations and Maintenance Manual which is being compiled by the Utilidor Systems Officer Amil Lindsay.

Sincerely,

Brian McKay
Director
Public Works & Services
Kivalliq Region

cc: Ralph Ruediger, Facilities Manager, Public Works & Services (acting)
cc: Amil Lindsay, Utilidor Systems Officer, Public Works & Services



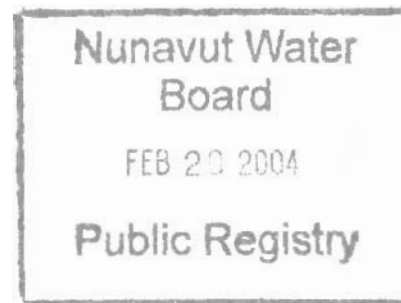
ANNUAL REPORT FOR THE DEPARTMENT OF PUBLIC WORKS & SERVICES-RANKIN INLET WATER WASTEWATER VOLUMES & QUALITY

YEAR BEING REPORTED- 2003

The following information is compiled pursuant to the requirements of Part B, Item 1 of the Water License NWB3GRA0207 issued to the Hamlet of Rankin Inlet.

The following report contains values obtained over the course of the year through regular monitoring of Nipissar Lake Reservoir and Intake Structure, GRA-1, Williamson Lake Pump-House and Rankin Inlet Waste Water Treatment Plant, GRA-3. It includes daily water quality indicators using chlorine and fluoride values, daily usage volumes and monthly discharge volumes.

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WATER AND WASTEWATER VOLUME TABLES



ANNUAL REPORT FOR THE DEPARTMENT OF PUBLIC WORKS & SERVICES-RANKIN INLET WATER WASTEWATER VOLUMES & QUALITY

WATER USAGE AND DISCHARGE VOLUMES

The attached tabular reports entitled "Utilidor Report-Monthly Volumes Drawn from Source and Monthly Sewage Volumes" and "Utilidor Monthly Report-Volumes Drawn From Source and Volumes Delivered to Town", are a comprehensive record of water usage values.

As can be seen, the daily draw from the source varied between approximately 650 and 2500 cubic meters. The lowest being 651 m³ recorded on May 13, 2003 and the highest being 2382 m³ recorded on October 6, 2003. Monthly use varied between a low of 32,244 m³ for June 2003 and a high of 48,272 m³ for March 2003.

The volumes of wastewater discharged on a monthly basis were directly proportional to water usage. The low and high months were different however, with the lowest discharge volume recorded at 28,011 m³ in November and highest at 43,774 m³ in March.



Utilidor Report

Monthly Volumes Drawn From Source and Monthly Volumes Sewage Volumes

	Vol. from Source (m ³)	Vol. Of Wastewater (m ³)
January 2003	34,778	31,989
February 2003	38,796	34,260
March 2003	48,272	43,774
April 2003	39,150	33,920
May 2003	37,331	36,743
June 2003	32,244	34,103
July 2003	32,448	34,814
August 2003	36,129	36,565
September 2003	35,181	32,175
October 2003	42,660	30,459
November 2003	35,956	28,011
December 2003	39,005	37,207
Yearly Totals	451,949	414,020



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

January 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Jan-2003	1,039.37	60.56%	14.33	978.83
2-Jan-2003	1,027.35	60.56%	14.17	981.60
3-Jan-2003	1,052.35	60.61%	14.50	1,020.22
4-Jan-2003	1,111.15	61.18%	15.17	1,019.32
5-Jan-2003	1,109.18	61.75%	15.00	1,025.98
6-Jan-2003	1,075.05	60.52%	14.83	990.22
7-Jan-2003	1,069.22	61.58%	14.50	983.75
8-Jan-2003	1,081.23	61.56%	14.67	985.40
9-Jan-2003	1,093.93	61.59%	14.83	992.35
10-Jan-2003	971.90	60.87%	13.33	985.82
11-Jan-2003	1,121.43	61.75%	15.17	1,022.68
12-Jan-2003	1,073.28	61.11%	14.67	1,019.18
13-Jan-2003	1,053.67	61.39%	14.33	1,016.63
14-Jan-2003	1,051.07	61.24%	14.33	996.57
15-Jan-2003	1,141.98	61.53%	15.50	1,038.48
16-Jan-2003	997.85	61.73%	13.50	1,016.27
17-Jan-2003	1,069.93	60.92%	14.67	989.27
18-Jan-2003	1,084.12	61.03%	14.83	1,049.42
19-Jan-2003	1,091.97	61.48%	14.83	1,038.35
20-Jan-2003	1,140.00	61.42%	15.50	1,030.25
21-Jan-2003	1,208.03	61.14%	16.50	1,078.60
22-Jan-2003	1,133.23	61.06%	15.50	1,052.67
23-Jan-2003	1,074.78	60.51%	14.83	1,048.62
24-Jan-2003	1,150.97	60.71%	15.83	1,068.13
25-Jan-2003	1,228.93	61.58%	16.67	1,099.38
26-Jan-2003	1,244.07	61.11%	17.00	1,151.53
27-Jan-2003	1,104.07	60.79%	15.17	1,081.47
28-Jan-2003	1,440.15	59.64%	20.17	1,066.80
29-Jan-2003	1,349.23	60.36%	18.67	1,150.12
30-Jan-2003	1,203.73	62.18%	16.17	1,087.62
31-Jan-2003	1,184.30	61.18%	16.17	1,114.05
Totals	34,777.53	61.12%	475.33	32,179.57



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

February 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Feb-2003	1,196.88	61.19%	16.33	1,158.75
2-Feb-2003	1,255.22	61.06%	17.17	1,205.05
3-Feb-2003	1,307.72	61.82%	17.67	1,185.05
4-Feb-2003	1,150.47	61.32%	15.67	1,126.60
5-Feb-2003	1,262.65	61.42%	17.17	1,180.45
6-Feb-2003	1,280.25	61.68%	17.33	1,206.20
7-Feb-2003	1,392.03	61.72%	18.83	1,282.93
8-Feb-2003	1,498.67	62.06%	20.17	1,330.88
9-Feb-2003	1,526.08	62.17%	20.50	1,376.48
10-Feb-2003	1,462.75	62.11%	19.67	864.22
11-Feb-2003	1,412.35	61.54%	19.17	1,381.75
12-Feb-2003	1,422.08	62.50%	19.00	1,365.97
13-Feb-2003	1,460.45	62.01%	19.67	1,139.07
14-Feb-2003	1,496.37	61.96%	20.17	1,412.22
15-Feb-2003	1,510.92	62.05%	20.33	1,417.63
16-Feb-2003	1,445.93	61.92%	19.50	1,406.47
17-Feb-2003	1,411.22	62.03%	19.00	1,353.95
18-Feb-2003	1,472.48	62.00%	19.83	1,252.02
19-Feb-2003	1,388.42	62.11%	18.67	1,290.67
20-Feb-2003	1,420.52	61.89%	19.17	1,348.87
21-Feb-2003	1,370.57	61.32%	18.67	1,329.62
22-Feb-2003	1,402.73	62.20%	18.83	1,268.42
23-Feb-2003	1,425.52	62.11%	19.17	1,315.85
24-Feb-2003	1,305.05	61.69%	17.67	1,289.15
25-Feb-2003	1,342.10	61.69%	18.17	1,303.53
26-Feb-2003	1,371.28	61.90%	18.50	1,323.20
27-Feb-2003	1,377.83	62.20%	18.50	1,113.02
28-Feb-2003	1,427.37	62.19%	19.17	661.95
Totals	38,795.90	61.85%	523.67	34,889.95



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

March 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Mar-2003	1,436.13	62.03%	19.33	1,350.78
2-Mar-2003	1,950.85	74.62%	21.83	1,182.42
3-Mar-2003	1,613.05	62.17%	21.67	1,317.93
4-Mar-2003	1,591.05	61.80%	21.50	1,419.45
5-Mar-2003	1,547.27	62.02%	20.83	1,431.82
6-Mar-2003	1,534.37	62.00%	20.67	1,246.13
7-Mar-2003	1,564.40	63.21%	20.67	1,372.12
8-Mar-2003	1,581.83	62.90%	21.00	1,369.23
9-Mar-2003	1,575.43	63.15%	20.83	1,395.97
10-Mar-2003	1,583.52	62.97%	21.00	1,367.77
11-Mar-2003	1,586.92	62.61%	21.17	1,370.63
12-Mar-2003	1,517.93	62.86%	20.17	1,366.53
13-Mar-2003	1,648.32	62.57%	22.00	1,368.50
14-Mar-2003	1,564.53	62.71%	20.83	1,376.35
15-Mar-2003	1,622.75	63.03%	21.50	1,400.50
16-Mar-2003	1,555.08	63.35%	20.50	1,403.48
17-Mar-2003	1,675.82	62.66%	22.33	1,398.38
18-Mar-2003	1,597.42	63.02%	21.17	1,385.57
19-Mar-2003	1,610.85	62.57%	21.50	1,407.87
20-Mar-2003	1,522.23	62.52%	20.33	1,375.48
21-Mar-2003	1,499.28	62.08%	20.17	1,326.58
22-Mar-2003	1,417.58	61.76%	19.17	1,333.88
23-Mar-2003	1,565.85	62.27%	21.00	1,349.65
24-Mar-2003	1,552.93	62.25%	20.83	1,301.58
25-Mar-2003	1,535.10	62.03%	20.67	1,293.82
26-Mar-2003	1,422.68	61.99%	19.17	1,277.03
27-Mar-2003	1,480.47	61.82%	20.00	1,288.10
28-Mar-2003	1,515.52	61.24%	20.67	1,279.08
29-Mar-2003	1,508.68	61.96%	20.33	1,320.70
30-Mar-2003	1,384.80	61.40%	18.83	1,268.95
31-Mar-2003	1,509.80	62.52%	20.17	1,273.45
Totals	48,272.45	62.78%	641.83	41,619.75



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

April 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Apr-2003	1,855.20	64.55%	24.00	1,322.75
2-Apr-2003	1,696.85	66.95%	21.17	1,347.57
3-Apr-2003	999.62	83.48%	10.00	1,252.78
4-Apr-2003	1,254.03	83.78%	12.50	1,174.17
5-Apr-2003	1,803.77	62.76%	24.00	1,177.97
6-Apr-2003	1,194.40	61.70%	16.17	1,189.32
7-Apr-2003	1,397.92	75.32%	15.50	1,154.33
8-Apr-2003	1,187.43	61.98%	16.00	756.65
9-Apr-2003	1,281.03	61.72%	17.33	893.22
10-Apr-2003	1,320.50	61.26%	18.00	1,081.32
11-Apr-2003	1,304.48	61.66%	17.67	1,052.77
12-Apr-2003	1,287.88	62.05%	17.33	1,088.67
13-Apr-2003	1,255.25	61.06%	17.17	1,061.97
14-Apr-2003	1,294.48	61.19%	17.67	1,060.08
15-Apr-2003	1,225.83	61.42%	16.67	1,040.47
16-Apr-2003	1,274.10	61.38%	17.33	1,022.95
17-Apr-2003	1,102.32	61.37%	15.00	1,043.40
18-Apr-2003	1,256.38	61.12%	17.17	1,043.02
19-Apr-2003	1,251.10	60.86%	17.17	1,071.88
20-Apr-2003	1,198.05	60.64%	16.50	1,032.38
21-Apr-2003	1,257.72	61.18%	17.17	1,103.50
22-Apr-2003	1,205.53	61.01%	16.50	1,064.15
23-Apr-2003	1,309.97	60.22%	18.17	1,040.52
24-Apr-2003	1,275.53	60.87%	17.50	1,075.88
25-Apr-2003	1,292.95	60.55%	17.83	1,108.42
26-Apr-2003	1,274.57	60.82%	17.50	1,115.03
27-Apr-2003	1,224.87	60.77%	16.83	1,116.05
28-Apr-2003	1,377.33	60.54%	19.00	1,092.58
29-Apr-2003	1,239.13	60.28%	17.17	1,076.15
30-Apr-2003	1,251.38	60.88%	17.17	1,068.97
Totals	39,149.62	63.45%	519.17	32,728.90



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

May 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-May-2003	1,163.48	60.73%	16.00	1,104.27
2-May-2003	1,215.23	60.29%	16.83	1,136.88
3-May-2003	1,311.90	60.31%	18.17	1,169.80
4-May-2003	1,220.48	59.95%	17.00	1,189.70
5-May-2003	1,218.52	60.45%	16.83	1,159.22
6-May-2003	1,112.52	59.94%	15.50	1,117.40
7-May-2003	1,181.92	60.43%	16.33	1,138.40
8-May-2003	1,260.93	60.75%	17.33	1,141.63
9-May-2003	1,100.83	60.61%	15.17	1,106.47
10-May-2003	1,408.70	58.33%	20.17	1,022.23
11-May-2003	1,443.52	59.78%	20.17	1,160.85
12-May-2003	1,241.75	61.00%	17.00	1,147.73
13-May-2003	650.82	60.39%	9.00	1,149.17
14-May-2003	1,401.15	71.64%	16.33	1,090.42
15-May-2003	932.22	62.28%	12.50	1,120.88
16-May-2003	1,307.22	64.85%	16.83	1,041.57
17-May-2003	1,419.90	60.81%	19.50	1,044.03
18-May-2003	1,149.22	60.61%	15.83	1,087.30
19-May-2003	1,179.72	60.94%	16.17	1,119.15
20-May-2003	1,202.30	60.85%	16.50	1,118.05
21-May-2003	1,250.27	57.47%	18.17	1,120.80
22-May-2003	1,135.90	59.91%	15.83	1,118.33
23-May-2003	1,157.28	61.04%	15.83	1,109.63
24-May-2003	1,212.05	59.54%	17.00	1,139.08
25-May-2003	1,293.60	58.92%	18.33	1,169.30
26-May-2003	1,123.22	56.28%	16.67	1,196.12
27-May-2003	1,250.68	54.49%	19.17	1,181.52
28-May-2003	1,274.22	55.04%	19.33	1,184.47
29-May-2003	1,243.07	54.16%	19.17	1,174.37
30-May-2003	1,138.10	57.60%	16.50	1,173.43
31-May-2003	1,129.90	53.41%	17.67	1,092.48
Totals	37,330.60	59.77%	522.83	35,024.68



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

June 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Jun-2003	1,026.97	52.51%	16.33	1,102.15
2-Jun-2003	1,171.38	52.43%	18.50	1,101.52
3-Jun-2003	1,150.67	50.31%	18.67	1,183.28
4-Jun-2003	1,161.15	47.16%	20.50	1,204.93
5-Jun-2003	1,033.28	48.30%	16.83	1,127.78
6-Jun-2003	1,240.47	64.66%	16.67	1,132.52
7-Jun-2003	1,092.92	67.08%	14.83	1,134.32
8-Jun-2003	1,234.05	66.11%	16.67	1,106.23
9-Jun-2003	1,046.13	65.78%	14.33	1,078.40
10-Jun-2003	1,041.92	65.32%	14.33	1,072.42
11-Jun-2003	1,043.77	57.82%	14.33	1,087.55
12-Jun-2003	1,184.47	57.13%	16.17	1,112.17
13-Jun-2003	1,006.45	64.13%	14.00	1,045.10
14-Jun-2003	1,146.58	47.32%	16.00	1,071.33
15-Jun-2003	1,013.63	62.49%	14.17	1,090.22
16-Jun-2003	1,016.32	63.29%	14.33	1,053.08
17-Jun-2003	1,113.50	47.07%	15.67	1,057.77
18-Jun-2003	993.70	59.18%	14.17	1,028.57
19-Jun-2003	909.42	47.08%	12.83	1,027.13
20-Jun-2003	1,192.12	53.88%	16.83	1,039.85
21-Jun-2003	1,003.58	55.64%	14.33	1,040.47
22-Jun-2003	999.63	63.38%	14.33	1,053.83
23-Jun-2003	917.58	50.98%	13.17	1,007.07
24-Jun-2003	1,005.28	52.25%	14.17	1,028.57
25-Jun-2003	1,146.80	54.72%	16.00	1,028.08
26-Jun-2003	1,191.82	74.10%	16.67	1,040.12
27-Jun-2003	1,053.78	65.01%	14.67	1,035.37
28-Jun-2003	1,090.13	41.32%	15.33	977.93
29-Jun-2003	971.85	42.46%	13.83	1,014.73
30-Jun-2003	1,044.20	46.72%	14.83	1,019.75
Totals	32,243.55	56.19%	463.50	32,102.23



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

July 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Jul-2003	903.48	46.76%	13.00	978.70
2-Jul-2003	1,043.03	60.31%	15.00	1,006.23
3-Jul-2003	958.78	63.14%	13.83	1,001.18
4-Jul-2003	991.32	63.75%	14.17	995.78
5-Jul-2003	933.45	45.80%	13.50	981.18
6-Jul-2003	949.00	63.26%	13.67	1,009.02
7-Jul-2003	1,016.68	50.65%	13.17	1,040.33
8-Jul-2003	982.77	36.76%	12.33	1,041.10
9-Jul-2003	1,032.55	47.92%	13.17	1,055.65
10-Jul-2003	993.87	50.14%	12.67	971.15
11-Jul-2003	1,026.82	41.98%	13.17	991.33
12-Jul-2003	1,023.82	41.40%	14.00	977.82
13-Jul-2003	998.07	53.36%	13.50	1,133.27
14-Jul-2003	1,373.70	46.45%	18.00	905.05
15-Jul-2003	943.33	43.61%	13.00	1,161.10
16-Jul-2003	1,207.50	53.41%	16.00	1,121.28
17-Jul-2003	1,022.52	47.61%	13.50	1,088.42
18-Jul-2003	979.23	45.17%	13.17	1,102.22
19-Jul-2003	1,063.00	46.28%	14.17	1,119.37
20-Jul-2003	1,111.35	45.96%	14.83	1,210.02
21-Jul-2003	1,169.87	51.78%	15.50	1,137.63
22-Jul-2003	1,012.97	31.42%	13.67	1,116.05
23-Jul-2003	1,213.63	53.33%	16.17	1,182.25
24-Jul-2003	989.33	54.55%	13.00	1,107.42
25-Jul-2003	1,017.77	49.64%	13.33	1,111.47
26-Jul-2003	1,153.25	56.06%	15.00	1,113.67
27-Jul-2003	1,018.30	56.33%	13.33	1,125.68
28-Jul-2003	1,057.22	45.51%	13.67	1,105.40
29-Jul-2003	1,042.10	57.58%	13.17	1,091.00
30-Jul-2003	1,029.88	57.64%	13.00	1,146.50
31-Jul-2003	1,189.32	45.95%	15.00	1,105.93
Totals	32,447.90	50.11%	432.67	33,233.20



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

August 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Aug-2003	1,046.65	57.84%	13.17	1,145.53
2-Aug-2003	1,341.70	54.84%	16.83	1,172.88
3-Aug-2003	1,110.98	58.89%	14.17	1,086.47
4-Aug-2003	902.32	58.23%	11.50	1,139.98
5-Aug-2003	1,041.22	45.60%	13.00	1,113.13
6-Aug-2003	1,145.70	57.22%	14.50	1,151.08
7-Aug-2003	1,059.12	42.88%	13.50	1,153.98
8-Aug-2003	1,034.10	56.60%	13.17	1,130.13
9-Aug-2003	1,095.12	57.17%	13.83	1,150.02
10-Aug-2003	1,155.92	56.46%	14.67	1,040.23
11-Aug-2003	1,208.07	56.18%	13.33	1,202.17
12-Aug-2003	1,344.73	55.76%	15.50	1,220.10
13-Aug-2003	1,182.22	55.01%	14.67	1,156.32
14-Aug-2003	1,051.48	53.71%	12.83	1,164.85
15-Aug-2003	1,020.67	57.89%	12.50	1,160.00
16-Aug-2003	1,013.73	54.92%	12.33	1,157.70
17-Aug-2003	1,338.55	58.36%	16.33	1,190.30
18-Aug-2003	1,370.58	59.68%	16.67	1,175.67
19-Aug-2003	1,096.87	56.48%	13.17	1,084.62
20-Aug-2003	1,230.98	59.48%	15.00	1,144.20
21-Aug-2003	1,052.88	64.38%	12.33	1,175.00
22-Aug-2003	1,341.10	59.21%	16.17	1,168.92
23-Aug-2003	1,220.48	59.68%	14.83	1,181.72
24-Aug-2003	1,158.40	59.15%	14.17	1,213.17
25-Aug-2003	1,264.28	52.11%	15.33	1,199.12
26-Aug-2003	1,270.98	50.19%	15.33	1,143.98
27-Aug-2003	1,258.45	51.56%	15.33	1,204.97
28-Aug-2003	1,197.87	50.00%	14.67	1,184.07
29-Aug-2003	1,231.83	59.08%	15.00	1,082.95
30-Aug-2003	1,202.85	59.15%	14.67	1,184.55
31-Aug-2003	1,138.70	57.97%	14.17	1,205.97
Totals	36,128.53	55.99%	442.67	35,883.77



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

September 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Sep-2003	1,254.33	51.42%	15.50	1,184.78
2-Sep-2003	1,281.87	59.17%	15.67	1,182.73
3-Sep-2003	1,227.50	52.98%	15.00	1,129.15
4-Sep-2003	1,175.33	48.81%	14.17	1,126.27
5-Sep-2003	1,474.52	64.43%	17.33	856.87
6-Sep-2003	1,325.47	68.32%	15.83	839.73
7-Sep-2003	1,199.63	58.51%	14.50	1,102.38
8-Sep-2003	1,166.67	43.19%	14.00	1,091.70
9-Sep-2003	1,131.57	40.27%	13.33	989.62
10-Sep-2003	1,203.07	61.35%	14.00	961.08
11-Sep-2003	1,132.85	56.16%	13.00	900.55
12-Sep-2003	1,253.37	73.83%	14.50	873.18
13-Sep-2003	1,101.27	57.86%	12.67	926.72
14-Sep-2003	1,202.55	57.91%	13.83	908.58
15-Sep-2003	1,257.57	60.11%	14.33	886.37
16-Sep-2003	1,172.00	75.79%	13.50	775.63
17-Sep-2003	1,143.78	74.89%	13.33	898.78
18-Sep-2003	1,175.00	59.68%	13.67	922.02
19-Sep-2003	1,072.90	74.30%	12.33	865.17
20-Sep-2003	1,121.77	56.72%	12.83	891.70
21-Sep-2003	1,187.77	62.63%	13.67	901.70
22-Sep-2003	1,125.97	75.04%	12.83	831.60
23-Sep-2003	1,015.43	74.34%	11.67	838.78
24-Sep-2003	1,069.80	56.68%	12.33	824.85
25-Sep-2003	1,027.98	56.67%	11.83	834.77
26-Sep-2003	1,139.35	57.07%	13.00	884.95
27-Sep-2003	1,207.68	63.05%	13.83	872.17
28-Sep-2003	1,088.20	74.55%	12.50	878.37
29-Sep-2003	1,114.28	57.04%	12.83	862.25
30-Sep-2003	1,131.95	58.66%	13.00	857.72
Totals	35,181.42	61.05%	410.83	27,900.17



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

October 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Oct-2003	2,304.47	60.09%	26.33	803.12
2-Oct-2003	2,146.57	56.90%	24.67	862.48
3-Oct-2003	2,291.90	56.69%	26.33	841.03
4-Oct-2003	2,122.70	62.41%	24.33	876.60
5-Oct-2003	2,333.53	56.82%	26.67	903.37
6-Oct-2003	2,382.10	57.10%	27.33	888.60
7-Oct-2003	2,247.23	73.71%	26.00	863.32
8-Oct-2003	2,225.20	56.24%	25.67	1,729.03
9-Oct-2003	1,052.05	0.00%	12.17	856.22
10-Oct-2003	1,147.47	0.00%	13.17	820.65
11-Oct-2003	1,086.97	0.00%	12.50	848.00
12-Oct-2003	1,135.27	0.00%	13.00	825.08
13-Oct-2003	1,132.45	0.00%	13.00	884.55
14-Oct-2003	1,087.28	0.00%	12.67	848.93
15-Oct-2003	1,158.87	0.00%	13.33	835.75
16-Oct-2003	1,048.42	0.00%	12.17	852.72
17-Oct-2003	1,102.18	0.00%	12.67	831.48
18-Oct-2003	1,135.30	0.00%	13.17	856.70
19-Oct-2003	1,075.97	0.00%	12.33	862.27
20-Oct-2003	1,099.18	0.00%	12.67	808.22
21-Oct-2003	1,071.20	0.00%	12.33	812.32
22-Oct-2003	1,073.77	0.00%	12.33	825.48
23-Oct-2003	1,066.23	0.00%	12.00	812.85
24-Oct-2003	1,087.37	0.00%	12.33	805.25
25-Oct-2003	1,108.28	0.00%	12.50	830.22
26-Oct-2003	1,103.62	0.00%	12.50	833.67
27-Oct-2003	1,102.80	0.00%	12.50	821.08
28-Oct-2003	1,121.95	0.00%	12.67	832.28
29-Oct-2003	1,076.48	0.00%	12.17	840.65
30-Oct-2003	756.98	0.00%	8.50	815.10
31-Oct-2003	776.12	0.00%	8.67	779.68
Totals	42,659.90	15.48%	488.67	26,906.70



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

November 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Nov-2003	1,130.60	0.00%	12.50	816.50
2-Nov-2003	1,182.72	0.00%	13.17	815.20
3-Nov-2003	1,236.03	0.00%	13.83	793.67
4-Nov-2003	1,048.48	0.00%	11.83	795.00
5-Nov-2003	1,011.10	0.00%	11.33	809.43
6-Nov-2003	1,221.57	0.00%	17.33	778.90
7-Nov-2003	1,180.78	0.00%	24.00	828.23
8-Nov-2003	1,166.47	0.00%	24.00	815.58
9-Nov-2003	1,169.58	0.00%	24.00	814.27
10-Nov-2003	1,171.35	0.00%	24.00	816.50
11-Nov-2003	1,173.85	0.00%	24.00	845.67
12-Nov-2003	1,181.98	0.00%	24.00	818.67
13-Nov-2003	1,182.65	0.00%	24.00	829.48
14-Nov-2003	1,193.77	0.00%	24.00	889.60
15-Nov-2003	1,193.70	0.00%	24.00	883.40
16-Nov-2003	1,207.92	0.00%	24.00	917.78
17-Nov-2003	1,504.17	0.00%	24.00	870.47
18-Nov-2003	1,528.28	0.00%	21.83	913.37
19-Nov-2003	1,224.13	0.00%	13.83	931.38
20-Nov-2003	1,117.48	53.58%	12.67	916.70
21-Nov-2003	1,194.07	72.56%	13.50	942.88
22-Nov-2003	1,317.42	57.67%	15.00	934.68
23-Nov-2003	1,230.50	52.93%	14.17	957.90
24-Nov-2003	1,116.87	53.77%	12.67	912.08
25-Nov-2003	1,111.03	53.98%	12.50	879.30
26-Nov-2003	1,186.37	54.34%	13.33	873.62
27-Nov-2003	1,226.15	77.39%	13.83	923.15
28-Nov-2003	1,175.47	77.94%	13.17	928.33
29-Nov-2003	1,173.93	78.84%	13.00	907.45
30-Nov-2003	1,197.67	78.42%	13.33	912.45
Totals	35,956.08	23.71%	526.83	26,071.65



Utilidor Monthly Report

Volumes Drawn From Source and Volumes Delivered To Town

December 2003

Date	Vol. from Source (m ³)	Avg Daily Pump Eff	Pump Runtime	Town Daily Usage (m ³)
1-Dec-2003	1,116.83	78.00%	12.50	911.17
2-Dec-2003	1,177.42	78.07%	13.17	890.58
3-Dec-2003	1,173.80	65.03%	13.17	939.82
4-Dec-2003	1,185.57	55.69%	13.33	969.37
5-Dec-2003	1,240.10	54.04%	14.00	947.27
6-Dec-2003	1,156.40	54.03%	13.00	946.45
7-Dec-2003	1,173.75	54.14%	13.17	948.65
8-Dec-2003	1,301.13	75.94%	14.50	925.10
9-Dec-2003	1,223.97	78.74%	13.83	998.63
10-Dec-2003	1,301.38	62.47%	14.00	897.58
11-Dec-2003	1,236.35	57.91%	14.00	930.42
12-Dec-2003	1,018.40	53.35%	11.67	880.50
13-Dec-2003	1,189.62	75.47%	13.50	955.28
14-Dec-2003	1,241.25	79.09%	14.00	957.07
15-Dec-2003	1,275.70	78.86%	14.33	981.50
16-Dec-2003	1,221.62	77.74%	13.83	967.63
17-Dec-2003	1,225.07	71.39%	13.83	977.85
18-Dec-2003	1,323.35	76.87%	15.00	978.72
19-Dec-2003	1,334.58	77.31%	15.00	962.92
20-Dec-2003	1,322.53	79.11%	14.83	991.75
21-Dec-2003	1,279.50	72.95%	14.33	961.23
22-Dec-2003	1,272.38	68.60%	14.33	981.68
23-Dec-2003	1,463.27	76.34%	16.33	980.43
24-Dec-2003	1,692.12	76.08%	18.67	1,031.23
25-Dec-2003	1,245.62	73.08%	14.00	896.12
26-Dec-2003	1,156.42	67.67%	13.00	926.50
27-Dec-2003	1,278.42	77.22%	14.33	942.55
28-Dec-2003	1,250.50	79.32%	14.00	928.03
29-Dec-2003	1,309.50	78.88%	14.67	972.92
30-Dec-2003	1,306.28	58.02%	14.67	1,012.37
31-Dec-2003	1,312.37	54.34%	14.67	974.63
Totals	39,005.18	69.86%	437.67	29,565.95



ANNUAL REPORT FOR THE DEPARTMENT OF PUBLIC WORKS & SERVICES-RANKIN INLET WATER WASTEWATER VOLUMES & QUALITY

WATER QUALITY

The following tables show the daily measured values of free residual chlorine and fluoride over the course of the year. Also attached are trend graphs which show the free residual chlorine and fluoride concentrations against recommended minimum and maximum values, as specified by Health Canada.

Of note are the free residual concentrations for January, February and March 2003, which on average were below the recommended levels. This situation was corrected by April by regularly increasing the chlorine injection levels.

Also attached is the table entitled "Water and Wastewater Quality Laboratory Analysis", which is a tabulation of results from full spectrum tests done by Taiga Labs in Yellowknife. Five freshwater and potable water samples were taken, one in winter and four in the summer, while four wastewater samples were taken in the summer. Sample points were as follows:

- Freshwater-Nipissar Lake Reservoir and Intake Structure, GRA-1
- Potable Water-Williamson Lake Pump-House
- Sewage-Rankin Inlet Wastewater Treatment Plant, GRA-3

The table shows lab results against Maximum Allowable Concentrations (for parameters where an MAC is listed in Health Canada's "*Summary of Guidelines for Canadian Drinking Water Quality*" as well as sewage maximum's as specified by the water license), as well as sample dates and actual test dates.

The following items should be noted:

- 1) For freshwater samples taken on January 29 and August 20, there were high lead concentrations 0.02700mg/L and 0.02780mg/L respectively. We have determined that the cause of these could be the result of an anomaly at the sample point at Nipissar Lake as there were no corresponding high lead readings for the potable water samples taken at Williamson Lake Pump-House.
- 2) Microbiological results for Nipissar Lake Pump-House showed the presence of fecal coliforms (October 1, 2003), total coliforms (June 12, 2003 and October 2, 2003), *Escherichia coli* (October 2, 2003) and Fecal streptococcus (October 2, 2003). The corresponding results for the potable water samples turned up zero counts on all microbiological parameters. This served as an indicator that in general the chlorine treatment was functioning as it should.
- 3) The effluent discharge results indicated that on most occasions, the limitations on Fecal Coliforms, Biological Oxygen Demand, Total



ANNUAL REPORT FOR THE DEPARTMENT OF PUBLIC WORKS & SERVICES-RANKIN INLET

WATER WASTEWATER VOLUMES & QUALITY

Suspended Solids and Oil and Grease were exceeded, indicating a failure to meet the effluent quality standards as set by the Nunavut Water Board. It should be further noted however that the Community Government and Transportation (CG&T) department of the Government of Nunavut, is in the process of reviewing a consultant's study which seeks to recommend an appropriate treatment system for Rankin Inlet's sewage.

