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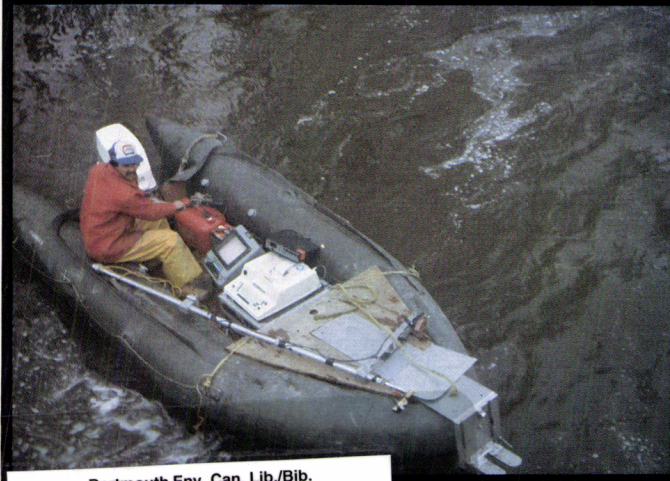
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Canada-Newfoundland Water Quality Monitoring Agreement

IWD-AR-WQB-171-91

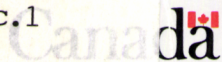


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CANADA-NEWFOUNDLAND WATER QUALITY

MONITORING AGREEMENT :

Quality Assurance/Quality Control Program:
Results from the First Two
Years of Monitoring

IWD - AR - WQB - 171 - 91

by

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EXECUTIVE SUMMARY

The measurement of water quality parameters requires strict compliance to quality assurance/quality control (QA/QC) procedures, to assure the reliability of the data recorded. With the implementation of the Canada-Newfoundland Water Quality Monitoring Agreement, a QA/QC program is included with the regular monitoring. This evaluation of the QA/QC results of the first two years of monitoring reveals high quality Agreement data, except for some specific problems. It is suggested that the present QA/QC program should be maintained, as it brings credibility to all data gathered under this monitoring program. The problem areas identified in this report will be looked at closely in the future.

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ABSTRACT

The QA/QC data produced during the first two years of the Canada-Newfoundland Water Quality Monitoring Agreement are presented and analyzed in this report. QA/QC data come from sequential triplicate samples and preservation blanks. The results are evaluated in light of established guidelines for acceptable detection and variability, respectively. Copper, aluminum and total phosphorus were detected in some preservation blanks, while reproducibility was low for total copper, dissolved nitrate-nitrite and total phosphorus in the triplicate samples. The problems observed for copper and for phosphorus suggest the possibility of sample contamination. Still, 88 percent of the total triplicate tests done conformed to acceptable variability.

RÉSUMÉ

Ce rapport présente les données du programme de contrôle/assurance de la qualité de l'Accord Canada-Terre-Neuve relativement à la surveillance continue de la qualité des eaux recueillies pendant les deux premières années du programme. Ces données proviennent de témoins de préservation et d'échantillons triples séquentiels. Elles ont été comparées aux limites établies en regard respectivement de la détection et de la variabilité. Le cuivre total, l'aluminium total et le phosphore total ont été régulièrement détectés dans les témoins de préservation. Le cuivre total, les nitrites-nitrates dissous et le phosphore total ont démontré peu de reproductibilité, selon les résultats d'analyses dans les échantillons triples. Les problèmes observés pour le cuivre et le phosphore suggèrent une possibilité de contamination. Néanmoins, 88% des échantillons triples séquentiel analysés se sont conformés aux niveaux de variabilité tolérable.

ACKNOWLEDGEMENTS

The authors wish to extend their appreciation to Newfoundland field officers Gerry Collins, Ian MacCallum and Leonard Vassallo, and to the staff of the National Water Quality Laboratory (NWQL) in Burlington and the Atlantic Region Water Quality Laboratory in Moncton for their conscientious work in gathering reliable QA/QC data. Special gratitude is also extended to Paul Belliveau, Evan Watt and Joseph Pomeroy for their insightful review, and to Louise Boulter and Denise Fowler for typing the report.

1.0 INTRODUCTION

In April 1986, Environment Canada and the Newfoundland Department of Environment and Lands signed the Canada-Newfoundland Water Quality Monitoring Agreement. This Agreement is a cost/work shared arrangement established to achieve an efficient and comprehensive water quality monitoring program in Newfoundland. The planning, operation and management of this Agreement is the responsibility of the Water Quality Branch of Environment Canada and the Water Resources Division of the Newfoundland Department of Environment and Lands.

Both parties involved agreed to implement an appropriate quality assurance/quality control (QA/QC) program to ensure and verify the quality of the data generated. The implications of such a program affect both field and laboratory procedures, and its success requires adherence by both parties to strict guidelines.

The program includes sequential triplicate sampling for approximately 10% of all samples, and the preparation of preservation blanks for both metals and total phosphorus (chemically preserved variables). These QA/QC samples are analyzed with the regular samples.

This report is intended to document and evaluate the QA/QC results accumulated during the first two years of monitoring. In addition, the variability of field and laboratory values for pH and specific conductance from the second year of monitoring will be compared with the previous year's results.

2.0 METHODS

Water samples were collected as described in Sampling for Water Quality (WQB, 1983). Field officers conformed to the QA/QC protocol outlined by Arseneault and Howell (1987).

The sequential triplicate sampling follows a predetermined rotational schedule that selects the stations to be replicated. This design feature avoids any possible bias for easily accessible stations.

The analytical work was done at the National Water Quality Laboratory (NWQL) in Burlington, Ontario. The analytical methodologies are described in the Analytical Methods Manual (WQB, 1981), and the laboratory QA/QC program is as defined by Agemian (1986). The variable listing for the Canada-Newfoundland Water Quality Monitoring Agreement is given in Table 1.

3.0 RESULTS AND DISCUSSION

3.1 Comparison Between Field and Laboratory Values

Results presented in this section are the field and laboratory values for pH and specific conductance measured during the second year of monitoring, August 1987 to August 1988. The degree of similarity observed has been compared with the results of the first year of monitoring (Roussel and Arseneault, 1988).

3.1.1 Delta pH

Delta pH was calculated by subtracting the laboratory pH value from the field pH value. Fig. 1 shows the results by month from August 1987 to August 1988 for all Newfoundland Agreement stations. The results of the first three months demonstrated considerable differences between field and laboratory measurements, median values ranged from 0.38 to 0.55 pH unit. However, the rest of the year showed quite acceptable data. When comparing these data with the previous year's data (Roussel and Arseneault, 1988), they show similar behaviors. The majority of the delta pH data (field pH - laboratory pH) is higher than 0, indicating frequently greater field pH values in comparison to laboratory values. The medians of delta pH usually did not exceed the maximum acceptable criteria of 0.3 pH unit, as defined by the quality assurance program.

For the results that did not comply to the 0.3 pH unit criteria, further analysis was applied to the data to determine if the differences depended on the field officers or on the stations. It was found that none of the regions (different field officers) showed higher delta pH values when compared with the others. However, only seven of the 49 stations had a median delta pH greater than 0.3 pH unit. These stations are identified as 00NF02YL0013, 00NF02ZA0006, 00NF02ZM0009, 00NF02ZM0014, 00NF02ZM0020, 00NF02YL0012 and 00NF02YQ0005. Except for the last two stations, these sites are located in waters of high conductivity. The medians associated with these stations were all positive, indicating lower pH readings recorded at the laboratory. Temporal pH changes in samples containing greater dissolved and/or particulate matter than others are expected because of chemical reactions and bacteriological activity within samples. In addition, CO₂ uptake during sample storage may have affected low conductivity samples more seriously; therefore, the delta pH recorded are most likely indicative of true pH changes in these samples.

3.1.2 Delta Specific Conductance

Delta specific conductance was calculated by subtracting the laboratory sample specific conductance value from the field sample value. The results of delta specific conductance during the second year of monitoring are shown in Figure 2. The medians are all near zero, and only a few individual delta specific conductance values

deviated. Further investigation of these results revealed that the outlying delta specific conductance values were either due to normal variability in very high conductivity waters or to errors in data management. Most of the data management errors, such as obvious switching of values between samples or incorrect data entry, were corrected and do not appear in Figure 2. Some differences were more ambiguous, and so remain to avoid any possibility of data manipulation.

In conclusion, the field and laboratory conductivity measurements taken during the second year offered reliable data, as had been observed during the first year of monitoring (Roussel and Arseneault, 1988).

3.2 Preservation Blanks

Preservation blanks are prepared to verify if any contamination occurred during transportation and handling (random contamination); to check on the cleanliness of sample containers, and to verify the purity of chemical preservatives (Gaskin, 1988). If significant detections occur for certain variables analyzed in blanks, there is a strong possibility that the regular samples have also been altered.

Under the Canada-Newfoundland Water Quality Monitoring Agreement, the preparation of preservation blanks was slightly modified in 1987 from the regular WQB procedure explained by

Arseneault and Howell (1987). Regional field officers now send, along with their regular shipment of water samples, a set of empty bottles to the NWQL. A laboratory technician prepares preservation blanks by filling the empty bottles with distilled water and adding the necessary preservative; while, at the same time, preserving the regular water samples. Besides providing the usual information of preservation blanks, this method ensures that empty bottles are always available at the NWQL for the preparation of preservation blanks.

Analytical results of 48 preservation blanks are shown in Table 2. In most cases, blank contamination problems were not observed; however, total phosphorus, aluminum, copper and iron were frequently detected at a magnitude greater than the detection limit. Some of these levels may occur naturally in water, but certain values were too high to be considered normal in distilled water.

Copper measurements at the Index Stations were found to fluctuate around 0.0020 mg/L (Technical Subcommittee, 1988). However, a maximum of 0.0053 mg/L of copper was measured in the blanks, and copper contamination is suspected. Similarly, total aluminum values for Index Stations were sometimes lower in regular samples than the maximum of 0.037 mg/L of aluminum measured in preservation blanks. On the other hand, iron levels in the blanks could not be considered contaminated, since they were usually one magnitude lower than the levels measured in regular samples. Total

phosphorus contamination in preservation blanks may have occurred since the maximum was 0.0030 mg/L.

A separate preservation study was conducted in the Exploits River Basin in May 1988. Samples were preserved either in the field or in the laboratory, to see if the preservation location had any effect on the levels of total phosphorus and metals measured. The analyses were done at the Atlantic Region Water Quality Laboratory in Moncton (Table 3). Parameter codes ending with "P" indicate that the sample was preserved in the field, while the laboratory-preserved samples have parameter codes ending with "L". There were no mercury samples preserved in the field. As can be seen from this table, concentrations of studied parameters were generally very low (near respective detection limits).

Statistical comparisons were made between field and laboratory preserved samples. The difference in studied parameters between the two locations were insignificant (T-test or Wilcoxon, $P < 0.05$, $n=11$). A few preservation blanks were also prepared during this study, and most values were found to be lower than detection limits. Only one higher value, 0.096 mg/L of aluminum was detected in a blank.

In summary, preservation blanks showed the occurrence of possible laboratory contamination for total copper, total aluminum and total phosphorus. The analysis of sequential triplicate sample data may bring additional information on these parameters.

3.3 Sequential Triplicate Samples

Sequential triplicate sampling is part of the QA/QC program designed for the Canada-Newfoundland Water Quality Monitoring Agreement. This component helps to discern contamination and/or analytical problems, in addition to ensuring that the sampling is representative and that the data is properly managed (Arseneault and Howell, 1985; Arseneault, 1989).

As a general guideline used by Arseneault and Howell (1985), triplicate samples should not have results that vary more than 10%. However, parameters that are present at levels close to the detection limit can have explainable variations of up to 50% or more. Therefore, when analyzing the results of triplicate samples, it is necessary to evaluate the degree of reproducibility and the absolute concentrations. The significance of the parameter for the project in question is also another factor to consider.

The results of triplicate samples for the first year of monitoring (August 1986 to August 1987) of the Canada-Newfoundland Agreement are shown in Table 4, the second year's data is shown in Table 5. Table 6 summarizes the data by displaying the means and the proportions of the data that did not comply to the less than 10% variability criteria within each triplicate samples. In 1986-1987, the triplicate samples represented 7.2% (39/542) of the total number of samples, and in 1987-1988, they represented 7% (49/741) of the total number of samples.

3.3.1 Physical Parameters

Both years, specific conductance and pH complied very well to the established criteria of acceptable variabilities. However, more than 15% of the samples had high variabilities for turbidity, apparent colour and total alkalinity. Since all turbidity measurements were low, natural variations will appear much more significant than they really are, while the low precision of the analytical method for water colour (5 R.U.) increases the apparent significance of the variability.

The consistency of total alkalinity values showed a noticeable improvement between the two years. Highly variable triplicate samples usually occurred at low alkalinities, which is not surprising at these low levels. After examining closely each set of triplicate samples, no major problems were revealed with this parameter.

3.3.2 Major Ions

According to summarized results in Table 6, all major ion concentrations (Ca, Mg, Na, K, Cl, SO₄) varied very little within triplicate samples for both years. Therefore, no problems are reported.

3.3.3 Heavy Metals

A total of 17 different metals were measured in the water samples. From these, barium, beryllium, iron, manganese, strontium and mercury all had low, acceptable variability within triplicate samples. Others, including cadmium, cobalt, chromium, lithium, molybdenum, nickel and vanadium, were frequently recorded with coefficients of variation greater than 10% within the triplicate samples, but concentrations were very close to the detection limit. Therefore, these parameters were not involved in further statistical analysis.

Copper, lead, zinc and aluminum had more than 15% of the triplicate samples that did not comply with the homogeneity criteria already set, although a greater percentage of aluminum results did comply during the second year of monitoring. Copper was also detected in preservation blanks, so both of these problems (triplicate sample inconsistency and preservation blank detection) point toward a bottle contamination problem. Roussel and Arseneault (1988) also reported similar problems with total copper values.

Since zinc and lead have not been detected in preservation blanks, it is unlikely that there is bottle contamination by these metals. However, since the number of samples was low (between 20 and 45) and the values cover a small range, factors such as natural variability (these two metals are ubiquitous), analytical

variability due to precision of method and data management (entry) errors may have affected a portion of the zinc and lead results.

3.3.4 Nutrients

Reactive silica, dissolved organic carbon and total nitrogen values were usually consistent within triplicate samples, suggesting no analytical problems. However, a higher proportion of total phosphorus and dissolved nitrate-nitrite results were found to vary more than 10% within triplicates. Nitrate-nitrite values may have been affected by the carry-over of nitric acid from the chromic-nitric acid bottle washing procedure, however, low variation in pH results refuted this speculation. When observing each triplicate set separately (Tables 4 and 5), only a few showed obvious irregularities. Accordingly, a consistent contamination source was ruled out as a possibility.

There are indications that total phosphorus contamination may have occurred in some Newfoundland samples, because discrepancies were detected in both preservation blanks and triplicate samples. However, some of the differences in total phosphorus values for triplicate samples were likely due to false data entry. In some cases, only one value differed from the other two similar values, and the odd value could easily have been wrongly entered when looking at the numbers. For instance, results of total phosphorus for one triplicate sample were 0.0073, 0.0035 and 0.0037 mg/L (Table 4).

3.3.5 Summary

The proportion of all yearly triplicate tests revealing coefficients of variation greater than 10% was calculated. This calculation excluded the results for metals which were always very close to the detection limit (Cd, Co, Cr, Li, Mo, Ni, Va). Each year, 12% of the total triplicate tests showed variability greater than 10%. In a previous report, Arseneault and Howell (1985) determined that only seven percent of the total triplicate tests in five different WQB projects did not comply to the same variability criteria used in this report. Slightly lower reproducibility in this study may have originated from the fact that Newfoundland waters are very dilute. However, variations in results close to the detection limits are considered normal and in some cases less significant than variations found with higher concentrations. Therefore, the overall consistency of this study's replicated results was judged as excellent. Very few cases of extreme variability were observed.

4.0 CONCLUSION

The evaluation of QA/QC data for the first two years of the Canada-Newfoundland Water Quality Monitoring Agreement has revealed problems in data consistency for some parameters, while accentuating the quality of the majority of the data. Most problems involved total phosphorus and total copper. Both were frequently detected in preservation blanks, and had high variabilities within triplicate samples for the two years of monitoring. While aluminum and iron were often detected in preservation blanks, they were not problems in the 1987-1988 triplicate data sets. Total alkalinity and nitrate-nitrite were often variable in the triplicate samples for the two years but the variability was judged normal, since natural deviations, poorer analytical precision at low levels and data entry errors will occur (Arseneault, 1989).

The comparison between field and laboratory values for pH and specific conductance was very good, revealing good QA/QC conformity. Higher conductivity waters demonstrated a decline in pH between field and laboratory readings.

In conclusion, the QA/QC results for the first two years of the Canada-Newfoundland Water Quality Monitoring Agreement has revealed that most of the data is of high quality, and that similar results were recorded for both years. Only two parameters, total copper and total phosphorus, may need to be monitored more closely.

The QA/QC data documented clearly show that the existing QA/QC procedures do not need to be modified, as the QA/QC data generated gives credibility to the Agreement database.

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FIG. 1. BOXPLOTS OF THE DIFFERENCES BETWEEN FIELD AND LAB PH VALUES
AT ALL AGREEMENT STATIONS DURING THE SECOND YEAR OF MONITORING

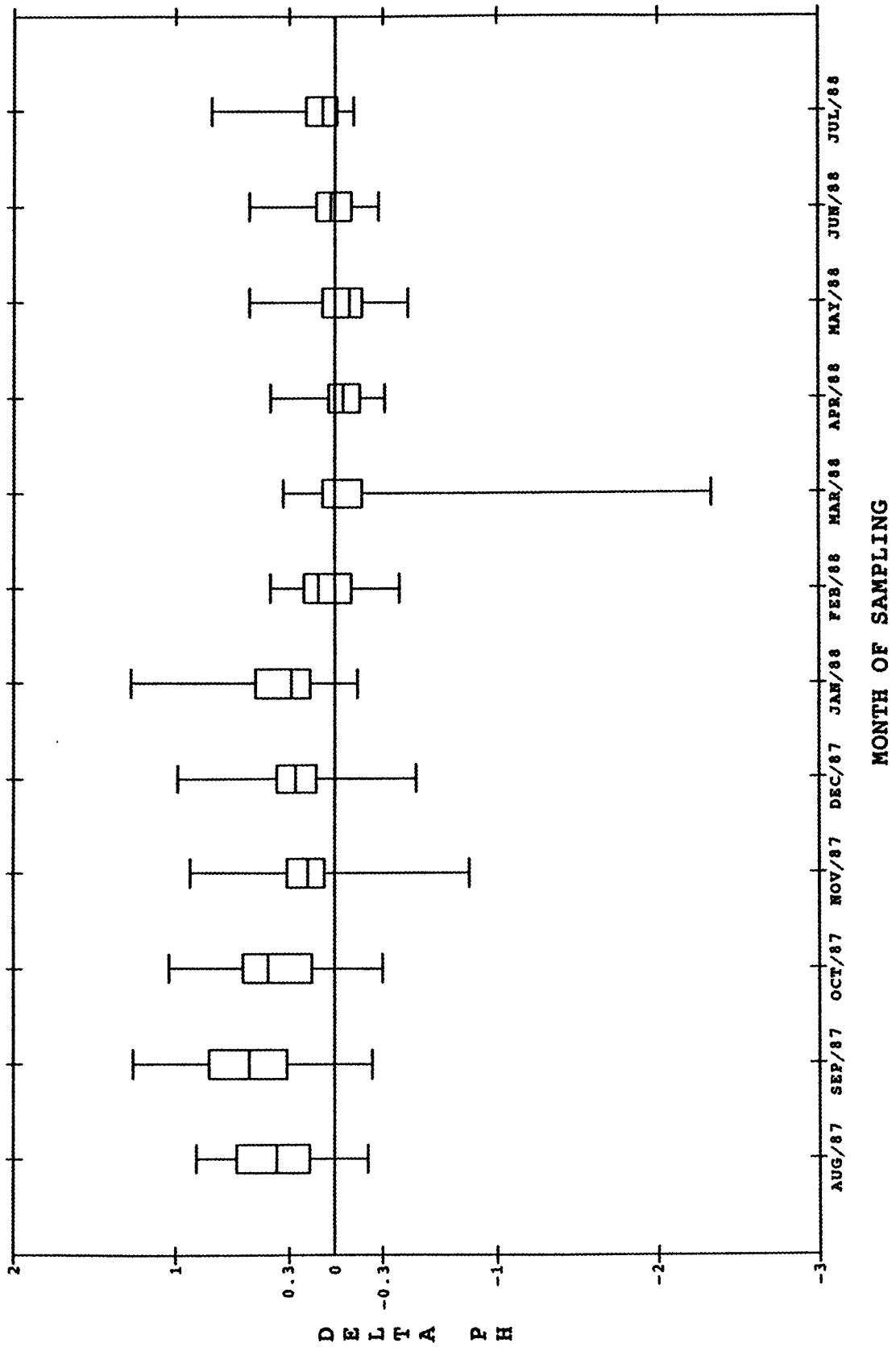


FIG. 2. BOXPLOTS OF THE DIFFERENCES BETWEEN FIELD AND LAB SPECIFIC CONDUCTANCE AT ALL AGREEMENT STATIONS DURING THE SECOND YEAR OF MONITORING