WATER QUALITY TABLES

**CHLORINE AND FLUORIDE RESIDUALS ON SUPPLY AND RETURN
LINES**



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

January 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Jan-2003	1,039.37	978.83	0.16	0.50	0.04	0.28	1.21
2-Jan-2003	1,027.35	981.60	0.26	0.47	0.09	0.27	1.20
3-Jan-2003	1,052.35	1,020.22	0.16	0.43	0.05	0.43	1.27
4-Jan-2003	1,111.15	1,019.32	0.16	0.59	0.02	0.28	1.29
5-Jan-2003	1,109.18	1,025.98	0.25	0.76	0.10	0.26	1.33
6-Jan-2003	1,075.05	990.22	0.17	0.53	0.01	0.29	1.15
7-Jan-2003	1,069.22	983.75	0.15	0.44	0.06	0.31	1.49
8-Jan-2003	1,081.23	985.40	0.20	0.44	0.03	0.28	1.40
9-Jan-2003	1,093.93	992.35	0.13	0.37	0.04	0.30	1.47
10-Jan-2003	971.90	985.82	0.17	0.44	0.05	0.28	1.35
11-Jan-2003	1,121.43	1,022.68	0.20	0.77	0.02	0.27	1.71
12-Jan-2003	1,073.28	1,019.18	0.09	0.51	0.02	0.29	1.42
13-Jan-2003	1,053.67	1,016.63	0.14	0.39	0.01	0.24	0.81
14-Jan-2003	1,051.07	996.57	0.10	0.28	0.05	0.28	1.34
15-Jan-2003	1,141.98	1,038.48					
16-Jan-2003	997.85	1,016.27	0.13	0.47	0.06	0.36	0.85
17-Jan-2003	1,069.93	989.27	0.15	0.41	0.14	0.31	1.27
18-Jan-2003	1,084.12	1,049.42	0.11	0.40	0.01	0.27	1.15
19-Jan-2003	1,091.97	1,038.35	0.14	0.42	0.03	0.28	1.08
20-Jan-2003	1,140.00	1,030.25	0.10	0.47	0.04	0.27	1.18
21-Jan-2003	1,208.03	1,078.60	0.12	0.38	0.05	0.30	1.00
22-Jan-2003	1,133.23	1,052.67	0.20	0.39	0.06	0.27	1.41
23-Jan-2003	1,074.78	1,048.62	0.16	0.37	0.05	0.33	1.28
24-Jan-2003	1,150.97	1,068.13	0.17	0.56	0.02	0.24	0.98
25-Jan-2003	1,228.93	1,099.38	0.13	0.35	0.05	0.27	1.09
26-Jan-2003	1,244.07	1,151.53	0.12	0.42	0.14	0.30	1.25
27-Jan-2003	1,104.07	1,081.47	0.13	0.47	0.05	0.32	0.98
28-Jan-2003	1,440.15	1,066.80	0.12	0.34	0.04	0.31	1.40
29-Jan-2003	1,349.23	1,150.12	0.11	0.44	0.12	0.29	1.29
30-Jan-2003	1,203.73	1,087.62	0.11	0.42	0.06	0.33	1.10
31-Jan-2003	1,184.30	1,114.05	0.18	0.48	0.11	0.30	1.39
Totals	34,777.53	32,179.57					
Averages			0.15	0.46	0.05	0.29	1.24



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

February 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Feb-2003	1,196.88	1,158.75	0.15	0.35	0.11	0.28	1.38
2-Feb-2003	1,255.22	1,205.05	0.27	0.36	0.05	0.26	1.31
3-Feb-2003	1,307.72	1,185.05	0.17	0.51	0.06	0.47	0.94
4-Feb-2003	1,150.47	1,126.60	0.20	0.45	0.02	0.24	1.39
5-Feb-2003	1,262.65	1,180.45	0.09	0.66	0.07	0.30	1.35
6-Feb-2003	1,280.25	1,206.20	0.06	0.30	0.05	0.27	1.44
7-Feb-2003	1,392.03	1,282.93					
8-Feb-2003	1,498.67	1,330.88					
9-Feb-2003	1,526.08	1,376.48	0.07	0.45	0.09	0.36	1.38
10-Feb-2003	1,462.75	864.22	0.03	0.41	0.09	0.32	1.06
11-Feb-2003	1,412.35	1,381.75	0.05	0.47	0.11	0.28	1.16
12-Feb-2003	1,422.08	1,365.97	0.08	0.26	0.09	0.31	1.28
13-Feb-2003	1,460.45	1,139.07	0.01	0.22	0.08	0.29	1.03
14-Feb-2003	1,496.37	1,412.22	0.02	0.40	0.05	0.42	1.18
15-Feb-2003	1,510.92	1,417.63	0.13	0.60	0.03	0.30	1.28
16-Feb-2003	1,445.93	1,406.47	0.10	0.31	0.07	0.64	1.37
17-Feb-2003	1,411.22	1,353.95	0.15	0.42	0.01	0.54	1.44
18-Feb-2003	1,472.48	1,252.02	0.05	0.28	0.13	0.35	1.31
19-Feb-2003	1,388.42	1,290.67	0.19	0.84	0.04	0.42	1.40
20-Feb-2003	1,420.52	1,348.87	0.05	0.81	0.01	0.42	1.46
21-Feb-2003	1,370.57	1,329.62	0.10	0.64	0.11	0.71	1.56
22-Feb-2003	1,402.73	1,268.42	0.25	0.64	0.02	0.60	1.58
23-Feb-2003	1,425.52	1,315.85	0.24	0.64	0.04	0.51	1.53
24-Feb-2003	1,305.05	1,289.15	0.19	0.75	0.02	0.48	1.19
25-Feb-2003	1,342.10	1,303.53	0.14	1.02	0.08	0.50	1.39
26-Feb-2003	1,371.28	1,323.20	0.06	0.41	0.06	0.43	1.43
27-Feb-2003	1,377.83	1,113.02	0.10	0.41	0.02	0.48	0.82
28-Feb-2003	1,427.37	661.95	0.18	0.61	0.04	0.84	0.70
Totals	38,795.90	34,889.95					
Averages			0.12	0.51	0.06	0.42	1.28



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

March 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Mar-2003	1,436.13	1,350.78	0.26	0.75	0.03	0.33	0.79
2-Mar-2003	1,950.85	1,182.42					
3-Mar-2003	1,613.05	1,317.93	0.03	0.68	0.05	0.40	1.04
4-Mar-2003	1,591.05	1,419.45	0.10	0.89	0.04	0.45	1.05
5-Mar-2003	1,547.27	1,431.82	0.07	0.62	0.01	0.38	1.08
6-Mar-2003	1,534.37	1,246.13	0.34	0.71	0.03	0.38	1.14
7-Mar-2003	1,564.40	1,372.12	0.21	0.85	0.15	0.36	1.09
8-Mar-2003	1,581.83	1,369.23	0.21	0.62	0.03	0.61	0.76
9-Mar-2003	1,575.43	1,395.97	0.32	0.69	0.11	0.54	0.57
10-Mar-2003	1,583.52	1,367.77	0.05	0.65	0.08	0.52	0.87
11-Mar-2003	1,586.92	1,370.63	0.01	0.59	0.02	0.27	1.01
12-Mar-2003	1,517.93	1,366.53	0.08	0.76	0.16	0.45	1.00
13-Mar-2003	1,648.32	1,368.50	0.11	1.02	0.18	0.41	1.04
14-Mar-2003	1,564.53	1,376.35	0.28	0.41	0.10	0.31	1.13
15-Mar-2003	1,622.75	1,400.50	0.14	0.75	0.05	0.40	0.99
16-Mar-2003	1,555.08	1,403.48	0.16	0.61	0.06	0.51	1.03
17-Mar-2003	1,675.82	1,398.38	0.19	0.47	0.05	0.31	1.14
18-Mar-2003	1,597.42	1,385.57	0.15	0.37	0.03	0.28	0.92
19-Mar-2003	1,610.85	1,407.87	0.13	0.40	0.01	0.28	1.12
20-Mar-2003	1,522.23	1,375.48	0.11	0.36	0.08	0.28	1.20
21-Mar-2003	1,499.28	1,326.58	0.11	0.44	0.11	0.31	1.30
22-Mar-2003	1,417.58	1,333.88	0.24	0.50	0.11	0.36	1.39
23-Mar-2003	1,565.85	1,349.65	0.18	0.52	0.03	0.32	1.34
24-Mar-2003	1,552.93	1,301.58	0.07	0.29	0.04	0.23	1.45
25-Mar-2003	1,535.10	1,293.82	0.23	0.30	0.09	0.23	1.19
26-Mar-2003	1,422.68	1,277.03	0.10	0.28	0.04	0.18	1.33
27-Mar-2003	1,480.47	1,288.10	0.08	0.20	0.07	0.15	1.29
28-Mar-2003	1,515.52	1,279.08	0.02	0.15	0.03	0.10	1.27
29-Mar-2003	1,508.68	1,320.70	0.15	0.23	0.02	0.11	1.27
30-Mar-2003	1,384.80	1,268.95	0.02	0.18	0.02	0.07	1.24
31-Mar-2003	1,509.80	1,273.45	0.03	0.08	0.02	0.06	1.25
Totals	48,272.45	41,619.75					
Averages			0.14	0.51	0.06	0.32	1.11



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

April 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Apr-2003	1,855.20	1,322.75	0.03	0.08	0.01	0.07	1.18
2-Apr-2003	1,696.85	1,347.57	0.25	0.54	0.04	0.27	1.10
3-Apr-2003	999.62	1,252.78	0.51	0.74	0.12	0.34	1.14
4-Apr-2003	1,254.03	1,174.17	0.22	0.55	0.05	0.37	1.10
5-Apr-2003	1,803.77	1,177.97	0.43	0.81	0.06	0.36	1.04
6-Apr-2003	1,194.40	1,189.32	0.31	0.66	0.14	0.40	1.06
7-Apr-2003	1,397.92	1,154.33	0.33	0.53	0.11	0.41	1.03
8-Apr-2003	1,187.43	756.65	0.30	0.68	0.13	0.50	1.20
9-Apr-2003	1,281.03	893.22	0.35	0.64	0.08	0.37	1.05
10-Apr-2003	1,320.50	1,081.32	0.35	0.66	0.11	0.44	1.08
11-Apr-2003	1,304.48	1,052.77	0.28	0.64	0.12	0.55	1.14
12-Apr-2003	1,287.88	1,088.67					
13-Apr-2003	1,255.25	1,061.97	0.12	1.20	0.59	0.88	
14-Apr-2003	1,294.48	1,060.08	0.44	0.61	0.19	0.43	1.12
15-Apr-2003	1,225.83	1,040.47	0.35	0.64	0.23	0.54	1.54
16-Apr-2003	1,274.10	1,022.95	0.33	0.80	0.12	0.46	1.06
17-Apr-2003	1,102.32	1,043.40	0.33	0.70	0.22	0.54	0.99
18-Apr-2003	1,256.38	1,043.02	0.46	0.79	0.19	0.50	0.96
19-Apr-2003	1,251.10	1,071.88	0.63	1.01	0.16	0.50	0.91
20-Apr-2003	1,198.05	1,032.38	0.73	1.07	0.18	0.51	0.88
21-Apr-2003	1,257.72	1,103.50	0.72	1.06	0.21	0.57	0.78
22-Apr-2003	1,205.53	1,064.15	0.41	0.91	0.26	0.48	0.86
23-Apr-2003	1,309.97	1,040.52	0.56	0.86	0.19	0.52	0.80
24-Apr-2003	1,275.53	1,075.88	0.58	0.81	0.20	0.49	0.72
25-Apr-2003	1,292.95	1,108.42	0.85	0.68	0.27	0.52	0.76
26-Apr-2003	1,274.57	1,115.03	0.79	0.98	0.24	0.48	0.98
27-Apr-2003	1,224.87	1,116.05	0.72	0.96	0.22	0.49	1.18
28-Apr-2003	1,377.33	1,092.58	0.53	0.81	0.23	0.45	1.23
29-Apr-2003	1,239.13	1,076.15	0.58	0.92	0.24	0.47	1.42
30-Apr-2003	1,251.38	1,068.97	0.58	0.86	0.17	0.50	1.27
Totals	39,149.62	32,728.90					
Averages			0.45	0.77	0.18	0.46	1.06



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

May 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-May-2003	1,163.48	1,104.27	0.57	0.86	0.27	0.45	1.08
2-May-2003	1,215.23	1,136.88	0.53	0.84	0.05	0.38	0.95
3-May-2003	1,311.90	1,169.80	0.62	1.04	0.09	0.45	0.87
4-May-2003	1,220.48	1,189.70	0.53	0.82	0.11	0.45	0.76
5-May-2003	1,218.52	1,159.22	0.08	0.43	0.01	0.24	0.69
6-May-2003	1,112.52	1,117.40	0.07	0.26	0.03	0.17	0.84
7-May-2003	1,181.92	1,138.40	0.46	0.72	0.06	0.39	1.02
8-May-2003	1,260.93	1,141.63	0.46	0.83	0.08	0.38	1.05
9-May-2003	1,100.83	1,106.47	0.54	0.85	0.06	0.34	0.78
10-May-2003	1,408.70	1,022.23	0.61	0.91	0.10	0.37	0.85
11-May-2003	1,443.52	1,160.85	0.63	0.88	0.07	0.39	1.11
12-May-2003	1,241.75	1,147.73	0.54	0.85	0.16	0.37	0.79
13-May-2003	650.82	1,149.17	0.51	0.88	0.06	0.36	1.19
14-May-2003	1,401.15	1,090.42	0.25	0.53	0.06	0.38	1.42
15-May-2003	932.22	1,120.88	0.49	0.81	0.07	0.36	1.62
16-May-2003	1,307.22	1,041.57	0.44	0.70	0.05	0.35	1.79
17-May-2003	1,419.90	1,044.03	0.61	0.87	0.02	0.36	1.79
18-May-2003	1,149.22	1,087.30	0.63	0.98	0.07	0.38	1.78
19-May-2003	1,179.72	1,119.15	0.68	0.99	0.11	0.39	1.93
20-May-2003	1,202.30	1,118.05	0.49	0.73	0.08	0.38	1.73
21-May-2003	1,250.27	1,120.80	0.42	0.81	0.05	0.36	1.53
22-May-2003	1,135.90	1,118.33	0.52	0.87	0.12	0.43	1.37
23-May-2003	1,157.28	1,109.63	0.49	0.76	0.13	0.35	1.09
24-May-2003	1,212.05	1,139.08	0.55	0.90	0.06	0.34	0.87
25-May-2003	1,293.60	1,169.30	0.60	0.91	0.15	0.40	1.02
26-May-2003	1,123.22	1,196.12	0.45	0.70	0.06	0.34	0.81
27-May-2003	1,250.68	1,181.52	0.67	0.84	0.11	0.37	1.13
28-May-2003	1,274.22	1,184.47	0.42	0.75	0.07	0.31	1.67
29-May-2003	1,243.07	1,174.37	0.47	0.69	0.02	0.32	1.37
30-May-2003	1,138.10	1,173.43	0.48	0.75	0.07	0.34	1.09
31-May-2003	1,129.90	1,092.48	0.61	1.03	0.15	0.36	1.29
Totals	37,330.60	35,024.68					
Averages			0.50	0.80	0.08	0.36	1.20



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

June 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Jun-2003	1,026.97	1,102.15	0.67	0.92	0.06	0.37	1.44
2-Jun-2003	1,171.38	1,101.52	0.54	0.85	0.13	0.36	1.62
3-Jun-2003	1,150.67	1,183.28	0.58	0.83	0.02	0.29	1.79
4-Jun-2003	1,161.15	1,204.93	0.55	0.80	0.14	0.37	1.71
5-Jun-2003	1,033.28	1,127.78	0.46	0.68	0.04	0.33	1.59
6-Jun-2003	1,240.47	1,132.52	0.59	0.97	0.10	0.37	1.51
7-Jun-2003	1,092.92	1,134.32	0.55	0.85	0.02	0.35	1.38
8-Jun-2003	1,234.05	1,106.23	0.71	1.01	0.07	0.33	1.24
9-Jun-2003	1,046.13	1,078.40	0.68	0.94	0.07	0.36	0.98
10-Jun-2003	1,041.92	1,072.42	0.63	0.90	0.16	0.40	1.05
11-Jun-2003	1,043.77	1,087.55	0.64	0.92	0.10	0.37	1.14
12-Jun-2003	1,184.47	1,112.17	0.62	0.89	0.11	0.34	1.37
13-Jun-2003	1,006.45	1,045.10	0.65	0.87	0.10	0.36	1.53
14-Jun-2003	1,146.58	1,071.33	0.71	0.98	0.11	0.36	1.60
15-Jun-2003	1,013.63	1,090.22	0.53	0.81	0.07	0.34	1.61
16-Jun-2003	1,016.32	1,053.08	0.60	0.83	0.06	0.31	1.80
17-Jun-2003	1,113.50	1,057.77	0.65	0.82	0.11	0.32	1.61
18-Jun-2003	993.70	1,028.57	0.58	0.85	0.07	0.35	1.75
19-Jun-2003	909.42	1,027.13	0.44	0.71	0.07	0.29	1.56
20-Jun-2003	1,192.12	1,039.85	0.44	0.67	0.11	0.28	1.68
21-Jun-2003	1,003.58	1,040.47	0.45	0.65	0.07	0.25	1.68
22-Jun-2003	999.63	1,053.83	0.41	0.64	0.04	0.21	1.57
23-Jun-2003	917.58	1,007.07	0.66	0.93	0.14	0.37	1.27
24-Jun-2003	1,005.28	1,028.57	0.64	0.85	0.18	0.39	1.59
25-Jun-2003	1,146.80	1,028.08	0.69	0.87	0.17	0.39	1.34
26-Jun-2003	1,191.82	1,040.12	0.61	0.83	0.22	0.47	1.25
27-Jun-2003	1,053.78	1,035.37	0.67	0.93	0.23	0.49	1.25
28-Jun-2003	1,090.13	977.93	0.71	0.96	0.25	0.43	1.34
29-Jun-2003	971.85	1,014.73	0.77	1.00	0.23	0.46	1.18
30-Jun-2003	1,044.20	1,019.75	0.74	0.99	0.24	0.48	1.07
Totals	32,243.55	32,102.23					
Averages			0.61	0.86	0.12	0.36	1.45



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

July 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Jul-2003	903.48	978.70	0.78	1.07	0.28	0.54	1.02
2-Jul-2003	1,043.03	1,006.23	0.82	1.00	0.34	0.59	0.94
3-Jul-2003	958.78	1,001.18	0.79	1.01	0.31	0.54	1.10
4-Jul-2003	991.32	995.78	0.72	0.93	0.33	0.57	0.87
5-Jul-2003	933.45	981.18	0.80	1.10	0.30	0.53	0.75
6-Jul-2003	949.00	1,009.02	0.79	0.99	0.29	0.51	0.84
7-Jul-2003	1,016.68	1,040.33	0.72	0.96	0.28	0.52	0.99
8-Jul-2003	982.77	1,041.10	0.78	1.02	0.25	0.49	1.18
9-Jul-2003	1,032.55	1,055.65	0.85	1.06	0.34	0.59	1.25
10-Jul-2003	993.87	971.15	0.71	0.95	0.30	0.54	1.61
11-Jul-2003	1,026.82	991.33	0.72	0.94	0.31	0.52	1.44
12-Jul-2003	1,023.82	977.82	0.79	1.02	0.27	0.47	1.49
13-Jul-2003	998.07	1,133.27	0.73	0.99	0.29	0.48	1.81
14-Jul-2003	1,373.70	905.05	0.59	0.82	0.24	0.47	2.04
15-Jul-2003	943.33	1,161.10	0.51	0.75	0.13	0.33	1.96
16-Jul-2003	1,207.50	1,121.28	0.61	0.81	0.23	0.42	1.72
17-Jul-2003	1,022.52	1,088.42	0.77	0.98	0.22	0.44	1.44
18-Jul-2003	979.23	1,102.22	0.69	0.96	0.28	0.47	1.30
19-Jul-2003	1,063.00	1,119.37	0.72	0.93	0.20	0.40	1.15
20-Jul-2003	1,111.35	1,210.02	0.64	0.88	0.14	0.32	0.93
21-Jul-2003	1,169.87	1,137.63	0.47	0.68	0.12	0.28	0.89
22-Jul-2003	1,012.97	1,116.05	0.70	0.91	0.15	0.36	1.08
23-Jul-2003	1,213.63	1,182.25	0.79	0.97	0.24	0.49	1.33
24-Jul-2003	989.33	1,107.42	0.85	1.08	0.30	0.53	1.55
25-Jul-2003	1,017.77	1,111.47	0.92	1.15	0.30	0.53	1.75
26-Jul-2003	1,153.25	1,113.67	0.93	1.14	0.30	0.53	1.96
27-Jul-2003	1,018.30	1,125.68	0.92	1.20	0.26	0.51	1.34
28-Jul-2003	1,057.22	1,105.40	0.50	0.68	0.07	0.25	0.95
29-Jul-2003	1,042.10	1,091.00	0.42	0.60	0.09	0.23	1.22
30-Jul-2003	1,029.88	1,146.50	0.47	0.71	0.05	0.25	1.42
31-Jul-2003	1,189.32	1,105.93	0.52	0.74	0.03	0.22	1.54
Totals	32,447.90	33,233.20					
Averages			0.71	0.94	0.23	0.45	1.32



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

August 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Aug-2003	1,046.65	1,145.53	0.49	0.68	0.09	0.25	1.02
2-Aug-2003	1,341.70	1,172.88	0.36	0.56	0.03	0.20	1.38
3-Aug-2003	1,110.98	1,086.47	0.54	0.76	0.06	0.27	1.54
4-Aug-2003	902.32	1,139.98	0.54	0.75	0.07	0.28	1.49
5-Aug-2003	1,041.22	1,113.13	0.45	0.67	0.06	0.26	1.39
6-Aug-2003	1,145.70	1,151.08	0.42	0.66	0.07	0.27	1.09
7-Aug-2003	1,059.12	1,153.98	0.42	0.65	0.05	0.26	1.17
8-Aug-2003	1,034.10	1,130.13	0.51	0.76	0.10	0.29	0.87
9-Aug-2003	1,095.12	1,150.02	0.51	0.74	0.08	0.25	1.10
10-Aug-2003	1,155.92	1,040.23	0.53	0.73	0.06	0.28	0.95
11-Aug-2003	1,208.07	1,202.17					
12-Aug-2003	1,344.73	1,220.10					
13-Aug-2003	1,182.22	1,156.32	0.26	0.54	0.20	0.45	0.11
14-Aug-2003	1,051.48	1,164.85	0.31	0.53	0.10	0.28	0.11
15-Aug-2003	1,020.67	1,160.00	0.26	0.65	0.15	0.31	1.04
16-Aug-2003	1,013.73	1,157.70	0.46	0.68	0.11	0.30	1.32
17-Aug-2003	1,338.55	1,190.30	0.38	0.60	0.21	0.44	1.07
18-Aug-2003	1,370.58	1,175.67	0.23	0.42	0.16	0.40	1.07
19-Aug-2003	1,096.87	1,084.62	0.25	0.48	0.08	0.41	0.94
20-Aug-2003	1,230.98	1,144.20	0.30	0.49	0.19	0.42	0.76
21-Aug-2003	1,052.88	1,175.00	0.33	0.50	0.19	0.43	0.56
22-Aug-2003	1,341.10	1,168.92	0.29	0.42	0.15	0.41	0.26
23-Aug-2003	1,220.48	1,181.72	0.53	0.72	0.12	0.39	0.29
24-Aug-2003	1,158.40	1,213.17	0.36	0.53	0.22	0.44	0.14
25-Aug-2003	1,264.28	1,199.12	0.39	0.61	0.15	0.32	0.20
26-Aug-2003	1,270.98	1,143.98	0.51	0.70	0.08	0.29	0.19
27-Aug-2003	1,258.45	1,204.97	0.52	0.74	0.10	0.31	0.48
28-Aug-2003	1,197.87	1,184.07	0.48	0.69	0.06	0.27	0.63
29-Aug-2003	1,231.83	1,082.95	0.53	0.69	0.10	0.29	0.78
30-Aug-2003	1,202.85	1,184.55	0.60	0.79	0.14	0.33	0.70
31-Aug-2003	1,138.70	1,205.97	0.58	0.79	0.10	0.30	0.54
Totals	36,128.53	35,883.77					
Averages			0.43	0.64	0.11	0.32	0.80



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

September 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Sep-2003	1,254.33	1,184.78	0.59	0.78	0.13	0.34	0.38
2-Sep-2003	1,281.87	1,182.73	0.44	0.69	0.12	0.31	0.40
3-Sep-2003	1,227.50	1,129.15	0.50	0.69	0.10	0.31	0.72
4-Sep-2003	1,175.33	1,126.27	0.41	0.58	0.07	0.25	0.74
5-Sep-2003	1,474.52	856.87	0.45	0.64	0.13	0.31	0.94
6-Sep-2003	1,325.47	839.73	0.46	0.64	0.35	0.55	1.31
7-Sep-2003	1,199.63	1,102.38	0.70	0.89	0.10	0.32	1.12
8-Sep-2003	1,166.67	1,091.70	0.56	0.79	0.12	0.33	1.27
9-Sep-2003	1,131.57	989.62	0.50	0.71	0.07	0.29	1.99
10-Sep-2003	1,203.07	961.08	0.46	0.67	0.10	0.29	
11-Sep-2003	1,132.85	900.55	0.45	0.67	0.11	0.27	1.97
12-Sep-2003	1,253.37	873.18	0.49	0.73	0.13	0.30	1.49
13-Sep-2003	1,101.27	926.72	0.66	0.86	0.10	0.31	1.20
14-Sep-2003	1,202.55	908.58	0.62	0.84	0.08	0.30	0.90
15-Sep-2003	1,257.57	886.37	0.51	0.70	0.05	0.26	0.99
16-Sep-2003	1,172.00	775.63	0.55	0.73	0.08	0.29	1.25
17-Sep-2003	1,143.78	898.78	0.53	0.80	0.01	0.23	1.27
18-Sep-2003	1,175.00	922.02	0.58	0.77	0.10	0.32	1.24
19-Sep-2003	1,072.90	865.17	0.61	0.86	0.09	0.34	0.92
20-Sep-2003	1,121.77	891.70	0.73	0.99	0.21	0.41	1.09
21-Sep-2003	1,187.77	901.70	0.75	0.98	0.11	0.32	1.32
22-Sep-2003	1,125.97	831.60	0.69	0.90	0.22	0.39	1.21
23-Sep-2003	1,015.43	838.78	0.61	0.82	0.16	0.40	1.59
24-Sep-2003	1,069.80	824.85	0.69	0.95	0.19	0.44	1.43
25-Sep-2003	1,027.98	834.77	0.85	1.04	0.27	0.45	1.25
26-Sep-2003	1,139.35	884.95	0.70	0.93	0.29	0.49	1.21
27-Sep-2003	1,207.68	872.17	0.71	0.92	0.18	0.42	1.39
28-Sep-2003	1,088.20	878.37	0.72	1.01	0.18	0.45	1.48
29-Sep-2003	1,114.28	862.25	0.61	0.82	0.15	0.39	1.34
30-Sep-2003	1,131.95	857.72	0.68	0.97	0.21	0.45	1.50
Totals	35,181.42	27,900.17					
Averages			0.59	0.81	0.14	0.35	1.20



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

October 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Oct-2003	2,304.47	803.12	0.65	0.89	0.23	0.47	1.57
2-Oct-2003	2,146.57	862.48	0.65	0.95	0.21	0.44	1.59
3-Oct-2003	2,291.90	841.03	0.71	0.93	0.24	0.51	1.58
4-Oct-2003	2,122.70	876.60	0.75	0.97	0.24	0.49	1.56
5-Oct-2003	2,333.53	903.37	0.71	1.01	0.25	0.54	1.46
6-Oct-2003	2,382.10	888.60	0.69	1.00	0.27	0.47	1.34
7-Oct-2003	2,247.23	863.32	0.65	0.87	0.22	0.50	1.44
8-Oct-2003	2,225.20	1,729.03	0.69	0.91	0.27	0.54	1.43
9-Oct-2003	1,052.05	856.22	0.69	0.93	0.24	0.46	1.39
10-Oct-2003	1,147.47	820.65	0.70	0.95	0.27	0.53	1.38
11-Oct-2003	1,086.97	848.00	0.88	1.17	0.29	0.57	1.35
12-Oct-2003	1,135.27	825.08	0.77	0.94	0.24	0.51	1.27
13-Oct-2003	1,132.45	884.55	0.89	1.12	0.32	0.58	1.29
14-Oct-2003	1,087.28	848.93	0.76	1.02	0.29	0.52	1.38
15-Oct-2003	1,158.87	835.75	0.79	1.03	0.38	0.61	1.38
16-Oct-2003	1,048.42	852.72	0.79	1.10	0.32	0.61	1.26
17-Oct-2003	1,102.18	831.48	0.77	0.99	0.30	0.54	1.37
18-Oct-2003	1,135.30	856.70	0.72	0.97	0.21	0.51	1.40
19-Oct-2003	1,075.97	862.27	0.85	1.05	0.27	0.53	1.29
20-Oct-2003	1,099.18	808.22	0.70	1.00	0.25	0.47	1.28
21-Oct-2003	1,071.20	812.32	0.78	1.01	0.27	0.56	1.36
22-Oct-2003	1,073.77	825.48	0.82	1.05	0.33	0.59	1.29
23-Oct-2003	1,066.23	812.85	0.90	1.03	0.32	0.55	1.11
24-Oct-2003	1,087.37	805.25	0.60	0.88	0.24	0.51	1.17
25-Oct-2003	1,108.28	830.22	0.80	1.11	0.30	0.55	1.35
26-Oct-2003	1,103.62	833.67	0.80	1.11	0.27	0.59	1.50
27-Oct-2003	1,102.80	821.08	0.77	1.02	0.27	0.53	1.44
28-Oct-2003	1,121.95	832.28	0.72	1.02	0.22	0.47	1.80
29-Oct-2003	1,076.48	840.65	0.75	1.13	0.31	0.51	1.77
30-Oct-2003	756.98	815.10	0.75	1.03	0.26	0.53	1.72
31-Oct-2003	776.12	779.68	0.74	1.03	0.20	0.47	1.76
Totals	42,659.90	26,906.70					
Averages			0.75	1.01	0.27	0.52	1.43



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

November 2003

Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Nov-2003	1,130.60	816.50	0.90	1.05	0.26	0.49	1.82
2-Nov-2003	1,182.72	815.20	0.90	0.99	0.30	0.44	1.72
3-Nov-2003	1,236.03	793.67	0.75	1.05	0.18	0.37	1.57
4-Nov-2003	1,048.48	795.00	0.67	0.93	0.20	0.48	1.69
5-Nov-2003	1,011.10	809.43	0.70	0.96	0.20	0.44	1.71
6-Nov-2003	1,221.57	778.90	0.64	0.94	0.19	0.43	1.65
7-Nov-2003	1,180.78	828.23	0.35	0.77	0.27	0.52	1.63
8-Nov-2003	1,166.47	815.58	0.68	1.00	0.17	0.41	1.79
9-Nov-2003	1,169.58	814.27	0.72	1.01	0.22	0.42	1.97
10-Nov-2003	1,171.35	816.50	0.55	0.82	0.17	0.47	1.53
11-Nov-2003	1,173.85	845.67	0.65	0.96	0.14	0.37	1.76
12-Nov-2003	1,181.98	818.67	0.64	0.91	0.19	0.35	1.60
13-Nov-2003	1,182.65	829.48	0.63	0.89	0.16	0.37	1.48
14-Nov-2003	1,193.77	889.60	0.46	0.75	0.11	0.36	1.35
15-Nov-2003	1,193.70	883.40	0.58	0.81	0.12	0.35	1.29
16-Nov-2003	1,207.92	917.78	0.55	0.87	0.16	0.35	1.21
17-Nov-2003	1,504.17	870.47	0.41	0.72	0.11	0.32	1.06
18-Nov-2003	1,528.28	913.37	0.50	0.80	0.09	0.29	1.10
19-Nov-2003	1,224.13	931.38	0.47	0.72	0.14	0.32	0.92
20-Nov-2003	1,117.48	916.70	0.48	0.71	0.09	0.30	1.07
21-Nov-2003	1,194.07	942.88	0.39	0.77	0.08	0.30	0.99
22-Nov-2003	1,317.42	934.68	0.50	0.80	0.12	0.32	0.95
23-Nov-2003	1,230.50	957.90	0.60	0.88	0.06	0.30	1.01
24-Nov-2003	1,116.87	912.08	0.41	0.80	0.09	0.26	0.96
25-Nov-2003	1,111.03	879.30	0.45	0.80	0.08	0.36	1.06
26-Nov-2003	1,186.37	873.62	0.42	0.71	0.08	0.31	1.10
27-Nov-2003	1,226.15	923.15	0.49	0.68	0.09	0.34	0.96
28-Nov-2003	1,175.47	928.33	0.50	0.66	0.06	0.16	0.95
29-Nov-2003	1,173.93	907.45	0.18	0.35	0.07	0.26	1.00
30-Nov-2003	1,197.67	912.45	0.40	0.78	0.09	0.26	1.02
Totals	35,956.08	26,071.65					
Averages			0.55	0.83	0.14	0.36	1.33



Utilidor Monthly Report

Volumes Drawn From Source and Daily Chlorine/Fluoride Readings

December 2003

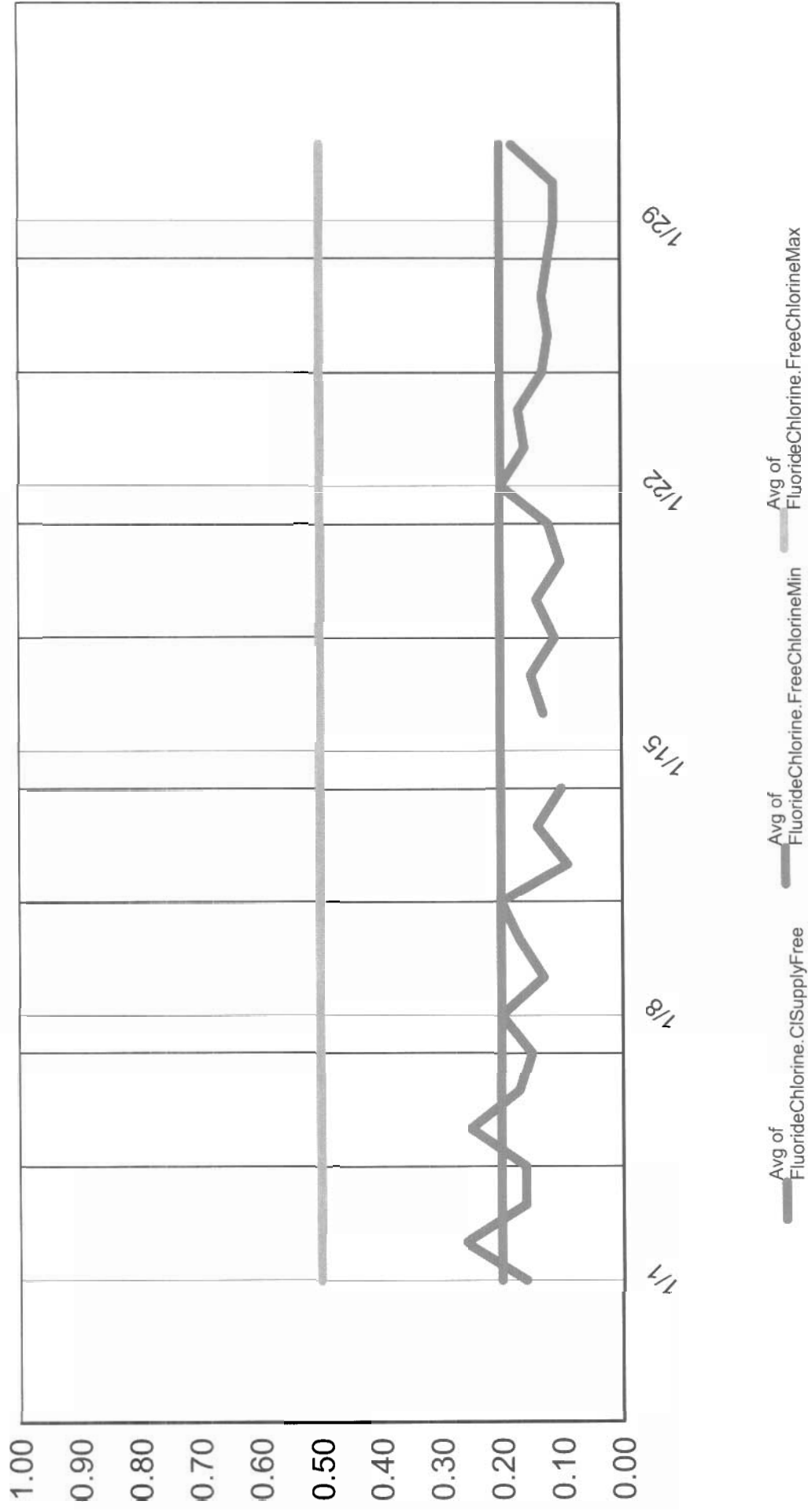
Date	Vol. from Source	Town Daily Usage	Supply Chlorine		Return Chlorine		Fluoride
			Free (mg/l)	Total (mg/l)	Free (mg/l)	Total (mg/l)	
1-Dec-2003	1,116.83	911.17	0.41	0.64	0.12	0.32	0.93
2-Dec-2003	1,177.42	890.58	0.53	0.91	0.15	0.35	1.04
3-Dec-2003	1,173.80	939.82	0.54	0.79	0.13	0.35	1.23
4-Dec-2003	1,185.57	969.37	0.53	0.84	0.12	0.34	1.11
5-Dec-2003	1,240.10	947.27	0.47	0.74	0.12	0.32	1.12
6-Dec-2003	1,156.40	946.45	0.57	0.91	0.08	0.31	1.08
7-Dec-2003	1,173.75	948.65	0.53	0.81	0.11	0.30	1.08
8-Dec-2003	1,301.13	925.10	0.41	0.69	0.05	0.35	0.93
9-Dec-2003	1,223.97	998.63	0.41	0.71	0.07	0.32	1.10
10-Dec-2003	1,301.38	897.58	0.32	0.77	0.11	0.27	1.27
11-Dec-2003	1,236.35	930.42	0.51	0.81	0.11	0.32	1.25
12-Dec-2003	1,018.40	880.50	0.46	0.72	0.09	0.43	1.23
13-Dec-2003	1,189.62	955.28	0.59	0.74	0.14	0.34	0.95
14-Dec-2003	1,241.25	957.07	0.48	0.79	0.10	0.27	1.08
15-Dec-2003	1,275.70	981.50	0.42	0.70	0.09	0.30	0.85
16-Dec-2003	1,221.62	967.63	0.33	0.65	0.07	0.25	0.94
17-Dec-2003	1,225.07	977.85	0.17	0.26	0.29	0.13	0.67
18-Dec-2003	1,323.35	978.72	0.39	0.59	0.15	0.37	0.97
19-Dec-2003	1,334.58	962.92	0.40	0.68	0.54	0.40	1.07
20-Dec-2003	1,322.53	991.75	0.37	0.72	0.26	0.39	1.03
21-Dec-2003	1,279.50	961.23	0.37	0.56	0.11	0.29	0.95
22-Dec-2003	1,272.38	981.68	0.35	0.50	0.08	0.19	0.77
23-Dec-2003	1,463.27	980.43	0.27	0.43	0.02	0.20	0.96
24-Dec-2003	1,692.12	1,031.23	0.27	0.48	0.02	0.20	0.99
25-Dec-2003	1,245.62	896.12	0.27	0.47	0.02	0.13	1.03
26-Dec-2003	1,156.42	926.50	0.34	0.59	0.02	0.28	1.07
27-Dec-2003	1,278.42	942.55	0.27	0.55	0.02	0.19	1.13
28-Dec-2003	1,250.50	928.03	0.32	0.55	0.04	0.19	1.17
29-Dec-2003	1,309.50	972.92	0.33	0.57	0.04	0.24	0.84
30-Dec-2003	1,306.28	1,012.37	0.24	0.48	0.08	0.19	1.04
31-Dec-2003	1,312.37	974.63	0.17	0.45	0.07	0.17	0.98
Totals	39,005.18	29,565.95					
Averages			0.39	0.65	0.11	0.28	1.03

CHLORINE FLUORIDE TREND GRAPHS

January 2003

Free Chlorine-Supply

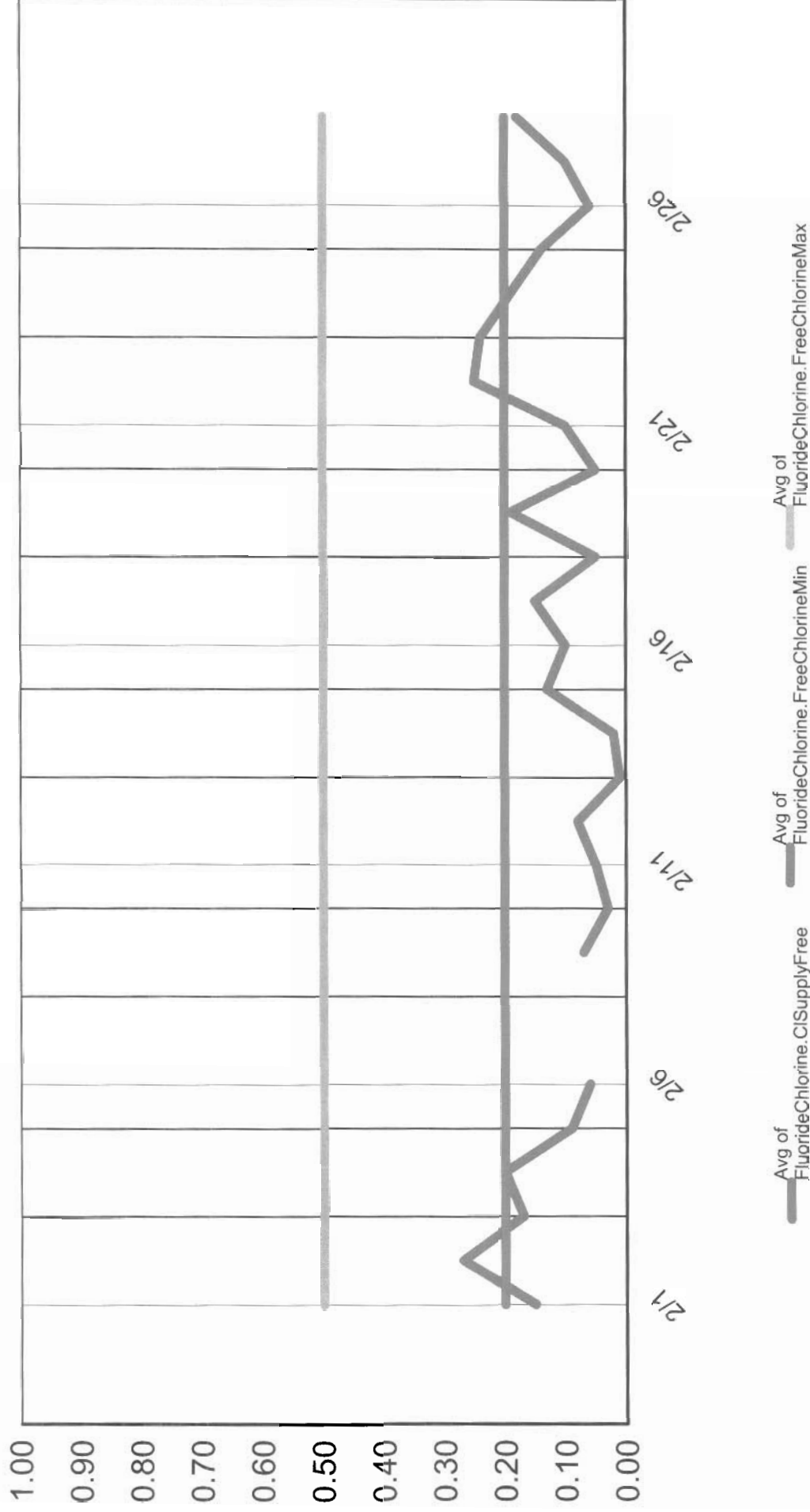
Values of Free Chlorine in Water Delivered To Town



February 2003

Free Chlorine-Supply

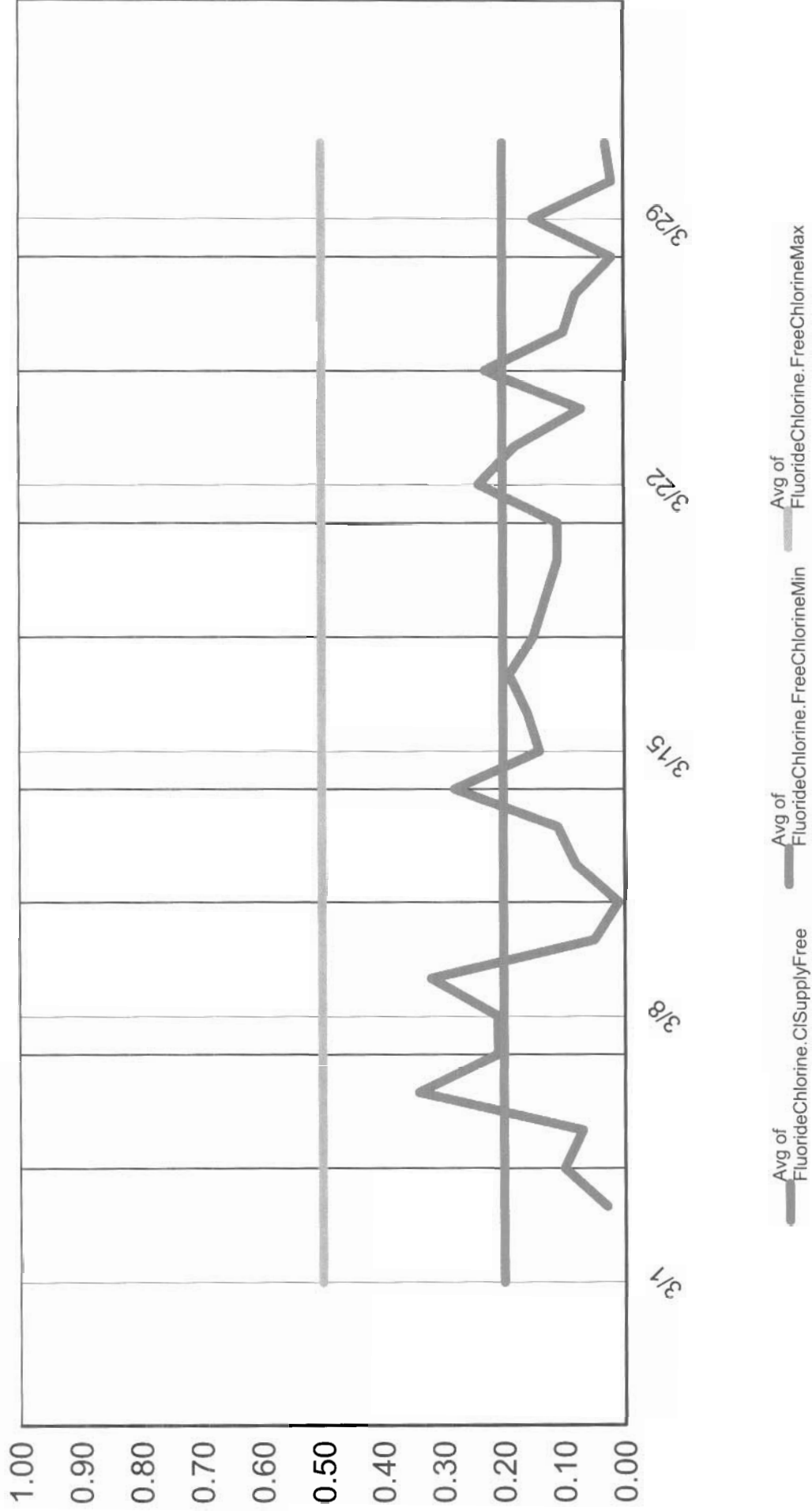
Values of Free Chlorine in Water Delivered To Town



March 2003

Free Chlorine-Supply

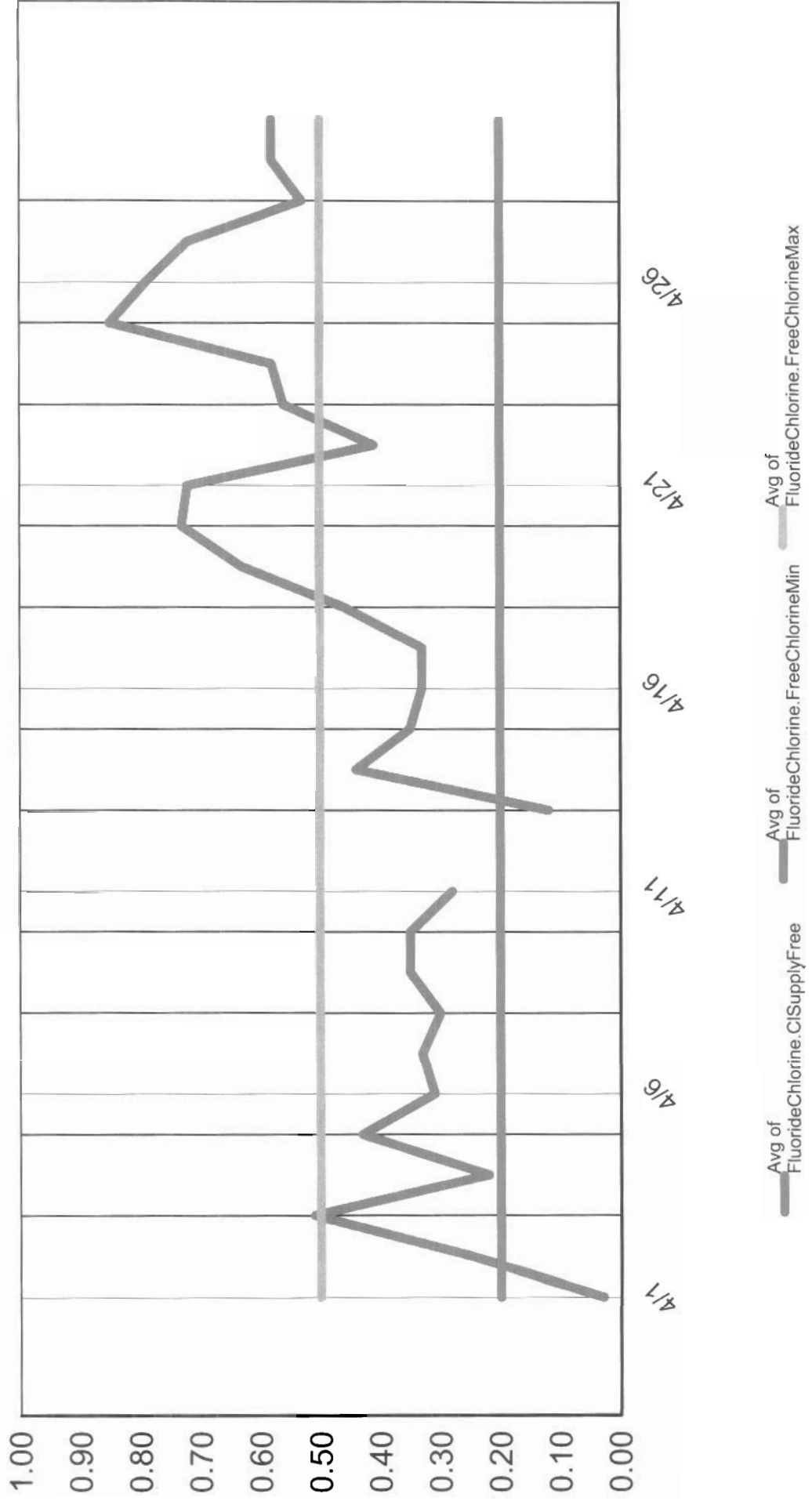
Values of Free Chlorine in Water Delivered To Town



April 2003

Free Chlorine-Supply

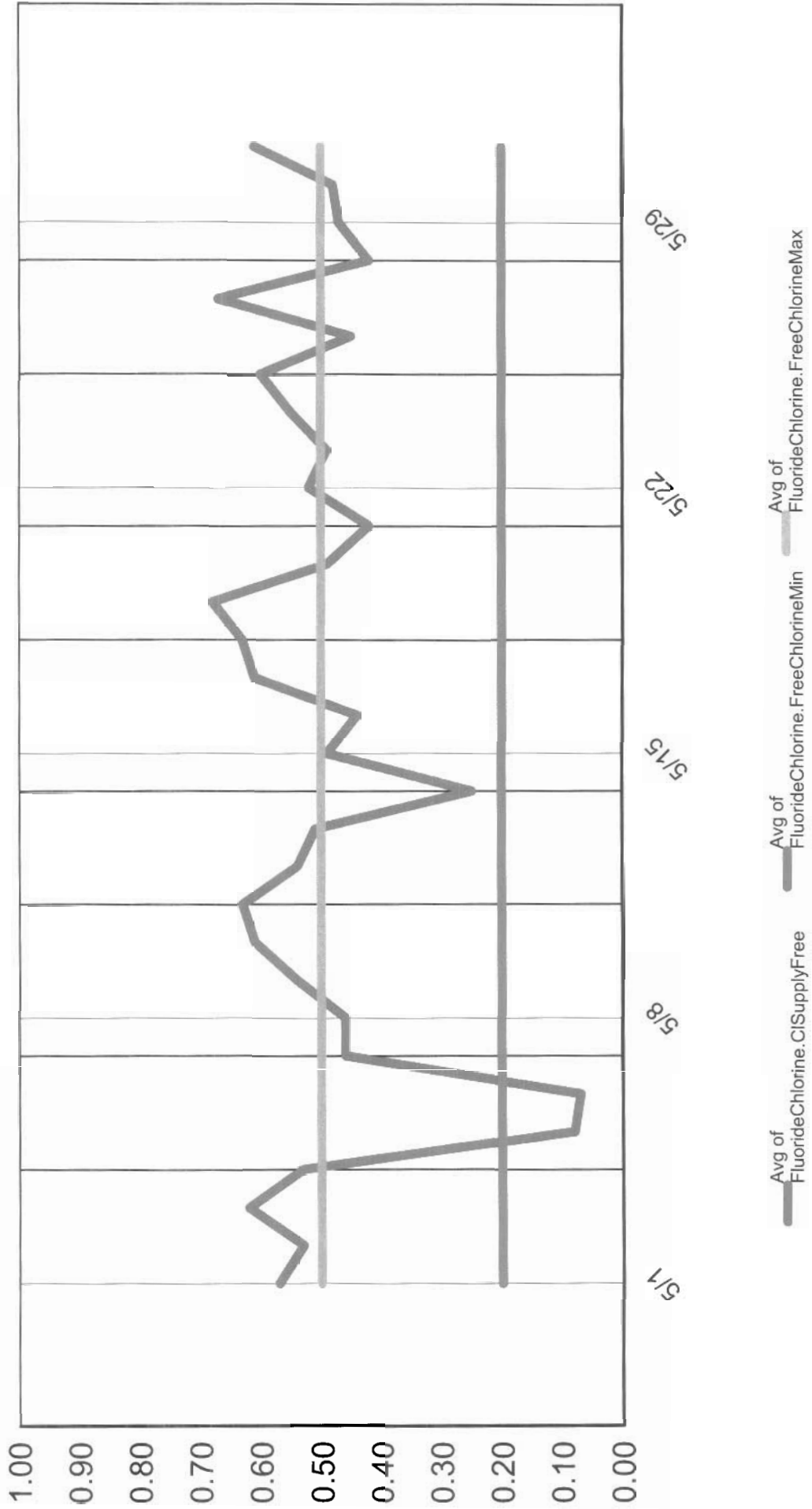
Values of Free Chlorine in Water Delivered To Town



May 2003

Free Chlorine-Supply

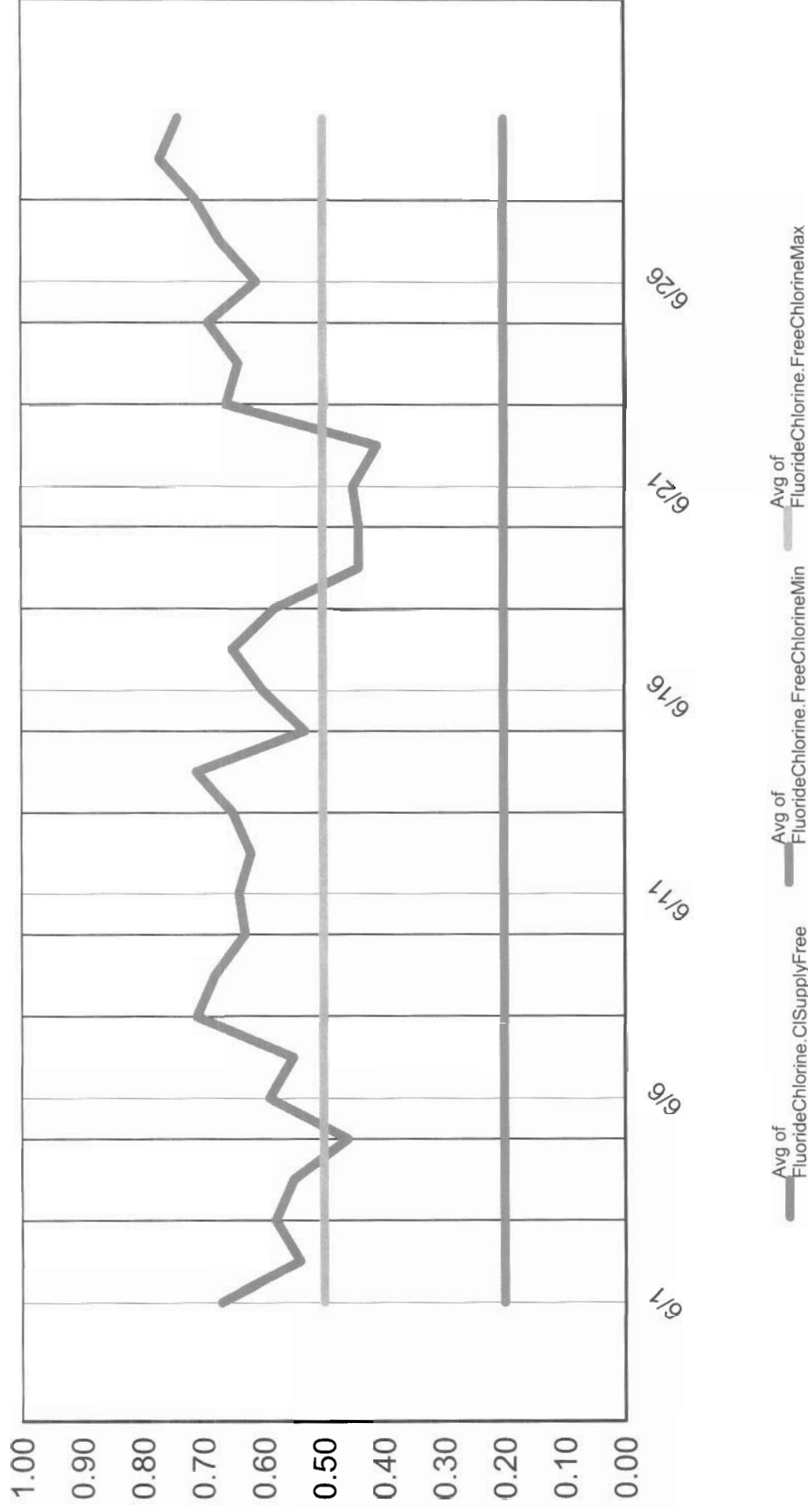
Values of Free Chlorine in Water Delivered To Town



June 2003

Free Chlorine-Supply

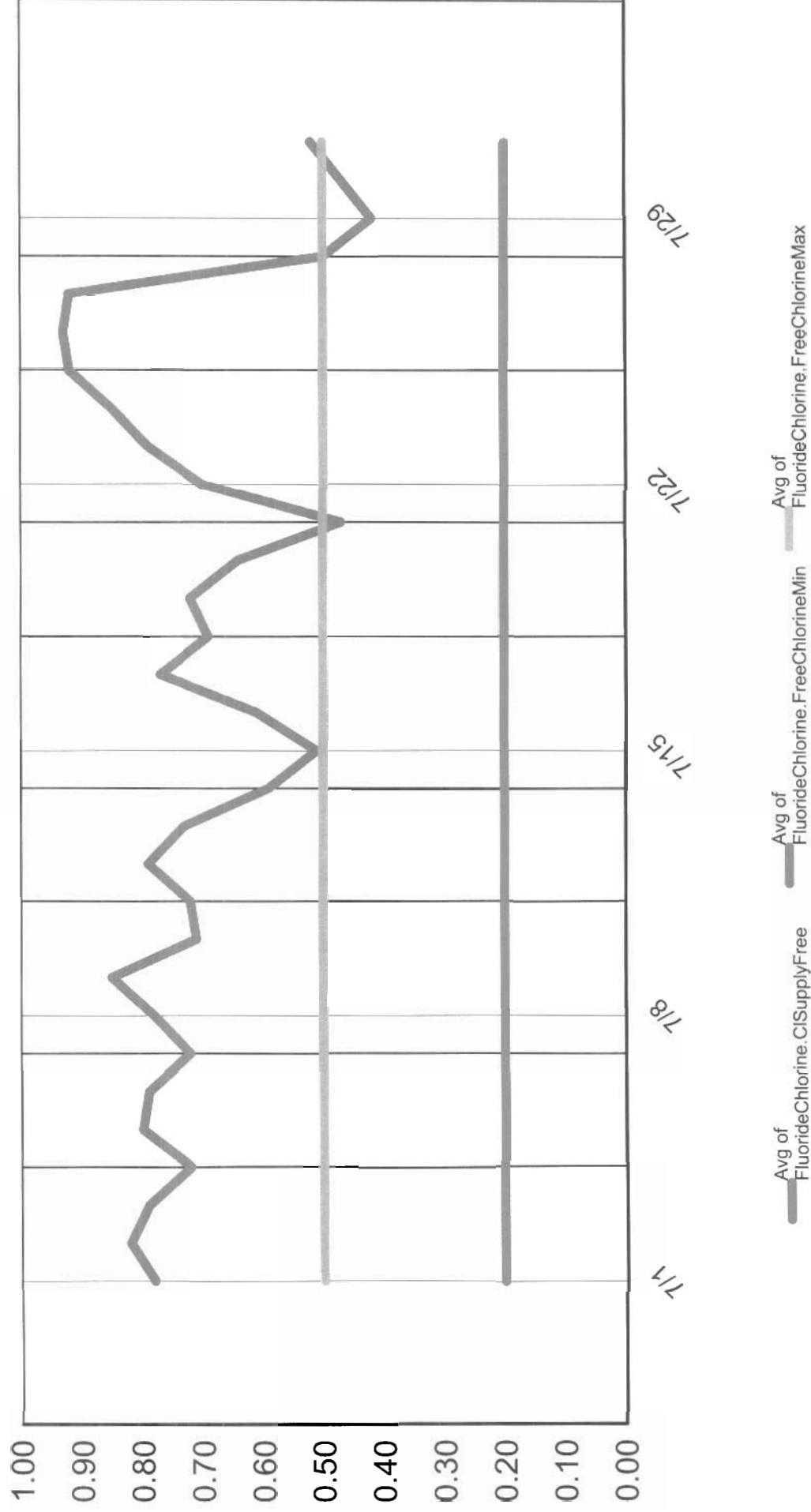
Values of Free Chlorine in Water Delivered To Town



July 2003

Free Chlorine-Supply

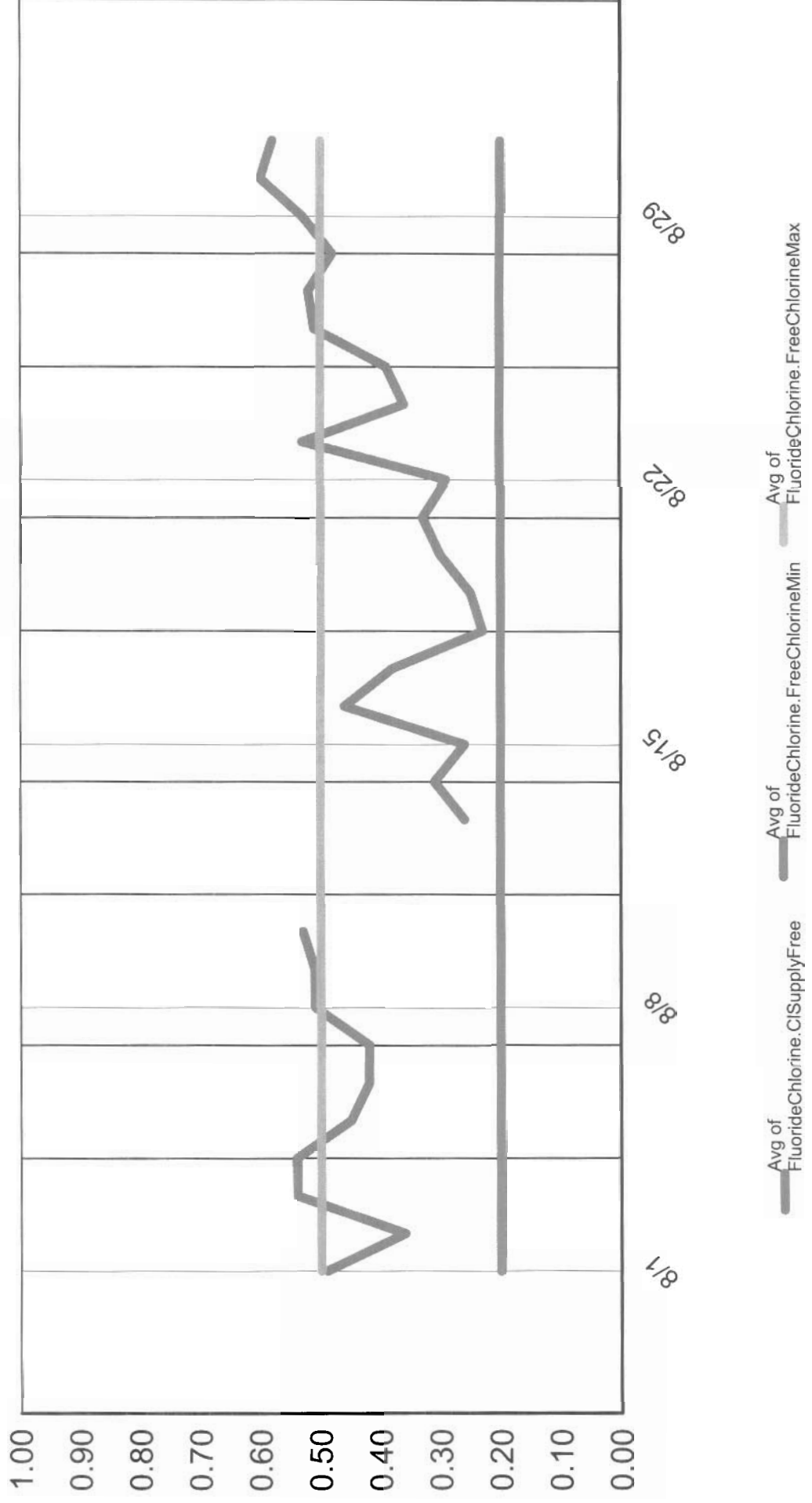
Values of Free Chlorine in Water Delivered To Town



August 2003

Free Chlorine-Supply

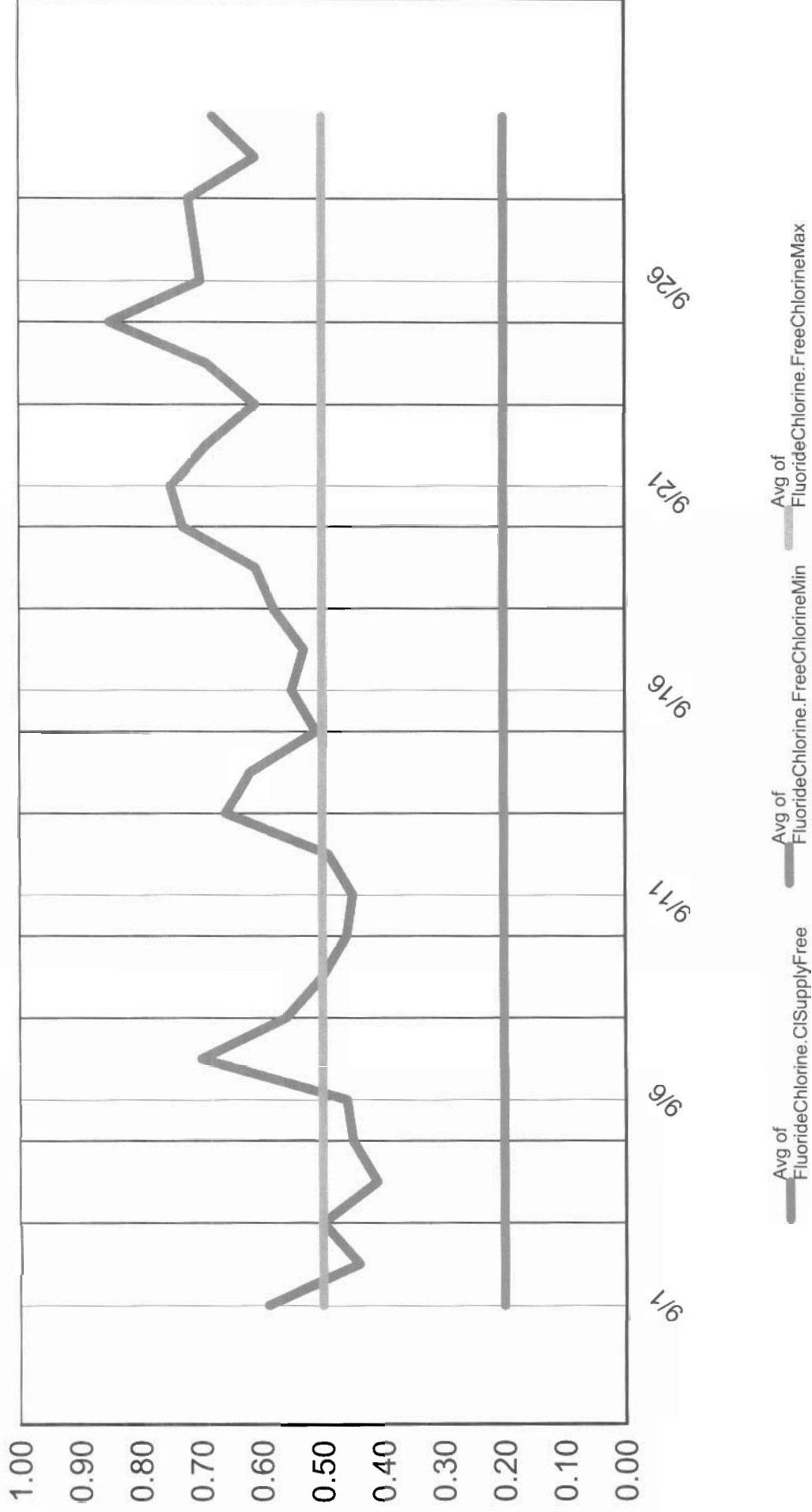
Values of Free Chlorine in Water Delivered To Town



September 2003

Free Chlorine-Supply

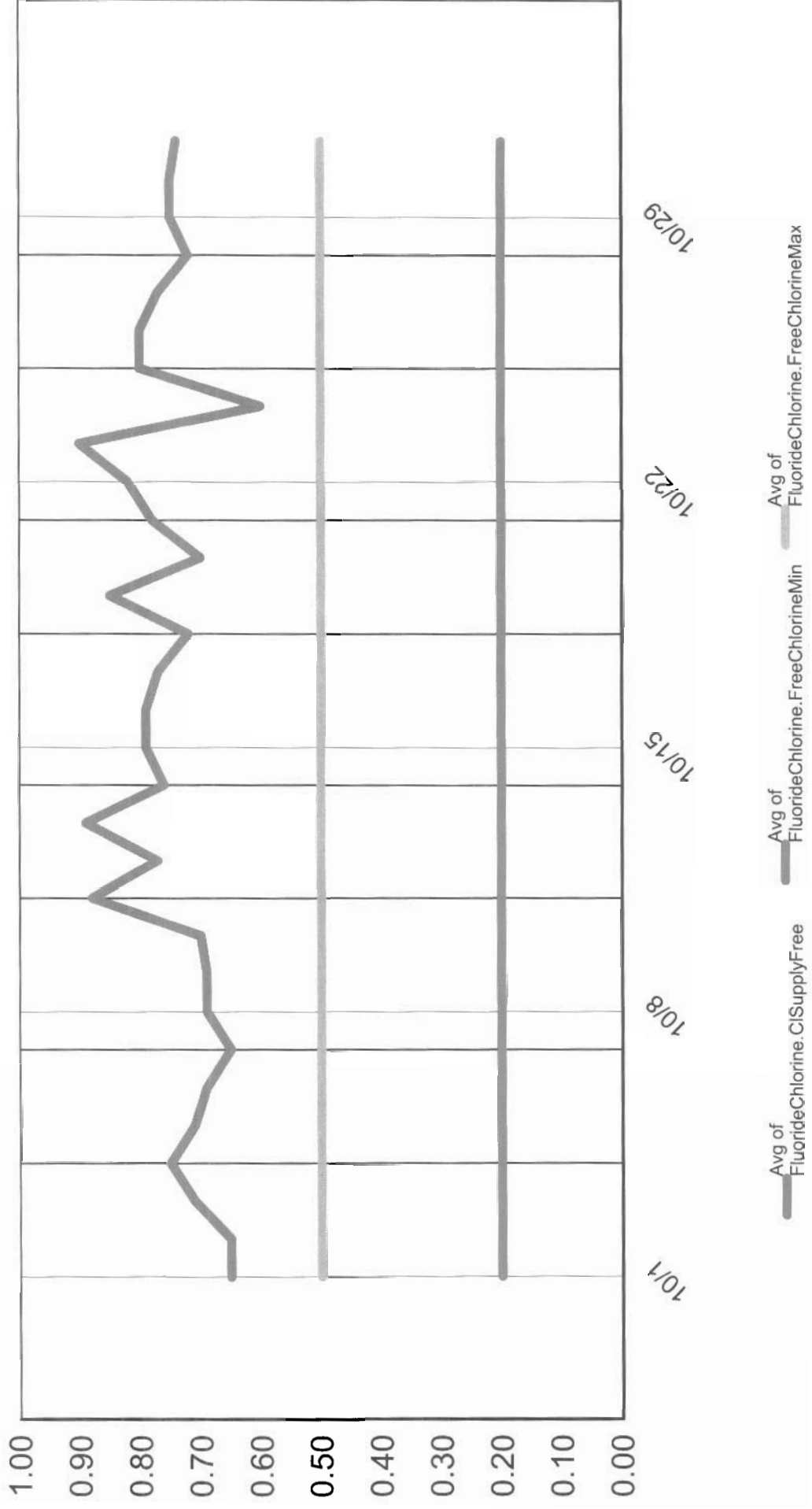
Values of Free Chlorine in Water Delivered To Town



October 2003

Free Chlorine-Supply

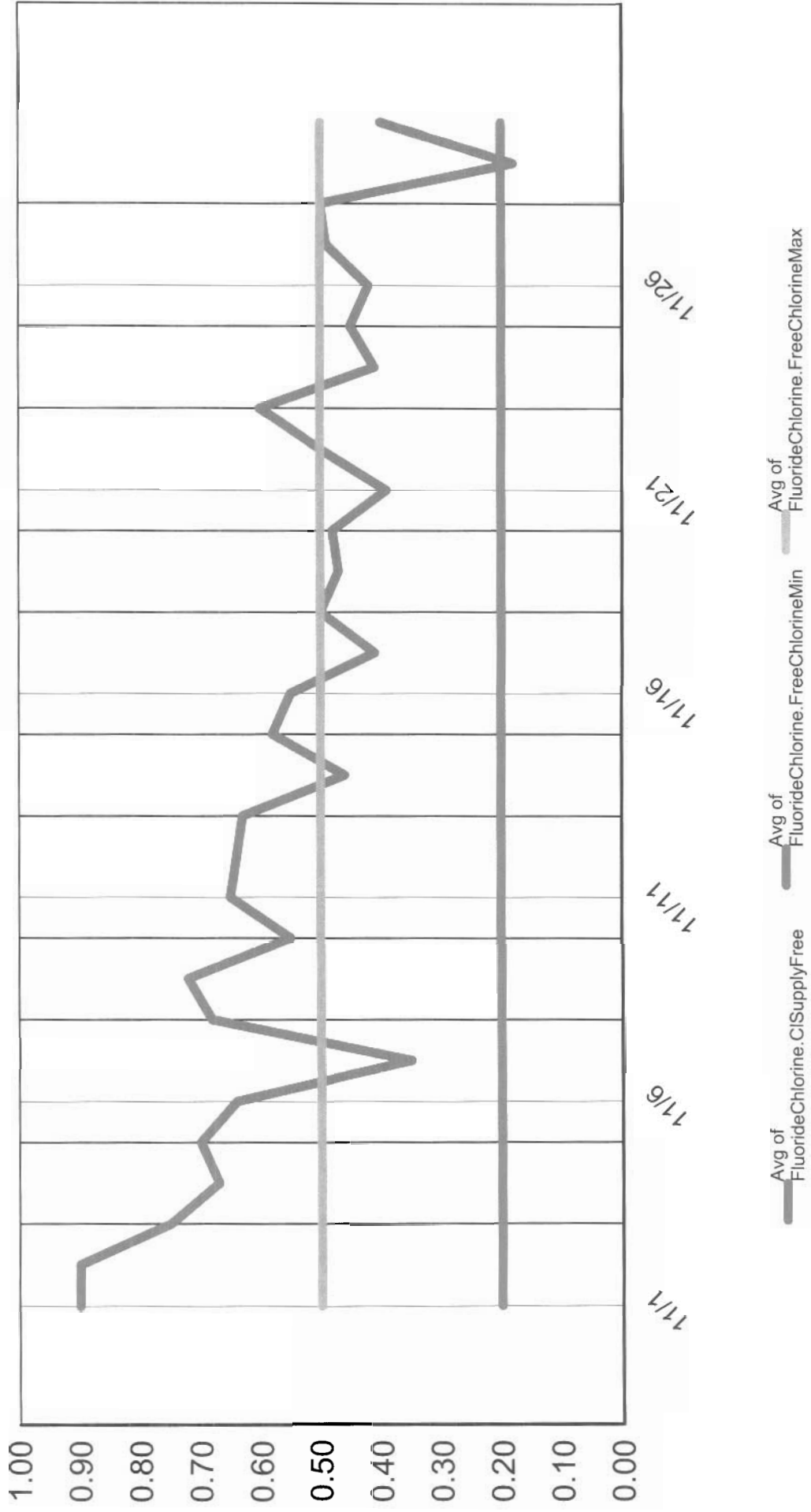
Values of Free Chlorine in Water Delivered To Town