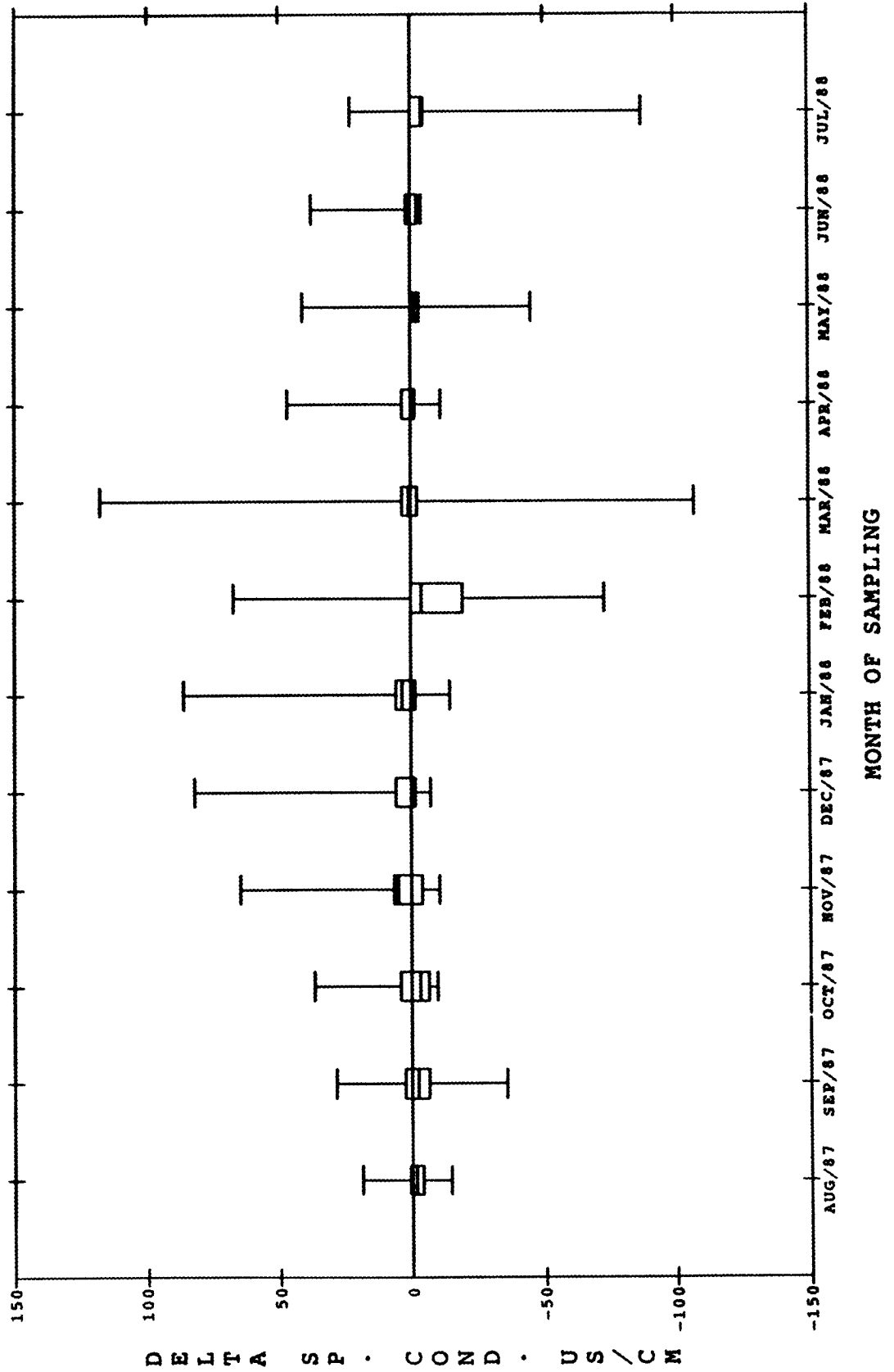


TABLE 1: Parameter listing of the Canada-Newfoundland Water Quality Monitoring Agreement for water samples

<u>NAQUADAT Codes</u>	<u>Description</u>	<u>Detection Limit</u>
06061S;01061L	Water Temperature (°C)	-
10301F;10301L	pH (pH units)	-
02041L;02042S	Specific Conductance (μ S/cm)	0.1
08102F	Dissolved Oxygen (mg/L)	-
02073L	Turbidity (JTU)	0.05
02011L	Colour apparent (Rel. Un.)	5
20103L	Calcium dissolved (mg/L)	0.05
12102L	Magnesium dissolved (mg/L)	0.01
19103L	Potassium dissolved (mg/L)	0.02
11103L	Sodium dissolved (mg/L)	0.1
10111L	Alkalinity total (mg/L)	0.1
10110L	Alkalinity Gran (mg/L)	-
14102L	Silica reactive (mg/L)	0.02
17209L	Chloride dissolved (I.C.) (mg/L)	0.01
16306L	Sulphate dissolved (MTB) (mg/L)	0.2
16309L	Sulphate dissolved (I.C.) (mg/L)	0.01
06104L	Organic Carbon dissolved (mg/L)	0.1
07651L	Nitrogen dissolved (mg/L)	0.025
07110L	Nitrate-Nitrite (mg/L)	0.005
15413P	Phosphorus total (mg/L)	0.0004
13009P	Aluminum total (mg/L)	0.002
56009P	Barium total (mg/L)	0.0002
48009P	Cadmium total (mg/L)	0.0001
27009P	Cobalt total (mg/L)	0.0001
24009P	Chromium total (mg/L)	0.0002
29009P	Copper total (mg/L)	0.0002
04010P	Beryllium total (μ g/L)	0.05
26009P	Iron total (mg/L)	0.0004
03009P	Lithium (mg/L)	0.0001
25010P	Manganese total (mg/L)	0.0001
42009P	Molybdenum total (mg/L)	0.0001
28009P	Nickel total (mg/L)	0.0002
38009P	Strontium total (mg/L)	0.0001
23009P	Vanadium total (mg/L)	0.0001
30009P	Zinc total (mg/L)	0.0002
80111P	Mercury total (μ g/L)	0.02
82009P	Lead total (mg/L)	0.0002

TABLE 2: RESULTS OF PRESERVATION BLANKS PREPARED DURING THE MONITORING OF THE
CANADA-NEWFOUNDLAND INDEX STATION NETWORK - REPORTED IN MG/L, UNLESS
OTHERWISE NOTED

STATION NUMBER	DATE	TOT. P 15413P	TOT. AL 13009P	TOT. BA 56009P	BE UG/L	TOT. CD 48009P	TOT. CO 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P
00NF02YL9900	29-DEC-87	L.0002	L.002	L.0002	L.05	L.0001	L.0001	L.0002	0.0003	L.0004
00NF02YL9900	18-JAN-88	0.0004	0.034	L.0002	L.05	L.0001	L.0001	0.0003	L.0002	0.0075
00NF02YL9900	15-FEB-88	0.0005	0.002	L.0002	L.05	L.0001	L.0001	0.0002	0.0006	0.0024
00NF02YL9900	29-FEB-88	0.0014	0.002	L.0002	L.05	L.0001	L.0001	0.0010	L.0002	L.0004
00NF02YL9900	11-APR-88	0.0007	0.006	L.0002	L.05	L.0001	L.0001	0.0004	L.0002	0.0005
00NF02YL9900	27-APR-88	0.0003	L.002	L.0002	L.05	L.0001	L.0001	L.0002	0.0002	0.0005
00NF02YL9900	09-MAY-88	0.0003	0.006	0.0006	L.05	L.0001	L.0001	L.0002	L.0002	0.0035
00NF02YL9900	24-MAY-88	L.0002	0.005	0.0007	L.05	L.0001	L.0001	L.0002	0.0018	0.0030
00NF02YL9900	13-JUN-88	L.0002	0.008	L.0002	L.05	L.0001	L.0001	L.0002	0.0011	0.0021
00NF02YL9900	21-JUN-88	L.0002	0.004	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0005
00NF02YL9900	31-JUL-88		L.002	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	L.0004
00NF02YL9900	16-MAR-88	0.0007	0.003	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0009
00NF02YL9900	23-MAR-88	0.0003	0.011	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0016
00NF02YL9900	14-DEC-87	L.0002	0.015	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0005
00NF02YD9900	09-DEC-87	0.0003	0.019	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0071
00NF02YD9900	21-DEC-87	0.0004	0.003	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	L.0004
00NF02YD9900	04-JAN-88	0.0005	L.002	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	L.0004
00NF02YD9900	18-JAN-88	0.0005	0.004	L.0002	L.05	L.0001	L.0001	L.0002	0.0003	0.0009
00NF02YD9900	15-FEB-88	0.0006	0.006	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0008
00NF02YD9900	29-FEB-88	0.0004	0.010	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0026
00NF02YD9900	11-APR-88	0.0007	0.027	L.0002	L.05	L.0001	0.0001	L.0002	0.0022	0.0050
00NF02YD9900	26-APR-88	0.0012	L.002	L.0002	L.05	L.0001	L.0001	L.0002	0.0028	0.0008
00NF02YD9900	09-MAY-88	0.0030	0.012	0.0002	L.05	L.0001	L.0001	0.0003	0.0002	0.0015
00NF02YD9900	30-MAY-88	0.0003	0.028	L.0002	L.05	L.0001	L.0001	0.0008	0.0005	0.0074
00NF02YD9900	08-JUN-88	L.0002	0.004	L.0002	L.05	L.0001	L.0001	L.0002	0.0013	0.0011
00NF02YD9900	28-JUN-88	L.0002	0.010	L.0002	L.05	L.0001	L.0001	L.0002	0.0003	0.0011
00NF02YD9900	12-JUL-88	L.0002	L.002	L.0002	L.05	L.0001	L.0001	L.0002	0.0006	0.0012
00NF02YD9900	20-JUL-88		0.007	L.0002	L.05	L.0001	L.0001	0.0002	0.0002	L.0004
00NF02YD9900	01-FEB-88	0.0011	L.002	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0007
00NF02YD9900	21-MAR-88	0.0003	0.004	L.0002	L.05	L.0001	0.0001	0.0002	0.0006	0.0008
00NF02YD9900	28-MAR-88	0.0015	L.002	L.0002	L.05	0.0003	L.0001	L.0002	L.0002	L.0004
00NF02ZH9900	15-DEC-87	0.0003	L.002	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0010
00NF02ZH9900	04-JAN-88	0.0006	0.004	L.0002	L.05	L.0001	L.0001	L.0002	0.0053	0.0033
00NF02ZH9900	09-FEB-88	0.0008	L.002	L.0002	L.05	L.0001	L.0001	0.0002	0.0008	0.0029
00NF02ZH9900	24-FEB-88	0.0006	0.002	0.0092	L.05	L.0001	L.0001	L.0002	0.0007	0.0025
00NF02ZH9900	29-MAR-88	0.0011	0.006	L.0002	L.05	L.0001	L.0001	L.0002	0.0005	0.0009
00NF02ZH9900	19-APR-88	0.0009	0.012	L.0002	L.05	L.0001	L.0001	L.0002	0.0002	0.0045
00NF02ZH9900	02-MAY-88	0.0007	0.020	0.0005	L.05	L.0001	L.0001	L.0002	0.0004	0.0026
00NF02ZH9900	09-MAY-88	0.0007	0.006	L.0002	L.05	L.0001	L.0001	L.0002	0.0003	0.0025
00NF02ZH9900	31-MAY-88	0.0004	0.037	0.0002	L.05	L.0001	L.0001	L.0002	0.0007	0.0098
00NF02ZH9900	14-JUN-88	L.0002	0.006	L.0002	L.05	L.0001	L.0001	L.0002	0.0011	0.0019
00NF02ZH9900	04-JUL-88	L.0002	0.004	L.0002	L.05	L.0001	L.0001	L.0002	0.0016	0.0011
00NF02ZH9900	18-JUL-88	L.0002	0.019	L.0002	L.05	L.0001	L.0001	L.0002	0.0010	0.0033
00NF02ZH9900	01-AUG-88		0.009	L.0002	L.05	L.0001	L.0001	L.0002	0.0005	0.0133
00NF02ZH9900	25-JAN-88	0.0006	0.007	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0020
00NF02ZH9900	27-JAN-88	0.0006	0.010	L.0002	L.05	L.0001	L.0001	L.0002	L.0002	0.0019
00NF02ZH9900	08-MAR-88		0.012	L.0002	L.05	L.0001	L.0001	L.0002	0.0006	0.0052
00NF02ZH9900	22-MAR-88	0.0003	L.002	L.0002	L.05	L.0001	L.0001	L.0002	0.0020	0.0007

TABLE 2: RESULTS OF PRESERVATION BLANKS PREPARED DURING THE MONITORING OF THE
CANADA-NEWFOUNDLAND INDEX STATION NETWORK - REPORTED IN MG/L, UNLESS
OTHERWISE NOTED

STATION NUMBER	DATE	TOT. LI 03009P	TOT. MN 25010P	TOT. MD 42009P	TOT. MI 28009P	TOT. PB 82009P	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG UG/L 80011P
00NF02YL9900	29-DEC-87	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0004	L.01
00NF02YL9900	18-JAN-88	0.0002	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	15-FEB-88	0.0002	0.0001	L.0001	L.0002	0.0005	L.0001	0.0002	0.0003	L.01
00NF02YL9900	29-FEB-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	11-APR-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	27-APR-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	09-MAY-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	24-MAY-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0004	L.01
00NF02YL9900	13-JUN-88	0.0001	L.0001	L.0001	L.0002	0.0003	L.0001	L.0001	L.0002	L.01
00NF02YL9900	21-JUN-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	31-JUL-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	16-MAR-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YL9900	23-MAR-88	0.0001	L.0001	L.0001	0.0003	0.0005	L.0001	0.0001	L.0002	L.01
00NF02YL9900	14-DEC-87	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YU9900	09-DEC-87	0.0002	0.0058	L.0001	L.0002	0.0004	L.0001	0.0001	0.0002	L.01
00NF02YU9900	21-DEC-87	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0003	L.01
00NF02YU9900	04-JAN-88	L.0001	L.0001	L.0001	0.0002	L.0002	L.0001	L.0001	0.0005	L.01
00NF02YU9900	18-JAN-88	0.0002	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0002	L.01
00NF02YU9900	15-FEB-88	L.0001	0.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YU9900	29-FEB-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0002	L.01
00NF02YU9900	11-APR-88	L.0001	L.0001	L.0001	L.0002	0.0002	L.0001	L.0001	0.0002	L.01
00NF02YU9900	26-APR-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0004	L.01
00NF02YU9900	09-MAY-88	L.0001	L.0001	L.0001	L.0002	0.0004	L.0001	L.0001	L.0002	L.01
00NF02YU9900	30-MAY-88	0.0001	0.0002	L.0001	0.0002	0.0002	L.0001	L.0001	0.0008	L.01
00NF02YU9900	08-JUN-88	L.0001	L.0001	L.0001	L.0002	0.0002	L.0001	0.0001	0.0005	L.01
00NF02YU9900	28-JUN-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02YU9900	12-JUL-88	L.0001	0.0001	L.0001	L.0002	0.0002	L.0001	L.0001	L.0002	L.01
00NF02YU9900	20-JUL-88	L.0001	L.0001	L.0001	0.0004	0.0002	L.0001	L.0001	L.0002	L.01
00NF02YU9900	01-FEB-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.02
00NF02YU9900	21-MAR-88	0.0002	L.0001	L.0001	0.0004	0.0005	0.0001	0.0002	L.0002	L.01
00NF02YU9900	28-MAR-88	0.0002	0.0002	L.0001	0.0003	0.0005	L.0001	0.0001	L.0002	L.01
00NF02ZH9900	15-DEC-87	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	04-JAN-88	0.0002	L.0001	L.0001	0.0003	0.0005	L.0001	L.0001	0.0008	L.01
00NF02ZH9900	09-FEB-88	0.0001	L.0001	L.0001	L.0002	0.0006	L.0001	0.0002	0.0002	L.01
00NF02ZH9900	24-FEB-88	L.0001	0.0002	L.0001	0.0002	0.0003	0.0002	0.0002	0.0002	L.01
00NF02ZH9900	29-MAR-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	0.01
00NF02ZH9900	19-APR-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	02-MAY-88	0.0009	L.0001	L.0001	L.0002	0.0003	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	09-MAY-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	31-MAY-88	0.0020	0.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0005	L.01
00NF02ZH9900	14-JUN-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	04-JUL-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	18-JUL-88	L.0001	0.0004	L.0001	L.0002	0.0003	L.0001	L.0001	0.0055	L.01
00NF02ZH9900	01-AUG-88	L.0001	0.0003	L.0001	L.0002	L.0002	L.0001	L.0001	0.0002	L.01
00NF02ZH9900	25-JAN-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	27-JAN-88	0.0004	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	L.0002	L.01
00NF02ZH9900	08-MAR-88	0.0001	L.0001	L.0001	L.0002	0.0003	0.0001	0.0002	0.0003	L.01
00NF02ZH9900	22-MAR-88	L.0001	L.0001	L.0001	L.0002	L.0002	L.0001	L.0001	0.0006	L.01

TABLE 3: RESULTS OF THE EXPLOITS RIVER PRESERVATION STUDY: MAY 1988
(RESULTS REPORTED IN MG/L, UNLESS OTHERWISE NOTED)

STATION #	DATE	TOT. P 15413L	TOT. P 15413P	TOT. CU 29305L	TOT. CU 29305P	TOT. ZN 30304L	TOT. ZN 30304P	TOT. CD 48302L	TOT. CD 48302P	TOT. PB 82302L
00NF02Y09900	10-MAY-88	-	-	-	L.002	-	L.01	-	L.001	-
00NF02Y09900	10-MAY-88	L.001	-	-	0.002	-	L.01	-	L.001	-
00NF02Y09900	10-MAY-88	L.001	-	-	L.002	-	L.01	-	L.001	-
00NF02Y09900	10-MAY-88	0.005	-	L.002	-	L.01	-	L.001	-	L.002
00NF02Y00044	10-MAY-88	0.003	0.004	0.002	0.003	0.02	0.02	L.001	L.001	0.004
00NF02Y00044	10-MAY-88	0.005	0.009	0.002	0.003	0.02	0.02	L.001	L.001	0.004
00NF02Y00044	10-MAY-88	0.004	0.005	0.002	0.003	0.02	0.02	L.001	L.001	0.003
00NF02Y00044	10-MAY-88	0.004	0.005	0.002	0.003	0.02	0.02	L.001	L.001	0.003
00NF02Y00044	10-MAY-88	0.005	0.006	0.002	0.003	0.02	0.02	L.001	L.001	0.003
00NF02Y00044	10-MAY-88	0.005	0.003	0.002	0.003	0.02	0.02	L.001	L.001	0.004
01NF02Y00022	10-MAY-88	0.006	0.004	0.002	0.003	0.02	0.02	L.001	L.001	0.004
01NF02Y00022	10-MAY-88	0.002	0.005	0.004	0.004	0.02	0.02	L.001	L.001	0.003
01NF02Y00022	10-MAY-88	0.002	0.004	0.002	0.003	0.02	0.02	L.001	L.001	0.004
01NF02Y00022	10-MAY-88	0.003	0.005	0.002	0.003	0.02	0.02	L.001	L.001	0.004
01NF02Y00022	10-MAY-88	0.003	0.006	0.002	0.002	0.02	0.02	L.001	L.001	0.003

STATION #	DATE	TOT. PB 82302P	TOT. AL 13305L	TOT. AL 13305P	TOT. FE 26304L	TOT. FE 26304P	TOT. MN 25304L	TOT. MN 25304P	H6 U6/L 80315L
00NF02Y09900	10-MAY-88	L.002	-	L.010	-	-	-	L.01	-
00NF02Y09900	10-MAY-88	L.002	-	L.010	-	-	-	L.01	-
00NF02Y09900	10-MAY-88	L.002	-	L.010	-	-	-	L.01	-
00NF02Y09900	10-MAY-88	-	0.096	-	0.11	-	L.01	-	L.02
00NF02Y00044	10-MAY-88	0.003	0.090	0.091	0.11	0.10	0.02	0.02	L.02
00NF02Y00044	10-MAY-88	0.003	0.082	0.091	0.09	0.09	0.02	0.02	L.02
00NF02Y00044	10-MAY-88	0.003	0.082	0.095	0.10	0.09	0.02	0.02	L.02
00NF02Y00044	10-MAY-88	0.003	0.080	0.093	0.11	0.10	0.02	0.03	L.02
00NF02Y00044	10-MAY-88	0.002	0.083	0.095	0.10	0.09	0.02	0.03	L.02
00NF02Y00044	10-MAY-88	0.003	0.083	0.088	0.07	0.09	0.02	0.03	L.02
01NF02Y00022	10-MAY-88	0.003	0.080	0.072	0.08	0.08	0.02	0.02	L.02
01NF02Y00022	10-MAY-88	0.003	0.078	0.075	0.08	0.08	0.02	0.02	-
01NF02Y00022	10-MAY-88	0.003	0.077	0.076	0.07	0.09	0.02	0.02	L.02
01NF02Y00022	10-MAY-88	0.002	0.078	0.078	0.10	0.08	0.02	0.02	L.02
01NF02Y00022	10-MAY-88	0.003	0.073	0.075	0.09	0.08	0.02	0.02	L.02

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	DIS. CA 20103L	DIS. MG 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SO4 MTB 16306L	SO4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L	PH LAB 10301L
00NF02YC0002	22-DEC-86	4.45	1.54	2.87	0.28	4.73	4.1	2.77	14.0	-	6.94
00NF02YC0002	22-DEC-86	4.42	1.54	2.85	0.27	4.74	3.9	2.90	12.6	-	6.88
00NF02YC0002	22-DEC-86	4.37	1.54	2.83	0.27	4.57	3.9	2.86	12.5	-	6.87
00NF02YE0004	22-DEC-86	3.67	1.47	3.54	0.27	5.78	3.0	2.17	11.4	-	6.89
00NF02YE0004	22-DEC-86	3.69	1.47	3.52	0.27	6.05	2.9	2.17	11.4	-	6.96
00NF02YE0004	22-DEC-86	3.75	1.47	3.59	0.28	5.87	2.9	2.18	10.7	-	6.85
00NF02YE0005	21-JAN-87	3.28	1.02	4.62	0.32	7.56	3.2	2.77	7.3	-	7.12
00NF02YE0005	21-JAN-87	3.20	1.01	4.59	0.32	7.32	3.3	2.78	7.5	-	7.09
00NF02YE0005	21-JAN-87	3.19	1.00	4.53	0.32	7.19	3.4	3.31	7.6	-	7.10
00NF02YB0001	03-OCT-86	1.36	0.60	2.46	0.22	3.69	4.8	1.14	-	-1.4	5.69
00NF02YB0001	03-OCT-86	1.34	0.60	2.46	0.22	3.71	4.8	1.25	-	-1.8	5.71
00NF02YB0001	03-OCT-86	1.35	0.60	2.45	0.22	3.78	4.9	1.17	-	-1.6	5.59
00NF02YB0001	08-JUL-87	0.97	0.43	2.99	0.34	4.05	2.5	1.27	1.9	-	6.31
00NF02YB0001	08-JUL-87	0.97	0.44	2.61	0.34	4.00	2.6	1.28	1.9	-	6.26
00NF02YB0001	08-JUL-87	0.97	0.44	2.60	0.34	4.03	2.6	1.31	1.8	-	6.30
00NF02YH0018	06-AUG-86	21.50	5.70	3.36	0.29	5.79	3.2	2.81	74.0	-	8.07
00NF02YH0018	06-AUG-86	21.50	5.60	3.36	0.30	5.74	3.3	2.65	75.1	-	8.24
00NF02YH0018	06-AUG-86	21.50	5.60	3.36	0.30	5.80	3.3	2.70	75.4	-	8.26
00NF02YH0018	16-JUL-87	22.10	5.90	3.98	0.32	7.22	3.5	2.94	74.1	-	8.02
00NF02YH0018	16-JUL-87	22.10	5.90	3.98	0.33	7.25	3.1	2.91	75.6	-	8.09
00NF02YH0018	16-JUL-87	22.10	5.90	3.99	0.32	7.27	3.1	2.90	76.1	-	8.09
00NF02YJ0001	09-APR-87	15.10	3.10	4.24	0.28	8.56	3.8	2.70	43.3	-	7.64
00NF02YJ0001	09-APR-87	15.00	3.10	4.21	0.29	8.60	3.7	2.73	43.4	-	7.63
00NF02YJ0001	09-APR-87	15.10	3.10	4.24	0.29	8.49	3.7	2.74	43.9	-	7.69
00NF02YJ0004	09-APR-87	23.10	3.10	4.46	0.28	8.86	3.8	3.32	63.4	-	7.72
00NF02YJ0004	09-APR-87	23.00	3.10	4.44	0.28	9.00	3.7	3.22	63.0	-	7.76
00NF02YJ0004	09-APR-87	23.10	3.10	4.42	0.28	8.79	3.7	3.17	63.5	-	7.77
00NF02YL0013	24-NOV-86	11.80	1.85	3.32	0.36	5.62	3.6	2.78	32.2	-	7.54
00NF02YL0013	24-NOV-86	11.50	1.86	3.31	0.36	5.48	3.5	2.58	31.8	-	7.60
00NF02YL0013	24-NOV-86	11.60	1.85	3.32	0.36	5.54	3.4	2.53	31.5	-	7.56
00NF02YM0003	14-JAN-87	3.75	1.51	2.45	0.25	3.91	3.3	1.70	11.7	-	6.79
00NF02YM0003	14-JAN-87	3.69	1.49	2.39	0.24	3.85	3.3	1.69	11.5	-	6.84
00NF02YM0003	14-JAN-87	3.70	1.50	2.38	0.24	3.79	3.3	1.66	11.0	-	6.85
00NF02YM0004	05-DEC-86	4.56	1.21	7.16	0.38	12.20	5.0	1.54	9.2	-	6.82
00NF02YM0004	05-DEC-86	4.59	1.21	7.16	0.38	12.10	5.0	1.53	9.7	-	6.87