November 2003

Free Chlorine-Supply

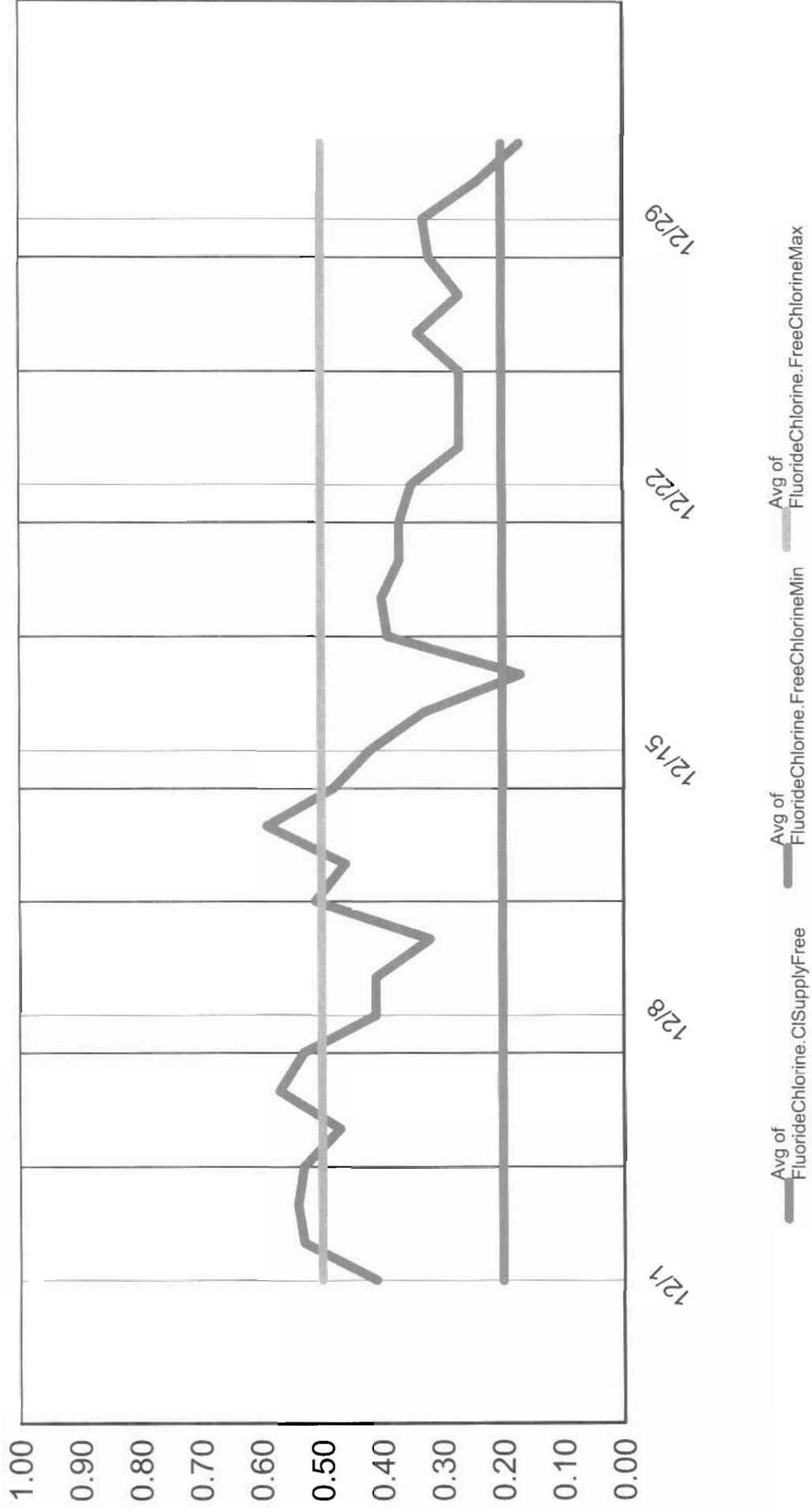
Values of Free Chlorine in Water Delivered To Town



December 2003

Free Chlorine-Supply

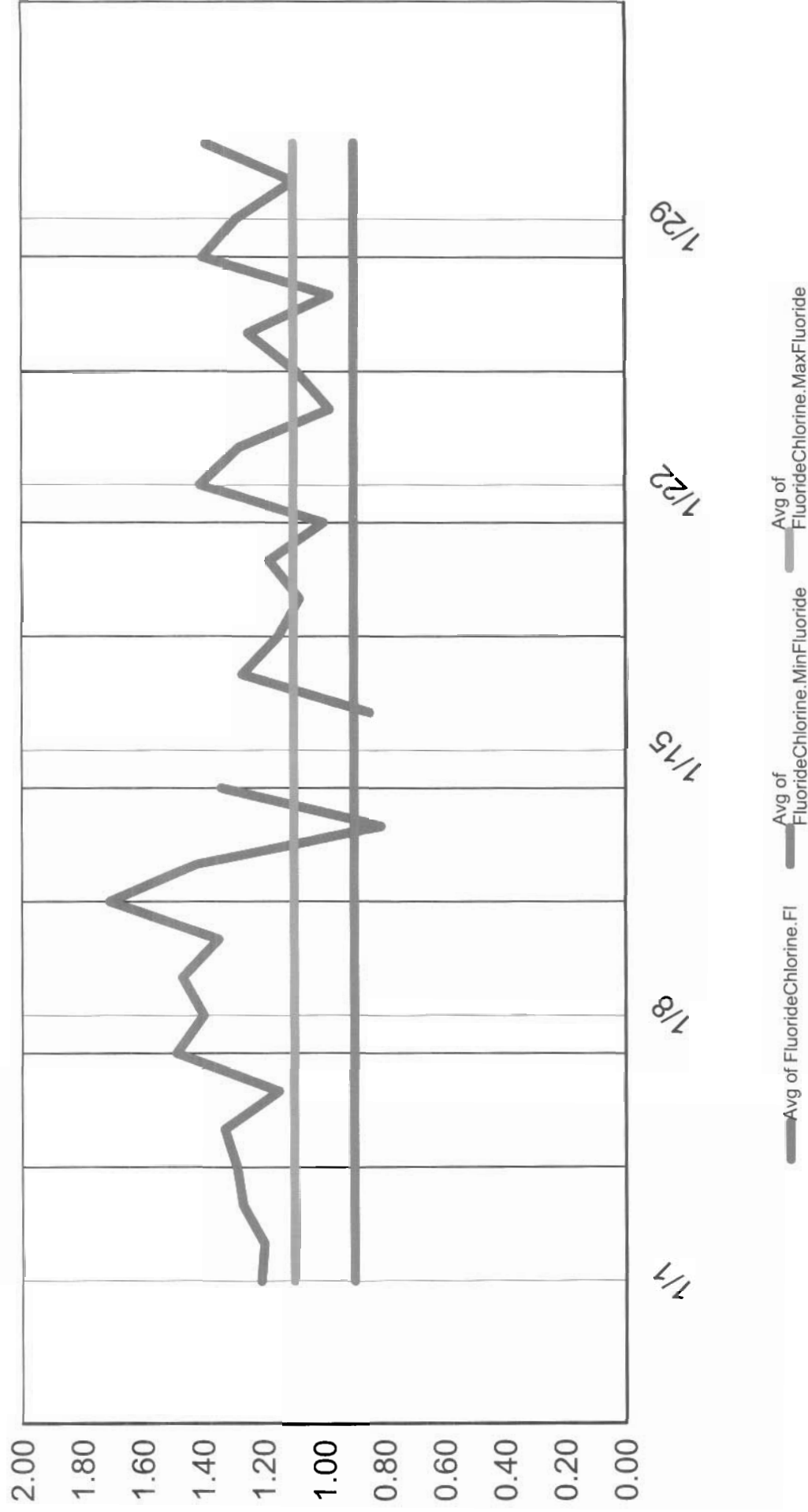
Values of Free Chlorine in Water Delivered To Town



January 2003

Fluoride Level

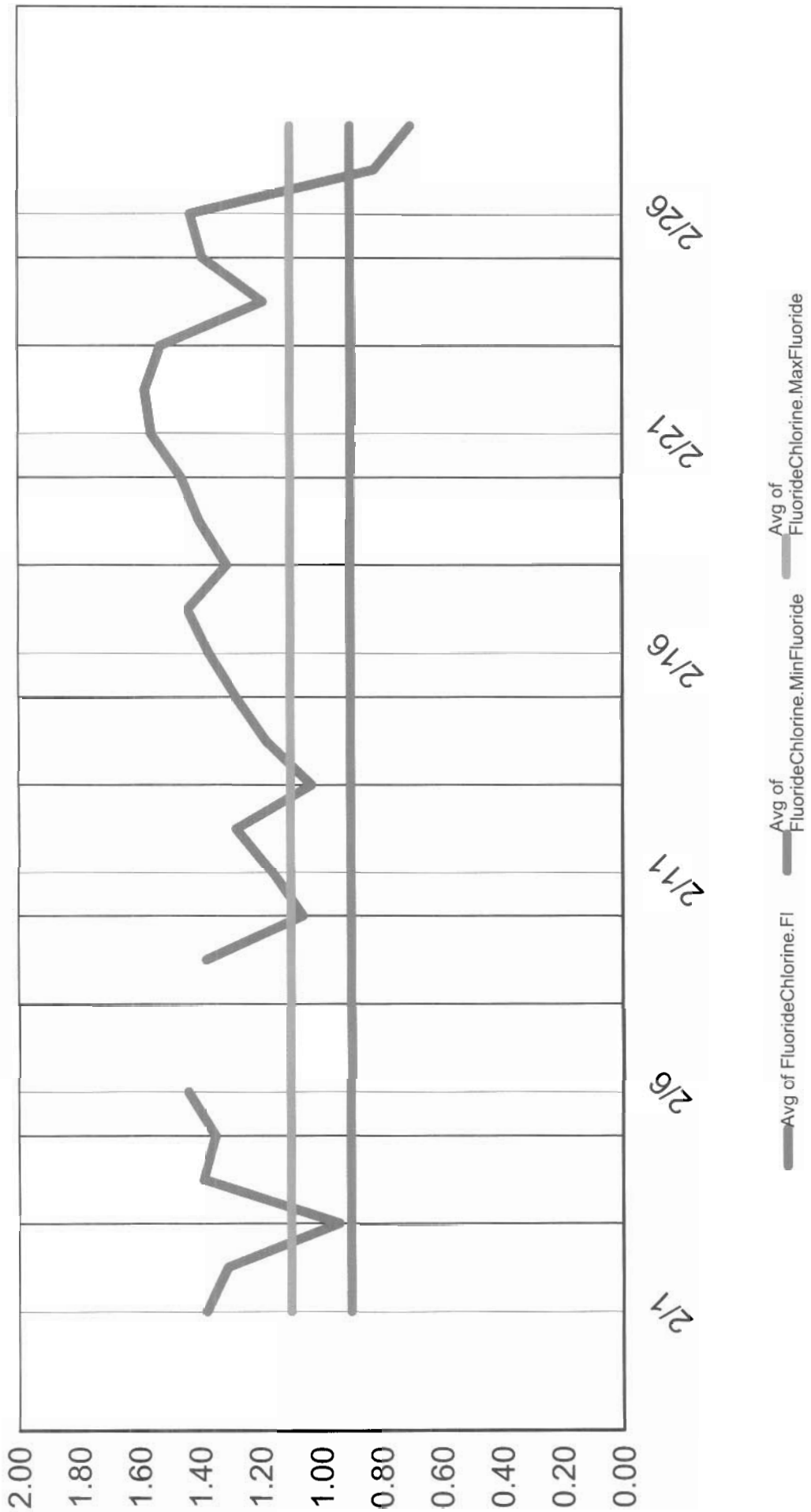
Values of Fluoride in Water Delivered To Town



February 2003

Fluoride Level

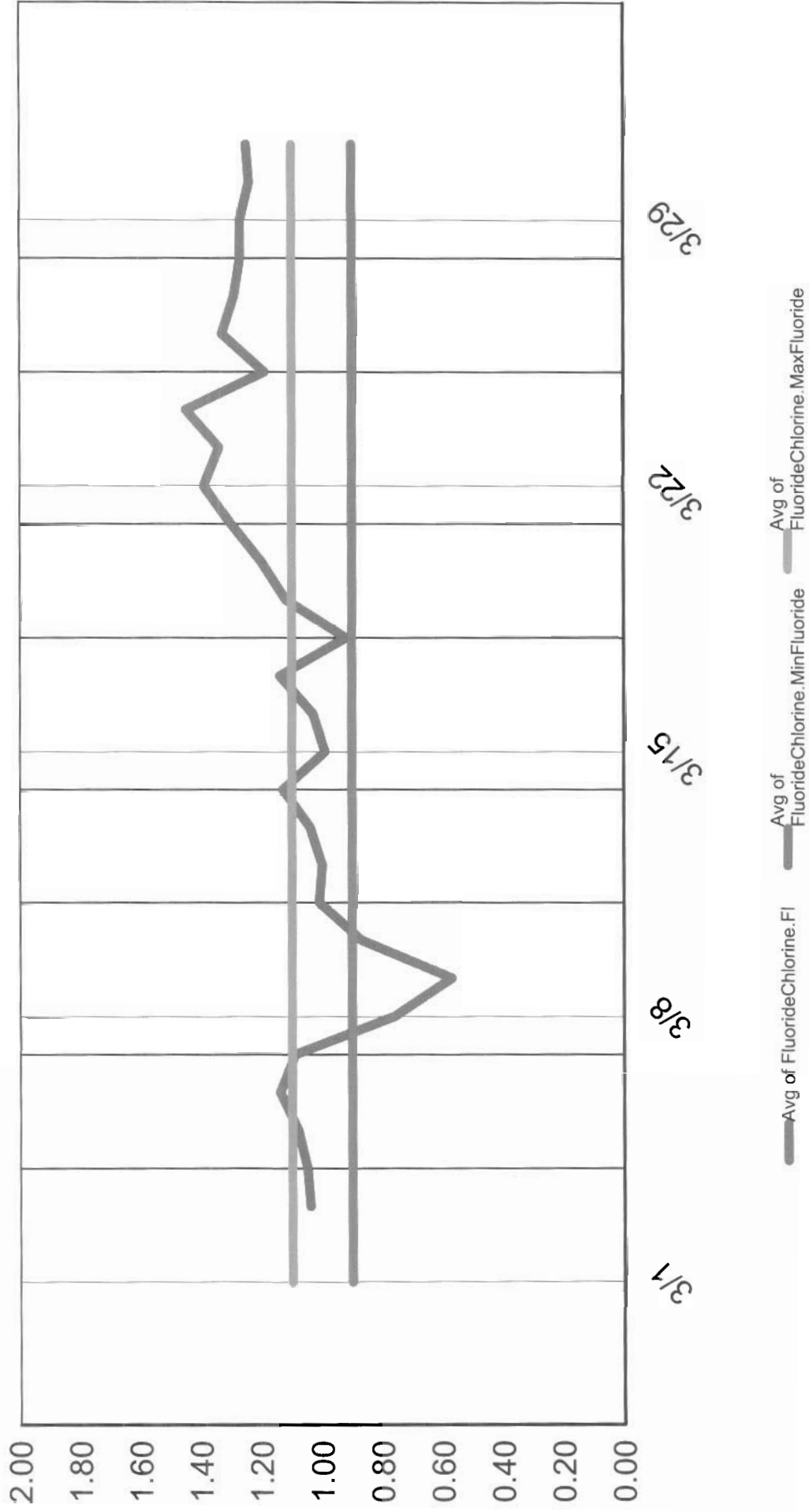
Values of Fluoride in Water Delivered To Town



March 2003

Fluoride Level

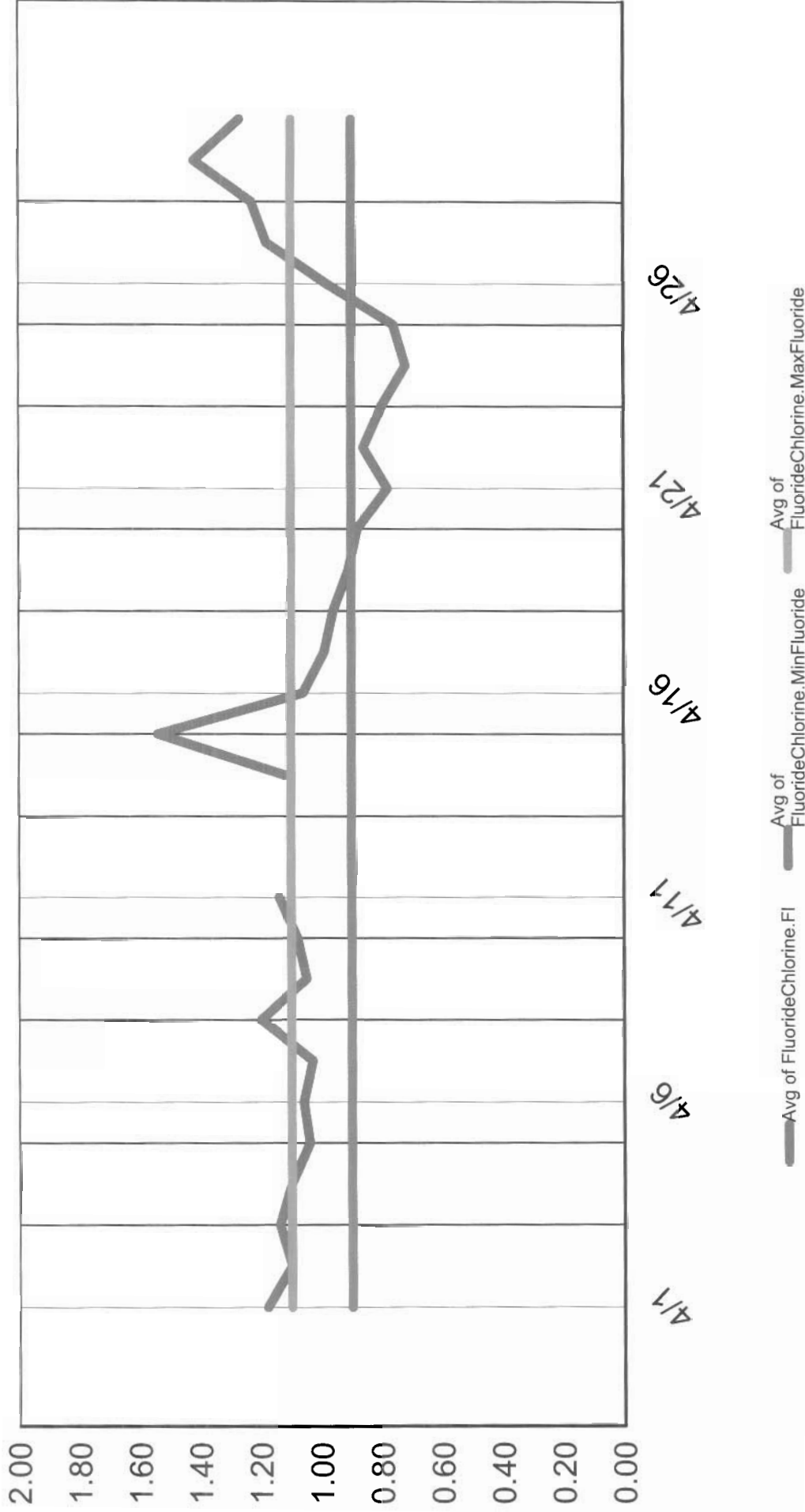
Values of Fluoride in Water Delivered To Town



April 2003

Fluoride Level

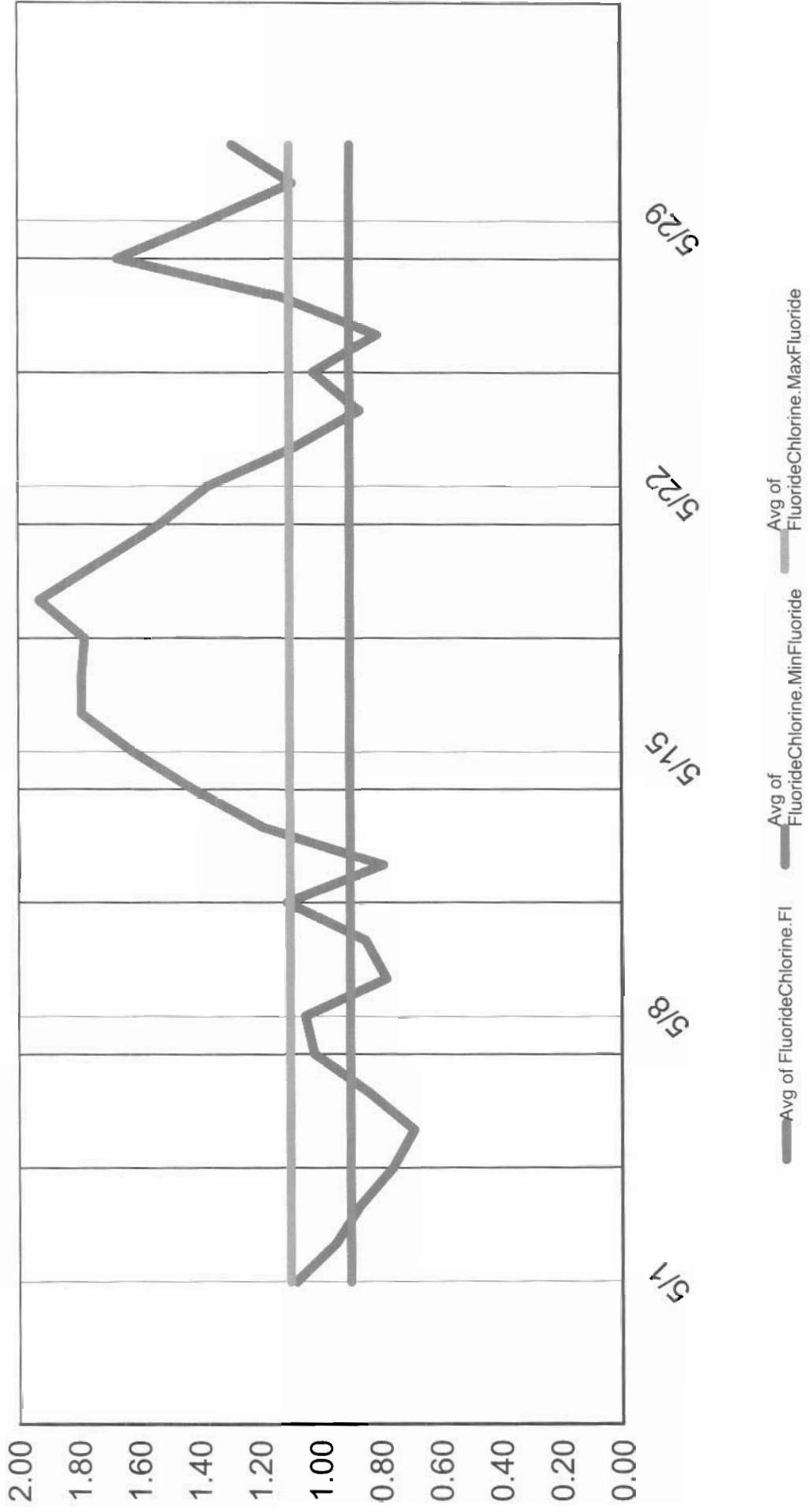
Values of Fluoride in Water Delivered To Town



May 2003

Fluoride Level

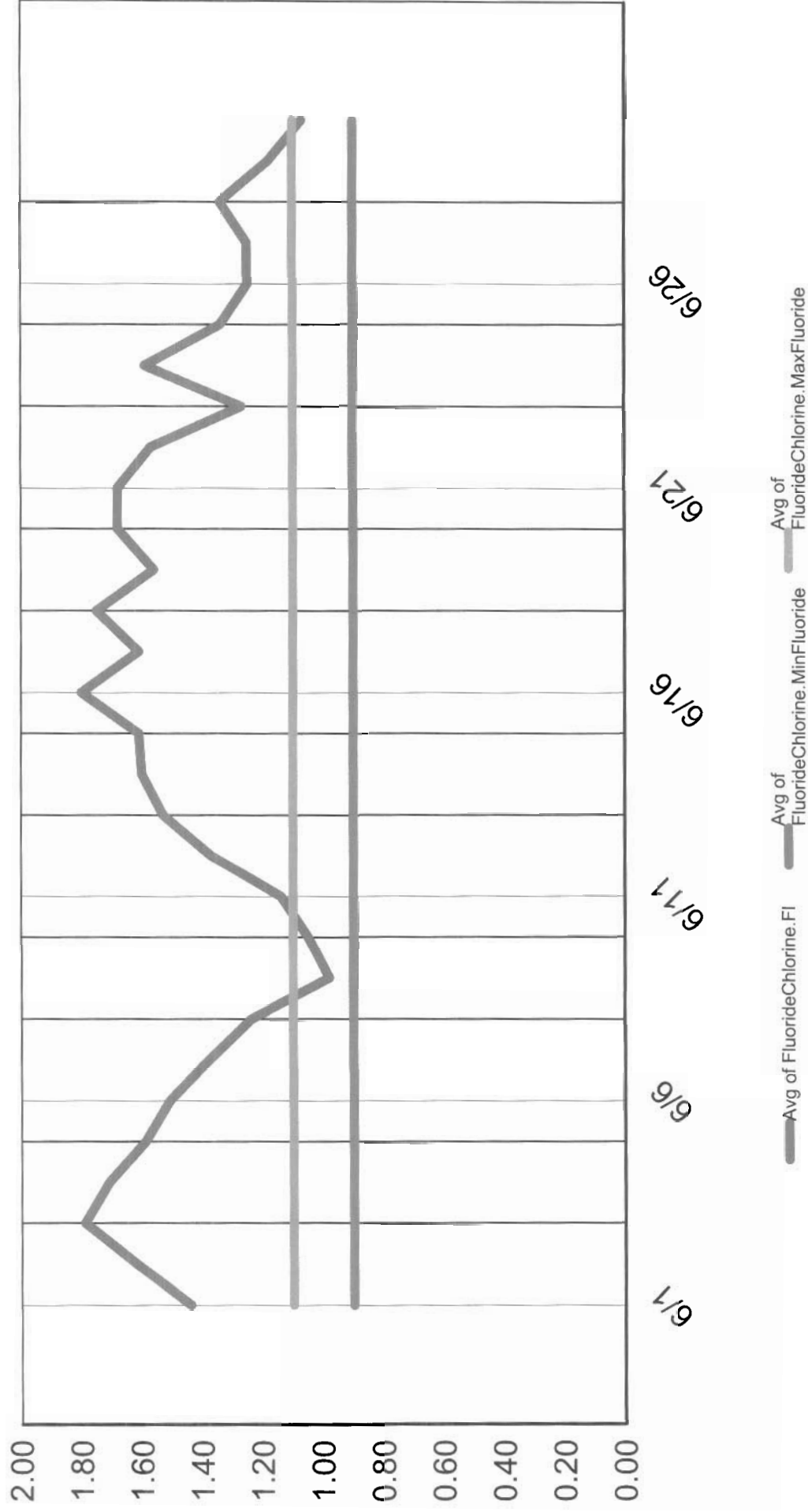
Values of Fluoride in Water Delivered To Town



June 2003

Fluoride Level

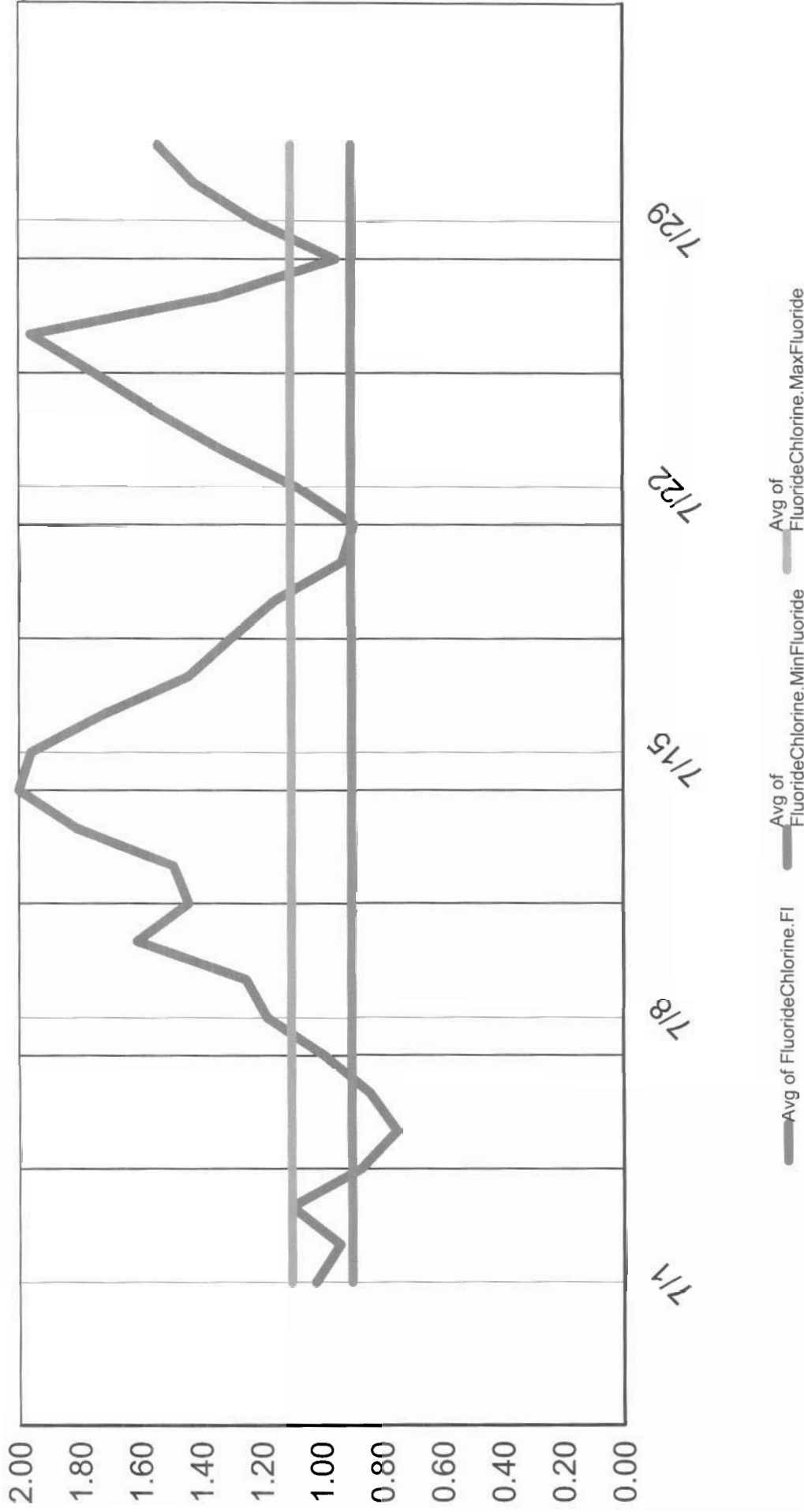
Values of Fluoride in Water Delivered To Town



July 2003

Fluoride Level

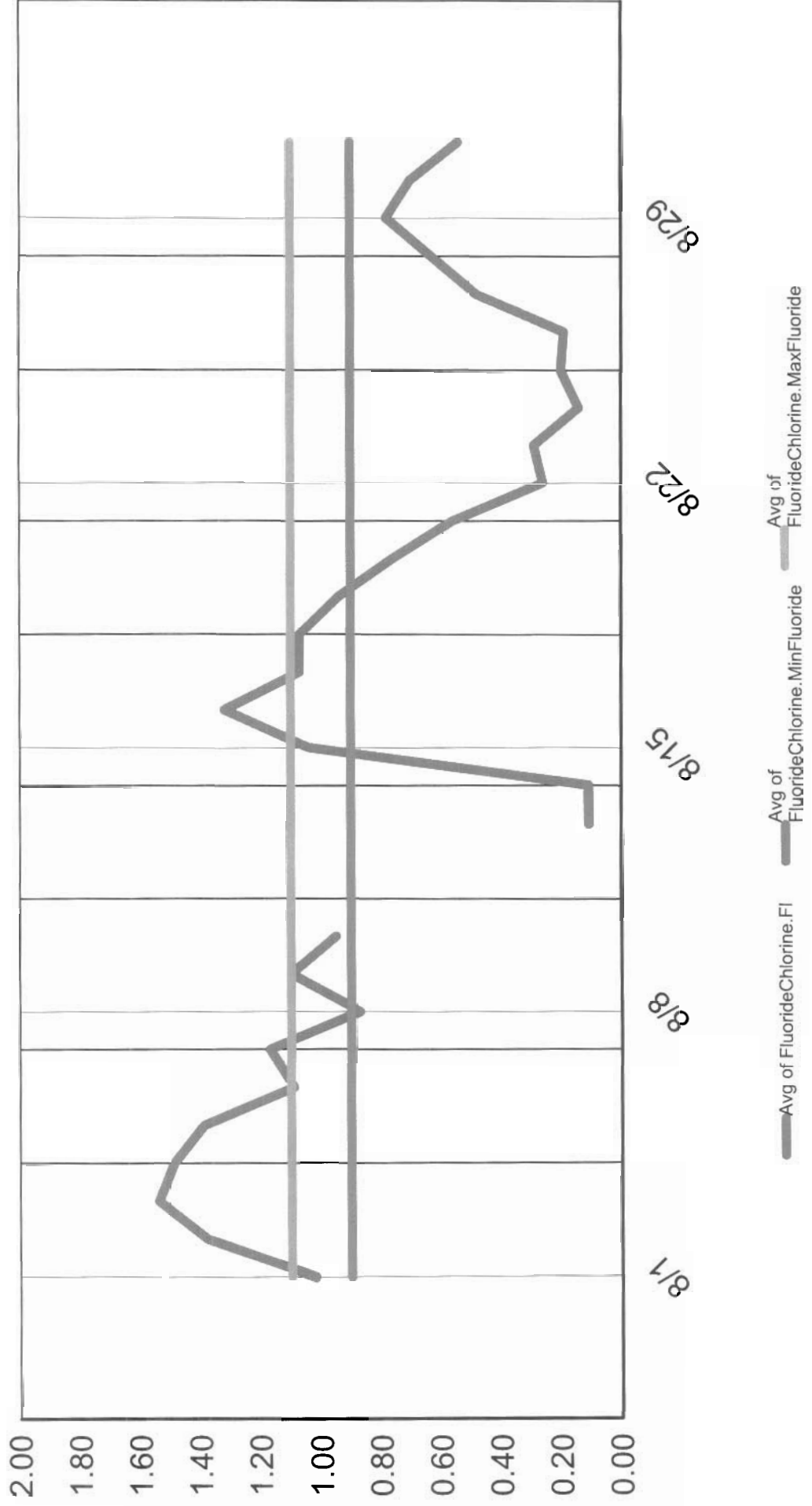
Values of Fluoride in Water Delivered To Town