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
REPORTED IN MG/L., UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	DIS. CA 20103L	DIS. MG 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SD4 MTB 16306L	SD4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L	PH LAB 10301L
00NF02YM0004	05-DEC-86	4.60	1.21	7.14	0.38	12.07	4.9	1.51	9.0	-	6.83
00NF02YN0001	21-MAY-87	1.45	0.37	1.97	0.21	3.19	2.4	1.38	3.0	-	6.39
00NF02YN0001	21-MAY-87	1.43	0.37	1.96	0.21	3.11	2.4	1.34	3.4	-	6.34
00NF02YN0001	21-MAY-87	1.45	0.37	1.98	0.21	3.07	2.4	1.33	4.4	-	6.46
00NF02YD0018	12-AUG-86	2.50	0.45	1.75	0.19	2.09	3.2	2.61	5.9	-	6.57
00NF02YD0018	12-AUG-86	2.52	0.46	1.77	0.19	2.10	3.3	2.58	6.0	-	6.49
00NF02YD0018	12-AUG-86	2.54	0.45	1.77	0.20	2.16	3.4	2.70	4.5	-	6.46
00NF02YD0019	04-JUN-87	2.40	0.39	1.43	0.17	1.98	2.9	2.24	4.0	-	6.62
00NF02YD0019	04-JUN-87	2.26	0.39	1.43	0.17	1.94	3.0	2.26	4.3	-	6.60
00NF02YD0019	04-JUN-87	2.25	0.39	1.43	0.17	1.92	3.0	2.30	3.9	-	6.57
00NF02YD0020	10-APR-87	1.86	0.40	2.21	0.21	3.45	3.1	1.31	2.7	-	6.22
00NF02YD0020	10-APR-87	1.86	0.40	2.24	0.21	3.42	3.2	1.23	3.0	-	6.22
00NF02YD0020	10-APR-87	1.86	0.40	2.24	0.21	3.46	3.1	1.23	3.1	-	6.25
00NF02YD0021	09-JUN-87	2.50	0.43	1.73	0.22	2.12	3.2	2.40	5.2	-	6.61
00NF02YD0021	09-JUN-87	2.51	0.44	1.73	0.21	2.14	3.2	2.49	5.0	-	6.56
00NF02YD0021	09-JUN-87	2.54	0.44	1.74	0.21	2.23	3.3	2.44	5.4	-	6.44
00NF02YQ0004	15-APR-87	1.18	0.54	1.69	0.28	2.37	3.3	1.04	1.7	-	6.17
00NF02YQ0004	15-APR-87	1.18	0.54	1.72	0.29	2.39	3.3	1.10	1.8	-	6.10
00NF02YQ0004	15-APR-87	1.18	0.54	1.75	0.29	2.39	3.3	1.12	2.0	-	6.07
00NF02YQ0006	30-OCT-86	1.27	1.13	1.72	0.18	2.65	4.0	1.14	3.8	-	6.01
00NF02YQ0006	30-OCT-86	1.28	1.16	1.70	0.17	2.59	3.9	1.22	3.0	-	6.10
00NF02YQ0006	30-OCT-86	1.26	1.13	1.73	0.18	2.46	3.9	1.14	3.2	-	6.07
00NF02YR0001	24-NOV-86	0.66	0.70	4.70	0.23	7.95	3.9	1.11	-	0.3	5.16
00NF02YR0001	24-NOV-86	0.66	0.70	4.72	0.23	7.97	4.0	1.13	-	0.4	5.14
00NF02YR0001	24-NOV-86	0.69	0.71	4.72	0.23	7.82	4.2	1.12	-	0.3	5.14
00NF02YS0001	21-MAY-87	0.75	0.31	1.24	0.19	1.49	2.8	0.77	-	1.3	5.92
00NF02YS0001	21-MAY-87	0.76	0.31	1.23	0.19	1.47	2.7	0.76	-	1.4	5.95
00NF02YS0001	21-MAY-87	0.76	0.31	1.24	0.19	1.49	2.8	0.74	-	1.4	5.91
00NF02YS0010	28-OCT-86	1.52	0.37	2.51	0.18	3.66	3.1	1.00	-	-	5.86
00NF02YS0010	28-OCT-86	1.53	0.37	2.52	0.18	3.68	3.1	1.06	-	-	5.88
00NF02YS0010	28-OCT-86	1.54	0.38	2.50	0.18	3.62	3.1	1.05	-	-	5.89
00NF02YS0011	09-JUL-87	0.93	0.33	1.48	0.25	1.77	2.4	0.77	1.9	-	6.23
00NF02YS0011	09-JUL-87	0.93	0.33	1.49	0.28	1.77	2.4	0.80	2.3	-	6.20
00NF02YS0011	09-JUL-87	0.92	0.33	1.50	0.26	1.73	2.3	0.85	2.0	-	6.21

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	DIS. CA 20103L	DIS. MS 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SO4 MTB 16306L	SO4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L	PH LAB 10301L
00NF02YS0012	24-MAR-87	0.71	0.46	1.34	0.35	2.13	4.9	0.99	-	1.3	5.39
00NF02YS0012	24-MAR-87	0.70	0.46	1.33	0.35	1.93	5.0	0.97	-	1.3	5.37
00NF02YS0012	24-MAR-87	0.71	0.46	1.34	0.35	1.90	5.1	0.95	-	1.3	5.44
00NF02ZA0001	11-MAY-87	1.50	0.50	2.50	0.19	3.83	2.9	1.65	2.6	-	6.44
00NF02ZA0001	11-MAY-87	1.20	0.40	2.50	0.18	3.76	2.9	1.70	2.1	-	6.47
00NF02ZA0001	11-MAY-87	1.20	0.40	2.50	0.19	3.80	2.9	1.64	2.5	-	6.40
00NF02ZA0003	08-JUN-87	2.55	0.44	5.56	0.36	8.08	3.9	2.30	3.9	-	6.72
00NF02ZA0003	08-JUN-87	2.54	0.43	5.56	0.38	8.09	4.0	2.31	4.5	-	6.59
00NF02ZA0003	08-JUN-87	2.53	0.44	5.58	0.38	8.05	4.0	2.33	4.0	-	6.67
00NF02ZA0006	01-OCT-86	13.10	1.68	7.74	0.50	11.81	16.3	16.66	20.8	-	7.05
00NF02ZA0006	01-OCT-86	12.60	1.68	7.79	0.51	11.83	17.1	16.63	20.7	-	7.12
00NF02ZA0006	01-OCT-86	12.50	1.67	7.77	0.51	11.81	17.4	16.49	20.5	-	7.16
00NF02ZB0005	23-MAR-87	1.17	0.38	2.67	0.27	4.55	3.0	1.93	-	0.7	5.72
00NF02ZB0005	23-MAR-87	1.09	0.38	2.63	0.26	4.51	3.0	1.90	-	0.6	5.70
00NF02ZB0005	23-MAR-87	1.09	0.38	2.63	0.26	4.51	3.0	1.90	-	0.7	5.73
00NF02ZC0001	23-MAR-87	1.17	0.35	2.43	0.29	3.80	3.2	1.67	-	0.6	5.86
00NF02ZC0001	23-MAR-87	1.16	0.35	2.41	0.29	3.79	3.2	1.66	-	0.8	5.91
00NF02ZC0001	23-MAR-87	1.14	0.34	2.41	0.28	3.82	3.1	1.63	-	0.7	5.89
00NF02ZH0010	13-JAN-87	1.94	0.43	2.60	0.19	3.45	3.4	1.32	4.0	-	6.55
00NF02ZH0010	13-JAN-87	1.94	0.43	2.63	0.20	3.42	3.6	1.50	4.6	-	6.51
00NF02ZH0010	13-JAN-87	1.97	0.43	2.61	0.19	3.42	3.6	1.38	3.6	-	6.61
00NF02ZJ0024	03-DEC-86	1.81	0.50	2.97	0.20	4.53	3.8	1.36	2.7	-	6.36
00NF02ZJ0024	03-DEC-86	1.82	0.51	2.97	0.20	4.57	3.8	1.34	2.8	-	6.32
00NF02ZJ0024	03-DEC-86	1.83	0.51	2.97	0.20	4.57	3.7	1.36	2.6	-	6.32
00NF02ZK0001	24-JUN-87	1.82	0.94	5.56	0.36	8.22	2.7	1.52	5.7	-	6.53
00NF02ZK0001	24-JUN-87	1.93	0.93	5.54	0.36	8.18	2.8	1.49	5.6	-	6.79
00NF02ZK0001	24-JUN-87	1.93	0.92	5.56	0.36	8.27	2.8	1.51	6.0	-	7.17
00NF02ZL0001	04-DEC-86	1.04	0.49	3.67	0.15	5.51	2.6	1.68	1.4	-	6.34
00NF02ZL0001	04-DEC-86	1.04	0.50	3.67	0.15	5.47	2.4	1.97	2.1	-	6.28
00NF02ZL0001	04-DEC-86	1.04	0.49	3.69	0.15	5.58	2.3	1.71	1.3	-	6.29
00NF02ZL0002	08-JAN-87	0.62	0.48	4.63	0.16	6.91	3.5	2.01	-	0.7	5.71
00NF02ZL0002	08-JAN-87	0.62	0.49	4.63	0.16	6.98	3.6	2.09	-	0.7	5.70
00NF02ZL0002	08-JAN-87	0.62	0.49	4.63	0.15	6.96	3.6	2.03	-	0.6	5.63
00NF02ZH0014	17-OCT-86	10.40	2.70	50.10	1.36	86.40	11.9	12.35	14.5	-	6.52
00NF02ZH0014	17-OCT-86	10.60	2.70	49.80	1.35	87.30	12.4	12.30	14.1	-	6.42

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
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STATION NUMBER	DATE	DIS. CA 20103L	DIS. MG 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SO4 MTB 16306L	SO4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L	PH LAB 10301L
00NF02ZM0014	17-OCT-86	10.70	2.70	51.10	1.36	89.30	12.7	12.47	14.1	-	6.47
00NF02ZM0015	28-NOV-86	8.35	1.63	69.60	1.14	110.20	13.1	11.79	7.4	-	6.65
00NF02ZM0015	28-NOV-86	8.34	1.62	70.10	1.14	113.40	13.3	11.76	8.0	-	6.64
00NF02ZM0015	28-NOV-86	8.36	1.62	69.60	1.15	109.60	13.4	11.77	7.3	-	6.64
00NF02ZM0016	28-NOV-86	6.91	1.26	61.30	0.95	97.50	11.3	9.80	6.3	-	6.62
00NF02ZM0016	28-NOV-86	6.80	1.25	49.20	0.93	80.30	11.0	10.20	6.2	-	6.62
00NF02ZM0016	28-NOV-86	6.80	1.25	47.90	0.93	79.30	10.9	9.60	6.2	-	6.62
00NF02ZM0017	09-JUL-87	0.84	0.43	3.80	0.30	5.78	3.3	1.70	1.8	-	6.18
00NF02ZM0017	09-JUL-87	0.86	0.43	3.80	0.28	5.71	2.8	1.67	1.4	-	6.13
00NF02ZM0017	09-JUL-87	0.85	0.43	3.83	0.29	5.75	2.7	1.71	1.9	-	6.16
00NF02ZN0003	24-JUN-87	2.03	0.62	3.86	0.28	5.60	2.6	1.74	5.0	-	6.74
00NF02ZN0003	24-JUN-87	2.02	0.62	3.85	0.28	5.61	2.5	1.73	5.8	-	6.75
00NF02ZN0003	24-JUN-87	2.04	0.62	3.83	0.28	5.68	2.6	1.75	5.6	-	6.87

TABLE 4: TRIPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
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STATION NUMBER	DATE	COND 02041L	TURB JTU 02073L	COL. R.U. 02011L	D.O.C. 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT. P 15413P	TOT. AL 13009P	TOT. BA 56009P	BE US/L 04010P
00NF02YC0002	22-DEC-86	51.80	0.10	20	3.7	0.006	0.111	0.0073	0.087	0.0075	L.05
00NF02YC0002	22-DEC-86	51.90	0.14	20	3.7	0.006	0.105	0.0037	0.088	0.0074	L.05
00NF02YC0002	22-DEC-86	51.30	0.08	20	3.7	0.006	0.105	0.0035	0.089	0.0074	L.05
00NF02YE0004	22-DEC-86	51.70	0.07	20	3.3	0.033	0.107	0.0029	0.078	0.0044	L.05
00NF02YE0004	22-DEC-86	51.50	0.10	20	3.3	0.012	0.115	0.0053	0.064	0.0043	L.05
00NF02YE0004	22-DEC-86	51.60	0.12	20	3.3	0.023	0.116	0.0030	0.064	0.0043	L.05
00NF02YE0005	21-JAN-87	52.20	0.14	10	2.3	0.182	0.247	0.0034	0.053	0.0072	L.05
00NF02YE0005	21-JAN-87	51.40	0.13	10	2.2	0.185	0.254	0.0062	0.051	0.0074	L.05
00NF02YE0005	21-JAN-87	51.10	0.16	10	2.1	0.183	0.251	0.0040	0.053	0.0074	L.05
00NF02Y60001	03-OCT-86	25.30	0.31	100	10.7	L.005	0.188	0.0071	0.302	0.0061	L.05
00NF02Y60001	03-OCT-86	25.60	0.29	80	10.6	L.005	0.182	0.0066	0.240	0.0060	L.05
00NF02Y60001	03-OCT-86	25.30	0.26	80	10.9	0.008	0.183	0.0062	0.235	0.0060	L.05
00NF02Y60001	08-JUL-87	24.30	0.14	30	3.9	0.027	0.100	0.0018	0.073	0.0032	L.05
00NF02Y60001	08-JUL-87	24.40	0.18	30	4.1	0.027	0.102	0.0018	0.075	0.0034	L.05
00NF02Y60001	08-JUL-87	24.30	0.20	30	4.0	0.027	0.101	0.0020	0.074	0.0033	L.05
00NF02YH0018	06-AUG-86	168.70	0.13	10	2.5	0.040	-	0.0020	0.031	0.0101	L.05
00NF02YH0018	06-AUG-86	169.70	0.10	5	2.4	0.042	-	0.0021	0.031	0.0101	L.05
00NF02YH0018	06-AUG-86	169.40	0.13	5	2.4	0.042	-	0.0021	0.030	0.0103	L.05
00NF02YH0018	16-JUL-87	176.00	0.13	10	2.0	0.040	0.112	0.0044	0.025	0.0113	L.05
00NF02YH0018	16-JUL-87	176.00	0.13	10	2.0	0.039	0.129	0.0029	0.023	0.0117	L.05
00NF02YH0018	16-JUL-87	176.00	0.15	10	2.0	0.039	0.134	0.0022	0.024	0.0105	L.05
00NF02YJ0001	09-APR-87	131.20	0.24	40	3.8	0.169	0.264	0.0058	0.098	0.0057	L.05
00NF02YJ0001	09-APR-87	127.10	0.24	40	3.8	0.170	0.266	0.0049	0.086	0.0057	L.05
00NF02YJ0001	09-APR-87	131.40	0.22	30	3.8	0.170	0.270	0.0048	0.087	0.0057	L.05
00NF02YJ0004	09-APR-87	174.10	0.18	20	3.6	0.120	0.236	0.0047	0.035	0.0034	L.05
00NF02YJ0004	09-APR-87	171.60	0.22	20	3.5	0.118	0.224	0.0047	0.036	0.0035	L.05
00NF02YJ0004	09-APR-87	173.30	0.24	20	3.5	0.118	0.232	0.0047	0.031	0.0033	L.05
00NF02YL0013	24-NOV-86	93.20	0.13	20	2.9	0.081	0.150	0.0032	0.072	0.0041	L.05
00NF02YL0013	24-NOV-86	92.80	0.13	20	2.9	0.071	0.123	0.0020	0.074	0.0039	L.05
00NF02YL0013	24-NOV-86	92.90	0.14	20	2.8	0.072	0.138	0.0023	0.074	0.0039	L.05
00NF02YM0003	14-JAN-87	45.30	0.19	30	5.0	0.085	0.225	0.0028	0.110	0.0050	L.05
00NF02YM0003	14-JAN-87	44.90	0.17	30	4.8	0.084	0.208	0.0025	0.084	0.0049	L.05
00NF02YM0003	14-JAN-87	44.60	0.27	30	4.8	0.083	0.207	0.0027	0.079	0.0047	L.05
00NF02YM0004	05-DEC-86	70.00	0.33	80	13.7	0.012	0.311	0.0090	0.247	0.0051	L.05
00NF02YM0004	05-DEC-86	70.10	0.33	80	14.1	0.024	0.320	0.0088	0.265	0.0051	L.05

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
 DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
 REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	COND 02041L	TURB JTU 02073L	COL. R.U. 02011L	D.O.C. 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT. P 15413P	TOT. AL 13009P	TOT. BA 56009P	BE UG/L 04010P
00NF02YM0004	05-DEC-86	70.00	0.34	80	13.9	0.016	0.297	0.0088	0.247	0.0050	L.05
00NF02YN0001	21-MAY-87	22.40	0.23	40	4.1	0.022	0.145	0.0036	0.095	0.0026	L.05
00NF02YN0001	21-MAY-87	23.20	0.22	40	4.3	0.022	0.144	0.0041	0.093	0.0025	L.05
00NF02YN0001	21-MAY-87	22.70	0.24	40	4.3	0.022	0.143	0.0039	0.095	0.0026	L.05
00NF02YD0018	12-AUG-86	28.00	0.60	20	4.1	0.040	-	0.0065	0.057	0.0634	L.05
00NF02YD0018	12-AUG-86	28.00	0.48	20	4.0	0.043	-	0.0080	0.047	0.0613	L.05
00NF02YD0018	12-AUG-86	28.00	0.43	20	4.1	0.044	-	-	0.056	0.0611	L.05
00NF02YD0019	04-JUN-87	25.20	0.29	20	3.7	0.084	0.205	0.0026	0.064	0.0784	L.05
00NF02YD0019	04-JUN-87	25.10	0.24	20	3.7	0.086	0.203	0.0027	0.062	0.0778	L.05
00NF02YD0019	04-JUN-87	25.00	0.25	20	3.6	0.093	0.203	0.0024	0.063	0.0782	L.05
00NF02YD0020	10-APR-87	25.70	0.36	50	6.9	0.061	0.177	0.0071	0.137	0.0150	L.05
00NF02YD0020	10-APR-87	25.70	0.36	50	7.0	0.060	0.165	0.0082	0.141	0.0148	L.05
00NF02YD0020	10-APR-87	25.70	0.36	50	6.9	0.060	0.166	0.0066	0.136	0.0149	L.05
00NF02YD0021	09-JUN-87	27.40	0.29	20	3.9	0.049	0.174	0.0104	0.074	0.0587	L.05
00NF02YD0021	09-JUN-87	27.50	0.35	20	4.0	0.049	0.157	0.0086	0.060	0.0587	L.05
00NF02YD0021	09-JUN-87	27.50	0.26	20	3.9	0.050	0.178	0.0082	0.061	0.0584	L.05
00NF02YD0004	15-APR-87	20.80	0.50	60	6.8	0.058	0.247	0.0075	0.176	0.0022	L.05
00NF02YD0004	15-APR-87	20.70	0.52	60	6.8	0.058	0.230	0.0068	0.186	0.0023	L.05
00NF02YD0004	15-APR-87	21.10	0.57	60	7.4	0.058	0.230	0.0081	0.183	0.0022	L.05
00NF02YD0006	30-OCT-86	24.50	0.64	70	9.4	0.005	0.175	0.0060	0.188	0.0020	L.05
00NF02YD0006	30-OCT-86	24.70	0.67	80	9.2	0.005	0.175	0.0061	0.190	0.0021	L.05
00NF02YD0006	30-OCT-86	24.60	0.66	80	9.4	0.005	0.172	0.0062	0.187	0.0020	L.05
00NF02YR0001	24-NOV-86	39.90	0.29	80	8.9	0.007	0.195	0.0096	0.248	0.0014	0.07
00NF02YR0001	24-NOV-86	39.90	0.28	60	8.9	0.007	0.189	0.0079	0.252	0.0015	0.07
00NF02YR0001	24-NOV-86	39.80	0.26	80	8.9	0.007	0.189	0.0103	0.250	0.0015	0.07
00NF02YS0001	21-MAY-87	14.20	0.26	50	6.8	0.022	0.184	0.0053	0.110	0.0015	L.05
00NF02YS0001	21-MAY-87	14.40	0.20	50	7.0	0.022	0.192	0.0046	0.110	0.0015	L.05
00NF02YS0001	21-MAY-87	14.30	0.23	50	4.7	0.022	0.193	0.0052	0.110	0.0016	L.05
00NF02YS0010	28-OCT-86	24.70	0.29	50	6.8	0.005	0.132	-	0.097	0.0037	L.05
00NF02YS0010	28-OCT-86	24.60	0.28	50	7.0	0.006	0.139	0.0055	0.096	0.0035	L.05
00NF02YS0010	28-OCT-86	24.60	0.28	60	6.9	0.006	0.148	0.0054	0.093	0.0035	L.05
00NF02YS0011	09-JUL-87	16.30	0.30	40	5.5	0.010	0.139	0.0037	0.338	0.0023	L.05
00NF02YS0011	09-JUL-87	16.30	0.33	40	5.4	0.014	0.121	0.0038	0.099	0.0012	L.05
00NF02YS0011	09-JUL-87	16.10	0.38	40	5.4	0.013	0.109	0.0041	0.147	0.0014	L.05