August 2003

Fluoride Level

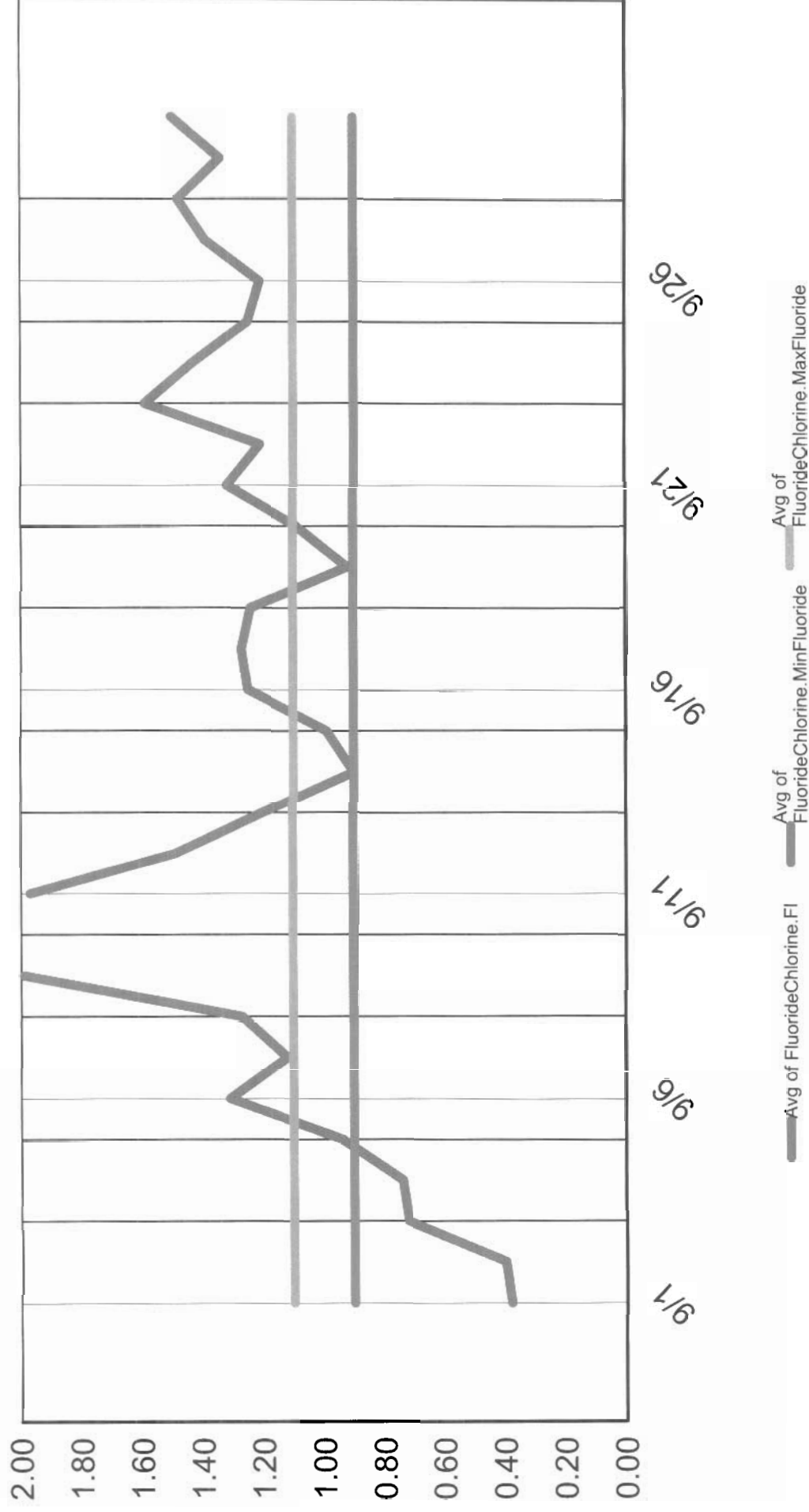
Values of Fluoride in Water Delivered To Town



September 2003

Fluoride Level

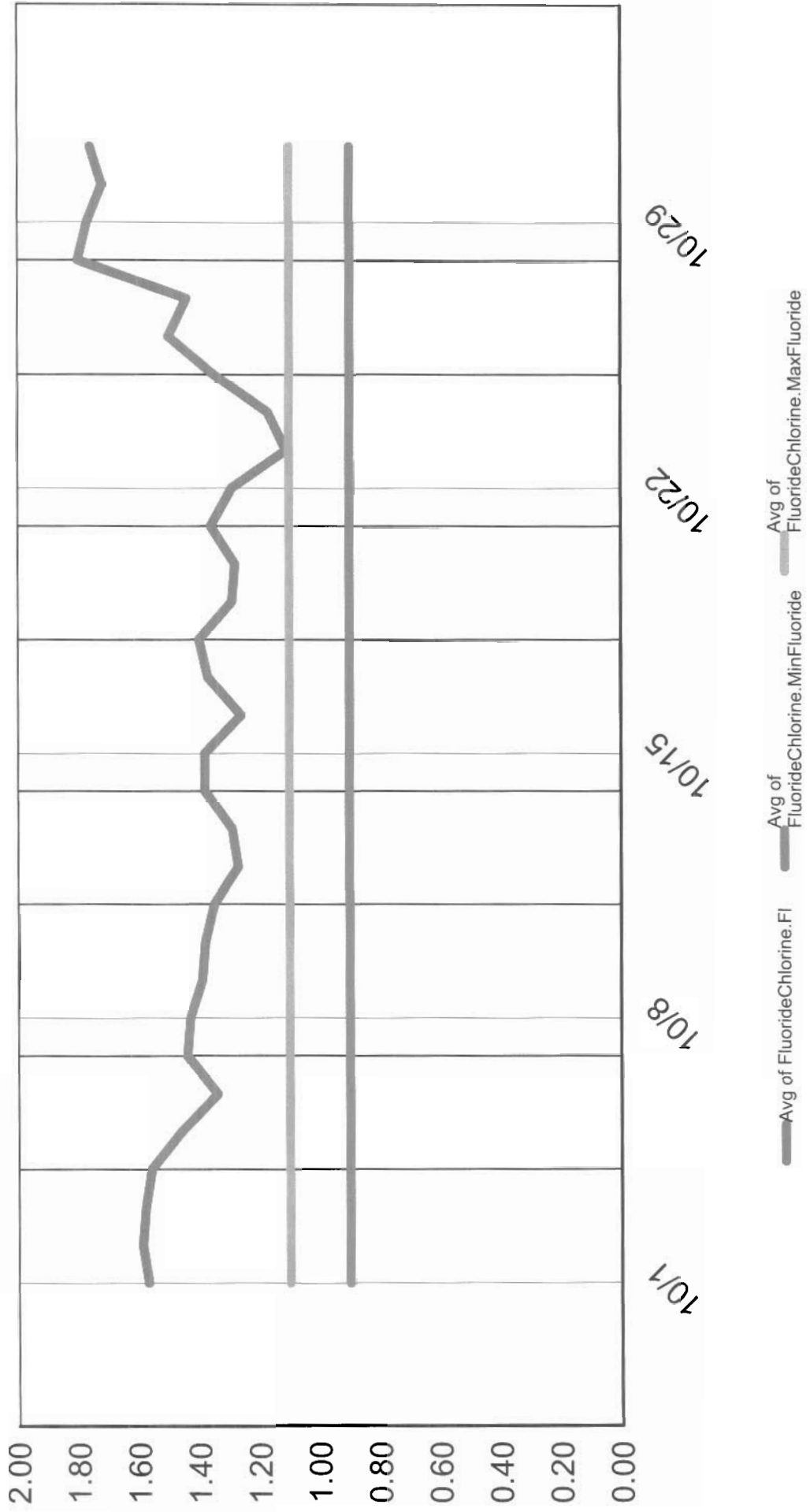
Values of Fluoride in Water Delivered To Town



October 2003

Fluoride Level

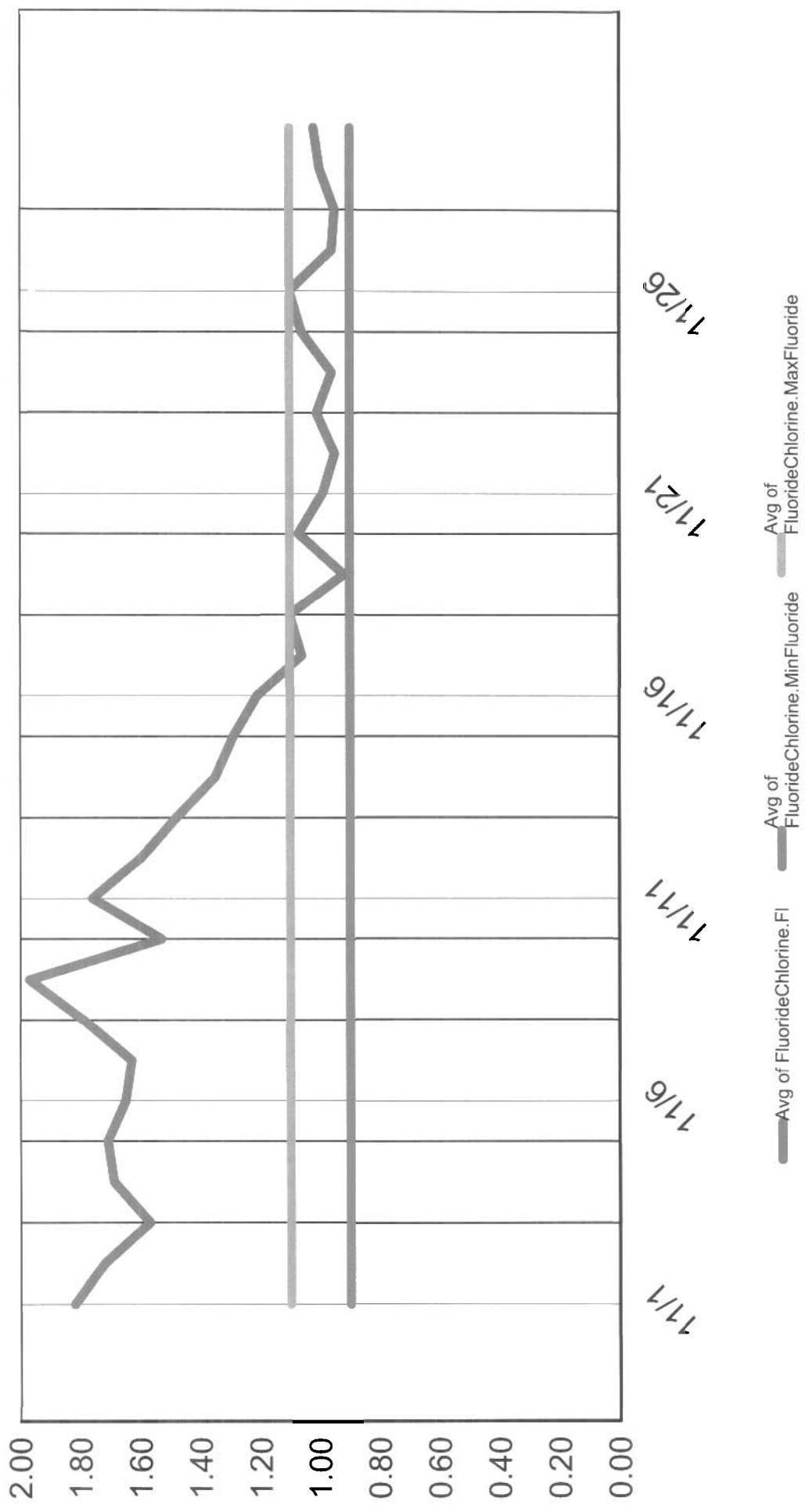
Values of Fluoride in Water Delivered To Town



November 2003

Fluoride Level

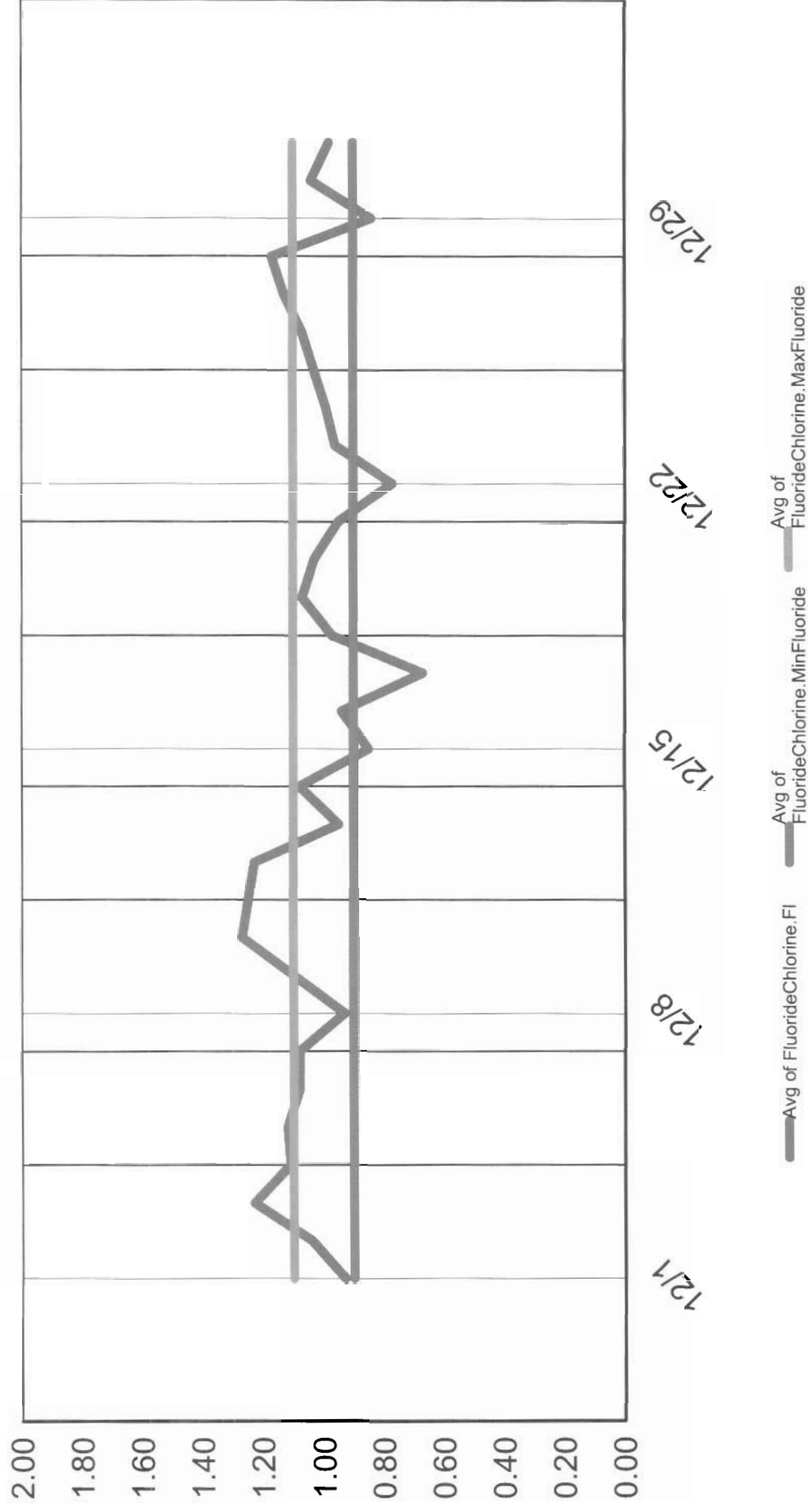
Values of Fluoride in Water Delivered To Town



December 2003

Fluoride Level

Values of Fluoride in Water Delivered To Town



**INDEPENDENT LABORATORY
ANALYSIS OF FRESHWATER,
POTABLE WATER & SEWAGE**



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

FRESHWATER		MAC	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
Major Ions						
Calcium			Laboratory Detection Limit = 0.050000 mg/L			
25.40000 mg/L			mg/LBetween &	21 days	January 29, 2003	February 19, 2003
25.20000 mg/L			mg/LBetween &	6 days	June 12, 2003	June 18, 2003
17.90000 mg/L			mg/LBetween &	2 days	July 02, 2003	July 04, 2003
11.70000 mg/L			mg/LBetween &	14 days	August 20, 2003	September 03, 2003
19.10000 mg/L			mg/LBetween &	5 days	October 01, 2003	October 06, 2003
Chloride			Laboratory Detection Limit = 0.200000 mg/L			
55.90000 mg/L			mg/LBetween &	8 days	June 12, 2003	June 20, 2003
36.70000 mg/L			mg/LBetween &	2 days	July 02, 2003	July 04, 2003
37.40000 mg/L			mg/LBetween &	12 days	August 20, 2003	September 01, 2003
39.70000 mg/L			mg/LBetween &	13 days	October 01, 2003	October 14, 2003
Fluoride			Laboratory Detection Limit = 0.030000 mg/L			
0.11000 mg/L			1.5000000 mg/LBetween &	13 days	January 29, 2003	February 11, 2003
0.10000 mg/L			1.5000000 mg/LBetween &	22 days	June 12, 2003	July 04, 2003
0.17000 mg/L			1.5000000 mg/LBetween &	2 days	July 02, 2003	July 04, 2003
0.10000 mg/L			1.5000000 mg/LBetween &	16 days	October 01, 2003	October 17, 2003



Nipissar Lake Reservoir and Intake Structure

GRA-1

FRESHWATER

MAC

Acceptable Range

Hardness as CaCO₃

Laboratory Detection Limit = 0.170000 mg/L

86.60000 mg/L

mg/L Between 80.00 & 100.00

84.20000 mg/L

mg/L Between 80.00 & 100.00

59.60000 mg/L

mg/L Between 80.00 & 100.00

45.20000 mg/L

mg/L Between 80.00 & 100.00

65.50000 mg/L

mg/L Between 80.00 & 100.00

Magnesium

Laboratory Detection Limit = 0.020000 mg/L

5.62000 mg/L

mg/L Between &

5.16000 mg/L

mg/L Between &

3.63000 mg/L

mg/L Between &

3.89000 mg/L

mg/L Between &

4.34000 mg/L

mg/L Between &

Potassium

Laboratory Detection Limit = 0.030000 mg/L

3.43000 mg/L

mg/L Between &

3.09000 mg/L

mg/L Between &

7.62000 mg/L

mg/L Between &

2.16000 mg/L

mg/L Between &

2.41000 mg/L

mg/L Between &

Days betw. Test Date & Sample Date	Sample Date	Test Date
21 days	January 29, 2003	February 19, 2003
6 days	June 12, 2003	June 18, 2003
2 days	July 02, 2003	July 04, 2003
14 days	August 20, 2003	September 03, 2003
5 days	October 01, 2003	October 06, 2003
21 days	January 29, 2003	February 19, 2003
6 days	June 12, 2003	June 18, 2003
7 days	July 02, 2003	July 09, 2003
14 days	August 20, 2003	September 03, 2003
5 days	October 01, 2003	October 06, 2003
21 days	January 29, 2003	February 19, 2003
6 days	June 12, 2003	June 18, 2003
20 days	July 02, 2003	July 22, 2003
16 days	August 20, 2003	September 05, 2003
5 days	October 01, 2003	October 06, 2003



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.020000 mg/L

Silica, Reactive
28.60000 mg/L
0.17000 mg/L
0.27000 mg/L
0.12000 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

Days betw. Test Date
& Sample Date

Sample Date

Test Date

June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

4 days
16 days
19 days
14 days

June 16, 2003
July 18, 2003
September 08, 2003
October 15, 2003

Laboratory Detection Limit = 0.020000 mg/L

Sodium
31.50000 mg/L
28.60000 mg/L
20.80000 mg/L
19.70000 mg/L
24.20000 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

21 days
6 days
20 days
16 days
5 days

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 19, 2003
June 18, 2003
July 22, 2003
September 05, 2003
October 06, 2003

Laboratory Detection Limit = 3.000000 mg/L

Sulphate
19.00000 mg/L
18.00000 mg/L
13.00000 mg/L
19.00000 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

12 days
15 days
9 days
8 days

June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

June 24, 2003
July 17, 2003
August 29, 2003
October 09, 2003

Metals, Total

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.030000 mg/L

Aluminium	0.000000 mg/L	0.1000000 mg/LBetween &
	0.000000 mg/L	0.1000000 mg/LBetween &
	0.000000 mg/L	0.1000000 mg/LBetween &
	0.000000 mg/L	0.1000000 mg/LBetween &
	0.000000 mg/L	0.1000000 mg/LBetween &

Laboratory Detection Limit = 0.000100 mg/L

Antimony	0.00080 mg/L	0.0100000 mg/LBetween &
	0.00090 mg/L	0.0100000 mg/LBetween &
	0.00040 mg/L	0.0100000 mg/LBetween &
	0.00090 mg/L	0.0100000 mg/LBetween &
	0.00080 mg/L	0.0100000 mg/LBetween &

Laboratory Detection Limit = 0.001000 mg/L

Arsenic	0.00000 mg/L	0.0300000 mg/LBetween &
	0.00000 mg/L	0.0300000 mg/LBetween &
	0.00000 mg/L	0.0300000 mg/LBetween &
	0.00000 mg/L	0.0300000 mg/LBetween &
	0.00100 mg/L	0.0300000 mg/LBetween &

PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

Days betw. Test Date & Sample Date	Sample Date	Test Date
5 days	January 29, 2003	February 03, 2003
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003
5 days	January 29, 2003	February 03, 2003
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003
7 days	January 29, 2003	February 05, 2003
4 days	June 12, 2003	June 16, 2003
4 days	July 02, 2003	July 06, 2003
5 days	August 20, 2003	August 25, 2003
5 days	October 01, 2003	October 06, 2003

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Barium
0.02300 mg/L
0.02310 mg/L
0.01970 mg/L
0.01550 mg/L
0.01640 mg/L

1.0000000 mg/LBetween &
1.0000000 mg/LBetween &
1.0000000 mg/LBetween &
1.0000000 mg/LBetween &
1.0000000 mg/LBetween &

Days betw. Test Date
& Sample Date

Sample Date

Test Date

February 03, 2003
June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

5 days
5 days
12 days
31 days
36 days

Beryllium

0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

5 days
5 days
12 days
31 days
36 days

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 03, 2003
June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

Boron

0.04390 mg/L
0.03210 mg/L

Laboratory Detection Limit = 0.000500 mg/L

5.0000000 mg/LBetween &
5.0000000 mg/LBetween &

5 days
72 days

June 12, 2003
July 02, 2003

June 17, 2003
September 12, 2003



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Cadmium	0.0100000 mg/LBetween &
0.00000 mg/L	0.0100000 mg/LBetween &
0.00000 mg/L	0.0100000 mg/LBetween &
0.00000 mg/L	0.0100000 mg/LBetween &
0.00000 mg/L	0.0100000 mg/LBetween &

Laboratory Detection Limit = 0.000100 mg/L

Cesium	mg/LBetween &
0.00000 mg/L	mg/LBetween &
0.00000 mg/L	mg/LBetween &
0.00440 mg/L	mg/LBetween &
0.00000 mg/L	mg/LBetween &
0.00000 mg/L	mg/LBetween &

Laboratory Detection Limit = 0.000300 mg/L

Chromium	0.0500000 mg/LBetween &
0.00000 mg/L	0.0500000 mg/LBetween &
0.00000 mg/L	0.0500000 mg/LBetween &
0.00440 mg/L	0.0500000 mg/LBetween &
0.04880 mg/L	0.0500000 mg/LBetween &
0.00000 mg/L	0.0500000 mg/LBetween &

PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

Days betw. Test Date & Sample Date	Sample Date	Test Date
5 days	January 29, 2003	February 03, 2003
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003
5 days	January 29, 2003	February 03, 2003
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003
5 days	January 29, 2003	February 03, 2003
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Cobalt
0.00000 mg/L
0.00020 mg/L
0.00020 mg/L
0.00000 mg/L
0.00160 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

Days betw. Test Date
& Sample Date

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

Test Date

February 03, 2003
June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

Copper

0.00600 mg/L
0.00740 mg/L
0.01150 mg/L
0.06440 mg/L
0.03450 mg/L

Laboratory Detection Limit = 0.000200 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 03, 2003
June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

Laboratory Detection Limit = 0.030000 mg/L

Iron
0.53100 mg/L
0.04900 mg/L
1.85000 mg/L
0.86900 mg/L
0.32200 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 07, 2003
June 19, 2003
July 05, 2003
August 28, 2003
October 17, 2003

February 16, 2004.



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range		Days betw. Test Date & Sample Date		Sample Date		Test Date	
Lead		Laboratory Detection Limit = 0.000100 mg/L					
0.02700 mg/L		0.0100000 mg/LBetween &		January 29, 2003		February 03, 2003	
0.00690 mg/L		0.0100000 mg/LBetween &		June 12, 2003		June 17, 2003	
0.00480 mg/L		0.0100000 mg/LBetween &		July 02, 2003		July 05, 2003	
0.02780 mg/L		0.0100000 mg/LBetween &		August 20, 2003		September 20, 2003	
0.00910 mg/L		0.0100000 mg/LBetween &		October 01, 2003		November 06, 2003	

Lithium		Laboratory Detection Limit = 0.000300 mg/L					
0.00000 mg/L		mg/LBetween &		January 29, 2003		February 03, 2003	
0.00210 mg/L		mg/LBetween &		June 12, 2003		June 17, 2003	
0.00170 mg/L		mg/LBetween &		July 02, 2003		July 14, 2003	
0.00180 mg/L		mg/LBetween &		August 20, 2003		September 20, 2003	
0.00210 mg/L		mg/LBetween &		October 01, 2003		November 06, 2003	

Manganese		Laboratory Detection Limit = 0.000100 mg/L					
0.04100 mg/L		mg/LBetween &		January 29, 2003		February 03, 2003	
0.00830 mg/L		mg/LBetween &		June 12, 2003		June 17, 2003	
0.16600 mg/L		mg/LBetween &		July 02, 2003		July 14, 2003	
0.02830 mg/L		mg/LBetween &		August 20, 2003		September 20, 2003	
0.01580 mg/L		mg/LBetween &		October 01, 2003		November 06, 2003	

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

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GRA-1

MAC

Acceptable Range

Laboratory Detection Limit = 0.000000 mg/L

0.0000000 mg/LBetween &

0.00000000 mg/LBetween &

June 24, 2003

July 08, 2003

Days betw. Test Date
& Sample Date

June 12, 2003

July 02, 2003

Test Date

Molybdenum

0.00000 mg/L

0.00030 mg/L

0.00040 mg/L

0.00050 mg/L

0.00040 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

February 03, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

5 days

12 days

31 days

36 days

Nickel

0.00100 mg/L

0.00010 mg/L

0.00560 mg/L

0.00380 mg/L

0.00170 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

February 03, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

5 days

12 days

31 days

36 days

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Rubidium
0.00000 mg/L
0.00210 mg/L
0.00170 mg/L
0.00150 mg/L
0.00180 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

Days betw. Test Date
& Sample Date

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

Test Date

February 03, 2003
June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

Laboratory Detection Limit = 0.001000 mg/L

Selenium
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 03, 2003
June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

Laboratory Detection Limit = 0.000100 mg/L

Silver
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 03, 2003
June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

February 16, 2004



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Nipissar Lake Reservoir and Intake Structure

GRA-1

FRESHWATER

MAC

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Strontium	Days betw. Test Date & Sample Date	Sample Date	Test Date
0.10500 mg/L	5 days	January 29, 2003	February 03, 2003
0.11200 mg/L	5 days	June 12, 2003	June 17, 2003
0.09090 mg/L	12 days	July 02, 2003	July 14, 2003
0.06820 mg/L	31 days	August 20, 2003	September 20, 2003
0.08370 mg/L	36 days	October 01, 2003	November 06, 2003

Laboratory Detection Limit = 0.000100 mg/L

Thallium	Days betw. Test Date & Sample Date	Sample Date	Test Date
0.00000 mg/L	5 days	January 29, 2003	February 03, 2003
0.00000 mg/L	5 days	June 12, 2003	June 17, 2003
0.00000 mg/L	12 days	July 02, 2003	July 14, 2003
0.00000 mg/L	31 days	August 20, 2003	September 20, 2003
0.00000 mg/L	36 days	October 01, 2003	November 06, 2003

Laboratory Detection Limit = 0.000100 mg/L

Tin	Days betw. Test Date & Sample Date	Sample Date	Test Date
0.00000 mg/L	5 days	June 12, 2003	June 17, 2003
0.00010 mg/L	12 days	July 02, 2003	July 14, 2003

Laboratory Detection Limit = 0.000100 mg/L

Titanium	Days betw. Test Date & Sample Date	Sample Date	Test Date
0.00000 mg/L	5 days	January 29, 2003	February 03, 2003
0.00020 mg/L	5 days	June 12, 2003	June 17, 2003
0.00130 mg/L	31 days	August 20, 2003	September 20, 2003
0.00010 mg/L	36 days	October 01, 2003	November 06, 2003

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Uranium

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

Days betw. Test Date
& Sample Date

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Test Date

February 03, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Vanadium

0.00000 mg/L

0.00000 mg/L

0.00350 mg/L

0.00000 mg/L

0.00000 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

February 03, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Zinc

0.09800 mg/L

0.13200 mg/L

0.78800 mg/L

0.21300 mg/L

0.08900 mg/L

Laboratory Detection Limit = 0.010000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

February 03, 2003

June 17, 2003

July 14, 2003

November 18, 2003

November 06, 2003

Microbiology



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

GRA-1

MAC

Acceptable Range

Laboratory Detection Limit = 2.000000 CFU/100mL

Coliforms, Fecal	0.000000 CFU/100mL	1 days	January 29, 2003	January 30, 2003
0.000000 CFU/100mL	0.000000 CFU/100mL	0 days	June 12, 2003	June 12, 2003
0.000000 CFU/100mL	0.000000 CFU/100mL	1 days	July 02, 2003	July 03, 2003
1.000000 CFU/100mL	0.000000 CFU/100mL	1 days	October 01, 2003	October 02, 2003

Coliforms, Total

Laboratory Detection Limit = 1.000000 MPN/100mL

0.000000 CFU/100mL	0.000000 MPN/100mL	1 days	January 29, 2003	January 30, 2003
1.000000 MPN/100mL	0.000000 MPN/100mL	0 days	June 12, 2003	June 12, 2003
0.000000 MPN/100mL	0.000000 MPN/100mL	1 days	July 02, 2003	July 03, 2003
7.400000 MPN/100mL	0.000000 MPN/100mL	1 days	October 01, 2003	October 02, 2003

Escherichia coli

Laboratory Detection Limit = 1.000000 MPN/100mL

0.000000 MPN/100mL	0.000000 MPN/100mL	0 days	June 12, 2003	June 12, 2003
0.000000 MPN/100mL	0.000000 MPN/100mL	1 days	July 02, 2003	July 03, 2003
2.000000 MPN/100mL	0.000000 MPN/100mL	1 days	October 01, 2003	October 02, 2003

Fecal streptococcus

Laboratory Detection Limit = 2.000000 CFU/100mL

0.000000 CFU/100mL	0.000000 CFU/100mL	1 days	January 29, 2003	January 30, 2003
0.000000 CFU/100mL	0.000000 CFU/100mL	0 days	June 12, 2003	June 12, 2003
0.000000 CFU/100mL	0.000000 CFU/100mL	1 days	July 02, 2003	July 03, 2003
5.000000 CFU/100mL	0.000000 CFU/100mL	1 days	October 01, 2003	October 02, 2003



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WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

Nipissar Lake Reservoir and Intake Structure

GRA-1

FRESHWATER

MAC

Acceptable Range

Days between Test Date
& Sample Date

Test Date

Plate Count, Standard

Laboratory Detection Limit = 1.000000 CFU/10mL

1.00000 CFU/mL

January 29, 2003

January 31, 2003

14.00000 CFU/10mL

CFU/10mL Between &

0 days

June 12, 2003

2.60000 MPN/10mL

CFU/10mL Between &

1 days

July 03, 2003

11.60000 MPN/10mL

CFU/10mL Between &

1 days

October 01, 2003

October 02, 2003

Nutrients

Ammonia as N

Laboratory Detection Limit = 0.005000 mg/L

0.04900 mg/L

mg/L Between &

9 days

February 07, 2003

0.00000 mg/L

mg/L Between &

8 days

June 12, 2003

June 20, 2003

0.16800 mg/L

mg/L Between &

3 days

July 02, 2003

July 05, 2003

0.20700 mg/L

mg/L Between &

27 days

August 20, 2003

September 16, 2003

0.01100 mg/L

mg/L Between &

14 days

October 01, 2003

October 15, 2003

Biological Oxygen Demand

Laboratory Detection Limit = 2.000000 mg/L

0.00000 mg/L

mg/L Between &

2 days

January 29, 2003

January 31, 2003

0.00000 mg/L

mg/L Between &

0 days

June 12, 2003

June 12, 2003

0.00000 mg/L

mg/L Between &

2 days

July 02, 2003

July 04, 2003

0.00000 mg/L

mg/L Between &

2 days

October 01, 2003

October 03, 2003

Nitrate as N

Laboratory Detection Limit = 0.008000 mg/L

0.00000 mg/L

45.0000000 mg/L Between &

11 days

June 12, 2003

June 23, 2003

0.00000 mg/L

45.00000000 mg/L Between &

62 days

October 01, 2003

December 02, 2003



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.0090000 mg/L

0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

Days betw. Test Date
& Sample Date

Sample Date

Test Date

14 days
1 days
9 days
15 days
14 days

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 12, 2003
June 13, 2003
July 11, 2003
September 04, 2003
October 15, 2003

Laboratory Detection Limit = 0.0090000 mg/L

0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

5 days
5 days

June 12, 2003
October 01, 2003

June 17, 2003
October 06, 2003

Laboratory Detection Limit = 26.400000 mg/L

4.00000 mg/L
5.00000 mg/L

26 days
19 days

August 20, 2003
October 01, 2003

September 15, 2003
October 20, 2003

Laboratory Detection Limit = 0.200000 mg/L

4.30000 mg/L
5.00000 mg/L
3.80000 mg/L
3.60000 mg/L
5.00000 mg/L

21 days
5 days
20 days
29 days
19 days

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

February 19, 2003
June 17, 2003
July 22, 2003
September 18, 2003
October 20, 2003

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.002000 mg/L

mg/LBetween &

mg/LBetween &

Days betw. Test Date
& Sample Date

Sample Date

Test Date

Ortho-Phosphate as P

0.00000 mg/L

0.00200 mg/L

September 04, 2003

October 07, 2003

August 20, 2003

October 01, 2003

15 days

6 days

Phosphorous, Dissolved

0.01000 mg/L

0.02900 mg/L

0.00600 mg/L

Laboratory Detection Limit = 0.004000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

16 days

20 days

7 days

July 02, 2003

August 20, 2003

October 01, 2003

July 18, 2003

September 09, 2003

October 08, 2003

Phosphorous, Total

0.01800 mg/L

0.01600 mg/L

0.01600 mg/L

0.02200 mg/L

Laboratory Detection Limit = 0.002000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

6 days

16 days

20 days

7 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 18, 2003

July 18, 2003

September 09, 2003

October 08, 2003

Physicals

Alkalinity

74.40000 mg/L

69.80000 mg/L

48.80000 mg/L

52.20000 mg/L

50.80000 mg/L

Laboratory Detection Limit = 0.300000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

2 days

6 days

6 days

9 days

27 days

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

January 31, 2003

June 18, 2003

July 08, 2003

August 29, 2003

October 28, 2003

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Colour	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
5.00000 TCU	Laboratory Detection Limit = 5.000000 TCU TCUBetween &	9 days	January 29, 2003	February 07, 2003
10.00000 TCU	TCUBetween &	4 days	June 12, 2003	June 16, 2003
20.00000 TCU	TCUBetween &	5 days	July 02, 2003	July 07, 2003
40.00000 TCU	TCUBetween &	19 days	August 20, 2003	September 08, 2003
5.00000 TCU	TCUBetween &	27 days	October 01, 2003	October 28, 2003

Conductivity, Specific

335.00000 microS/cm	Laboratory Detection Limit = 0.300000 microS/cm microS/cmBetween &	6 days	June 12, 2003	June 18, 2003
244.00000 microS/cm	microS/cmBetween &	6 days	July 02, 2003	July 08, 2003
246.00000 microS/cm	microS/cmBetween &	9 days	August 20, 2003	August 29, 2003
276.00000 microS/cm	microS/cmBetween &	27 days	October 01, 2003	October 28, 2003

pH

7.55000 pH units	Laboratory Detection Limit = 0.050000 pH units pH unitsBetween 6.50 & 8.50	2 days	January 29, 2003	January 31, 2003
7.87000 pH units	pH unitsBetween 6.50 & 8.50	6 days	June 12, 2003	June 18, 2003
7.48000 pH units	pH unitsBetween 6.50 & 8.50	6 days	July 02, 2003	July 08, 2003
7.60000 pH units	pH unitsBetween 6.50 & 8.50	9 days	August 20, 2003	August 29, 2003
7.86000 pH units	pH unitsBetween 6.50 & 8.50	27 days	October 01, 2003	October 28, 2003

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 10.000000 mg/L

Solids, Total Dissolved

240.00000 mg/L

180.00000 mg/L

120.00000 mg/L

130.00000 mg/L

140.00000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Solids, Total Suspended

8.00000 mg/L

6.00000 mg/L

4.00000 mg/L

0.00000 mg/L

0.00000 mg/L

Laboratory Detection Limit = 3.000000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Turbidity

0.40000 NTU

2.70000 NTU

2.50000 NTU

3.20000 NTU

1.60000 NTU

Laboratory Detection Limit = 0.100000 NTU

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

Subcontracted Organics:

Days betw. Test Date
& Sample Date

Sample Date

Test Date

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

February 04, 2003

June 13, 2003

July 03, 2003

September 03, 2003

October 06, 2003

6 days

1 days

1 days

14 days

5 days

6 days

1 days

1 days

14 days

5 days

February 04, 2003

June 13, 2003

July 03, 2003

September 03, 2003

October 06, 2003

12 days

1 days

5 days

19 days

8 days

February 10, 2003

June 13, 2003

July 07, 2003

September 08, 2003

October 09, 2003

February 16, 2004



Nipissar Lake Reservoir and Intake Structure

FRESHWATER

MAC

GRA-1

Acceptable Range

Laboratory Detection Limit = 0.000500 mg/L

Phenols
0.00000 mg/L
0.00000 mg/L
0.01000 mg/L
0.00130 mg/L
0.00090 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

Days betw. Test Date
& Sample Date

26 days
22 days
20 days
29 days
19 days

Sample Date

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

Test Date

February 24, 2003
July 04, 2003
July 22, 2003
September 18, 2003
October 20, 2003



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Major Ions

Calcium

29.90000 mg/L

26.10000 mg/L

14.70000 mg/L

24.30000 mg/L

Laboratory Detection Limit = 0.050000 mg/L

mg/L Between &

mg/L Between &

mg/L Between &

mg/L Between &

6 days

2 days

14 days

5 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 18, 2003

July 04, 2003

September 03, 2003

October 06, 2003

Days betw. Test Date
& Sample Date

Sample Date

Test Date

Chloride

73.70000 mg/L

55.80000 mg/L

58.90000 mg/L

66.00000 mg/L

Laboratory Detection Limit = 0.200000 mg/L

mg/L Between &

mg/L Between &

mg/L Between &

mg/L Between &

8 days

7 days

12 days

13 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 20, 2003

July 09, 2003

September 01, 2003

October 14, 2003

Fluoride

0.85000 mg/L

0.63000 mg/L

0.78000 mg/L

Laboratory Detection Limit = 0.030000 mg/L

1.5000000 mg/L Between &

1.5000000 mg/L Between &

1.5000000 mg/L Between &

22 days

2 days

28 days

June 12, 2003

July 02, 2003

August 20, 2003

July 04, 2003

July 04, 2003

September 17, 2003

Hardness as CaCO3

101.00000 mg/L

86.00000 mg/L

52.70000 mg/L

85.40000 mg/L

Laboratory Detection Limit = 0.170000 mg/L

mg/L Between 80.00 & 100.00

mg/L Between 80.00 & 100.00

mg/L Between 80.00 & 100.00

mg/L Between 80.00 & 100.00

6 days

2 days

14 days

5 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 18, 2003

July 04, 2003

September 03, 2003

October 06, 2003



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Laboratory Detection Limit = 0.020000 mg/L

Magnesium

6.36000 mg/L

5.05000 mg/L

3.88000 mg/L

5.99000 mg/L

Potassium

8.94000 mg/L

2.18000 mg/L

7.72000 mg/L

13.40000 mg/L

Silica, Reactive

2.00000 mg/L

3.47000 mg/L

3.10000 mg/L

3.54000 mg/L

Sodium

44.40000 mg/L

42.80000 mg/L

41.90000 mg/L

57.90000 mg/L

Laboratory Detection Limit = 0.020000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Laboratory Detection Limit = 0.020000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Laboratory Detection Limit = 0.030000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Days betw. Test Date
& Sample Date

Test Date

June 12, 2003

June 18, 2003

July 02, 2003

July 09, 2003

August 20, 2003

September 03, 2003

October 01, 2003

October 06, 2003

6 days

7 days

14 days

5 days

June 12, 2003

June 18, 2003

July 02, 2003

July 22, 2003

August 20, 2003

September 05, 2003

October 01, 2003

October 06, 2003

6 days

20 days

16 days

5 days

June 12, 2003

June 16, 2003

July 02, 2003

July 18, 2003

August 20, 2003

September 08, 2003

October 01, 2003

October 15, 2003

4 days

16 days

19 days

14 days

June 12, 2003

June 18, 2003

July 02, 2003

July 17, 2003

August 20, 2003

September 05, 2003

October 01, 2003

October 06, 2003

6 days

15 days

16 days

5 days



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Sulphate

27.00000 mg/L

29.00000 mg/L

106.00000 mg/L

31.00000 mg/L

Laboratory Detection Limit = 3.000000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Days betw. Test Date
& Sample Date

Sample Date

Test Date

June 24, 2003

July 17, 2003

August 29, 2003

October 09, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

12 days

15 days

9 days

8 days

Metals, Total

Aluminium

1.14000 mg/L

2.07000 mg/L

1.68000 mg/L

2.66000 mg/L

Laboratory Detection Limit = 0.030000 mg/L

0.1000000 mg/LBetween &

0.1000000 mg/LBetween &

0.1000000 mg/LBetween &

0.1000000 mg/LBetween &

5 days

12 days

90 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

November 18, 2003

November 06, 2003

Antimony

0.00100 mg/L

0.00050 mg/L

0.00080 mg/L

0.00120 mg/L

Laboratory Detection Limit = 0.000100 mg/L

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003



Rankin Waste Water Treatment Plant

GRA-3

PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

SEWAGE	MAC	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
Arsenic		Laboratory Detection Limit = 0.001000 mg/L			
0.03500 mg/L		0.030000 mg/LBetween &	4 days	June 12, 2003	June 16, 2003
0.00000 mg/L		0.030000 mg/LBetween &	4 days	July 02, 2003	July 06, 2003
0.00100 mg/L		0.030000 mg/LBetween &	5 days	August 20, 2003	August 25, 2003
0.00000 mg/L		0.030000 mg/LBetween &	13 days	October 01, 2003	October 14, 2003
Barium		Laboratory Detection Limit = 0.000100 mg/L			
0.02970 mg/L		1.000000 mg/LBetween &	5 days	June 12, 2003	June 17, 2003
0.02180 mg/L		1.000000 mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.01930 mg/L		1.000000 mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.02470 mg/L		1.000000 mg/LBetween &	36 days	October 01, 2003	November 06, 2003
Beryllium		Laboratory Detection Limit = 0.000100 mg/L			
0.00000 mg/L		mg/LBetween &	5 days	June 12, 2003	June 17, 2003
0.00000 mg/L		mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.00000 mg/L		mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.00000 mg/L		mg/LBetween &	36 days	October 01, 2003	November 06, 2003
Boron		Laboratory Detection Limit = 0.000500 mg/L			
0.14700 mg/L		5.000000 mg/LBetween &	5 days	June 12, 2003	June 17, 2003
0.12500 mg/L		5.000000 mg/LBetween &	72 days	July 02, 2003	September 12, 2003

February 16, 2004



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Cadmium
0.00010 mg/L

0.00020 mg/L

0.00020 mg/L

0.00010 mg/L

Test Date

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Days betw. Test Date
& Sample Date

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

12 days

31 days

36 days

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

Cesium

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

0.00010 mg/L

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

12 days

31 days

36 days

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Chromium

0.00380 mg/L

0.00850 mg/L

0.06480 mg/L

0.00250 mg/L

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

12 days

31 days

36 days

Laboratory Detection Limit = 0.000300 mg/L

0.0500000 mg/LBetween &

0.0500000 mg/LBetween &

0.0500000 mg/LBetween &

0.0500000 mg/LBetween &

Cobalt

0.00050 mg/L

0.00040 mg/L

0.00030 mg/L

0.00220 mg/L

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

12 days

31 days

36 days

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Laboratory Detection Limit = 0.000200 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Test Date

Sample Date

Days betw. Test Date & Sample Date

Copper

0.13400 mg/L

0.14000 mg/L

0.10200 mg/L

0.15700 mg/L

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

12 days

31 days

36 days

Iron

0.39300 mg/L

0.33400 mg/L

0.46800 mg/L

0.53400 mg/L

Laboratory Detection Limit = 0.030000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

June 19, 2003

July 05, 2003

August 28, 2003

October 17, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

7 days

3 days

8 days

16 days

Lead

0.00210 mg/L

0.00240 mg/L

0.00180 mg/L

0.00340 mg/L

Laboratory Detection Limit = 0.000100 mg/L

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

0.0100000 mg/LBetween &

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

12 days

31 days

36 days

Lithium

0.00300 mg/L

0.00290 mg/L

0.00300 mg/L

0.00450 mg/L

Laboratory Detection Limit = 0.000300 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

5 days

12 days

31 days

36 days

February 16, 2004



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Manganese
0.02080 mg/L
0.04250 mg/L
0.06340 mg/L
0.06150 mg/L

Days betw. Test Date & Sample Date	Sample Date	Test Date
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003

Mercury

0.00004 mg/L
0.00003 mg/L

Laboratory Detection Limit = 0.000000 mg/L
0.000000 mg/LBetween &
0.0000000 mg/LBetween &

12 days	June 12, 2003	June 24, 2003
6 days	July 02, 2003	July 08, 2003

Molybdenum

0.00080 mg/L
0.00070 mg/L
0.00080 mg/L
0.00090 mg/L

Laboratory Detection Limit = 0.000100 mg/L
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003

Nickel

0.00560 mg/L
0.02010 mg/L
0.00620 mg/L
0.00520 mg/L

Laboratory Detection Limit = 0.000100 mg/L
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003

February 16, 2004



Rankin Waste Water Treatment Plant

GRA-3

PUBLIC WORKS & SERVICES-UTILIDOR REPORT WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

SEWAGE	MAC	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
Rubidium 0.00840 mg/L 0.00790 mg/L 0.00660 mg/L 0.01270 mg/L	Laboratory Detection Limit = 0.000100 mg/L	mg/LBetween & mg/LBetween & mg/LBetween & mg/LBetween &	5 days	June 12, 2003	June 17, 2003
			12 days	July 02, 2003	July 14, 2003
			31 days	August 20, 2003	September 20, 2003
			36 days	October 01, 2003	November 06, 2003
Selenium 0.00000 mg/L 0.00000 mg/L 0.00200 mg/L 0.00000 mg/L	Laboratory Detection Limit = 0.001000 mg/L	mg/LBetween & mg/LBetween & mg/LBetween & mg/LBetween &	5 days	June 12, 2003	June 17, 2003
			12 days	July 02, 2003	July 14, 2003
			31 days	August 20, 2003	September 20, 2003
			36 days	October 01, 2003	November 06, 2003
Silver 0.00000 mg/L 0.00100 mg/L 0.00000 mg/L 0.00010 mg/L	Laboratory Detection Limit = 0.000100 mg/L	mg/LBetween & mg/LBetween & mg/LBetween & mg/LBetween &	5 days	June 12, 2003	June 17, 2003
			12 days	July 02, 2003	July 14, 2003
			31 days	August 20, 2003	September 20, 2003
			36 days	October 01, 2003	November 06, 2003
Strontium 0.13900 mg/L 0.13800 mg/L 0.10800 mg/L 0.12000 mg/L	Laboratory Detection Limit = 0.000100 mg/L	mg/LBetween & mg/LBetween & mg/LBetween & mg/LBetween &	5 days	June 12, 2003	June 17, 2003
			12 days	July 02, 2003	July 14, 2003
			31 days	August 20, 2003	September 20, 2003
			36 days	October 01, 2003	November 06, 2003



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Thallium

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

Days betw. Test Date
& Sample Date

5 days

12 days

31 days

36 days

Sample Date

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Test Date

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Tin

0.00170 mg/L

0.00170 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

5 days

12 days

June 12, 2003

July 02, 2003

June 17, 2003

July 14, 2003

Titanium

0.00540 mg/L

0.00850 mg/L

0.00430 mg/L

0.00920 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Uranium

0.00020 mg/L

0.00030 mg/L

0.00030 mg/L

0.00030 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003



Rankin Waste Water Treatment Plant

GRA-3

SEWAGE

MAC

Acceptable Range

Days betw. Test Date
& Sample Date

Test Date

Vanadium

0.00040 mg/L

0.00410 mg/L

0.00000 mg/L

0.00050 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

June 12, 2003

July 02, 2003

August 20, 2003

September 20, 2003

October 01, 2003

Zinc

0.11500 mg/L

0.29700 mg/L

0.09200 mg/L

0.10000 mg/L

Laboratory Detection Limit = 0.010000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

June 12, 2003

July 02, 2003

August 20, 2003

September 20, 2003

October 01, 2003

Microbiology

Coliforms, Fecal (sewage)

6,000,000.00000 CFU/100mL

4,100,000.00000 CFU/100ml

3,530,000.00000 CFU/100mL

Laboratory Detection Limit = 10000.000000 CFU/100mL

1,000,000.0000000 CFU/100mLBetween &

1,000,000.0000000 CFU/100mLBetween &

1,000,000.0000000 CFU/100mLBetween &

June 12, 2003

July 03, 2003

October 02, 2003

Coliforms, Total

22,300,000.00000 MPN/100mL

17,300,000.00000 MPN/100mL

19,900,000.00000 MPN/100mL

Laboratory Detection Limit = 1.000000 MPN/100mL

0.0000000 MPN/100mLBetween &

0.0000000 MPN/100mLBetween &

0.0000000 MPN/100mLBetween &

June 12, 2003

July 03, 2003

October 02, 2003



PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

Rankin Waste Water Treatment Plant

GRA-3

SEWAGE

MAC

Acceptable Range

		Days betw. Test Date & Sample Date	Sample Date	Test Date
Escherichia coli				
7,700,000.00000 MPN/100mL	Laboratory Detection Limit = 1.000000 MPN/100mL	0 days	June 12, 2003	June 12, 2003
5,200,000.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	1 days	July 02, 2003	July 03, 2003
2,480,000.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	1 days	October 01, 2003	October 02, 2003
Fecal streptococcus				
1,700,000.00000 CFU/100mL	Laboratory Detection Limit = 2.000000 CFU/100mL	1 days	June 12, 2003	June 13, 2003
400,000.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	1 days	July 02, 2003	July 03, 2003
1,250,000.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	1 days	October 01, 2003	October 02, 2003
Plate Count, Standard				
200,000,000.00000 CFU/10mL	Laboratory Detection Limit = 1.000000 CFU/10mL	0 days	June 12, 2003	June 12, 2003
2,160,000.00000 CFU/mL	CFU/10mLBetween &	3 days	July 02, 2003	July 05, 2003
7,380.00000 MPN/10mL	CFU/10mLBetween &	1 days	October 01, 2003	October 02, 2003
Nutrients				
Ammonia as N	Laboratory Detection Limit = 0.005000 mg/L	8 days	June 12, 2003	June 20, 2003
24.30000 mg/L	mg/LBetween &	3 days	July 02, 2003	July 05, 2003
16.40000 mg/L	mg/LBetween &	27 days	August 20, 2003	September 16, 2003
1.15000 mg/L	mg/LBetween &	14 days	October 01, 2003	October 15, 2003
27.90000 mg/L	mg/LBetween &			



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Biological Oxygen Demand (sew

Laboratory Detection Limit = 2.000000 mg/L

92.00000 mg/L

120.0000000 mg/LBetween &

196.00000 mg/L

120.0000000 mg/LBetween &

Nitrate as N

0.11300 mg/L

0.00000 mg/L

Laboratory Detection Limit = 0.008000 mg/L

45.00000000 mg/LBetween &

45.00000000 mg/LBetween &

Nitrate+Nitrite as N

0.02500 mg/L

0.15000 mg/L

0.00000 mg/L

0.00000 mg/L

Laboratory Detection Limit = 0.009000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Nitrite as N

0.03700 mg/L

0.00000 mg/L

0.01600 mg/L

Laboratory Detection Limit = 0.009000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

Organic Carbon, Dissolved

26.40000 mg/L

57.90000 mg/L

Laboratory Detection Limit = 26.400000 mg/L

mg/LBetween &

mg/LBetween &

Days betw. Test Date
& Sample Date

Test Date

Sample Date

2 days

July 04, 2003

2 days

October 03, 2003

21 days

July 23, 2003

28 days

September 17, 2003

0 days

June 12, 2003

9 days

July 11, 2003

15 days

September 04, 2003

14 days

October 15, 2003

15 days

July 17, 2003

12 days

September 01, 2003

5 days

October 06, 2003

26 days

September 15, 2003

19 days

October 20, 2003



**Rankin Waste Water Treatment Plant
SEWAGE**

GRA-3

MAC

Acceptable Range

Organic Carbon, Total

Laboratory Detection Limit = 0.200000 mg/L

70.70000 mg/L

mg/LBetween &

52.40000 mg/L

mg/LBetween &

45.40000 mg/L

mg/LBetween &

109.00000 mg/L

mg/LBetween &

**Days betw. Test Date
& Sample Date**

Test Date

June 12, 2003

June 17, 2003

July 02, 2003

July 16, 2003

August 20, 2003

September 15, 2003

October 01, 2003

October 20, 2003

Ortho-Phosphate as P

Laboratory Detection Limit = 0.002000 mg/L

1.39000 mg/L

mg/LBetween &

4.66000 mg/L

mg/LBetween &

15 days

September 04, 2003

6 days

October 07, 2003

Phosphorous, Dissolved

Laboratory Detection Limit = 0.004000 mg/L

1.89000 mg/L

mg/LBetween &

5.35000 mg/L

mg/LBetween &

20 days

September 09, 2003

7 days

October 08, 2003

Phosphorous, Total

Laboratory Detection Limit = 0.002000 mg/L

4.90000 mg/L

mg/LBetween &

4.07000 mg/L

mg/LBetween &

3.08000 mg/L

mg/LBetween &

7.17000 mg/L

mg/LBetween &

6 days

June 18, 2003

16 days

July 18, 2003

20 days

September 09, 2003

7 days

October 08, 2003

Organic



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Laboratory Detection Limit = 0.200000 mg/L

Oil & Grease

30.10000 mg/L

26.80000 mg/L

22.40000 mg/L

42.70000 mg/L

Days betw. Test Date
& Sample Date

Sample Date

Test Date

July 02, 2003

July 10, 2003

August 27, 2003

October 06, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

20 days

8 days

7 days

5 days

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Oil & Grease (visible)

0.00000 1=visible, 0=nonvisible

1.00000 Visible = 1, Not vis=0

0.00000 1=visible, 0=nonvisible

0.00000 0=nonvisible, 1= visible

Laboratory Detection Limit = 1=vis, 0=not vis.

0.0000000 1=vis, 0=not vis.Between &

0.0000000 1=vis, 0=not vis.Between &

0.0000000 1=vis, 0=not vis.Between &

0.0000000 1=vis, 0=not vis.Between &

20 days

5 days

14 days

5 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

July 02, 2003

July 07, 2003

September 03, 2003

October 06, 2003

Physicals

Alkalinity

173.00000 mg/L

154.00000 mg/L

150.00000 mg/L

282.00000 mg/L

Laboratory Detection Limit = 0.300000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

6 days

6 days

9 days

56 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 18, 2003

July 08, 2003

August 29, 2003

November 26, 2003

Colour

70.00000 TCU

80.00000 TCU

80.00000 TCU

Laboratory Detection Limit = 5.000000 TCU

TCUBetween &

TCUBetween &

TCUBetween &

4 days

5 days

27 days

June 12, 2003

July 02, 2003

October 01, 2003

June 16, 2003

July 07, 2003

October 28, 2003



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

Acceptable Range

Conductivity, Specific

Laboratory Detection Limit = 0.300000 microS/cm

665.00000 microS/cm

microS/cmBetween &

590.00000 microS/cm

microS/cmBetween &

588.00000 microS/cm

microS/cmBetween &

953.00000 microS/cm

microS/cmBetween &

Days betw. Test Date & Sample Date

Test Date

June 12, 2003

June 12, 2003

July 02, 2003

July 02, 2003

August 29, 2003

August 20, 2003

October 28, 2003

October 01, 2003

4 days

6 days

9 days

27 days

pH (sewage)

7.36000 pH units

Laboratory Detection Limit = 0.050000 pH units

7.39000 pH units

pH unitsBetween 6.00 & 9.00

7.29000 pH units

pH unitsBetween 6.00 & 9.00

July 08, 2003

July 02, 2003

August 29, 2003

August 20, 2003

October 28, 2003

October 01, 2003

6 days

9 days

27 days

Solids, Total Dissolved

286.00000 mg/L

Laboratory Detection Limit = 10.000000 mg/L

mg/LBetween &

248.00000 mg/L

mg/LBetween &

260.00000 mg/L

mg/LBetween &

256.00000 mg/L

mg/LBetween &

June 13, 2003

June 12, 2003

July 03, 2003

July 02, 2003

September 03, 2003

August 20, 2003

October 06, 2003

October 01, 2003

1 days

1 days

14 days

5 days

Solids, Total Suspended (sewage)

112.00000 mg/L

Laboratory Detection Limit = 3.000000 mg/L

180.0000000 mg/LBetween &

126.00000 mg/L

180.0000000 mg/LBetween &

94.00000 mg/L

180.0000000 mg/LBetween &

144.00000 mg/L

180.0000000 mg/LBetween &

June 13, 2003

June 12, 2003

July 03, 2003

July 02, 2003

September 03, 2003

August 20, 2003

October 06, 2003

October 01, 2003

1 days

1 days

14 days

5 days



Rankin Waste Water Treatment Plant

SEWAGE

MAC

GRA-3

PUBLIC WORKS & SERVICES-UTILIDOR REPORT **WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS**

Days betw. Test Date
& Sample Date

Test Date

Sample Date

Acceptable Range

Laboratory Detection Limit = 0.100000 NTU

Turbidity

73.20000 NTU

100.00000 NTU

39.80000 NTU

116.00000 NTU

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

1 days

5 days

19 days

8 days

June 13, 2003

July 07, 2003

September 08, 2003

October 09, 2003

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

Subcontracted Organics

Phenols

0.01200 mg/L

0.01100 mg/L

0.01200 mg/L

0.02900 mg/L

Laboratory Detection Limit = 0.000500 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

22 days

20 days

29 days

21 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

July 04, 2003

July 22, 2003

September 18, 2003

October 22, 2003



Williamson Lake Pumphouse

POTABLE WATER

MAC

PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

Major Ions

Calcium

28.90000 mg/L
28.30000 mg/L
16.50000 mg/L
16.90000 mg/L
18.90000 mg/L

Laboratory Detection Limit = 0.050000 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

Test Date

Sample Date

Days betw. Test Date
& Sample Date

February 19, 2003
June 18, 2003
July 04, 2003
September 03, 2003
October 06, 2003

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

21 days
6 days
2 days
14 days
5 days

Chloride

58.30000 mg/L
62.00000 mg/L
39.00000 mg/L
37.40000 mg/L
39.50000 mg/L

Laboratory Detection Limit = 0.200000 mg/L

mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

February 12, 2003
June 20, 2003
July 25, 2003
September 01, 2003
October 14, 2003

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

14 days
8 days
23 days
12 days
13 days

Fluoride

0.95000 mg/L
0.98000 mg/L
0.70000 mg/L
1.27000 mg/L

Laboratory Detection Limit = 0.030000 mg/L

1.500000 mg/LBetween &
1.500000 mg/LBetween &
1.500000 mg/LBetween &
1.500000 mg/LBetween &

February 11, 2003
July 04, 2003
July 04, 2003
October 17, 2003

January 29, 2003
June 12, 2003
July 02, 2003
October 01, 2003

13 days
22 days
2 days
16 days



Williamson Lake Pumphouse

POTABLE WATER

MAC

Hardness as CaCO₃

97.10000 mg/L

93.60000 mg/L

56.00000 mg/L

58.20000 mg/L

65.00000 mg/L

Acceptable Range

Laboratory Detection Limit = 0.170000 mg/L

mg/L Between 80.00 & 100.00

mg/L Between 80.00 & 100.00

mg/L Between 80.00 & 100.00

mg/L Between 80.00 & 100.00

mg/L Between 80.00 & 100.00

Days betw. Test Date
& Sample Date

Sample Date

Test Date

February 19, 2003

June 18, 2003

July 04, 2003

September 03, 2003

October 06, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

21 days

6 days

2 days

14 days

5 days

Magnesium

6.05000 mg/L

5.57000 mg/L

3.59000 mg/L

3.88000 mg/L

4.31000 mg/L

Laboratory Detection Limit = 0.020000 mg/L

mg/L Between &

mg/L Between &

mg/L Between &

mg/L Between &

mg/L Between &

21 days

6 days

7 days

14 days

5 days

February 19, 2003

June 18, 2003

July 09, 2003

September 03, 2003

October 06, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Potassium

3.57000 mg/L

3.23000 mg/L

2.26000 mg/L

2.18000 mg/L

2.41000 mg/L

Laboratory Detection Limit = 0.030000 mg/L

mg/L Between &

mg/L Between &

mg/L Between &

mg/L Between &

mg/L Between &

21 days

6 days

20 days

16 days

5 days

February 19, 2003

June 18, 2003

July 22, 2003

September 05, 2003

October 06, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

February 16, 2004



Williamson Lake Pumphouse

POTABLE WATER

MAC

PUBLIC WORKS & SERVICES-UTILIDOR REPORT **WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS**

Silica, Reactive

0.82000 mg/L

0.58000 mg/L

0.56000 mg/L

0.88000 mg/L

Laboratory Detection Limit = 0.020000 mg/L

Acceptable Range

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Days betw. Test Date
& Sample Date

20 days

4 days

19 days

14 days

Test Date

February 18, 2003

June 16, 2003

September 08, 2003

October 15, 2003

Sample Date

January 29, 2003

June 12, 2003

August 20, 2003

October 01, 2003

Sodium

33.40000 mg/L

31.00000 mg/L

20.50000 mg/L

20.20000 mg/L

24.00000 mg/L

Laboratory Detection Limit = 0.020000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

21 days

6 days

20 days

16 days

5 days

February 19, 2003

June 18, 2003

July 22, 2003

September 05, 2003

October 06, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Sulphate

19.00000 mg/L

20.00000 mg/L

13.00000 mg/L

12.00000 mg/L

13.00000 mg/L

Laboratory Detection Limit = 3.000000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

26 days

9 days

20 days

February 03, 2003

June 24, 2003

July 28, 2003

August 29, 2003

October 21, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Metals, Total

February 16, 2004



Williamson Lake Pumphouse

POTABLE WATER

MAC

Aluminium

0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

Acceptable Range

Laboratory Detection Limit = 0.030000 mg/L

0.1000000 mg/LBetween &
0.1000000 mg/LBetween &
0.1000000 mg/LBetween &
0.1000000 mg/LBetween &

Days betw. Test Date
& Sample Date

5 days
12 days
31 days
36 days

Sample Date

June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

Test Date

June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

Antimony

0.00040 mg/L
0.00100 mg/L
0.00060 mg/L
0.00040 mg/L

Laboratory Detection Limit = 0.000100 mg/L

0.0100000 mg/LBetween &
0.0100000 mg/LBetween &
0.0100000 mg/LBetween &
0.0100000 mg/LBetween &

5 days
12 days
31 days
36 days

June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003

Arsenic

0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00100 mg/L

Laboratory Detection Limit = 0.0001000 mg/L

0.0300000 mg/LBetween &
0.0300000 mg/LBetween &
0.0300000 mg/LBetween &
0.0300000 mg/LBetween &

4 days
4 days
5 days
5 days

June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

June 16, 2003
July 06, 2003
August 25, 2003
October 06, 2003

Barium

0.02480 mg/L
0.01640 mg/L
0.01550 mg/L
0.01610 mg/L

Laboratory Detection Limit = 0.000100 mg/L

1.0000000 mg/LBetween &
1.0000000 mg/LBetween &
1.0000000 mg/LBetween &
1.0000000 mg/LBetween &

5 days
12 days
31 days
36 days

June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

June 17, 2003
July 14, 2003
September 20, 2003
November 06, 2003



Williamson Lake Pumphouse

POTABLE WATER

MAC

PUBLIC WORKS & SERVICES-UTILIDOR REPORT **WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS**

	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
Beryllium	Laboratory Detection Limit = 0.000100 mg/L			
0.00000 mg/L	mg/LBetween &	5 days	June 12, 2003	June 17, 2003
0.00000 mg/L	mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.00000 mg/L	mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.00000 mg/L	mg/LBetween &	36 days	October 01, 2003	November 06, 2003
Boron	Laboratory Detection Limit = 0.000500 mg/L			
0.04720 mg/L	5.0000000 mg/LBetween &	5 days	June 12, 2003	June 17, 2003
0.03490 mg/L	5.0000000 mg/LBetween &	10 days	July 02, 2003	July 12, 2003
Cadmium	Laboratory Detection Limit = 0.000100 mg/L			
0.00000 mg/L	0.0100000 mg/LBetween &	5 days	June 12, 2003	June 17, 2003
0.00000 mg/L	0.0100000 mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.00000 mg/L	0.0100000 mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.00000 mg/L	0.0100000 mg/LBetween &	36 days	October 01, 2003	November 06, 2003
Cesium	Laboratory Detection Limit = 0.000100 mg/L			
0.00000 mg/L	mg/LBetween &	5 days	June 12, 2003	June 17, 2003
0.00000 mg/L	mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.00000 mg/L	mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.00000 mg/L	mg/LBetween &	36 days	October 01, 2003	November 06, 2003

February 16, 2004



Williamson Lake Pumphouse

POTABLE WATER

MAC

Chromium

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

Acceptable Range

Laboratory Detection Limit = 0.000300 mg/L

0.0500000 mg/LBetween &

0.0500000 mg/LBetween &

0.0500000 mg/LBetween &

0.0500000 mg/LBetween &

Days betw. Test Date
& Sample Date

5 days

12 days

31 days

36 days

Sample Date

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Test Date

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Cobalt

0.00000 mg/L

0.00010 mg/L

0.00000 mg/L

0.00100 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Copper

0.02090 mg/L

0.02900 mg/L

0.03150 mg/L

0.02920 mg/L

Laboratory Detection Limit = 0.000200 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Iron

0.00000 mg/L

0.04500 mg/L

0.03300 mg/L

0.00000 mg/L

Laboratory Detection Limit = 0.030000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

7 days

3 days

8 days

16 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 19, 2003

July 05, 2003

August 28, 2003

October 17, 2003



Williamson Lake Pumphouse

POTABLE WATER

MAC

Acceptable Range	
Laboratory Detection Limit = 0.000100 mg/L	
0.0100000 mg/LBetween &	
0.0100000 mg/LBetween &	
0.0100000 mg/LBetween &	
0.0100000 mg/LBetween &	
Laboratory Detection Limit = 0.000300 mg/L	
mg/LBetween &	
mg/LBetween &	
mg/LBetween &	
mg/LBetween &	
Laboratory Detection Limit = 0.000100 mg/L	
mg/LBetween &	
mg/LBetween &	
mg/LBetween &	
mg/LBetween &	
Laboratory Detection Limit = 0.000000 mg/L	
0.0000000 mg/LBetween &	
0.0000000 mg/LBetween &	

Lead
0.00070 mg/L
0.00080 mg/L
0.00040 mg/L
0.00030 mg/L

Lithium
0.00230 mg/L
0.00180 mg/L
0.00210 mg/L
0.00200 mg/L

Manganese
0.00520 mg/L
0.00320 mg/L
0.01650 mg/L
0.00790 mg/L

Mercury
0.00000 mg/L
0.00000 mg/L

PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

Days betw. Test Date & Sample Date	Sample Date	Test Date
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003
5 days	June 12, 2003	June 17, 2003
12 days	July 02, 2003	July 14, 2003
31 days	August 20, 2003	September 20, 2003
36 days	October 01, 2003	November 06, 2003
12 days	June 12, 2003	June 24, 2003
6 days	July 02, 2003	July 08, 2003



Williamson Lake Pumphouse

POTABLE WATER

PUBLIC WORKS & SERVICES-UTILIDOR REPORT **WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS**

MAC

Molybdenum

0.00030 mg/L
0.00020 mg/L
0.00040 mg/L
0.00030 mg/L

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

Days betw. Test Date
& Sample Date

Test Date

June 12, 2003
June 17, 2003
July 02, 2003
July 14, 2003
August 20, 2003
September 20, 2003
October 01, 2003
November 06, 2003

Nickel

0.00080 mg/L
0.04230 mg/L
0.00320 mg/L
0.00250 mg/L

Laboratory Detection Limit = 0.000100 mg/L
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

June 12, 2003
June 17, 2003
July 02, 2003
July 14, 2003
August 20, 2003
September 20, 2003
October 01, 2003
November 06, 2003

Rubidium

0.00230 mg/L
0.00160 mg/L
0.00170 mg/L
0.00180 mg/L

Laboratory Detection Limit = 0.000100 mg/L
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

June 12, 2003
June 17, 2003
July 02, 2003
July 14, 2003
August 20, 2003
September 20, 2003
October 01, 2003
November 06, 2003

Selenium

0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

Laboratory Detection Limit = 0.001000 mg/L
mg/LBetween &
mg/LBetween &
mg/LBetween &
mg/LBetween &

June 12, 2003
June 17, 2003
July 02, 2003
July 14, 2003
August 20, 2003
September 20, 2003
October 01, 2003
November 06, 2003



Williamson Lake Pumphouse

POTABLE WATER

MAC

Acceptable Range

Laboratory Detection Limit = 0.000100 mg/L

Silver

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Days betw. Test Date
& Sample Date

Test Date

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Strontium

0.12000 mg/L

0.08670 mg/L

0.08570 mg/L

0.08270 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Thallium

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

0.00000 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

5 days

12 days

31 days

36 days

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

June 17, 2003

July 14, 2003

September 20, 2003

November 06, 2003

Tin

0.00000 mg/L

0.00010 mg/L

Laboratory Detection Limit = 0.000100 mg/L

mg/LBetween &

mg/LBetween &

5 days

12 days

June 12, 2003

July 02, 2003

June 17, 2003

July 14, 2003



Williamson Lake Pumphouse

POTABLE WATER

MAC

PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
Titanium				
0.00010 mg/L	Laboratory Detection Limit = 0.000100 mg/L	5 days	June 12, 2003	June 17, 2003
0.00000 mg/L	mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.00020 mg/L	mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.00010 mg/L	mg/LBetween &	36 days	October 01, 2003	November 06, 2003
Uranium				
0.00000 mg/L	Laboratory Detection Limit = 0.000100 mg/L	5 days	June 12, 2003	June 17, 2003
0.00000 mg/L	mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.00000 mg/L	mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.00000 mg/L	mg/LBetween &	36 days	October 01, 2003	November 06, 2003
Vanadium				
0.00000 mg/L	Laboratory Detection Limit = 0.000100 mg/L	5 days	June 12, 2003	June 17, 2003
0.00240 mg/L	mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.00080 mg/L	mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.00000 mg/L	mg/LBetween &	36 days	October 01, 2003	November 06, 2003
Zinc				
0.00000 mg/L	Laboratory Detection Limit = 0.010000 mg/L	5 days	June 12, 2003	June 17, 2003
0.03500 mg/L	mg/LBetween &	12 days	July 02, 2003	July 14, 2003
0.01300 mg/L	mg/LBetween &	31 days	August 20, 2003	September 20, 2003
0.01100 mg/L	mg/LBetween &	36 days	October 01, 2003	November 06, 2003

February 16, 2004



Williamson Lake Pumphouse

POTABLE WATER

MAC

PUBLIC WORKS & SERVICES-UTILIDOR REPORT **WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS**

	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
Microbiology				
Coliforms, Fecal				
0.00000 CFU/100mL	Laboratory Detection Limit = 2.000000 CFU/100mL 0.000000 CFU/100mLBetween &	1 days	January 29, 2003	January 30, 2003
0.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	0 days	June 12, 2003	June 12, 2003
0.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	1 days	July 02, 2003	July 03, 2003
0.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	1 days	October 01, 2003	October 02, 2003
Coliforms, Total				
0.00000 CFU/100mL	Laboratory Detection Limit = 1.000000 MPN/100mL 0.0000000 MPN/100mLBetween &	1 days	January 29, 2003	January 30, 2003
0.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	0 days	June 12, 2003	June 12, 2003
0.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	1 days	July 02, 2003	July 03, 2003
0.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	1 days	October 01, 2003	October 02, 2003
Escherichia coli				
0.00000 CFU/100mL	Laboratory Detection Limit = 1.000000 MPN/100mL 0.0000000 MPN/100mLBetween &	1 days	January 29, 2003	January 30, 2003
0.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	0 days	June 12, 2003	June 12, 2003
0.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	1 days	July 02, 2003	July 03, 2003
0.00000 MPN/100mL	0.0000000 MPN/100mLBetween &	1 days	October 01, 2003	October 02, 2003
Fecal streptococcus				
0.00000 CFU/100mL	Laboratory Detection Limit = 2.000000 CFU/100mL 0.0000000 CFU/100mLBetween &	1 days	January 29, 2003	January 30, 2003
0.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	0 days	June 12, 2003	June 12, 2003
0.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	1 days	July 02, 2003	July 03, 2003
0.00000 CFU/100mL	0.0000000 CFU/100mLBetween &	1 days	October 01, 2003	October 02, 2003