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
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STATION NUMBER	DATE	COND 02041L	TURB JTU 02073L	COL. R.U. 02011L	D.O.C. 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT. P 15413P	TOT. AL 13009P	TOT. BA 56009P	BE US/L 04010P
00NF02YS0012	24-MAR-87	17.80	0.42	60	8.7	0.047	0.238	0.0122	0.124	0.0023	L.05
00NF02YS0012	24-MAR-87	17.10	0.39	80	9.1	0.047	0.273	0.0115	0.119	0.0023	L.05
00NF02YS0012	24-MAR-87	17.20	0.40	60	9.1	0.047	0.242	0.0115	0.120	0.0023	L.05
00NF02ZA0001	11-MAY-87	25.70	0.27	50	4.9	0.041	0.114	0.0041	0.131	0.0022	L.05
00NF02ZA0001	11-MAY-87	26.00	0.31	40	4.5	0.040	0.149	0.0033	0.141	0.0022	L.05
00NF02ZA0001	11-MAY-87	26.00	0.27	40	4.1	0.040	0.148	0.0039	0.135	0.0022	L.05
00NF02ZA0003	08-JUN-87	49.10	0.27	50	5.0	0.018	0.169	0.0062	0.142	0.0057	L.05
00NF02ZA0003	08-JUN-87	48.90	0.26	50	5.0	0.018	0.169	0.0046	0.142	0.0057	L.05
00NF02ZA0003	08-JUN-87	48.80	0.27	50	4.9	0.017	0.168	0.0060	0.142	0.0057	L.05
00NF02ZA0006	01-OCT-86	127.60	0.11	40	4.6	0.008	-	0.0030	0.070	0.0247	L.05
00NF02ZA0006	01-OCT-86	126.40	0.11	30	4.2	0.008	-	0.0028	0.071	0.0260	L.05
00NF02ZA0006	01-OCT-86	126.40	0.13	40	4.2	0.009	-	0.0057	0.071	0.0254	L.05
00NF02ZB0005	23-MAR-87	26.50	0.27	20	2.7	0.165	0.241	0.0040	0.112	0.0026	L.05
00NF02ZB0005	23-MAR-87	26.40	0.29	20	2.9	0.167	0.245	0.0038	0.109	0.0026	L.05
00NF02ZB0005	23-MAR-87	26.50	0.26	20	2.9	0.168	0.250	0.0037	0.113	0.0026	L.05
00NF02ZC0001	23-MAR-87	24.30	0.28	40	4.5	0.097	0.194	0.0056	0.164	0.0021	L.05
00NF02ZC0001	23-MAR-87	24.50	0.25	40	4.5	0.095	0.185	0.0056	0.162	0.0021	L.05
00NF02ZC0001	23-MAR-87	24.30	0.24	30	4.5	0.097	0.187	0.0055	0.128	0.0027	L.05
00NF02ZH0010	13-JAN-87	28.00	0.31	50	5.5	0.048	0.200	0.0050	0.103	0.0018	L.05
00NF02ZH0010	13-JAN-87	27.90	0.31	50	5.6	0.049	0.215	0.0038	0.105	0.0018	L.05
00NF02ZH0010	13-JAN-87	29.50	0.32	50	5.4	0.048	0.192	0.0039	0.108	0.0018	L.05
00NF02ZJ0024	03-DEC-86	30.10	0.48	60	7.7	0.008	0.185	0.0062	0.165	0.0056	L.05
00NF02ZJ0024	03-DEC-86	30.10	0.48	70	7.8	0.005	0.184	0.0060	0.171	0.0057	L.05
00NF02ZJ0024	03-DEC-86	30.10	0.46	70	7.9	0.006	0.195	0.0062	0.167	0.0056	L.05
00NF02ZK0001	24-JUN-87	50.60	0.23	40	6.0	L.005	0.156	0.0068	0.044	0.0009	L.05
00NF02ZK0001	24-JUN-87	49.40	0.25	40	6.3	L.005	0.160	0.0075	0.044	0.0008	L.05
00NF02ZK0001	24-JUN-87	48.10	0.30	40	6.1	L.005	0.155	0.0070	0.044	0.0008	L.05
00NF02ZL0001	04-DEC-86	31.95	0.12	10	2.2	0.005	0.076	0.0037	0.121	0.0024	L.05
00NF02ZL0001	04-DEC-86	31.60	0.12	10	2.0	0.005	0.075	0.0030	0.123	0.0023	L.05
00NF02ZL0001	04-DEC-86	31.80	0.11	10	2.2	0.005	0.068	0.0028	0.112	0.0024	L.05
00NF02ZL0002	08-JAN-87	36.80	0.25	20	3.3	0.034	0.153	0.0044	0.191	0.0018	L.05
00NF02ZL0002	08-JAN-87	37.80	0.22	20	3.4	0.034	0.143	0.0043	0.192	0.0018	L.05
00NF02ZL0002	08-JAN-87	36.00	0.24	20	3.4	0.036	0.154	0.0044	0.192	0.0018	L.05
00NF02ZM0014	17-OCT-86	354.70	0.18	5	2.8	0.006	0.138	0.0211	0.032	0.0476	L.05
00NF02ZM0014	17-OCT-86	360.00	0.15	5	2.9	0.161	0.168	0.0207	0.039	0.0495	L.05

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 DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
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STATION NUMBER	DATE	COND 02041L	TURB JTU 02073L	COL. R.U. 02011L	D.O.C. 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT. P 15413P	TOT. AL 13009P	TOT. BA 56009P	BE UG/L 04010P
00NF02ZM0014	17-OCT-86	365.40	0.19	5	2.8	0.164	0.169	0.0203	0.035	0.0485	L.05
00NF02ZM0015	28-NOV-86	436.80	0.60	10	2.5	0.451	0.516	0.0222	0.146	0.0306	L.05
00NF02ZM0015	28-NOV-86	436.80	0.90	10	2.6	0.393	0.487	0.0226	0.148	0.0309	L.05
00NF02ZM0015	28-NOV-86	436.00	0.68	20	2.5	0.407	0.487	0.0211	0.155	0.0313	L.05
00NF02ZM0016	28-NOV-86	384.10	1.20	10	2.4	0.378	0.464	0.0402	0.680	0.0263	0.07
00NF02ZM0016	28-NOV-86	314.50	0.40	10	2.2	0.426	0.517	0.0218	0.219	0.0235	0.05
00NF02ZM0016	28-NOV-86	309.00	0.62	10	2.2	0.417	0.498	0.0199	0.181	0.0236	L.05
00NF02ZM0017	09-JUL-87	30.40	0.20	10	3.7	0.008	0.089	0.0049	0.078	0.0009	L.05
00NF02ZM0017	09-JUL-87	30.10	0.23	20	3.7	L.005	0.112	0.0038	0.078	0.0008	L.05
00NF02ZM0017	09-JUL-87	30.40	0.30	20	3.8	L.005	0.094	0.0038	0.081	0.0005	L.05
00NF02ZN0003	24-JUN-87	39.20	0.20	20	4.1	0.009	0.103	0.0033	0.049	0.0029	L.05
00NF02ZN0003	24-JUN-87	39.40	0.18	20	3.9	0.009	0.103	0.0038	0.051	0.0030	L.05
00NF02ZN0003	24-JUN-87	40.00	0.20	20	3.9	0.009	0.102	0.0032	0.052	0.0030	L.05

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STATION NUMBER	DATE	TOT. CD 48009P	TOT. CO 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P	TOT. MN 25010P	TOT. MO 42009P	TOT. NI 28009P	TOT. PB 82009P
00NF02YC0002	22-DEC-86	L.0001	L.0001	L.0002	0.0033	0.0799	0.0002	0.0077	L.0001	L.0002	L.0002
00NF02YC0002	22-DEC-86	L.0001	0.0001	L.0002	0.0016	0.0760	0.0002	0.0073	L.0001	L.0002	L.0002
00NF02YC0002	22-DEC-86	L.0001	L.0001	L.0002	0.0034	0.0784	L.0001	0.0074	L.0001	L.0002	L.0002
00NF02YE0004	22-DEC-86	L.0001	L.0001	L.0002	0.0027	0.0771	0.0001	0.0041	L.0001	L.0002	L.0002
00NF02YE0004	22-DEC-86	L.0001	L.0001	L.0002	0.0010	0.0750	L.0001	0.0040	0.0001	L.0002	L.0002
00NF02YE0004	22-DEC-86	L.0001	L.0001	L.0002	0.0005	0.0724	L.0001	0.0039	L.0001	L.0002	L.0002
00NF02YE0005	21-JAN-87	L.0001	L.0001	L.0002	0.0008	0.0575	L.0001	0.0043	L.0001	L.0002	0.0003
00NF02YE0005	21-JAN-87	L.0001	L.0001	L.0002	0.0023	0.0581	0.0004	0.0044	L.0001	0.0003	0.0010
00NF02YE0005	21-JAN-87	L.0001	L.0001	L.0002	0.0009	0.0576	0.0003	0.0044	L.0001	L.0002	0.0005
00NF02Y60001	03-OCT-86	L.0001	0.0002	0.0002	0.0005	0.4320	0.0002	0.0116	L.0001	0.0002	0.0009
00NF02Y60001	03-OCT-86	L.0001	0.0001	L.0002	L.0002	0.4260	L.0001	0.0117	L.0001	L.0002	0.0006
00NF02Y60001	03-OCT-86	L.0001	L.0001	L.0002	L.0002	0.4380	L.0001	0.0118	0.0003	0.0009	L.0002
00NF02Y60001	08-JUL-87	L.0001	L.0001	0.0003	0.0010	0.1160	0.0002	0.0029	0.0001	L.0002	0.0002
00NF02Y60001	08-JUL-87	L.0001	L.0001	0.0011	0.0007	0.1220	0.0001	0.0029	L.0001	L.0002	0.0005
00NF02Y60001	08-JUL-87	L.0001	L.0001	0.0003	0.0023	0.1280	0.0002	0.0029	L.0001	L.0002	0.0004
00NF02YH0018	06-AUG-86	L.0001	0.0002	0.0015	L.0002	0.0177	-	0.0034	0.0003	0.0006	0.0003
00NF02YH0018	06-AUG-86	L.0001	0.0002	0.0026	L.0002	0.0189	-	0.0035	0.0001	L.0002	L.0002
00NF02YH0018	06-AUG-86	L.0001	0.0002	0.0015	L.0002	0.0174	-	0.0036	0.0002	L.0002	L.0002
00NF02YH0018	16-JUL-87	L.0001	L.0001	0.0006	0.0008	0.0199	0.0004	0.0059	0.0006	0.0003	0.0003
00NF02YH0018	16-JUL-87	L.0001	L.0001	0.0005	0.0015	0.0193	0.0003	0.0045	0.0002	0.0003	0.0002
00NF02YH0018	16-JUL-87	L.0001	L.0001	0.0006	0.0005	0.0184	0.0003	0.0046	0.0002	0.0004	0.0003
00NF02YJ0001	09-APR-87	L.0001	0.0004	L.0002	0.0004	0.1620	0.0002	0.0130	L.0001	L.0002	L.0002
00NF02YJ0001	09-APR-87	L.0001	0.0003	L.0002	0.0003	0.1450	0.0004	0.0121	L.0001	L.0002	L.0002
00NF02YJ0001	09-APR-87	L.0001	0.0004	L.0002	0.0009	0.1420	0.0003	0.0124	L.0001	L.0002	L.0002
00NF02YJ0004	09-APR-87	L.0001	0.0005	L.0002	0.0010	0.0733	0.0004	0.0096	L.0001	L.0002	L.0002
00NF02YJ0004	09-APR-87	L.0001	0.0004	L.0002	0.0011	0.0712	0.0008	0.0097	L.0001	L.0002	0.0004
00NF02YJ0004	09-APR-87	L.0001	0.0001	L.0002	L.0002	0.0764	L.0001	0.0096	L.0001	L.0002	L.0002
00NF02YL0013	24-NOV-86	L.0001	0.0001	L.0002	0.0015	0.0491	0.0002	0.0043	0.0002	L.0002	L.0002
00NF02YL0013	24-NOV-86	L.0001	L.0001	L.0002	0.0018	0.0505	L.0001	0.0044	L.0001	L.0002	L.0002
00NF02YL0013	24-NOV-86	L.0001	0.0001	L.0002	0.0044	0.0513	L.0001	0.0044	L.0001	L.0002	L.0002
00NF02YM0003	14-JAN-87	L.0001	L.0001	0.0005	0.0011	0.1300	0.0005	0.0054	0.0001	0.0016	0.0011
00NF02YM0003	14-JAN-87	L.0001	0.0002	0.0006	0.0019	0.1280	0.0005	0.0052	0.0001	0.0017	0.0010
00NF02YM0003	14-JAN-87	L.0001	L.0001	0.0003	0.0015	0.1270	0.0002	0.0052	L.0001	0.0013	L.0002
00NF02YM0004	05-DEC-86	L.0001	L.0001	0.0006	0.0029	0.2660	0.0003	0.0134	L.0001	0.0008	0.0008
00NF02YM0004	05-DEC-86	L.0001	0.0001	0.0007	0.0020	0.2710	0.0002	0.0134	0.0001	0.0010	0.0005

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STATION NUMBER	DATE	TOT. CD 48009P	TOT. CD 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P	TOT. MN 25010P	TOT. MD 42009P	TOT. NI 28009P	TOT. PB 82009P
00NF02YN0004	05-DEC-86	L.0001	L.0001	0.0006	0.0020	0.2610	0.0001	0.0137	0.0001	0.0008	0.0002
00NF02YN0001	21-MAY-87	L.0001	L.0001	L.0002	0.0010	0.1090	L.0001	0.0077	0.0001	L.0002	L.0002
00NF02YN0001	21-MAY-87	L.0001	L.0001	L.0002	0.0023	0.1050	0.0001	0.0075	L.0001	L.0002	0.0002
00NF02YN0001	21-MAY-87	L.0001	L.0001	L.0002	0.0008	0.1070	L.0001	0.0077	L.0001	L.0002	L.0002
00NF02YD0018	12-AUG-86	0.0001	0.0001	0.0010	0.0030	0.1190	-	0.0236	0.0002	0.0002	0.0014
00NF02YD0018	12-AUG-86	L.0001	L.0001	0.0021	0.0028	0.0740	-	0.0225	L.0001	L.0002	0.0007
00NF02YD0018	12-AUG-86	0.0001	0.0001	0.0006	0.0029	0.0770	-	0.0222	0.0004	L.0002	0.0014
00NF02YD0019	04-JUN-87	0.0001	L.0001	L.0002	0.0045	0.0508	L.0001	0.0214	L.0001	L.0002	0.0068
00NF02YD0019	04-JUN-87	0.0002	L.0001	L.0002	0.0044	0.0507	0.0001	0.0212	L.0001	L.0002	0.0071
00NF02YD0019	04-JUN-87	0.0002	L.0001	L.0002	0.0048	0.0514	0.0002	0.0214	L.0001	L.0002	0.0069
00NF02YD0020	10-APR-87	L.0001	L.0001	L.0002	0.0007	0.1570	0.0001	0.0244	L.0001	L.0002	0.0017
00NF02YD0020	10-APR-87	L.0001	0.0002	L.0002	0.0006	0.1640	0.0002	0.0237	L.0001	L.0002	0.0013
00NF02YD0020	10-APR-87	L.0001	0.0002	L.0002	0.0008	0.1580	0.0003	0.0245	L.0001	L.0002	0.0020
00NF02YD0021	09-JUN-87	L.0001	L.0001	L.0002	0.0042	0.1030	0.0001	0.0223	L.0001	L.0002	0.0025
00NF02YD0021	09-JUN-87	L.0001	L.0001	L.0002	0.0045	0.0791	0.0002	0.0204	L.0001	L.0002	0.0027
00NF02YD0021	09-JUN-87	0.0001	L.0001	L.0002	0.0038	0.0819	0.0001	0.0200	L.0001	L.0002	0.0027
00NF02YB0004	15-APR-87	L.0001	0.0004	L.0002	0.0013	0.2460	0.0005	0.0350	L.0001	L.0002	0.0003
00NF02YB0004	15-APR-87	L.0001	0.0004	L.0002	0.0014	0.2790	0.0003	0.0376	L.0001	L.0002	L.0002
00NF02YB0004	15-APR-87	L.0001	0.0005	L.0002	0.0016	0.2700	0.0005	0.0367	L.0001	0.0002	L.0002
00NF02YB0006	30-OCT-86	L.0001	L.0001	0.0006	0.0010	0.2810	0.0004	0.0121	L.0001	0.0019	0.0007
00NF02YB0006	30-OCT-86	L.0001	L.0001	0.0004	0.0010	0.2830	0.0003	0.0122	L.0001	0.0019	0.0006
00NF02YB0006	30-OCT-86	L.0001	L.0001	0.0005	0.0013	0.2810	0.0004	0.0120	L.0001	0.0019	0.0012
00NF02YR0001	24-NOV-86	L.0001	0.0001	L.0002	0.0008	0.3360	0.0012	0.0128	L.0001	L.0002	0.0005
00NF02YR0001	24-NOV-86	L.0001	0.0002	0.0004	0.0010	0.3380	0.0015	0.0129	L.0001	0.0004	0.0006
00NF02YR0001	24-NOV-86	L.0001	0.0001	0.0003	0.0011	0.3420	0.0015	0.0131	L.0001	0.0003	0.0007
00NF02YS0001	21-MAY-87	L.0001	L.0001	L.0002	0.0007	0.2220	0.0006	0.0410	L.0001	L.0002	0.0003
00NF02YS0001	21-MAY-87	L.0001	L.0001	L.0002	0.0013	0.2200	0.0004	0.0407	L.0001	L.0002	L.0002
00NF02YS0001	21-MAY-87	L.0001	0.0001	0.0002	0.0010	0.2220	0.0005	0.0405	L.0001	0.0003	0.0004
00NF02YS0010	28-OCT-86	L.0001	0.0002	0.0005	0.0011	0.1900	0.0005	0.0109	0.0003	0.0002	0.0009
00NF02YS0010	28-OCT-86	L.0001	L.0001	0.0003	0.0011	0.1880	0.0004	0.0108	L.0001	L.0002	0.0009
00NF02YS0010	28-OCT-86	L.0001	0.0001	0.0002	0.0036	0.1860	0.0003	0.0121	L.0001	L.0002	0.0008
00NF02YS0011	09-JUL-87	L.0001	0.0002	0.0003	0.0003	1.3600	0.0007	0.0465	L.0001	L.0002	0.0006
00NF02YS0011	09-JUL-87	L.0001	L.0001	L.0002	0.0040	0.2470	0.0005	0.0196	L.0001	L.0002	0.0006
00NF02YS0011	09-JUL-87	L.0001	0.0001	0.0002	0.0007	0.4180	0.0007	0.0269	L.0001	L.0002	0.0008

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00NF02YS0012	24-MAR-87	0.0001	0.0004	0.0031	0.0004	0.4540	0.0010	0.1140	L.0001	0.0003	0.0018
00NF02YS0012	24-MAR-87	0.0001	0.0003	0.0024	0.0007	0.4400	0.0012	0.1140	L.0001	0.0005	0.0018
00NF02YS0012	24-MAR-87	0.0001	0.0002	0.0035	0.0005	0.4480	0.0011	0.1140	L.0001	0.0004	0.0018
00NF02ZA0001	11-MAY-87	L.0001	L.0001	0.0003	0.0018	0.0903	0.0002	0.0023	L.0001	0.0004	0.0007
00NF02ZA0001	11-MAY-87	L.0001	L.0001	0.0003	0.0008	0.0977	0.0002	0.0024	L.0001	0.0003	0.0003
00NF02ZA0001	11-MAY-87	L.0001	L.0001	L.0002	0.0021	0.0948	0.0001	0.0023	L.0001	L.0002	0.0004
00NF02ZA0003	08-JUN-87	L.0001	L.0001	0.0010	0.0053	0.1040	0.0002	0.0037	0.0001	L.0002	0.0032
00NF02ZA0003	08-JUN-87	L.0001	L.0001	L.0002	0.0069	0.1040	0.0002	0.0034	L.0001	L.0002	0.0007
00NF02ZA0003	08-JUN-87	L.0001	L.0001	0.0002	0.0075	0.1070	0.0003	0.0034	L.0001	L.0002	0.0004
00NF02ZA0006	01-OCT-86	L.0001	0.0005	L.0002	0.0002	0.0825	0.0003	0.0032	0.0002	L.0002	L.0002
00NF02ZA0006	01-OCT-86	L.0001	0.0005	L.0002	0.0002	0.0837	0.0002	0.0034	L.0001	L.0002	0.0003
00NF02ZA0006	01-OCT-86	L.0001	0.0005	L.0002	0.0002	0.0835	0.0004	0.0032	L.0001	L.0002	L.0002
00NF02ZB0005	23-MAR-87	L.0001	0.0001	0.0025	0.0006	0.0741	0.0007	0.0141	0.0004	L.0002	0.0016
00NF02ZB0005	23-MAR-87	L.0001	L.0001	0.0028	0.0004	0.0733	0.0005	0.0141	L.0001	L.0002	0.0009
00NF02ZB0005	23-MAR-87	L.0001	0.0001	0.0013	0.0005	0.0838	0.0006	0.0142	L.0001	L.0002	0.0010
00NF02ZC0001	23-MAR-87	L.0001	L.0001	0.0029	0.0006	0.1350	0.0007	0.0092	L.0001	L.0002	0.0011
00NF02ZC0001	23-MAR-87	L.0001	0.0001	0.0016	0.0008	0.1300	0.0009	0.0085	L.0001	0.0003	0.0016
00NF02ZC0001	23-MAR-87	L.0001	L.0001	0.0018	0.0005	0.0813	0.0007	0.0143	L.0001	0.0003	0.0011
00NF02ZH0010	13-JAN-87	L.0001	0.0002	L.0002	0.0006	0.2390	0.0006	0.0147	L.0001	0.0002	0.0007
00NF02ZH0010	13-JAN-87	L.0001	L.0001	L.0002	0.0006	0.2450	0.0005	0.0143	L.0001	0.0002	0.0005
00NF02ZH0010	13-JAN-87	L.0001	0.0001	0.0004	0.0017	0.2410	0.0008	0.0142	0.0001	0.0005	0.0013
00NF02ZJ0024	03-DEC-86	L.0001	L.0001	L.0002	0.0019	0.2290	0.0002	0.0277	L.0001	L.0002	L.0002
00NF02ZJ0024	03-DEC-86	L.0001	L.0001	L.0002	0.0012	0.2310	0.0002	0.0289	L.0001	L.0002	0.0002
00NF02ZJ0024	03-DEC-86	L.0001	L.0001	L.0002	0.0016	0.2320	0.0001	0.0290	L.0001	L.0002	L.0002
00NF02ZK0001	24-JUN-87	L.0001	L.0001	0.0005	0.0049	0.1840	0.0009	0.0124	L.0001	0.0003	0.0006
00NF02ZK0001	24-JUN-87	L.0001	L.0001	0.0004	0.0065	0.1820	0.0008	0.0125	L.0001	L.0002	0.0003
00NF02ZK0001	24-JUN-87	L.0001	0.0001	0.0005	0.0041	0.1820	0.0009	0.0126	L.0001	0.0003	0.0008
00NF02ZL0001	04-DEC-86	L.0001	L.0001	L.0002	0.0028	0.0302	0.0005	0.0061	L.0001	L.0002	L.0002
00NF02ZL0001	04-DEC-86	L.0001	L.0001	L.0002	0.0027	0.0304	0.0002	0.0060	L.0001	L.0002	L.0002
00NF02ZL0001	04-DEC-86	L.0001	L.0001	L.0002	0.0035	0.0285	0.0004	0.0059	L.0001	0.0003	0.0004
00NF02ZL0002	08-JAN-87	L.0001	0.0001	L.0002	0.0018	0.1130	0.0004	0.0372	L.0001	L.0002	0.0002
00NF02ZL0002	08-JAN-87	L.0001	0.0002	0.0002	0.0039	0.1150	0.0006	0.0365	0.0003	0.0004	0.0010
00NF02ZL0002	08-JAN-87	L.0001	0.0001	L.0002	0.0040	0.1170	0.0004	0.0368	L.0001	L.0002	0.0004
00NF02ZM0014	17-OCT-86	L.0001	0.0005	0.0003	0.0013	0.0941	0.0022	0.0174	L.0001	L.0002	0.0003
00NF02ZM0014	17-OCT-86	L.0001	0.0005	0.0002	0.0014	0.0966	0.0021	0.0188	L.0001	L.0002	0.0006

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
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STATION NUMBER	DATE	TOT. CD 48009P	TOT. CD 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P	TOT. MN 25010P	TOT. MO 42009P	TOT. NI 28009P	TOT. PB 82009P
00NF02ZM0014	17-OCT-86	L.0001	0.0005	0.0004	0.0014	0.1010	0.0019	0.0183	L.0001	L.0002	0.0007
00NF02ZM0015	28-NOV-86	L.0001	0.0003	0.0002	0.0055	0.3410	0.0019	0.1760	L.0001	0.0006	0.0032
00NF02ZM0015	28-NOV-86	L.0001	0.0002	0.0003	0.0035	0.3480	0.0021	0.1790	L.0001	0.0005	0.0033
00NF02ZM0015	28-NOV-86	L.0001	0.0003	0.0004	0.0025	0.3490	0.0022	0.1790	L.0001	0.0006	0.0032
00NF02ZM0016	28-NOV-86	0.0002	0.0008	0.0009	0.0048	1.4400	0.0020	0.2160	0.0001	0.0010	0.0101
00NF02ZM0016	28-NOV-86	0.0001	0.0005	0.0004	0.0041	0.7050	0.0014	0.1830	L.0001	0.0006	0.0038
00NF02ZM0016	28-NOV-86	0.0001	0.0005	0.0002	0.0039	0.6170	0.0013	0.1810	0.0004	0.0005	0.0026
00NF02ZM0017	09-JUL-87	L.0001	L.0001	0.0003	0.0017	0.1510	0.0005	0.0297	0.0007	L.0002	0.0008
00NF02ZM0017	09-JUL-87	L.0001	L.0001	L.0002	0.0062	0.1500	0.0002	0.0280	L.0001	L.0002	0.0003
00NF02ZM0017	09-JUL-87	L.0001	0.0002	L.0002	0.0051	0.1590	0.0003	0.0352	L.0001	L.0002	0.0003
00NF02ZM0003	24-JUN-87	L.0001	L.0001	0.0004	0.0009	0.0849	0.0005	0.0194	L.0001	L.0002	L.0002
00NF02ZM0003	24-JUN-87	L.0001	L.0001	0.0005	0.0013	0.0862	0.0006	0.0196	L.0001	L.0002	0.0002
00NF02ZM0003	24-JUN-87	L.0001	L.0001	0.0004	0.0062	0.0874	0.0005	0.0197	L.0001	0.0002	0.0004

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG UG/L 80011P
00NF02YC0002	22-DEC-86	0.0153	L.0001	0.0014	L.02
00NF02YC0002	22-DEC-86	0.0151	L.0001	0.0011	L.02
00NF02YC0002	22-DEC-86	0.0152	L.0001	0.0010	L.02
00NF02YE0004	22-DEC-86	0.0098	L.0001	0.0010	L.02
00NF02YE0004	22-DEC-86	0.0097	L.0001	0.0010	L.02
00NF02YE0004	22-DEC-86	0.0097	L.0001	0.0008	L.02
00NF02YE0005	21-JAN-87	0.0122	L.0001	0.0016	L.02
00NF02YE0005	21-JAN-87	0.0123	0.0003	0.0015	L.02
00NF02YE0005	21-JAN-87	0.0124	L.0001	0.0016	L.02
00NF02Y60001	03-OCT-86	0.0080	0.0004	0.0017	L.02
00NF02Y60001	03-OCT-86	0.0081	0.0002	0.0017	L.02
00NF02Y60001	03-OCT-86	0.0081	0.0002	0.0021	L.02
00NF02Y60001	08-JUL-87	0.0056	0.0001	0.0014	L.02
00NF02Y60001	08-JUL-87	0.0057	0.0001	0.0013	L.02
00NF02Y60001	08-JUL-87	0.0057	0.0002	0.0018	L.02
00NF02YH0018	06-AUG-86	0.0414	0.0002	0.0011	L.02
00NF02YH0018	06-AUG-86	0.0420	L.0001	0.0003	L.02
00NF02YH0018	06-AUG-86	0.0423	L.0001	0.0003	L.02
00NF02YH0018	16-JUL-87	0.0396	L.0001	0.0004	L.02
00NF02YH0018	16-JUL-87	0.0402	L.0001	0.0006	L.02
00NF02YH0018	16-JUL-87	0.0395	0.0001	0.0003	L.02
00NF02YJ0001	09-APR-87	0.0243	L.0001	0.0015	L.02
00NF02YJ0001	09-APR-87	0.0241	0.0002	0.0014	L.02
00NF02YJ0001	09-APR-87	0.0243	0.0002	0.0014	L.02
00NF02YJ0004	09-APR-87	0.0461	L.0001	0.0008	L.02
00NF02YJ0004	09-APR-87	0.0467	0.0003	0.0011	L.02
00NF02YJ0004	09-APR-87	0.0464	L.0001	0.0006	L.02
00NF02YL0013	24-NOV-86	0.0193	L.0001	0.0008	L.02
00NF02YL0013	24-NOV-86	0.0194	L.0001	0.0010	L.02
00NF02YL0013	24-NOV-86	0.0195	L.0001	0.0012	L.02
00NF02YM0003	14-JAN-87	0.0143	0.0003	0.0024	L.02
00NF02YM0003	14-JAN-87	0.0143	0.0002	0.0023	L.02
00NF02YM0003	14-JAN-87	0.0141	L.0001	0.0015	L.02
00NF02YM0004	05-DEC-86	0.0158	0.0003	0.0013	L.02
00NF02YM0004	05-DEC-86	0.0160	0.0004	0.0012	L.02

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
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STATION NUMBER	DATE	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG UG/L 80011P
00NF02YH0004	05-DEC-86	0.0158	0.0003	0.0012	L.02
00NF02YN0001	21-MAY-87	0.0058	L.0001	0.0012	L.02
00NF02YN0001	21-MAY-87	0.0057	0.0001	0.0011	L.02
00NF02YN0001	21-MAY-87	0.0058	0.0001	0.0012	L.02
00NF02YD0018	12-AUG-86	0.0094	0.0004	0.0238	L.02
00NF02YD0018	12-AUG-86	0.0091	0.0002	0.0229	L.02
00NF02YD0018	12-AUG-86	0.0093	0.0004	0.0226	L.02
00NF02YD0019	04-JUN-87	0.0082	L.0001	0.0445	L.02
00NF02YD0019	04-JUN-87	0.0081	0.0001	0.0441	L.02
00NF02YD0019	04-JUN-87	0.0082	0.0002	0.0445	L.02
00NF02YD0020	10-APR-87	0.0074	0.0002	0.0081	L.02
00NF02YD0020	10-APR-87	0.0074	L.0001	0.0081	L.02
00NF02YD0020	10-APR-87	0.0073	0.0003	0.0079	L.02
00NF02YD0021	09-JUN-87	0.0088	0.0002	0.0264	L.02
00NF02YD0021	09-JUN-87	0.0088	L.0001	0.0263	L.02
00NF02YD0021	09-JUN-87	0.0088	0.0002	0.0263	L.02
00NF02YQ0004	15-APR-87	0.0065	0.0001	0.0018	L.02
00NF02YQ0004	15-APR-87	0.0066	L.0001	0.0017	L.02
00NF02YQ0004	15-APR-87	0.0066	L.0001	0.0020	L.02
00NF02YQ0006	30-OCT-86	0.0076	0.0002	0.0013	L.02
00NF02YQ0006	30-OCT-86	0.0076	0.0002	0.0013	0.12
00NF02YQ0006	30-OCT-86	0.0075	0.0002	0.0014	L.02
00NF02YR0001	24-NOV-86	0.0053	0.0002	0.0015	L.02
00NF02YR0001	24-NOV-86	0.0054	0.0004	0.0015	L.02
00NF02YR0001	24-NOV-86	0.0055	0.0004	0.0017	L.02
00NF02YS0001	21-MAY-87	0.0043	L.0001	0.0013	L.02
00NF02YS0001	21-MAY-87	0.0043	L.0001	0.0014	L.02
00NF02YS0001	21-MAY-87	0.0043	0.0002	0.0013	L.02
00NF02YS0010	28-OCT-86	0.0076	0.0003	0.0013	L.02
00NF02YS0010	28-OCT-86	0.0075	0.0002	0.0010	L.02
00NF02YS0010	28-OCT-86	0.0073	0.0002	0.0010	0.03
00NF02YS0011	09-JUL-87	0.0051	0.0009	0.0019	L.02
00NF02YS0011	09-JUL-87	0.0049	0.0001	0.0007	L.02
00NF02YS0011	09-JUL-87	0.0053	0.0002	0.0009	L.02

TABLE 4: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK
DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
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STATION NUMBER	DATE	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG U6/L 80011P
00NF02YS0012	24-MAR-87	0.0046	0.0004	0.0024	L.02
00NF02YS0012	24-MAR-87	0.0046	0.0006	0.0020	L.02
00NF02YS0012	24-MAR-87	0.0045	0.0005	0.0021	L.02
00NF02ZA0001	11-MAY-87	0.0061	0.0003	0.0019	L.02
00NF02ZA0001	11-MAY-87	0.0062	0.0003	0.0014	L.02
00NF02ZA0001	11-MAY-87	0.0061	0.0002	0.0014	L.02
00NF02ZA0003	08-JUN-87	0.0160	0.0002	0.0009	L.02
00NF02ZA0003	08-JUN-87	0.0158	0.0002	0.0009	L.02
00NF02ZA0003	08-JUN-87	0.0159	0.0002	0.0009	L.02
00NF02ZA0006	01-OCT-86	0.1060	L.0001	0.0009	L.02
00NF02ZA0006	01-OCT-86	0.1100	L.0001	0.0004	L.02
00NF02ZA0006	01-OCT-86	0.1080	L.0001	0.0006	L.02
00NF02ZB0005	23-MAR-87	0.0052	0.0004	0.0023	L.02
00NF02ZB0005	23-MAR-87	0.0052	0.0002	0.0022	L.02
00NF02ZB0005	23-MAR-87	0.0052	0.0003	0.0021	L.02
00NF02ZC0001	23-MAR-87	0.0057	0.0003	0.0022	L.02
00NF02ZC0001	23-MAR-87	0.0057	0.0005	0.0021	L.02
00NF02ZC0001	23-MAR-87	0.0053	0.0004	0.0022	L.02
00NF02ZH0010	13-JAN-87	0.0082	0.0002	0.0015	L.02
00NF02ZH0010	13-JAN-87	0.0082	0.0002	0.0016	L.02
00NF02ZH0010	13-JAN-87	0.0082	0.0004	0.0017	L.02
00NF02ZJ0024	03-DEC-86	0.0093	L.0001	0.0014	L.02
00NF02ZJ0024	03-DEC-86	0.0095	0.0001	0.0014	L.02
00NF02ZJ0024	03-DEC-86	0.0093	L.0001	0.0013	L.02
00NF02ZK0001	24-JUN-87	0.0078	0.0001	0.0005	L.02
00NF02ZK0001	24-JUN-87	0.0079	L.0001	0.0005	L.02
00NF02ZK0001	24-JUN-87	0.0078	0.0002	0.0006	L.02
00NF02ZL0001	04-DEC-86	0.0050	L.0001	0.0013	L.02
00NF02ZL0001	04-DEC-86	0.0050	L.0001	0.0012	L.02
00NF02ZL0001	04-DEC-86	0.0050	0.0002	0.0013	L.02
00NF02ZL0002	08-JAN-87	0.0044	0.0002	0.0023	L.02
00NF02ZL0002	08-JAN-87	0.0044	0.0004	0.0024	L.02
00NF02ZL0002	08-JAN-87	0.0044	L.0001	0.0024	L.02
00NF02ZM0014	17-OCT-86	0.0467	L.0001	0.0250	L.02
00NF02ZM0014	17-OCT-86	0.0483	L.0001	0.0249	L.02

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 DURING THE FIRST YEAR OF MONITORING (AUG. 1986 TO AUG. 1987)
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STATION NUMBER	DATE	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG UG/L 80011P
00NF02ZM0014	17-OCT-86	0.0476	L.0001	0.0236	L.02
00NF02ZM0015	28-NOV-86	0.0363	0.0003	0.0377	L.02
00NF02ZM0015	28-NOV-86	0.0367	0.0004	0.0385	L.02
00NF02ZM0015	28-NOV-86	0.0370	0.0004	0.0388	L.02
00NF02ZM0016	28-NOV-86	0.0305	0.0010	0.0368	L.02
00NF02ZM0016	28-NOV-86	0.0294	0.0003	0.0321	L.02
00NF02ZM0016	28-NOV-86	0.0293	0.0005	0.0320	L.02
00NF02ZM0017	09-JUL-87	0.0054	0.0002	0.0013	L.02
00NF02ZM0017	09-JUL-87	0.0054	L.0001	0.0011	L.02
00NF02ZM0017	09-JUL-87	0.0054	L.0001	0.0012	L.02
00NF02ZN0003	24-JUN-87	0.0089	L.0001	0.0004	L.02
00NF02ZN0003	24-JUN-87	0.0090	0.0001	0.0005	L.02
00NF02ZN0003	24-JUN-87	0.0090	0.0001	0.0004	L.02

TABLE 5: TRIPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	DIS. CA 20103L	DIS. MG 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SO4 MTB 16306L	SO4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L
00NF02YC0002	19-NOV-87	5.05	1.77	3.08	0.27	4.88	4.1	2.65	14.5	-
00NF02YC0002	19-NOV-87	4.92	1.75	3.06	0.27	4.90	3.9	2.69	15.3	-
00NF02YC0002	19-NOV-87	4.97	1.77	3.09	0.27	4.91	3.9	2.70	15.1	-
00NF02YE0004	22-OCT-87	3.78	1.45	3.81	0.29	6.43	3.0	2.15	11.6	-
00NF02YE0004	22-OCT-87	3.99	1.50	3.98	0.30	6.93	3.1	2.23	9.8	-
00NF02YE0004	22-OCT-87	3.86	1.46	3.88	0.30	6.67	3.0	2.03	11.1	-
00NF02YB0001	14-JUL-88	-	-	-	-	-	-	-	-	-
00NF02YB0001	14-JUL-88	-	-	-	-	-	-	-	-	-
00NF02YB0001	14-JUL-88	-	-	-	-	-	-	-	-	-
00NF02YH0018	18-MAY-88	18.10	4.56	3.34	0.25	5.54	2.2	2.56	55.3	-
00NF02YH0018	18-MAY-88	18.10	4.53	3.34	0.25	5.42	2.0	2.54	55.6	-
00NF02YH0018	18-MAY-88	18.10	4.51	3.34	0.25	5.41	1.9	2.57	54.9	-
00NF02YJ0001	03-FEB-88	24.50	4.60	4.74	0.35	8.56	3.3	3.57	70.5	-
00NF02YJ0001	03-FEB-88	24.40	4.60	4.71	0.34	8.53	3.3	3.61	70.7	-
00NF02YJ0001	03-FEB-88	22.50	4.30	4.56	0.31	8.15	3.0	3.64	70.7	-
00NF02YJ0004	03-FEB-88	29.30	4.70	4.22	0.24	7.58	4.0	3.60	82.6	-
00NF02YJ0004	03-FEB-88	29.10	4.70	4.28	0.25	7.61	3.5	3.61	79.4	-
00NF02YJ0004	03-FEB-88	25.70	4.00	4.01	0.25	7.23	3.0	3.34	75.7	-
00NF02YL0011	18-AUG-87	4.82	1.06	3.53	0.35	5.37	3.2	2.88	13.4	-
00NF02YL0011	18-AUG-87	4.61	1.07	3.50	0.34	5.28	3.2	2.94	13.0	-
00NF02YL0011	18-AUG-87	4.61	1.06	3.49	0.34	5.43	3.2	2.95	14.2	-
00NF02YL0011	08-JUN-88	1.56	0.38	1.55	0.15	1.88	3.3	1.00	2.3	-
00NF02YL0011	08-JUN-88	1.53	0.37	1.55	0.15	1.84	3.1	0.97	2.2	-
00NF02YL0011	08-JUN-88	1.50	0.37	1.55	0.15	1.84	3.3	1.01	2.3	-
00NF02YL0012	18-AUG-87	3.89	0.80	2.39	0.28	3.50	2.7	2.07	10.9	-
00NF02YL0012	18-AUG-87	3.93	0.80	2.39	0.28	3.46	2.7	2.04	10.2	-
00NF02YL0012	18-AUG-87	3.93	0.80	2.38	0.28	3.53	2.7	2.11	9.3	-
00NF02YL0013	26-OCT-87	22.30	3.13	4.41	0.42	7.89	5.1	4.29	65.0	-
00NF02YL0013	26-OCT-87	22.40	3.11	4.41	0.43	7.44	5.2	4.11	66.0	-
00NF02YL0013	26-OCT-87	22.30	3.13	4.43	0.43	7.32	5.2	4.08	69.2	-
00NF02YM0003	05-JAN-88	3.38	1.31	2.37	0.21	3.76	3.1	1.90	9.2	-
00NF02YM0003	05-JAN-88	3.42	1.32	2.36	0.21	3.81	3.0	1.84	9.1	-
00NF02YM0003	05-JAN-88	3.39	1.32	2.32	0.20	3.86	3.1	1.79	9.3	-
00NF02YM0004	02-DEC-87	3.40	1.01	7.81	0.26	13.00	7.1	2.29	3.2	-
00NF02YM0004	02-DEC-87	3.39	1.00	7.78	0.26	12.80	7.1	2.31	3.4	-

TABLE 5: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	DIS. CA 20103L	DIS. MS 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SO4 NTB 16306L	SO4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L
00NF02YS0010	22-OCT-87	3.26	0.74	4.90	0.32	7.28	3.9	2.37	7.0	-
00NF02YS0010	22-OCT-87	3.26	0.74	4.90	0.33	7.28	3.8	2.34	7.3	-
00NF02YS0010	22-OCT-87	3.26	0.74	4.91	0.34	7.28	3.8	2.29	6.7	-
00NF02YS0011	19-MAY-88	0.86	0.31	1.66	0.21	2.19	2.6	1.03	0.7	-
00NF02YS0011	19-MAY-88	0.85	0.30	1.64	0.22	2.25	2.4	1.00	0.7	-
00NF02YS0011	19-MAY-88	0.86	0.31	1.66	0.23	2.25	2.2	1.05	0.6	-
00NF02YS0012	21-MAR-88	0.78	0.52	1.53	0.21	2.27	3.4	1.13	-	1.20
00NF02YS0012	21-MAR-88	0.75	0.51	1.53	0.20	2.22	3.5	1.12	-	0.60
00NF02YS0012	21-MAR-88	0.75	0.51	1.53	0.19	2.22	3.5	1.19	-	0.40
00NF02ZA0001	04-APR-88	2.76	1.05	6.06	0.34	10.50	4.8	3.57	3.5	-
00NF02ZA0001	04-APR-88	2.76	1.06	6.01	0.33	10.90	4.6	3.46	3.5	-
00NF02ZA0001	04-APR-88	2.70	1.06	6.01	0.33	10.40	4.5	3.73	3.3	-
00NF02ZA0006	10-SEP-87	15.40	1.76	8.41	0.51	12.50	19.0	18.50	24.8	-
00NF02ZA0006	10-SEP-87	15.20	1.78	8.38	0.52	11.90	20.6	18.70	24.4	-
00NF02ZA0006	10-SEP-87	15.20	1.78	8.42	0.53	12.00	20.7	18.90	25.4	-
00NF02ZA0006	13-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZA0006	13-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZA0006	13-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZA0007	03-MAY-88	2.25	0.51	4.70	0.37	7.05	4.5	2.49	2.8	-
00NF02ZA0007	03-MAY-88	2.40	0.52	4.50	0.37	7.04	4.5	2.48	2.7	-
00NF02ZA0007	03-MAY-88	2.28	0.52	4.70	0.37	7.05	4.5	2.48	3.0	-
00NF02ZB0005	12-JAN-88	2.22	0.47	2.61	0.19	3.99	3.8	3.20	-	2.20
00NF02ZB0005	12-JAN-88	2.13	0.45	2.58	0.18	3.82	3.8	3.10	-	2.40
00NF02ZB0005	12-JAN-88	2.25	0.47	2.59	0.19	3.87	3.8	3.14	-	2.40
00NF02ZG0016	02-DEC-87	2.28	0.66	4.71	0.22	7.56	4.7	2.30	-	1.60
00NF02ZG0016	02-DEC-87	1.93	0.66	4.73	0.22	7.54	4.8	2.42	-	1.50
00NF02ZG0016	02-DEC-87	1.90	0.65	4.69	0.22	7.53	4.8	2.38	-	1.60
00NF02ZG0016	22-JUN-88	1.46	0.49	4.07	0.18	5.89	3.9	1.85	1.9	-
00NF02ZG0016	22-JUN-88	1.48	0.49	4.07	0.18	5.87	3.7	1.84	1.6	-
00NF02ZG0016	22-JUN-88	1.48	0.50	4.07	0.18	5.81	3.6	1.82	1.7	-
00NF02ZG0024	13-JAN-88	1.52	0.72	5.73	0.34	9.86	3.6	2.46	-	1.70
00NF02ZG0024	13-JAN-88	1.52	0.72	5.77	0.34	9.84	3.4	2.49	-	1.90
00NF02ZG0024	13-JAN-88	1.51	0.71	5.75	0.34	9.78	3.4	2.35	-	1.70
00NF02ZG0025	04-FEB-88	1.34	0.69	4.80	0.20	9.05	3.5	2.36	-	-0.20
00NF02ZG0025	04-FEB-88	1.34	0.69	4.70	0.20	8.52	3.4	2.23	-	-0.10

TABLE 5: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	DIS. CA 20103L	DIS. MG 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SO4 MTB 16306L	SO4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L
00NF02ZG0025	04-FEB-88	1.31	0.69	4.70	0.20	8.89	3.3	2.36	-	-0.10
00NF02ZH0010	20-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZH0010	20-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZH0010	20-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZJ0024	07-OCT-87	2.03	0.51	3.32	0.28	3.97	4.0	2.41	3.5	-
00NF02ZJ0024	07-OCT-87	1.98	0.50	3.30	0.28	4.00	4.0	2.42	3.2	-
00NF02ZJ0024	07-OCT-87	2.00	0.49	3.32	0.27	3.98	3.9	2.43	3.9	-
00NF02ZK0005	24-NOV-87	1.58	0.69	4.98	0.16	8.29	3.7	2.17	3.1	-
00NF02ZK0005	24-NOV-87	1.56	0.69	4.96	0.15	8.17	3.8	2.20	2.4	-
00NF02ZK0005	24-NOV-87	1.57	0.69	4.96	0.15	8.16	3.8	2.21	2.5	-
00NF02ZK0005	13-JUL-88	1.37	0.60	4.72	0.15	7.76	4.0	2.01	0.8	-
00NF02ZK0005	13-JUL-88	1.38	0.61	4.69	0.14	7.75	3.7	2.05	1.6	-
00NF02ZK0005	13-JUL-88	1.41	0.62	4.72	0.14	7.81	3.8	1.99	1.5	-
00NF02ZL0001	07-MAR-88	1.11	0.61	4.69	0.19	8.41	2.2	1.56	-	0.10
00NF02ZL0001	07-MAR-88	1.11	0.60	4.62	0.18	8.51	2.1	1.65	-	0.05
00NF02ZL0001	07-MAR-88	1.10	0.60	4.54	0.18	8.45	2.0	1.41	-	0.20
00NF02ZL0002	03-MAY-88	0.45	0.37	3.70	0.15	5.65	3.1	1.56	-	0.20
00NF02ZL0002	03-MAY-88	0.45	0.37	3.60	0.14	5.60	2.6	1.55	-	0.20
00NF02ZL0002	03-MAY-88	0.45	0.37	3.60	0.15	5.62	2.5	1.54	-	0.20
00NF02ZM0014	27-JAN-88	19.50	4.10	141.00	1.86	241.00	16.9	16.60	12.3	-
00NF02ZM0014	27-JAN-88	19.10	4.00	142.00	1.87	238.00	17.1	17.70	12.4	-
00NF02ZM0014	27-JAN-88	18.90	4.00	147.00	1.88	248.00	17.1	17.70	12.6	-
00NF02ZM0015	29-APR-88	8.71	1.66	82.80	1.08	129.00	11.8	11.30	5.7	-
00NF02ZM0015	29-APR-88	8.80	1.73	82.30	1.08	129.00	11.5	11.50	5.6	-
00NF02ZM0015	29-APR-88	8.61	1.69	80.50	1.08	130.00	11.7	11.20	5.6	-
00NF02ZM0016	28-MAR-88	9.43	1.56	94.60	1.11	147.00	11.2	10.90	5.3	-
00NF02ZM0016	28-MAR-88	9.32	1.56	89.00	1.09	141.00	11.2	10.90	5.5	-
00NF02ZM0016	28-MAR-88	9.15	1.53	92.80	1.09	143.00	11.1	10.60	5.7	-
00NF02ZM0018	13-AUG-87	1.53	0.55	3.76	0.15	5.54	2.3	1.22	4.1	-
00NF02ZM0018	13-AUG-87	1.55	0.55	3.83	0.15	5.50	2.3	1.25	4.4	-
00NF02ZM0018	13-AUG-87	1.53	0.55	3.80	0.15	5.54	2.3	1.27	4.0	-
00NF02ZM0019	21-SEP-87	11.40	2.40	46.30	1.15	85.80	10.5	10.30	10.8	-
00NF02ZM0019	21-SEP-87	11.50	2.41	46.00	1.14	83.40	10.8	9.04	11.0	-
00NF02ZM0019	21-SEP-87	11.50	2.40	45.60	1.14	85.00	10.9	10.40	10.6	-

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STATION NUMBER	DATE	DIS. CA 20103L	DIS. NS 12102L	DIS. NA 11103L	DIS. K 19103L	DIS. CL 17209L	SO4 MTB 16306L	SO4 IC 16309L	T. ALK. 10111L	GR. ALK. 10110L
00NF02ZM0019	09-NOV-87	1.47	0.92	5.26	0.26	8.46	4.3	2.38	2.5	-
00NF02ZM0019	09-NOV-87	1.48	0.94	5.27	0.26	8.39	4.4	2.30	3.6	-
00NF02ZM0019	09-NOV-87	1.44	0.94	5.26	0.26	8.50	4.4	2.36	2.5	-
00NF02ZM0020	21-SEP-87	3.25	1.14	10.80	0.53	17.60	7.1	6.62	5.2	-
00NF02ZM0020	21-SEP-87	3.25	1.10	12.37	0.54	17.60	7.3	6.50	5.6	-
00NF02ZM0020	21-SEP-87	3.23	1.09	12.00	0.54	17.40	7.3	6.55	5.2	-
00NF02ZN0002	26-OCT-87	1.03	0.57	4.80	0.23	7.28	4.6	2.61	0.9	-
00NF02ZN0002	26-OCT-87	1.02	0.56	4.65	0.21	7.27	4.2	2.63	1.0	-
00NF02ZN0002	26-OCT-87	1.01	0.57	4.69	0.22	7.07	4.1	2.63	1.1	-

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STATION NUMBER	DATE	SI02 14102L	PH LAB 10301L	COND 02041L	TURB JTU 02073L	COL. RU 02011L	DOC 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT.P 15413P
00NF02YC0002	19-NOV-87	1.38	6.54	55.5	0.14	50	5.4	0.017	0.165	0.0054
00NF02YC0002	19-NOV-87	1.39	6.42	55.0	0.17	40	5.5	0.017	0.166	0.0040
00NF02YC0002	19-NOV-87	1.38	6.37	55.2	0.17	40	5.5	0.017	0.168	0.0041
00NF02YE0004	22-OCT-87	1.60	6.60	53.0	0.68	30	3.4	0.048	0.160	0.0041
00NF02YE0004	22-OCT-87	1.61	6.46	55.0	1.20	30	3.5	0.049	0.164	0.0040
00NF02YE0004	22-OCT-87	1.60	6.69	52.9	0.55	20	3.3	0.048	0.162	0.0036
00NF02YG0001	14-JUL-88	-	-	-	-	-	-	-	-	-
00NF02YG0001	14-JUL-88	-	-	-	-	-	-	-	-	-
00NF02YG0001	14-JUL-88	-	-	-	-	-	-	-	-	-
00NF02YH0018	18-MAY-88	1.66	7.73	136.0	0.35	10	3.3	0.050	0.126	0.0043
00NF02YH0018	18-MAY-88	1.65	7.71	136.0	0.51	10	3.2	0.050	0.127	0.0046
00NF02YH0018	18-MAY-88	1.64	7.29	136.0	0.34	10	3.7	0.050	0.128	0.0046
00NF02YJ0001	03-FEB-88	2.66	7.81	177.0	0.90	20	2.8	0.222	0.307	0.0025
00NF02YJ0001	03-FEB-88	2.64	7.80	174.0	0.95	20	2.7	0.232	0.306	0.0020
00NF02YJ0001	03-FEB-88	2.45	7.84	168.0	0.75	10	2.6	0.221	0.297	0.0025
00NF02YJ0004	03-FEB-88	1.57	8.01	193.0	0.80	10	3.3	0.100	0.214	0.0023
00NF02YJ0004	03-FEB-88	1.57	8.03	193.0	0.45	20	3.3	0.101	0.213	0.0025
00NF02YJ0004	03-FEB-88	1.47	7.95	182.0	0.70	10	3.1	0.094	0.210	0.0022
00NF02YL0011	18-AUG-87	0.82	6.86	54.9	0.19	10	2.5	0.005	0.137	0.0040
00NF02YL0011	18-AUG-87	0.83	7.05	31.6	0.19	20	2.5	0.006	0.126	0.0038
00NF02YL0011	18-AUG-87	0.83	6.96	54.9	0.17	10	2.2	L.005	0.129	0.0037
00NF02YL0011	08-JUN-88	1.23	6.20	19.2	0.43	60	7.0	0.010	0.172	0.0040
00NF02YL0011	08-JUN-88	1.25	6.39	19.1	0.45	60	7.0	0.010	0.170	0.0070
00NF02YL0011	08-JUN-88	1.24	6.32	19.0	0.57	60	7.1	0.020	0.171	0.0043
00NF02YL0012	18-AUG-87	2.46	6.82	40.5	0.18	20	3.2	0.080	0.192	0.0044
00NF02YL0012	18-AUG-87	2.46	6.80	40.5	0.16	20	3.2	0.082	0.199	0.0046
00NF02YL0012	18-AUG-87	2.46	6.76	40.5	0.15	20	3.2	0.082	0.184	0.0052
00NF02YL0013	26-OCT-87	1.94	7.32	158.0	0.80	30	4.2	0.140	0.274	0.0031
00NF02YL0013	26-OCT-87	1.96	7.47	157.0	0.80	30	4.1	0.140	0.270	0.0036
00NF02YL0013	26-OCT-87	1.96	7.60	158.0	1.00	40	4.3	0.140	0.266	0.0032
00NF02YM0003	05-JAN-88	4.84	6.60	40.0	0.60	40	6.2	0.063	0.227	0.0025
00NF02YM0003	05-JAN-88	4.79	6.61	40.0	0.50	40	6.0	0.063	0.239	0.0028
00NF02YM0003	05-JAN-88	4.83	6.62	39.5	0.70	40	6.0	0.061	0.228	0.0027
00NF02YM0004	02-DEC-87	3.66	6.02	64.9	0.56	100	15.3	0.074	0.488	0.0090
00NF02YM0004	02-DEC-87	3.68	6.06	64.3	0.58	100	16.0	0.079	0.442	0.0090

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STATION NUMBER	DATE	SI02 14102L	PH LAB 10301L	COND 02041L	TURB JTU 02073L	COL. RU 02011L	DOC 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT. P 15413P
00NF02YS0010	22-OCT-87	3.13	6.48	49.8	1.10	40	5.9	L.005	0.214	0.0056
00NF02YS0010	22-OCT-87	3.13	6.49	49.6	0.85	40	6.2	L.005	0.219	0.0049
00NF02YS0010	22-OCT-87	3.13	6.46	49.7	1.50	40	5.9	L.005	0.214	0.0049
00NF02YS0011	19-MAY-88	1.88	6.06	17.5	0.42	20	4.8	0.040	0.169	0.0046
00NF02YS0011	19-MAY-88	1.87	6.05	17.4	0.26	20	4.7	0.040	0.155	0.0040
00NF02YS0011	19-MAY-88	1.89	6.07	17.6	0.36	20	4.5	0.040	0.189	0.0038
00NF02YS0012	21-MAR-88	1.80	5.49	19.0	0.43	80	7.9	0.030	0.219	0.0076
00NF02YS0012	21-MAR-88	1.82	5.37	18.9	0.35	80	7.6	0.033	0.170	0.0150
00NF02YS0012	21-MAR-88	1.81	5.30	18.9	0.25	100	7.6	0.034	0.208	0.0064
00NF02ZA0001	04-APR-88	2.61	6.62	58.4	0.35	40	4.6	0.110	0.249	0.0038
00NF02ZA0001	04-APR-88	2.61	6.55	58.2	0.57	50	4.8	0.140	0.249	0.0040
00NF02ZA0001	04-APR-88	2.60	6.44	58.2	0.23	50	4.8	0.100	0.243	0.0037
00NF02ZA0006	10-SEP-87	2.13	7.18	142.0	0.20	30	4.4	0.035	0.154	0.0024
00NF02ZA0006	10-SEP-87	2.13	6.96	142.0	0.17	30	4.3	0.034	0.153	0.0028
00NF02ZA0006	10-SEP-87	2.12	7.33	141.0	0.17	30	4.2	0.037	0.155	0.0023
00NF02ZA0006	13-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZA0006	13-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZA0006	13-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZA0007	03-MAY-88	1.83	6.53	42.6	0.39	50	5.1	0.080	0.209	0.0040
00NF02ZA0007	03-MAY-88	1.83	6.56	42.5	0.40	50	5.1	0.080	0.212	0.0043
00NF02ZA0007	03-MAY-88	1.83	6.51	42.7	0.38	50	5.1	0.080	0.209	0.0043
00NF02ZB0005	12-JAN-88	3.62	5.91	31.5	0.40	10	1.4	0.189	0.257	0.0013
00NF02ZB0005	12-JAN-88	3.56	6.00	31.5	0.80	10	1.3	0.190	0.256	0.0013
00NF02ZB0005	12-JAN-88	3.70	5.95	31.3	0.40	10	1.3	0.190	0.256	0.0014
00NF02ZG0016	02-DEC-87	2.25	5.74	40.6	0.50	80	8.3	0.013	0.188	0.0056
00NF02ZG0016	02-DEC-87	2.25	5.60	40.6	0.50	80	8.4	0.015	0.188	0.0059
00NF02ZG0016	02-DEC-87	2.25	5.68	40.6	0.50	80	8.4	0.016	0.190	0.0073
00NF02ZG0016	22-JUN-88	0.87	6.16	34.7	0.33	60	7.2	L.01	0.186	0.0047
00NF02ZG0016	22-JUN-88	0.86	6.23	34.7	0.35	60	7.5	L.01	0.182	0.0047
00NF02ZG0016	22-JUN-88	0.86	6.24	34.6	0.32	60	7.4	L.01	0.173	0.0161
00NF02ZG0024	13-JAN-88	1.89	5.93	48.5	0.67	40	4.9	0.035	0.169	0.0038
00NF02ZG0024	13-JAN-88	1.87	5.96	48.5	0.63	40	4.9	0.034	0.170	0.0068
00NF02ZG0024	13-JAN-88	1.89	5.92	48.0	0.57	30	4.9	0.034	0.159	0.0042
00NF02ZG0025	04-FEB-88	1.44	5.20	42.5	0.43	40	4.9	0.029	0.156	0.0029
00NF02ZG0025	04-FEB-88	1.43	5.25	43.4	0.47	30	4.8	0.029	0.156	0.0032

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STATION NUMBER	DATE	SI02 14102L	PH LAB 10301L	COND 02041L	TURB JTU 02073L	COL. RU 02011L	DOC 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT. P 15413P
00NF02ZG0025	04-FEB-88	1.43	5.25	42.9	0.53	30	4.9	0.030	0.160	0.0035
00NF02ZH0010	20-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZH0010	20-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZH0010	20-JUL-88	-	-	-	-	-	-	-	-	-
00NF02ZJ0024	07-OCT-87	1.31	6.23	32.2	0.38	50	6.3	L.005	0.262	0.0082
00NF02ZJ0024	07-OCT-87	1.30	6.31	32.0	0.60	50	6.3	0.007	0.250	0.0074
00NF02ZJ0024	07-OCT-87	1.30	6.19	32.3	0.38	40	6.3	L.005	0.249	0.0084
00NF02ZX0005	24-NOV-87	1.78	6.11	41.8	0.27	40	5.7	0.008	0.151	0.0052
00NF02ZX0005	24-NOV-87	1.79	6.11	41.3	0.27	40	5.9	0.006	0.144	0.0046
00NF02ZX0005	24-NOV-87	1.78	6.02	41.2	0.29	40	5.9	0.005	0.144	0.0035
00NF02ZX0005	13-JUL-88	1.11	6.29	38.5	0.23	60	7.2	L.01	0.177	0.0047
00NF02ZX0005	13-JUL-88	1.11	6.27	38.3	0.22	60	7.2	L.01	0.172	0.0050
00NF02ZX0005	13-JUL-88	1.10	6.20	38.3	0.30	50	7.1	L.01	0.171	0.0055
00NF02ZL0001	07-MAR-88	1.90	5.57	148.0	0.20	10	1.8	0.026	0.059	0.0041
00NF02ZL0001	07-MAR-88	1.91	5.61	38.6	0.21	10	1.8	0.032	0.081	0.0039
00NF02ZL0001	07-MAR-88	1.90	5.59	38.4	0.22	10	2.0	0.026	0.092	0.0048
00NF02ZL0002	03-MAY-88	1.36	5.42	28.8	0.35	20	2.7	L.01	0.085	0.0040
00NF02ZL0002	03-MAY-88	1.36	5.41	28.7	0.33	20	2.5	L.01	0.081	0.0039
00NF02ZL0002	03-MAY-88	1.36	5.43	28.9	0.42	10	2.5	L.01	0.081	0.0046
00NF02ZH0014	27-JAN-88	4.82	6.90	914.0	0.94	10	3.0	0.652	0.905	0.0323
00NF02ZH0014	27-JAN-88	4.85	6.91	918.0	1.20	10	3.2	0.666	0.923	0.0283
00NF02ZH0014	27-JAN-88	4.80	6.95	927.0	0.97	10	3.2	0.638	0.909	0.0298
00NF02ZH0015	29-APR-88	2.09	6.63	490.0	1.20	10	2.5	0.320	0.503	-
00NF02ZH0015	29-APR-88	2.06	6.60	489.0	0.87	10	2.5	0.310	0.502	0.0102
00NF02ZH0015	29-APR-88	2.05	6.73	489.0	1.40	10	2.5	0.310	0.494	0.0102
00NF02ZH0016	28-MAR-88	3.27	6.71	549.0	0.65	5	2.1	0.300	0.480	0.0215
00NF02ZH0016	28-MAR-88	3.30	6.61	543.0	0.63	10	1.8	0.300	0.544	0.0256
00NF02ZH0016	28-MAR-88	3.30	6.50	536.0	0.87	5	1.8	0.290	0.548	0.0184
00NF02ZH0018	13-AUG-87	1.96	6.49	33.2	0.46	40	3.8	0.005	0.152	0.0055
00NF02ZH0018	13-AUG-87	2.00	6.42	33.5	0.47	40	3.8	L.005	0.155	0.0056
00NF02ZH0018	13-AUG-87	1.99	6.47	34.3	0.47	40	3.8	L.005	0.157	0.0060
00NF02ZH0019	21-SEP-87	3.57	6.51	346.0	0.13	5	2.0	0.416	0.577	0.0552
00NF02ZH0019	21-SEP-87	3.61	6.54	344.0	0.14	5	2.2	0.423	0.578	0.0532
00NF02ZH0019	21-SEP-87	3.55	6.67	347.0	0.14	5	2.2	0.416	0.584	0.0552

TABLE 5: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	SID2 14102L	PH LAB 10301L	COND 02041L	TURB JTU 02073L	COL. RU 02011L	DOC 06104L	NO3-NO2 07110L	TOT. N 07651L	TOT. P 15413P
00NF02ZM0019	09-NOV-87	2.08	6.13	44.5	0.60	60	7.6	L.005	0.195	0.0053
00NF02ZM0019	09-NOV-87	2.07	6.03	44.5	0.48	60	7.6	L.005	0.193	0.0069
00NF02ZM0019	09-NOV-87	2.07	6.09	44.5	0.67	50	7.8	L.005	0.190	-
00NF02ZM0020	21-SEP-87	3.03	6.43	94.8	0.15	5	2.2	0.083	0.179	0.0033
00NF02ZM0020	21-SEP-87	3.03	6.55	94.8	0.14	5	2.2	0.086	0.176	0.0029
00NF02ZM0020	21-SEP-87	3.03	6.50	94.9	0.14	5	1.9	0.084	0.175	0.0027
00NF02ZN0002	26-OCT-87	2.42	6.04	36.7	0.50	30	4.1	L.005	0.135	0.0039
00NF02ZN0002	26-OCT-87	2.46	6.02	36.7	1.00	30	4.2	0.006	0.130	0.0035
00NF02ZN0002	26-OCT-87	2.49	6.05	36.8	1.00	30	4.2	0.006	0.132	0.0032

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STATION NUMBER	DATE	TOT. AL 13009P	TOT. BA 56009P	BE US/L 04010P	TOT. CD 48009P	TOT. CD 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P
00NF02YC0002	19-NOV-87	0.125	0.0082	L.05	0.0002	L.0001	L.0002	0.0032	0.1170	0.0004
00NF02YC0002	19-NOV-87	0.123	0.0081	L.05	L.0001	L.0001	0.0002	0.0006	0.1110	0.0006
00NF02YC0002	19-NOV-87	0.127	0.0082	L.05	L.0001	L.0001	L.0002	0.0004	0.1180	0.0005
00NF02YE0004	22-OCT-87	0.068	0.0046	L.05	L.0001	0.0002	0.0002	0.0028	0.0805	0.0004
00NF02YE0004	22-OCT-87	0.068	0.0048	L.05	L.0001	0.0002	0.0003	0.0003	0.0915	0.0005
00NF02YE0004	22-OCT-87	0.069	0.0047	L.05	L.0001	0.0001	L.0002	0.0004	0.0913	0.0004
00NF02YG0001	14-JUL-88	0.246	0.0047	L.05	L.0001	0.0001	0.0003	0.0007	0.3370	0.0004
00NF02YG0001	14-JUL-88	0.247	0.0046	L.05	L.0001	L.0001	0.0003	0.0005	0.3340	0.0003
00NF02YG0001	14-JUL-88	0.243	0.0046	L.05	L.0001	L.0001	L.0002	0.0004	0.3300	0.0002
00NF02YH0018	18-MAY-88	0.063	0.0074	L.05	L.0001	0.0001	L.0002	0.0012	0.0842	0.0004
00NF02YH0018	18-MAY-88	0.067	0.0068	L.05	L.0001	L.0001	L.0002	0.0018	0.0869	0.0004
00NF02YH0018	18-MAY-88	0.065	0.0072	L.05	L.0001	0.0001	L.0002	0.0013	0.0857	0.0003
00NF02YJ0001	03-FEB-88	0.019	0.0072	L.05	L.0001	0.0002	0.0003	0.0006	0.0483	0.0003
00NF02YJ0001	03-FEB-88	0.019	0.0073	L.05	L.0001	L.0001	0.0003	0.0008	0.0475	0.0004
00NF02YJ0001	03-FEB-88	0.020	0.0073	L.05	L.0001	0.0002	0.0004	0.0011	0.0491	0.0004
00NF02YJ0004	03-FEB-88	0.013	0.0035	L.05	L.0001	0.0002	L.0002	0.0008	0.0249	0.0004
00NF02YJ0004	03-FEB-88	0.011	0.0034	L.05	L.0001	L.0001	L.0002	0.0005	0.0245	0.0002
00NF02YJ0004	03-FEB-88	0.016	0.0036	L.05	0.0001	0.0002	0.0005	0.0014	0.0257	0.0007
00NF02YL0011	18-AUG-87	0.019	0.0132	L.05	L.0001	L.0001	0.0004	0.0011	0.0834	0.0003
00NF02YL0011	18-AUG-87	0.019	0.0130	L.05	L.0001	L.0001	0.0004	0.0046	0.0792	0.0003
00NF02YL0011	18-AUG-87	0.023	0.0130	L.05	L.0001	L.0001	0.0004	0.0022	0.0839	0.0003
00NF02YL0011	08-JUN-88	0.165	0.0069	L.05	L.0001	0.0001	0.0003	0.0009	0.2670	0.0003
00NF02YL0011	08-JUN-88	0.161	0.0067	L.05	L.0001	0.0001	0.0002	0.0007	0.2540	0.0002
00NF02YL0011	08-JUN-88	0.164	0.0067	L.05	L.0001	0.0002	L.0002	0.0009	0.2710	0.0001
00NF02YL0012	18-AUG-87	0.056	0.0095	L.05	L.0001	0.0001	0.0004	0.0007	0.0417	0.0001
00NF02YL0012	18-AUG-87	0.056	0.0092	L.05	L.0001	L.0001	0.0005	0.0052	0.0416	0.0003
00NF02YL0012	18-AUG-87	0.055	0.0095	L.05	L.0001	L.0001	0.0004	0.0034	0.0421	0.0003
00NF02YL0013	26-OCT-87	0.057	0.0053	L.05	0.0002	0.0002	0.0004	0.0007	0.0548	0.0007
00NF02YL0013	26-OCT-87	0.055	0.0052	L.05	L.0001	0.0002	L.0002	0.0007	0.0501	0.0005
00NF02YL0013	26-OCT-87	0.059	0.0053	L.05	L.0001	0.0003	0.0002	0.0006	0.0549	0.0005
00NF02YM0003	05-JAN-88	0.106	0.0047	L.05	L.0001	0.0001	0.0004	0.0009	0.1250	0.0001
00NF02YM0003	05-JAN-88	0.112	0.0050	L.05	L.0001	L.0001	0.0004	0.0004	0.1310	0.0001
00NF02YM0003	05-JAN-88	0.110	0.0047	L.05	L.0001	L.0001	0.0004	0.0004	0.1290	0.0002
00NF02YM0004	02-DEC-87	0.377	0.0064	L.05	L.0001	0.0003	0.0011	0.0005	0.3290	0.0006
00NF02YM0004	02-DEC-87	0.364	0.0064	L.05	L.0001	0.0003	0.0010	0.0002	0.3300	0.0005

TABLE 5: TRIPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	TOT. AL 13009P	TOT. BA 56009P	BE U6/L 04010P	TOT. CD 48009P	TOT. CD 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P
00NF02YM0004	02-DEC-87	0.376	0.0064	L.05	0.0004	0.0004	0.0011	0.0018	0.3360	0.0008
00NF02YN0001	18-MAR-88	0.105	0.0039	L.05	0.0002	L.0001	L.0002	0.0012	0.1560	0.0002
00NF02YN0001	18-MAR-88	0.107	0.0039	L.05	0.0001	L.0001	L.0002	0.0008	0.1570	0.0002
00NF02YN0001	18-MAR-88	0.104	0.0039	L.05	0.0001	L.0001	0.0003	0.0007	0.1540	0.0004
00NF02YD0019	06-APR-88	0.077	0.0703	L.05	0.0002	0.0001	0.0003	0.0032	0.0753	0.0003
00NF02YD0019	06-APR-88	0.077	0.0695	L.05	0.0002	0.0001	0.0004	0.0040	0.0730	0.0004
00NF02YD0019	06-APR-88	0.072	0.0705	L.05	0.0002	0.0001	0.0003	0.0069	0.0774	0.0002
00NF02YD0020	02-JUN-88	0.109	0.0474	L.05	0.0003	0.0002	L.0002	0.0025	0.1330	L.0001
00NF02YD0020	02-JUN-88	0.106	0.0478	L.05	L.0001	0.0001	L.0002	0.0029	0.1210	0.0002
00NF02YD0020	02-JUN-88	0.114	0.0472	L.05	0.0001	0.0001	L.0002	0.0025	0.1340	0.0001
00NF02YD0021	04-FEB-88	0.064	0.0706	L.05	0.0001	L.0001	0.0003	0.0044	0.0722	0.0003
00NF02YD0021	04-FEB-88	0.070	0.0694	L.05	0.0001	L.0001	L.0002	0.0043	0.0726	L.0001
00NF02YD0021	04-FEB-88	0.064	0.0703	L.05	L.0001	L.0001	0.0002	0.0046	0.0709	0.0002
00NF02YQ0004	18-FEB-88	0.118	0.0013	L.05	L.0001	L.0001	L.0002	0.0006	0.0637	0.0004
00NF02YQ0004	18-FEB-88	0.114	0.0013	L.05	L.0001	L.0001	L.0002	0.0004	0.0590	0.0004
00NF02YQ0004	18-FEB-88	0.118	0.0013	L.05	L.0001	L.0001	L.0002	0.0005	0.0591	0.0004
00NF02YQ0005	17-DEC-87	0.102	0.0016	L.05	0.0002	L.0001	L.0002	0.0018	0.0812	0.0005
00NF02YQ0005	17-DEC-87	0.109	0.0017	L.05	0.0001	0.0001	L.0002	0.0007	0.0829	0.0004
00NF02YQ0005	17-DEC-87	0.101	0.0016	L.05	L.0001	L.0001	L.0002	0.0008	0.0798	0.0006
00NF02YQ0006	15-JUN-88	0.130	0.0010	L.05	L.0001	0.0001	0.0004	0.0004	0.1810	0.0005
00NF02YQ0006	15-JUN-88	0.131	0.0012	L.05	L.0001	L.0001	0.0004	0.0009	0.1890	0.0005
00NF02YQ0006	15-JUN-88	0.129	0.0009	L.05	L.0001	L.0001	0.0004	0.0007	0.1850	0.0005
00NF02YR0001	20-APR-88	0.184	0.0015	0.06	L.0001	0.0002	0.0004	0.0033	0.1680	0.0012
00NF02YR0001	20-APR-88	0.183	0.0012	L.05	L.0001	0.0001	L.0002	0.0029	0.1670	0.0009
00NF02YR0001	20-APR-88	0.181	0.0012	0.05	L.0001	L.0001	L.0002	0.0031	0.1620	0.0008
00NF02YS0001	18-NOV-87	0.099	0.0012	L.05	L.0001	0.0002	0.0002	L.0002	0.1470	0.0007
00NF02YS0001	18-NOV-87	0.102	0.0012	L.05	L.0001	0.0001	0.0002	0.0003	0.1450	0.0007
00NF02YS0001	18-NOV-87	0.100	0.0011	L.05	L.0001	L.0001	L.0002	L.0002	0.1430	0.0007
00NF02YS0005	21-SEP-87	0.216	0.0037	L.05	L.0001	0.0002	0.0003	0.0003	0.5860	0.0008
00NF02YS0005	21-SEP-87	0.221	0.0039	L.05	0.0001	0.0003	0.0003	0.0003	0.6050	0.0008
00NF02YS0005	21-SEP-87	0.218	0.0036	L.05	L.0001	0.0002	0.0003	0.0007	0.6030	0.0009
00NF02YS0005	18-JUL-88	0.230	0.0027	L.05	0.0001	0.0002	0.0005	L.0002	1.0000	0.0006
00NF02YS0005	18-JUL-88	0.224	0.0027	L.05	0.0001	0.0002	0.0004	0.0002	1.0100	0.0008
00NF02YS0005	18-JUL-88	0.221	0.0027	L.05	0.0001	0.0002	0.0006	0.0004	0.9990	0.0008

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STATION NUMBER	DATE	TOT. AL 13009P	TOT. BA 56009P	BE UG/L 04010P	TOT. CD 48009P	TOT. CD 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P
00NF02YS0010	22-OCT-87	0.050	0.0069	0.07	0.0001	0.0003	0.0003	0.0004	0.2550	0.0008
00NF02YS0010	22-OCT-87	0.051	0.0070	L.05	L.0001	0.0001	0.0003	0.0006	0.2620	0.0007
00NF02YS0010	22-OCT-87	0.051	0.0070	L.05	L.0001	0.0002	0.0003	0.0006	0.2610	0.0009
00NF02YS0011	19-MAY-88	0.113	0.0016	L.05	L.0001	0.0002	L.0002	0.0030	0.1250	0.0007
00NF02YS0011	19-MAY-88	0.141	0.0017	L.05	L.0001	L.0001	L.0002	0.0036	0.1660	0.0005
00NF02YS0011	19-MAY-88	0.161	0.0017	L.05	L.0001	0.0001	0.0003	0.0038	0.2080	0.0008
00NF02YS0012	21-MAR-88	0.125	0.0024	L.05	0.0003	0.0002	0.0005	0.0006	0.3820	0.0008
00NF02YS0012	21-MAR-88	0.260	0.0058	L.05	0.0001	0.0004	0.0006	0.0016	0.7280	0.0009
00NF02YS0012	21-MAR-88	0.135	0.0022	L.05	L.0001	0.0003	0.0004	L.0002	0.3990	0.0007
00NF02ZA0001	04-APR-88	0.154	0.0047	L.05	L.0001	L.0001	L.0002	L.0002	0.1180	L.0001
00NF02ZA0001	04-APR-88	0.158	0.0047	L.05	L.0001	0.0002	0.0003	0.0009	0.1200	0.0003
00NF02ZA0001	04-APR-88	0.156	0.0047	L.05	L.0001	0.0002	0.0004	0.0015	0.1190	0.0003
00NF02ZA0006	10-SEP-87	0.061	0.0245	L.05	0.0001	L.0001	0.0002	0.0007	0.0630	0.0007
00NF02ZA0006	10-SEP-87	0.069	0.0246	L.05	0.0001	L.0001	L.0002	0.0006	0.0660	0.0005
00NF02ZA0006	10-SEP-87	0.062	0.0243	L.05	L.0001	L.0001	L.0002	0.0005	0.0610	0.0005
00NF02ZA0006	13-JUL-88	0.105	0.0236	L.05	L.0001	L.0001	0.0003	0.0012	0.1860	0.0007
00NF02ZA0006	13-JUL-88	0.106	0.0236	L.05	L.0001	L.0001	0.0004	0.0013	0.1870	0.0009
00NF02ZA0006	13-JUL-88	0.106	0.0247	L.05	L.0001	L.0001	0.0002	0.0009	0.1860	0.0006
00NF02ZA0007	03-MAY-88	0.186	0.0057	L.05	L.0001	0.0001	0.0002	0.0010	0.1450	0.0002
00NF02ZA0007	03-MAY-88	0.188	0.0065	L.05	L.0001	L.0001	L.0002	0.0010	0.1450	L.0001
00NF02ZA0007	03-MAY-88	0.178	0.0065	L.05	L.0001	L.0001	L.0002	0.0009	0.1420	0.0002
00NF02ZB0005	12-JAN-88	0.062	0.0025	L.05	L.0001	L.0001	L.0002	0.0009	0.0319	0.0002
00NF02ZB0005	12-JAN-88	0.065	0.0025	L.05	L.0001	L.0001	L.0002	0.0017	0.0321	L.0001
00NF02ZB0005	12-JAN-88	0.065	0.0025	L.05	L.0001	L.0001	L.0002	0.0007	0.0313	0.0002
00NF02ZG0016	02-DEC-87	0.304	0.0056	L.05	0.0001	0.0002	0.0003	0.0004	0.2940	0.0004
00NF02ZG0016	02-DEC-87	0.289	0.0054	L.05	L.0001	L.0001	0.0003	0.0004	0.2850	0.0004
00NF02ZG0016	02-DEC-87	0.290	0.0055	L.05	L.0001	0.0001	L.0002	0.0003	0.2850	0.0002
00NF02ZG0016	22-JUN-88	0.193	0.0041	L.05	L.0001	L.0001	L.0002	0.0005	0.1450	0.0002
00NF02ZG0016	22-JUN-88	0.188	0.0041	L.05	L.0001	0.0002	0.0002	0.0009	0.1400	0.0004
00NF02ZG0016	22-JUN-88	0.189	0.0040	L.05	L.0001	L.0001	L.0002	0.0006	0.1440	0.0005
00NF02ZG0024	13-JAN-88	0.101	0.0120	L.05	L.0001	L.0001	L.0002	0.0005	0.1100	0.0011
00NF02ZG0024	13-JAN-88	0.101	0.0119	L.05	L.0001	L.0001	0.0005	0.0003	0.1080	0.0010
00NF02ZG0024	13-JAN-88	0.100	0.0122	L.05	L.0001	L.0001	L.0002	0.0007	0.1070	0.0011
00NF02ZG0025	04-FEB-88	0.147	0.0034	L.05	L.0001	0.0001	L.0002	0.0005	0.0831	0.0002
00NF02ZG0025	04-FEB-88	0.148	0.0034	L.05	L.0001	L.0001	L.0002	0.0011	0.0800	0.0002

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STATION NUMBER	DATE	TOT. AL 13009P	TOT. BA 56009P	BE UG/L 04010P	TOT. CD 48009P	TOT. CO 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P
00NF02ZG0025	04-FEB-88	0.151	0.0035	L.05	L.0001	0.0002	0.0004	0.0013	0.0833	0.0005
00NF02ZH0010	20-JUL-88	0.054	0.0012	L.05	L.0001	L.0001	L.0002	0.0006	0.1780	0.0005
00NF02ZH0010	20-JUL-88	0.064	0.0012	L.05	L.0001	L.0001	L.0002	L.0002	0.1830	0.0004
00NF02ZH0010	20-JUL-88	0.055	0.0012	L.05	L.0001	L.0001	L.0002	0.0005	0.1810	0.0006
00NF02ZJ0024	07-OCT-87	0.131	0.0040	L.05	L.0001	0.0001	L.0002	L.0002	0.2750	0.0004
00NF02ZJ0024	07-OCT-87	0.139	0.0041	L.05	L.0001	0.0002	L.0002	0.0004	0.2830	0.0006
00NF02ZJ0024	07-OCT-87	0.157	0.0041	L.05	L.0001	0.0002	L.0002	0.0002	0.2850	0.0005
00NF02ZK0005	24-NOV-87	0.127	0.0024	L.05	L.0001	0.0001	L.0002	L.0002	0.1980	0.0010
00NF02ZK0005	24-NOV-87	0.127	0.0024	L.05	L.0001	0.0001	L.0002	L.0002	0.1960	0.0007
00NF02ZK0005	24-NOV-87	0.125	0.0024	L.05	L.0001	0.0002	0.0003	L.0002	0.1970	0.0007
00NF02ZK0005	13-JUL-88	0.130	0.0024	L.05	L.0001	L.0001	L.0002	0.0008	0.2140	0.0005
00NF02ZK0005	13-JUL-88	0.131	0.0024	L.05	L.0001	L.0001	L.0002	0.0007	0.2140	0.0005
00NF02ZK0005	13-JUL-88	0.128	0.0024	L.05	0.0001	L.0001	0.0002	0.0010	0.2110	0.0005
00NF02ZL0001	07-MAR-88	0.097	0.0030	L.05	L.0001	L.0001	L.0002	0.0002	0.0152	0.0003
00NF02ZL0001	07-MAR-88	0.097	0.0030	L.05	L.0001	L.0001	L.0002	0.0003	0.0144	0.0002
00NF02ZL0001	07-MAR-88	0.099	0.0030	L.05	L.0001	L.0001	L.0002	0.0002	0.0146	0.0002
00NF02ZL0002	03-MAY-88	0.179	0.0018	L.05	L.0001	0.0001	L.0002	0.0006	0.0775	0.0007
00NF02ZL0002	03-MAY-88	0.167	0.0019	L.05	L.0001	L.0001	L.0002	0.0061	0.0737	0.0003
00NF02ZL0002	03-MAY-88	0.174	0.0019	L.05	L.0001	0.0001	L.0002	0.0009	0.0699	0.0002
00NF02ZM0014	27-JAN-88	0.112	0.0856	0.10	0.0002	0.0007	0.0004	0.0037	0.2470	0.0034
00NF02ZM0014	27-JAN-88	0.117	0.0853	0.11	0.0002	0.0008	0.0006	0.0025	0.2520	0.0037
00NF02ZM0014	27-JAN-88	0.113	0.0858	0.11	0.0003	0.0007	0.0007	0.0049	0.2530	0.0038
00NF02ZM0015	29-APR-88	0.124	0.0342	0.05	L.0001	0.0005	L.0002	0.0020	0.3300	0.0012
00NF02ZM0015	29-APR-88	0.123	0.0357	0.05	0.0001	0.0005	0.0002	0.0024	0.3420	0.0015
00NF02ZM0015	29-APR-88	0.124	0.0347	0.05	L.0001	0.0003	L.0002	0.0021	0.3420	0.0013
00NF02ZM0016	28-MAR-88	0.115	0.0340	0.06	0.0001	0.0008	0.0003	0.0025	0.4510	0.0010
00NF02ZM0016	28-MAR-88	0.117	0.0333	0.06	0.0002	0.0009	0.0004	0.0027	0.4580	0.0012
00NF02ZM0016	28-MAR-88	0.116	0.0333	0.07	0.0001	0.0005	L.0002	0.0025	0.4630	0.0008
00NF02ZM0018	13-AUG-87	0.087	0.0018	L.05	L.0001	0.0006	0.0004	0.0040	0.6090	0.0003
00NF02ZM0018	13-AUG-87	0.087	0.0017	L.05	L.0001	0.0006	0.0004	0.0047	0.6130	0.0003
00NF02ZM0018	13-AUG-87	0.085	0.0018	L.05	L.0001	0.0007	0.0005	0.0037	0.6030	0.0004
00NF02ZM0019	21-SEP-87	0.080	0.0147	L.05	0.0001	0.0005	0.0004	0.0079	0.2550	0.0011
00NF02ZM0019	21-SEP-87	0.081	0.0145	L.05	L.0001	0.0005	L.0002	0.0054	0.2450	0.0009
00NF02ZM0019	21-SEP-87	0.076	0.0143	L.05	L.0001	0.0006	0.0003	0.0073	0.2440	0.0011

TABLE 5: TRIPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	TOT. AL 13009P	TOT. BA 56009P	BE US/L 04010P	TOT. CD 48009P	TOT. CD 27009P	TOT. CR 24009P	TOT. CU 29009P	TOT. FE 26009P	TOT. LI 03009P
00NF02ZM0019	09-NOV-87	0.197	0.0035	L.05	L.0001	0.0003	0.0002	0.0034	0.1950	0.0003
00NF02ZM0019	09-NOV-87	0.190	0.0035	L.05	L.0001	0.0002	0.0004	0.0019	0.1950	0.0004
00NF02ZM0019	09-NOV-87	0.179	0.0035	L.05	L.0001	0.0001	0.0003	0.0043	0.1890	0.0003
00NF02ZM0020	21-SEP-87	0.030	0.0027	L.05	L.0001	0.0002	L.0002	0.0044	0.0772	0.0005
00NF02ZM0020	21-SEP-87	0.025	0.0028	L.05	L.0001	0.0001	L.0002	0.0061	0.0775	0.0005
00NF02ZM0020	21-SEP-87	0.023	0.0028	L.05	L.0001	0.0001	L.0002	0.0047	0.0698	0.0005
00NF02ZM0002	26-OCT-87	0.137	0.0026	L.05	0.0003	0.0002	L.0002	0.0010	0.1330	0.0004
00NF02ZM0002	26-OCT-87	0.139	0.0025	L.05	L.0001	0.0003	L.0002	0.0003	0.1320	0.0004
00NF02ZM0002	26-OCT-87	0.136	0.0026	L.05	L.0001	0.0002	0.0002	0.0006	0.1310	0.0005

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STATION NUMBER	DATE	TOT. MN 25010P	TOT. MD 42009P	TOT. NI 28009P	TOT. PB 82009P	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG UG/L 80011P
00NF02YC0002	19-NOV-87	0.0053	0.0001	L.0002	0.0007	0.0148	L.0001	0.0025	L.01
00NF02YC0002	19-NOV-87	0.0052	L.0001	0.0003	0.0008	0.0148	0.0003	0.0018	L.01
00NF02YC0002	19-NOV-87	0.0053	L.0001	L.0002	0.0002	0.0150	0.0002	0.0014	L.01
00NF02YE0004	22-OCT-87	0.0037	L.0001	L.0002	0.0004	0.0099	0.0003	0.0014	L.02
00NF02YE0004	22-OCT-87	0.0043	L.0001	L.0002	L.0002	0.0105	0.0002	0.0008	L.02
00NF02YE0004	22-OCT-87	0.0041	L.0001	L.0002	L.0002	0.0103	0.0002	0.0010	L.02
00NF02YG0001	14-JUL-88	0.0072	L.0001	0.0004	L.0002	0.0058	0.0004	0.0010	L.01
00NF02YG0001	14-JUL-88	0.0074	L.0001	0.0004	0.0003	0.0057	0.0004	0.0010	L.01
00NF02YG0001	14-JUL-88	0.0070	L.0001	L.0002	L.0002	0.0056	0.0003	0.0009	L.01
00NF02YH0018	18-MAY-88	0.0061	L.0001	L.0002	L.0002	0.0303	L.0001	0.0007	L.01
00NF02YH0018	18-MAY-88	0.0064	L.0001	0.0002	L.0002	0.0304	0.0002	0.0007	L.01
00NF02YH0018	18-MAY-88	0.0060	L.0001	0.0003	L.0002	0.0301	0.0001	0.0011	L.01
00NF02YJ0001	03-FEB-88	0.0035	L.0001	L.0002	0.0003	0.0428	0.0003	0.0005	L.01
00NF02YJ0001	03-FEB-88	0.0035	L.0001	L.0002	0.0004	0.0436	0.0003	0.0006	L.01
00NF02YJ0001	03-FEB-88	0.0033	L.0001	0.0003	L.0002	0.0435	0.0004	0.0006	L.01
00NF02YJ0004	03-FEB-88	0.0027	L.0001	0.0003	0.0002	0.0508	0.0002	0.0003	L.01
00NF02YJ0004	03-FEB-88	0.0026	0.0001	L.0002	L.0002	0.0513	L.0001	0.0002	L.01
00NF02YJ0004	03-FEB-88	0.0026	0.0003	0.0005	0.0018	0.0507	0.0005	0.0004	L.01
00NF02YL0011	18-AUG-87	0.0037	0.0001	0.0003	L.0002	0.0328	0.0001	0.0002	L.02
00NF02YL0011	18-AUG-87	0.0035	L.0001	0.0003	0.0006	0.0325	0.0001	L.0002	L.02
00NF02YL0011	18-AUG-87	0.0035	L.0001	0.0004	0.0003	0.0324	0.0001	0.0003	L.02
00NF02YL0011	08-JUN-88	0.0167	L.0001	0.0003	L.0002	0.0078	0.0004	0.0012	L.01
00NF02YL0011	08-JUN-88	0.0159	L.0001	0.0003	0.0005	0.0076	0.0003	0.0010	L.01
00NF02YL0011	08-JUN-88	0.0165	L.0001	L.0002	0.0002	0.0077	0.0002	0.0013	L.01
00NF02YL0012	18-AUG-87	0.0045	L.0001	0.0004	L.0002	0.0187	L.0001	L.0002	L.02
00NF02YL0012	18-AUG-87	0.0046	L.0001	0.0006	0.0007	0.0189	0.0002	L.0002	L.02
00NF02YL0012	18-AUG-87	0.0045	L.0001	0.0003	0.0004	0.0188	L.0001	L.0002	L.02
00NF02YL0013	26-OCT-87	0.0073	0.0001	0.0004	0.0004	0.0353	0.0005	0.0008	L.02
00NF02YL0013	26-OCT-87	0.0085	L.0001	L.0002	0.0003	0.0351	0.0003	0.0008	L.02
00NF02YL0013	26-OCT-87	0.0074	L.0001	0.0002	0.0003	0.0355	0.0004	0.0009	L.02
00NF02YM0003	05-JAN-88	0.0061	L.0001	0.0016	L.0002	0.0120	0.0001	0.0007	L.01
00NF02YM0003	05-JAN-88	0.0063	L.0001	0.0014	L.0002	0.0122	L.0001	0.0008	L.01
00NF02YM0003	05-JAN-88	0.0067	L.0001	0.0016	L.0002	0.0121	0.0001	0.0006	L.01
00NF02YM0004	02-DEC-87	0.0537	L.0001	0.0014	0.0010	0.0137	0.0006	0.0024	L.01
00NF02YM0004	02-DEC-87	0.0538	L.0001	0.0012	0.0005	0.0136	0.0005	0.0024	L.01

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STATION NUMBER	DATE	TOT. MN 25010P	TOT. MD 42009P	TOT. MI 28009P	TOT. PD 82009P	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG US/L 80011P
00NF02YM0004	02-DEC-87	0.0551	0.0002	0.0012	0.0015	0.0136	0.0005	0.0038	L.01
00NF02YM0001	18-MAR-88	0.0073	L.0001	L.0002	0.0004	0.0097	0.0002	0.0015	L.01
00NF02YM0001	18-MAR-88	0.0071	L.0001	L.0002	0.0004	0.0098	0.0002	0.0014	L.01
00NF02YM0001	18-MAR-88	0.0070	L.0001	0.0005	0.0006	0.0097	0.0004	0.0012	L.01
00NF02YD0019	06-APR-88	0.0119	0.0002	0.0004	0.0072	0.0079	0.0003	0.0351	L.01
00NF02YD0019	06-APR-88	0.0118	0.0003	0.0004	0.0077	0.0079	0.0004	0.0349	L.01
00NF02YD0019	06-APR-88	0.0120	L.0001	0.0003	0.0073	0.0079	0.0002	0.0364	L.01
00NF02YD0020	02-JUN-88	0.0166	L.0001	0.0003	0.0041	0.0088	0.0002	0.0248	L.01
00NF02YD0020	02-JUN-88	0.0153	L.0001	0.0002	0.0043	0.0089	0.0001	0.0239	L.01
00NF02YD0020	02-JUN-88	0.0165	L.0001	L.0002	0.0043	0.0087	L.0001	0.0260	L.01
00NF02YD0021	04-FEB-88	0.0232	L.0001	0.0002	0.0047	0.0104	0.0003	0.0393	L.01
00NF02YD0021	04-FEB-88	0.0230	L.0001	0.0003	0.0045	0.0103	0.0002	0.0368	L.01
00NF02YD0021	04-FEB-88	0.0228	L.0001	L.0002	0.0046	0.0104	0.0002	0.0387	L.01
00NF02YQ0004	18-FEB-88	0.0049	L.0001	0.0003	L.0002	0.0074	L.0001	0.0008	L.01
00NF02YQ0004	18-FEB-88	0.0053	L.0001	0.0004	L.0002	0.0074	0.0001	0.0008	L.01
00NF02YQ0004	18-FEB-88	0.0050	L.0001	0.0004	L.0002	0.0074	L.0001	0.0008	L.01
00NF02YQ0005	17-DEC-87	0.0090	L.0001	0.0004	0.0003	0.0079	L.0001	0.0021	L.01
00NF02YQ0005	17-DEC-87	0.0090	L.0001	0.0004	L.0002	0.0080	L.0001	0.0018	L.01
00NF02YQ0005	17-DEC-87	0.0094	L.0001	0.0007	0.0003	0.0080	0.0002	0.0011	L.01
00NF02YQ0006	15-JUN-88	0.0070	L.0001	0.0009	0.0005	0.0052	0.0002	0.0005	L.01
00NF02YQ0006	15-JUN-88	0.0071	L.0001	0.0009	0.0002	0.0053	0.0002	0.0005	L.01
00NF02YQ0006	15-JUN-88	0.0069	L.0001	0.0006	0.0003	0.0052	L.0001	0.0005	L.01
00NF02YR0001	20-APR-88	0.0166	L.0001	0.0003	0.0009	0.0047	0.0004	0.0015	L.01
00NF02YR0001	20-APR-88	0.0165	L.0001	L.0002	L.0002	0.0047	0.0001	0.0011	L.01
00NF02YR0001	20-APR-88	0.0164	L.0001	L.0002	L.0002	0.0047	L.0001	0.0011	L.01
00NF02YS0001	18-NOV-87	0.0124	L.0001	0.0003	0.0006	0.0057	0.0002	0.0014	L.01
00NF02YS0001	18-NOV-87	0.0123	L.0001	0.0003	0.0002	0.0058	0.0002	0.0011	L.01
00NF02YS0001	18-NOV-87	0.0123	L.0001	0.0003	0.0005	0.0057	0.0001	0.0010	L.01
00NF02YS0005	21-SEP-87	0.0299	0.0002	L.0002	L.0002	0.0134	0.0006	0.0012	L.02
00NF02YS0005	21-SEP-87	0.0304	L.0001	0.0002	L.0002	0.0136	0.0006	0.0012	L.02
00NF02YS0005	21-SEP-87	0.0310	L.0001	L.0002	L.0002	0.0137	0.0006	0.0012	L.02
00NF02YS0005	18-JUL-88	0.0259	L.0001	0.0003	0.0006	0.0105	0.0008	0.0006	L.01
00NF02YS0005	18-JUL-88	0.0261	0.0002	0.0003	0.0006	0.0106	0.0007	0.0006	L.01
00NF02YS0005	18-JUL-88	0.0254	0.0002	0.0005	0.0008	0.0105	0.0009	0.0006	L.01

TABLE 5: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	TOT. MN 25010P	TOT. MD 42009P	TOT. NI 28009P	TOT. PB 82009P	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG US/L 80011P
00NF02YS0010	22-OCT-87	0.0159	0.0003	L.0002	0.0005	0.0156	0.0004	0.0005	L.02
00NF02YS0010	22-OCT-87	0.0162	L.0001	L.0002	0.0003	0.0159	0.0003	0.0005	L.02
00NF02YS0010	22-OCT-87	0.0159	L.0001	L.0002	0.0002	0.0158	0.0004	0.0006	L.02
00NF02YS0011	19-MAY-88	0.0152	L.0001	0.0003	0.0005	0.0044	0.0002	0.0011	L.01
00NF02YS0011	19-MAY-88	0.0185	L.0001	0.0002	0.0011	0.0043	0.0002	0.0013	L.01
00NF02YS0011	19-MAY-88	0.0204	L.0001	0.0004	0.0011	0.0044	0.0004	0.0010	L.01
00NF02YS0012	21-MAR-88	0.0780	L.0001	0.0008	0.0008	0.0048	0.0004	0.0025	L.01
00NF02YS0012	21-MAR-88	0.1540	L.0001	0.0010	0.0011	0.0066	0.0005	0.0049	L.01
00NF02YS0012	21-MAR-88	0.0737	L.0001	0.0006	0.0006	0.0048	0.0003	0.0025	L.01
00NF02ZA0001	04-APR-88	0.0040	L.0001	L.0002	L.0002	0.0123	L.0001	0.0020	L.01
00NF02ZA0001	04-APR-88	0.0036	L.0001	0.0003	L.0002	0.0123	0.0003	0.0022	L.01
00NF02ZA0001	04-APR-88	0.0036	L.0001	0.0005	L.0002	0.0121	0.0004	0.0023	L.01
00NF02ZA0006	10-SEP-87	0.0036	0.0002	0.0006	0.0015	0.1100	0.0004	0.0003	L.02
00NF02ZA0006	10-SEP-87	0.0036	0.0001	0.0005	0.0008	0.1110	0.0004	L.0002	L.02
00NF02ZA0006	10-SEP-87	0.0034	0.0001	0.0004	0.0007	0.1100	0.0003	L.0002	L.02
00NF02ZA0006	13-JUL-88	0.0066	L.0001	0.0003	L.0002	0.0923	0.0003	0.0003	L.01
00NF02ZA0006	13-JUL-88	0.0067	L.0001	0.0004	0.0002	0.0912	0.0005	L.0002	L.01
00NF02ZA0006	13-JUL-88	0.0066	L.0001	0.0003	L.0002	0.0935	0.0003	0.0002	L.01
00NF02ZA0007	03-MAY-88	0.0056	L.0001	0.0003	0.0002	0.0130	0.0003	0.0012	L.01
00NF02ZA0007	03-MAY-88	0.0056	L.0001	L.0002	L.0002	0.0131	0.0002	0.0012	L.01
00NF02ZA0007	03-MAY-88	0.0056	L.0001	L.0002	L.0002	0.0130	0.0002	0.0013	L.01
00NF02ZB0005	12-JAN-88	0.0022	001	L.0002	L.0002	0.0093	L.0001	0.0011	L.01
00NF02ZB0005	12-JAN-88	0.0021	L.0001	L.0002	L.0002	0.0093	L.0001	0.0010	L.01
00NF02ZB0005	12-JAN-88	0.0021	L.0001	L.0002	L.0002	0.0093	L.0001	0.0009	L.01
00NF02ZG0016	02-DEC-87	0.0366	0.0001	0.0003	0.0002	0.0078	0.0005	0.0017	L.01
00NF02ZG0016	02-DEC-87	0.0361	L.0001	L.0002	0.0004	0.0077	0.0004	0.0016	L.01
00NF02ZG0016	02-DEC-87	0.0362	L.0001	0.0002	L.0002	0.0077	0.0003	0.0015	L.01
00NF02ZG0016	22-JUN-88	0.0168	L.0001	L.0002	L.0002	0.0065	L.0001	0.0006	L.01
00NF02ZG0016	22-JUN-88	0.0160	L.0001	L.0002	0.0002	0.0063	0.0002	0.0007	L.01
00NF02ZG0016	22-JUN-88	0.0162	L.0001	L.0002	L.0002	0.0064	0.0002	0.0007	L.01
00NF02ZG0024	13-JAN-88	0.0089	L.0001	L.0002	L.0002	0.0130	L.0001	0.0011	L.01
00NF02ZG0024	13-JAN-88	0.0089	L.0001	L.0002	L.0002	0.0130	L.0001	0.0010	L.01
00NF02ZG0024	13-JAN-88	0.0089	L.0001	0.0003	L.0002	0.0131	0.0002	0.0010	L.01
00NF02ZG0025	04-FEB-88	0.0247	L.0001	L.0002	L.0002	0.0070	L.0001	0.0016	L.01
00NF02ZG0025	04-FEB-88	0.0239	L.0001	L.0002	0.0002	0.0070	0.0002	0.0018	L.01

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STATION NUMBER	DATE	TOT. MN 25010P	TOT. MD 42009P	TOT. NI 28009P	TOT. PB 82009P	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	H6 U6/L 80011P
00NF02Z60025	04-FEB-88	0.0246	L.0001	0.0003	0.0019	0.0070	0.0004	0.0021	L.01
00NF02ZH0010	20-JUL-88	0.0119	L.0001	L.0002	L.0002	0.0077	L.0001	L.0002	L.01
00NF02ZH0010	20-JUL-88	0.0120	L.0001	L.0002	L.0002	0.0078	L.0001	0.0002	L.01
00NF02ZH0010	20-JUL-88	0.0122	L.0001	L.0002	L.0002	0.0076	L.0001	L.0002	L.01
00NF02ZJ0024	07-OCT-87	0.0446	L.0001	L.0002	L.0002	0.0103	L.0001	0.0010	L.02
00NF02ZJ0024	07-OCT-87	0.0451	L.0001	L.0002	0.0003	0.0106	0.0002	0.0013	L.02
00NF02ZJ0024	07-OCT-87	0.0443	L.0001	L.0002	L.0002	0.0104	0.0002	0.0013	L.02
00NF02ZX0005	24-NOV-87	0.0217	L.0001	L.0002	0.0003	0.0077	0.0001	0.0019	L.01
00NF02ZX0005	24-NOV-87	0.0218	L.0001	L.0002	L.0002	0.0076	L.0001	0.0015	L.01
00NF02ZX0005	24-NOV-87	0.0221	L.0001	0.0004	0.0005	0.0077	0.0002	0.0014	L.01
00NF02ZX0005	13-JUL-88	0.0193	L.0001	L.0002	L.0002	0.0072	L.0001	0.0005	L.01
00NF02ZX0005	13-JUL-88	0.0194	L.0001	L.0002	L.0002	0.0073	L.0001	0.0006	L.01
00NF02ZX0005	13-JUL-88	0.0191	L.0001	L.0002	0.0005	0.0072	0.0002	0.0011	L.01
00NF02ZL0001	07-MAR-88	0.0104	L.0001	L.0002	L.0002	0.0059	L.0001	0.0014	L.01
00NF02ZL0001	07-MAR-88	0.0104	L.0001	L.0002	L.0002	0.0058	L.0001	0.0014	L.01
00NF02ZL0001	07-MAR-88	0.0104	L.0001	L.0002	L.0002	0.0058	L.0001	0.0014	L.01
00NF02ZL0002	03-MAY-88	0.0319	L.0001	0.0003	L.0002	0.0036	0.0002	0.0014	L.01
00NF02ZL0002	03-MAY-88	0.0308	L.0001	L.0002	0.0004	0.0035	L.0001	0.0013	L.01
00NF02ZL0002	03-MAY-88	0.0299	L.0001	L.0002	L.0002	0.0036	L.0001	0.0014	L.01
00NF02ZM0014	27-JAN-88	0.2160	L.0001	0.0004	0.0024	0.0774	0.0004	0.0828	L.01
00NF02ZM0014	27-JAN-88	0.2160	0.0002	0.0004	0.0030	0.0772	0.0004	0.0830	L.01
00NF02ZM0014	27-JAN-88	0.2170	0.0001	0.0008	0.0032	0.0772	0.0005	0.0827	L.01
00NF02ZM0015	29-APR-88	0.1640	L.0001	0.0005	0.0010	0.0391	0.0002	0.0292	L.01
00NF02ZM0015	29-APR-88	0.1690	L.0001	0.0005	0.0019	0.0403	0.0003	0.0301	L.01
00NF02ZM0015	29-APR-88	0.1680	L.0001	0.0005	0.0009	0.0398	0.0002	0.0297	L.01
00NF02ZM0016	28-MAR-88	0.2930	L.0001	L.0002	0.0018	0.0413	L.0001	0.0319	L.01
00NF02ZM0016	28-MAR-88	0.2900	L.0001	0.0005	0.0004	0.0403	0.0002	0.0313	L.01
00NF02ZM0016	28-MAR-88	0.2880	L.0001	L.0002	0.0014	0.0405	L.0001	0.0315	L.01
00NF02ZM0018	13-AUG-87	0.1150	L.0001	0.0003	0.0004	0.0090	L.0001	0.0008	L.02
00NF02ZM0018	13-AUG-87	0.1170	L.0001	0.0004	0.0007	0.0090	L.0001	0.0009	L.02
00NF02ZM0018	13-AUG-87	0.1200	L.0001	0.0005	0.0008	0.0089	0.0002	0.0009	L.02
00NF02ZM0019	21-SEP-87	0.1450	L.0001	0.0005	0.0018	0.0560	0.0004	0.0189	L.02
00NF02ZM0019	21-SEP-87	0.1460	L.0001	L.0002	0.0008	0.0553	0.0001	0.0189	L.02
00NF02ZM0019	21-SEP-87	0.1420	L.0001	0.0005	0.0018	0.0561	0.0003	0.0189	L.02

TABLE 5: TRIPPLICATE SAMPLES OF THE CANADA-NEWFOUNDLAND INDEX STATION NETWORK DURING THE SECOND YEAR OF MONITORING (AUG. 1987 TO AUG. 1988) - REPORTED IN MG/L, UNLESS OTHERWISE NOTED

STATION NUMBER	DATE	TOT. MN 25010P	TOT. MD 42009P	TOT. NI 28009P	TOT. PB 82009P	TOT. SR 38009P	TOT. VA 23009P	TOT. ZN 30009P	HG US/L 80011P
00NF02ZM0019	09-NOV-87	0.0175	L.0001	L.0002	0.0005	0.0066	0.0002	0.0011	L.01
00NF02ZM0019	09-NOV-87	0.0176	L.0001	L.0002	0.0008	0.0065	0.0003	0.0011	L.01
00NF02ZM0019	09-NOV-87	0.0182	L.0001	L.0002	0.0006	0.0064	0.0003	0.0011	L.01
00NF02ZM0020	21-SEP-87	0.0220	L.0001	L.0002	0.0002	0.0128	0.0002	0.0011	L.02
00NF02ZM0020	21-SEP-87	0.0219	L.0001	L.0002	0.0002	0.0125	L.0001	0.0014	L.02
00NF02ZM0020	21-SEP-87	0.0223	L.0001	L.0002	L.0002	0.0127	L.0001	0.0010	L.02
00NF02ZN0002	26-OCT-87	0.0126	L.0001	0.0005	0.0006	0.0056	0.0001	0.0055	L.02
00NF02ZN0002	26-OCT-87	0.0123	L.0001	L.0002	L.0002	0.0056	0.0001	0.0013	L.02
00NF02ZN0002	26-OCT-87	0.0127	L.0001	L.0002	L.0002	0.0056	0.0003	0.0015	L.02

TABLE 6: Proportions of triplicate samples which had a variability (coefficient of variation) greater than 10 percent (Aug. 86 to Aug. 87 and Aug. 87 to Aug. 88)

Parameter (Det. Limit)	1986-1987		1987-1988	
	Mean Value	Prop.>10%	Mean Value	Prop.>10%
Ca, Diss. (0.05 mg/L)	4.82	1/39=2.6%	5.18	1/45=2.2%
Mg, Diss. (0.01 mg/L)	1.18	1/39=2.6%	1.19	1/45=0%
Na, Diss. (0.1 mg/L)	7.43	1/39=2.6%	11.64	0/45=0%
K, Diss. (0.02 mg/L)	0.33	0/39=0%	0.35	0/45=0%
Cl, Diss. (0.01 mg/L)	12.02	1/39=2.6%	18.91	0/45=0%
SO ₄ Diss. MTB (0.2 mg/L)	4.39	1/39=2.6%	4.85	2/45=4.4%
SO ₄ Diss. IC (0.01 mg/L)	2.93	1/39=2.6%	4.85	0/45=0%
Alk, Tot. (0.1 mg/L)	14.45	8/31=25.8%	12.47	6/37=16.2%
Alk, Gr. (-)	0.49	0/7=0%	0.85	2/8=25%
Si, Reac. (0.02 mg/L)	-	-	2.28	0/45=0%
pH ¹ (-pH units)	-	0/39=0%	-	0/45=0%
Sp. Cond. (0.1 μS/cm)	76.38	1/39=2.6%	100.2	2/45=4.4%
Turb. (0.05 JTU)	0.29	17/39=43.6%	0.47	27/45=60%
Col, App. (5 R.U.)	35	11/39=28.2%	35	17/45=37.8%
C, Diss. Org (0.1 mg/L)	4.98	1/39=2.6%	5.16	0/45=0%
NO ₃ -NO ₂ Diss (0.005 mg/L)	0.070	6/36=16.7%	0.105	5/34=14.7%
P, Tot (0.0004 mg/L)	0.0065	16/37=43.2%	0.0067	14/43=32.6%
N, Tot. (0.025 mg/L)	0.191	4/36=11.1%	0.239	2/45=4.4%
Al, Tot. (0.002 mg/L)	0.118	8/39=20.5%	0.123	5/49=10.2%
Ba, Tot (0.0002 mg/L)	0.0118	3/39=7.1%	0.118	3/49=6.1%
Be, Tot (0.05 μg/L)	0.066	0/1=0%	0.07	0/3=0%
Cd, Tot (0.0001 mg/L)	0.0001	2/3=66.7%	0.0002	3/5=60%
Co, Tot (0.0001 mg/L)	0.0002	8/11=72.7%	0.0002	16/20=80%
Cr, Tot (0.0002 mg/L)	0.0008	15/16=93.8%	0.0004	9/15=60%
Cu, Tot (0.0002 mg/L)	0.0021	31/36=86.1%	0.0017	35/42=83.3%
Fe, Tot (0.0004 mg/L)	0.186	5/39=12.8%	0.196	2/45=4.1%
Li, Tot (0.0001 mg/L)	0.0006	25/29=86.2%	0.0006	35/44=79.5%
Mn, Tot (0.0001 mg/L)	0.0259	5/39=12.8%	0.0338	2/49=4.1%
Mo, Tot (0.0001 mg/L)	0.0002	2/2=100%	0.0002	0
Ni, Tot (0.0002 mg/L)	0.0006	7/8=87.5%	0.0005	13/17=76.4%
Pb, Tot (0.0002 mg/L)	0.0013	19/24=79.2%	0.0012	17/20=85%
Sr, Tot (0.0001 mg/L)	0.0163	0/39=0%	0.0195	1/49=2.0%
Va, Tot (0.0001 mg/L)	0.0003	14/16=87.5%	0.0003	23/25=92%
Zn, Tot (0.0002 mg/L)	0.0061	15/39=38.5%	0.0067	22/44=50%
Hg, Tot (0.02 μg/L)	0.08	0	<.02	0

¹ The criterion used for evaluating the consistency of pH values between triplicate samples was the maximum variation of 0.3 pH unit between the values.

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