February 16, 2004



Williamson Lake Pumphouse

POTABLE WATER

MAC

Acceptable Range

Plate Count, Standard

0.00000 CFU/mL
0.00000 CFU/100mL
0.00000 MPN/10mL
0.00000 MPN/10mL

Laboratory Detection Limit = 1.000000 CFU/10mL

CFU/10mL Between &
CFU/10mL Between &
CFU/10mL Between &
CFU/10mL Between &

Days betw. Test Date
& Sample Date

Sample Date

Test Date

January 31, 2003
June 12, 2003
July 03, 2003
October 02, 2003

January 29, 2003
June 12, 2003
July 02, 2003
October 01, 2003

2 days
0 days
1 days
1 days

Nutrients

Ammonia as N

0.01800 mg/L
0.00900 mg/L
0.00000 mg/L
0.01100 mg/L
0.00600 mg/L

Laboratory Detection Limit = 0.005000 mg/L

mg/L Between &
mg/L Between &
mg/L Between &
mg/L Between &
mg/L Between &

February 07, 2003
June 20, 2003
July 05, 2003
September 16, 2003
October 15, 2003

January 29, 2003
June 12, 2003
July 02, 2003
August 20, 2003
October 01, 2003

9 days
8 days
3 days
27 days
14 days

Biological Oxygen Demand

0.00000 mg/L
0.00000 mg/L
0.00000 mg/L
0.00000 mg/L

Laboratory Detection Limit = 2.000000 mg/L

mg/L Between &
mg/L Between &
mg/L Between &
mg/L Between &

January 31, 2003
June 12, 2003
July 04, 2003
October 03, 2003

January 29, 2003
June 12, 2003
July 02, 2003
October 01, 2003

2 days
0 days
2 days
2 days

Nitrate as N

0.00000 mg/L
0.00000 mg/L

Laboratory Detection Limit = 0.008000 mg/L

45.0000000 mg/L Between &
45.0000000 mg/L Between &

January 21, 2004
December 02, 2003

August 20, 2003
October 01, 2003

154 days
62 days



Williamson Lake Pumphouse

POTABLE WATER

MAC

Nitrate+Nitrite as N

0.04000 mg/L

0.01400 mg/L

0.01400 mg/L

0.00000 mg/L

0.00000 mg/L

Acceptable Range

Laboratory Detection Limit = 0.009000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Days betw. Test Date
& Sample Date

Sample Date

Test Date

February 12, 2003

June 13, 2003

July 11, 2003

September 04, 2003

October 15, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

14 days

1 days

9 days

15 days

14 days

Nitrite as N

0.00000 mg/L

0.00000 mg/L

Laboratory Detection Limit = 0.009000 mg/L

mg/LBetween &

mg/LBetween &

12 days

5 days

September 01, 2003

October 06, 2003

August 20, 2003

October 01, 2003

Organic Carbon, Dissolved

3.90000 mg/L

4.80000 mg/L

Laboratory Detection Limit = 26.400000 mg/L

mg/LBetween &

mg/LBetween &

26 days

19 days

September 15, 2003

October 20, 2003

August 20, 2003

October 01, 2003

Organic Carbon, Total

4.60000 mg/L

5.20000 mg/L

4.00000 mg/L

3.70000 mg/L

4.30000 mg/L

Laboratory Detection Limit = 0.200000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

21 days

5 days

14 days

26 days

19 days

February 19, 2003

June 17, 2003

July 16, 2003

September 15, 2003

October 20, 2003

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

February 16, 2004



Williamson Lake Pumphouse
POTABLE WATER

PUBLIC WORKS & SERVICES-UTILIDOR REPORT

WATER AND WASTE WATER QUALITY LABORATORY ANALYSIS

MAC	Acceptable Range	Days betw. Test Date & Sample Date	Sample Date	Test Date
Ortho-Phosphate as P 0.00400 mg/L 0.00000 mg/L	Laboratory Detection Limit = 0.002000 mg/L mg/LBetween &	15 days	August 20, 2003	September 04, 2003
	mg/LBetween &	6 days	October 01, 2003	October 07, 2003
Phosphorous, Dissolved 0.02300 mg/L 0.00400 mg/L	Laboratory Detection Limit = 0.004000 mg/L mg/LBetween &	20 days	August 20, 2003	September 09, 2003
	mg/LBetween &	7 days	October 01, 2003	October 08, 2003
Phosphorous, Total 0.01500 mg/L 0.01500 mg/L 0.01600 mg/L 0.01000 mg/L	Laboratory Detection Limit = 0.002000 mg/L mg/LBetween &	6 days	June 12, 2003	June 18, 2003
	mg/LBetween &	16 days	July 02, 2003	July 18, 2003
	mg/LBetween &	20 days	August 20, 2003	September 09, 2003
	mg/LBetween &	7 days	October 01, 2003	October 08, 2003
Physicals Alkalinity 74.60000 mg/L 70.10000 mg/L 44.80000 mg/L 45.80000 mg/L 45.30000 mg/L	Laboratory Detection Limit = 0.300000 mg/L mg/LBetween &	9 days	January 29, 2003	February 07, 2003
	mg/LBetween &	6 days	June 12, 2003	June 18, 2003
	mg/LBetween &	6 days	July 02, 2003	July 08, 2003
	mg/LBetween &	9 days	August 20, 2003	August 29, 2003
	mg/LBetween &	27 days	October 01, 2003	October 28, 2003



Williamson Lake Pumphouse

POTABLE WATER

MAC

Colour

0.00000 TCU

0.00000 TCU

0.00000 TCU

0.00000 mg/L

5.00000 TCU

Acceptable Range

Laboratory Detection Limit = 5.000000 TCU

TCUBetween &

TCUBetween &

TCUBetween &

TCUBetween &

TCUBetween &

Days betw. Test Date
& Sample Date

2 days

4 days

7 days

19 days

27 days

Sample Date

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Test Date

January 31, 2003

June 16, 2003

July 09, 2003

September 08, 2003

October 28, 2003

Conductivity, Specific

362.00000 microS/cm

384.00000 microS/cm

245.00000 microS/cm

247.00000 microS/cm

277.00000 microS/cm

Laboratory Detection Limit = 0.300000 microS/cm

microS/cmBetween &

microS/cmBetween &

microS/cmBetween &

microS/cmBetween &

microS/cmBetween &

9 days

6 days

6 days

9 days

27 days

February 07, 2003

June 18, 2003

July 08, 2003

August 29, 2003

October 28, 2003

pH

7.25000 pH units

7.54000 pH units

7.43000 pH units

7.41000 pH units

7.80000 pH units

Laboratory Detection Limit = 0.050000 pH units

pH unitsBetween 6.50 & 8.50

pH unitsBetween 6.50 & 8.50

pH unitsBetween 6.50 & 8.50

pH unitsBetween 6.50 & 8.50

pH unitsBetween 6.50 & 8.50

9 days

6 days

6 days

9 days

27 days

February 07, 2003

June 18, 2003

July 08, 2003

August 29, 2003

October 28, 2003



Williamson Lake Pumphouse

POTABLE WATER

MAC

Solids, Total Dissolved

230.00000 mg/L

200.00000 mg/L

126.00000 mg/L

138.00000 mg/L

144.00000 mg/L

Acceptable Range

Laboratory Detection Limit = 10.000000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

Days betw. Test Date & Sample Date

6 days

1 days

1 days

14 days

5 days

Sample Date

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

Test Date

February 04, 2003

June 13, 2003

July 03, 2003

September 03, 2003

October 06, 2003

Solids, Total Suspended

10.00000 mg/L

6.00000 mg/L

0.00000 mg/L

8.00000 mg/L

0.00000 mg/L

Laboratory Detection Limit = 3.000000 mg/L

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

mg/LBetween &

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

February 04, 2003

June 13, 2003

July 03, 2003

September 03, 2003

October 06, 2003

Turbidity

0.40000 NTU

1.80000 NTU

1.20000 NTU

1.90000 NTU

1.20000 NTU

Laboratory Detection Limit = 0.100000 NTU

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

1.0000000 NTUBetween &

2 days

1 days

5 days

19 days

8 days

January 29, 2003

June 12, 2003

July 02, 2003

August 20, 2003

October 01, 2003

January 31, 2003

June 13, 2003

July 07, 2003

September 08, 2003

October 09, 2003

Subcontracted Organics



Williamson Lake Pumphouse

POTABLE WATER

MAC

Phenols

0.00000 mg/L

0.00050 mg/L

0.00000 mg/L

0.00000 mg/L

Acceptable Range
Laboratory Detection Limit = 0.000500 mg/L
mg/L Between &
mg/L Between &
mg/L Between &
mg/L Between &

Days betw. Test Date & Sample Date	Sample Date	Test Date
22 days	June 12, 2003	July 04, 2003
20 days	July 02, 2003	July 22, 2003
29 days	August 20, 2003	September 18, 2003
19 days	October 01, 2003	October 20, 2003

Note: 1) MAC-Maximum Allowable Concentration as per Health Canada's Drinking Water Standard, except for sewage which is as per the requirements of the water licence.
2) On this report, all Zeroes represent readings below the laboratory's detection limit.



Taiga Environmental Laboratory

4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

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- FINAL REPORT -

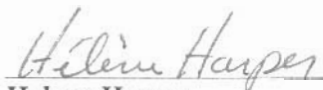
Prepared For: GNU/ DPW & S, Rankin
Rankin Inlet Regional Office

Address: Bag 002
Rankin Inlet, NU
X0C 0G0

Attn: Amil Lindsay

Facimile: (867) 645-8197

Final report has been reviewed and approved by:


Helene Harper
Client Services Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Standards Council of Canada (SCC) as a testing laboratory for specific tests registered with the Council.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.



Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788
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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office Attn: Dennis Althouse

Sample ID: Nipissar Lake

Taiga Sample ID: 230120

Client Project: Sample Type: freshwater Received Date: 30-Jan-03

Location: RI Sampling Date: 29-Jan-03

Report Status: Amended

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
<u>Physicals</u>					
Alkalinity	74.4	mg/L	0.3	31-Jan-03	
Colour	5		5	07-Feb-03	
pH	7.55	pH units	0.05	31-Jan-03	
Solids, Total Dissolved	240	mg/L	10	04-Feb-03	
Solids, Total Suspended	8	mg/L	3	04-Feb-03	
Turbidity	0.4	NTU	0.1	10-Feb-03	
<u>Nutrients</u>					
Ammonia as N	0.049	mg/L	0.005	07-Feb-03	
Biological Oxygen Demand	< 2	mg/L	2	31-Jan-03	
Nitrate+Nitrite as N	< 0.008	mg/L	0.008	12-Feb-03	
Organic Carbon, Total	4.3	mg/L	0.5	19-Feb-03	
<u>Major Ions</u>					
Calcium	25.4	mg/L	0.05	19-Feb-03	
Fluoride	0.11	mg/L	0.03	11-Feb-03	



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office **Attn:** Dennis Althouse

Sample ID: Nipissar Lake

Taiga Sample ID: 230120

Hardness as CaCO ₃	86.6	mg/L	0.17	19-Feb-03
Magnesium	5.62	mg/L	0.02	19-Feb-03
Potassium	3.43	mg/L	0.03	19-Feb-03
Sodium	31.5	mg/L	0.03	19-Feb-03

Microbiology

Coliforms, Fecal	<2	CFU/100mL	2	30-Jan-03
Coliforms, Total	<2	CFU/100mL	2	30-Jan-03
Fecal streptococcus	<2	CFU/100mL	2	30-Jan-03
Plate Count, Standard	1	CFU/mL	1	31-Jan-03

Metals, Total

Aluminum	<30	µg/L	30	03-Feb-03
Antimony	0.8	µg/L	0.5	03-Feb-03
Arsenic	<1.0	µg/L	1	05-Feb-03
Barium	23	µg/L	1	03-Feb-03
Beryllium	<2	µg/L	2	03-Feb-03
Cadmium	<0.3	µg/L	0.3	03-Feb-03
Cesium	<0.4	µg/L	0.4	03-Feb-03
Chromium	<3	µg/L	3	03-Feb-03
Cobalt	<1	µg/L	1	03-Feb-03
Copper	6	µg/L	2	03-Feb-03
Iron	531	µg/L	30	07-Feb-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: Nipissar Lake

Taiga Sample ID: 230120

Lead	27	µg/L	1	03-Feb-03
Lithium	< 3	µg/L	3	03-Feb-03
Manganese	41	µg/L	1	03-Feb-03
Molybdenum	< 1	µg/L	1	03-Feb-03
Nickel	1	µg/L	1	03-Feb-03
Rubidium	< 0.5	µg/L	0.5	03-Feb-03
Selenium	< 10	µg/L	10	03-Feb-03
Silver	< 0.3	µg/L	0.3	03-Feb-03
Strontium	105	µg/L	1	03-Feb-03
Thallium	< 0.4	µg/L	0.4	03-Feb-03
Titanium	< 3	µg/L	3	03-Feb-03
Uranium	< 0.3	µg/L	0.3	03-Feb-03
Vanadium	< 1	µg/L	1	03-Feb-03
Zinc	98	µg/L	10	03-Feb-03

Subcontracted Organics

Phenols	< 0.5	µg/L	0.5	24-Feb-03
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Data Qualifier Descriptions:



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office Attn: Dennis Althouse

Sample ID: Williamson Lake T/P

Taiga Sample ID: 230121

Client Project:

Sample Type: potable

Received Date: 30-Jan-03

Location: Rankin Inlet

Sampling Date: 29-Jan-03

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
<u>Physicals</u>					
Alkalinity	74.6	mg/L	0.3	07-Feb-03	
Colour	<5		5	31-Jan-03	
Conductivity, Specific	362	µS/cm	0.3	07-Feb-03	
pH	7.25	pH units	0.05	07-Feb-03	
Solids, Total Dissolved	230	mg/L	10	04-Feb-03	
Solids, Total Suspended	10	mg/L	3	04-Feb-03	
Turbidity	0.4	NTU	0.1	31-Jan-03	
<u>Nutrients</u>					
Ammonia as N	0.018	mg/L	0.005	07-Feb-03	
Biological Oxygen Demand	<2	mg/L	2	31-Jan-03	
Nitrate+Nitrite as N	0.040	mg/L	0.008	12-Feb-03	
Organic Carbon, Total	4.6	mg/L	0.2	19-Feb-03	
<u>Major Ions</u>					
Calcium	28.9	mg/L	0.05	19-Feb-03	
Chloride	58.3	mg/L	0.2	12-Feb-03	



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: Williamson Lake T/P

Taiga Sample ID: 230121

Fluoride	0.95	mg/L	0.03	11-Feb-03
Hardness as CaCO ₃	97.1	mg/L	0.17	19-Feb-03
Magnesium	6.05	mg/L	0.02	19-Feb-03
Potassium	3.57	mg/L	0.03	19-Feb-03
Silica, Reactive	0.82	mg/L	0.02	18-Feb-03
Sodium	33.4	mg/L	0.03	19-Feb-03
Sulphate	19	mg/L	3	03-Feb-03

Microbiology

Coliforms, Fecal	<2	CFU/100mL	2	30-Jan-03
Coliforms, Total	<2	CFU/100mL	2	30-Jan-03
Escherichia coli	<2	CFU/100mL	2	30-Jan-03
Fecal streptococcus	<2	CFU/100mL	2	30-Jan-03
Plate Count, Standard	<1	CFU/mL	1	31-Jan-03

Data Qualifier Descriptions:

Holding time exceeded before sample analysis

Increase in detection limit due to insufficient sample size



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: N.P.LAKE P/H 0779-1

Taiga Sample ID: 231380

Client Project:

Sample Type: freshwater

Received Date: 12-Jun-03

Location: RANKIN INLET

Sampling Date: 12-Jun-03

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
Physicals				
Alkalinity	69.8	mg/L	0.3	18-Jun-03
Colour	10		5	16-Jun-03
Conductivity, Specific	334	µS/cm	0.3	18-Jun-03
pH	7.87	pH units	0.05	18-Jun-03
Solids, Total Dissolved	180	mg/L	10	13-Jun-03
Solids, Total Suspended	6	mg/L	3	13-Jun-03
Turbidity	2.7	NTU	0.1	13-Jun-03
Nutrients				
Ammonia as N	< 0.005	mg/L	0.005	20-Jun-03
Biological Oxygen Demand	< 2	mg/L	2	12-Jun-03
Nitrate as N	< 0.008	mg/L	0.008	23-Jun-03
Nitrate+Nitrite as N	< 0.008	mg/L	0.008	13-Jun-03
Nitrite as N	< 0.009	mg/L	0.009	17-Jun-03
Organic Carbon, Total	5.0	mg/L	0.2	17-Jun-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: N.P.LAKE P/H 0779-1

Taiga Sample ID: 231380

Phosphorous, Total	0.018	mg/L	0.002	18-Jun-03
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Major Ions

Calcium	25.2	mg/L	0.05	18-Jun-03
Chloride	55.9	mg/L	0.2	20-Jun-03
Fluoride	0.10	mg/L	0.03	04-Jul-03
Hardness as CaCO ₃	84.2	mg/L	0.17	18-Jun-03
Magnesium	5.16	mg/L	0.02	18-Jun-03
Potassium	3.09	mg/L	0.03	18-Jun-03
Silica, Reactive	0.05	mg/L	0.02	16-Jun-03
Sodium	28.6	mg/L	0.02	18-Jun-03
Sulphate	19	mg/L	3	24-Jun-03

Microbiology

Coliforms, Fecal	< 2	CFU/100mL	2	12-Jun-03
Coliforms, Total	1	MPN/100mL	1	12-Jun-03
Escherichia coli	< 1	MPN/100mL	1	12-Jun-03
Fecal streptococcus	< 2	CFU/100mL	2	12-Jun-03
Plate Count, Standard	14	CFU/10mL	1	12-Jun-03

Metals, Total

Aluminum	< 30	µg/L	30	17-Jun-03
Antimony	0.9	µg/L	0.1	17-Jun-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: N.P.LAKE P/H 0779-1

Taiga Sample ID: 231380

Arsenic	< 1	µg/L	1	16-Jun-03
Barium	23.1	µg/L	0.1	17-Jun-03
Beryllium	< 0.1	µg/L	0.1	17-Jun-03
Boron	43.9	µg/L	0.5	17-Jun-03
Cadmium	< 0.1	µg/L	0.1	17-Jun-03
Cesium	< 0.1	µg/L	0.1	17-Jun-03
Chromium	< 0.3	µg/L	0.3	17-Jun-03
Cobalt	0.2	µg/L	0.1	17-Jun-03
Copper	7.4	µg/L	0.2	17-Jun-03
Iron	49	µg/L	30	19-Jun-03
Lead	6.9	µg/L	0.1	17-Jun-03
Lithium	2.1	µg/L	0.3	17-Jun-03
Manganese	8.3	µg/L	0.1	17-Jun-03
Mercury	< 0.01	µg/L	0.01	24-Jun-03
Molybdenum	0.3	µg/L	0.1	17-Jun-03
Nickel	1.0	µg/L	0.1	17-Jun-03
Rubidium	2.1	µg/L	0.1	17-Jun-03
Selenium	< 1	µg/L	1	17-Jun-03
Silver	< 0.1	µg/L	0.1	17-Jun-03
Strontium	112	µg/L	0.1	17-Jun-03
Thallium	< 0.1	µg/L	0.1	17-Jun-03
Tin	< 0.1	ug/L	0.1	17-Jun-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: N.P.LAKE P/H 0779-1

Taiga Sample ID: 231380

Titanium	0.2	µg/L	0.1	17-Jun-03
Uranium	<0.1	µg/L	0.1	17-Jun-03
Vanadium	<0.1	µg/L	0.1	17-Jun-03
Zinc	132	µg/L	10	17-Jun-03

Subcontracted Organics

Phenols	<0.5	µg/L	0.5	04-Jul-03
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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office Attn: Dennis Althouse

Sample ID: WILL LAKE T/P 0779-2

Taiga Sample ID: 231381

Client Project: Sample Type: freshwater Received Date: 12-Jun-03

Location: RANKIN INLET Sampling Date: 12-Jun-03

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Alkalinity	70.1	mg/L	0.3	18-Jun-03
Colour	<5		5	16-Jun-03
Conductivity, Specific	384	µS/cm	0.3	18-Jun-03
pH	7.54	pH units	0.05	18-Jun-03
Solids, Total Dissolved	200	mg/L	10	13-Jun-03
Solids, Total Suspended	6	mg/L	3	13-Jun-03
Turbidity	1.8	NTU	0.1	13-Jun-03
<u>Nutrients</u>				
Ammonia as N	0.009	mg/L	0.005	20-Jun-03
Biological Oxygen Demand	<2	mg/L	2	12-Jun-03
Nitrate+Nitrite as N	0.014	mg/L	0.008	13-Jun-03
Organic Carbon, Total	5.2	mg/L	0.2	17-Jun-03
Phosphorous, Total	0.015	mg/L	0.002	18-Jun-03

Major Ions



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: WILL LAKE T/P 0779-2

Taiga Sample ID: 231381

Calcium	28.3	mg/L	0.05	18-Jun-03
Chloride	62.0	mg/L	0.2	20-Jun-03
Fluoride	0.98	mg/L	0.03	04-Jul-03
Hardness as CaCO ₃	93.6	mg/L	0.17	18-Jun-03
Magnesium	5.57	mg/L	0.02	18-Jun-03
Potassium	3.23	mg/L	0.03	18-Jun-03
Silica, Reactive	0.58	mg/L	0.02	16-Jun-03
Sodium	31.0	mg/L	0.02	18-Jun-03
Sulphate	20	mg/L	3	24-Jun-03

Microbiology

Coliforms, Fecal	< 2	CFU/100mL	2	12-Jun-03
Coliforms, Total	< 1	MPN/100mL	1	12-Jun-03
Escherichia coli	< 1	MPN/100mL	1	12-Jun-03
Fecal streptococcus	< 2	CFU/100mL	2	12-Jun-03
Plate Count, Standard	< 1	CFU/10mL	1	12-Jun-03

Metals, Total

Aluminum	< 30	µg/L	30	17-Jun-03
Antimony	0.4	µg/L	0.1	17-Jun-03
Arsenic	< 1	µg/L	1	16-Jun-03
Barium	24.8	µg/L	0.1	17-Jun-03
Beryllium	< 0.1	µg/L	0.1	17-Jun-03



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Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: WILL LAKE T/P 0779-2

Taiga Sample ID: 231381

Boron	47.2	µg/L	0.5	17-Jun-03
Cadmium	< 0.1	µg/L	0.1	17-Jun-03
Cesium	< 0.1	µg/L	0.1	17-Jun-03
Chromium	< 0.3	µg/L	0.3	17-Jun-03
Cobalt	< 0.1	µg/L	0.1	17-Jun-03
Copper	20.9	µg/L	0.2	17-Jun-03
Iron	< 30	µg/L	30	19-Jun-03
Lead	0.7	µg/L	0.1	17-Jun-03
Lithium	2.3	µg/L	0.3	17-Jun-03
Manganese	5.2	µg/L	0.1	17-Jun-03
Mercury	< 0.01	µg/L	0.01	24-Jun-03
Molybdenum	0.3	µg/L	0.1	17-Jun-03
Nickel	0.8	µg/L	0.1	17-Jun-03
Rubidium	2.3	µg/L	0.1	17-Jun-03
Selenium	< 1	µg/L	1	17-Jun-03
Silver	< 0.1	µg/L	0.1	17-Jun-03
Strontium	120	µg/L	0.1	17-Jun-03
Thallium	< 0.1	µg/L	0.1	17-Jun-03
Tin	< 0.1	ug/L	0.1	17-Jun-03
Titanium	0.1	µg/L	0.1	17-Jun-03
Uranium	< 0.1	µg/L	0.1	17-Jun-03
Vanadium	< 0.1	µg/L	0.1	17-Jun-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: WILL LAKE T/P 0779-2

Taiga Sample ID: 231381

Zinc

< 10

µg/L

10

17-Jun-03

Subcontracted Organics

Phenols

< 0.5

µg/L

0.5

04-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office Attn: Dennis Althouse

Sample ID: RANKIN INLET WWTP 0779-3

Taiga Sample ID: 231382

Client Project: Sample Type: freshwater Received Date: 12-Jun-03

Location: RANKIN INLET

Sampling Date: 12-Jun-03

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Alkalinity	173	mg/L	0.3	18-Jun-03
Colour	70		5	16-Jun-03
Conductivity, Specific	665	µS/cm	0.3	18-Jun-03
pH	7.31	pH units	0.05	18-Jun-03
Solids, Total Dissolved	286	mg/L	10	13-Jun-03
Solids, Total Suspended	112	mg/L	3	13-Jun-03
Turbidity	73.2	NTU	0.1	13-Jun-03
<u>Nutrients</u>				
Ammonia as N	24.3	mg/L	0.005	20-Jun-03
Biological Oxygen Demand	122	mg/L	2	12-Jun-03
Nitrate+Nitrite as N	0.025	mg/L	0.008	13-Jun-03
Organic Carbon, Total	70.7	mg/L	0.2	17-Jun-03
Phosphorous, Total	4.90	mg/L	0.002	18-Jun-03

Major Ions



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: RANKIN INLET WWTP 0779-3

Taiga Sample ID: 231382

Calcium	29.9	mg/L	0.05	18-Jun-03
Chloride	73.7	mg/L	0.2	20-Jun-03
Fluoride	0.85	mg/L	0.03	04-Jul-03
Hardness as CaCO ₃	101	mg/L	0.17	18-Jun-03
Magnesium	6.36	mg/L	0.02	18-Jun-03
Potassium	8.94	mg/L	0.03	18-Jun-03
Silica, Reactive	2.00	mg/L	0.02	16-Jun-03
Sodium	44.4	mg/L	0.02	18-Jun-03
Sulphate	27	mg/L	3	24-Jun-03

Microbiology

Coliforms, Fecal	6000000	CFU/100mL	1000000	12-Jun-03
Coliforms, Total	22300000	MPN/100mL	1000000	13-Jun-03
Escherichia coli	7700000	MPN/100mL	10000	12-Jun-03
Fecal streptococcus	1700000	CFU/100mL	100000	13-Jun-03
Plate Count, Standard	200000000	CFU/10mL	100000000	12-Jun-03

Organic

Oil and Grease	30.1	mg/L	0.2	02-Jul-03
Oil and Grease (Visible)	non-vis			02-Jul-03

Metals, Total

Aluminum	1140	µg/L	30	17-Jun-03
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Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: RANKIN INLET WWTP 0779-3

Taiga Sample ID: 231382

Antimony	1.0	µg/L	0.1	17-Jun-03
Arsenic	35	µg/L	1	16-Jun-03
Barium	29.7	µg/L	0.1	17-Jun-03
Beryllium	<0.1	µg/L	0.1	17-Jun-03
Boron	147	µg/L	0.5	17-Jun-03
Cadmium	0.1	µg/L	0.1	17-Jun-03
Cesium	<0.1	µg/L	0.1	17-Jun-03
Chromium	3.8	µg/L	0.3	17-Jun-03
Cobalt	0.5	µg/L	0.1	17-Jun-03
Copper	134	µg/L	0.2	17-Jun-03
Iron	393	µg/L	30	19-Jun-03
Lead	2.1	µg/L	0.1	17-Jun-03
Lithium	3.0	µg/L	0.3	17-Jun-03
Manganese	20.8	µg/L	0.1	17-Jun-03
Mercury	0.04	µg/L	0.01	24-Jun-03
Molybdenum	0.8	µg/L	0.1	17-Jun-03
Nickel	5.6	µg/L	0.1	17-Jun-03
Rubidium	8.4	µg/L	0.1	17-Jun-03
Selenium	<1	µg/L	1	17-Jun-03
Silver	<0.1	µg/L	0.1	17-Jun-03
Strontium	139	µg/L	0.1	17-Jun-03
Thallium	<0.1	µg/L	0.1	17-Jun-03



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Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Dennis Althouse

Sample ID: RANKIN INLET WWTP 0779-3

Taiga Sample ID: 231382

Tin	1.7	ug/L	0.1	17-Jun-03
Titanium	5.4	µg/L	0.1	17-Jun-03
Uranium	0.2	µg/L	0.1	17-Jun-03
Vanadium	0.4	µg/L	0.1	17-Jun-03
Zinc	115	µg/L	10	17-Jun-03

Subcontracted Organics

Phenols	12.0	µg/L	0.5	04-Jul-03
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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office Attn: Amil Lindsay

Sample ID: Williamson Lake T/P

Taiga Sample ID: 231745

Client Project: Sample Type: potable water Received Date: 03-Jul-03

Location: Rankin Inlet Sampling Date: 02-Jul-03

Report Status: Final

Approved by: 

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
Physicals					
Alkalinity	44.8	mg/L	0.3	08-Jul-03	
Colour	< 5		5	09-Jul-03	
Conductivity, Specific	245	µS/cm	0.3	08-Jul-03	
pH	7.43	pH units	0.05	08-Jul-03	
Solids, Total Dissolved	126	mg/L	10	03-Jul-03	
Solids, Total Suspended	< 3	mg/L	3	03-Jul-03	
Turbidity	1.2	NTU	0.1	07-Jul-03	
Nutrients					
Ammonia as N	< 0.005	mg/L	0.005	05-Jul-03	
Biological Oxygen Demand	< 2	mg/L	2	04-Jul-03	
Nitrate+Nitrite as N	0.014	mg/L	0.008	11-Jul-03	
Organic Carbon, Total	4.0	mg/L	0.2	16-Jul-03	
Phosphorous, Total	0.015	mg/L	0.002	18-Jul-03	

Major Ions



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Williamson Lake T/P

Taiga Sample ID: 231745

Calcium	16.5	mg/L	0.05	04-Jul-03
Chloride	39	mg/L	5	25-Jul-03
Fluoride	0.70	mg/L	0.03	04-Jul-03
Hardness as CaCO ₃	56.0	mg/L	0.17	04-Jul-03
Magnesium	3.59	mg/L	0.02	09-Jul-03
Potassium	2.26	mg/L	0.03	22-Jul-03
Silica, Reactive		mg/L		
Sodium	20.5	mg/L	0.02	22-Jul-03
Sulphate	13	mg/L	2	28-Jul-03

Microbiology

Coliforms, Fecal	< 1	CFU/100mL	1	03-Jul-03
Coliforms, Total	< 1.0	MPN/100mL	1.0	03-Jul-03
Escherichia coli	< 1.0	MPN/100mL	1.0	03-Jul-03
Fecal streptococcus	< 1	CFU/100mL	1	03-Jul-03
Plate Count, Standard	< 0.2	MPN/10 mL	0.2	03-Jul-03

Metals, Total

Aluminum	< 30	µg/L	30	14-Jul-03
Antimony	1.0	µg/L	0.1	14-Jul-03
Arsenic	< 1	µg/L	1	06-Jul-03
Barium	16.4	µg/L	0.1	14-Jul-03
Beryllium	< 0.1	µg/L	0.1	14-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Williamson Lake T/P

Taiga Sample ID: 231745

Boron	34.9	µg/L	0.5	12-Sep-03
Cadmium	< 0.1	µg/L	0.1	14-Jul-03
Cesium	< 0.1	µg/L	0.1	14-Jul-03
Chromium	< 0.3	µg/L	0.3	14-Jul-03
Cobalt	0.1	µg/L	0.1	14-Jul-03
Copper	29.0	µg/L	0.2	14-Jul-03
Iron	45	µg/L	30	05-Jul-03
Lead	0.8	µg/L	0.1	14-Jul-03
Lithium	1.8	µg/L	0.3	14-Jul-03
Manganese	3.2	µg/L	0.1	14-Jul-03
Mercury	< 0.01	µg/L	0.01	08-Jul-03
Molybdenum	0.2	µg/L	0.1	14-Jul-03
Nickel	42.3	µg/L	0.1	14-Jul-03
Rubidium	1.6	µg/L	0.1	14-Jul-03
Selenium	< 1	µg/L	1	14-Jul-03
Silver	< 0.1	µg/L	0.1	14-Jul-03
Strontium	86.7	µg/L	0.1	14-Jul-03
Thallium	< 0.1	µg/L	0.1	14-Jul-03
Tin	0.1	ug/L	0.1	14-Jul-03
Titanium	< 0.1	µg/L	0.1	14-Jul-03
Uranium	< 0.1	µg/L	0.1	14-Jul-03
Vanadium	2.4	µg/L	0.1	14-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office Attn: Amil Lindsay

Sample ID: Williamson Lake T/P

Taiga Sample ID: 231745

Zinc	35	µg/L	10	14-Jul-03
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Subcontracted Organics

Phenols	0.5	µg/L	0.5	22-Jul-03
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Data Qualifier Descriptions:

Holding time before sample



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin Rankin Inlet Regional Office **Attn:** Amil Lindsay

Sample ID: Rankin Inlet WWTD

Taiga Sample ID: 231746

Client Project: **Sample Type:** sewage **Received Date:** 03-Jul-03

Location: Rankin Inlet

Sampling Date: 01-Jul-03

Report Status: Final

Approved by: 

Test Parameter	Result	Units	Detection Limit	Analysis Date
Physicals				
Alkalinity	154	mg/L	0.3	08-Jul-03
Colour	80		5	07-Jul-03
Conductivity, Specific	590	µS/cm	0.3	08-Jul-03
pH	7.36	pH units	0.05	08-Jul-03
Solids, Total Dissolved	248	mg/L	10	03-Jul-03
Solids, Total Suspended	126	mg/L	3	03-Jul-03
Turbidity	100.0	NTU	0.1	07-Jul-03
Nutrients				
Ammonia as N	16.4	mg/L	0.005	05-Jul-03
Biological Oxygen Demand	92	mg/L	2	04-Jul-03
Nitrate as N	0.113	mg/L	0.008	23-Jul-03
Nitrate+Nitrite as N	0.150	mg/L	0.008	11-Jul-03
Nitrite as N	0.037	mg/L	0.009	17-Jul-03
Organic Carbon, Total	52.4	mg/L	0.2	16-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Rankin Inlet WWTD

Taiga Sample ID: 231746

Phosphorous, Total	4.07	mg/L	0.002	18-Jul-03
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Major Ions

Calcium	26.1	mg/L	0.05	04-Jul-03
Chloride	55.8	mg/L	0.2	09-Jul-03
Fluoride	0.63	mg/L	0.03	04-Jul-03
Hardness as CaCO ₃	86.0	mg/L	0.17	04-Jul-03
Magnesium	5.05	mg/L	0.02	09-Jul-03
Potassium	2.18	mg/L	0.03	22-Jul-03
Silica, Reactive	3.47	mg/L	0.02	18-Jul-03
Sodium	42.8	mg/L	0.02	22-Jul-03
Sulphate	29	mg/L	3	17-Jul-03

Microbiology

Coliforms, Fecal	4100000	CFU/100mL	100000	03-Jul-03
Coliforms, Total	17300000	MPN/100mL	1000000	03-Jul-03
Escherichia coli	5200000	MPN/100mL	1000000	03-Jul-03
Fecal streptococcus	400000	CFU/100mL	100000	03-Jul-03
Plate Count, Standard	2160000	CFU/mL	20000	05-Jul-03

Organic

Oil and Grease	26.8	mg/L	0.2	10-Jul-03
Oil and Grease (Visible)	vis			07-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Rankin Inlet WWTD

Taiga Sample ID: 231746

Metals, Total

Aluminum	2070	µg/L	30	14-Jul-03
Antimony	0.5	µg/L	0.1	14-Jul-03
Arsenic	< 1	µg/L	1	06-Jul-03
Barium	21.8	µg/L	0.1	14-Jul-03
Beryllium	< 0.1	µg/L	0.1	14-Jul-03
Boron	125	µg/L	0.5	12-Sep-03
Cadmium	0.2	µg/L	0.1	14-Jul-03
Cesium	< 0.1	µg/L	0.1	14-Jul-03
Chromium	8.5	µg/L	0.3	14-Jul-03
Cobalt	0.4	µg/L	0.1	14-Jul-03
Copper	140	µg/L	0.2	14-Jul-03
Iron	334	µg/L	30	05-Jul-03
Lead	2.4	µg/L	0.1	14-Jul-03
Lithium	2.9	µg/L	0.3	14-Jul-03
Manganese	42.5	µg/L	0.1	14-Jul-03
Mercury	0.03	µg/L	0.01	08-Jul-03
Molybdenum	0.7	µg/L	0.1	14-Jul-03
Nickel	20.1	µg/L	0.1	14-Jul-03
Rubidium	7.9	µg/L	0.1	14-Jul-03
Selenium	< 1	µg/L	1	14-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Rankin Inlet WWTd

Taiga Sample ID: 231746

Silver	1.0	µg/L	0.1	14-Jul-03
Strontium	138	µg/L	0.1	14-Jul-03
Thallium	< 0.1	µg/L	0.1	14-Jul-03
Tin	1.7	µg/L	0.1	14-Jul-03
Titanium	8.5	µg/L	0.1	14-Jul-03
Uranium	0.3	µg/L	0.1	14-Jul-03
Vanadium	4.1	µg/L	0.1	14-Jul-03
Zinc	297	µg/L	10	14-Jul-03

Subcontracted Organics

Phenols	11.0	µg/L	0.5	22-Jul-03
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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Nipissar Lake

Taiga Sample ID: 231747

Client Project:

Sample Type: freshwater

Received Date: 03-Jul-03

Location: Rankin Inlet

Sampling Date: 02-Jul-03

Report Status: Final

Approved by:

Shane Harris

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Alkalinity	48.8	mg/L	0.3	08-Jul-03
Colour	20		5	07-Jul-03
Conductivity, Specific	244	µS/cm	0.3	08-Jul-03
pH	7.48	pH units	0.05	08-Jul-03
Solids, Total Dissolved	120	mg/L	10	03-Jul-03
Solids, Total Suspended	4	mg/L	3	03-Jul-03
Turbidity	2.5	NTU	0.1	07-Jul-03

Nutrients

Ammonia as N	0.168	mg/L	0.005	05-Jul-03
Biological Oxygen Demand	< 2	mg/L	2	04-Jul-03
Nitrate+Nitrite as N	< 0.008	mg/L	0.008	11-Jul-03
Organic Carbon, Total	3.8	mg/L	0.2	22-Jul-03
Phosphorous, Dissolved	0.010	mg/L	0.004	18-Jul-03
Phosphorous, Total	0.016	mg/L	0.002	18-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Nipissar Lake

Taiga Sample ID: 231747

Major Ions

Calcium	17.9	mg/L	0.05	04-Jul-03
Chloride	36.7	mg/L	0.2	09-Jul-03
Fluoride	0.17	mg/L	0.03	04-Jul-03
Hardness as CaCO ₃	59.6	mg/L	0.17	04-Jul-03
Magnesium	3.63	mg/L	0.02	09-Jul-03
Potassium	7.62	mg/L	0.03	22-Jul-03
Silica, Reactive	0.17	mg/L	0.02	18-Jul-03
Sodium	20.8	mg/L	0.02	22-Jul-03
Sulphate	18	mg/L	3	17-Jul-03

Microbiology

Coliforms, Fecal	< 1	CFU/100mL	1	03-Jul-03
Coliforms, Total	< 1.0	MPN/100mL	1.0	03-Jul-03
Escherichia coli	< 1.0	MPN/100mL	1.0	03-Jul-03
Fecal streptococcus	< 1	CFU/100mL	1	03-Jul-03
Plate Count, Standard	2.6	MPN/10 mL	0.2	03-Jul-03

Metals, Total

Aluminum	< 30	µg/L	30	14-Jul-03
Antimony	0.4	µg/L	0.1	14-Jul-03
Arsenic	< 1	µg/L	1	06-Jul-03



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Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Nipissar Lake

Taiga Sample ID: 231747

Barium	19.7	µg/L	0.1	14-Jul-03
Beryllium	< 0.1	µg/L	0.1	14-Jul-03
Boron	32.1	µg/L	0.5	12-Sep-03
Cadmium	< 0.1	µg/L	0.1	14-Jul-03
Cesium	< 0.1	µg/L	0.1	14-Jul-03
Chromium	4.4	µg/L	0.3	14-Jul-03
Cobalt	0.2	µg/L	0.1	14-Jul-03
Copper	11.5	µg/L	0.2	14-Jul-03
Iron	1850	µg/L	30	05-Jul-03
Lead	4.8	µg/L	0.1	14-Jul-03
Lithium	1.7	µg/L	0.3	14-Jul-03
Manganese	166	µg/L	0.1	14-Jul-03
Mercury	0.01	µg/L	0.01	08-Jul-03
Molybdenum	0.4	µg/L	0.1	14-Jul-03
Nickel	5.6	µg/L	0.1	14-Jul-03
Rubidium	1.7	µg/L	0.1	14-Jul-03
Selenium	< 1	µg/L	1	14-Jul-03
Silver	< 0.1	µg/L	0.1	14-Jul-03
Strontium	90.9	µg/L	0.1	14-Jul-03
Thallium	< 0.1	µg/L	0.1	14-Jul-03
Tin	0.1	ug/L	0.1	14-Jul-03
Titanium	1.0	µg/L	0.1	14-Jul-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Nipissar Lake

Taiga Sample ID: 231747

Uranium	< 0.1	µg/L	0.1	14-Jul-03
Vanadium	3.5	µg/L	0.1	14-Jul-03
Zinc	788	µg/L	10	14-Jul-03

Subcontracted Organics

Phenols	10.0	µg/L	0.5	22-Jul-03
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- CERTIFICATE OF ANALYSIS -

Prepared For: GNU/ DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: RI WWTP

Taiga Sample ID: 233013

Client Project:

Sample Type: sewage

Received Date: 25-Aug-03

Location: Rankin Inlet

Sampling Date: 20-Aug-03

Report Status: Final

Approved by:

Helene Harper

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
<u>Physicals</u>					
Alkalinity	150	mg/L	0.3	29-Aug-03	
Colour			5	08-Sep-03	
Conductivity, Specific	588	µS/cm	0.3	29-Aug-03	
pH	7.39	pH units	0.05	29-Aug-03	
Solids, Total Dissolved	260	mg/L	10	03-Sep-03	
Solids, Total Suspended	94	mg/L	3	03-Sep-03	
Turbidity	39.8	NTU	0.1	08-Sep-03	
<u>Nutrients</u>					
Ammonia as N	1.15	mg/L	0.005	16-Sep-03	
Biological Oxygen Demand		mg/L		12-Sep-03	
Nitrate as N	< 0.008	mg/L	0.008	17-Sep-03	
Nitrate+Nitrite as N	< 0.008	mg/L	0.008	04-Sep-03	
Nitrite as N	< 0.009	mg/L	0.009	01-Sep-03	
Organic Carbon, Dissolved	26.4	mg/L	0.2	15-Sep-03	



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: RI WWTP

Taiga Sample ID: 233013

Organic Carbon, Total	45.4	mg/L	0.2	15-Sep-03
Ortho-Phosphate as P	1.39	mg/L	0.002	04-Sep-03
Phosphorous, Dissolved	1.89	mg/L	0.004	09-Sep-03
Phosphorous, Total	3.08	mg/L	0.002	09-Sep-03

Major Ions

Calcium	14.7	mg/L	0.05	03-Sep-03
Chloride	58.9	mg/L	0.2	01-Sep-03
Fluoride	0.78	mg/L	0.03	17-Sep-03
Hardness as CaCO ₃	52.7	mg/L	0.17	03-Sep-03
Magnesium	3.88	mg/L	0.02	03-Sep-03
Potassium	7.72	mg/L	0.03	05-Sep-03
Silica, Reactive	3.10	mg/L	0.02	08-Sep-03
Sodium	41.9	mg/L	0.02	05-Sep-03
Sulphate	106	mg/L	3	29-Aug-03

Microbiology

Coliforms, Fecal	CFU/100mL
Coliforms, Total	CFU/100mL
Escherichia coli	CFU/100mL
Fecal streptococcus	CFU/100mL
Plate Count, Standard	CFU/mL

Organic



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- CERTIFICATE OF ANALYSIS -

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Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: RI WWTP

Taiga Sample ID: 233013

Oil and Grease	22.4	mg/L	0.2	27-Aug-03
Oil and Grease (Visible)	non-vis			03-Sep-03

Metals, Dissolved

Aluminum	µg/L	0.2
Antimony	µg/L	0.008
Arsenic	µg/L	1
Barium	µg/L	0.02
Beryllium	µg/L	0.02
Cadmium	µg/L	0.02
Cesium	µg/L	0.008
Chromium	µg/L	0.1
Cobalt	µg/L	0.008
Copper	µg/L	0.08
Iron	µg/L	30
Lead	µg/L	0.02
Lithium	µg/L	0.2
Manganese	µg/L	0.02
Molybdenum	µg/L	0.02
Nickel	µg/L	0.01
Rubidium	µg/L	0.01
Selenium	µg/L	0.3



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Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: RI WWTP

Taiga Sample ID: 233013

Silver		µg/L	0.006
Strontium		µg/L	0.02
Thallium		µg/L	0.1
Titanium		µg/L	0.02
Uranium		µg/L	0.008
Vanadium		µg/L	0.03
Zinc		µg/L	0.4

Metals, Total

Aluminum	1680	µg/L	30	18-Nov-03
Antimony	0.8	µg/L	0.1	20-Sep-03
Arsenic	1	µg/L	1	25-Aug-03
Barium	19.3	µg/L	0.1	20-Sep-03
Beryllium	< 0.1	µg/L	0.1	20-Sep-03
Cadmium	0.2	µg/L	0.1	20-Sep-03
Cesium	< 0.1	µg/L	0.1	20-Sep-03
Chromium	64.8	µg/L	0.3	20-Sep-03
Cobalt	0.3	µg/L	0.1	20-Sep-03
Copper	102	µg/L	0.2	20-Sep-03
Iron	468	µg/L	30	28-Aug-03
Lead	1.8	µg/L	0.1	20-Sep-03
Lithium	3.0	µg/L	0.3	20-Sep-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: RI WWTP

Taiga Sample ID: 233013

Manganese	63.4	µg/L	0.1	20-Sep-03
Molybdenum	0.8	µg/L	0.1	20-Sep-03
Nickel	6.2	µg/L	0.1	20-Sep-03
Rubidium	6.6	µg/L	0.1	20-Sep-03
Selenium	2	µg/L	1	20-Sep-03
Silver	<0.1	µg/L	0.1	20-Sep-03
Strontium	108	µg/L	0.1	20-Sep-03
Thallium	<0.1	µg/L	0.1	20-Sep-03
Titanium	4.3	µg/L	0.1	20-Sep-03
Uranium	0.3	µg/L	0.1	20-Sep-03
Vanadium	<0.1	µg/L	0.1	20-Sep-03
Zinc	92	µg/L	10	20-Sep-03

Subcontracted Organics

Phenols	12	µg/L	0.5	18-Sep-03
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Data Qualifier Descriptions:



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake

Taiga Sample ID: 233014

Client Project:

Sample Type: freshwater

Received Date: 25-Aug-03

Sampling Date: 20-Aug-03

Location: Rankin Inlet

Approved By

Helene Harper

Helene Harper

Client Services Officer

Report Status: FINAL

Test Parameter	Result	Detection Limit	Analysis Date	Analytical Method *	Qualifer
Physicals					
Alkalinity	52.2 mg/L	0.3 mg/L	29-Aug-03	SM2320:B	
Colour	40	5	08-Sep-03	SM2120:B	
Conductivity, Specific (25 C)	246 µS/cm	0.3 µS/cm	29-Aug-03	SM2510:B	
pH	7.60 pH units	0.05 pH units	29-Aug-03	SM4500-H:B	
Solids, Total Dissolved	130 mg/L	10 mg/L	03-Sep-03	SM2540:C	
Solids, Total Suspended	< 3 mg/L	3 mg/L	03-Sep-03	SM2540:D	
Turbidity	3.2 NTU	0.1 NTU	08-Sep-03	SM2130:B	
Nutrients					
Ammonia as N	0.207 mg/L	0.005 mg/L	16-Sep-03	SM4500-NH3:G	
Biological Oxygen Demand	mg/L	mg/L		SM5210:B	
Nitrate+Nitrite as N	< 0.008 mg/L	0.008 mg/L	04-Sep-03	SM4500-NO3:F	
Organic Carbon, Dissolved	4.0 mg/L	0.2 mg/L	15-Sep-03	EPA415.1	
Organic Carbon, Total	3.6 mg/L	0.2 mg/L	18-Sep-03	EPA415.1	



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake

Taiga Sample ID: 233014

Ortho-Phosphate as P	< 0.002 mg/L	0.002 mg/L	04-Sep-03	SM4500-P:D
Phosphorous, Dissolved	0.029 mg/L	0.004 mg/L	09-Sep-03	SM4500-P:D
Phosphorous, Total	0.016 mg/L	0.002 mg/L	09-Sep-03	SM4500-P:D

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Major Ions

Calcium	11.7 mg/L	0.05 mg/L	03-Sep-03	SM3111:B
Chloride	37.4 mg/L	0.2 mg/L	01-Sep-03	SM4500-Cl:E
Fluoride	mg/L	mg/L		SM4500-F:C
Hardness as CaCO ₃	45.2 mg/L	0.17 mg/L	03-Sep-03	SM2340:B
Magnesium	3.89 mg/L	0.02 mg/L	03-Sep-03	SM3111:B
Potassium	2.16 mg/L	0.03 mg/L	05-Sep-03	SM3500-K:D
Silica, Reactive	0.27 mg/L	0.02 mg/L	08-Sep-03	SM4500-Si:D
Sodium	19.7 mg/L	0.02 mg/L	05-Sep-03	SM3500-Na:D
Sulphate	13 mg/L	3 mg/L	29-Aug-03	SM4500-SO4:F

Microbiology

Coliforms, Fecal	CFU/100mL	CFU/100mL	SM9222:D
Coliforms, Total	CFU/100mL	CFU/100mL	SM9222:B
Escherichia coli	CFU/100mL	CFU/100mL	SM9222:B
Fecal streptococcus	CFU/100mL	CFU/100mL	SM9230:C
Plate Count, Standard	CFU/mL	CFU/mL	SM9215:B

Metals, Dissolved

Aluminum	µg/L	µg/L	EPA200.8
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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake

Taiga Sample ID: 233014

Antimony	µg/L	µg/L	EPA200.8	
Arsenic	µg/L	µg/L	SM3113:B	
Barium	µg/L	µg/L	EPA200.8	16
Beryllium	µg/L	µg/L	EPA200.8	
Cadmium	µg/L	µg/L	EPA200.8	16
Cesium	µg/L	µg/L	EPA200.8	16
Chromium	µg/L	µg/L	EPA200.8	16
Cobalt	µg/L	µg/L	EPA200.8	16
Copper	µg/L	µg/L	EPA200.8	
Iron	µg/L	µg/L	SM3111:B	
Lead	µg/L	µg/L	EPA200.8	
Lithium	µg/L	µg/L	EPA200.8	
Manganese	µg/L	µg/L	EPA200.8	
Molybdenum	µg/L	µg/L	EPA200.8	
Nickel	µg/L	µg/L	EPA200.8	
Rubidium	µg/L	µg/L	EPA200.8	
Selenium	µg/L	µg/L	EPA200.8	
Silver	µg/L	µg/L	EPA200.8	
Strontium	µg/L	µg/L	EPA200.8	
Thallium	µg/L	µg/L	EPA200.8	
Titanium	µg/L	µg/L	EPA200.8	



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake

Taiga Sample ID: 233014

Uranium	µg/L	µg/L	EPA200.8	
Vanadium	µg/L	µg/L	EPA200.8	16
Zinc	µg/L	µg/L	EPA200.8	16

Metals, Total

Aluminum	< 30 µg/L	30 µg/L	20-Sep-03	EPA200.8
Antimony	0.9 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Arsenic	< 1 µg/L	1 µg/L	25-Aug-03	SM3113:B
Barium	15.5 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Beryllium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Cadmium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Cesium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Chromium	48.8 µg/L	0.3 µg/L	20-Sep-03	EPA200.8
Cobalt	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Copper	64.4 µg/L	0.2 µg/L	20-Sep-03	EPA200.8
Iron	869 µg/L	30 µg/L	28-Aug-03	SM3111:B
Lead	27.8 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Lithium	1.8 µg/L	0.3 µg/L	20-Sep-03	EPA200.8
Manganese	28.3 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Molybdenum	0.5 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Nickel	3.8 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Rubidium	1.5 µg/L	0.1 µg/L	20-Sep-03	EPA200.8



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TM

- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake

Taiga Sample ID: 233014

Selenium	< 1 µg/L	1 µg/L	20-Sep-03	EPA200.8
Silver	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Strontium	68.2 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Thallium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Titanium	1.3 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Uranium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Vanadium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Zinc	213 µg/L	10 µg/L	18-Nov-03	EPA200.8

Subcontracted Organics

Phenols	1.3 µg/L	0.5 µg/L	18-Sep-03	SM5530:C
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* Taiga analytical methods are based on the following standard analytical methods

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

- DATA QUALIFIERS -

Data Qualifier Descriptions:

1st - ANALYST ERROR - FAILURE TO RECORD MEASUREMENT

requested but no sample bottle received

ling time exceeded upon receipt of sample

Ortho-Phosphate > Total Phosphorous due to sample



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Tel: (867)-669-2788 Fax: (867)-669-2718



- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lk

Taiga Sample ID: 233015

Client Project:

Sample Type: drinking water

Received Date: 25-Aug-03

Sampling Date: 20-Aug-03

Location: Rankin Inlet

Approved By

Helene Harper

Client Services Officer

Report Status: FINAL

Test Parameter	Result	Detection Limit	Analysis Date	Analytical Method *	Qualifer
Physicals					
Alkalinity	45.8 mg/L	0.3 mg/L	29-Aug-03	SM2320:B	
Colour	< 5	5	08-Sep-03	SM2120:B	
Conductivity, Specific (25 C)	247 µS/cm	0.3 µS/cm	29-Aug-03	SM2510:B	
pH	7.41 pH units	0.05 pH units	29-Aug-03	SM4500-H:B	
Solids, Total Dissolved	138 mg/L	10 mg/L	03-Sep-03	SM2540:C	
Solids, Total Suspended	8 mg/L	3 mg/L	03-Sep-03	SM2540:D	
Turbidity	1.9 NTU	0.1 NTU	08-Sep-03	SM2130:B	
Nutrients					
Ammonia as N	0.011 mg/L	0.005 mg/L	16-Sep-03	SM4500-NH3:G	
Biological Oxygen Demand	mg/L	mg/L		SM5210:B	
Nitrate as N	< 0.008 mg/L	0.008 mg/L	21-Jan-04	SM4500-NO3:F	
Nitrate+Nitrite as N	< 0.008 mg/L	0.008 mg/L	04-Sep-03	SM4500-NO3:F	
Nitrite as N	< 0.009 mg/L	0.009 mg/L	01-Sep-03	SM4500-NO2:B	

Report Date: Wednesday, January 28, 2004

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lk

Taiga Sample ID: 233015

Organic Carbon, Dissolved	3.9 mg/L	0.2 mg/L	15-Sep-03	EPA415.1
Organic Carbon, Total	3.7 mg/L	0.2 mg/L	15-Sep-03	EPA415.1
Ortho-Phosphate as P	0.004 mg/L	0.002 mg/L	04-Sep-03	SM4500-P:D
Phosphorous, Dissolved	0.023 mg/L	0.004 mg/L	09-Sep-03	SM4500-P:D
Phosphorous, Total	0.016 mg/L	0.002 mg/L	09-Sep-03	SM4500-P:D

Major Ions

Calcium	16.9 mg/L	0.05 mg/L	03-Sep-03	SM3111:B
Chloride	37.4 mg/L	0.2 mg/L	01-Sep-03	SM4500-Cl:-E
Fluoride	mg/L	mg/L		SM4500-F:C
Hardness as CaCO ₃	58.2 mg/L	0.17 mg/L	03-Sep-03	SM2340:B
Magnesium	3.88 mg/L	0.02 mg/L	03-Sep-03	SM3111:B
Potassium	2.18 mg/L	0.03 mg/L	05-Sep-03	SM3500-K:D
Silica, Reactive	0.56 mg/L	0.02 mg/L	08-Sep-03	SM4500-Si:D
Sodium	20.2 mg/L	0.02 mg/L	05-Sep-03	SM3500-Na:D
Sulphate	12 mg/L	3 mg/L	29-Aug-03	SM4500-SO4:F

Microbiology

Coliforms, Fecal	CFU/100mL	CFU/100mL	SM9222:D
Coliforms, Total	CFU/100mL	CFU/100mL	SM9222:B
Escherichia coli	CFU/100mL	CFU/100mL	SM9222:B
Fecal streptococcus	CFU/100mL	CFU/100mL	SM9230:C
Plate Count, Standard	CFU/mL	CFU/mL	SM9215:B



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lk

Taiga Sample ID: 233015

Metals, Dissolved

Aluminum	µg/L	µg/L	EPA200.8	
Antimony	µg/L	µg/L	EPA200.8	16
Arsenic	µg/L	µg/L	SM3113:B	
Barium	µg/L	µg/L	EPA200.8	
Beryllium	µg/L	µg/L	EPA200.8	
Cadmium	µg/L	µg/L	EPA200.8	
Cesium	µg/L	µg/L	EPA200.8	
Chromium	µg/L	µg/L	EPA200.8	
Cobalt	µg/L	µg/L	EPA200.8	
Copper	µg/L	µg/L	EPA200.8	
Iron	µg/L	µg/L	SM3111:B	
Lead	µg/L	µg/L	EPA200.8	
Lithium	µg/L	µg/L	EPA200.8	
Manganese	µg/L	µg/L	EPA200.8	
Molybdenum	µg/L	µg/L	EPA200.8	
Nickel	µg/L	µg/L	EPA200.8	
Rubidium	µg/L	µg/L	EPA200.8	
Selenium	µg/L	µg/L	EPA200.8	
Silver	µg/L	µg/L	EPA200.8	
Strontium	µg/L	µg/L	EPA200.8	



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lk

Taiga Sample ID: 233015

Thallium	µg/L	µg/L	EPA200.8
Titanium	µg/L	µg/L	EPA200.8
Uranium	µg/L	µg/L	EPA200.8
Vanadium	µg/L	µg/L	EPA200.8
Zinc	µg/L	µg/L	EPA200.8

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Metals, Total

Aluminum	< 30 µg/L	30 µg/L	20-Sep-03	EPA200.8
Antimony	0.6 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Arsenic	< 1 µg/L	1 µg/L	25-Aug-03	SM3113:B
Barium	15.5 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Beryllium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Cadmium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Cesium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Chromium	< 0.3 µg/L	0.3 µg/L	20-Sep-03	EPA200.8
Cobalt	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Copper	31.5 µg/L	0.2 µg/L	20-Sep-03	EPA200.8
Iron	33 µg/L	30 µg/L	28-Aug-03	SM3111:B
Lead	0.4 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Lithium	2.1 µg/L	0.3 µg/L	20-Sep-03	EPA200.8
Manganese	16.5 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Molybdenum	0.4 µg/L	0.1 µg/L	20-Sep-03	EPA200.8



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lk

Taiga Sample ID: 233015

Nickel	3.2 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Rubidium	1.7 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Selenium	< 1 µg/L	1 µg/L	20-Sep-03	EPA200.8
Silver	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Strontium	85.7 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Thallium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Titanium	0.2 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Uranium	< 0.1 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Vanadium	0.8 µg/L	0.1 µg/L	20-Sep-03	EPA200.8
Zinc	13 µg/L	10 µg/L	20-Sep-03	EPA200.8

Subcontracted Organics

Phenols	< 0.5 µg/L	0.5 µg/L	18-Sep-03	SM5530:C
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*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

- DATA QUALIFIERS -

Data Qualifier Descriptions:

*analyst error unable to repeat measurement
if requested but no sample bottle received
if sample*

33 Ortho-Phosphate > Total Phosphorous due to sample



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Rankin Inlet NWTP

Taiga Sample ID: 234270

Client Project:

Sample Type: sewage

Received Date: 02-Oct-03

Location: Rankin Inlet

Sampling Date: 01-Oct-03

Report Status: Final

Approved by:

Hilene Harper

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
Physicals					
Alkalinity	282	mg/L	0.3	26-Nov-03	
Colour	80		5	28-Oct-03	
Conductivity, Specific	953	µS/cm	0.3	28-Oct-03	
pH	7.29	pH units	0.05	28-Oct-03	
Solids, Total Dissolved	256	mg/L	10	06-Oct-03	
Solids, Total Suspended	144	mg/L	3	06-Oct-03	
Turbidity	116	NTU	0.1	09-Oct-03	
Nutrients					
Ammonia as N	27.9	mg/L	0.005	15-Oct-03	
Biological Oxygen Demand	196	mg/L	2	03-Oct-03	
Nitrate as N		mg/L			
Nitrate+Nitrite as N	< 0.008	mg/L	0.008	15-Oct-03	
Nitrite as N	0.016	mg/L	0.009	06-Oct-03	
Organic Carbon, Dissolved	57.9	mg/L	0.2	20-Oct-03	
Organic Carbon, Total	109	mg/L	0.2	20-Oct-03	
Ortho-Phosphate as P	4.66	mg/L	0.002	07-Oct-03	



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Rankin Inlet NWTP

Taiga Sample ID: 234270

Phosphorous, Dissolved	5.35	mg/L	0.004	08-Oct-03
Phosphorous, Total	7.17	mg/L	0.002	08-Oct-03

Major Ions

Calcium	24.3	mg/L	0.02	06-Oct-03
Chloride	66.0	mg/L	0.2	14-Oct-03
Fluoride		mg/L		17-Oct-03
Hardness	85.4	mg/L	0.1	06-Oct-03
Magnesium	5.99	mg/L	0.02	06-Oct-03
Potassium	13.4	mg/L	0.007	06-Oct-03
Silica, Reactive	3.54	mg/L	0.02	15-Oct-03
Sodium	57.9	mg/L	0.02	06-Oct-03
Sulphate	31	mg/L	3	09-Oct-03

Microbiology

Coliforms, Fecal	3530000	CFU/100mL	10000	02-Oct-03
Coliforms, Total	19900000	MPN/100mL	10000	02-Oct-03
Escherichia coli	2480000	MPN/100mL	10000	02-Oct-03
Fecal streptococcus	1250000	CFU/100mL	10000	02-Oct-03
Plate Count, Standard	7380	MPN/10mL	20.0	02-Oct-03

Organic

Oil and Grease	42.7	mg/L	0.2	06-Oct-03
Oil and Grease (Visible)	non-vis			06-Oct-03

Metals, Total



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Rankin Inlet NWTP

Taiga Sample ID: 234270

Aluminum	2660	µg/L	30	06-Nov-03
Antimony	1.2	µg/L	0.1	06-Nov-03
Arsenic	< 1	µg/L	1	14-Oct-03
Barium	24.7	µg/L	0.1	06-Nov-03
Beryllium	< 0.1	µg/L	0.1	06-Nov-03
Cadmium	0.1	µg/L	0.1	06-Nov-03
Cesium	0.1	µg/L	0.1	06-Nov-03
Chromium	2.5	µg/L	0.3	06-Nov-03
Cobalt	2.2	µg/L	0.1	06-Nov-03
Copper	157	µg/L	0.2	06-Nov-03
Iron	534	µg/L	30	17-Oct-03
Lead	3.4	µg/L	0.1	06-Nov-03
Lithium	4.5	µg/L	0.3	06-Nov-03
Manganese	61.5	µg/L	0.1	06-Nov-03
Molybdenum	0.9	µg/L	0.1	06-Nov-03
Nickel	5.2	µg/L	0.1	06-Nov-03
Rubidium	12.7	µg/L	0.1	06-Nov-03
Selenium	< 1	µg/L	1	06-Nov-03
Silver	0.1	µg/L	0.1	06-Nov-03
Strontium	120	µg/L	0.1	06-Nov-03
Thallium	< 0.1	µg/L	0.1	06-Nov-03
Titanium	9.2	µg/L	0.1	06-Nov-03
Uranium	0.3	µg/L	0.1	06-Nov-03



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- CERTIFICATE OF ANALYSIS -

Prepared For: GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Attn: Amil Lindsay

Sample ID: Rankin Inlet NWTP

Taiga Sample ID: 234270

Vanadium	0.5	µg/L	0.1	06-Nov-03
Zinc	100	µg/L	10	06-Nov-03

Subcontracted Organics

Phenols	29.0	µg/L	0.5	22-Oct-03
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Data Qualifier Descriptions:

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**- FINAL REPORT -****Prepared For:** GNWT / DPW & S, Rankin

Rankin Inlet Regional Office

Address: Bag 002

Rankin Inlet, NT

X0C 0G0

Attn: Amil Lindsay**Facimile:** (867) 645-8197**Final report has been reviewed and approved by:****Helene Harper****Client Services Officer****NOTES:**

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Standards Council of Canada (SCC) as a testing laboratory for specific tests registered with the Council.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake**Taiga Sample ID:** 234271**Client Project:****Sample Type:** freshwater**Received Date:** 02-Oct-03**Sampling Date:** 01-Oct-03**Location:** Rankin Inlet**Report Status:** FINAL**Approved By**

Helene Harper
Helene Harper
Client Services Officer

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
Physicals						
Alkalinity	50.8	0.3	mg/L	28-Oct-03	SM2320:B	
Colour	5	5		28-Oct-03	SM2120:B	
Conductivity, Specific (25 C)	276	0.3	µS/cm	28-Oct-03	SM2510:B	
pH	7.86	0.05	pH units	28-Oct-03	SM4500-H:B	
Solids, Total Dissolved	140	10	mg/L	06-Oct-03	SM2540:C	
Solids, Total Suspended	< 3	3	mg/L	06-Oct-03	SM2540:D	
Turbidity	1.6	0.1	NTU	09-Oct-03	SM2130:B	
Nutrients						
Ammonia as N	0.011	0.005	mg/L	15-Oct-03	SM4500-NH3:G	



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake

Taiga Sample ID: 234271

Silica, Reactive	0.12	0.02	mg/L	15-Oct-03	SM4500-Si:D
Sodium	24.2	0.02	mg/L	06-Oct-03	
Sulphate	19	3	mg/L	09-Oct-03	SM4500-SO4:F

Microbiology

Coliforms, Fecal	1	1	CFU/100mL	02-Oct-03	SM9222:D
Coliforms, Total	7.4	1.0	MPN/100mL	02-Oct-03	SM9223:B
Escherichia coli	2.0	1.0	MPN/100mL	02-Oct-03	SM9223:B
Fecal streptococcus	5	1	CFU/100mL	02-Oct-03	SM9230:C
Plate Count, Standard	11.6	0.2	MPN/10mL	02-Oct-03	SM9215:B

Metals, Total

Aluminum	< 30	30	µg/L	06-Nov-03	EPA200.8
Antimony	0.8	0.1	µg/L	06-Nov-03	EPA200.8
Arsenic	1	1	µg/L	06-Oct-03	SM3113:B
Barium	16.4	0.1	µg/L	06-Nov-03	EPA200.8
Beryllium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Cadmium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Nipissar Lake

Taiga Sample ID: 234271

Cesium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Chromium	< 0.3	0.3	µg/L	06-Nov-03	EPA200.8
Cobalt	1.6	0.1	µg/L	06-Nov-03	EPA200.8
Copper	34.5	0.2	µg/L	06-Nov-03	EPA200.8
Iron	322	30	µg/L	17-Oct-03	SM3111:B
Lead	9.1	0.1	µg/L	06-Nov-03	EPA200.8
Lithium	2.1	0.3	µg/L	06-Nov-03	EPA200.8
Manganese	15.8	0.1	µg/L	06-Nov-03	EPA200.8
Molybdenum	0.4	0.1	µg/L	06-Nov-03	EPA200.8
Nickel	1.7	0.1	µg/L	06-Nov-03	EPA200.8
Rubidium	1.8	0.1	µg/L	06-Nov-03	EPA200.8
Selenium	< 1	1	µg/L	06-Nov-03	EPA200.8
Silver	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Strontium	83.7	0.1	µg/L	06-Nov-03	EPA200.8
Thallium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8

**Taiga Environmental Laboratory**

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**- CERTIFICATE OF ANALYSIS -****Client Sample ID: Nipissar Lake****Taiga Sample ID: 234271**

Titanium	0.1	0.1	µg/L	06-Nov-03	EPA200.8
Uranium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Vanadium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Zinc	89	10	µg/L	06-Nov-03	EPA200.8

Subcontracted Organics

Phenols	0.9	0.5	µg/L	20-Oct-03	SM5530:C
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*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lake T/P

Taiga Sample ID: 234272

Client Project:

Sample Type: drinking water

Received Date: 02-Oct-03

Sampling Date: 01-Oct-03

Location: Rankin Inlet

Report Status: FINAL

Approved By

Helen Harper

Helen Harper

Client Services Officer

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
Physicals						
Alkalinity	45.3	0.3	mg/L	28-Oct-03	SM2320:B	
Colour	5	5		28-Oct-03	SM2120:B	
Conductivity, Specific (25 C)	277	0.3	µS/cm	28-Oct-03	SM2510:B	
pH	7.80	0.05	pH units	28-Oct-03	SM4500-H:B	
Solids, Total Dissolved	144	10	mg/L	06-Oct-03	SM2540:C	
Solids, Total Suspended	< 3	3	mg/L	06-Oct-03	SM2540:D	
Turbidity	1.2	0.1	NTU	09-Oct-03	SM2130:B	
Nutrients						
Ammonia as N	0.006	0.005	mg/L	15-Oct-03	SM4500-NH3:G	
Biological Oxygen Demand	< 2	2	mg/L	03 Oct 03	EM5210:B	

Report Date: Wednesday, February 11, 2004

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lake T/P

Taiga Sample ID: 234272

Nitrate as N	< 0.008	0.008	mg/L	02-Dec-03	SM4500-NO3:F
Nitrate+Nitrite as N	< 0.008	0.008	mg/L	15-Oct-03	SM4500-NO3:F
Nitrite as N	< 0.009	0.009	mg/L	06-Oct-03	SM4500-NO2:B
Organic Carbon, Dissolved	4.8	0.2	mg/L	20-Oct-03	EPA415.1
Organic Carbon, Total	4.3	0.2	mg/L	20-Oct-03	EPA415.1
Ortho-Phosphate as P	< 0.002	0.002	mg/L	07-Oct-03	SM4500-P:D
Phosphorous, Dissolved	0.004	0.004	mg/L	08-Oct-03	SM4500-P:D
Phosphorous, Total	0.010	0.002	mg/L	08-Oct-03	SM4500-P:D
Major Ions					
Calcium	18.9	0.02	mg/L	06-Oct-03	
Chloride	39.5	0.2	mg/L	14-Oct-03	SM4500-Cl:E
Fluoride	1.27	0.03	mg/L	17-Oct-03	SM4500-F:C
Hardness	65.0	0.1	mg/L	06-Oct-03	
Magnesium	4.31	0.02	mg/L	06-Oct-03	
Potassium	2.41	0.007	mg/L	06-Oct-03	
Silica, Reactive	0.88	0.02	mg/L	15-Oct-03	SM4500-Si:D

Report Date: Wednesday, February 11, 2004

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CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lake T/P

Taiga Sample ID: 234272

Sodium	24.0	0.02	mg/L	06-Oct-03	
Sulphate	13	3	mg/L	21-Oct-03	SM4500-SO4:F

Microbiology

Coliforms, Fecal	< 1	1	CFU/100mL	02-Oct-03	SM9222:D
Coliforms, Total	< 1.0	1.0	MPN/100mL	02-Oct-03	SM9223:B
Escherichia coli	< 1.0	1.0	MPN/100mL	02-Oct-03	SM9223:B
Fecal streptococcus	< 1	1	CFU/100mL	02-Oct-03	SM9230:C
Plate Count, Standard	< 0.2	0.2	MPN/10mL	02-Oct-03	SM9215:B

Metals, Total

Aluminum	< 30	30	µg/L	06-Nov-03	EPA200.8
Antimony	0.4	0.1	µg/L	06-Nov-03	EPA200.8
Arsenic	1	1	µg/L	06-Oct-03	SM5113:B
Barium	16.1	0.1	µg/L	06-Nov-03	EPA200.8
Beryllium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Cadmium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Cesium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8



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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lake T/P

Taiga Sample ID: 234272

Chromium	< 0.3	0.3	µg/L	06-Nov-03	EPA200.8
Cobalt	1.0	0.1	µg/L	06-Nov-03	EPA200.8
Copper	29.2	0.2	µg/L	06-Nov-03	EPA200.8
Iron	< 30	30	µg/L	17-Oct-03	SM3111:B
Lead	0.3	0.1	µg/L	06-Nov-03	EPA200.8
Lithium	2.0	0.3	µg/L	06-Nov-03	EPA200.8
Manganese	7.9	0.1	µg/L	06-Nov-03	EPA200.8
Molybdenum	0.3	0.1	µg/L	06-Nov-03	EPA200.8
Nickel	2.5	0.1	µg/L	06-Nov-03	EPA200.8
Rubidium	1.8	0.1	µg/L	06-Nov-03	EPA200.8
Selenium	< 1	1	µg/L	06-Nov-03	EPA200.8
Silver	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Strontium	82.7	0.1	µg/L	06-Nov-03	EPA200.8
Thallium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Titanium	0.1	0.1	µg/L	06-Nov-03	EPA200.8

Report Date: Wednesday, February 11, 2004

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Taiga Environmental Laboratory

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- CERTIFICATE OF ANALYSIS -

Client Sample ID: Williamson Lake T/P

Taiga Sample ID: 234272

Uranium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Vanadium	< 0.1	0.1	µg/L	06-Nov-03	EPA200.8
Zinc	11	10	µg/L	06-Nov-03	EPA200.8

Subcontracted Organics

Phenols	< 0.5	0.5	µg/L	20-Oct-03	SM5530:C
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* Taiga analytical methods are based on the following standard analytical methods

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency