

**REPORT OF THE U.S. GEOLOGICAL SURVEY'S EVALUATION PROGRAM FOR
STANDARD REFERENCE SAMPLES DISTRIBUTED IN APRIL 1993 T-123
(TRACE CONSTITUENTS), T-125 (TRACE CONSTITUENTS), M-126 (MAJOR
CONSTITUENTS, N-38 (NUTRIENTS), N-39 (NUTRIENTS), P-20 (LOW IONIC
STRENGTH, AND Hg-16 (MERCURY)**

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REPORT ON THE U.S. GEOLOGICAL SURVEY'S EVALUATION PROGRAM FOR STANDARD REFERENCE SAMPLES DISTRIBUTED IN APRIL 1993 T-123 (TRACE CONSTITUENTS), T-125 (TRACE CONSTITUENTS), M-126 (MAJOR CONSTITUENTS), N-38 (NUTRIENTS), N-39 (NUTRIENTS), P-20 (LOW IONIC STRENGTH), and Hg-16 (MERCURY)

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ABSTRACT

This report presents the results of the U.S. Geological Survey's analytical evaluation program for seven standard reference samples--T-123 (trace constituents), T-125 (trace constituents) M-126 (major constituents), N-38 (nutrients), N-39 (nutrients), P-20 (precipitation-low ionic strength), and Hg-16 (mercury)--that were distributed in April 1993 to 175 laboratories registered in the U.S. Geological Survey sponsored interlaboratory testing program. Analytical data received from 131 of the laboratories were evaluated with respect to: overall laboratory performance and relative laboratory performance for each analyte in the seven reference samples. Results of these evaluations are presented in tabular form. Also presented are tables and graphs summarizing the analytical data provided by each laboratory for each analyte in the seven standard reference samples. The most probable value for each analyte was determined using nonparametric statistics.

INTRODUCTION

The U.S. Geological Survey (USGS) conducts an interlaboratory evaluation program semiannually. This program provides a variety of reference materials to accomplish quality assurance testing of laboratories and to provide an adequate supply of samples that contribute to quality control programs of participating laboratories. Natural-matrix reference materials are preferred for use in this interlaboratory evaluation program. A series of samples are prepared and distributed each spring and fall. Occasionally, sediment samples are provided.

The program began in 1962 with a single sample containing major constituents that was prepared from distilled water and reagent grade chemicals. Twenty-three USGS laboratories participated in the 1962 determinations of six analytes in the major standard reference sample (SRS). Since that time, objectives of the program have been to:

- (1) evaluate and improve the performance of USGS and other participating laboratories;
- (2) provide a library of carefully prepared, homogeneous, stable reference materials for use in the quality control programs of laboratories;
- (3) identify analytical problem areas;
- (4) identify quality assurance needs with respect to environmental analyses and develop new reference materials to meet these needs; and
- (5) ascertain the accuracy and precision of analytical methods.

One hundred ninety-four USGS and non-USGS laboratories are registered in the program, which can currently provide eight standard reference sample types:

1. Trace constituents.
2. Major constituents.
3. Nutrients.
4. Low ionic strength.
5. Mercury.
6. Water and suspended sediment mixtures for trace metals.
7. Acid mine drainage
8. Sediment (bed material) for major and trace constituents.

When sufficient data are available, a most probable value is statistically determined for each analyte in the SRS.

Though this is not a laboratory certification program, participation in this continuing quality assurance program is mandatory for all laboratories providing water-analyses data for USGS data storage or use (publications). Federal, State, municipal, and university laboratories can participate even though they do not provide data to the USGS. Analyses of these SRS provides the means to alert participating laboratories of possible deficiencies in their analytical operations, and also provides reference materials for in-house quality control programs. Participating laboratories are identified only by a confidential code number.

A library of SRS, from previous evaluations, is available on request. Participating laboratories can request previous SRS for further testing, continuing quality assurance, and quality control programs by contacting:

Chief Laboratory Section, BQA
 U.S. Geological Survey
 Branch of Quality Assurance
 Denver Federal Center
 Box 25046 MS 401
 Denver, CO 80225

Purpose and Scope

This report summarizes the analytical results submitted by 131 of the 175 laboratories (table 1) that requested and were shipped SRS for the April 1993 evaluation. Not all SRS are requested, nor necessarily analyzed by all the laboratories; nor do all laboratories enrolled in the program participate in each evaluation. Analytical results for the following, which were mailed the week of April 26, 1993, are presented in this report:

- T-123 Trace constituents
- T-125 Trace constituents
- M-126 Major constituents
- N-38 Nutrients--low level concentrations (analytes < 0.5 milligrams per Liter)
- N-39 Nutrients--high level concentrations (analytes > 0.5 milligrams per Liter)
- P-20 Precipitation (low ionic strength)
- Hg-16 Mercury

The USGS requested that analytical results be returned by July 15, 1993, for evaluation and preparation of this report. Each participating laboratory is requested to perform those determinations routinely made on the respective SRS for USGS investigations and to indicate the analytical method used to determine the concentration of each analyte. When analytical-method information was provided, it has been included in the respective data table. The analytical data are presented in ways that allow participants to evaluate data distribution, scatter, outliers, central tendency, bias, skewness, and method relationships.

Table 1.--Laboratory participants in the analyses of standard reference samples distributed in April 1993

State	City	Participating Laboratory
Alabama	Tuscaloosa	Geological Survey of Alabama
Arizona	Phoenix	Arizona Department of Health Services
	Phoenix	Westech Laboratories, Inc.
Arkansas	Arkadelphia	Ouachita Baptist University
	Little Rock	Arkansas Department of Pollution Control and Ecology
California	Castaic	Castaic Chemical Laboratory, Department of Water Resources
	Davis	University of California - Davis
	La Mesa	San Diego Water Utility
	La Verne	Metropolitan Water District of Southern California
	Lakeside	Helix Water District
	Martinez	Central Contra Costa Sanitary District

Table 1.—Laboratory participants in the analyses of standard reference samples distributed in April 1993 — (Continued)

State	City	Participating Laboratory
California	Oakland	East Bay Municipal Utility District
	Riverside	University of California - Riverside
	Riverside	USDA, Bureau of Forestry
	Sacramento	Anlab
	Sacramento	US Bureau of Reclamation
	Sacramento	USGS
	Santa Barbara	University of California - Santa Barbara
	Santa Fe Springs	West Coast Analytical Service, Inc.
	West Sacramento	California Department of Water Resources
Colorado	Alamosa	US Bureau of Reclamation
	Arvada	USGS National Water Quality Laboratory
	Aurora	Core Laboratories, Inc.
	Denver	Denver Water Department
	Denver	Metro Wastewater Reclamation
	Denver	US Bureau of Reclamation
	Denver	USGS
	Englewood	Public Service Company of Colorado
	Fort Collins	City of Fort Collins - Water Quality
	Fort Collins	US Forest Service
	Golden	EG & G, Rock Flats Plant
	Golden	Huffman Laboratories
	Loveland	Northern Colorado Water Conservation
	Northglenn	Northglenn Water Treatment Plant
Westminster	City of Westminster	
Florida	Brooksville	Southwest Florida Water Management District
	Ocala	USGS
	Orlando	Orange County
	Orlando	Post, Buckley, Schuh, and Jernigan, Inc.
	Palatka	St. John's River Management District
	Tallahassee	City of Tallahassee
	Tallahassee	Savannah Laboratories
	Tampa	Hillsborough County Environmental Protection Commission
	West Palm Beach	South Florida Water Management District
Georgia	Albany	WG & L Water Laboratory
	Athens	University of Georgia
	Atlanta	Georgia Department of Natural Resources
	Atlanta	USGS
	Decatur	Dekalb County Water Quality Laboratory
	Tifton	US Department of Agriculture
Hawaii	Honolulu	University of Hawaii - Manoa, Dep't of Oceanography
Idaho	Boise	US Bureau of Reclamation
Illinois	Champaign	Illinois Environmental Protection Agency
	Champaign	Hazardous Waste Research Center
	Chicago	Illinois Environmental Protection Agency
Indiana	Indianapolis	Indianapolis Department of Public Works
	Valparaiso	Coast to Coast Analytical Services, Inc. Laboratories
Iowa	Des Moines	University Hygienic Laboratory, Des Moines Branch
Kansas	Lawrence	Kansas Geological Survey
	Topeka	Kansas Department of Health and Environment
Kentucky	Frankfort	Division of Environmental Services
	Lexington	Kentucky Geological Survey
	Lexington	Lexington Commonwealth Technology
	Louisville	Metropolitan Sewer District

Table 1.--Laboratory participants in the analyses of standard reference samples distributed in April 1993 -- (Continued)

<u>State</u>	<u>City</u>	<u>Participating Laboratory</u>
Maine	Orono	University of Maine - Sawyer Environmental Center
	Orono	University of Maine - Department of Plant, Soil and Environment
Maryland	Baltimore	Martel Laboratory Services, Inc.
	Baltimore	Maryland Department of Health and Mental Hygiene
Massachusetts	Wellesley Hills	Massachusetts Department of Public Works
Michigan	Ann Arbor	University of Michigan - Department of Geological Sciences
	Ann Arbor	University of Michigan - School of Natural Resources
Minnesota	Minneapolis	Braun Intertec Environmental, Inc.
	Minneapolis	University of Minnesota, Dept of Geology and Geophysics
	St. Paul	University of Minnesota, Research Analytical Laboratory
Missouri	Jefferson City	Missouri Department of Health
Montana	Butte	Montana Bureau of Mines and Geology
Nebraska	McCook	Olson's Agriculture Laboratory
Nevada	Las Vegas	City of Las Vegas
	Las Vegas	University of Nevada - Las Vegas
	Reno	Desert Research Institute
	Reno	Nevada State Health Laboratory
	Sutcliffe	Pyramid Lake Fisheries
New Mexico	Gallup	Bureau of Indian Affairs, Natural Resources Laboratory
New York	Albany	New York State Department of Health
	Albany	USGS
	Brockport	State University of New York - Brockport
	Buffalo	Erie County Laboratory
	Grahamsville	New York City Department of Environmental Protection
	Hempstead	Nassau County Department of Health
	Milbrook	Institute of Ecosystem Studies
	North Babylon	EcoTest Laboratories, Inc.
	Oakdale	Suffolk County Water Authority
	Port Washington	New York Test Environmental, Inc.
	Rochester	Monroe County Environmental Health Laboratory
	Syracuse	Onodaga County Department of Drainage and Sanitation
	Syracuse	State University of New York, Syracuse
Valhalla	Department of Environmental Protection	
Wantaugh	Cedar Creek Projects Laboratoy	
North Carolina	Charlotte	Mecklenburg County - Department of Environmental Protection
	Durham	City of Durham, - Department of Water Resources
	Greensboro	City of Greensboro
North Dakota	Bismarck	North Dakota State Water Commission
	Bismarck	North Dakota Health Department
Ohio	Columbus	City of Columbus - Division of Water
	Columbus	Surveillance Laboratory
	Franklin	Franklin EOS
	Medina	Medina County Sanitary Engineer
	Tiffin	Heidelberg College, Water Quality Laboratory
Oklahoma	Norman	Oklahoma Geological Survey
	Oklahoma City	Oklahoma State Department of Health
Oregon	Corvallis	US Department of Agriculture
	Tigard	Unified Sewerage Agency
Pennsylvania	Harrisburg	Pennsylvania Department of Environmental Resources
	Somerset	Geochemical Testing
Puerto Rico	San Juan	Department of Natural Resources
South Dakota	Brookings	Northern Great Plains Laboratory
	Vermillion	South Dakota Geological Survey

Table 1.—Laboratory participants in the analyses of standard reference samples distributed in April 1993 — (Continued)

State	City	Participating Laboratory
Tennessee	Chattanooga	Tennessee Valley Authority
	Nashville	USGS
Texas	Tyler	Analytical Testing Laboratories
Vermont	Waterbury	Vermont Agency of Natural Resources
Virginia	Culpepper	ESS Laboratories
	Manassas	Ocoquan Watershed Monitoring Lab
	Reston	USGS
	Richmond	Consolidated Laboratory Services
	Virginia Beach	Hampton Road Sanitation District
Washington	Seattle	Brooks-Rand, Ltd.
West Virginia	Morgantown	University of West Virginia
Wisconsin	Green Bay	Green Bay Metro Sewerage District
	Madison	State Laboratory of Hygiene
	Milwaukee	Milwaukee Metro Sewerage District
Wyoming	Casper	Core Laboratories, Inc.
	Cheyenne	Department of Environmental Quality
	Laramie	Wyoming Department of Agriculture

Preparation of Standard Reference Samples

All the SRS used in this evaluation were prepared by personnel of the USGS in Golden, Colo. and were analyzed for analyte concentrations and physical property values prior to mailing.

Trace-constituent samples T-123 and T-125 were prepared using water collected from the Big Thompson River near Loveland, Colorado. The water was pumped through 2- and 0.1- μm filters, in series, into a 1300-L polypropylene drum. The water was continuously circulated and passed through a 0.1- μm filter and ultraviolet sterilizer for 72 hours. Following this circulation, the water was acidified to pH 1.5 with nitric acid, chlorinated to 5-ppm free chlorine, and then supplemented with reagent-grade chemicals to achieve selected analyte concentrations. The water was circulated for an additional 24 hours prior to bottling. Each sample was bottled after being pumped through an ultraviolet sterilizer and a 0.1- μm filter. Bottles used were recycled, acid leached, deionized-water rinsed, autoclave sterilized, 500-mL polypropylene bottles. Samples not mailed for this SRS evaluation are stored until requested for use.

Major constituent sample M-126 was prepared using water collected from the Big Thompson River, near Loveland, Colorado. The water was pumped through 2- and 0.1- μm filters, in series, into a 1300-L polypropylene drum. The water was chlorinated to 5-ppm free chlorine, supplemented with reagent-grade chemicals to adjust analyte concentrations, and continuously circulated and passed through a 0.1- μm filter and ultraviolet sterilizer for 72 hours. Bottles used were recycled, acid leached, deionized-water rinsed, autoclave sterilized, 500-mL polypropylene bottles. Samples not mailed for this SRS evaluation are stored until requested for use.

Nutrient samples N-38 and N-39 were prepared using water collected from the Fall River, near Idaho Springs, Colorado. These samples were prepared the week prior to the mailing for this SRS evaluation. The water was pumped through 2- and 0.1- μm filters, in series, into a 600-L polypropylene drum and continuously circulated and passed through a 0.1- μm filter for 48 hours. The desired nutrient concentrations were obtained by adding reagent-grade chemicals. The water was circulated for an additional 24 hours. A number of nonpreserved samples were bottled from this solution. The remaining water was preserved with mercuric chloride, to a concentration of 50 mg/L, and with sodium chloride, to a concentration of 450 mg/L. The preserved water was continuously circulated for 24 hours after which

preserved samples were bottled. Bottles used were new, amber, acid leached, deionized-water rinsed, 250 mL polyethylene bottles. (Nonpreserved nutrient sample use will not be encouraged because USGS protocol calls for field preservation of nutrient samples with mercuric chloride.) Samples not mailed for this SRS evaluation are refrigerated at 4 °C until requested for use.

Sample P-20 was snow collected in 50-gallon polypropylene drums from near Genesse, Colorado. The collected snow was allowed to melt; after which the snowmelt was pumped through 2- and 0.1- μ m filters, in series, into a 400-L polypropylene tank. After this initial circulation, desired phosphate and fluoride concentrations were obtained by adding reagent-grade chemicals. Following 48 hours of additional circulation and circulation through a 0.1- μ m filter, each sample was bottled after being pumped through an ultraviolet sterilizer and a 0.1- μ m filter. Bottles used were, recycled, acid leached, deionized water rinsed, autoclave sterilized, 500-mL polypropylene bottles. Samples not mailed for this SRS evaluation are stored until requested for use.

Sample Hg-16 was prepared using water collected from the Fall River, near Idaho Springs, Colo. The sample was prepared in a 190-L polypropylene drum. The creek water was pumped into this drum through 2- and 0.1- μ m filters in series. The water was continuously circulated and passed through a 0.1- μ m filter and ultraviolet sterilizer for 72 hours. Nitric acid (5-percent, v/v) and dichromate ion (0.05-percent, w/w) were added to stabilize the sample. The desired mercury concentration was obtained by adding a mercury standard solution. Following an additional 24 hours of circulation, each sample was bottled after being pumped through a 0.1-mm filter. Bottles used were new, acid leached, deionized-water rinsed, 125 mL glass bottles with tetrafluoroethylene fluorocarbon resin caps. Samples not mailed for this SRS evaluation are stored until requested for use.

LABORATORY ANALYSES

The participating laboratories were asked to determine analytes which are summarized in table 2. The number of analytes varied from 26 in T-123 (trace constituents) to 1 in Hg-16 (mercury).

Table 2.--Analytes determined in standard reference samples distributed in April 1993

[mg/L, milligrams per liter, µg/L, micrograms per liter, µS/cm, microsiemens per centimeter at 25 degrees Celsius]

Analyte or property	Units	T-123,125	M-124	N-38,39	P-20	Hg-16
Alk	Alkalinity as CaCO ₃	mg/L		X		
Acid	Acidity as CaCO ₃	mg/L				
Ag	Silver	µg/L	X		X	
Al	Aluminum	µg/L	X			
As	Arsenic	µg/L	X			
B	Boron	µg/L	X			
Ba	Barium	µg/L	X			
Be	Beryllium	µg/L	X			
Ca	Calcium	mg/L	X	X		X
Cd	Cadmium	µg/L	X			
Cl	Chloride	mg/L		X		X
Co	Cobalt	µg/L	X			
Cr	Chromium, total	µg/L	X			
Cu	Copper	µg/L	X			
DSRD	Dissolved solids	mg/L		X		
F	Fluoride	mg/L		X		X
Fe	Iron	µg/L	X			
Hg	Mercury	µg/L				X
K	Potassium	mg/L	X	X		X
Li	Lithium	µg/L	X			
Mg	Magnesium	mg/L	X	X		X
Mn	Manganese	µg/L	X			
Mo	Molybdenum	µg/L	X			
Na	Sodium	mg/L	X	X		X
NH ₃ as N	Ammonia	mg/L			X	
NH ₃ +org N as N	Ammonia+Organic N	mg/L			X	
Ni	Nickel	µg/L	X			
NO ₃ +NO ₂ as N	Nitrate + Nitrite	mg/L			X	
Pb	Lead	µg/L	X			
pH		unit		X		X
PO ₄ as P	Orthophosphate	mg/L			X	X
total P as P	Phosphorus	mg/L		X	X	
Sb	Antimony	µg/L	X			
Se	Selenium	µg/L	X			
SiO ₂	Silica	mg/L	X	X		
SO ₄	Sulfate	mg/L		X		X
Sp Cond	Specific conductance	µS/cm		X		X
Sr	Strontium	µg/L	X	X		
V	Vanadium	µg/L	X	X		
Zn	Zinc	µg/L	X			

Laboratories were requested to identify the method used for each analyte according to table 3 codes.

Table 3.--*Analytical-method codes*

Code	Method
0	Other
1	Atomic absorption: direct, air
2	Atomic absorption: direct, nitrous oxide
3	Atomic absorption: graphite furnace
4	Inductively coupled argon plasma
5	Direct current plasma
6	Inductively coupled argon plasma/Mass spectrometry/
7	Ion chromatography
8	Atomic absorption: cold vapor
10	Atomic absorption: extraction [<i>specify chelating agents</i>]
11	Atomic absorption: hydride [<i>specify reducing agent</i>]
12	Flame photometric
20	Titration: colorimetric [<i>specify color reagent</i>]
22	Colorimetric: [<i>specify reducing or oxidizing agent/color reagent</i>]
40	Selective ion electrode
41	Electrometric [<i>pH and Specific Conductance</i>]
50	Gravimetric: [<i>specify filtration, evaporation, and so forth</i>]

Participating laboratories were also asked to use the references listed below to further define the methods.

1. American Public Health Association and others, 1989, Standard methods for the examination of water and wastewater 17th ed: Washington, D.C., American Public Health Association, 1527 p.
2. American Society for Testing and Materials, 1990, Annual book of ASTM standards: Philadelphia, v. 11.01, and v. 11.02.
3. Kopp, J.F., and McKee, G.F., 1979, Methods for chemical analysis of water and wastes: Cincinnati, U.S. Environmental Protection Agency, EPA 600/4-79-020, rev. 1983, 460 p.
4. Fishman, M.J., and Friedman, L.C., eds., 1989. Methods for determination of inorganic substances in water and fluvial sediments (3d ed.): U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 545 p.
5. Miscellaneous manufacturers' instrument manuals or references.

LABORATORY PERFORMANCE RATINGS

To facilitate interlaboratory performance comparisons, laboratory performance ratings, based on the analyses reported for each SRS, are included in tables 4 through 11 in this report. Averages of the analyte ratings and the number of analyte values reported for each SRS are given for each participating laboratory. Laboratory performance for each analyte is rated on a scale 4 to 0, based on the absolute Z-value, as listed on the next page:

Rating	Absolute Z-value
4 (Excellent)	0.00 to 0.50
3 (Good)	0.51 to 1.00
2 (Satisfactory)	1.01 to 1.50
1 (Questionable)	1.51 to 2.00
0 (Poor)	Greater than 2.00

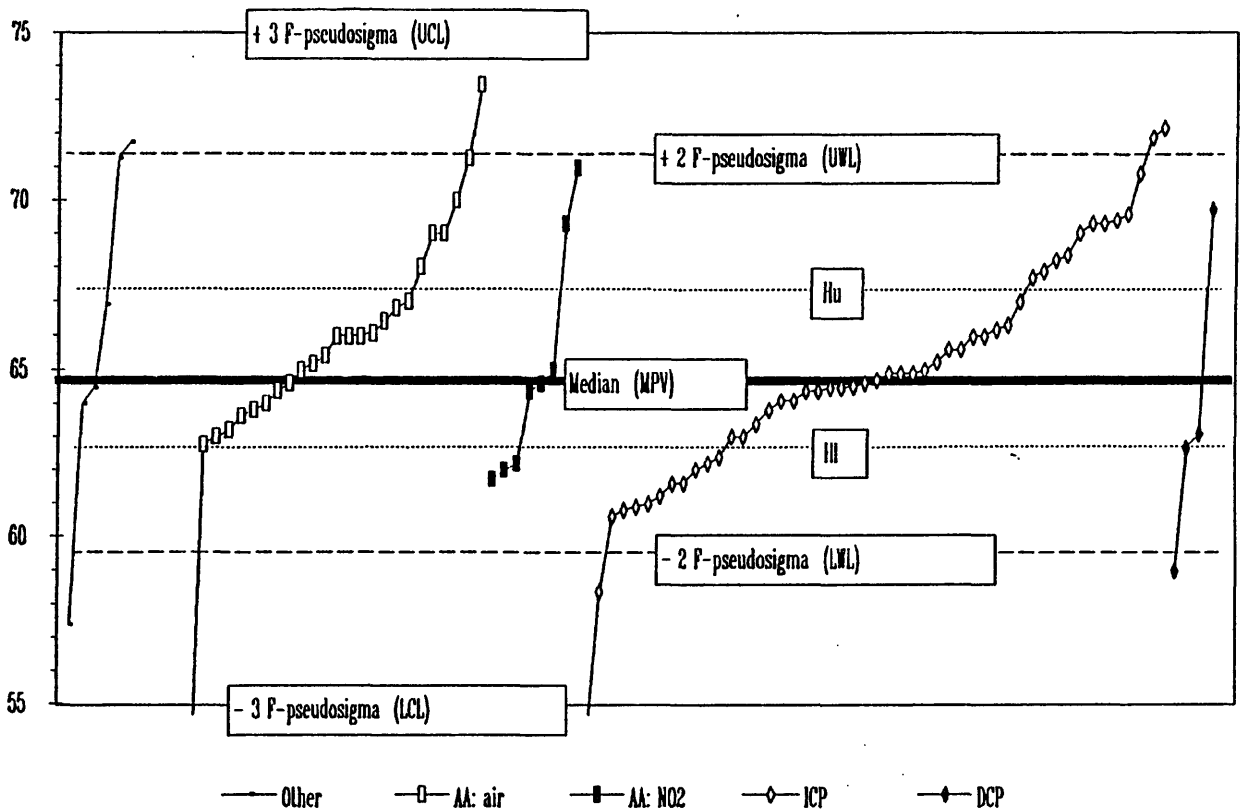
STATISTICAL PRESENTATION OF DATA

Data in this report have been evaluated using nonparametric statistics as described by Hoaglin and others (1983). This statistical approach is a resistant statistic because the median is not influenced by outliers as is the mean in traditional statistics.

Analytical data for each analyte are presented in tabular and graphical forms in tables 12 through 18. Tabulated data for each analyte include the laboratory code number, reported values, analytical method, most probable value (MPV), number of reported values - excluding less than values (N), data range, Z-value, and the F-pseudostandard deviation. (The Z-value is equivalent to the Z-score of traditional statistics, being the number of deviations the reported value is from the MPV. The F-pseudostandard deviation is equivalent to the standard deviation (σ) of traditional statistics when the data have a Gaussian distribution.) If an analyte has a sufficient number of determinations by a given method, usually 10, the σ for that analytical method is reported in the block of data listed for each analyte.

The median value is considered the MPV. Reported values of "less than" are used to establish the median, but are not considered in determining the data range. The median (midpoint) divides the ordered data into halves and is designated the MPV. The hinges include the middle 50-percent of the data and are the mid-values of the upper and lower halves of the data. (The hinges are similar to quartiles, but are not mathematically equivalent.) The range of data between the upper hinge (Hu) and the lower hinge (Hl), the hinge spread (H-spr), is used to calculate the F-pseudostandard deviation, the 95-percent confidence level MPV, the laboratory performance rating, the upper warning level (UWL) and lower warning level (LWL), the upper control level (UCL) and the lower control level (LCL). The F-pseudostandard deviation is calculated by comparison of the H-spr value to the Gaussian distribution relation; 67.45 percent of the data "hinges" between plus and minus 1σ , resulting in a H-spr of $2 \times 0.6745 = 1.349\sigma$. This relation allows the calculation of the F-pseudostandard deviation = $(H-spr)/1.349\sigma$. The 95-percent confidence level MPV is expressed as the median $\pm (1.96 \times F-pseudostandard deviation) / N$. Laboratories reporting "less than" values are not performance rated unless their reported "less than" values are greater than two Z-values from the MPV.

The graphical plot of the reported data is shown in figure 1. The upper and lower boundaries of the graphical plots generally are +3 and -3 F-pseudostandard deviation deviations from the median. (Computer-program scaling constraints do not permit these boundaries to always be graphed at exactly these values.) The graphical plot is a modified control chart with reported values grouped by analytical method in ascending order of value. Lines designate the MPV, Hu, Hl, and the (UWL) and (LWL) at +2 and -2 F-pseudostandard deviation, respectively. "Less than" values are not plotted.



NOTE: vertical scale is the concentration value of the individual analyte in appropriate units (see table 2.) Methods shown are defined in Tables 3 and 11 through 18.

Figure 1.--Statistical parameters shown on reported-data graphs

DISCUSSION

Users need to review the tabulated and graphical plots for individual analytes because these tables and plots give indications of the method and instrumentation precision, and help provide additional evidence as to the desirability of upgrading methods or equipment or both.

REFERENCE

Hoaglin, D.C., Mosteller, F., and Tukey, J.W., eds., 1983, *Understanding Robust and Exploratory Data Analysis*: John Wiley and Sons, Inc., 447p.

Table 4. Overall laboratory performance ratings for standard reference water samples distributed in April 1993

[Lab, laboratory number, OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for reported values of a sample type; V/99, number of reported values of 99 total possible values from all sample types; V/26, V/26, V/15, V/20, V/11, and V/1 are number of reported values possible for T-123, T-125, M-126, N-38, N-39, P-20, and Hg-16, respectively]

Standard reference sample =			T-123		T-125		M-126		N-38		N-39		P-20		Hg-16	
Lab	OWR	V/99	OLR	V/26	OLR	V/26	OLR	V/15	OLR	V/10	OLR	V/10	OLR	V/11	OLR	V/1
1	3.7	88	3.9	25	3.7	26	3.3	15	3.8	5	3.6	5	4.0	11	2	1
2	2.3	16	0.0	1			1.0	4	2.8	4			3.0	7		
3	2.5	74	2.7	21	2.3	25	2.4	14			2.8	4	2.7	9	2	1
4	2.6	41	2.7	15	2.5	17	2.7	9								
5	3.0	50	3.1	14	3.6	16	2.6	11	2.0	1	4	1	2.4	7		
7	2.5	69	2.6	20	2.6	20	2.6	12	2.4	9	1.3	4	2.3	3	3	1
8	1.8	54	1.8	17	1.6	19	1.5	13			2.8	5				
9	2.6	42	2.3	12	2.3	12	2.8	13			3.8	5				
10	3.2	33	3.1	8	3.1	8	3.5	12	3.0	5						
11	2.8	86	3.4	23	2.6	23	2.6	14	1.6	8	3.1	8	2.8	9	4	1
12	2.3	40	2.4	9	2.6	10	1.8	12	2.0	3	2.2	5			4	1
13	2.9	52	2.8	13	2.8	15	2.8	13	2.6	5	3.6	5			4	1
15	2.6	92	2.7	26	2.9	26	2.3	15	3.0	5	2.5	8	2.1	11	4	1
16	2.7	64	2.7	20	2.4	21	3.2	13	2.0	4	2.6	5			3	1
18	2.8	43	2.7	18			2.8	14	2.0	5	3.4	5			4	1
19	3.1	36	2.7	9	3.1	8	3.2	11	2.8	4	3.8	4				
21	3.5	10	4.0	1	4.0	1			3.3	7	4	1				
23	2.8	58	2.6	19	3.0	13	2.6	10	2.2	5	3	5	3.7	6		
24	2.8	34	2.6	21			3.1	12							3	1
25	2.4	46	2.6	14	2.9	14	1.8	12	2.0	2	2	4				
26	2.5	11					2.5	11								
29	1.7	45	1.1	12	0.6	12	2.8	12	1.8	4	3.3	4			4	1
30	2.5	39	3.0	17	2.7	17	0.4	5		0						
32	3.1	74	3.3	24	3.4	24	2.6	13	2.7	3	3.7	3	2.0	6	3	1
33	2.3	50	1.8	11	2.1	11	2.2	12	2.3	3	0.7	3	3.6	10		
34	4.0	1													4	1
35	4.0	1	4.0	1												
36	1.2	64	0.4	20	0.3	21	2.8	13	3.0	4	3	5			0	1
37	3.2	50	3.6	16	3.5	16	2.6	8	2.6	5	2.2	5				
38	3.6	28					3.6	10	3.4	5	3.6	5	3.6	8		
39	2.8	46	2.7	15	2.7	13	2.6	10	4.0	1	3	1	3.6	5	4	1
41	0.5	8					0.0	1	1.3	3	0	3	0.0	1		
42	3.2	63	3.4	21	3.3	20	2.9	13	2.8	4	3.8	4			4	1
43	3.7	26	3.9	7	3.7	7	3.8	10	3.0	1	1	1				
44	3.8	6											3.8	6		
45	2.6	77	3.1	21	2.7	21	2.9	14	1.9	10	1.2	10			3	1
46	3.1	77	3.1	22	3.2	22	3.3	14	3.5	4	3.4	5	2.7	9	0	1
50	3.3	27	3.3	15			3.4	11							4	1
51	2.8	32			2.3	15	3.3	11	3.8	5					0	1
52	2.8	83	2.8	22	2.7	22	2.7	13	3.5	10	3.2	10	1.2	5	4	1
53	1.3	4							0.5	2	2	2				
54	3.5	16	3.3	4			3.6	12								
55	2.8	65	2.6	20	2.8	21	2.7	13	3.6	5	3.6	5			3	1
56	2.3	13					2.3	9	2.3	4						
57	2.1	31	2.5	13			1.8	13			2	5				
58	1.2	81	1.1	23	1.0	23	1.4	13	1.4	5	2	5	1.6	11	0	1
59	3.4	49	3.4	17	3.6	18	4.0	2	3.2	5	3.4	5	4.0	1	2	1
60	2.5	16					2.2	6			2.6	10				
61	2.5	62	2.2	15	2.6	15	2.5	13	3.0	5	3.2	5	2.3	8	3	1
62	2.0	3											2.0	3		
63	2.5	82	2.3	24	2.4	21	2.7	14	2.8	8	1.6	9	3.8	5	4	1
64	3.4	19					3.9	10					2.8	9		
68	2.5	64	2.5	22	2.3	20	3.0	11	2.6	5	3	5			0	1
69	3.3	43	3.4	15	3.3	15	2.9	10	3.0	1	4	1			4	1
70	2.9	54	2.7	13	3.0	16	2.6	14	3.0	5	3.4	5			3	1
73	3.5	8	3.7	3	3.4	5										
74	3.5	16							3.6	5	3	5	3.8	5	4	1
75	3.3	46	3.7	16	3.3	16	2.7	6	3.3	4	2.5	4				
76	3.1	27	3.0	7	2.9	8	3.3	7	3.0	2	3.5	2			3	1
78	2.5	73	3.6	20	3.3	20	1.7	13	0.7	6	1.8	6	1.4	7	2	1
79	2.3	30	1.7	11	2.3	12	4.0	4			3.5	2			1	1
81	1.9	22	1.8	21											4	1
84	2.0	20	3.0	5	1.8	5	1.4	8			2	2				
85	3.2	56	3.3	16	3.4	16	2.6	14	3.8	5	2.8	5				
86	3.2	29	3.3	20			2.8	8							4	1

Table 4. Overall laboratory performance ratings for standard reference water samples distributed in April 1993--Continued

Standard reference sample =			T-123		T-125		M-126		N-38		N-39		P-20		Hg-16	
Lab	OWR	V/99	OLR	V/26	OLR	V/26	OLR	V/15	OLR	V/10	OLR	V/10	OLR	V/11	OLR	V/1
87	2.0	42	2.0	11	2.0	12	3.0	9	0.4	5	1.8	5				
88	1.8	21							0.0	6	1.5	6	3.1	9		
89	3.0	59	2.7	13	2.5	15	2.7	13	3.8	9	3.7	9				
90	2.7	42	2.3	12	3.1	12	2.6	7	2.8	5	3	5			2	1
91	2.3	15	3.0	2	2.0	5			1.3	4	3.5	4				
92	2.5	19	2.2	5			2.6		2.7	7	2.4	7				
93	3.2	12					2.8	5	4.0	1	4	1	3.2	5		
94	3.1	68	3.0	22	3.2	24	3.2	14	3.0	4	3.3	4				
96	3.1	29	3.5	11			2.9	7	2.2	5	3.8	5			0	1
97	2.6	82	2.3	24	2.2	24	3.0	13	3.0	10	3.3	10			1	1
101	2.8	50	3.1	17	2.9	17	2.7	9					2.3	7		
102	2.4	41	2.5	21			1.9	10	2.8	5	2.8	5				
103	2.0	29	2.3	21			1.4	8								
104	3.7	12	4.0	1			3.3	3	3.8	4	3.8	4				
107	2.9	50	3.1	17	2.7	17	2.8	6	3.5	4			2.8	6		
108	2.2	14	2.5	8			0.0	1	1.8	4					4	1
109	2.9	45	3.1	15	3.4	15	2.2	14							2	1
110	3.1	8											3.1	8		
111	3.5	12	3.2	5			2.0	1	4.0	3	4	3				
112	3.6	9			3.0	1							3.6	8		
113	3.2	42			3.5	19	2.9	13	2.5	4	3	5			4	1
114	2.4	49	2.5	24			2.4	11	2.5	6	2.1	8				
116	2.7	44	2.6	24	2.6	11	3.1	9								
118	2.7	54	2.5	19	2.5	8	2.8	6	3.1	10	3.1	10			0	1
119	2.8	55			2.9	21	3.1	13	2.7	10	2	10			3	1
120	2.7	61	2.8	20	2.4	19	2.6	11	3.0	5	3.6	5			3	1
121	3.3	35	3.0	24			4.0	8	4.0	3						
122	2.6	54	2.0	6	2.1	17	2.7	11	3.5	10	3	10			NR	
124	1.6	41	2.4	8	0.9	12	2.2	9	1.0	2	1	2	1.1	7	4	1
126	0.0	1									0	1				
127	3.4	71	2.7	19	3.7	26	3.6	15	4.0	5	3.4	5			3	1
128	2.8	20					2.6	12	2.3	3	3.5	4			3	1
133	2.1	45	1.3	21	2.5	14			3.5	4	3	5			4	1
134	3.4	89	3.2	21	3.0	24	3.5	14	3.9	10	3.6	10	3.6	9	4	1
138	3.1	76	2.7	21	3.3	22	3.2	13	3.8	5	3.4	5	3.1	9	4	1
139	2.3	51	0.0	1	2.5	12	2.5	10	2.5	10	2.4	10	1.6	7	4	1
140	2.5	29	2.3	8			2.4	11	2.4	5	3.2	5				
141	2.8	52	2.5	4	3.0	24	2.8	14	0.8	4	3	5			4	1
142	2.9	62	3.3	21	2.9	21	2.2	14	3.6	5					4	1
145	3.1	84	3.2	21	2.9	20	3.4	13	2.6	10	3.2	10	3.1	9	4	1
146	2.0	35	1.5	6	2.3	12	1.8	12	2.0	2	2	2			3	1
149	1.7	20	1.8	12	1.1	7									4	1
151	3.1	40	3.2	20	2.8	12	3.0	2	3.7	3	3	3				
153	3.1	44	3.5	22	2.3	12	3.4	10								
161	2.4	38	3.0	12	3.2	12	2.2	6	0.5	4	0.5	4				
164	2.7	29	2.7	15	3.0	4	2.3	6					3.0	4		
179	2.3	35	3.8	6			1.1	8	3.5	10	1.2	10			3	1
180	3.0	66	3.2	19	3.1	16	2.5	11	3.3	10	2.8	10				
182	1.6	65	2.8	25	0.9	23	0.8	12	0.0	2	1.5	2			0	1
183	1.9	37			1.7	13	1.7	11	3.3	3	2	2	1.9	8		
184	1.9	55	1.9	14	1.9	14	2.0	13	1.3	3	2	5	1.8	5	4	1
189	1.7	56	2.5	2	1.4	21	2.1	14	2.4	5	2.4	5	1.0	8	0	1
190	2.3	49			2.9	17	2.6	13	2.0	5	2.2	5	1.1	9		
191	3.2	13					3.6	7	2.0	3	3.3	3				
193	2.5	29	2.0	11	2.8	13	3.3	3	1.0	1	3	1				
194	2.9	25	2.9	16			2.6	5	3.0	3					4	1
196a	3.1	38			3.7	19	1.6	7	1.5	2	3.5	2	3.0	8		
196b	2.6	23	2.9	14	2.2	9										
197	2.4	51	2.1	22	3.3	4	2.2	10	2.0	3	3	3	2.9	9		
198	1.9	15	1.1	7					2.3	4	2.7	3			3	1
202	2.6	26					1.9	10	3.2	5	3.6	5	2.0	5	4	1
205	1.7	3									1.7	3				
206	0.0	4							0.0	2	0	2				
207	1.5	29			0.4	7	2.4	11	1.2	5	1.8	5			0	1
209	1.0	18	0.6	13			2.0	4	3.0	1						
210	0.7	10							0.0	5	1.4	5				

Table 5. --Laboratory performance ratings for standard reference water sample T-123
(trace constituent)

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	U (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NK (Not Rated)	

Lab	Analyte = Ag (Silver)				Al (Aluminum)				As (Arsenic)				B (Boron)				Ba (Barium)				Be (Beryllium)			
	MPV =		μ g/L		10.0		μ g/L		20.2		μ g/L		11.3		μ g/L		7.65		μ g/L		8.10		μ g/L	
	OLR	V/26	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.9	25	1.30	4	6.7	4	20.3	4	9.75	4	7.25	4	8.10	4										
2	0.0	1																						
3	2.7	21	1.43	4	36.0	0	20.4	4	< 10	NR	8.00	4	8.5	3										
4	2.7	15			55.0	0			10	4	10.00	0	9	2										
5	3.1	14	< 4	NR	< 30	NR					7.38	4	8.192	4										
7	2.6	20	5.00	0	21.0	3					6.80	3	7.2	2										
8	1.8	17					16.0	1			7.00	3	7.5	3										
9	2.3	12																						
10	3.1	8					20.1	4																
11	3.4	23	1.33	4	4.0	4	21.5	3	9	4	8.00	4	8	4										
12	2.4	9	1.00	3	< 100	NR	23.0	2					< 20	NR										
13	2.8	13	< 2	NR	10.9	4	22.3	3			< 10	NR												
15	2.7	26	1.42	4	6.4	4	17.6	2	10.8	4	1.00	0	3.93	0										
16	2.7	20	< 7	NR	76.0	0	21.7	3	< 500	NR	7.60	4	10.3	0										
18	2.7	18	< 5	NR	< 100	NR	23.4	1	< 5	NR	7.50	4	7.6	3										
19	2.7	9																						
21	4.0	1																						
23	2.6	19	1.53	4	11.3	4	27.0	0			< 20	NR	8.11	4										
24	2.6	21	1.60	4	23.1	2					7.10	3	9.5	1										
25	2.6	14	< 6	NR	< 19	NR	< 50	NR	18.5	2	8.00	4	7.2	2										
29	1.1	12	1.13	3	140.0	0	34.6	0			20.00	0												
30	3.0	17	2.12	2	8.6	4					7.75	4	10.36	0										
32	3.3	24	1.25	4	8.5	4	18.7	3	12	4	6.99	3	7.2	2										
33	1.8	11			10.0	4					8.16	3												
35	4.0	1					20.3	4																
36	0.4	20	0.00	0	0.0	NR	0.0	0			0.01	0	0.0	0										
37	3.6	16	1.35	4	6.9	4	22.0	3			7.23	4	8.75	3										
39	2.7	15			20.0	3	19.0	3	18	2	8.00	4	9	2										
42	3.4	21	1.30	4			20.3	4			6.00	1												
43	3.9	7																						
45	3.1	21	1.56	4	7.5	4	20.8	4	18.6	2	7.20	4	8.20	4										
46	3.1	22	1.25	4	7.8	4	18.9	3	27.6	0	7.40	4	8.01	4										
50	3.3	15	1.00	3	7.0	4	19.0	3			< 50	NR												
52	2.8	22	1.44	4	24.6	2	20.4	4	< 300	NR	10.50	0	16.3	0										
54	3.3	4																						
55	2.6	20	1.20	4			18.5	3					8.60	3										
57	2.5	13	1.00	3	< 200	NR	19.8	4	< 100	NR	< 50	NR	7.0	2										
58	1.1	23	5.00	0	70.0	0	15.6	0	63	0	30.00	0	8	4										
59	3.4	17	1.00	3	< 10	NR	21.0	4			7.00	3												
61	2.2	15	< 10	NR	< 50	NR	18.8	3	< 50	NR	< 10	NR	8.5	3										
63	2.3	24	1.54	4	< 100	NR	21.0	4	< 100	NR	45.00	0	7.19	2										
68	2.5	22	0.90	3			18.6	3			9.60	0	8.3	4										
69	3.4	15	1.49	4	9.0	4	19.1	3			12.00	0	8.28	4										
70	2.7	13	< 2	NR	< 50	NR	22.1	3	< 50	NR	< 10	NR	< 10	NR										
73	3.7	3																						
75	3.7	16							9.6	4	7.40	4	7.7	3										
76	3.0	7					24.2	1																
78	3.6	20	1.30	4	3.0	3	19.8	4			7.30	4	8.2	4										
79	1.7	11	1.40	4			19.0	3					< 10	NR										
81	1.8	21	2.00	3	6.0	4	26.0	0			7.00	3	7.0	2										
84	3.0	5																						
85	3.3	16	< 5	NR	< 20	NR	24.0	1	< 20	NR	7.90	4	8.3	4										
86	3.3	20			5.3	4	21.8	3	10.3	4			7.24	2										
87	2.0	11	7.00	0							< 40	NR												
89	2.7	13	2.63	1	< 100	NR	19.9	4			< 100	NR												

Table 5. --Laboratory performance ratings for standard reference water sample T-123
(trace constituent)—Continued

Lab	Analyte = Ag (Silver)				Al (Aluminum)		As (Arsenic)		B (Boron)		Ba (Barium)		Be (Beryllium)	
	OLR	V/26	MPV = 1.44	μ g/L	10.0	μ g/L	20.2	μ g/L	11.3	μ g/L	7.65	μ g/L	8.10	μ g/L
			F-pseudostigma = 0.601	RV	Rating	12.02	RV	Rating	6.30	RV	Rating	0.945	RV	Rating
90	2.3	12	0.36	1			19.9	4			12.70	0		
91	3.0	2												
92	2.2	5												
94	3.0	22	<3	NR	<20	NR	1800.0	0	8.9	4	7.30	4	8.3	4
96	3.5	11	1.44	4			20.1	4			7.50	4		
97	2.3	24	0.84	3	1.7	3	13.4	0			10.90	0	7.93	4
101	3.1	17	1.00	3	97.6	0					6.70	2		
102	2.5	21	0.60	2	<50.0	NR	36.7	0			8.40	3	8.4	4
103	2.3	21	<5	NR	<30	NR	12.0	0	11	4	5.50	0	7.5	3
104	4.0	1												
107	3.1	17	1.61	4	10.0	4	21.9	3			6.72	3		
108	2.5	8	1.00	3			18.6	3			13.00	0		
109	3.1	15					20.1	4	15.7	3				
111	3.2	5												
112	4.0	1												
113	3.5	19	1.50	4	4.8	4	21.2	4					7.75	4
114	1.5	11	<10	NR	<10	NR							10	0
116	2.9	8	<100	NR					<10	NR	8.00	4		
118	2.8	8	1.00	3			22.5	2						
119	2.9	20	1.00	3	0.0	NR	19.0	3	70	0	12.00	0	8.1	4
120	3.2	18	1.21	4	14.1	4	19.5	4			11.50	0	8.64	3
121	1.1	21	3.20	0	21.4	3			<10	NR	15.00	0		
122	2.3	15	2.60	1	10.8	4	25.3	0	<0.1	NR	7.52	4		
124	1.1	8	<20	NR	<100	NR	<500	NR	<50	NR	<10	NR	10	0
126	0.8	5					30.0	0						
127	3.9	26	1.45	4	7.3	4	20.0	4	11.3	4	7.50	4	8.30	4
133	2.6	14	2.20	2			21.0	4			7.70	4	9.7	0
134	3.2	22	1.40	4	<20	NR	21.0	4	<20	NR	5.00	0	7.4	3
138	3.5	22	1.67	4			20.1	4			8.48	3	8.84	3
139	2.2	12			<500	NR	22.2	3						
140	3.1	12												
141	2.9	24	0.95	3	13.3	4	18.0	2	<10	NR	7.87	4	7.77	4
142	2.7	21	1.57	4			19.5	4	15.7	3	7.41	4	8.37	4
145	2.9	20			<13.4	NR	19.0	3	9.75	4	7.70	4	8.95	2
146	2.9	13					20.0	4					7.4	3
149	1.9	7	0.90	3										
151	2.9	12	<10	NR			18.8	3			8.50	3	7.72	4
153	2.5	11	2.50	1							8.20	3		
161	3.5	8	<50	NR	<100	NR	<100	NR	<500	NR	<10	NR	<10	NR
164	1.8	4												
179	2.7	16	1.30	4			18.2	3					6.2	0
180	2.0	23	4.80	0	24.2	2	16.8	1	10.5	4	7.40	4	7.9	4
182	1.1	23	2.50	1	100.0	0	21.0	4			85.00	0	5	0
184	2.0	13	<5	NR	<200	NR			19.4	2	8.35	3	8.20	4
189	1.6	17	2.10	2	50.0	0	20.0	4	<10	NR	<10	NR	8.6	3
190	3.1	17	1.35	4	9.5	4	21.1	4						
193	3.0	11	<1	NR			19.0	3			7.00	3		
194	3.1	12	1.60	4			20.0	4					7.60	3
196a	3.2	9	1.72	4										
196b	3.7	19	1.46	4	7.5	4	21.3	3			7.25	4	8.05	4
197	3.3	4												
198	3.1	14	1.52	4	<10	NR	20.4	4			<10	NR	7.07	2
202	3.2	17	1.62	4			19.2	4					7.76	4
209	2.5	2			<0.03	NR								

Table 5. --Laboratory performance ratings for standard reference water sample T-123 (trace constituent)--Continued

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

MPV = F-pseudosigma = Lab	Ca (Calcium)		Cd (Cadmium)		Co (Cobalt)		Cr Chromium		Cu (Copper)		Fe (Iron)		K (Potassium)	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	9.06	4	5.90	4	5.50	4	10.7	4	10.5	4	57.1	4	1.08	3
2														
3	9.07	4	6.60	3	6.00	3	10.0	3	11.0	3	73.0	0	2.30	0
4	8.94	4	11.00	0	< 5	NR	12.0	2	8.0	1	57.0	4		
5	9.06	4	6.19	4	6.18	2	13.1	1	10.9	3	56.4	4	1.41	0
7	9.10	4	5.70	4	5.70	4	9.8	3	8.2	1	58.3	4	1.23	3
8	8.40	2	6.70	3	4.00	2	11.0	4	11.1	3	0.5	0	1.02	2
9	9.30	4	5.17	3			9.7	3			52.0	2	1.12	4
10			5.40	3			9.5	2	9.3	3	58.0	4		
11	9.36	4	4.70	2	4.00	2	11.0	4	11.0	3	60.0	3	1.21	3
12	9.00	4	7.80	0			< 20	NR	11.0	3	< 50	NR	1.00	1
13	8.66	3	6.52	3			12.3	2	< 50	NR	61.3	3	1.14	4
15	10.30	1	5.41	3	5.08	4	12.8	1	10.7	4	61.2	3	1.19	4
16	8.50	3	5.10	3	5.80	3	10.8	4	7.0	0	55.0	3	1.30	2
18	9.40	4	4.74	2	7.00	1	11.0	4	9.0	2	65.0	1	1.10	3
19	9.09	4	5.00	3			10.0	3			54.0	3	1.30	2
21											56.0	4		
23	9.48	3	6.05	4			16.7	0	9.6	3	62.1	3	1.10	3
24	8.87	4	6.60	3	3.40	0	8.4	1	6.9	0	59.2	4	1.14	4
25	9.84	2	< 6	NR	< 12	NR	12.0	2	10.0	4	56.0	4	1.66	0
29	6.00	0					9.4	2	6.0	0				
30			7.48	1	5.50	4	9.3	2	9.6	3				
32	8.84	4	5.44	4	5.52	4	10.7	4	13.6	0			1.23	3
33	9.21	4									32.5	0	1.22	3
35														
36	7.64	0	0.00	0	0.01	0	0.0	0	0.0	0	0.1	0	1.00	1
37			5.91	4			10.6	4	10.5	4			1.03	2
39	9.75	2			5.00	4	11.0	4	13.0	0	70.0	0		
42	9.40	4	5.60	4			10.1	3	9.4	3	58.0	4	1.30	2
43	9.20	4									54.0	3	1.20	4
45	8.53	3	5.62	4			10.7	4	8.9	2	60.0	3	1.13	4
46	10.10	1	5.72	4	6.00	3	10.5	4	11.3	2	60.0	3	1.24	3
50			6.00	4	6.00	3	10.0	3	10.0	4	57.0	4		
52	9.16	4	5.64	4	5.00	4	12.4	2	9.6	3	49.9	1	1.12	4
54	8.60	3											1.10	3
55	9.16	4	6.80	2	4.40	2	12.5	1	10.1	4	45.0	0	1.12	4
57	8.60	3	6.20	4			9.3	2	< 20	NR	< 100	NR	1.30	2
58	7.03	0	7.10	2	4.00	2	11.0	4	14.0	0	50.0	1	1.21	3
59	8.90	4	5.70	4			9.9	3	12.7	0	61.0	3	1.20	4
61	9.00	4	8.00	0	9.00	0	9.0	2	< 10	NR	58.0	4	1.70	0
63	9.97	2	5.25	3	4.70	3	11.0	4	9.9	4	< 20	0	1.07	3
68	9.20	4	6.60	3	5.90	3	12.0	2	12.0	1	57.0	4	1.00	1
69	8.60	3	5.96	4			10.8	4	11.0	3			1.20	4
70	9.58	3	5.36	3	< 50	NR	11.6	3	< 20	NR	51.9	2	0.99	1
73			6.00	4							53.0	3		
75			6.20	4	5.10	4	11.6	3	10.9	3	57.2	4		
76			6.39	3			11.0	4						
78	11.90	0	6.10	4			9.8	3	10.1	4	59.5	4	1.20	4
79			7.10	2			8.2	0	8.6	2	45.0	0		
81	8.08	1	8.00	0	< 1	0	13.0	1	10.0	4	45.0	0	1.07	3
84	9.35	4									60.0	3		
85	9.03	4	5.50	4	< 20	NR	10.0	3	11.0	3	58.0	4	1.22	3
86	9.26	4	4.91	2	4.85	4	9.4	2	9.8	4	51.1	2	1.14	4
87	7.60	0	2.00	0					11.0	3	96.0	0	1.14	4
89	10.00	2	6.72	3	< 10	NR	12.5	2	< 10	NR	51.6	2	1.14	4

Table 5. --Laboratory performance ratings for standard reference water sample T-123
(trace constituent)--Continued

F-pseudosigma =	Ca (Calcium)			Cd (Cadmium)		Co (Cobalt)		Cr Chromium)		Cu (Copper)		Fe (Iron)		K (Potassium)				
	MPV =	m g/L		5.86	μ g/L	5.27	μ g/L	10.7	μ g/L	10.2	μ g/L	57.5	μ g/L	1.16	m g/L			
	0.608	RV	Rating	0.871	RV	Rating	0.852	RV	Rating	1.07	RV	Rating	4.82	RV	Rating	0.096	RV	Rating
90				5.67	4			9.6	3	12.5	0	57.5	4					
91												57.2	4					
92	9.30	4														1.70	0	
94	9.19	4		5.30	3	5.00	4	10.8	4	7.2	0	55.0	3		1.10	3		
96				5.38	3			10.2	4	10.8	3	60.5	3					
97	8.14	1		4.00	0	6.10	3	10.5	4	9.3	3	57.9	4		1.10	3		
101	9.1	4		6.70	3			11.1	4	9.7	4	60.0	3		1.20	4		
102	8.7	3		6.10	4	5.10	4	9.1	2	9.4	3	61.0	3		< 1	NR		
103	8.1	1		5.00	3	4.40	2	9.6	3	9.5	3	52.0	2		1.10	3		
104																		
107	18.5	0		5.89	4			11.8	3	13.4	0	59.0	4		1.15	4		
108				7.00	2			9.3	2	10.0	4							
109	8.93	4		5.56	4							56.2	4		1.11	4		
111								11.3	3	9.4	3							
112																		
113	8.5	3		5.82	4			10.2	4	10.7	4	59.0	4		1.10	3		
114	8.70	3		10.00	0			< 10	NR	10.0	4	50.0	1		0.68	0		
116	8.93	4										50.0	1		< 1.3	NR		
118				5.90	4			9.4	2	8.3	1							
119	9.3	4		5.90	4			10.0	3	10.0	4	55.0	3		1.40	0		
120	8.21	2		5.51	4			11.0	4	10.9	3				1.03	2		
121	9.4	4		7.00	2	11.00	0	7.3	0	20.8	0	100.0	0		1.05	2		
122	8.71	3		6.34	3			11.8	3	9.7	4	50.2	2		1.08	3		
124	9.530	3		< 10	NR	50.00	0	< 50	NR	11.0	3	66.0	1					
126										< 20	NR	65.0	1					
127	8.67	3		5.70	4	5.22	4	11.2	4	9.3	3	57.4	4		1.18	4		
133	9.10	4		7.40	1			10.8	4	6.5	0	55.5	4					
134	8.7	3		5.70	4	5.10	4			11.2	3	48.0	1		1.10	3		
138	9.60	3		5.54	4	4.62	3	10.8	4	10.3	4	60.4	3		1.16	4		
139	10.61	0		5.70	4			11.7	3	10.2	4	45.0	0		1.14	4		
140	9.0	4		6.28	4			11.7	3	11.6	2	62.5	2		1.15	4		
141	9.51	3		5.55	4	5.80	4	11.8	3	11.4	2	53.3	3		1.26	2		
142	10.4	0		5.54	4			10.2	4	9.4	3	47.6	1		1.40	0		
145	9.59	3		7.30	1	5.35	4	11.6	3	9.4	3	61.3	3		1.06	3		
146	8.6	3		7.60	1			11.0	4			61.0	3					
149				5.70	4					7.0	0	60.0	3					
151				6.76	2			10.0	3	12.2	1							
153	8.42	2		5.44	4			9.3	2	10.8	3				1.04	2		
161	9.32	4		5.00	3	< 5	NR	11.0	4	9.0	2	60.0	3		< 2	NR		
164	8.8216	4										1.1	0					
179	6.3	0		5.80	4			10.4	4	9.7	4	60.0	3		1.16	4		
180	9.49	3		7.40	1	5.00	4	10.7	4	8.8	2	450.0	0		2.95	0		
182	12.2	0		0.50	0	13.00	0	11.0	4	10.0	4	55.0	3		1.00	1		
184	9.51	3		< 10	NR	< 10	NR	14.0	0	12.0	1	53.7	3		1.33	1		
189	9.70	3		4.40	1	< 20	NR	7.5	0	8.5	1	< 50	NR		1.16	4		
190	8.11	1		5.60	4			10.1	4	7.5	0	56.5	4		1.19	4		
193	9	4		5.00	3	< 25	NR	9.0	2	< 25	NR	64.0	2		1.16	4		
194	8.86	4		7.17	1			12.0	2	< 10	NR				1.39	0		
196a	10.08	1		5.50	4										1.21	3		
196b				5.57	4	5.32	4	10.6	4	10.9	3							
197	8.56	3													1.11	4		
198	9.57	3		5.82	4			10.4	4	< 50	NR	56.3	4		1.41	0		
202	9.24	4		7.05	2			10.7	4	10.4	4	73.0	0		1.07	3		
209	9.79	2																

**Table 5. --Laboratory performance ratings for standard reference water sample T-123
(trace constituent)--Continued**

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

F-pseudostigma =	Li (Lithium)		Mg (Magnesium)		Mn (Manganese)		Mo (Molybdenum)		Na (Sodium)		Ni (Nickel)		Pb (Lead)	
	MPV =	μ g/L	RV	m g/L	RV	μ g/L	RV	μ g/L	RV	m g/L	RV	μ g/L	RV	μ g/L
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	9.04	3	1.80	4	13.3	4	8.90	4	19.5	4	5.10	3	9.55	4
2														
3	< 10	NR	1.88	3	11.0	0	< 10	NR	20.3	3	< 10	NR	11.70	2
4	10	4	1.77	4	13.0	3	< 10	NR	18.8	4	< 20	NR	< 20	NR
5			1.81	4	13.5	4			19.6	4				
7			1.77	4	13.1	4	10.00	3	18.7	3	14.00	0		
8			1.73	3	9.7	0	7.00	1	20.3	3				
9			1.60	1	10.8	0			19.9	3	4.10	4	10.50	4
10					15.0	2							8.60	3
11			1.94	2	13.0	3	9.00	4	20.8	2			9.60	4
12			1.80	4	< 20	NR	< 30	NR	18.0	2	< 20	NR	< 10	NR
13			1.75	4	15.8	1			19.3	4	< 50	NR	12.20	1
15	11.3	2	2.04	1	7.7	0	9.28	4	21.3	1	3.73	3	9.83	4
16	< 500	NR	1.80	4	13.9	4	15.30	0	20.0	3	< 25	NR	9.00	3
18			1.80	4	14.0	4			20.0	3	< 15	NR	13.40	0
19			1.68	3	12.0	2			19.0	4			47.00	0
21														
23			1.77	4	13.7	4	6.45	0	17.0	0	3.64	3	10.06	4
24			1.76	4	13.3	4			18.8	4	4.00	4	8.00	2
25	9	3	1.93	2	14.0	4			20.6	2	< 49	NR	< 71	NR
29					8.0	0	6.60	1					10.00	4
30	9.757	4	1.81	4	13.2	4	8.05	3			4.59	4	9.71	4
32	9.68	4	1.89	3	14.3	3	7.52	2			4.30	4	9.91	4
33			1.93	2	17.5	0			16.1	0			5.83	0
35														
36			1.67	2	0.0	0			18.3	3	0.01	0	0.01	0
37					14.0	4					4.54	4	10.90	3
39			1.86	4	15.0	2			20.0	3				
42	10	4	1.90	3	13.1	4	8.50	3	18.6	3	4.40	4	10.00	4
43			1.80	4	14.0	4			19.7	4				
45			1.60	1			9.81	4	19.0	4	3.71	3	8.34	3
46			1.84	4	14.3	3			19.0	4	3.34	3	8.30	3
50	< 50	NR			13.0	3	10.00	3			4.00	4	11.00	3
52			1.75	4	12.8	3	6.90	1	19.3	4	3.98	4	12.90	1
54			1.70	3					19.0	4				
55	7.00	0	1.70	3	6.0	0			19.0	4	5.00	3	8.60	3
57			1.70	3	< 20	NR	< 100	NR	18.0	2	< 100	NR	10.00	4
58			1.71	3	15.0	2	20.00	0	129.0	0	6.00	1	11.00	3
59			1.80	4	13.5	4			19.0	4	4.80	4	10.90	3
61			1.80	4	13.0	3	< 50	NR	19.0	4	< 25	NR	8.00	2
63	10	4	1.62	2	17.0	0	9.70	4	20.8	2	4.00	4	11.80	2
68	11	2	1.80	4	13.0	3	13.00	0	20.0	3	8.30	0	12.30	1
69			1.80	4					17.9	2	4.00	4	9.80	4
70			1.81	4	13.9	4	< 50	NR	20.1	3	< 50	NR	11.70	2
73								NR						
75	9.1	4	1.90	3	13.9	4	8.70	4	18.7	3				
76					13.2	4			19.3	4			9.71	4
78			1.80	4	12.5	2			19.8	4	4.30	4	9.90	4
79					25.0	0					2.60	1	8.00	2
81			1.75	4	10.0	0	3.00	0	20.3	3	8.00	0	8.00	2
84			1.75	4	10.0	0			19.3	4				
85	10.3	3	1.76	4	16.5	0	< 20	NR	19.2	4	< 20	NR	< 50	NR
86			1.91	3	12.2	2	9.05	4	19.8	3	3.98	4	9.11	4
87			1.66	2			9.20	4	18.0	2	< 10	NR	< 20	NR
89			1.90	3	13.8	4			20.1	3	< 25	NR	11.14	3

**Table 5. --Laboratory performance ratings for standard reference water sample T-123
(trace constituent)--Continued**

Analyte =	Li (Lithium)			Mg (Magnesium)			Mn (Manganese)			Mo (Molybdenum)			Na (Sodium)			Ni (Nickel)			Pb (Lead)		
MPV =	9.68 μ g/L			1.80 m g/L			13.6 μ g/L			9.20 μ g/L			19.3 m g/L			4.30 μ g/L			9.80 μ g/L		
F-pseudosigma =	1.149			0.126			1.07			1.308			1.04			1.119			1.557		
Lab	RV	Rating		RV	Rating		RV	Rating		RV	Rating		RV	Rating		RV	Rating		RV	Rating	
90													20.6	2		5.64	2		9.58	4	
91																					
92				1.70	3								21.4	1							
94				1.70	3				7.90	3			18.9	4		6.00	1		9.40	4	
96									13.6	4									8.63	3	
97				1.54	0				13.6	4		9.20	4		18.2	2	5.03	3	12.10	2	
101				1.80	4				13.5	4					19.5	4	5.50	2	14.60	0	
102				2.00	1				13.2	4					18.3	3	3.30	3	11.00	3	
103	8	2		1.70	3				13.0	3		7.30	2		21.0	1	3.80	4	<20	NR	
104																					
107				1.98	2				13.6	4					18.4	3	4.40	4	10.50	4	
108																			10.00	4	
109	11.1	2		1.80	4				13.8	4	10.13	3		18.0	2			8.60	3		
111																3.50	3	9.80	4		
112																					
113				1.99	1				13.5	4					19.5	4	3.40	3	9.71	4	
114				1.80	4				20.0	0					21.0	1	<10	NR	<10	NR	
116	<45	NR		1.82	4				14.0	4					18.1	2					
118																4.00	4	9.20	4		
119				1.80	4				13.0	3					19.1	4	6.20	1	11.20	3	
120				1.71	3				13.6	4	9.76	4		18.1	2	3.51	3	9.43	4		
121	16	0		2.03	1				18.0	0	16.00	0		22.0	0	12.00	0	8.90	3		
122				1.76	4				12.5	2				20.9	1			14.30	0		
124				1.96	2				10.0	0	70.00	0				<50	NR	<50	NR		
126								160.0	0									9.00	3		
127	9.47	4		1.78	4				13.3	4	8.76	4		18.9	4	4.00	4	9.06	4		
133				1.77	4											4.90	3	5.20	0		
134	18	0		1.70	3				13.0	3	<10	NR		19.0	4	4.30	4	9.30	4		
138				1.88	3				14.2	3	9.25	4		20.2	3	4.30	4	10.90	3		
139				1.68	3			<10	0					19.2	4	<40	NR	14.70	0		
140				1.77	4				13.2	4				19.2	4	5.48	2	15.01	0		
141				1.86	4				14.2	3	10.70	2		20.9	1	11.40	0	8.20	2		
142				2.10	0				13.1	4	9.26	4		21.9	0	4.30	4	9.38	4		
145	8.75	3		1.85	4				14.6	3	10.50	3		20.0	3	3.00	2	<14.8	NR		
146				1.70	3				14.0	4				19.0	4	10.00	0	10.00	4		
149								5.0	0									6.70	1		
151								25.6	0		8.66	4				3.94	4	10.20	4		
153				1.72	3			16.5	0				19.0	4				10.00	4		
161				1.82	4			14.0	4		<50	NR		18.8	4	<10	NR	<20	NR		
164	1.767	0												18.7	3						
179				1.89	3				10.0	0	10.00	3		18.4	3	4.50	4	6.70	1		
180				1.94	2				14.0	4	10.40	3		19.9	3	10.30	0	27.80	0		
182	8	2		1.40	0				15.0	2	20.00	0		15.6	0	20.00	0	5.00	0		
184				1.85	4				13.7	4				21.1	1	<10	NR	<50	NR		
189	<500	NR		1.64	2				16.0	0	<10	NR		21.5	0	<20	NR	46.00	0		
190				1.86	4				12.8	3				19.4	4	5.35	3	7.84	2		
193				1.64	2									18.3	3	<5	NR	9.00	3		
194				1.76	4									20.3	3			10.00	4		
196a				1.84	4				13.8	4				19.3	4	5.85	2	8.57	3		
196b	8.10	2						12.8	3		8.02	3				4.29	4	9.40	4		
197				1.71	3									18.3	3						
198				1.92	3				14.6	3				20.5	2	<10	NR	8.93	3		
202				1.88	3				19.0	0	9.00	4				4.60	4	10.50	4		
209				1.89	3																

**Table 5. --Laboratory performance ratings for standard reference water sample T-123
(trace constituent)--Continued**

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

MPV = F-pseudosigma = Lab	Sb (Antimony)		Se (Selenium)		SiO2 (Silica)		Sr (Strontium)		V (Vanadium)		Zn (Zinc)	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	7.18	4	5.20	4	6.08	4	48.6	4	< 6	NR	5.22	4
2					4.70	0						
3	8.20	3	5.23	4	6.70	2	49.0	4	< 10	NR	7.70	4
4					6.06	4	48.0	4	< 10	NR	< 10	NR
5					6.15	4			5.72	1	< 4	NR
7	24.00	0					48.4	4	7.00	0	3.40	3
8			3.00	1	13.00	0	56.0	0				
9					3.46	0	< 24	0			< 2	NR
10			5.50	4								
11	6.75	4	5.44	4	6.18	4			4.00	4	6.00	4
12	< 100	NR	4.00	3							< 20	NR
13			5.80	4	4.95	1					< 10	NR
15	5.23	2	5.17	4	6.59	3	47.7	4	4.82	3	5.50	4
16	6.80	4	< 3	NR			46.3	3	4.90	3	5.80	4
18	6.50	4	7.10	2			50.0	3	< 5	NR	7.00	4
19												
21												
23	7.34	4	4.24	3			42.9	0			< 20	NR
24	4.80	2	1.30	0	4.81	0	48.5	4			6.20	4
25	< 51	NR	< 129	NR	6.46	3	51.0	3	< 4	NR	< 4	NR
29			9.35	0							10.00	3
30			8.18	0					4.26	4	6.64	4
32	6.99	4	7.00	2	6.03	4	47.5	4	3.30	3	6.40	4
33					25.70	0	48.7	4				
35												
36	0.01	0	0.01	0	12.40	0					0.01	2
37			6.60	3	6.12	4			4.05	4	5.40	4
39							51.0	3			5.00	4
42			5.40	4	6.30	4	53.0	1	3.60	4	4.80	4
43					6.10	4						
45	4.54	1	5.01	4	6.20	4			8.70	0		
46	10.00	1	5.10	4			49.2	4	3.00	3	< 8	NR
50			6.00	3			< 100	NR	6.00	1	4.00	4
52	< 6	NR	< 5	NR	5.53	3	48.9	4	3.82	4	12.60	2
54												
55	7.30	4	4.90	4	6.37	3	44.0	1				
57	9.00	2	2.70	1	5.10	1			< 50	NR	< 20	NR
58	3.40	0	0.67	0	3.74	0					16.00	0
59	6.00	3					50.0	3			5.10	4
61	< 50	NR	5.50	4	2.90	0			9.40	0	< 10	NR
63	8.40	3	5.80	4	8.13	0	54.0	0	10.00	0	11.00	2
68	< 5.0	NR	5.90	4			46.0	3	4.00	4	11.00	2
69			5.40	4								
70			6.42	3	5.80	4	< 10	0	< 50	NR	< 10	NR
73											4.00	4
75			4.99	4					4.30	4	5.30	4
76			7.31	1								
78	6.50	4	5.30	4	6.00	4					7.00	4
79			4.60	4							14.00	1
81	4.00	1	4.00	3					< 2	NR	4.00	4
84												
85	< 100	NR	5.10	4			48.6	4	< 20	NR	5.00	4
86			3.86	3					3.44	3	7.83	4
87					6.10	4					10.00	3
89			2.02	0	6.13	4					< 40	NR

Table 5. --Laboratory performance ratings for standard reference water sample T-123
(trace constituent)--Continued

F-pseudostigma =	Sb (Antimony)		Se (Selenium)		SiO ₂ (Silica)		Sr (Strontium)		V (Vanadium)		Zn (Zinc)	
	MPV =	μ g/L	μ g/L	μ g/L	m g/L	m g/L	μ g/L	μ g/L	μ g/L	μ g/L	μ g/L	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
90											3.00	3
91												
92					5.60	3						
94	8.10	3		3.30 2			48.0	4		3.60 4	8.50	3
96				5.74 4							10.00	3
97	6.81	4		< 0.22 0	6.23	4	41.9	0	2.84	2	3.59	3
101					5.67	3			3.50	4	7.50	4
102	2.90	0		12.90 0	6.02	4	53.0	1	2.20	1	4.50	4
103					4.50	0	46.0	3	2.80	2	4.50	4
104					5.89	4						
105												
107				6.10 3							3.00	3
108				3.20 2								
109				4.25 3	7.25	1	44.8	2				
111											3.40	3
112					6.08	4						
113	8.60	2		5.60 4	6.00	4	< 200	NR			10.50	2
114	30.00	0									10.00	3
116					4.96	1	50.0	3			< 5	NR
118				3.20 2								
119	6.80	4		4.50 3	6.00	4					9.00	3
120	7.65	4		5.15 4								
121					5.09	1	45.0	2	5.00	3	3.00	3
122				< 1 0							< 5	NR
124	< 100	NR		< 200 NR					< 10	NR	< 10	NR
126				< 1 0								
127	6.99	4		6.11 3	6.22	4	48.9	4	4.08	4	4.94	4
133				4.20 3							6.10	4
134	7.60	4		5.20 4	6.09	4	47.0	3	4.10	4	5.30	4
138				4.80 4	6.50	3	50.4	3	3.80	4	5.00	4
139				7.40 1							< 10	NR
140											7.04	4
141	7.17	4		5.85 4	5.06	1	46.5	3	4.25	4	7.47	4
142	7.42	4		6.12 3	7.25	0			2.80	2		
145					6.43	3	50.5	3	2.00	1	< 0.7	NR
146					5.00	1	48.0	4				
149	5.00	2										
151	5.57	3		5.00 4							< 20	NR
153												
161				< 100 NR			< 100	NR	< 100	NR	< 5	NR
164												
179	8.00	3		< 5 NR							< 5	NR
180	18.90	0		29.60 0					3.00	3	2.50	3
182	100.00	0		5.80 4			200.0	0			15.00	1
184	< 50	NR		< 0.005 0	9.28	0			< 10	NR	< 10	NR
189	4.30	1		6.80 2	5.95	4	36.5	0	< 8	NR	< 20	NR
190				6.70 2	5.78	3					9.95	3
193				5.00 4							< 25	NR
194	7.40	4		5.23 4								
196a												
196b	6.78	4		5.47 4			49.1	4	3.94	4	4.48	4
197												
198	6.24	3		4.60 4							< 50	NR
202	6.70	4		5.60 4							9.50	3
209												

Table 6. Laboratory performance ratings for standard reference water sample T-125 (trace constituent)

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

Lab	Analyte = Ag (Silver)				Al (Aluminum)		As (Arsenic)		B (Boron)		Ba (Barium)		Be (Beryllium)	
	MPV = 3.83				24.0		10.2		19.4		16.9		15.0	
	OLR	V/26	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.7	26	3.83	4	20.5	4	11.08	3	19.21	4	16.3	4	14.9	4
3	2.3	25	4.20	3	10.0	1	8.03	2	11	2	15.3	3	14.2	3
4	2.5	17			78.0	0			20.00	4	18.0	3	16.0	3
5	3.6	16	4.08	4	37.2	1					16.2	4	14.9	4
7	2.6	20	5.00	1	21.0	4					15.5	3	13.6	2
8	1.6	19			24.0	4	8	2			16.3	4	16.7	2
9	2.3	12												
10	3.1	8					10.6	4						
11	2.6	23	3.10	2	24.0	4	6.03	0	17.00	4	16.0	3	16.0	3
12	2.6	10	3.30	3	< 100	NR	10	4					< 20	NR
13	2.8	15	2.90	1	20.3	4	10.3	4			19.0	2		
15	2.9	26	3.88	4	19.0	3	8.58	2	19.20	4	18.9	2	15.8	3
16	2.4	21	5.00	1	92.0	0	11.2	3	< 500	NR	16.0	3	16.6	2
19	3.1	8												
21	4.0	1												
23	3.0	13	3.66	4	21.5	4	11.3	3			< 100	NR		
25	2.9	14	< 6	NR	< 19	NR	< 50	NR	15.60	4	16.9	4	14.9	4
29	0.6	12	4.20	3	100.0	0	18.6	0			25.0	0		
30	2.7	17	3.95	4	21.0	4					15.4	3	18.9	0
32	3.4	24	4.07	4	22.1	4	10.2	4	23.00	4	15.6	3	16.2	2
33	2.1	11			20.0	4					18.0	3		
36	0.3	21	0.00	0	0.0	0	0.018	0			0.0	0	0.0	0
37	3.5	16	3.47	3	20.9	4	10.7	4			15.5	3	16.0	3
39	2.7	13					9	3			17.0	4	17.0	1
42	3.3	20	3.70	4			10.0	4			14.8	2		
43	3.7	7												
45	2.7	21	3.66	4	25.8	4	10.2	4	36.30	0	17.4	4	15.1	4
46	3.2	22	2.56	0	23.0	4	10.6	4	27.20	3	17.0	4	14.5	4
51	2.3	15					16	0						
52	2.7	22	3.57	4	28.4	3	10.9	4	< 300	NR	21.1	0	25.0	0
55	2.8	21	3.30	3			8.80	3			15.0	2	13.7	2
58	1.0	23	7.00	0	66.0	0	6.9	0	125.00	0	29.0	0	8.0	0
59	3.6	18	4.00	4	19.0	3	8.7	3			16.0	3		
61	2.6	15	< 10	NR	< 50	NR	9.0	3	< 50	NR	15.7	3	16.0	3
63	2.4	21	3.10	2	< 100	NR	11.5	3	< 100	NR	45.0	0	13.7	2
68	2.3	20	3.50	3			10.0	4			18.0	3	16.0	3
69	3.3	15	3.82	4	25.0	4	9.1	3			22.0	0	14.8	4
70	3.0	16	4.33	3	< 50	NR	11.2	3	< 50	NR	17.0	4	14.9	4
73	3.4	5												
75	3.3	16							19.50	4	16.4	4	14.3	3
76	2.9	8	2.61	1			11.8	2						
78	3.3	20	4.20	3	17.0	3	10.2	4			19.0	2	14.3	3
79	2.3	12	3.50	3			8.4	2					15.0	4
84	1.8	5												
85	3.4	16	< 5	NR	25.0	4	10.3	4	< 20	NR	17.0	4	15.0	4
87	2.0	12	< 2	0							< 40	NR		
89	2.5	15	4.56	2	< 100	NR	10.65	4			< 100	NR		
90	3.1	12	2.04	0			10.45	4			21.0	0		
92	2.0	5												
94	3.2	24	3.50	3	24.0	4	7.4	1	20.00	4	16.0	3	15.0	4
97	2.2	24	2.34	0	10.4	1	8.06	2			22.8	0	14.2	3
101	2.9	17	3.60	4	115.0	0					15.8	3		
107	2.7	17	4.05	4	33.8	2	11.1	3			16.0	3		
109	3.4	15					9.78	4	32.90	1				
112	3.0	1												

**Table 6. Laboratory performance ratings for standard reference water sample T-125
(trace constituent)—Continued**

Lab	Analyte = Ag (Silver)				Al (Aluminum)		As (Arsenic)		B (Boron)		Ba (Barium)		Be (Beryllium)				
	OLR	V/26	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating			
	MPV = 3.83	μ g/L	24.0	μ g/L	10.2	μ g/L	19.4	μ g/L	16.9	μ g/L	15.0	μ g/L	F-pseudosigma = 0.604	8.56	1.54	8.02	1.67
113	3.5	19	3.75	4	17.3	3	10.5	4					14.3	3			
116	2.6	11			< 100	NR			16.00	4	17.0	4					
118	2.5	8	3.00	2			11.3	3									
119	2.9	21	4.00	4	15.0	2	8	2	30.00	2	20.0	1	14.6	4			
120	2.4	19	2.85	1	32.7	2	11.9	2			26.5	0	21.2	0			
122	2.1	17	5.00	1	28.9	3	11.8	2	< 0.1	0	14.9	2					
124	0.9	12	< 20	NR	< 100	NR	300	0	< 50	NR	< 10	0	17.0	1			
127	3.7	26	3.87	4	20.5	4	9.79	4	19.20	4	16.0	3	15.0	4			
133	2.5	14	4.50	2			13	1			16.8	4	16.7	2			
134	3.0	24	3.80	4	32.0	3	10.7	4	< 20	NR	13.0	0	14.0	3			
138	3.3	22	4.23	3			10.2	4			17.1	4	15.9	3			
139	2.5	12			< 500	NR	12.5	2									
141	3.0	24	3.00	2	27.5	4	11.2	3	< 10	NR	17.1	4	14.7	4			
142	2.9	21	3.70	4			9.25	3	32.90	1	16.7	4	15.4	4			
145	2.9	20			< 13.4	NR	8.7	3	18.15	4	17.1	4	16.3	2			
146	2.3	12									16.0	3	16.0	3			
149	1.1	7	25.60	0													
151	2.8	12	< 10	NR			9.34	3			13.9	1	14.6	4			
153	2.3	12	6.80	0					17.40	4	17.4	4					
161	3.2	12	< 50	NR	< 100	NR	< 100	NR			17.0	4	15.0	4			
164	3.0	4															
180	3.1	16	< 4.8	NR	< 24.2	NR	10.9	4	19.20	4	17.0	4	14.7	4			
182	0.9	23	4.00	4	225.0	0	9	3			60.0	0	5.0	0			
183	1.7	13	4.50	2	28.4	3	10	4			6.2	0	13.0	1			
184	1.9	14	< 5	NR	< 200	NR	10.6	4			17.6	4	14.9	4			
189	1.4	21	4.90	1	55.0	0	10	4	< 10	NR	15.0	2	15.6	3			
190	2.9	17	3.95	4	20.5	4	10.1	4									
193	2.8	13	2.80	1			9	3			15.0	2					
196a	3.7	19	3.91	4	21.1	4	10.65	4			16.5	4	15.4	4			
196b	2.2	9	4.92	1													
197	3.3	4															
207	0.4	7															

Table 6. Laboratory performance ratings for standard reference water sample T-125 (trace constituent)—Continued

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

MPV = F-pseudostigma =	Ca (Calcium)		Cd (Cadmium)		Co (Cobalt)		Cr Chromium		Cu (Copper)		Fe (Iron)		K (Potassium)	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	9.36	4	7.20	4	10.87	1	3.57	3	17.5	4	98.4	4	0.98	3
3	9.36	4	8.10	2	8.00	1	4.40	3	21.0	1	91.0	3	3.20	0
4	9.33	4	13.00	0	2.00	0	6.00	0	16.0	3	112.0	1		
5	9.42	4	7.61	3	9.84	4	< 10	NR	18.3	4	97.5	4		
7	9.67	3	7.20	4	9.20	4	5.00	2	14.3	2	96.5	4	0.93	2
8	7.80	0	10.00	0	8.00	1	4.00	4	24.0	0	86.0	1	1.50	0
9	9.20	4	6.88	4			3.42	3			87.0	2	1.02	4
10			6.80	3			3.50	3	16.5	4	102.0	3		
11	9.71	3	7.95	3	10.00	3	5.00	2	20.0	2	101.0	4	1.10	3
12	9.00	3	11.60	0			< 20	NR	20.0	2	90.0	2	1.00	3
13	9.29	4	7.55	4			4.60	3	< 50	NR	102.0	3	1.04	4
15	10.20	1	6.77	3	9.34	4	4.78	2	19.0	3	102.0	3	1.04	4
16	8.90	3	6.70	3	7.80	0	< 10	NR	14.6	2	96.0	4	1.10	3
19	9.35	4	6.00	1			4.00	4			92.0	3	1.03	4
21											98.0	4		
23	8.71	2	6.58	3			4.66	3	17.7	4	94.8	4		
25	10.10	2	6.00	1	< 12	NR	< 8	NR	18.0	4	98.7	4	< 1.21	NR
29			7.40	4			1.90	0	12.0	0				
30			9.41	0	10.12	3	5.26	1	18.7	3				
32	9.13	4	6.55	3	9.86	3	3.90	4	19.1	3			1.12	2
33	9.53	4									80.0	0	1.11	3
36	7.37	0	0.01	0	0.02	0	0.00	0	0.0	0	0.1	0	0.82	0
37			7.20	4			3.77	4	17.4	4			0.96	2
39					10.00	3			20.0	2	110.0	1		
42	9.30	4	7.00	4			3.40	3	16.7	4	92.0	3	1.00	3
43	9.50	4									98.0	4	1.00	3
45	8.67	2	6.79	3			4.05	4	42.5	0	98.6	4	1.07	4
46	9.51	4	7.13	4	9.00	3	3.60	3	17.1	4	96.0	4	1.00	3
51	8.76	2	6.00	1	8.00	1	4.00	4	20.0	2	109.0	1	1.13	2
52	9.37	4	7.38	4	8.84	3	4.05	4	15.5	3	87.1	2	1.00	3
55	9.30	4	8.70	1	9.10	4	4.70	3	17.3	4	81.0	0	1.03	4
58	7.51	0	8.70	1	9.00	3	4.00	4	21.0	1	100.0	4	1.09	3
59	9.30	4	6.90	4			3.70	4	20.0	2	101.0	4	1.10	3
61	9.00	3	10.00	0	9.50	4	< 5	NR	14.0	1	100.0	4	< 1	NR
63	9.40	4	7.00	4	9.40	4	< 5	NR	18.5	3	72.0	0	0.95	2
68	9.60	4			12.00	0	4.90	2	20.0	2	99.0	4	1.30	0
69	9.00	3	7.73	3			3.70	4	17.0	4			1.10	3
70	9.69	3	5.84	1	< 50	NR	3.93	4	17.5	4	87.8	2	< 1	NR
73			7.00	4					16.0	3	95.0	4		
75			8.70	1	9.80	4	4.90	2	18.5	3	100.0	4		
76			7.85	3			3.98	4						
78	12.90	0	7.80	3			3.90	4	17.3	4	98.5	4	1.10	3
79			9.30	0			3.80	4	15.5	3	54.0	0		
84	7.94	0									110.0	1		
85	9.34	4	8.00	2	< 20	NR	< 10	NR	18.8	3	101.0	4	1.12	2
87	9.20	4	< 2	0					16.0	3	113.0	0	1.01	4
89	10.30	1	7.64	3	11.30	0	5.00	2	< 10	NR	91.2	3	1.03	4
90			7.21	4			3.13	2	17.5	4	95.5	4		
92	9.80	3											1.70	0
94	9.50	4	6.80	3	9.50	4	4.30	4	13.0	0	93.0	3	1.01	4
97	8.90	3	5.41	0	10.20	3	3.86	4	16.2	3	102.0	3	0.98	3
101	9.35	4	6.50	3			3.20	2	17.1	4	103.0	3	1.10	3
107	19.00	0	7.28	4			4.60	3	20.3	2	98.3	4	1.07	4
109	9.15	4	7.02	4							97.8	4	1.02	4
112														

**Table 6. Laboratory performance ratings for standard reference water sample T-125
(trace constituent)—Continued**

Lab	Ca (Calcium)		Cd (Cadmium)		Co (Cobalt)		Cr Chromium		Cu (Copper)		Fe (Iron)		K (Potassium)	
	MPV =	m g/L	7.20	μ g/L	9.45	μ g/L	3.99	μ g/L	17.4	μ g/L	97.9	μ g/L	1.04	m g/L
	F-pseudosigma =		0.749		0.778		0.712		2.08		7.34		0.074	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
113	9.10	4	7.22	4			3.73	4	18.3	4	101.0	4	1.01	4
116	9.16	4									91.0	3	1.60	0
118			7.00	4			3.20	2	14.4	2				
119	9.30	4	7.00	4			4.20	4	18.0	4	95.0	4	1.30	0
120	8.68	2	7.46	4			3.74	4	17.4	4			0.94	2
122	9.03	3	7.80	3			4.70	3	16.7	4	110.0	1	1.00	3
124	9.79	3	< 10	NR	< 10	NR	< 50	NR	10.0	0	120.0	0		
127	8.97	3	6.83	4	9.81	4	3.90	4	16.6	4	98.1	4	1.06	4
133	9.35	4	9.20	0			3.30	3	13.2	1	97.5	4		
134	9.20	4	7.30	4	9.30	4			18.6	3	85.0	1	1.00	3
138	9.90	2	7.00	4	9.10	4	4.56	3	16.3	3	105.8	2	1.04	4
139	11.00	0	7.67	3			3.90	4	17.9	4	91.0	3	1.03	4
141	9.78	3	6.60	3	8.85	3	4.27	4	17.9	4	95.8	4	1.13	2
142	10.30	1	6.83	4			3.75	4	17.2	4	74.9	0	1.10	3
145	9.88	2	8.50	1	9.15	4	4.90	2	16.3	3	100.5	4	0.95	2
146	8.50	1	6.90	4							94.0	3		
149			7.70	3					16.0	3	110.0	1		
151			8.36	1			3.58	3	18.2	4				
153	8.61	2	6.27	2			1.10	0	16.8	4			0.92	1
161	9.44	4	7.00	4	10.00	3	< 5	NR	19.0	3	101.0	4	< 2	NR
164	9.16	4											0.97	3
180	9.78	3	7.70	3	8.90	3	< 3.8	NR	15.6	3	91.7	3	2.66	0
182	12.20	0	1.00	0	15.00	0	9.00	0	20.0	2	120.0	0	0.90	1
183			8.00	2			7.00	0	15.0	2				
184	9.76	3	8.60	1	12.20	0	< 10	NR	20.8	1	87.5	2	1.24	0
189	9.03	3	5.60	0	16.00	0	< 2	0	14.5	2	< 50	0	0.84	0
190	8.42	1	6.50	3			3.70	4	14.3	2	9.3	0	1.09	3
193	9.27	4	6.00	1	< 25	NR	3.00	2	< 25	NR	102.0	3	1.06	4
196a			7.09	4	9.83	4	4.00	4	18.8	3				
196b	10.75	0	6.73	3									1.09	3
197	8.87	3											1.03	4
207	10.30	1					10.40	0					1.43	0

**Table 6. Laboratory performance ratings for standard reference water sample T-125
(trace constituent)—Continued**

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

Analyte = MPV = F-pseudostigma = Lab	Li (Lithium)		Mg (Magnesium)		Mn (Manganese)		Mo (Molybdenum)		Na (Sodium)		Ni (Nickel)		Pb (Lead)	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	16.3	4	2.00	4	17.8	4	20.1	4	22.5	4	11.0	4	8.37	4
3	20.0	0	2.08	3	18.0	4	21.0	3	23.8	2	20.0	0	10.00	1
4	16.0	4	1.98	4	18.0	4	< 20	NR	21.8	4	< 20	NR	< 20	NR
5			1.99	4	17.8	4	20.4	4	23.0	3				
7			1.99	4	17.8	4	17.3	1	22.3	4	15.3	0		
8			1.83	1	2.4	0	20.7	4	24.0	2	23.0	0		
9			1.76	0	14.8	0			23.2	3	10.3	3	8.47	4
10					21.0	0							7.80	4
11			2.16	2	18.0	4	16.0	0	24.3	1			7.40	3
12			2.00	4	< 20	NR	< 30	NR	21.0	2	< 20	NR	< 10	NR
13			1.92	3	20.3	1			22.3	4	< 50	NR	5.20	0
15	17.0	3	2.15	2	20.0	1	20.6	4	24.6	1	11.3	4	8.11	4
16	< 500	NR	2.00	4	17.0	3	25.8	0	24.3	1	< 25	NR	7.70	4
19			1.86	2	17.0	3			22.0	4				
21														
23			1.99	4	17.3	3	< 100	NR	21.5	3	< 20	NR	6.61	2
25	16.0	4	2.15	2	17.0	3			24.1	1	< 49	NR	< 71	NR
29					14.0	0	15.2	0					22.80	0
30	15.3	3	1.99	4	18.0	4	19.5	4			11.7	4	8.61	4
32	16.8	4	2.06	3	18.9	3	18.0	2			10.8	4	8.68	4
33			2.14	2	22.5	0			18.0	0			4.88	0
36			1.90	3	0.1	0			21.1	2	0.0	0	0.01	0
37					18.3	4					11.2	4	8.86	3
39	17.0	3	2.07	3	19.0	3	18.0	2	23.2	3				
42	18.0	2	2.00	4	17.3	3	18.8	3	21.8	4	11.4	4	8.30	4
43			2.00	4	18.0	4			23.1	3				
45			1.73	0			21.4	3	22.3	4	10.5	3	7.22	3
46			1.99	4	18.0	4			22.0	4	10.3	3	1.30	0
51			2.00	4	24.0	0			22.5	4	12.0	3	7.00	3
52			1.92	3	16.9	3	21.2	3	22.4	4	10.9	4	10.40	1
55	12.0	0	1.84	2	14.1	0			22.1	4	10.7	4	8.40	4
58			1.81	1	24.0	0	41.0	0	122.0	0	10.7	4	10.00	1
59			2.00	4	18.0	4			22.0	4	11.9	3	8.40	4
61			2.00	4	18.0	4	< 50	NR	23.0	3	< 25	NR	9.00	3
63	< 100	NR	1.82	1	17.0	3	19.2	3	20.0	1	11.8	3	8.10	4
68	18.0	2	2.20	1			25.0	0	23.0	3	14.0	0	9.10	3
69			2.00	4					20.7	2	11.0	4	8.00	4
70			2.02	4	18.0	4	< 50	NR	22.8	4	< 50	NR	9.33	2
73											10.0	2		
75	15.6	4	2.10	3	18.4	4	20.7	4	21.7	3				
76					16.8	3			22.5	4			7.71	4
78			2.00	4	16.8	3			23.0	3	10.6	3	8.40	4
79					25.0	0					14.0	0	7.00	3
84			1.90	3	20.0	1			22.2	4				
85	17.1	3	1.95	4	19.0	3	< 20	NR	22.1	4	< 20	NR	< 50	NR
87			1.84	2					20.6	2	12.0	3	24.00	0
89			2.10	3	18.6	4			23.0	3	7.8	0	7.53	4
90					17.5	4			22.4	4	11.5	4	8.30	4
92			2.00	4					23.7	2				
94			1.89	3	17.0	3	17.6	2	21.8	4	12.0	3	7.60	4
97			1.86	2	17.8	4	20.3	4	21.2	3	13.0	1	9.36	2
101			2.00	4	16.9	3			22.5	4	11.8	3	12.60	0
107			2.23	0	17.4	4			21.3	3	10.6	3	8.09	4
109	15.5	4	2.00	4	18.6	4	21.6	3	21.1	3			8.10	4
112														

**Table 6. Laboratory performance ratings for standard reference water sample T-125
(trace constituent)—Continued**

F-pseudosigma =	Analyte = Li (Lithium)			Mg (Magnesium)		Mn (Manganese)		Mo (Molybdenum)		Na (Sodium)		Ni (Nickel)		Pb (Lead)		
	MPV =	16.2	μ g/L	2.00	m g/L	18.0	μ g/L	20.1	μ g/L	22.3	m g/L	11.2	μ g/L	8.11	μ g/L	
		1.58		0.111		1.22		1.78		1.19		1.04		1.216		
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating		
	113		2.15	2	18.2	4					23.1	3	10.6	3	8.25	4
	116	54.0	0	2.00	4	18.0	4				20.8	2				
	118												10.3	3	8.40	4
	119			2.00	4	18.0	4	22.3	2		10.7	0	9.7	2		
	120			1.92	3	1.7	0	21.1	3		22.3	4	9.3	1	6.82	2
	122			1.96	4	16.7	2				24.4	1			10.40	1
	124			1.98	4	20.0	1	< 20	NR				50.0	0	< 50	NR
	127	16.1	4	1.99	4	17.2	3	18.8	3		22.0	4	10.8	4	7.42	3
	133			1.95	4								11.8	3	5.90	1
	134	22.0	0	1.90	3	18.0	4	15.0	0		22.0	4	10.4	3	7.70	4
	138			2.09	3	18.7	3	19.0	3		23.4	3	11.7	4	9.84	2
	139			1.91	3	< 10	0				22.5	4	< 40	NR	12.50	0
	141			2.06	3	18.7	3	22.8	1		24.3	1	11.2	4	7.07	3
	142			2.20	1	17.9	4	21.4	3		24.5	1	11.3	4	8.00	4
	145	15.0	3	2.04	4	19.2	3	21.0	3		23.3	3	8.7	0	< 14.8	NR
	146			1.80	1	16.0	1	19.0	3		21.0	2			8.70	4
	149					9.0	0								5.30	0
	151					30.4	0	18.8	3				10.0	2	8.37	4
	153			1.90	3	19.5	2				21.5	3			9.10	3
	161			2.02	4	18.0	4	< 50	NR		22.3	4	16.0	0	< 20	NR
	164			1.94	3						21.1	2				
	180			2.16	2	18.6	4	19.7	4		23.1	3	11.5	4	< 27.8	NR
	182	14.0	2	1.60	0	15.0	0	20.0	4		17.6	0	15.0	0	10.00	1
	183					20.0	1				21.6	3	9.0	0	8.20	4
	184			2.06	3	18.0	4				24.5	1	< 10	NR	< 50	NR
	189	< 500	NR	2.01	4	17.0	3	< 10	0		24.7	1	< 20	NR	3.90	0
	190			2.07	3	16.5	2				22.5	4	10.8	4	6.98	3
	193			1.84	2						21.2	3	11.0	4	7.00	3
	196a	14.0	2			17.5	4	17.7	2				11.4	4	8.03	4
	196b			2.05	4	17.5	4	23.6	1				13.3	1	7.22	3
	197			1.90	3						21.4	3				
	207			1.86	2			6.0	0		18.8	0			3.48	0

Table 6. --Laboratory performance ratings for standard reference water sample T-125 (trace constituent)--Continued

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/26, number of reported values of 26 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

F-pseudostigma =	Sb (Antimony)		Se (Selenium)		SiO ₂ (Silica)		Sr (Strontium)		V (Vanadium)		Zn (Zinc)	
	MPV =	μ g/L	MPV =	μ g/L	MPV =	m g/L	MPV =	μ g/L	MPV =	μ g/L	MPV =	μ g/L
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	6.05	4	9.80	4	5.09	4	45.5	4	6.52	4	8.12	3
3	6.20	4	8.56	3	5.63	2	46.0	4	< 10	NR	6.70	4
4					5.12	4	46.0	4	3.00	0	< 10	NR
5					5.18	4			7.66	2	4.73	4
7	24.00	0					45.9	4	8.30	1	3.90	3
8			8.00	3	4.40	0	48.3	3				
9					7.18	0	< 27	0			< 4	NR
10			10.50	4								
11	5.70	4	10.80	3	5.18	4			6.00	3	25.00	0
12	< 100	NR	8.00	3							< 20	NR
13			10.60	4	5.83	1					< 10	NR
15	4.77	2	9.60	4	5.49	3	45.3	4	8.10	1	5.10	4
16	6.50	4	6.50	1			43.7	3	7.40	3	4.20	4
19												
21												
23			5.45	0							< 20	NR
25	< 51	NR	< 129	NR	5.63	2	48.0	3	6.00	3	< 4	NR
29			16.60	0							15.00	0
30			16.09	0					7.11	3	10.89	2
32	6.39	4	11.00	3	5.21	4	47.4	3	7.00	4	4.40	4
33					5.35	3	46.0	4				
36	0.01	0	0.02	0	10.80	0					0.00	2
37			12.10	2	5.29	4			6.96	4	4.39	4
39							48.0	3			5.00	4
42			10.30	4	5.00	3	4.8	0	6.30	4		
43					5.10	4						
45	3.17	0	8.88	4	5.39	3			13.90	0		
46	6.30	4	6.90	1					6.00	3	9.32	3
51					5.22	4					5.00	4
52	< 6	NR	< 5	0	4.64	1	44.8	3	6.56	4	< 10	NR
55	6.80	4	10.00	4	5.19	4	43.0	2				
58	2.40	0	0.67	0	4.06	0					24.00	0
59	5.00	3					47.0	4			4.20	4
61	< 50	NR	10.40	4	2.50	0			10.00	0	< 10	NR
63	7.60	2	10.00	4	5.35	3	51.1	0	< 10	NR	11.00	2
68	< 5	NR	9.00	4			44.0	3	8.00	1	3.90	3
69			9.30	4								
70			11.00	3	4.95	3	< 10	0	< 50	NR	< 10	NR
73											6.00	4
75			9.75	4					7.90	1	4.60	4
76			12.50	2								
78	6.80	4	10.00	4	5.20	4					3.80	3
79			9.40	4							7.80	4
84												
85	< 100	NR	9.30	4			44.8	3	< 20	NR	9.40	3
87					4.80	2					5.00	4
89			< 2	0	5.14	4					< 40	NR
90											8.00	3
92					4.60	1						
94	7.20	3	7.00	2			45.0	4	6.20	4	6.00	4
97	6.11	4	0.78	0	5.30	4	35.8	0	5.11	1	9.13	3
101					4.70	1			6.30	4	5.90	4
107			10.80	3							20.00	0
109			9.13	4	6.16	0	46.0	4				
112					4.98	3						

**Table 6. --Laboratory performance ratings for standard reference water sample T-125
(trace constituent)--Continued**

Lab	Sb (Antimony)		Se (Selenium)		SiO ₂ (Silica)		Sr (Strontium)		V (Vanadium)		Zn (Zinc)	
	MPV =	μ g/L	MPV =	μ g/L	MPV =	m g/L	MPV =	μ g/L	MPV =	μ g/L	MPV =	μ g/L
	F-pseudostigma =	RV	Rating	F-pseudostigma =	RV	Rating	F-pseudostigma =	RV	Rating	F-pseudostigma =	RV	Rating
113	6.24	2	9.78	4	5.18	4	< 200	NR	6.56		5.95	2
116	1.305		1.853		0.319		46.0	4	0.890		4.007	NR
118			5.90	0								
119	5.60	4	8.40	3	5.00	3					5.00	4
120	6.28	4	10.30	4							2.41	3
122			< 1	0							10.00	2
124	100.00	0	260.00	0					< 10	NR	10.00	2
127	5.04	3	11.80	2	5.25	4	46.0	4	7.31	3	6.50	4
133			8.30	3							8.90	3
134	6.20	4	9.60	4	5.10	4	43.0	2	7.10	3	4.60	4
138			10.60	4	5.60	2	47.1	4	6.20	4	4.20	4
139			10.90	3							< 10	NR
141	6.83	4	11.60	3	3.94	0	44.0	3	6.50	4	4.03	4
142	6.59	4	11.50	3	6.16	0			6.25	4		
145					5.38	3	47.2	4	6.20	4	< 0.7	NR
146					4.00	0	44.0	3				
149	4.10	1										
151	6.32	4	9.85	4							< 20	NR
153												
161	< 50	NR	< 100	NR			< 100	NR	< 100	NR	21.00	0
164												
180	< 18.9	NR	< 29.6	NR					5.60	2	< 3	NR
182	150.00	0	9.80	4			240.0	0			15.00	0
183			3.00	0								
184	< 50	NR	0.01	0	8.34	0			< 10	NR	< 10	NR
189	5.00	3	4.20	0	5.05	4	32.8	0	< 8	NR	< 20	NR
190			10.85	3	4.71	2					4.20	4
193			9.00	4							< 25	NR
196a	5.97	4	10.58	4			47.1	4	6.72	4	4.07	4
196b												
197												
207												

Table 7. —Laboratory performance ratings for standard reference water sample M-126 (major constituent)

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/15, number of reported values of 15 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

Analyte = Alk (Alkalinity)					B (Boron)		Ca (Calcium)		Cl (Chloride)		DSRD	
MPV = 27.0 m g/L					9.6 μ g/L		7.62 m g/L		20.7 m g/L		88.0 m g/L	
F-pseudosigma = 1.48					1.67		0.460		0.93		7.78	
Lab	OLR	V/15	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.3	15	28.6	2	8.4	4	7.50	4	20.2	3	85	4
2	1.0	4	546.0	0								
3	2.4	14	26.3	4	< 10	NR	7.51	4	21.2	3	70	0
4	2.7	9			10.0	4	7.25	3	18.6	0		
5	2.6	11	33.5	0			7.68	4	18.8	0	86	4
7	2.6	12	28.7	2			7.99	3	21.6	3		
8	1.5	13	28.0	3			4.91	0	20.4	4		
9	2.8	13	27.0	4			7.20	3	19.6	2	88	4
10	3.5	12	27.5	4			7.70	4	21.6	3	88	4
11	2.6	14	26.2	3	11.0	4	7.89	3	22.1	1	89	4
12	1.8	12	28.0	3			8.00	3	25.0	0	94	3
13	2.8	13	25.9	3			7.23	3	19.7	2	83	3
15	2.3	15	27.0	4	9.6	4	9.93	0	20.9	4	73	1
16	3.2	13	31.3	0	< 500	NR	7.30	3	20.6	4	89	4
18	2.8	14	25.0	2	< 5	0	7.80	4	19.8	3	94	3
19	3.2	11	27.9	3			7.60	4	20.0	3	94	3
23	2.6	10					7.31	3	21.8	2	71	0
24	3.1	12	27.0	4			7.52	4	20.9	4		
25	1.8	12	32.0	0	< 23	NR	8.38	1			92	3
26	2.5	11	26.0	3			8.50	1	20.3	4	88	4
29	2.8	12	27.0	4	10.0	4	6.00	0	21.1	4	86	4
30	0.4	5					0.75	0	6.0	0		
32	2.6	13	26.8	4			7.40	4	21.1	4	196	0
33	2.2	12	26.0	3			7.77	4	17.2	0		
36	2.8	13	28.0	3			6.17	0	20.0	3	89	4
37	2.6	8	26.7	4					19.3	1		
38	3.6	10	27.6	4			7.51	4			86	4
39	2.6	10	27.0	4			8.26	2	20.0	3		
41	0.0	1										
42	2.9	13	30.3	0			7.50	4	20.8	4		
43	3.8	10	28.0	3			7.80	4	20.0	3	88	4
45	2.9	14	27.9	3	10.3	4	7.27	3	21.0	4	101	1
46	3.3	14	27.3	4	5.9	0	7.36	3	21.0	4	84	3
50	3.4	11	27.0	4	< 50	NR	7.60	4	20.0	3		
51	3.3	11	26.0	3			7.12	2	21.6	3	85	4
52	2.7	13	30.0	1	< 300	NR	7.71	4	21.2	3	84	3
54	3.6	12	27.0	4			7.50	4	21.4	3	85	4
55	2.7	13	29.3	1			7.59	4	21.0	4	78	2
56	2.3	9	27.4	4			7.90	3	20.9	4		
57	1.8	13	24.0	1	< 50	NR	6.70	0	22.0	2	66	0
58	1.4	13	28.0	3	114.0	0	6.07	0	21.2	3		
59	4.0	2										
60	2.2	6	26.9	4					24.1	0	63	0
61	2.5	13	21.6	0	< 50	NR	7.40	4	20.4	4	98	2
63	2.7	14	26.3	4	< 100	NR	7.99	3	19.0	1	95	3
64	3.9	10					7.64	4	20.5	4		
68	3.0	11	32.3	0			7.80	4	21.7	2		
69	2.9	10	27.7	4			7.50	4	20.4	4	92	3
70	2.6	14	24.5	1	< 50	NR	7.78	4	20.2	3	94	3
75	2.7	6	28.0	3					20.2	3	88	4
76	3.3	7	24.2	1					20.7	4	80	2
78	1.7	13	28.5	2			9.80	0	25.0	0	320	0
79	4.0	4	27.0	4					21.0	4		
84	1.4	8	26.2	3			9.65	0	24.8	0		
85	2.6	14	24.7	1	< 20	NR	7.83	3	21.8	2	83	3
86	2.8	8					7.75	4	22.0	2		
87	3.0	9	28.0	3					22.0	2	122	0
89	2.7	13	27.8	3			8.50	1	2.0	0	87	4
90	2.6	7	26.0	3			8.10	2			89	4
92	2.6	12	24.8	2			7.80	4	21.1	4	91	4
93	2.8	5							20.7	4		
94	3.2	14	26.0	3	11.0	4	7.90	3	20.9	4	94	3
96	2.9	7	29.0	2					20.4	4	78	2
97	3.0	13	26.3	4			7.18	3	21.3	3	86	4
101	2.7	9					7.70	4	20.3	4	73	1

Table 7. --Laboratory performance ratings for standard reference water sample M-126 (major constituent)

(major constituent)—Continued

Lab	Analyte = Alk (Alkalinity)				B (Boron)		Ca (Calcium)		Cl (Chloride)		DSRD	
	OLR	V/15	MPV = 27 RV Rating	m g/L	RV	Rating	RV	Rating	RV	Rating	RV	Rating
102	1.9	10					7.50	4	19.0	1		
103	1.4	8			1.1	0	6.80	1				
104	3.3	3										
107	2.8	6	26.0	3					24.0	0		
108	0.0	1										
109	2.2	14	28.1	3	7.9	2	7.65	4	22.7	0	94	3
111	2.0	1										
113	2.9	13	27.2	4			7.05	2	18.9	1	79	2
114	2.4	11	27.0	4			7.50	4	21.5	3		
116	3.1	9	25.9	3	< 10	NR	7.25	3	20.4	4		
118	2.8	6	30.0	1							93	3
119	3.1	13	22.0	0			7.40	4	21.0	4	84	3
120	2.6	11	27.0	4			7.05	2	21.0	4	104	0
121	4.0	8			< 10	NR	7.70	4	20.6	4		
122	2.7	11	27.5	4	< 0.1	0	7.35	3	21.7	2	101	1
124	2.2	9	27.0	4			8.00	3	21.0	4		
127	3.6	15	27.7	4	10.0	4	7.51	4	19.3	1	89	4
128	2.6	12	31.0	0	< 10	NR	8.13	2	19.8	3		
134	3.5	14	27.1	4	< 20	NR	7.40	4	20.2	3	58	0
138	3.2	13	26.7	4			8.10	2	20.4	4	84	3
139	2.5	10	32.0	0			8.95	0	19.7	2		
140	2.4	11					7.70	4	21.0	4	80	2
141	2.8	14	26.0	3			7.62	4	20.2	3	88	4
142	2.2	14	27.0	4	7.9	2	8.10	2	20.6	4	95	3
145	3.4	13	25.5	2	9.2	4	7.61	4	20.7	4		
146	1.8	12	24.1	1			6.98	2	22.0	2	85	4
151	3.0	2	28.0	3								
153	3.4	10	26.6	4			7.76	4	26.0	0		
161	2.2	6	33.8	0					21.1	4		
164	2.3	6					7.39	4	21.1	4		
179	1.1	8					5.30	0	26.0	0		
180	2.5	11	27.5	4	7.7	2	8.15	2	20.7	4		
182	0.8	12	24.0	1			9.20	0	10.0	0	18	0
183	1.7	11	28.0	3			0.99	0	0.3	0	107	0
184	2.0	13	25.0	2			7.96	3	21.0	4	92	3
189	2.1	14	21.0	0	< 10	NR	7.77	4	20.0	3	140	0
190	2.6	13	25.0	2			7.23	3	19.6	2	85	4
191	3.6	7					7.52	4	20.7	4		
193	3.3	3							19.4	2		
194	2.6	5	27.9	3					20.0	3		
196	1.6	7					8.48	1	19.4	2		
197	2.2	10	27.7	4			6.76	1	20.0	3		
202	1.9	10	29.6	1			7.93	3	28.0	0	70	0
207	2.4	11	27.0	4			8.33	1	23.0	0		
209	2.0	4					8.15	2	0.6	0		

Table 7. —Laboratory performance ratings for standard reference water sample M-126 (major constituent)—Continued

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/16, number of reported values of 16 values; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

Analyte =	F (Fluoride)			K (Potassium)			Mg (Magnesium)			Na (Sodium)			P (total Phosphorus)		
MPV =	0.59	m g/L		2.62	m g/L		1.82	m g/L		17.8	m g/L		0.197	m g/L	
F-pseudosigma =	0.048			0.178			0.078			0.77			0.009		
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	
1	1.04	0	2.73	3	1.51	2	17.8	4	0.194	4					
2															
3	0.67	1	4.30	0	1.72	2	18.7	2	0.215	1					
4	0.90	0			1.59	4	17.2	3							
5			2.75	3	1.65	4	17.9	4							
7	8.20	0	2.51	3	1.68	3	17.5	4	0.270	0					
8	0.60	4	1.80	0	1.64	4	23.3	0	0.140	0					
9	0.60	4	2.67	4	1.45	0	18.3	3	0.191	3					
10	0.59	4	2.70	4	1.70	2	17.7	4							
11	0.57	4	1.99	0	1.76	1	18.8	2	0.200	4					
12	1.50	0	2.60	4	1.60	4	16.0	0	0.210	2					
13	0.57	4	2.26	1	1.61	4	18.2	3	0.210	2					
15	0.54	3	2.72	3	1.99	0	21.0	0	0.191	3					
16	0.57	4	2.60	4	1.60	4	19.0	1	0.192	3					
18	0.58	4	2.80	2	1.70	2	18.4	3	0.185	2					
19			2.27	1	1.53	2	17.5	4	0.190	3					
23	0.57	4			1.60	4	17.7	4	0.186	2					
24	0.62	3	2.62	4	1.62	4	17.3	3							
25	0.58	4	3.11	0	1.78	0	19.2	1	2.260	0					
26	0.92	0	2.76	3	1.55	3	18.3	3							
29	0.59	4	2.70	4	3.70	0	15.4	0							
30					0.84	0									
32	1.03	0	2.92	1	1.74	1	17.9	4							
33	1.05	0	2.84	2	1.76	1	15.6	0							
36	0.56	3	2.40	2	1.55	3	18.5	3	0.195	4					
37	0.56	3	2.48	3					0.169	0					
38			2.64	4	1.63	4	16.5	1	0.189	3					
39	0.58	4			1.73	2	18.6	2							
41															
42	1.03	0	2.30	1	1.60	4	17.3	3	0.197	4					
43			2.70	4	1.60	4	18.0	4							
45	0.66	2	2.63	4	1.60	4	17.6	4	0.235	0					
46	0.59	4	2.55	4	1.58	3	17.4	4	0.190	3					
50	0.56	3	2.60	4	1.40	0	18.0	4							
51			2.78	3	1.69	3	17.5	4							
52	0.49	0	2.57	4	1.63	4	17.6	4	0.202	3					
54	0.58	4	2.60	4	1.60	4	18.0	4	0.200	4					
55	0.61	4	2.58	4	1.58	4	17.7	4	0.220	0					
56			2.43	2	1.55	3	16.3	1							
57	0.58	4	3.05	0	1.50	1	15.9	0	0.200	4					
58	0.59	4	2.52	3	1.47	1	12.6	0	0.138	0					
59									0.200	4					
60									0.200	4					
61	0.57	4	2.60	4	1.60	4	18.0	4	0.169	0					
63	0.59	4	2.57	4	1.72	2	17.9	4	0.200	4					
64			2.61	4	1.69	3	18.1	4	0.200	4					
68			2.90	1	1.60	4	18.0	4	0.191	3					
69			2.90	1	1.60	4	16.8	2							
70	0.57	4	2.10	0	1.63	4	18.6	2	0.200	4					
75									0.210	2					
76							17.9	4							
78	0.54	2	2.40	2	1.60	4	17.2	3	0.198	4					
79															
84					1.60	4	18.0	4							
85	0.69	0	2.82	2	1.64	4	17.8	4	0.190	3					
86			2.72	3	1.74	1	18.3	3							
87					1.65	4			0.200	4					
89	0.58	4	2.70	4	1.80	0	18.2	3	0.193	4					
90	0.65	2					17.7	4							
92			2.20	0	1.60	4	12.9	0	0.160	0					
93	1.20	0													
94	0.56	3	2.50	3	1.58	3	17.5	4	0.180	1					
96	0.61	4													
97	0.54	3	2.45	3	1.60	4	16.8	2							
101			2.60	4	1.70	2	17.4	4							

Table 7. —Laboratory performance ratings for standard reference water sample M-126

(major constituent)—Continued

Lab	F (Fluoride)		K (Potassium)		Mg (Magnesium)		Na (Sodium)		P (Total Phosphorus)	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
102			1.60	0	1.90	0	17.1	3	0.200	4
103			2.80	2	1.60	4	20.5	0	0.160	0
104									0.197	4
107	0.59	4							0.191	3
108									0.260	0
109	0.58	4	2.43	2	1.60	4	17.0	3		
111									0.207	2
113	0.59	4	2.63	4	1.57	3	23.2	0	0.188	2
114	0.59	4	1.48	0	1.70	2	25.0	0	0.188	2
116			2.60	4	1.69	3	17.1	3		
118									0.200	4
119	0.57	4	2.80	2	1.70	2	17.7	4	0.200	4
120	0.58	4	2.60	4	1.61	4	17.2	3	0.180	1
121			2.65	4	1.65	4	17.8	4		
122	0.58	4	2.62	4	1.64	4	19.1	1		
124	0.50	1	7.60	0	1.80	0	21.0	0		
127	0.60	4	2.70	4	1.68	3	17.6	4	0.208	2
128	0.56	3	2.70	4	1.70	2	17.8	4	0.180	1
134	0.59	4	2.60	4	1.60	4	18.0	4	0.195	4
138	0.60	4	2.70	4	1.74	1	18.6	2	0.196	4
139			2.73	3	1.59	4	18.3	3	0.199	4
140	0.59	4	2.63	4	1.60	4	17.4	4	0.030	0
141	0.58	4	2.88	2	1.62	4	17.6	4	0.210	2
142	0.54	2	2.80	2	1.80	0	19.1	1	0.200	4
145	0.58	4	2.47	3	1.60	4	17.6	4		
146	1.76	0	1.76	0	1.53	2	16.7	2		
151										
153	0.60	4	2.54	4	1.65	4	17.7	4		
161	0.52	2								
164			2.20	0	1.40	0	16.9	2		
179			2.72	3	1.68	3	17.2	3	0.220	0
180	0.65	2	3.81	0	1.18	0	18.7	2	0.196	4
182	0.72	0	2.60	4	1.20	0	14.6	0		
183	0.60	4			1.62	4	17.6	4	0.960	0
184	0.55	3	2.84	2	1.72	2	19.5	0	0.180	1
189	0.57	4	2.75	3	1.59	4	20.1	0	0.200	4
190	0.61	4	2.53	3	1.79	0	17.9	4	0.134	0
191			2.72	3	1.70	2	17.9	4		
193										
194	0.61	4								
196	0.93	0	2.88	2	1.72	2	14.8	0		
197	1.09	0	2.42	2	1.54	2	17.0	2		
202	0.58	4	2.60	4	1.70	2			0.120	0
207			3.31	0	1.67	3	18.0	4	0.200	4
209					1.73	2				

Table 7. —Laboratory performance ratings for standard reference water sample M-126 (major constituent)—Continued

(MPV, most probable value; ug/L, microgram per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all values; V/16, number of reported values of 26 values; RV, reported value; <, less than)

Rating 4 (Excellent)	Absolute Z-value 0.00-0.50	Rating 1 (Questionable)	Absolute Z-value 1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

Analyte = pH			SiO2 (Silica)		SO4 (Sulfate)		Sp Cond		Sr (Strontium)		V (Vanadium)	
MPV =	7.43		4.04	m g/L	6.06	m g/L	148	μ S/cm	41.0	μ g/L	insufficient data	
F-pseudosigma =	0.263		0.300		0.504		8.1		2.08			
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	7.65	3	4.07	4	6.06	4	149	4	40.2	4	4.1	
2	7.51	4	3.36	0			129	0				
3	7.49	4	4.62	1	6.04	4	148	4	39.0	3	< 3	
4			4.04	4	6.50	3			39.0	3	< 1	
5	6.34	0	4.06	4	6.00	4	157	2			< 4	
7	7.00	1			5.90	4	152	4	41.2	4	7.0	
8	6.84	0	5.10	0	6.00	4	129	0	46.9	0		
9			3.89	4	5.80	3	142	3	107.0	0		
10	7.68	3	3.90	4	5.50	2	149	4				
11	7.40	4	4.19	4	5.80	3	89	0			1.0	
12	7.10	2			4.00	0	131	0				
13	7.60	3	4.03	4	8.60	0	150	4				
15	6.98	1	4.45	2	6.58	2	154	3	40.0	4	0.9	
16	7.20	3			6.26	4	151	4	39.0	3	< 10	
18	7.63	3	3.98	4	6.77	2	162	1	41.0	4	< 5	
19	7.45	4			5.99	4	149	4				
23	7.25	3			5.82	4	96	0				
24	7.40	4	3.34	0	4.10	0	154	3	40.3	4		
25	7.43	4	4.51	1			151	4	42.8	3	< 4	
26	7.80	2			5.90	4	164	1				
29	7.67	3			5.80	3	148	4				
30	7.07	2			19.66	0						
32	7.20	3	4.40	2	5.91	4	147	4	42.2	3	0.3	
33	7.47	4	4.26	3	5.40	2	143	3	40.9	4		
36	7.40	4	7.71	0	5.97	4	155	3				
37	7.24	3	4.29	3	< 6	NR	146	4				
38	7.50	4	4.00	4			150	4				
39	7.60	3	3.23	0	5.77	3			43.0	3		
41	6.78	0										
42	7.36	4	4.00	4	5.92	4	160	2	42.0	4		
43	7.38	4	4.10	4	< 10	NR	149	4				
45	7.64	3	4.32	3	6.80	2	149	4				
46	7.50	4			5.96	4	146	4	38.8	2	< 6	
50	7.30	4	4.00	4	5.80	3	151	4				
51	7.53	4	4.19	4	6.38	3	143	3				
52	7.32	4	3.70	2	< 10	NR	134	1	38.6	2	< 2	
54	7.61	3			7.00	1	149	4				
55	7.49	4	4.24	3	7.00	1			36.0	0		
56	7.42	4			7.60	0	125	0				
57	7.60	3	3.20	0	6.00	4	150	4	< 100	NR	< 50	
58	7.30	4	3.28	0	4.73	0	124	0				
59			3.90	4								
60	7.60	3					138	2				
61	7.45	4	2.00	0	2.10	0	140	3			< 10	
63	7.47	4	4.51	1	15.00	0	152	4	45.5	0	< 10	
64	7.55	4	3.90	4	5.90	4	151	4				
68	7.40	4	4.14	4			149	4	39.0	3	< 3.0	
69	7.53	4			7.20	0	155	3				
70	7.38	4	4.00	4	5.57	3	132	1	< 10	0	< 50	
75	6.76	0			< 10	NR	147	4				
76	7.39	4			6.22	4	151	4				
78	7.60	3	4.40	2	2.50	0	108	0				
79	7.50	4					150	4				
84	5.89	0			0.40	0	169	0				
85	7.70	2	4.20	3	6.06	4	139	2	40.5	4	< 20	
86	6.95	1			6.09	4	152	4				
87	7.43	4	4.00	4	6.50	3	140	3				
89	7.42	4	4.00	4	4.00	0	145	4				
90	8.39	0					153	3				
92	7.49	4	3.70	2	6.50	3	148	4				
93	7.60	3			5.90	4	141	3				
94	7.61	3			5.70	3	150	4	41.0	4	< 5	
96	7.22	3			5.50	2	154	3				
97	7.35	4	3.73	2	5.60	3	152	4	34.2	0	1.1	
101	6.85	0	3.70	2			141	3				

Table 7. --Laboratory performance ratings for standard reference water sample M-126

(major constituent)--Continued

Analyte = pH			SiO ₂ (Silica)		SO ₄ (Sulfate)		Sp Cond		Sr (Strontium)		V (Vanadium)	
MPV =	7.43		4.04 m g/L		6.06 m g/L		148	μ S/cm	41.0	μ g/L	insufficient data	
F-pseudosigma =	0.263		0.300		0.504		8.1		2.08			
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
102			12.00	0	6.20	4	136	2	45.0	1		3.9
103			3.00	0					41.0	4		< 10
104	7.82	2	4.01	4								
107	7.25	3					149	4				
108												
109	7.11	2	4.93	0	7.41	0	148	4	36.0	0		
111												
113	7.44	4	4.16	4	5.96	4	152	4	< 200	NR		
114	7.23	3			7.85	0	149	4				
116			3.34	0	6.00	4			41.0	4		
118	7.80	2	4.18	4			140	3				
119	7.93	1	4.00	4	6.00	4	148	4				
120	7.60	3			5.00	0						
121			4.05	4	6.10	4			41.0	4		
122	7.60	3					148	4				
124	7.45	4			< 10	NR	145	4				
127	7.53	4	4.17	4	6.03	4	147	4	41.4	4		< 2
128	7.58	3	4.12	4	7.02	1	144	4	< 5	NR		
134	7.65	3	4.09	4	6.20	4	151	4	39.0	3		< 1
138	7.46	4	4.55	1	5.90	4			42.0	4		< 3
139	7.20	3			5.50	2	147	4				
140	6.88	0	2.00	0	144.00	0						
141	7.60	3	3.40	0	6.62	2	151	4	46.0	0		< 1
142	7.06	2	4.93	0	7.00	1	147	4				
145	7.60	3	3.95	4	6.11	4	134	1	39.0	3		< 1.3
146	7.40	4	2.85	0			153	3	38.8	2		
151	7.23	3										
153	7.25	3			6.06	4	155	3				
161	7.66	3			6.44	3	134	1				
164					6.11	4						
179	6.10	0					130	0				
180	7.37	4			6.23	4						< 3.0
182	7.44	4			1.00	0	1333	0	220.0	0		60.0
183	7.27	3			1.00	0	133	1				
184	7.10	2	6.52	0	6.20	4	1500	0				< 10
189	6.40	0	4.32	3	< 1	0	147	4	30.5	0		23.9
190	7.33	4	3.85	3	7.06	1	149	4				
191					6.08	4			42.0	4		
193					5.81	4	145	4				
194	7.62	3			< 10	NR	1444	0				
196					5.90	4						
197	7.42	4			6.27	4	124	0				
202	7.44	4					132	1				
207	7.60	3	3.00	0	5.77	3	164.4	4				
209					0.06	0						

Table 8. --Laboratory performance ratings for standard reference water sample N-38 (preserved nutrients)
(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values;
V/5, number of reported values of 5 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte = NH3 as N (Ammonia)				NH3 + Org N as N (Ammonia+Organic N)		NO3 + NO2 as N (Nitrate & Nitrite)		total P as P (Phosphorus)		PO4 as P (Orthophosphate)	
	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.8	5	0.081	4	0.156	3	0.208	4	0.117	4	0.081	4
7	1.8	4	0.059	3			0.212	4	0.290	0	0.300	0
11	1.5	4	0.120	2			0.22	3	0.150	1	0.840	0
15	3.5	2	0.071	3	< 0.5	NR			0.126	4		
21	3.0	2			0.196	3	0.195	3				
29	2.0	2					0.21	4			0.170	0
39	4.0	1					0.204	4				
42	3.0	3					0.241	1	0.131	4	0.089	4
43	3.0	1					0.20	3				
45	2.2	5	0.218	0	0.417	3	0.232	2	0.141	3	0.107	3
52	3.6	5	0.106	3	0.129	3	0.212	4	0.120	4	0.087	4
53	0.5	2					0.130	0	0.097	1		
56	3.0	3			0.390	3			0.110	3	0.070	3
61	3.0	5	0.138	1	0.160	3	0.217	4	0.117	4	0.106	3
63	3.0	4	< 0.3	NR	0.600	1	0.22	3	0.120	4	0.100	4
68	3.3	3	0.070	3	0.460	3			0.125	4		
75	3.3	4	0.128	1			0.206	4	0.132	4	0.083	4
78	0.7	3					0.227	2	0.090	0	0.151	0
88	0.0	3	0.230	0			0.403	0			0.674	0
89	3.5	4	0.099	4	0.110	2			0.125	4	0.086	4
90	3.5	2	0.088	4							0.077	3
92	3.0	3					0.202	4	0.100	1	0.102	4
93	4.0	1	0.073	4								
97	3.2	5	0.080	4	0.160	3	0.21	4	0.140	3	0.120	2
108	1.8	4	0.084	4			0.200	3	0.250	0	0.180	0
114	2.3	3	< 0.10	NR	0.400	3	0.33	0	0.120	4		
118	2.6	5	0.060	3	0.520	2	0.24	1	0.110	3	0.080	4
119	3.0	5	0.110	3	0.280	4	0.16	0	0.130	4	0.080	4
120	3.5	2	0.088	4	0.154	3						
121	4.0	3	0.079	4			0.206	4			0.085	4
122	3.6	5	0.086	4	0.220	4	0.207	4	0.104	2	0.080	4
124	1.0	2	0.200	0			0.23	2				
133	3.5	4	0.100	3	0.410	3			0.130	4	0.080	4
134	4.0	5	0.084	4	0.298	4	0.207	4	0.128	4	0.092	4
139	2.8	5	0.058	2	0.598	1	0.194	3	0.132	4	0.085	4
140	2.4	5	0.080	4	0.330	4	0.201	4	0.020	0	0.020	0
141	0.8	4	0.700	0	< 0.10	NR	0.252	0	0.185	0	0.118	3
145	2.6	5	0.030	1	0.140	3	0.19	2	0.110	3	0.090	4
179	3.8	5	0.103	3	0.300	4	0.206	4	0.124	4	0.096	4
180	3.2	5	0.068	3	0.176	3	0.211	4	0.102	2	0.095	4

Table 9. --Laboratory performance ratings for standard reference water sample N-39 (preserved nutrients)

(MPV, most probable value; ug/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/5, number of reported values of 5 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Lab	Analyte = NH3 as N (Ammonia)				NH3 + Org N as N (Ammonia+Organic N)		NO3 + NO2 as N (Nitrate & Nitrite)		total P as P (Phosphorus)		PO4 as P (Orthophosphate)	
	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
	MPV = 0.890 mg/L				1.22 mg/L		0.9075 mg/L		0.920 mg/L		0.883 mg/L	
	F-pseudostigma = 0.1134				0.430		0.0430		0.044		0.0467	
1	3.6	5	0.907	4	1.02	4	0.901	4	0.967	2	0.880	4
7	1.3	4	0.870	4			1.040	0	0.990	1	1.400	0
11	3.3	4	0.960	3			0.920	4	0.890	3	0.840	3
15	1.7	3	1.070	1	1.15	4			1.020	0		
29	3.0	2					0.930	3			0.840	3
39	3.0	1					0.879	3				
42	3.7	3					0.874	3	0.940	4	0.884	4
43	1.0	1					0.960	1				
45	1.4	5	1.290	0	1.31	4	0.936	3	1.040	0	1.030	0
52	3.2	5	0.972	3	0.89	3	0.888	4	0.973	2	0.885	4
53	2.0	2					0.500	0	0.910	4		
60	2.4	5	1.120	1	2.21	0	0.910	4	0.890	3	0.890	4
61	3.2	5	0.992	3	1.73	2	0.910	4	0.894	3	0.889	4
63	1.4	5	< 0.3	0	1.90	1	0.860	2	0.920	4	1.000	0
68	3.7	3	0.820	3	1.22	4			0.924	4		
75	2.5	4	1.210	0			0.898	4	0.970	2	0.888	4
78	2.3	3					0.924	4	0.880	3	0.565	0
88	1.3	3	0.063	0			1.014	0			0.886	4
89	3.5	4	0.881	4	0.99	3			0.950	3	0.872	4
90	3.5	2	0.983	3							0.906	4
92	3.0	3					0.881	3	0.860	2	0.890	4
93	4.0	1	0.913	4								
97	3.2	5	0.820	3	0.98	3	0.950	3	0.900	4	0.910	3
114	2.5	4	0.910	4	1.72	2	1.220	0	0.900	4		
118	2.6	5	0.700	1	1.50	3	0.920	4	0.950	3	0.930	2
119	2.0	5	0.830	3	1.66	2	1.000	0	0.940	4	0.810	1
120	3.5	2	0.856	4	0.95	3						
122	3.2	5	0.216	0	1.09	4	0.905	4	0.940	4	0.881	4
124	1.0	2	1.200	0			0.850	2				
133	3.0	4	0.900	4	1.24	4			0.850	1	0.850	3
134	3.6	5	0.883	4	1.04	4	0.958	2	0.939	4	0.904	4
139	2.6	5	0.830	3	2.31	0	0.874	3	0.879	3	0.863	4
140	3.2	5	0.890	4	1.28	4	0.878	3	0.880	3	0.830	2
141	3.0	5	0.886	4	0.86	3	0.925	4	0.965	2	0.945	2
145	2.6	5	0.710	1	0.99	3	0.870	3	0.910	4	0.830	2
179	1.0	5	1.090	1	1.22	4	0.807	0	0.200	0	0.082	0
180	2.8	5	0.801	3	1.01	4	0.890	4	0.814	0	0.915	3

Table 9. --Laboratory performance ratings for standard reference water sample N-39 (nonpreserved nutrients)

Lab	Analyte = NH ₃ as N (Ammonia) MPV = 0.922 mg/L F-pseudosigma = 0.0815		NH ₃ + Org N as N (Ammonia+Organic N) 1.04 mg/L 0.196		NO ₃ + NO ₂ as N (Nitrate & Nitrite) 0.912 mg/L 0.0649		total P as P (Phosphorus) 0.930 mg/L 0.0493		PO ₄ -as P (Orthophosphate) 0.908 mg/L 0.0489	
	CLR	V/S	RV	Rating	RV	Rating	RV	Rating	RV	Rating
3	2.8	4	0.930	4	< 1	NR	0.799	1	0.979	3
5	4.0	1							0.941	4
9	2.8	5	0.932	4	1.03	4	0.823	2	0.880	2
10	3.8	5	0.980	3	1.04	4	0.910	4	0.940	4
11	3.0	4	1.600	0			0.920	4	0.930	4
12	2.2	5	1.100	0	0.70	1	0.900	4	0.990	2
13	3.6	5	0.910	4	1.26	2	0.890	4	0.950	4
15	3.0	5	0.918	4	1.06	4	0.856	0	0.944	4
16	2.6	5	0.890	4	0.92	3	1.250	0	0.938	4
18	3.4	5	0.921	4	1.25	2	0.858	3	0.923	4
19	3.8	4	0.920	4			0.880	4	0.900	3
21	4.0	1			1.10	4				
23	3.0	5	0.915	4	1.35	1	0.949	3	0.946	4
25	2.0	4	0.905	4			3.010	0	0.928	4
29	3.5	2					0.930	4		
32	3.7	3	0.941	4			0.946	3		
33	0.7	3	1.100	0			0.660	0		
36	3.0	5	0.880	3	1.92	0	0.882	4	0.913	4
37	2.2	5	0.943	4	1.49	0	0.868	3	0.810	0
38	3.6	5	1.039	2	0.95	4	0.914	4	0.935	4
41	0.0	3	0.665	0	1.66	0	0.762	0		
42	4.0	1					0.861	4		
45	1.0	5	0.867	0	1.27	2	0.958	3	1.040	0
46	3.4	5	0.943	4	0.92	3	0.974	3	0.912	4
52	3.2	5	1.000	3	0.88	3	0.884	4	0.957	3
55	3.6	5	0.930	4	1.01	4	0.930	4	0.960	3
57	2.0	5	1.010	2	2.60	0	0.950	3	0.950	4
58	2.0	5	0.770	1	2.95	0	0.970	3	0.883	3
59	3.4	5	0.980	3	1.00	4	0.930	4	0.900	3
60	2.8	5	0.910	4	1.95	0	0.850	3	0.950	4
63	1.8	4	1.100	0			0.870	3	0.960	3
68	2.0	2	0.154	0			0.900	4		
69	4.0	1					0.910	4		
70	3.4	5	0.870	3	1.01	4	0.980	3	0.930	4
74	3.0	5	1.021	2	1.00	4	0.876	3	0.957	3
76	3.5	2	0.922	4			0.860	3		
78	1.3	3					0.838	2	0.800	0
79	3.5	2			0.86	3			0.920	4
84	2.0	2	0.940	4			0.700	0		
85	2.8	5	1.010	2	1.10	4	0.920	4	0.850	1
87	1.8	5	0.376	0	1.04	4	0.910	4	1.240	0
88	1.7	3	0.065	0			1.018	1		
89	3.8	5	0.910	4	0.97	4	0.910	4	0.947	4
90	2.7	3			1.03	4	0.920	4	1.050	0
91	3.5	4	0.890	4	1.04	4	0.850	3	0.960	3
92	2.0	4	1.310	0			0.855	3	0.880	2
94	3.3	4	1.010	2	1.11	4	0.850	3	0.950	4
96	3.8	5	0.911	4	1.04	4	0.890	4	0.891	3
97	3.4	5	1.010	2	0.95	4	0.940	4	0.910	4
102	2.8	5	0.800	2	1.00	4	0.900	4	0.921	4
104	3.8	4	0.906	4			0.914	4	0.953	4
111	4.0	3	0.900	4					0.938	4
113	3.0	5	1.070	1	1.18	3	0.861	3	0.931	4
114	1.8	4	0.930	4	1.41	1	1.180	0	0.860	2
118	3.6	5	0.890	4	0.88	3	0.900	4	0.930	4
119	2.0	5	0.860	3	1.78	0	1.060	0	0.920	4
120	3.7	3					0.920	4	0.930	4
122	2.8	5	0.216	0	0.94	3	0.936	4	0.968	3
126	0.0	1					0.450	0		
127	3.4	5	0.976	3	1.02	4	0.913	4	0.963	3
128	3.5	4	0.880	3	0.91	3	0.920	4	0.910	4
133	3.0	1					0.980	3		
134	3.6	5	0.905	4	1.15	3	0.957	3	0.942	4
138	3.4	5	0.980	3	1.00	4	0.870	3	0.910	4
139	2.2	5	0.933	4	1.97	0	0.857	3	0.879	2
145	3.8	5	0.890	4	0.91	3	0.890	4	0.930	4
146	2.0	2					1.180	0		
151	3.0	3	0.940	4			0.863	3		
161	0.5	4	0.799	2			1.087	0	0.136	0
179	1.4	5	1.075	1	1.21	3	0.830	2	0.720	0
180	2.8	5	1.000	3	0.98	4	0.889	4	0.800	0
182	1.5	2	1.880	0						
183	2.0	2			1.96	0				
184	2.0	5	0.820	2	1.10	4	0.890	4	0.160	0
189	2.4	5	0.900	4	1.82	0	1.270	0	0.910	4
190	2.2	5	0.221	0	1.09	4	0.931	4	0.864	3
191	3.3	3					0.900	4	0.877	2
193	3.0	1					0.970	3		
196	3.5	2					0.948	3		
197	3.0	3	0.911	4			0.995	2		
198	2.7	3			1.00	4	0.960	3	0.850	1
202	3.6	5	0.970	3	1.05	4	0.950	3	0.930	4
205	1.7	3	1.050	1	1.00	4	1.120	0		
206	0.0	2					3.500	0		
207	1.8	5	1.020	2	1.06	4	1.170	0	0.750	0
210	1.4	5	0.840	3	2.98	0	1.276	0	0.833	1

Table 10. --Laboratory performance ratings for standard reference water sample P-20 (low ionic strength)
 (MPV, most probable value; ug/L, micrograms per liter, mg/L, milligrams per liter; Lab, laboratory number, OLR, overall laboratory rating for all reported values;
 V/5, number of reported values of 5 possible values; RV, reported value; <, less than)

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00 - 0.50	1 (Questionable)	1.51 - 2.00
3 (Good)	0.51 - 1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01 - 1.50	NR (Not Rated)	

Analyte = Acidity as CaCO3					Ca (Calcium)		Cl (Chloride)		F (Fluoride)		K (Potassium)	
MPV = 2.00 mg/L					0.160 mg/L		0.140 mg/L		0.100 mg/L		0.100 mg/L	
F-pseudostigma = 1.142					0.0178		0.2898		0.0126		0.0285	
Lab	OLR	V/11	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	4.0	11	1.74	4	0.157	4	0.102	4	0.103	4	0.086	4
2	3.0	7					0.091	4			0.084	3
3	2.7	9	1.68	4	0.150	3	< 0.5	NR	0.139	0	1.500	0
5	2.4	7	2.84	3	0.158	4					< 1	NR
7	2.3	3	2.40	4			< 1	NR	< 0.5	NR		
11	2.8	9	1.56	4	0.180	2			0.099	4	0.047	1
15	2.1	11	38.30	0	0.163	4	1.160	0	0.097	4	0.089	4
23	3.7	6	2.00	4	0.150	3	0.366	3	0.105	4		
32	2.0	6	3.62	2			0.061	4	0.082	2		
33	3.6	10			0.160	4	0.110	4	0.090	3	0.110	4
38	3.6	8	1.72	4	0.170	3					0.100	4
39	3.6	5			0.170	3	< 2	NR	0.100	4		
41	0.0	1										
44	3.8	6			0.160	4	0.150	4			0.110	4
46	2.7	9			0.150	3	0.087	4	0.091	3	0.140	2
52	1.2	5	5.00	0	< 0.6	NR	< 0.5	NR	0.077	1	< 0.2	NR
58	1.6	11	5.38	0	0.280	0	0.600	1	0.086	2	0.120	3
59	4.0	1										
61	2.3	8	2.60	3	0.156	4	0.300	3	0.090	3	< 0.5	NR
62	2.0	3	0.15	1								
63	3.8	5	2.00	4	< 0.2	NR	< 2	NR	0.100	4	< 0.2	NR
64	2.8	9			0.140	2	0.110	4			0.890	0
74	3.8	5					0.350	3	0.096	4		
78	1.4	7	2.50	4			0.500	2	0.120	1		
89	3.1	9	1.86	4	0.160	4	< 0.04	NR	0.095	4	0.100	4
93	3.2	5			0.190	1	0.000	NR	0.100	4		
101	2.3	7			0.180	2	0.690	1			0.100	4
107	2.8	6	1.00	3			3.330	0	0.098	4		
110	3.1	8			0.160	4	0.275	4			0.080	3
112	3.6	8			0.152	4	0.130	4	0.100	4	0.097	4
124	1.1	7			1.200	0	2.000	0	< 0.1	NR	2.400	0
134	3.6	9			0.150	3	0.130	4	0.100	4	0.100	4
138	3.1	9			0.164	4	0.109	4	0.093	3	0.130	2
139	1.6	7			0.270	0	< 1	NR			0.090	4
145	3.1	9	2.00	4	0.170	3	< 0.2	NR	0.050	0	0.090	4
164	3.0	4			0.155	4					0.087	4
183	1.9	8			0.017	0	0.070	4	0.110	3		
184	1.8	5	< 10	NR	< 1	NR	< 1	NR	0.150	0	< 1	NR
189	1.0	8	5.20	0	0.250	0	< 1	NR	0.130	0	< 0.5	NR
190	1.1	9	0.00	NR			0.600	1	0.110	3	0.220	0
196	3.0	8			0.135	2	0.113	4	0.136	0	0.074	3
197	2.9	9					0.084	4	0.101	4	0.070	2
202	2.0	5					0.600	1	0.120	1		

Table 10. --Laboratory performance ratings for standard reference water sample P-20 (low ionic strength)-- Continued

Lab	Analyte = Mg (Magnesium)		Na (Sodium)		pH		PO4 as P		SO4 (Sulfate)		Sp. Cond.	
	MPV =	0.020 mg/L	0.168 mg/L		5.53 mg/L		0.058 mg/L		0.831 mg/L		7.42 µ g/L	
	F-pseudosigma =	0.0101	0.0124		0.204		0.0089		0.2157		0.615	
	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	0.017	4	0.168	4	5.56	4	0.054	4	0.822	4	7.44	4
2			0.165	4	5.57	4	0.005	0	0.864	4	6.75	2
3	0.010	3	< 0.2	NR	5.39	3	0.052	3	0.792	4	7.40	4
5	0.017	4	0.173	4	5.26	2			2.470	0	5.80	0
7					6.40	0	< 0.01	NR	< 1	NR	7.00	3
11	0.025	4	0.200	0	5.66	3	0.050	3			7.50	4
15	0.020	4	0.160	3	4.54	0	0.594	0	2.260	0	7.57	4
23	< 0.5	NR	< 2	NR	5.56	4			< 10	NR	7.71	4
32					6.40	0			0.831	4	9.99	0
33	0.020	4	0.160	3	5.56	4	0.070	2	0.740	4	7.33	4
38	0.022	4	0.170	4	5.70	3	0.058	4			7.80	3
39			0.171	4	5.40	3			0.841	4		
41					4.54	0						
44	0.020	4	0.160	3					0.830	4		
46	0.140	0	0.150	2	5.53	4			0.780	4	8.30	2
52	< 0.05	NR	< 0.4	NR	5.91	1	0.055	4	< 10	NR	186.00	0
58	0.056	0	0.280	0	5.53	4	0.059	4	0.820	4	10.50	0
59							0.060	4				
61	< 0.1	NR	< 0.5	NR	5.79	2	0.083	0	0.300	0	6.97	3
62					5.39	3					6.58	2
63	< 0.2	NR	< 0.2	NR	5.71	3	0.060	4	< 3	NR	7.58	4
64	0.150	0	0.160	3	5.56	4	0.060	4	0.800	4	7.62	4
74					5.50	4			0.800	4	7.26	4
78					5.73	3	0.113	0	3.500	0	12.10	0
89	< 0.025	NR	0.130	0	5.67	3	0.058	4	1.100	2	7.08	3
93	0.000	NR			5.40	3			0.810	4	7.12	4
101	0.020	4	0.180	3	4.20	0					6.60	2
107					5.35	3	0.053	3			7.32	4
110	0.020	4	0.130	0	5.40	3			0.809	4	7.83	3
112	0.017	4	0.159	3	5.52	4			1.120	2		
124	0.300	0	1.000	0	5.59	4			< 10	NR	7.55	4
134	< 0.01	NR	0.170	4	5.39	3	0.050	3	0.829	4	7.00	3
138	0.031	2	0.170	4	5.16	1	0.057	4	0.756	4		
139	< 0.01	NR	0.210	0	4.88	0	0.056	4	1.500	0	6.90	3
145	0.030	3	0.160	3	5.60	4			0.840	4	7.00	3
164			0.192	1					0.962	3		
183	0.014	3	0.140	0	5.84	1			0.900	4	< 0.2	0
184	< 1	NR	< 1	NR	5.70	3	0.060	4	1.100	2	1200.00	0
189	0.016	4	0.149	1	4.80	0	0.180	0	< 1	NR	8.00	3
190	0.180	0	0.440	0	5.28	2	0.913	0	3.070	0	7.19	4
196	0.017	4	0.170	4			0.065	3	0.839	4		
197	0.013	3	0.163	4	5.63	4	0.038	0	0.817	4	6.18	1
202					5.39	3	0.050	3			8.34	2

Table 11. --Laboratory performance ratings for standard reference water sample Hg-16 (mercury)

[MPV, most probable value; ug/L, milligrams per liter; Lab, laboratory number; V/1, number of reported values of 1 value; RV, reported value; <, less than]

Rating	Absolute Z-value	Rating	Absolute Z-value
4 (Excellent)	0.00-0.50	1 (Questionable)	1.51-2.00
3 (Good)	0.51-1.00	0 (Poor)	greater than 2.00
2 (Satisfactory)	1.01-1.50	NR (Not Rated)	

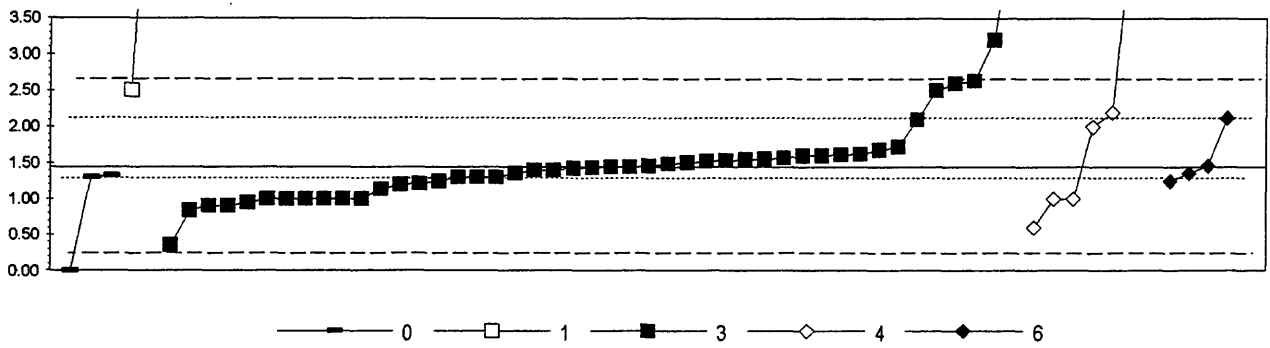
Analyte = Mercury
 MPV = 1.30 μ g/L
 F-pseudosigma = 0.222

Lab	V/1	RV	Rating
1		1.61	2
3		1.56	2
7		1.09	3
11		1.23	4
12		1.30	4
13		1.38	4
15		1.35	4
16		1.50	3
18		1.37	4
24		1.50	3
29		1.35	4
32		1.48	3
34		1.28	4
36		0.00	0
39		1.25	4
42		1.34	4
45		1.17	3
46		0.01	0
50		1.30	4
51		1.90	0
52		1.26	4
55		1.50	3
58		0.20	0
59		1.60	2
61		1.10	3
63		1.20	4
68		1.90	0
69		1.22	4
70		1.12	3
74		1.30	4
76		1.16	3
78		1.60	2
79		1.66	1
81		1.30	4
86		1.24	4
90		0.97	2
96		1.80	0
97		0.89	1
108		1.33	4
109		1.55	2
113		1.30	4
118		0.80	0
119		1.50	3
120		1.42	3
122		< 1.0	NR
124		1.20	4
127		1.17	3
128		1.50	3
133		1.20	4
134		1.20	4
138		1.34	4
139		1.36	4
141		1.39	4
142		1.27	4
145		1.34	4
146		1.10	3
149		1.40	4
179		1.10	3
182		2.30	0
184		1.24	4
189		2.30	0
194		1.37	4
198		1.44	3
202		1.23	4
207		0.70	0

Table 12. *Statistical summary of reported data for standard reference sample T-123 (trace constituents)*

Definition of analytical methods, abbreviations, and symbols			
<u>Analytical methods</u>			
0. Other/Not reported			
1. AA: direct, air	=	atomic absorption: direct,air	
2. AA: direct, N2O	=	atomic absorption: direct,nitrous oxide	
3. AA: graphite furnace	=	atomic absorption: graphite furnace	
4. ICP	=	inductively coupled plasma	
5. DCP	=	direct coupled plasma	
6. MS/ICP	=	mass spectrometry/inductively coupled plasma	
10. AA: extraction	=	atomic absorption: extraction [chelating agent(s) specified]	
11. AA: hydride	=	atomic absorption: hydride [reducing agent specified]	
22. Color:	=	colorimetric [color reagent specified]	
<hr/>			
<u>Abbreviations and symbols</u>			
	N =	number of samples	
	St dev =	traditional standard deviation	
	MPV =	95% confidence most probable value	
	F-pseudosigma =	nonparametric statistic deviation	
	Hu =	upper hinge value	
	Hi =	lower hinge value	
	μ g/L =	micrograms per liter	
	mg/L =	milligrams per liter	
	Lab =	laboratory code number	
	NR =	not rated, less than value reported	
	< =	less than	
<hr/>			
<u>Constituent</u>	<u>page</u>	<u>Constituent</u>	<u>page</u>
Ag Silver	43	Li Lithium	56
Al Aluminium	44	Mg Magnesium	57
As Arsenic	45	Mn Manganese	58
B Boron	46	Mo Molybdenum	59
Ba Barium	47	Na Sodium	60
Be Beryllium	48	Ni Nickel	61
Ca Calcium	49	Pb Lead	62
Cd Cadmium	50	Sb Antimony	63
Co Cobalt	51	Se Selenium	64
Cr Chromium	52	SiO2 Silica	65
Cu Copper	53	Sr Strontium	66
Fe Iron	54	V Vanadium	67
K Potassium	55	Zn Zinc	68

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued
 Ag (Silver) μ g/L



0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	
N = 3	2 45 7 4
Minimum = 0.00	2.50 0.36 0.60 1.25
Maximum = 1.33	7.00 5.00 5.00 2.12
Median =	1.43 2.00
St Dev =	0.5182 0.6986

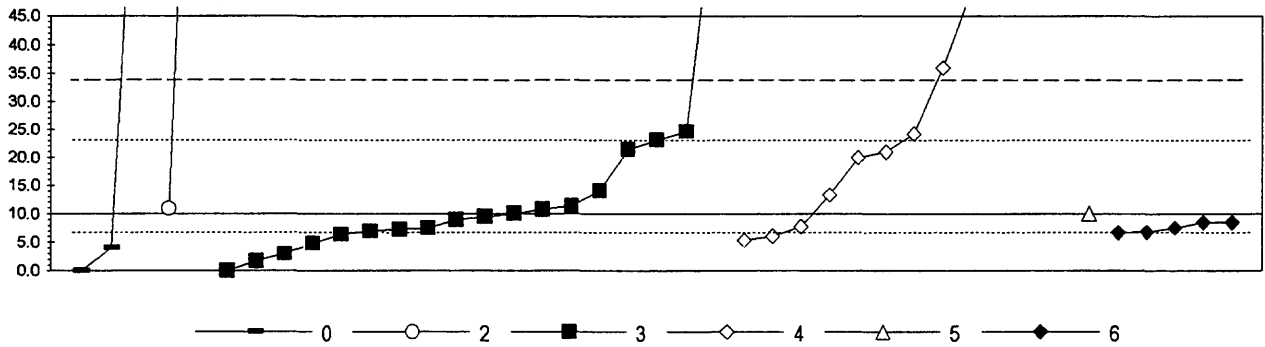
MPV = 1.44
 F-pseudostigma = 0.601
 N = 77
 Hu = 2.11
 HI = 1.30

Lab	Rating	Z-value	0	1	3	4	6
1	4	-0.22			1.30		
3	4	-0.01			1.43		
5	NR					< 4	
7	0	5.93				5.00	
11	4	-0.17	1.33				
12	3	-0.72			1.00		
13	NR				< 2		
15	4	-0.02			1.42		
16	NR					< 7	
18	NR					< 5	
23	4	0.16			1.53		
24	4	0.27			1.60		
25	NR					< 6	
29	3	-0.51			1.13		
30	2	1.14					2.12
32	4	-0.31					1.25
36	0	-2.39	0.00				
37	4	-0.14					1.35
42	4	-0.22	1.30				
45	4	0.21			1.56		
46	4	-0.31			1.25		
50	3	-0.72			1.00		
52	4	0.01			1.44		
55	4	-0.39			1.20		
57	3	-0.72			1.00		
58	0	5.93			5.00		
59	3	-0.72				1.00	
61	NR					< 10	
63	4	0.17			1.54		
68	3	-0.89			0.90		
69	4	0.09			1.49		
70	NR				< 2		
78	4	-0.22			1.30		
79	4	-0.06			1.40		
81	3	0.94					2.00
85	NR			< 5			
87	0	9.26		7.00			
89	1	1.99			2.63		
90	1	-1.79			0.36		
94	NR					< 3	
96	4	0.01			1.44		
97	3	-0.99			0.84		
101	3	-0.72					1.00
102	2	-1.39					0.60
103	NR					< 5	
107	4	0.29			1.61		
108	3	-0.72			1.00		
113	4	0.11			1.50		
114	NR		< 10				
116	NR					< 100	

Lab	Rating	Z-value	0	1	3	4	6
118	3	-0.72			1.00		
119	3	-0.72			1.00		
120	4	-0.37					1.21
121	0	2.94					3.20
122	1	1.94					2.60
124	NR		< 20				
127	4	0.02			1.45		
133	2	1.27					2.20
134	4	-0.06				1.40	
138	4	0.39				1.67	
141	3	-0.81			0.95		
142	4	0.22				1.57	
149	3	-0.89			0.90		
151	NR			< 10			
153	1	1.77				2.50	
161	NR						< 50
179	4	-0.22			1.30		
180	0	5.60					4.80
182	1	1.77		2.50			
184	NR						< 5
189	2	1.11			2.10		
190	4	-0.14			1.35		
193	NR				< 1		
194	4	0.27			1.60		
196a	4	0.47			1.72		
196b	4	0.04					1.46
198	4	0.14			1.52		
202	4	0.31			1.62		

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued

Al (Aluminum) μ g/L



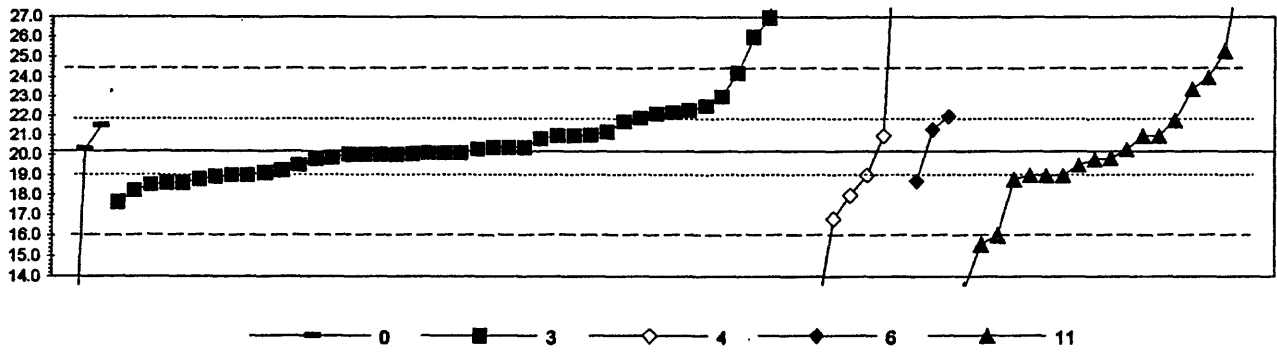
0. Other	4. ICP				
2. AA: direct nitrous oxide	5. DCP				
3. AA: graphite furnace	6. ICP/MS				
N = 3	2	18	12	1	5
Minimum = 0.0	10.9	0.0	5.3	10.0	6.7
Maximum = 100.0	140.0	70.0	97.6		8.6
Median = 9.3		16.7			
St Dev = 6.87		10.64			

MPV = 10.0
 F-pseudostigma = 12.02
 N = 41
 Hu = 23.1
 HI = 6.9

Lab	Rating	Z-value	0	2	3	4	5	6
1	4	-0.27						6.7
3	0	2.16				36.0		
4	0	3.74				55.0		
5	NR					< 30		
7	3	0.91				21.0		
11	4	-0.50	4.0					
12	NR					< 100		
13	4	0.07		10.9				
15	4	-0.30			6.4			
16	0	5.49				76.0		
18	NR					< 100		
23	4	0.11			11.3			
24	2	1.09			23.1			
25	NR					< 19		
29	0	10.81		140.0				
30	4	-0.12						8.6
32	4	-0.12						8.5
33	4	0.00					10.0	
36	3	-0.83	0.0					
37	4	-0.26						6.9
39	3	0.83				20.0		
45	4	-0.21			7.5			
46	4	-0.19				7.8		
50	4	-0.25			7.0			
52	2	1.21			24.6			
57	NR					< 200		
58	0	4.99			70.0			
59	NR					< 10		
61	NR					< 50		
63	NR					< 100		
69	4	-0.08			9.0			
70	NR					< 50		
78	3	-0.58			3.0			
81	4	-0.33				6.0		
85	NR					< 20		
86	4	-0.39				5.3		
89	NR				< 100			
94	NR					< 20		
97	3	-0.69			1.7			
101	0	7.29				97.6		
102	NR					< 50		
103	NR					< 30		
107	4	0.00			10.0			
113	4	-0.43			4.8			
114	NR			< 10				
119	NR	-0.83			0.0			
120	4	0.34			14.1			
121	3	0.95			21.4			
122	4	0.07			10.8			
124	NR		< 100					

Lab	Rating	Z-value	0	2	3	4	5	6
127	4	-0.22			7.3			
134	NR					< 20		
139	NR			< 500				
141	4	0.27				13.3		
145	NR					< 13.4		
161	NR					< 100		
180	2	1.18				24.2		
182	0	7.49	100.0					
184	NR					< 200		
189	0	3.33				50.0		
190	4	-0.04			9.5			
196	4	-0.21						7.5
198	NR				< 10			
209	0					< 0.03		

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued
As (Arsenic) μ g/L



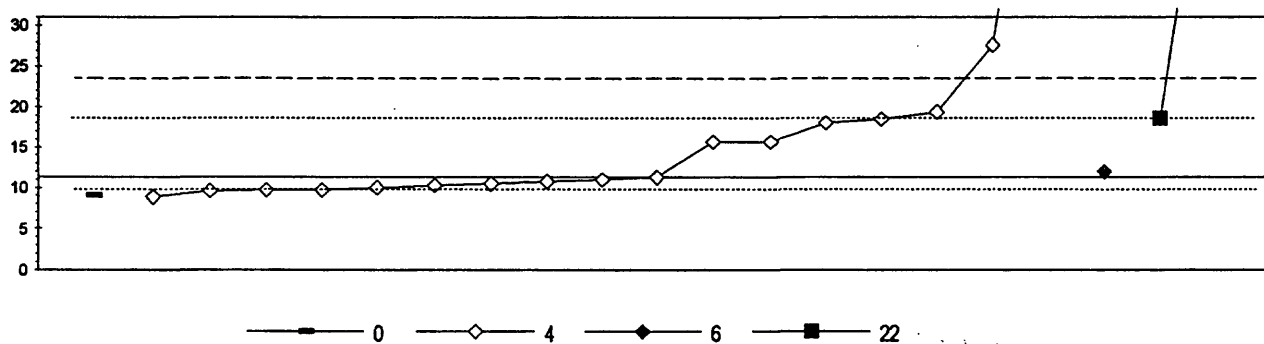
0. Other		6. ICP/MS					
3. AA: graphite furnace		11. AA: hydride					
4. ICP		N =	3	43	6	3	18
Minimum =		0.0	17.6	12.0	18.7	13.4	
Maximum =		21.5	1800.0	36.7	22.0	30.0	
Median =			20.1			19.9	
St Dev =			1.4			1.6	

MPV = 20.2
F-pseudostigma = 2.11
N = 73
Hu = 21.9
Hi = 19.0

Lab	Rating	Z-value	0	3	4	6	11
1	4	0.04		20.3			
3	4	0.09		20.4			
8	1	-1.99					16.0
10	4	-0.05		20.1			
11	3	0.61	21.5				
12	2	1.32		23.0			
13	3	0.99		22.3			
15	2	-1.23		17.6			
16	3	0.71		21.7			
18	1	1.51					23.4
23	0	3.19		27.0			
25	NR				< 50		
29	0	6.81		34.6			
32	3	-0.71				18.7	
35	4	0.05					20.3
36	0	-9.55	0.0				
37	3	0.85				22.0	
39	3	-0.57					19.0
42	4	0.04	20.3				
45	4	0.28		20.8			
46	3	-0.62		18.9			
50	3	-0.57					19.0
52	4	0.09		20.4			
55	3	-0.81		18.5			
57	4	-0.19					19.8
58	0	-2.18					15.6
59	4	0.38			21.0		
61	3	-0.67		18.8			
63	4	0.38		21.0			
68	3	-0.76		18.6			
69	3	-0.52		19.1			
70	3	0.90		22.1			
76	1	1.89		24.2			
78	4	-0.19		19.8			
79	3	-0.57		19.0			
81	0	2.74		26.0			
85	1	1.80					24.0
86	3	0.75					21.8
89	4	-0.17					19.9
90	4	-0.15		19.9			
94	0	842.44		1800.0			
96	4	-0.04		20.1			
97	0	-3.22					13.4
102	0	7.81			36.7		
103	0	-3.88			12.0		
107	3	0.80		21.9			
108	3	-0.76		18.6			
109	4	-0.07		20.1			
113	4	0.47		21.2			
118	2	1.09		22.5			

Lab	Rating	Z-value	0	3	4	6	11
119	3	-0.57					19.0
120	4	-0.33					19.5
122	0	2.41					25.3
124	NR		< 500				
126	0	4.64					30.0
127	4	-0.10		20.0			
133	4	0.38		21.0			
134	4	0.38					21.0
138	4	-0.05		20.1			
139	3	0.94		22.2			
141	2	-1.04			18.0		
142	4	-0.33		19.5			
145	3	-0.57			19.0		
146	4	-0.10		20.0			
151	3	-0.67					18.8
161	NR				< 100		
179	3	-0.95		18.2			
180	1	-1.61			16.8		
182	4	0.38					21.0
189	4	-0.10		20.0			
190	4	0.40		21.1			
193	3	-0.57		19.0			
194	4	-0.10		20.0			
196	3	0.53				21.3	
198	4	0.09		20.4			
202	4	-0.48		19.2			

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued
B (Boron)
 μ g/L



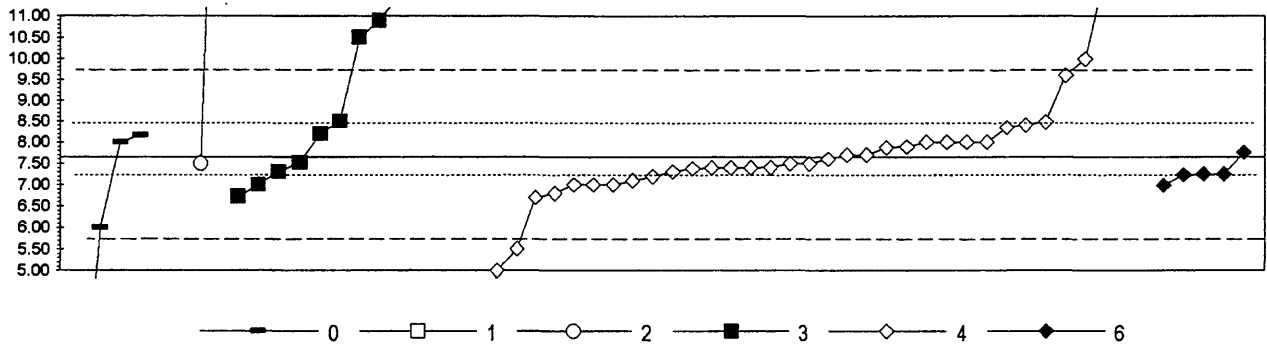
	0. Other	22. Colorimetric	
4. ICP			
6. ICP/MS			
	N =	1	17
	Minimum =	9.0	8.9
	Maximum =	70.0	63.0
	Median =		11.0
	St Dev =		5.18

MPV = 11.3
 F-pseudosigma = 6.30
 N = 21
 Hu = 18.5
 HI = 10.0

Lab	Rating	Z-value	0	4	6	22
1	4	-0.25		9.8		
3	NR			< 10		
4	4	-0.21		10.0		
11	4	-0.37	9.0			
15	4	-0.08		10.8		
16	NR			< 500		
18	NR			< 5		
25	2	1.14		18.5		
32	4	0.11			12.0	
39	2	1.06		18.0		
45	2	1.16				18.5
46	0	2.59		27.6		
52	NR			< 300		
57	NR			< 100		
58	0	8.21				63.0
61	NR			< 50		
63	NR			< 100		
70	NR			< 50		
75	4	-0.27		9.6		
85	NR			< 20		
86	4	-0.16		10.3		
94	4	-0.38		8.9		
103	4	-0.05		11.0		
109	3	0.70		15.7		
116	NR			< 10		
119	0	9.32		70.0		
121	NR			< 10		
122	NR					< 0.1
124	NR		< 50			
127	4	0.00		11.3		
134	NR			< 20		
141	NR			< 10		
142	3	0.70		15.7		
145	4	-0.25		9.8		
161	NR			< 500		
180	4	-0.13		10.5		
184	2	1.29		19.4		
189	NR			< 10		

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Ba (Barium) μ g/L



0. Other						3. AA: graphite furnace
1. AA: direct air						4. ICP
2. AA: direct nitrous oxide						6. ICP/MS
N =	4	2	2	12	35	5
Minimum =	0.01	12.70	7.50	6.72	1.00	6.99
Maximum =	8.16	85.00	20.00	30.00	45.00	7.75
Median =						7.86
St Dev =						1.578
						7.46

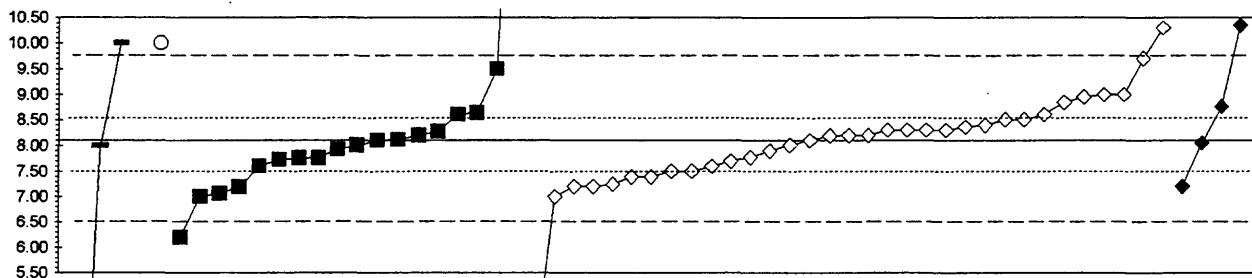
MPV = 7.65
 F-pseudosigma = 0.945
 N = 60
 Hu = 8.49
 Hi = 7.22

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	-0.42						7.25
3	4	0.37					8.00	
4	0	2.49					10.00	
5	4	-0.29					7.38	
7	3	-0.90					6.80	
8	3	-0.69					7.00	
11	4	0.37	8.00					
13	NR					< 10		
15	0	-7.04					1.00	
16	4	-0.05					7.60	
18	4	-0.16					7.50	
23	NR					< 20		
24	3	-0.58					7.10	
25	4	0.37					8.00	
29	0	13.07			20.00			
30	4	0.11						7.75
32	3	-0.70						6.99
33	3	0.54	8.16					
36	0	-8.08	0.01					
37	4	-0.44						7.23
39	4	0.37					8.00	
42	1	-1.75	6.00					
45	4	-0.48					7.20	
46	4	-0.26					7.40	
50	NR					< 50		
52	0	3.02					10.50	
57	NR						< 50	
58	0	23.65				30.00		
59	3	-0.69					7.00	
61	NR						< 10	
63	0	39.52					45.00	
68	0	2.06					9.60	
69	0	4.60				12.00		
70	NR						< 10	
75	4	-0.26					7.40	
78	4	-0.37				7.30		
81	3	-0.69					7.00	
85	4	0.26					7.90	
87	NR					< 40		
89	NR					< 100		
90	0	5.34		12.70				
94	4	-0.37					7.30	
96	4	-0.16			7.50			
97	0	3.44				10.90		
101	2	-1.01					6.70	
102	3	0.79					8.40	
103	0	-2.27					5.50	
107	3	-0.98				6.72		
108	0	5.66				13.00		
116	4	0.37					8.00	

Lab	Rating	Z-value	0	1	2	3	4	6
119	0	4.60						12.00
120	0	4.07				11.50		
121	0	7.78						15.00
122	4	-0.14				7.52		
124	NR		< 10					
127	4	-0.16						7.50
133	4	0.05						7.70
134	0	-2.80						5.00
138	3	0.88						8.48
141	4	0.23						7.87
142	4	-0.25						7.41
145	4	0.05						7.70
151	3	0.90				8.50		
153	3	0.58				8.20		
161	NR							< 10
180	4	-0.26						7.40
182	0	81.84		85.00				
184	3	0.74						8.35
189	NR							< 10
193	3	-0.69				7.00		
196	4	-0.42						7.25
198	NR							< 10

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Be (Beryllium) μ g/L



—■— 0
—□— 1
—○— 2
—■— 3
—◇— 4
—◆— 6

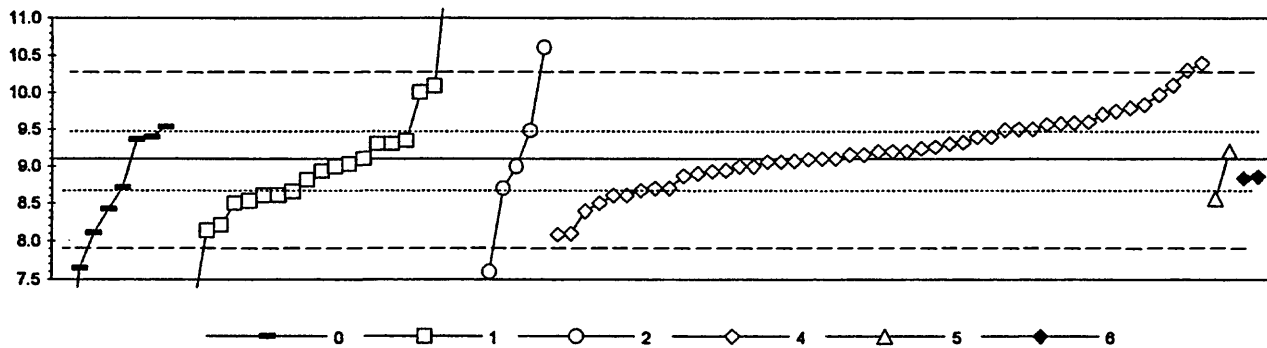
0. Other		3. AA: graphite furnace	
1. AA: direct air	N = 3	4. ICP	N = 18
2. AA: direct nitrous oxide	N = 1	6. ICP/MS	N = 33
Minimum = 0.01	5.00	10.00	6.20
Maximum = 10.00			3.93
Median =			7.93
St Dev =			0.748
			8.20
			0.738

MPV = 8.10
 F-pseudostigma = 0.778
 N = 60
 Hu = 8.55
 HI = 7.50

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	0.00					8.10	
3	3	0.51					8.50	
4	2	1.16					9.00	
5	4	0.12					8.19	
7	2	-1.16					7.20	
8	3	-0.77					7.50	
11	4	-0.13	8.00					
12	NR						< 20	
15	0	-5.36					3.93	
16	0	2.83					10.30	
18	3	-0.64					7.60	
23	4	0.01				8.11		
24	1	1.80				9.50		
25	2	-1.16					7.20	
30	0	2.90						10.36
32	2	-1.16					7.20	
36	0	-10.39	0.01					
37	3	0.84					8.75	
39	2	1.16					9.00	
45	4	0.13					8.20	
46	4	-0.12					8.01	
52	0	10.54				16.30		
55	3	0.64				8.60		
57	2	-1.41					7.00	
58	4	-0.13				8.00		
61	3	0.51					8.50	
63	2	-1.17				7.19		
68	4	0.26					8.30	
69	4	0.23				8.28		
70	NR						< 10	
75	3	-0.51					7.70	
78	4	0.13				8.20		
79	NR						< 10	
81	2	-1.41				7.00		
85	4	0.26					8.30	
86	2	-1.10					7.24	
94	4	0.26					8.30	
97	4	-0.22				7.93		
102	4	0.39					8.40	
103	3	-0.77					7.50	
113	4	-0.45				7.75		
114	0	2.44		10.00				
119	4	0.00				8.10		
120	3	0.69				8.64		
124	0	2.44	10.00					
127	4	0.26					8.30	
133	0	2.06					9.70	
134	3	-0.90					7.40	
138	3	0.95					8.84	
141	4	-0.42					7.77	

Lab	Rating	Z-value	0	1	2	3	4	6
142	4	0.35					8.37	
145	2	1.09					8.95	
146	3	-0.90					7.40	
151	4	-0.49				7.72		
161	NR						< 10	
179	0	-2.44				6.20		
180	4	-0.26					7.90	
182	0	-3.98		5.00				
184	4	0.13					8.20	
189	3	0.64					8.60	
194	3	-0.64				7.60		
196	4	-0.06						8.05
198	2	-1.32				7.07		
202	4	-0.44				7.76		

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued
Ca (Calcium)
m g/L



0. Other							
1. AA: direct air							
2. AA: direct N2O							
N =	8	22	5	47	2	2	
Minimum =	6.00	6.30	7.60	8.08	8.56	8.84	
Maximum =	9.53	18.50	10.61	10.40	9.21	8.86	
Median =	8.71	8.93		9.19			
SI Dev =	0.725	0.545		0.510			

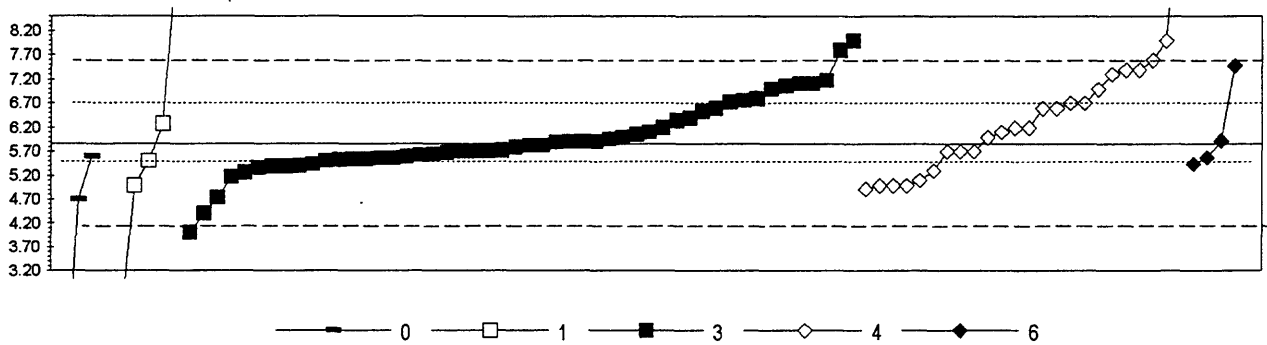
MPV = 9.10
 F-pseudostigma = 0.608
 N = 86
 Hu = 9.49
 Hl = 8.67

Lab	Rating	Z-value	0	1	2	4	5	6
1	4	-0.06				9.06		
3	4	-0.04				9.07		
4	4	-0.25				8.94		
5	4	-0.06				9.06		
7	4	0.01				9.10		
8	2	-1.14				8.40		
9	4	0.34		9.30				
11	4	0.44	9.36					
12	4	-0.16				9.00		
13	3	-0.72		8.66				
15	1	1.98				10.30		
16	3	-0.98				8.50		
18	4	0.50				9.40		
19	4	-0.01				9.09		
23	3	0.63			9.48			
24	4	-0.37				8.87		
25	2	1.23				9.84		
29	0	-5.09	6.00					
32	4	-0.42						8.84
33	4	0.19					9.21	
36	0	-2.39	7.64					
39	2	1.08				9.75		
42	4	0.50	9.40					
43	4	0.17				9.20		
45	3	-0.93		8.53				
46	1	1.65				10.10		
52	4	0.11				9.16		
54	3	-0.81		8.60				
55	4	0.11				9.16		
57	3	-0.81				8.60		
58	0	-3.40	7.03					
59	4	-0.32				8.90		
61	4	-0.16				9.00		
63	2	1.44				9.97		
68	4	0.17				9.20		
69	3	-0.81		8.60				
70	3	0.80				9.58		
78	0	4.61		11.90				
81	1	-1.67				8.06		
84	4	0.42		9.35				
85	4	-0.11		9.03				
86	4	0.27				9.26		
87	0	-2.46			7.60			
89	2	1.49		10.00				
92	4	0.34		9.30				
94	4	0.16				9.19		
97	1	-1.57		8.14				
101	4	0.01		9.10				
102	3	-0.65				8.70		
103	1	-1.64				8.10		

Lab	Rating	Z-value	0	1	2	4	5	6
107	0	15.47		18.50				
109	4	-0.27		8.93				
113	3	-0.98		8.50				
114	3	-0.65			8.70			
116	4	-0.27					8.93	
119	4	0.34					9.30	
120	2	-1.46		8.21				
121	4	0.50					9.40	
122	3	-0.63	8.71					
124	3	0.72	9.53					
127	3	-0.70					8.67	
133	4	0.01					9.10	
134	3	-0.65					8.70	
138	3	0.83					9.60	
139	0	2.49			10.61			
140	4	-0.16		9.00				
141	3	0.68					9.51	
142	0	2.15					10.40	
145	3	0.81					9.59	
146	3	-0.81					8.60	
153	2	-1.11	8.42					
161	4	0.37					9.32	
164	4	-0.45		8.82				
179	0	-4.60		6.30				
180	3	0.65					9.49	
182	0	5.11		12.20				
184	3	0.68					9.51	
189	3	1.00					9.70	
190	1	-1.62	8.11					
193	4	-0.16			9.00			
194	4	-0.39						8.86
196	1	1.62		10.08				
197	3	-0.88					8.56	
198	3	0.78					9.57	
202	4	0.24					9.24	
209	2	1.14					9.79	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued

Cd (Cadmium) μ g/L



0. Other		4. ICP				
1. AA: direct air		6. ICP/MS				
3. AA: graphite furnace						
N =	3	6	50	24	4	
Minimum =	0.00	0.50	4.00	4.91	5.44	
Maximum =	5.60	10.00	8.00	11.00	7.48	
Median =			5.81	6.19		
St Dev =			0.773	0.942		

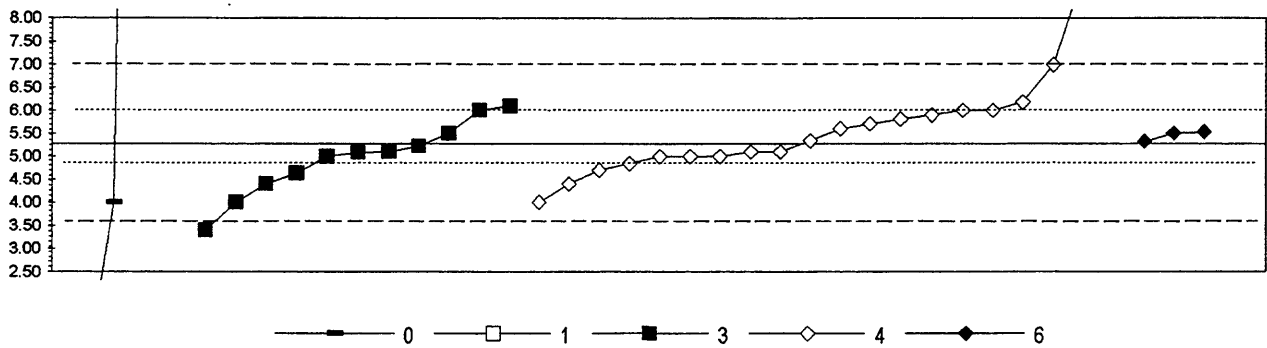
MPV = 5.86
 F-pseudostigma = 0.871
 N = 87
 Hu = 6.70
 HI = 5.53

Lab	Rating	Z-value	0	1	3	4	6
1	4	0.05			5.90		
3	3	0.86				6.60	
4	0	5.91				11.00	
5	4	0.38				6.19	
7	4	-0.18				5.70	
8	3	0.97				6.70	
9	3	-0.79			5.17		
10	3	-0.52			5.40		
11	2	-1.33	4.70				
12	0	2.23			7.80		
13	3	0.76			6.52		
15	3	-0.51			5.41		
16	3	-0.87				5.10	
18	2	-1.28			4.74		
19	3	-0.98				5.00	
23	4	0.22			6.05		
24	3	0.86			6.60		
25	NR					< 6	
30	1	1.87				7.48	
32	4	-0.48				5.44	
36	0	-6.72	0.00				
37	4	0.06				5.91	
42	4	-0.29	5.60				
45	4	-0.27			5.62		
46	4	-0.15			5.72		
50	4	0.17			6.00		
52	4	-0.25			5.64		
55	2	1.08			6.80		
57	4	0.40			6.20		
58	2	1.43			7.10		
59	4	-0.18				5.70	
61	0	2.46				8.00	
63	3	-0.69			5.25		
68	3	0.86				6.60	
69	4	0.12			5.96		
70	3	-0.57			5.36		
73	4	0.17				6.00	
75	4	0.40				6.20	
76	3	0.61			6.39		
78	4	0.28			6.10		
79	2	1.43			7.10		
81	0	2.46			8.00		
85	4	-0.41	5.50				
86	2	-1.08				4.91	
87	0	-4.43	2.00				
89	3	0.99			6.72		
90	4	-0.21			5.67		
94	3	-0.64				5.30	
96	3	-0.55			5.38		
97	0	-2.13			4.00		

Lab	Rating	Z-value	0	1	3	4	6
101	3	0.97				6.70	
102	4	0.28				6.10	
103	3	-0.98				5.00	
107	4	0.04			5.89		
108	2	1.31			7.00		
109	4	-0.34				5.56	
113	4	-0.04				5.82	
114	0	4.76	10.00				
118	4	0.05				5.90	
119	4	0.05				5.90	
120	4	-0.40				5.51	
121	2	1.31					7.00
122	3	0.56				6.34	
124	NR		< 10				
127	4	-0.18					5.70
133	1	1.77					7.40
134	4	-0.18				5.70	
138	4	-0.36				5.54	
139	4	-0.18				5.70	
140	4	0.49		6.28			
141	4	-0.35				5.55	
142	4	-0.36				5.54	
145	1	1.66					7.30
146	1	2.00					7.60
149	4	-0.18				5.70	
151	2	1.04				6.76	
153	4	-0.48				5.44	
161	3	-0.98					5.00
179	4	-0.06				5.80	
180	1	1.77					7.40
182	0	-5.15		0.50			
184	NR						< 10
189	1	-1.67				4.40	
190	4	-0.29				5.60	
193	3	-0.98		5.00			
194	1	1.51				7.17	
196a	4	-0.41				5.50	
196b	4	-0.33					5.57
198	4	-0.04				5.82	
202	2	1.37				7.05	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Co (Cobalt) $\mu\text{g/L}$

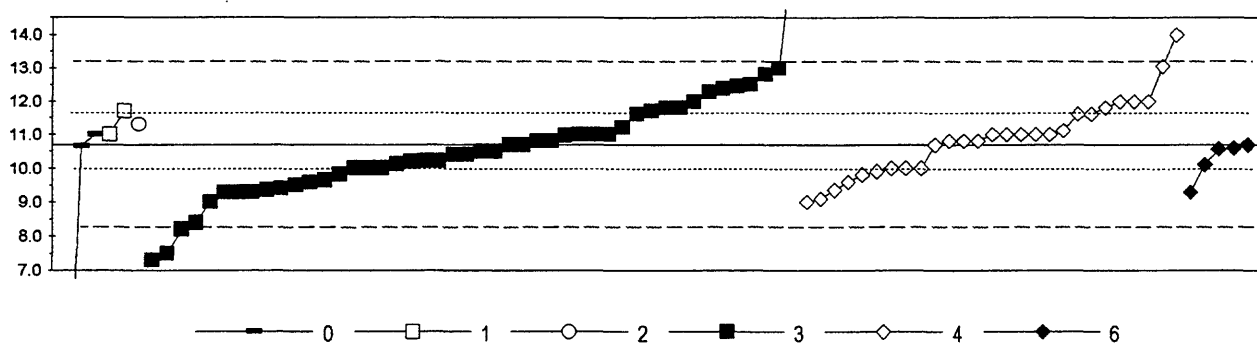


0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	
N =	3 1 11 20 3
Minimum =	0.01 13.00 3.40 4.00 5.32
Maximum =	50.00 6.10 11.00 5.52
Median =	5.08 5.23
St Dev =	0.810 0.720

MPV = 5.27
 F-pseudostigma = 0.852
 N = 38
 Hu = 6.00
 Hi = 4.85

Lab	Rating	Z-value	0	1	3	4	6
1	4	0.27			5.50		
3	3	0.86				6.00	
4	NR					< 5	
5	2	1.07				6.18	
7	4	0.50				5.70	
8	2	-1.49				4.00	
11	2	-1.49	4.00				
15	4	-0.22			5.08		
16	3	0.62				5.80	
18	1	2.03				7.00	
24	0	-2.19			3.40		
25	NR					< 12	
30	4	0.27					5.50
32	4	0.29					5.52
36	0	-6.17	0.01				
39	4	-0.32				5.00	
46	3	0.86				6.00	
50	3	0.86			6.00		
52	4	-0.32			5.00		
55	2	-1.02			4.40		
58	2	-1.49			4.00		
61	0	4.38				9.00	
63	3	-0.67				4.70	
68	3	0.74				5.90	
70	NR					< 50	
75	4	-0.20				5.10	
81	0				< 1		
85	NR					< 20	
86	4	-0.49				4.85	
89	NR				< 10		
94	4	-0.32				5.00	
97	3	0.97			6.10		
102	4	-0.20				5.10	
103	2	-1.02				4.40	
121	0	6.72				11.00	
124	0	52.47	50.00				
127	4	-0.06			5.22		
134	4	-0.20			5.10		
138	3	-0.76			4.62		
141	4	0.39				5.60	
145	4	0.09				5.35	
161	NR					< 5	
180	4	-0.32				5.00	
182	0	9.07		13.00			
184	NR					< 10	
189	NR					< 20	
193	NR			< 25			
196.2	4	0.06				5.32	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued
Cr (Chromium) μ g/L



0. Other	3. AA: graphite furnace
1. AA: direct air	4. ICP
2. AA: direct nitrous oxide	6. ICP/MS
N =	3 2 1 46 27 5
Minimum =	0.0 11.0 11.3 7.3 9.0 9.3
Maximum =	11.0 11.7 16.7 14.0 10.7
Median =	10.4 11.0
St Dev =	1.34 1.17

MPV = 10.7
 F-pseudosigma = 1.19
 N = 84
 Hu = 11.6
 HI = 10.0

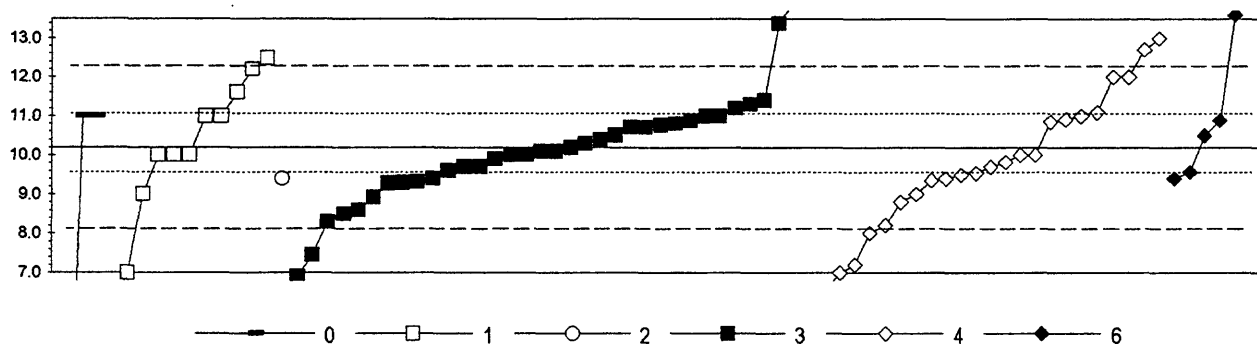
Lab	Rating	Z-value	0	1	2	3	4	6
1	4	-0.03	10.7					
3	3	-0.59					10.0	
4	2	1.10					12.0	
5	1	1.99					13.1	
7	3	-0.76					9.8	
8	4	0.25					11.0	
9	3	-0.89				9.7		
10	2	-1.01				9.5		
11	4	0.25	11.0					
12	NR							< 20
13	2	1.35				12.3		
15	1	1.77				12.8		
16	4	0.08					10.8	
18	4	0.25					11.0	
19	3	-0.59					10.0	
23	0	5.04				16.7		
24	1	-1.94				8.4		
25	2	1.10					12.0	
29	2	-1.12				9.4		
30	2	-1.19						9.3
32	4	0.00						10.7
36	0	-9.01	0.0					
37	4	-0.08						10.6
39	4	0.25					11.0	
42	3	-0.51						10.1
45	4	0.00				10.7		
46	4	-0.17				10.5		
50	3	-0.59				10.0		
52	2	1.43				12.4		
55	1	1.52				12.5		
57	2	-1.18				9.3		
58	4	0.25				11.0		
59	3	-0.67					9.9	
61	2	-1.43					9.0	
63	4	0.25				11.0		
68	2	1.10					12.0	
69	4	0.08				10.8		
70	3	0.76					11.6	
75	3	0.76				11.6		
76	4	0.25				11.0		
78	3	-0.76				9.8		
79	0	-2.11				8.2		
81	1	1.94				13.0		
85	3	-0.59					10.0	
86	2	-1.13					9.4	
89	2	1.49				12.5		
90	3	-0.94				9.6		
94	4	0.08					10.8	
96	4	-0.40				10.2		
97	4	-0.17				10.5		

Lab	Rating	Z-value	0	1	2	3	4	6
101	4	0.34					11.1	
102	2	-1.35					9.1	
103	3	-0.93					9.6	
107	3	0.93				11.8		
108	2	-1.18				9.3		
111	3	0.51			11.3			
113	4	-0.42				10.2		
114	NR				< 10			
118	2	-1.10				9.4		
119	3	-0.59				10.0		
120	4	0.24				11.0		
121	0	-2.87				7.3		
122	3	0.93				11.8		
124	NR		< 50					
127	4	0.42				11.2		
133	4	0.08					10.8	
138	4	0.08				10.8		
139	3	0.84				11.7		
140	3	0.83		11.7				
141	3	0.93					11.8	
142	4	-0.40				10.2		
145	3	0.76					11.6	
146	4	0.25					11.0	
151	3	-0.59				10.0		
153	2	-1.18				9.3		
161	4	0.25					11.0	
179	4	-0.25				10.4		
180	4	0.00					10.7	
182	4	0.25		11.0				
184	0	2.78					14.0	
189	0	-2.70				7.5		
190	4	-0.49				10.1		
193	2	-1.43				9.0		
194	2	1.10				12.0		
196b	4	-0.12						10.6
198	4	-0.25				10.4		
202	4	0.00				10.7		

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Cu (Copper)

μ g/L



0. Other	3. AA: graphite furnace
1. AA: direct air	4. ICP
2. AA: direct nitrous oxide	6. ICP/MS
N =	3 11 1 35 23 5
Minimum =	0.0 6.0 9.4 6.9 6.5 9.4
Maximum =	11.0 12.5 20.8 13.0 13.6
Median =	10.5 10.1 9.8
St Dev =	1.63 1.23 1.63

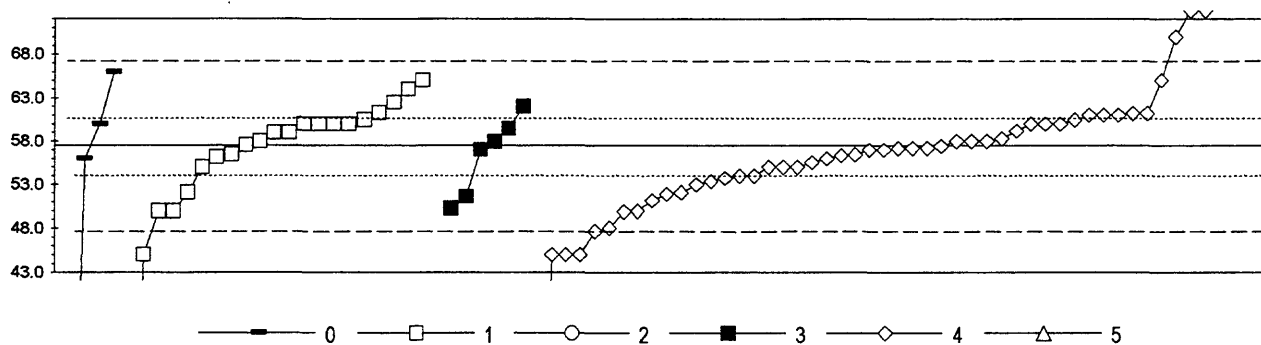
MPV = 10.2
 F-pseudostigma = 1.07
 N = 78
 Hu = 11.1
 HI = 9.6

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	0.28				10.5		
3	3	0.74					11.0	
4	1	-2.05					8.0	
5	3	0.60					10.9	
7	1	-1.86					8.2	
8	3	0.84					11.1	
10	3	-0.84				9.3		
11	3	0.74	11.0					
12	3	0.74				11.0		
13	NR					< 50		
15	4	0.47				10.7		
16	0	-2.98					7.0	
18	2	-1.12		9.0				
23	3	-0.56				9.6		
24	0	-3.07				6.9		
25	4	-0.19					10.0	
29	0	-3.91		6.0				
30	3	-0.59						9.6
32	0	3.16						13.6
36	0	-9.48	0.0					
37	4	0.28						10.5
39	0	2.60					13.0	
42	3	-0.74						9.4
45	2	-1.19				8.9		
46	2	1.02				11.3		
50	4	-0.19				10.0		
52	3	-0.60					9.6	
55	4	-0.09				10.1		
57	NR		< 20					
58	0	3.54				14.0		
59	0	2.33					12.7	
61	NR						< 10	
63	4	-0.28				9.9		
68	1	1.67					12.0	
69	3	0.74				11.0		
70	NR						< 20	
75	3	0.65					10.9	
78	4	-0.09				10.1		
79	2	-1.49				8.6		
81	4	-0.19				10.0		
85	3	0.74		11.0				
86	4	-0.34					9.8	
87	3	0.74		11.0				
89	NR					< 10		
90	0	2.14		12.5				
94	0	-2.79					7.2	
96	3	0.53				10.8		
97	3	-0.83				9.3		
101	4	-0.47					9.7	
102	3	-0.74					9.4	
103	3	-0.65						9.5
107	0	2.98						
108	4	-0.19		10.0			13.4	
111	3	-0.74					9.4	
113	4	0.47						10.7
114	4	-0.19		10.0				
118	1	-1.77						8.3
119	4	-0.19						10.0
120	3	0.62						10.9
121	0	9.86						20.8
122	4	-0.47						9.7
124	3	0.74	11.0					
126	NR		< 20					
127	3	-0.86						9.3
133	0	-3.44						6.5
134	3	0.93						11.2
138	4	0.09						10.3
139	4	0.00						10.2
140	2	1.30		11.6				
141	2	1.12						11.4
142	3	-0.74						9.4
145	3	-0.79						9.4
149	0	-2.98		7.0				
151	1	1.86		12.2				
153	3	0.56						10.8
161	2	-1.12						9.0
179	4	-0.47						9.7
180	2	-1.30						8.8
182	4	-0.19		10.0				
184	1	1.67						12.0
189	1	-1.58						8.5
190	0	-2.56						7.5
193	NR		< 25					
194	NR							< 10
196	3	0.63						10.9
198	NR							< 50
202	4	0.19					10.4	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Fe (Iron)

μ g/L



0. Other		3. AA: graphite furnace	
1. AA: direct air		4. ICP	
2. AA: direct nitrous oxide		5. DCP	
N =	4	25	1
Minimum =	0.1	0.0	96.0
Maximum =	66.0	65.0	50.2
Median =		59.0	62.1
St Dev =		5.05	5.21

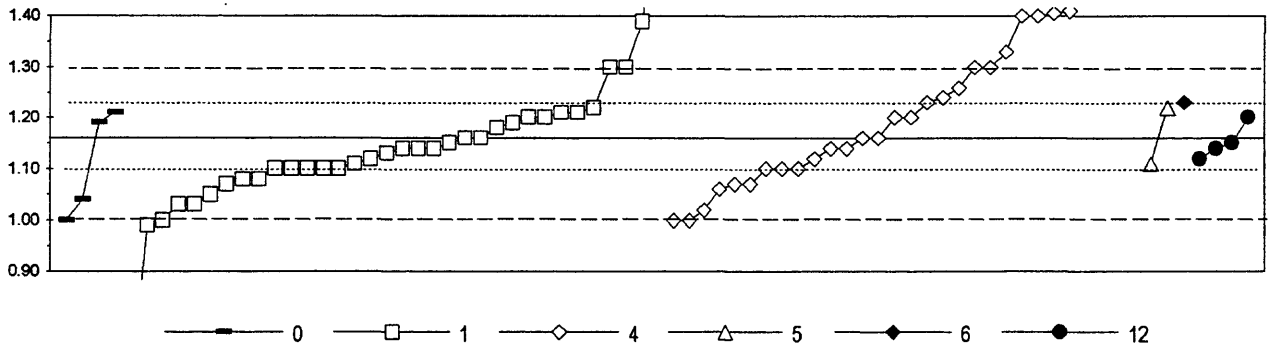
MPV = 57.5
 F-pseudosigma = 4.82
 N = 82
 Hu = 60.5
 HI = 54.0

Lab	Rating	Z-value	0	1	2	3	4	5
1	4	-0.07					57.1	
3	0	3.23					73.0	
4	4	-0.09					57.0	
5	4	-0.22					56.4	
7	4	0.18					58.3	
8	0	-11.82					0.5	
9	2	-1.13		52.0				
10	4	0.11		58.0				
11	3	0.53	60.0					
12	NR						< 50	
13	3	0.80		61.3				
15	3	0.78					61.2	
16	3	-0.51					55.0	
18	1	1.57					65.0	
19	3	-0.72					54.0	
21	4	-0.30	56.0					
23	3	0.95				62.1		
24	4	0.36					59.2	
25	4	-0.30					56.0	
33	0	-5.18						32.5
36	0	-11.91	0.1					
39	0	2.60					70.0	
42	4	0.11					58.0	
43	3	-0.72					54.0	
45	3	0.53		60.0				
46	3	0.53					60.0	
50	4	-0.09				57.0		
52	1	-1.57					49.9	
55	0	-2.58					45.0	
57	NR			< 100				
58	1	-1.55		50.0				
59	3	0.74					61.0	
61	4	0.11					58.0	
63	0			< 20				
68	4	-0.09					57.0	
70	2	-1.15					51.9	
73	3	-0.92					53.0	
75	4	-0.05					57.2	
78	4	0.43				59.5		
79	0	-2.58					45.0	
81	0	-2.58					45.0	
84	3	0.53		60.0				
85	4	0.11					58.0	
86	2	-1.32					51.1	
87	0	8.00			96.0			
89	2	-1.21				51.6		
90	4	0.01		57.5				
91	4	-0.05					57.2	
94	3	-0.51					55.0	
96	3	0.63		60.5				

Lab	Rating	Z-value	0	1	2	3	4	5
97	4	0.09				57.9		
101	3	0.53					60.0	
102	3	0.74					61.0	
103	2	-1.13					52.0	
107	4	0.32						
109	4	-0.26		59.0				
113	4	0.32		59.0				
114	1	-1.55		50.0				
116	1	-1.55						50.0
119	3	-0.51						55.0
121	0	8.83						100.0
122	2	-1.50				50.2		
124	1	1.77	66.0					
126	1	1.57		65.0				
127	4	-0.01						57.4
133	4	-0.40						55.5
134	1	-1.96						48.0
138	3	0.61						60.4
139	0	-2.58		45.0				
140	2	1.05		62.5				
141	3	-0.86						53.3
142	1	-2.04						47.6
145	3	0.79						61.3
146	3	0.74						61.0
149	3	0.53		60.0				
161	3	0.53						60.0
164	0	-11.70		1.1				
179	3	0.53		60.0				
180	0	81.47						450.0
182	3	-0.51		55.0				
184	3	-0.78						53.7
189	NR							< 50
190	4	-0.20		56.5				
193	2	1.36		64.0				
198	4	-0.24						56.3
202	0	3.23						73.0

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

K (Potassium) m g/L



0. Other							
1. AA: direct air							
4. ICP	N = 4	34	30	2	1	4	
	Minimum = 1.00	0.68	1.00	1.11	1.23	1.12	
	Maximum = 1.21	1.70	2.95	1.22		1.20	
	Median = 1.14	1.16					
	St Dev = 0.088	0.129					

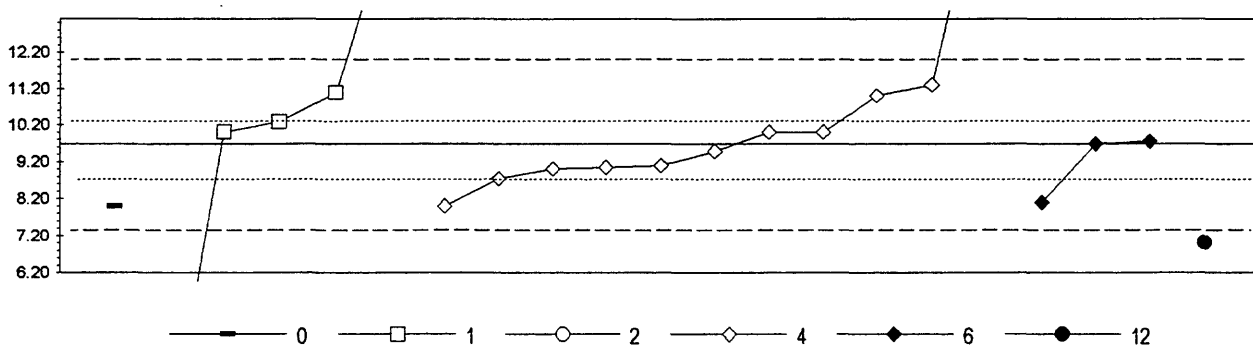
MPV = 1.16
 F-pseudostigma = 0.096
 N = 75
 Hu = 1.23
 HI = 1.10

Lab	Rating	Z-value	0	1	4	5	6	12
1	3	-0.78		1.08				
3	0	11.88			2.30			
5	0	2.60			1.41			
7	3	0.78			1.23			
8	2	-1.40			1.02			
9	4	-0.36		1.12				
11	3	0.57	1.21					
12	1	-1.61			1.00			
13	4	-0.16		1.14				
15	4	0.36		1.19				
16	2	1.50		1.30				
18	3	-0.57			1.10			
19	2	1.50			1.30			
23	3	-0.57		1.10				
24	4	-0.16			1.14			
25	0	5.24			1.66			
32	3	0.78					1.23	
33	3	0.67				1.22		
36	1	-1.61	1.00					
37	2	-1.30		1.03				
42	2	1.50			1.30			
43	4	0.47			1.20			
45	4	-0.26		1.13				
46	3	0.88			1.24			
52	4	-0.36			1.12			
54	3	-0.57		1.10				
55	4	-0.36						1.12
57	2	1.50		1.30				
58	3	0.57		1.21				
59	4	0.47			1.20			
61	0	5.66			1.70			
63	3	-0.88		1.07				
68	1	-1.61			1.00			
69	4	0.47						1.20
70	1	-1.71		0.99				
78	4	0.47		1.20				
81	3	-0.88			1.07			
85	3	0.67		1.22				
86	4	-0.16			1.14			
87	4	-0.16		1.14				
89	4	-0.16		1.14				
92	0	5.66		1.70				
94	3	-0.57			1.10			
97	3	-0.57		1.10				
101	4	0.47		1.20				
102	NR				< 1			
103	3	-0.57			1.10			
107	4	-0.05						1.15
109	4	-0.47		1.11				
113	3	-0.57		1.10				
114	0	-4.93		0.68				
116	NR							< 1.3
119	0	2.54						1.40
120	2	-1.30		1.03				
121	2	-1.09		1.05				
122	3	-0.78		1.08				
127	4	0.26		1.18				
134	3	-0.57		1.10				
138	4	0.05					1.16	
139	4	-0.16						1.14
140	4	-0.05		1.15				
141	2	1.09					1.26	
142	0	2.54					1.40	
145	3	-0.99					1.06	
153	2	-1.19	1.04					
161	NR							< 2
179	4	0.05		1.16				
180	0	18.63					2.95	
182	1	-1.61		1.00				
184	1	1.82					1.33	
189	4	0.05					1.16	
190	4	0.36	1.19					
193	4	0.05		1.16				
194	0	2.44		1.39				
196	3	0.57		1.21				
197	4	-0.47						1.11
198	0	2.65					1.41	
202	3	-0.88					1.07	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Li (Lithium)

μ g/L

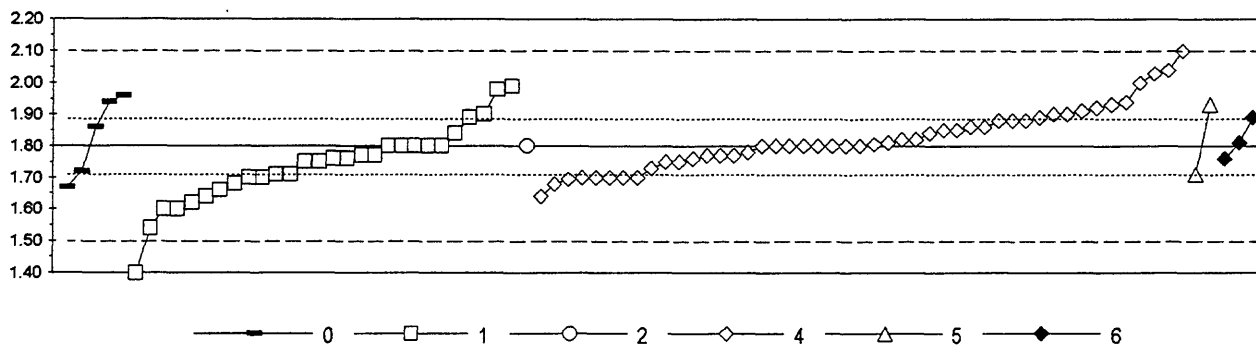


0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
2. AA: direct nitrous oxide	12. AA: flame emission				
N = 1	5	0	11	3	1
Minimum = 8.00	1.77	8.00	8.10	8.10	7.00
Maximum = 16.00		18.00	9.76		
Median = 9.29					
St Dev = 1.021					

MPV = 9.68
 F-pseudostigma = 1.149
 N = 21
 Hu = 10.30
 HI = 8.75

Lab	Rating	Z-value	0	1	2	4	6	12
1	3	-0.56				9.04		
3	NR					< 10		
4	4	0.28				10.00		
15	2	1.41				11.30		
16	NR					< 500		
25	3	-0.59				9.00		
30	4	0.07					9.76	
32	4	0.00					9.68	
42	4	0.28				10.00		
50	NR				< 50			
55	0	-2.33						7.00
63	4	0.28		10.00				
68	2	1.15				11.00		
75	4	-0.50				9.10		
85	3	0.54		10.30				
103	2	-1.46				8.00		
109	2	1.24		11.10				
116	NR					< 45		
121	0	5.50		16.00				
127	4	-0.18				9.47		
134	0	7.24				18.00		
145	3	-0.81				8.75		
164	0	-6.89		1.77				
182	2	-1.46	8.00					
189	NR					< 500		
196	2	-1.38				8.10		

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued
Mg (Magnesium) **m g/L**



0. Other	4. ICP					
1. AA: direct air	5. DCP					
2. AA: direct nitrous oxide	6. MS/ICP					
N =	5	28	1	47	2	3
Minimum =	1.67	1.40	1.80	1.64	1.71	1.76
Maximum =	1.96	1.99		2.10	1.93	1.89
Median =		1.76		1.80		
St Dev =		0.127		0.099		

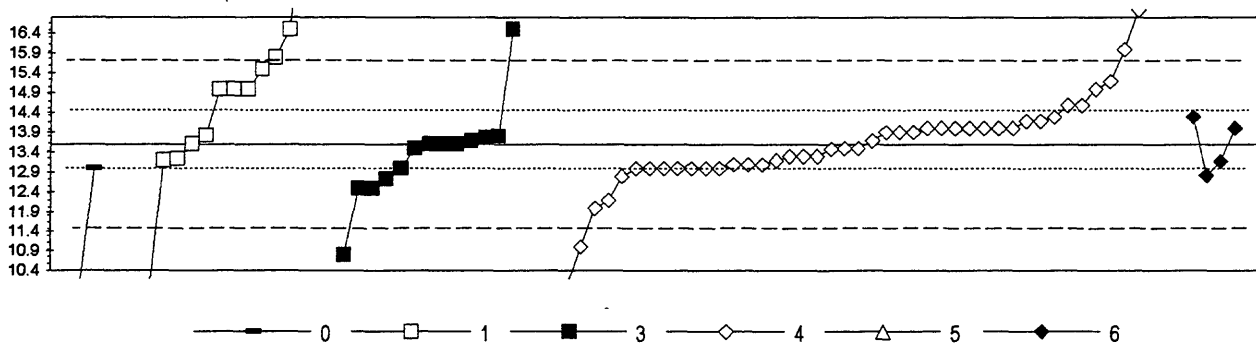
MPV = 1.80
 F-pseudostigma = 0.126
 N = 86
 Hu = 1.88
 Hl = 1.71

Lab	Rating	Z-value	0	1	2	4	5	6
1	4	0.00		1.80				
3	3	0.63				1.88		
4	4	-0.24				1.77		
5	4	0.04				1.81		
7	4	-0.24				1.77		
8	3	-0.56				1.73		
9	1	-1.59		1.60				
11	2	1.11	1.94					
12	4	0.00				1.80		
13	4	-0.40		1.75				
15	1	1.90				2.04		
16	4	0.00				1.80		
18	4	0.00				1.80		
19	3	-0.95				1.68		
23	4	-0.24		1.77				
24	4	-0.32				1.76		
25	2	1.03				1.93		
30	4	0.08						1.81
32	3	0.71						1.89
33	2	1.03					1.93	
36	2	-1.03	1.67					
39	4	0.48				1.86		
42	3	0.79				1.90		
43	4	0.00				1.80		
45	1	-1.59		1.60				
46	4	0.32				1.84		
52	4	-0.40				1.75		
54	3	-0.79		1.70				
55	3	-0.83				1.70		
57	3	-0.79				1.70		
58	3	-0.71		1.71				
59	4	0.00				1.80		
61	4	0.00				1.80		
63	2	-1.43		1.62				
68	4	0.00				1.80		
69	4	0.00		1.80				
70	4	0.08				1.81		
75	3	0.79				1.90		
78	4	0.00		1.80				
81	4	-0.40				1.75		
84	4	-0.40		1.75				
85	4	-0.32		1.76				
86	3	0.87				1.91		
87	2	-1.11		1.66				
89	3	0.79		1.90				
92	3	-0.79		1.70				
94	3	-0.79				1.70		
97	0	-2.06		1.54				
101	4	0.00		1.80				
102	1	1.59				2.00		

Lab	Rating	Z-value	0	1	2	4	5	6
103	3	-0.79						1.70
107	2	1.43		1.98				
109	4	0.00		1.80				
113	1	1.51		1.99				
114	4	0.00			1.80			
116	4	0.16						1.82
119	4	0.00						1.80
120	3	-0.71		1.71				
121	1	1.83						2.03
122	4	-0.32		1.76				
124	2	1.27	1.96					
127	4	-0.16						1.78
133	4	-0.24						1.77
134	3	-0.79						1.70
138	3	0.63						1.88
139	3	-0.95		1.68				
140	4	-0.24		1.77				
141	4	0.48						1.86
142	0	2.38						2.10
145	4	0.40						1.85
146	3	-0.79						1.70
153	3	-0.63	1.72					
161	4	0.16						1.82
179	3	0.71		1.89				
180	2	1.11						1.94
182	0	-3.17		1.40				
184	4	0.40						1.85
189	2	-1.27						1.64
190	4	0.48	1.86					
193	2	-1.27		1.64				
194	4	-0.32						1.76
196	4	0.32		1.84				
197	3	-0.71						1.71
198	3	0.95						1.92
202	3	0.63						1.88
209	3	0.71						1.89

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Mn (Manganese) μ g/L



0. Other	4. ICP
1. AA: direct air	5. DCP
3. AA: graphite furnace	6. MS/ICP
N =	3 17 13 48 1 4
Minimum =	0.0 5.0 10.8 6.0 17.5 12.8
Maximum =	13.0 160.0 16.5 25.0 14.3
Median =	15.0 13.6 13.5
St Dev =	1.14 1.26 0.88

MPV = 13.6
 F-pseudostigma = 1.07
 N = 86
 Hu = 14.5
 HI = 13.0

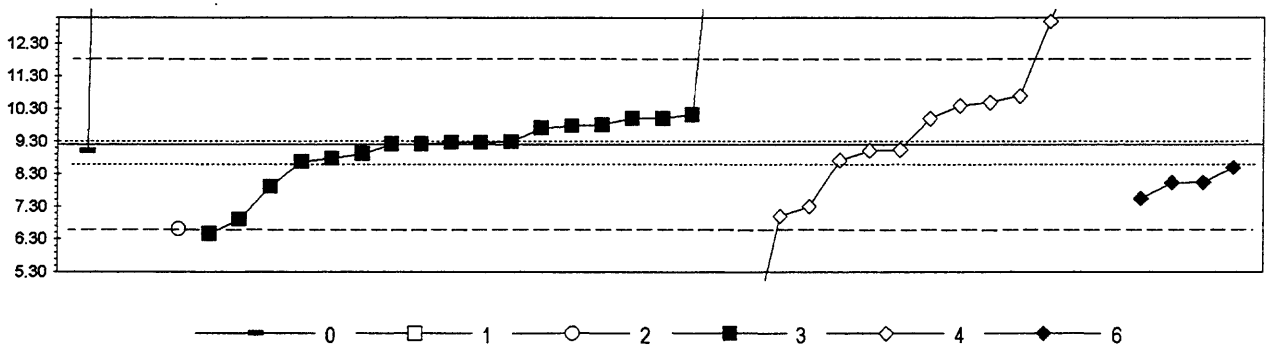
Lab	Rating	Z-value	0	1	3	4	5	6
1	4	-0.28				13.3		
3	0	-2.42				11.0		
4	3	-0.56				13.0		
5	4	-0.11				13.5		
7	4	-0.47				13.1		
8	0	-3.63				9.7		
9	0	-2.60			10.8			
10	2	1.30		15.0				
11	3	-0.56	13.0					
12	NR					< 20		
13	1	2.05		15.8				
15	0	-5.46				7.7		
16	4	0.28				13.9		
18	4	0.37				14.0		
19	2	-1.49				12.0		
23	4	0.08			13.7			
24	4	-0.28				13.3		
25	4	0.37				14.0		
29	0	-5.21		8.0				
30	4	-0.39						12.8
32	3	0.65						14.0
33	0	3.63					17.5	14.3
36	0	-12.64	0.0					
37	4	0.37						13.2
39	2	1.30				15.0		
42	4	-0.47				13.1		
43	4	0.37				14.0		
46	3	0.65				14.3		
50	3	-0.56			13.0			
52	3	-0.74				12.8		
55	0	-7.07				6.0		
57	NR			< 20				
58	2	1.30		15.0				
59	4	-0.09				13.5		
61	3	-0.56				13.0		
63	0	3.16				17.0		
68	3	-0.56				13.0		
70	4	0.28				13.9		
75	4	0.28				13.9		
76	4	-0.37		13.2				
78	2	-1.02			12.5			
79	0	10.61				25.0		
81	0	-3.35				10.0		
84	0	-3.35				10.0		
85	0	2.70		10.0				
85	0	2.70		16.5				
86	2	-1.30				12.2		
89	4	0.19			13.8			
90	1	1.77		15.5				
91	2	1.49				15.2		
94	3	-0.56				13.0		

Lab	Rating	Z-value	0	1	3	4	5	6
96	4	0.00		13.6				
97	4	0.00			13.6			
101	4	-0.09				13.5		
102	4	-0.37				13.2		
103	3	-0.56				13.0		
107	4	0.00			13.6			
109	4	0.21		13.8				
113	4	-0.09			13.5			
114	0	5.95		20.0				
116	4	0.37				14.0		
119	3	-0.56				13.0		
120	4	0.00			13.6			
121	0	4.09				18.0		
122	2	-1.02			12.5			
124	0	-3.35	10.0					
126	0	136.20		160.0				
127	4	-0.28				13.3		
134	3	-0.56				13.0		
138	3	0.56				14.2		
139	0	0.00		< 10				
140	4	-0.33		13.2				
141	3	0.56				14.2		
142	4	-0.47				13.1		
145	3	0.93				14.6		
146	4	0.37				14.0		
149	0	-8.00		5.0				
151	0	11.16		25.6				
153	0	2.70			16.5			
161	4	0.37				14.0		
179	0	-3.35		10.0				
180	4	0.37				14.0		
182	2	1.30		15.0				
184	4	0.09				13.7		
189	0	2.23				16.0		
190	3	-0.79			12.8			
196a	4	0.16			13.8			
196b	3	-0.73						
198	3	0.93				14.6		
202	0	5.02				19.0		

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued

Mo (Molybdenum)

μ g/L

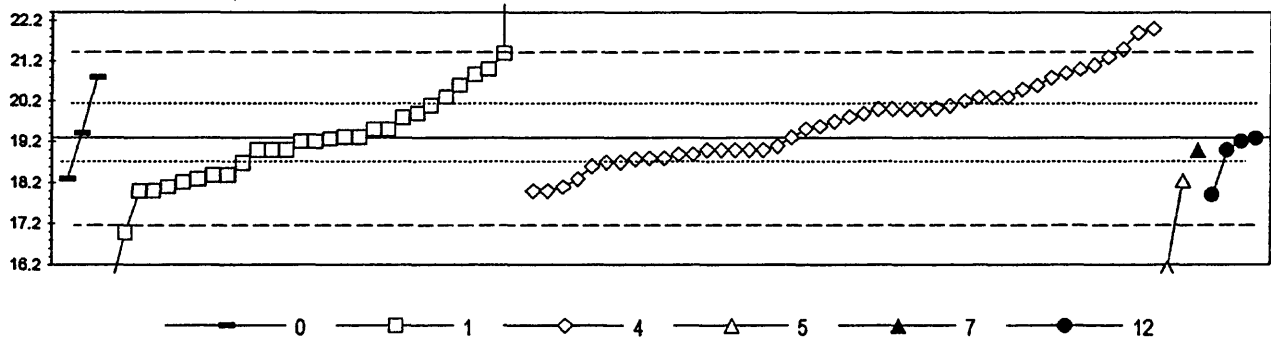


0. Other	3. AA: graphite furnace				
1. AA: direct air	4. ICP				
2. AA: direct nitrous oxide	6. MS/ICP				
N = 2	1	1	18	13	4
Minimum = 9.00	20.00	6.60	6.45	3.00	7.52
Maximum = 70.00			20.00	16.00	8.50
Median =			9.25	9.53	
St Dev =			1.049	1.760	

MPV = 9.20
 F-pseudosigma = 1.308
 N = 39
 Hu = 9.27
 HI = 8.60

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	-0.23				8.90		
3	NR						< 10	
4	NR						< 10	
7	3	0.61					10.00	
8	1	-1.68					7.00	
11	4	-0.15	9.00					
12	NR						< 30	
15	4	0.06				9.28		
16	0	4.66					15.30	
23	0	-2.10				6.45		
29	1	-1.99			6.60			
30	3	-0.88						8.05
32	2	-1.28						7.52
42	3	-0.54						8.50
45	4	0.47				9.81		
50	3	0.61				10.00		
52	1	-1.76				6.90		
57	NR						< 100	
58	0	8.25				20.00		
61	NR						< 50	
63	4	0.38				9.70		
68	0	2.90					13.00	
70	NR						< 50	
75	4	-0.38					8.70	
81	0	-4.74					3.00	
85	NR						< 20	
86	4	-0.11					9.05	
87	4	0.00				9.20		
94	3	-0.99				7.90		
97	4	0.00				9.20		
103	2	-1.45						7.30
109	3	0.71				10.13		
120	4	0.43				9.76		
121	0	5.20					16.00	
124	0	46.47	70.00					
127	4	-0.34				8.76		
134	NR						< 10	
138	4	0.04				9.25		
141	2	1.15					10.70	
142	4	0.05				9.26		
145	3	0.99					10.50	
151	4	-0.41				8.66		
161	NR						< 50	
179	3	0.61				10.00		
180	3	0.92					10.40	
182	0	8.25	20.00					
189	NR						< 10	
196	3	-0.90						8.02
202	4	-0.15					9.00	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued
Na (Sodium) m g/L



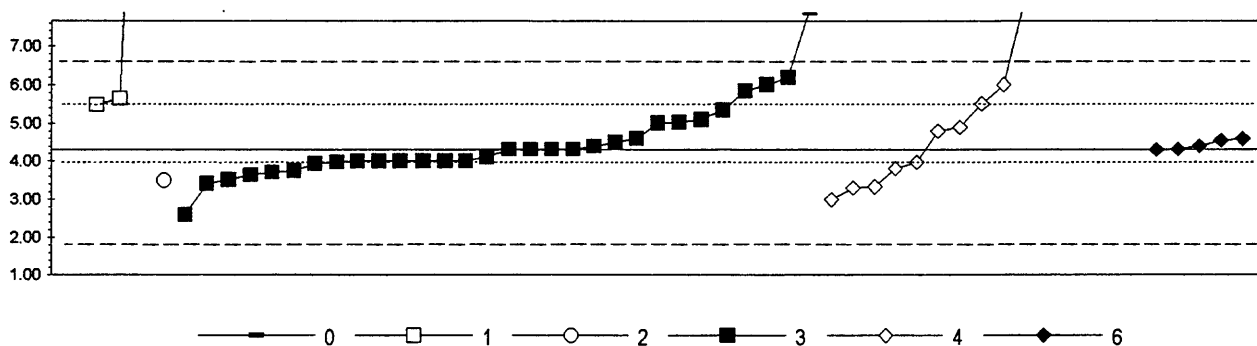
0. Other				5. DCP			
1. AA: direct air				7. Ion chromatography			
4. ICP	N =	3	29	44	2	1	4
	Minimum =	18.3	15.6	18.0	16.1	19.0	17.9
	Maximum =	20.8	129.0	22.0	18.3		19.3
	Median =		19.2	19.8			
	St Dev =		1.04	1.03			

MPV = 19.3
F-pseudostigma = 1.04
N = 83
Hu = 20.2
HI = 18.7

Lab	Rating	Z-value	0	1	4	5	7	12
1	4	0.23			19.5			
3	3	0.98			20.3			
4	4	-0.47			18.8			
5	4	0.29			19.6			
7	3	-0.56			18.7			
8	3	0.98			20.3			
9	3	0.60		19.9				
11	2	1.46	20.8					
12	2	-1.23			18.0			
13	4	0.02		19.3				
15	1	1.94			21.3			
16	3	0.69			20.0			
18	3	0.69			20.0			
19	4	-0.27			19.0			
23	0	-2.20		17.0				
24	4	-0.46			18.8			
25	2	1.27			20.6			
33	0	-3.05				16.1		
36	3	-0.94	18.3					
39	3	0.69			20.0			
42	3	-0.65			18.6			
43	4	0.40			19.7			
45	4	-0.27		19.0				
46	4	-0.27			19.0			
52	4	0.02			19.3			
54	4	-0.27		19.0				
55	4	-0.27						19.0
57	2	-1.23			18.0			
58	0	105.35		129.0				
59	4	-0.27			19.0			
61	4	-0.27			19.0			
63	2	1.46			20.8			
68	3	0.69			20.0			
69	2	-1.32						17.9
70	3	0.79			20.1			
75	3	-0.56			18.7			
76	4	0.02		19.3				
78	4	0.50		19.8				
81	3	0.98			20.3			
84	4	0.00						19.3
85	4	-0.08		19.2				
86	3	0.51			19.8			
87	2	-1.23		18.0				
89	3	0.79		20.1				
90	2	1.27		20.6				
92	1	2.04		21.4				
94	4	-0.36			18.9			
97	2	-1.04		18.2				
101	4	0.21		19.5				
102	3	-0.94			18.3			

Lab	Rating	Z-value	0	1	4	5	7	12
103	1	1.65			21.0			
107	3	-0.84		18.4				
109	2	-1.23		18.0				
113	4	0.21			19.5			
114	1	1.65			21.0			
116	2	-1.13				18.1		
119	4	-0.17			19.1			
120	2	-1.13		18.1				
121	0	2.61				22.0		
122	1	1.54		20.9				
127	4	-0.36			18.9			
134	4	-0.27		19.0				
138	3	0.88			20.2			
139	4	-0.07						19.2
140	4	-0.08		19.2				
141	1	1.56			20.9			
142	0	2.52			21.9			
145	3	0.72			20.0			
146	4	-0.27			19.0			
153	4	-0.27					19.0	
161	4	-0.46			18.8			
164	3	-0.57		18.7				
179	3	-0.84		18.4				
180	3	0.60			19.9			
182	0	-3.49		15.6				
184	1	1.75			21.1			
189	0	2.13			21.5			
190	4	0.12	19.4					
193	3	-0.94		18.3				
194	3	0.98		20.3				
196	4	-0.02		19.3				
197	3	-0.99				18.3		
198	2	1.17			20.5			

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued
 Ni (Nickel) μ g/L

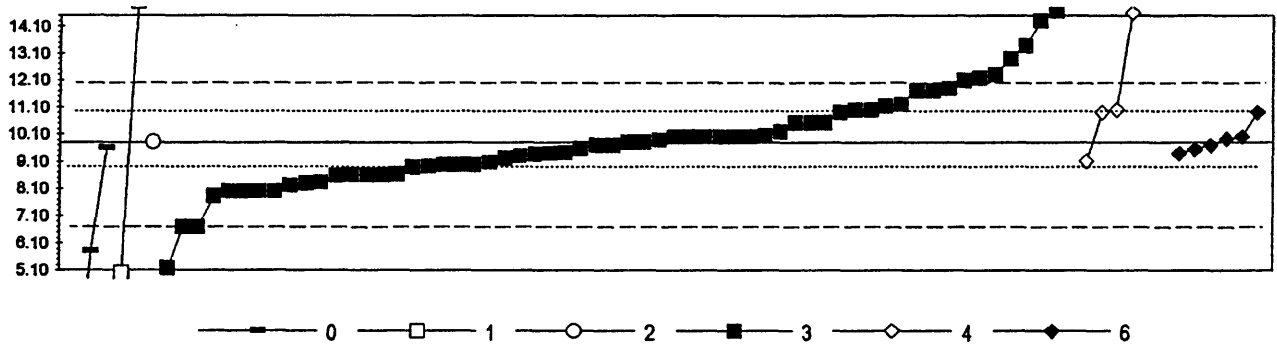


0. Other							3. AA: graphite furnace
1. AA: direct air							4. ICP
2. AA: direct nitrous oxide							6. MS/ICP
N =	1	3	1	30	15	5	
Minimum =	0.01	5.48	3.50	2.60	3.00	4.29	
Maximum =		20.00		8.00	14.00	4.59	
Median =				4.10	3.98		
St Dev =				0.802	1.055		

MPV = 4.30
 F-pseudostigma = 1.119
 N = 55
 Hu = 5.49
 Hl = 3.98

Lab	Rating	Z-value	0	1	2	3	4	6
1	3	0.71				5.10		
3	NR						< 10	
4	NR						< 20	
7	0	8.67					14.00	
9	4	-0.18				4.10		
12	NR						< 20	
13	NR		< 50					
15	3	-0.51				3.73		
16	NR						< 25	
18	NR						< 15	
23	3	-0.59				3.64		
24	4	-0.27				4.00		
25	NR						< 49	
30	4	0.26						4.59
32	4	0.00						4.30
36	0	-3.84	0.01					
37	4	0.21						4.54
42	4	0.09						4.40
45	3	-0.53				3.71		
46	3	-0.86					3.34	
50	4	-0.27				4.00		
52	4	-0.29				3.98		
55	3	0.63				5.00		
57	NR		< 100					
58	1	1.52				6.00		
59	4	0.45					4.80	
61	NR						< 25	
63	4	-0.27				4.00		
68	0	3.57					8.30	
69	4	-0.27				4.00		
70	NR						< 50	
78	4	0.00				4.30		
79	1	-1.52				2.60		
81	0	3.31				8.00		
85	NR						< 20	
86	4	-0.29					3.98	
87	NR		< 10					
89	NR					< 25		
90	2	1.20	5.64					
94	1	1.52					6.00	
97	3	0.65				5.03		
101	2	1.07					5.50	
102	3	-0.89					3.30	
103	4	-0.45					3.80	
107	4	0.09				4.40		
111	3	-0.71			3.50			
113	3	-0.80				3.40		
114	NR		< 10					
118	4	-0.27				4.00		
119	1	1.70				6.20		
120	3	-0.71					3.51	
121	0	6.88						12.00
124	NR		< 50					
127	4	-0.27					4.00	
133	3	0.54						4.90
134	4	0.00					4.30	
138	4	0.00					4.30	
139	NR							
140	2	1.05		< 40				
141	0	6.34						11.40
142	4	0.00					4.30	
145	2	-1.16						3.00
146	0	5.09						10.00
151	4	-0.32					3.94	
161	NR							< 10
179	4	0.18					4.50	
180	0	5.36						10.30
182	0	14.03		20.00				
184	NR							< 10
189	NR							< 20
190	3	0.94					5.35	
193	NR						< 5	
196.1	2	1.38					5.85	
196.2	4	-0.01						4.29
198	NR							< 10
202	4	0.27					4.60	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued
Pb (Lead) μ g/L



0. Other	3. AA: graphite fumace				
1. AA: direct air	4. ICP				
2. AA: direct nitrous oxide	6. MS/ICP				
N = 3	3	1	60	6	6
Minimum = 0.01	5.00	9.80	5.20	9.11	9.40
Maximum = 9.60	15.01		46.00	47.00	10.90
Median =			9.71		
St Dev =			1.662		

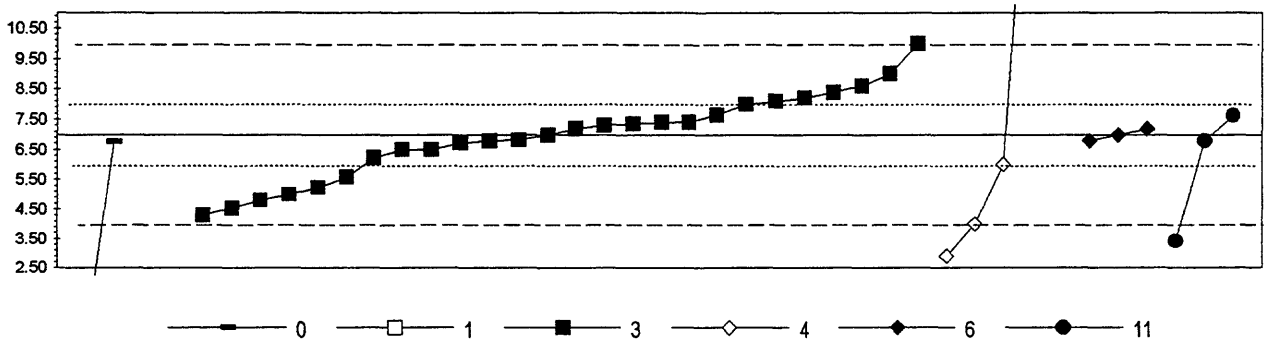
MPV = 9.80
F-pseudosigma = 1.557
N = 78
Hu = 11.00
Hi = 8.90

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	-0.16						9.55
3	2	1.22				11.70		
4	NR						< 20	
9	4	0.45				10.50		
10	3	-0.77				8.60		
11	4	-0.13	9.60					
12	NR					< 10		
13	1	1.54				12.20		
15	4	0.02				9.83		
16	3	-0.51				9.00		
18	0	2.31				13.40		
19	0	23.90					47.00	
23	4	0.17				10.06		
24	2	-1.16				8.00		
25	NR						< 71	
29	4	0.13				10.00		
30	4	-0.06						9.71
32	4	0.07						9.91
33	0	-2.55	5.83					
36	0	-6.29	0.01					
37	3	0.71						10.90
42	4	0.13						10.00
45	3	-0.94				8.34		
46	3	-0.96				8.30		
50	3	0.77				11.00		
52	1	1.99				12.90		
55	3	-0.77				8.60		
57	4	0.13				10.00		
58	3	0.77				11.00		
59	3	0.71					10.90	
61	2	-1.16				8.00		
63	2	1.28				11.80		
68	1	1.61				12.30		
69	4	0.00				9.80		
70	2	1.22				11.70		
76	4	-0.06				9.71		
78	4	0.06				9.90		
79	2	-1.16				8.00		
81	2	-1.16				8.00		
85	NR		< 50					
86	4	-0.44						9.11
87	NR		< 20					
89	3	0.86				11.14		
90	4	-0.14				9.58		
94	4	-0.26				9.40		
96	3	-0.75				8.63		
97	2	1.48				12.10		
101	0	3.08					14.60	
102	3	0.77					11.00	
103	NR						< 20	

Lab	Rating	Z-value	0	1	2	3	4	6
107	4	0.45						10.50
108	4	0.13						10.00
109	3	-0.77						8.60
111	4	0.00				9.80		
113	4	-0.06						9.71
114	NR			< 10				
118	4	-0.39						9.20
119	3	0.90						11.20
120	4	-0.24						9.43
121	3	-0.58						8.90
122	0	2.89						14.30
124	NR		< 50					
126	3	-0.51						9.00
127	4	-0.48						9.06
133	0	-2.95						5.20
134	4	-0.32						8.30
138	3	0.71						10.90
139	0	3.15						14.70
140	0	3.35		15.01				
141	2	-1.03						8.20
142	4	-0.27						9.38
145	NR							< 14.8
146	4	0.13						10.00
149	1	-1.99						6.70
151	4	0.26						10.20
153	4	0.13						10.00
161	NR							< 20
179	1	-1.99						6.70
180	0	11.58						27.80
182	0	-3.08		5.00				
184	NR							< 50
189	0	23.25						46.00
190	2	-1.26						7.84
193	3	-0.51						9.00
194	4	0.13						10.00
196a	3	-0.79						8.57
196b	4	-0.26						9.40
196	3	-0.58						8.93
202	4	0.45						10.50

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

Sb (Antimony) μ g/L

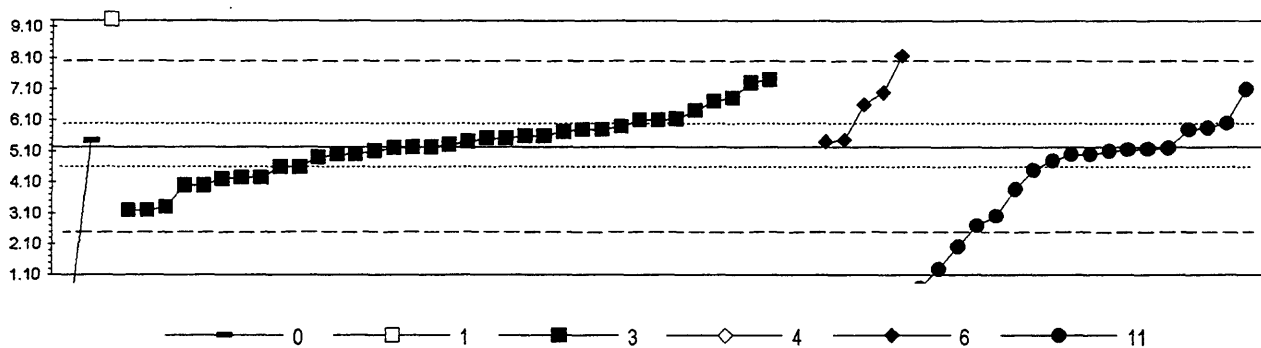


0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
3. AA: graphite furnace	11. AA: hydride				
N = 2	2	26	5	3	3
Minimum = 0.01	30.00	4.30	2.90	6.78	3.40
Maximum = 6.75	100.00	10.00	24.00	7.18	7.60
Median =		7.08			
St Dev =		1.424			

MPV = 6.99
 F-pseudostigma = 1.483
 N = 41
 Hu = 8.00
 Hl = 6.00

Lab	Rating	Z-value	0	1	3	4	6	11
1	4	0.13					7.18	
3	3	0.82			8.20			
7	0	11.47				24.00		
11	4	-0.16	6.75					
12	NR					< 100		
15	2	-1.19			5.23			
16	4	-0.13			6.80			
18	4	-0.33			6.50			
23	4	0.24			7.34			
24	2	-1.48			4.80			
25	NR					< 51		
32	4	0.00					6.99	
36	0	-4.71	0.01					
45	1	-1.65			4.54			
46	1	2.03			10.00			
52	NR				< 6			
55	4	0.21			7.30			
57	2	1.36			9.00			
58	0	-2.42						3.40
59	3	-0.67				6.00		
61	NR					< 50		
63	3	0.95			8.40			
68	NR				< 5			
78	4	-0.33			6.50			
81	1	-2.02				4.00		
85	NR					< 100		
94	3	0.75			8.10			
97	4	-0.12			6.81			
102	0	-2.76				2.90		
113	2	1.09			8.60			
114	0	15.52	30.00					
119	4	-0.13						6.80
120	4	0.45			7.65			
124	NR		< 100					
127	4	0.00			6.99			
134	4	0.41						7.60
141	4	0.12			7.17			
142	4	0.29			7.42			
149	2	-1.34			5.00			
151	3	-0.96			5.57			
179	3	0.68			8.00			
180	0	8.03				18.90		
182	0	62.74	100.00					
184	NR					< 50		
189	1	-1.81			4.30			
194	4	0.28			7.40			
196	4	-0.14					6.78	
198	3	-0.51			6.24			
202	4	-0.20			6.70			

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued
Se (Selenium) μ g/L



0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	11. AA: hydride
N = 2	1 35 2 5 18
Minimum = 0.01	9.35 3.20 12.90 5.40 0.67
Maximum = 5.44	7.40 29.60 8.18 7.10
Median = 5.30	5.30 5.00
St Dev = 1.060	1.522

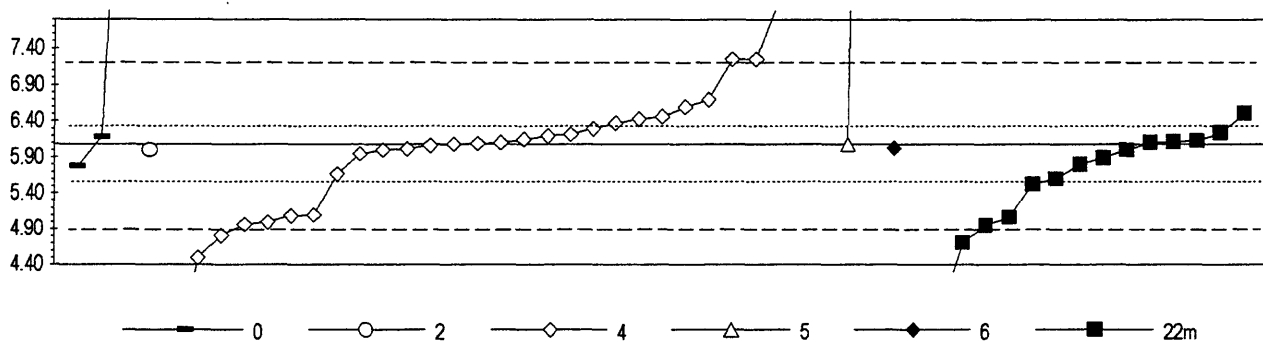
MPV = 5.23
 F-pseudosigma = 1.371
 N = 63
 Hu = 5.95
 HI = 4.55

Lab	Rating	Z-value	0	1	3	4	6	11
1	4	-0.02			5.20			
3	4	0.00			5.23			
8	1	-1.63						3.00
10	4	0.20			5.50			
11	4	0.15	5.44					
12	3	-0.90			4.00			
13	4	0.42			5.80			
15	4	-0.04						5.17
16	NR				< 3			
18	2	1.36						7.10
23	3	-0.72			4.24			
24	0	-2.87						1.30
25	NR				< 129			
29	0	3.00		9.35				
30	0	2.15					8.18	
32	2	1.29				7.00		
36	0	-3.81	0.01					
37	3	1.00				6.60		
42	4	0.12				5.40		
45	4	-0.16			5.01			
46	4	-0.09			5.10			
50	3	0.56						6.00
52	NR							< 5
55	4	-0.24			4.90			
57	1	-1.84						2.70
58	0	-3.33						0.67
61	4	0.20			5.50			
63	4	0.42			5.80			
68	4	0.49			5.90			
69	4	0.12			5.40			
70	3	0.87			6.42			
75	4	-0.18						4.99
76	1	1.52			7.31			
78	4	0.05			5.30			
79	4	-0.46			4.60			
81	3	-0.90			4.00			
85	4	-0.09						5.10
86	3	-1.00						3.86
89	0	-2.34						2.02
94	2	-1.41			3.30			
96	4	0.37			5.74			
97	0							< 0.22
102	0	5.59				12.90		
107	3	0.63			6.10			
108	2	-1.48			3.20			
109	3	-0.71			4.25			
113	4	0.27			5.60			
118	2	-1.48			3.20			
119	3	-0.53						4.50
120	4	-0.06						5.15

Lab	Rating	Z-value	0	1	3	4	6	11
122	0							< 1
124	NR		< 200					
126	0							< 1
127	3	0.64			6.11			
133	3	-0.75			4.20			
134	4	-0.02						5.20
138	4	-0.31						4.80
139	1	1.58			7.40			
141	4	0.45						5.85
142	3	0.65			6.12			
151	4	-0.17						5.00
161	NR						< 100	
179	NR				< 5			
180	0	17.77				29.60		
182	4	0.42						5.80
184	0				< 0.005			
189	2	1.14			6.80			
190	2	1.07			6.70			
193	4	-0.17			5.00			
194	4	0.00			5.23			
196	4	0.18						5.47
198	4	-0.46			4.60			
202	4	0.27			5.60			

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued

SiO2 (Silica) m g/L



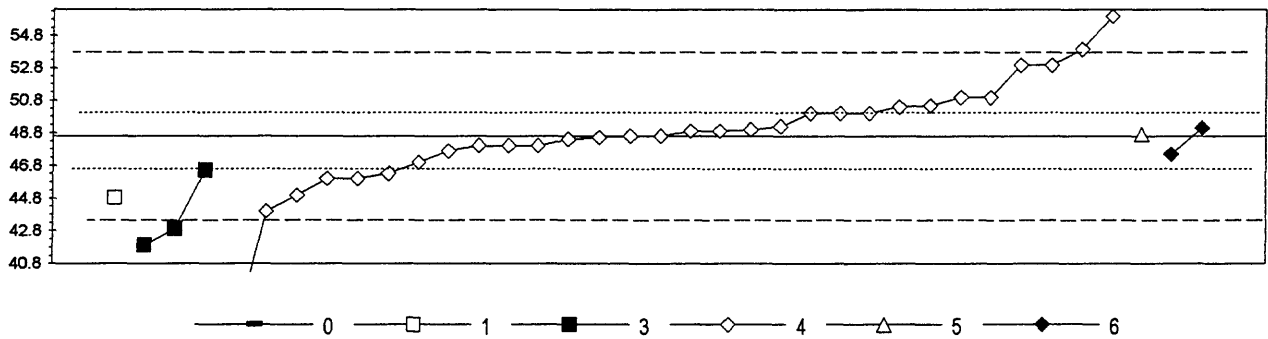
0. Other	5. DCP
2. AA: direct nitrous oxide	6. ICP/MS
4. ICP	22m. Color: molybdate blue
N = 3	1 29 2 1 15
Minimum = 5.78	6.00 2.90 6.08 6.03 3.46
Maximum = 12.40	13.00 25.70 6.50
Median = 6.09	6.09 5.85
St Dev = 0.713	0.713 0.748

MPV = 6.08
 F-pseudostigma = 0.571
 N = 51
 Hu = 6.34
 HI = 5.57

Lab	Rating	Z-value	0	2	4	5	6	22m
1	4	0.00			6.08			
2	0	-2.42						4.70
3	2	1.09			6.70			
4	4	-0.04			6.06			
5	4	0.11			6.15			
8	0	12.12			13.00			
9	0	-4.59						3.46
11	4	0.18	6.18					
13	1	-1.98						4.95
15	3	0.89			6.59			
24	0	-2.22			4.81			
25	3	0.67			6.46			
32	4	-0.09					6.03	
33	0	34.37				25.70		
36	0	11.07	12.40					
37	4	0.07						6.12
42	4	0.39			6.30			
43	4	0.04			6.10			
45	4	0.21			6.20			
52	3	-0.96						5.53
55	3	0.51			6.37			
57	1	-1.72			5.10			
58	0	-4.10						3.74
61	0	-5.57			2.90			
63	0	3.59			8.13			
70	4	-0.49						5.80
78	4	-0.14	6.00					
87	4	0.04						6.10
89	4	0.09						6.13
92	3	-0.84						5.60
97	4	0.26						6.23
101	3	-0.72			5.67			
102	4	-0.11			6.02			
103	0	-2.77			4.50			
104	4	-0.33						5.89
109	1	2.05			7.25			
112	4	0.00				6.08		
113	4	-0.14						6.00
116	1	-1.96			4.96			
119	4	-0.14			6.00			
121	1	-1.73			5.09			
127	4	0.25			6.22			
134	4	0.02			6.09			
138	3	0.74						6.50
141	1	-1.79						5.06
142	0	2.05			7.25			
145	3	0.61			6.43			
146	1	-1.89			5.00			
184	0	5.61			9.28			
189	4	-0.23			5.95			

Lab	Rating	Z-value	0	2	4	5	6	22m
190	3	-0.53	5.78					

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)—Continued
Sr (Strontium)
 μ g/L

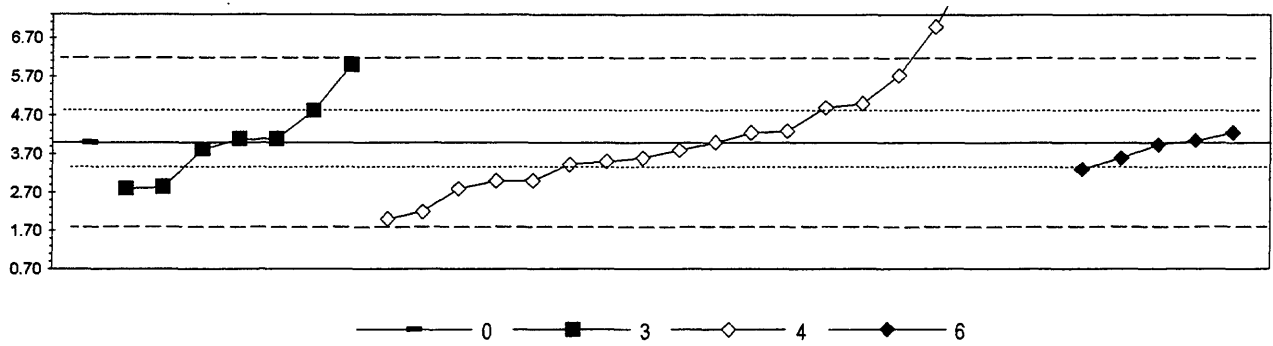


0. Other	4. ICP					
1. AA: direct air	5. DCP					
3. AA: graphite furnace	6. MS/ICP					
N =	1	1	3	30	1	2
Minimum =	200.0	44.8	41.9	36.5	48.7	47.5
Maximum =			46.5	56.0		49.1
Median =				48.9		
St Dev =				2.65		

MPV = 48.6
 F-pseudostigma = 2.59
 N = 38
 Hu = 50.0
 HI = 46.5

Lab	Rating	Z-value	0	1	3	4	5	6
1	4	0.00				48.6		
3	4	0.15				49.0		
4	4	-0.23				48.0		
7	4	-0.08				48.4		
8	0	2.85				56.0		
9	0		< 24					
15	4	-0.35				47.7		
16	3	-0.89				46.3		
18	3	0.54				50.0		
23	0	-2.19			42.9			
24	4	-0.04				48.5		
25	3	0.92				51.0		
32	4	-0.43						47.5
33	4	0.04					48.7	
39	3	0.92				51.0		
42	1	1.69				53.0		
46	4	0.23				49.2		
50	NR		< 100					
52	4	0.11				48.9		
55	1	-1.77				44.0		
59	3	0.54				50.0		
63	0	2.08				54.0		
68	3	-1.00				46.0		
70	0					< 10		
85	4	0.00				48.6		
94	4	-0.23				48.0		
97	0	-2.58			41.9			
102	1	1.69				53.0		
103	3	-1.00				46.0		
109	2	-1.45			44.8			
113	NR		< 200					
116	3	0.54				50.0		
121	2	-1.39				45.0		
127	4	0.11				48.9		
134	3	-0.62				47.0		
138	3	0.69				50.4		
141	3	-0.81			46.5			
145	3	0.73				50.5		
146	4	-0.23				48.0		
161	NR					< 100		
182	0	58.35	200.0					
189	0	-4.67				36.5		
196	4	0.19						49.1

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued
V (Vanadium) μ g/L



0. Other		6. ICP/MS			
3. AA: graphite furnace					
4. ICP					
	N =	1	7	19	5
	Minimum =	4.00	2.80	2.00	3.30
	Maximum =		6.00	10.00	4.26
	Median =		4.08	3.70	
	St Dev =		1.116	1.297	

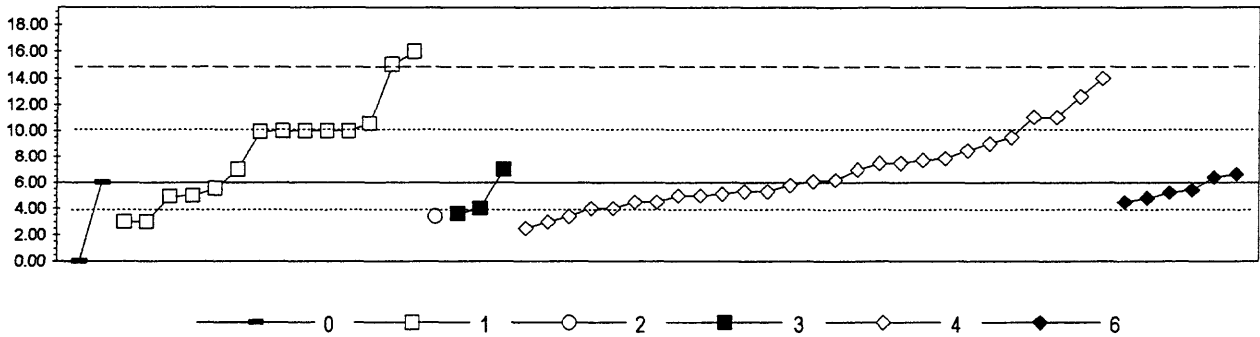
MPV = 4.00
 F-pseudosigma = 1.105
 N = 32
 Hu = 4.86
 HI = 3.37

Lab	Rating	Z-value	0	3	4	6
1	NR				< 6	
3	NR				< 10	
4	NR				< 10	
5	1	1.56			5.72	
7	0	2.72			7.00	
11	4	0.00	4.00			
15	3	0.74		4.82		
16	3	0.81			4.90	
18	NR				< 5	
25	NR				< 4	
30	4	0.23				4.26
32	3	-0.63				3.30
37	4	0.05				4.05
42	4	-0.36				3.60
45	0	4.26			8.70	
46	3	-0.91			3.00	
50	1	1.81		6.00		
52	4	-0.16		3.82		
57	NR				< 50	
61	0	4.89			9.40	
63	0	5.43			10.00	
68	4	0.00			4.00	
70	NR				< 50	
75	4	0.27			4.30	
81	NR				< 2	
85	NR				< 20	
86	3	-0.51			3.44	
94	4	-0.36			3.60	
97	2	-1.05		2.84		
101	4	-0.45			3.50	
102	1	-1.63			2.20	
103	2	-1.09			2.80	
121	3	0.91			5.00	
124	NR		< 10			
127	4	0.07		4.08		
134	4	0.09		4.10		
138	4	-0.18			3.80	
141	4	0.23			4.25	
142	2	-1.09		2.80		
145	1	-1.81			2.00	
161	NR				< 100	
180	3	-0.91			3.00	
184	NR				< 10	
189	NR				< 8	
196	4	-0.05			3.94	

Table 12. Statistical summary of reported data for standard reference water sample T-123 (trace constituent)--Continued

Zn (Zinc)

µ g/L



0. Other	3. AA: graphite furnace
1. AA: direct air	4. ICP
2. AA: direct nitrous oxide	6. MS/CP
N = 2 14 1 3 27 6	
Minimum = 0.01 3.00 3.40 3.59 2.50 4.48	
Maximum = 6.00 16.00 7.00 14.00 6.64	
Median = 9.98 6.10	
St Dev = 4.020 2.942	

MPV = 6.00
 F-pseudosigma = 4.448
 N = 53
 Hu = 10.00
 HI = 4.00

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	-0.18						5.22
3	4	0.38					7.70	
4	NR						< 10	
5	NR						< 4	
7	3	-0.58					3.40	
9	NR			< 2				
11	4	0.00	6.00					
12	NR						< 20	
13	NR			< 10				
15	4	-0.11		5.50				
16	4	-0.04					5.80	
18	4	0.22					7.00	
23	NR			< 20				
24	4	0.04					6.20	
25	NR						< 4	
29	3	0.90		10.00				
30	4	0.14						6.64
32	4	0.09						6.40
36	2	-1.35	0.01					
37	4	-0.13						5.40
39	4	-0.22					5.00	
42	4	-0.27						4.80
46	NR						< 8	
50	4	-0.45				4.00		
52	2	1.48						12.60
57	NR			< 20				
58	0	2.25		16.00				
59	4	-0.20					5.10	
61	NR						< 10	
63	2	1.12						11.00
68	2	1.12						11.00
70	NR						< 10	
73	4	-0.45					4.00	
75	4	-0.16					5.30	
78	4	0.22				7.00		
79	1	1.80						14.00
81	4	-0.45					4.00	
85	4	-0.22		5.00				
86	4	0.41						7.83
87	3	0.90		10.00				
89	NR			< 40				
90	3	-0.67		3.00				
94	3	0.56					8.50	
96	3	0.90		10.00				
97	3	-0.54				3.59		
101	4	0.34					7.50	
102	4	-0.34					4.50	
103	4	-0.34					4.50	
107	3	-0.67		3.00				
111	3	-0.58			3.40			

Lab	Rating	Z-value	0	1	2	3	4	6
113	2	1.01		10.50				
114	3	0.90		10.00				
116	NR							< 5
119	3	0.67						9.00
121	3	-0.67						3.00
122	NR							< 5
124	NR			< 10				
127	4	-0.24		4.94				
133	4	0.02						6.10
134	4	-0.16						5.30
138	4	-0.22						5.00
139	NR			< 10				
140	4	0.23		7.04				
141	4	0.33						7.47
145	NR							< 0.7
151	NR			< 20				
161	NR							< 5
179	NR			< 5				
180	3	-0.79						2.50
182	1	2.02		15.00				
184	NR							< 10
189	NR							< 20
190	3	0.89		9.95				
193	NR			< 25				
196	4	-0.34						4.48
198	NR							< 50
202	3	0.79						9.50

Table 13. *Statistical summary of reported data for standard reference sample T-125 (trace constituents)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

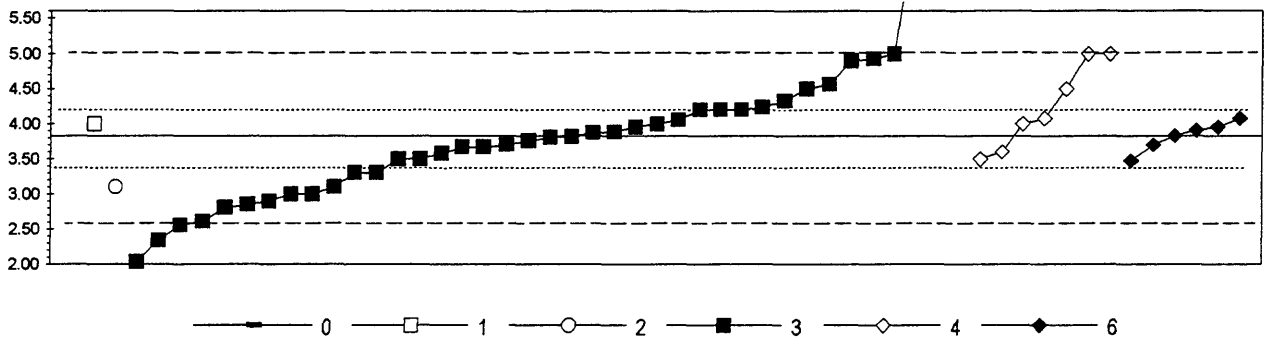
0. Other/Not reported	=	
1. AA: direct, air	=	atomic absorption: direct,air
2. AA: direct, N ₂ O	=	atomic absorption: direct,nitrous oxide
3. AA: graphite furnace	=	atomic absorption: graphite furnace
4. ICP	=	inductively coupled plasma
5. DCP	=	direct coupled plasma
6. MS/ICP	=	mass spectrometry/inductively coupled plasma
10. AA: extraction	=	atomic absorption: extraction [chelating agent(s) specified]
11. AA: hydride	=	atomic absorption: hydride [reducing agent specified]
22. Color:	=	colorimetric [color reagent specified]

Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	95% confidence most probable value
F-pseudosigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
μ g/L	=	micrograms per liter
mg/L	=	milligrams per liter
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>	<u>page</u>	<u>Constituent</u>	<u>page</u>
Ag Silver	70	Li Lithium	83
Al Aluminium	71	Mg Magnesium	84
As Arsenic	72	Mn Manganese	85
B Boron	73	Mo Molybdenum	86
Ba Barium	74	Na Sodium	87
Be Beryllium	75	Ni Nickel	88
Ca Calcium	76	Pb Lead	89
Cd Cadmium	77	Sb Antimony	90
Co Cobalt	78	Se Selenium	91
Cr Chromium	79	SiO ₂ Silica	92
Cu Copper	80	Sr Strontium	93
Fe Iron	81	V Vanadium	94
K Potassium	82	Zn Zinc	95

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
 Ag (Silver) $\mu\text{g/L}$



0. Other	3. AA: graphite furnace
1. AA: direct air	4. ICP
2. AA: direct nitrous oxide	6. ICP/MS
N = 1 1 1 39 7 6	
Minimum = 0.00 4.00 3.10 2.04 3.50 3.47	
Maximum = 25.60 5.00 4.07	
Median = 3.73 4.08	
St Dev = 0.732 0.614	

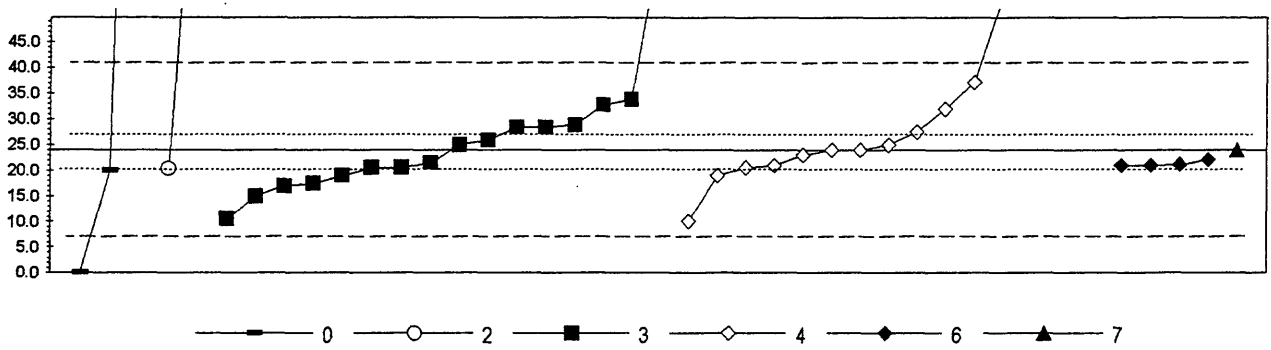
MPV = 3.83
 F-pseudostigma = 0.604
 N = 55
 Hu = 4.20
 Hl = 3.39

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	0.00						3.83
3	3	0.61				4.20		
5	4	0.41					4.08	
7	1	1.94					5.00	
11	2	-1.21			3.10			
12	3	-0.88				3.30		
13	1	-1.54				2.90		
15	4	0.08				3.88		
16	1	1.94					5.00	
23	4	-0.28				3.66		
25	NR							< 6
29	3	0.61				4.20		
30	4	0.21						3.95
32	4	0.40						4.07
36	0	-6.34	0.00					
37	3	-0.60						3.47
42	4	-0.22						3.70
45	4	-0.28				3.66		
46	0	-2.10				2.56		
52	4	-0.43				3.57		
55	3	-0.88				3.30		
58	0	5.25				7.00		
59	4	0.28					4.00	
61	NR							< 10
63	2	-1.21				3.10		
68	3	-0.55				3.50		
69	4	-0.02				3.82		
70	3	0.83				4.33		
76	1	-2.02				2.61		
78	3	0.61				4.20		
79	3	-0.55				3.50		
85	NR			< 5				
87	0			< 2				
89	2	1.21				4.56		
90	0	-2.96				2.04		
94	3	-0.55						3.50
97	0	-2.47				2.34		
101	4	-0.38						3.60
107	4	0.36				4.05		
113	4	-0.13				3.75		
118	2	-1.37				3.00		
119	4	0.28				4.00		
120	1	-1.62				2.85		
122	1	1.94				5.00		
124	NR		< 20					
127	4	0.07				3.87		
133	2	1.11						4.50
134	4	-0.05				3.80		
138	3	0.66				4.23		
141	2	-1.37				3.00		

Lab	Rating	Z-value	0	1	2	3	4	6
142	4	-0.22						3.70
149	0	36.03						25.60
151	NR			< 10				
153	0	4.92						6.80
161	NR							< 50
180	NR							< 4.8
182	4	0.28		4.00				
183	2	1.11						4.50
184	NR							< 5
189	1	1.77						4.90
190	4	0.20						3.95
193	1	-1.70						2.80
196a	4	0.13						
196b	1	1.80						3.91

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

Al (Aluminum) μ g/L



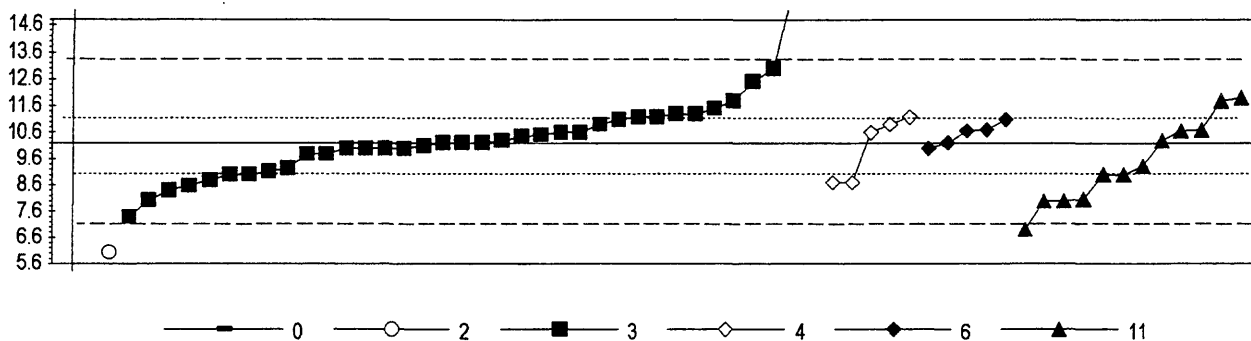
0. Other	4. ICP				
2. AA: direct nitrous oxide	6. ICP/MS				
3. AA: graphite furnace	7. IC				
N = 3	2	16	15	4	1
Minimum = 0.0	20.3	10.4	10.0	20.9	24.0
Maximum = 225.0	100.0	66.0	115.0	22.1	
Median =		21.5	24.0		
St Dev =		6.75	7.03		

MPV = 24.0
 F-pseudostigma = 8.56
 N = 41
 Hu = 32.0
 HI = 20.5

Lab	Rating	Z-value	0	2	3	4	6	7
1	4	-0.41				20.5		
3	1	-1.64				10.0		
4	0	6.31				78.0		
5	1	1.54				37.2		
7	4	-0.35				21.0		
8	4	0.00				24.0		
11	4	0.00						24.0
12	NR					< 100		
13	4	-0.43		20.3				
15	3	-0.58			19.0			
16	0	7.94				92.0		
23	4	-0.29			21.5			
25	NR					< 19		
29	0	8.88		100.0				
30	4	-0.35					21.0	
32	4	-0.22					22.1	
33	4	-0.47	20.0					
36	0	-2.80	0.0					
37	4	-0.36					20.9	
45	4	0.21			25.8			
46	4	-0.12				23.0		
52	3	0.51			28.4			
58	0	4.91			66.0			
59	3	-0.58				19.0		
61	NR					< 50		
63	NR					< 100		
69	4	0.12			25.0			
70	NR					< 50		
78	3	-0.82			17.0			
85	4	0.12				25.0		
89	NR				< 100			
94	4	0.00				24.0		
97	1	-1.59			10.4			
101	0	10.63				115.0		
107	2	1.14			33.8			
113	3	-0.78			17.3			
116	NR					< 100		
119	2	-1.05			15.0			
120	2	1.02			32.7			
122	3	0.57			28.9			
124	NR		< 100					
127	4	-0.41			20.5			
134	3	0.93				32.0		
139	NR			< 500				
141	4	0.41				27.5		
145	NR					< 13.4		
161	NR					< 100		
180	NR					< 24.2		
182	0	23.48	225.0					
183	3	0.51			28.4			

Lab	Rating	Z-value	0	2	3	4	6	7
184	NR					< 200		
189	0	3.62				55.0		
190	4	-0.41			20.5			
196	4	-0.34					21.1	

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
As (Arsenic) μ g/L



0. Other	4. ICP
2. AA: direct nitrous oxide	6. ICP/MS
3. AA: graphite furnace	11. AA: hydride
N = 2	1 36 5 5 12
Minimum = 0.0	6.0 7.4 8.7 10.0 6.9
Maximum = 300.0	18.6 11.2 11.1 11.9
Median =	10.2 9.2
St Dev =	1.22 1.60

MPV = 10.2
F-pseudostigma = 1.54
N = 61
Hu = 11.1
HI = 9.0

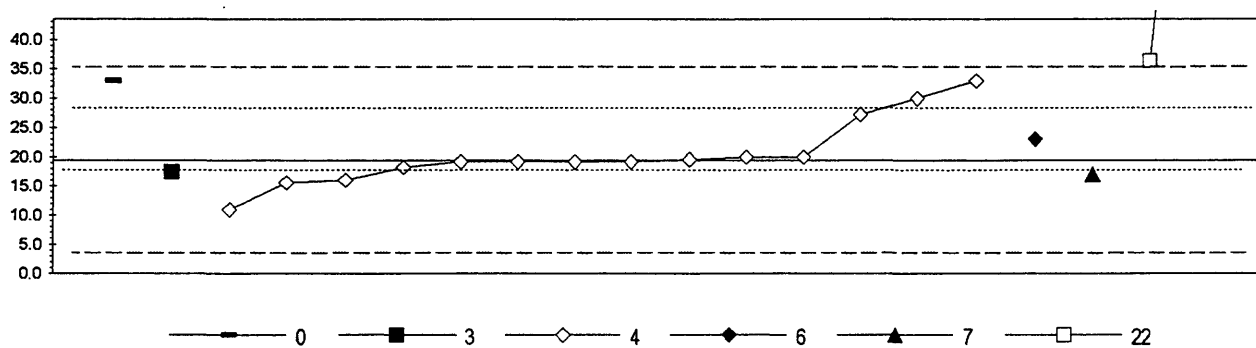
Lab	Rating	Z-value	0	2	3	4	6	11
1	3	0.57					11.1	
3	2	-1.41			8.0			8.0
8	2	-1.43						
10	4	0.26			10.6			
11	0	-2.70	6.0					
12	4	-0.13			10.0			
13	4	0.06			10.3			
15	2	-1.05			8.6			
16	3	0.65			11.2			
23	3	0.71			11.3			
25	NR					< 50		
29	0	5.45			18.6			
32	4	0.00					10.2	
36	0	-6.60	0.0					
37	4	0.32					10.7	
39	3	-0.78						9.0
42	4	-0.13					10.0	
45	4	0.00			10.2			
46	4	0.26			10.6			
51	0	3.76			16.0			
52	4	0.45			10.9			
55	3	-0.91			8.8			
58	0	-2.14						6.9
59	3	-0.97				8.7		
61	3	-0.78			9.0			
63	3	0.84			11.5			
68	4	-0.13			10.0			
69	3	-0.71			9.1			
70	3	0.65			11.2			
76	2	1.04			11.8			
78	4	0.00			10.2			
79	2	-1.17			8.4			
85	4	0.06						10.3
89	4	0.29						10.7
90	4	0.16			10.5			
94	1	-1.82			7.4			
97	2	-1.39						8.1
107	3	0.58			11.1			
109	4	-0.27			9.8			
113	4	0.19			10.5			
118	3	0.71			11.3			
119	2	-1.43						8.0
120	2	1.10						11.9
122	2	1.04						11.8
124	0	187.95	300.0					
127	4	-0.27			9.8			
133	1	1.82			13.0			
134	4	0.32						10.7
138	4	0.00			10.2			
139	2	1.49			12.5			

Lab	Rating	Z-value	0	2	3	4	6	11
141	3	0.65						11.2
142	3	-0.62			9.3			
145	3	-0.97				8.7		
151	3	-0.56						9.3
161	NR					< 100		
180	4	0.45				10.9		
182	3	-0.78						9.0
183	4	-0.13			10.0			
184	4	0.26				10.6		
189	4	-0.13			10.0			
190	4	-0.06			10.1			
193	3	-0.78			9.0			
196	4	0.29						10.7

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued

B (Boron)

μ g/L



0. Other	6. ICP/MS					
3. AA: graphite furnace	7. IC					
4. ICP	22. Colorimetric					
	N = 3	3	14	1	1	3
Minimum =	32.9	0.0	11.0	23.0	17.0	36.3
Maximum =	125.0	17.4	32.9			125.0
Median =			19.2			
St Dev =			5.80			

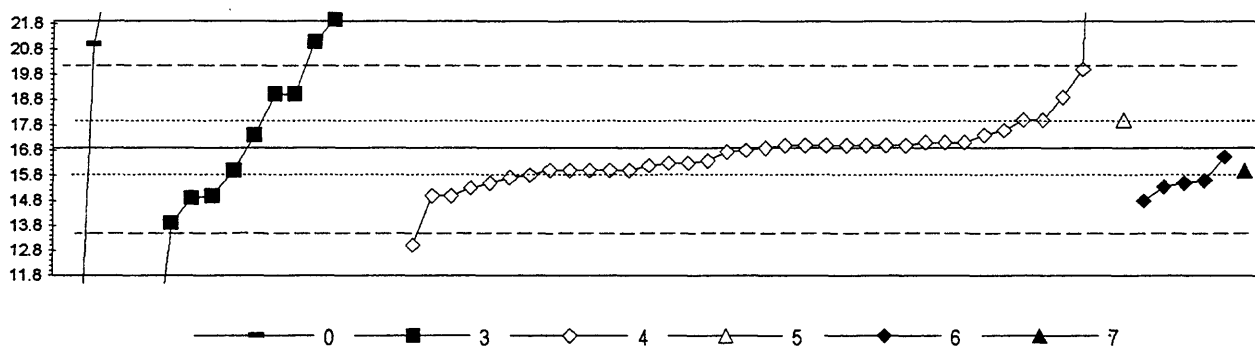
MPV = 19.4
 F-pseudostigma = 8.02
 N = 20
 Hu = 28.6
 HI = 17.8

Lab	Rating	Z-value	0	3	4	6	7	22
1	4	-0.02			19.2			
3	2	-1.04			11.0			
4	4	0.08			20.0			
11	4	-0.29					17.0	
15	4	-0.02			19.2			
16	NR				< 500			
25	4	-0.47			15.6			
32	4	0.45				23.0		
45	0	2.11						36.3
46	3	0.98			27.2			
52	NR				< 300			
58	0	13.17						125.0
61	NR				< 50			
63	NR				< 100			
70	NR				< 50			
75	4	0.02			19.5			
85	NR				< 20			
94	4	0.08			20.0			
109	1	1.69	32.9					
116	4	-0.42			16.0			
119	2	1.33			30.0			
122	0							< 0.1
124	NR		< 50					
127	4	-0.02			19.2			
134	NR				< 20			
141	NR				< 10			
142	1	1.69			32.9			
145	4	-0.15			18.2			
153	4	-0.24		17.4				
180	4	-0.02			19.2			
189	NR				< 10			

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued

Ba (Barium)

μ g/L



0. Other	5. DCP				
3. AA: graphite furnace	6. ICP/MS				
4. ICP	7. IC				
N = 4	13	36	1	5	1
Minimum = 0.0	6.2	13.0	18.0	14.8	16.0
Maximum = 60.0	29.0	45.0		16.5	
Median = 16.8					
St Dev = 1.20					

MPV = 16.9
 F-pseudosigma = 1.67
 N = 60
 Hu = 18.0
 HI = 15.8

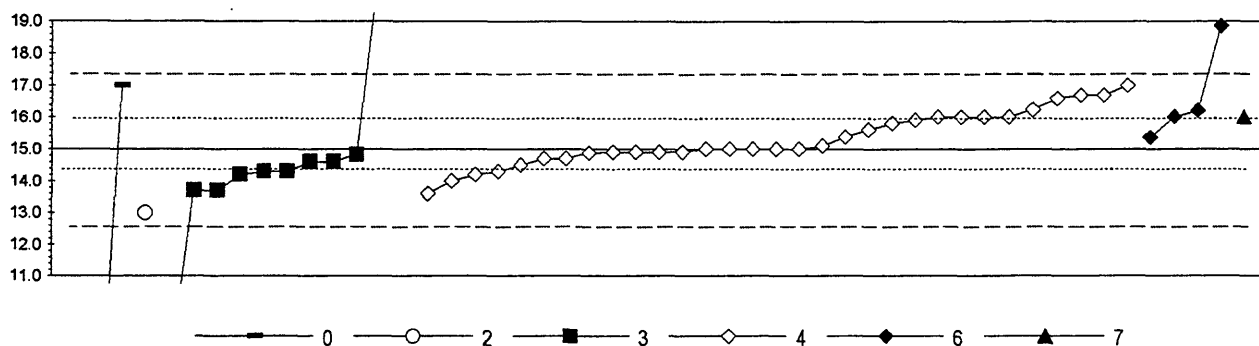
Lab	Rating	Z-value	0	3	4	5	6	7
1	4	-0.34			16.3			
3	3	-0.93			15.3			
4	3	0.69			18.0			
5	4	-0.40			16.2			
7	3	-0.81			15.5			
8	4	-0.33			16.3			
11	3	-0.51						16.0
13	2	1.29		19.0				
15	2	1.23			18.9			
16	3	-0.51			16.0			
23	NR		< 100					
25	4	0.03			16.9			
29	0	4.89	25.0					
30	3	-0.90					15.4	
32	3	-0.75					15.6	
33	3	0.69				18.0		
36	0	-10.09	0.0					
37	3	-0.81					15.5	
39	4	0.09			17.0			
42	2	-1.23					14.8	
45	4	0.33			17.4			
46	4	0.09			17.0			
52	0	2.55	21.1					
55	2	-1.11			15.0			
58	0	7.28	29.0					
59	3	-0.51			16.0			
61	3	-0.69			15.7			
63	0	16.88			45.0			
68	3	0.69			18.0			
69	0	3.09	22.0					
70	4	0.09			17.0			
75	4	-0.27			16.4			
78	2	1.29		19.0				
85	4	0.09			17.0			
87	NR		<40					
89	NR		< 100					
90	0	2.48	21.0					
94	3	-0.51			16.0			
97	0	3.57	22.8					
101	3	-0.63			15.8			
107	3	-0.51			16.0			
116	4	0.09			17.0			
119	1	1.89			20.0			
120	0	5.79	26.5					
122	2	-1.17	14.9					
124	0		< 10					
127	3	-0.51			16.0			
133	4	-0.03			16.8			
134	0	-2.31			13.0			
138	4	0.15			17.1			

Lab	Rating	Z-value	0	3	4	5	6	7
141	4	0.15			17.1			
142	4	-0.07			16.7			
145	4	0.15			17.1			
146	3	-0.51			16.0			
151	1	-1.77		13.9				
153	4	0.33		17.4				
161	4	0.09			17.0			
180	4	0.09			17.0			
182	0	25.87	60.0					
183	0	-6.39		6.2				
184	4	0.45			17.6			
189	2	-1.11			15.0			
193	2	-1.11		15.0				
196	4	-0.19					16.5	

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

Be (Beryllium)

μ g/L



0. Other	4. ICP					
2. AA: direct nitrous oxide	6. ICP/MS					
3. AA: graphite furnace	7. IC					
N = 3	1	11	31	4	1	
Minimum = 0.0	13.0	8.0	13.6	15.4	16.0	
Maximum = 17.0		25.0	17.0	18.9		
Median =		14.3	15.0			
St Dev =		0.41	0.85			

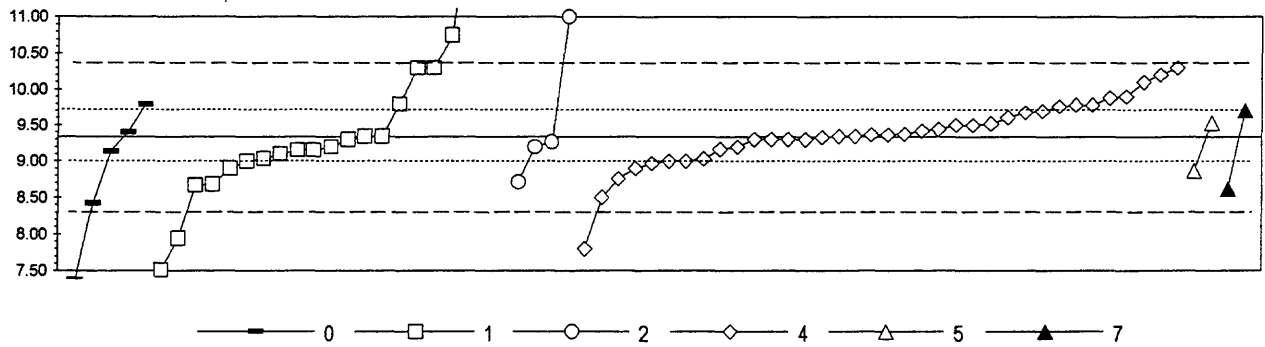
MPV = 15.0
 F-pseudostigma = 1.19
 N = 51
 Hu = 16.0
 HI = 14.4

Lab	Rating	Z-value	0	2	3	4	6	7
1	4	-0.10				14.9		
3	3	-0.67				14.2		
4	3	0.84				16.0		
5	4	-0.07				14.9		
7	2	-1.18				13.6		
8	2	1.43				16.7		
11	3	0.84						16.0
12	NR					< 20		
15	3	0.67				15.8		
16	2	1.35				16.6		
25	4	-0.08				14.9		
30	0	3.26					18.9	
32	2	1.01					16.2	
36	0	-12.63	0.0					
37	3	0.84					16.0	
39	1	1.89				17.0		
45	4	0.08				15.1		
46	4	-0.42				14.5		
52	0	8.43			25.0			
55	2	-1.10			13.7			
58	0	-5.90			8.0			
61	3	0.84				16.0		
63	2	-1.10			13.7			
68	3	0.84				16.0		
69	4	-0.13			14.8			
70	4	-0.08				14.9		
75	3	-0.59				14.3		
78	3	-0.59			14.3			
79	4	0.00				15.0		
85	4	0.00				15.0		
94	4	0.00				15.0		
97	3	-0.67			14.2			
113	3	-0.59			14.3			
119	4	-0.34			14.6			
120	0	5.23			21.2			
124	1	1.89	17.0					
127	4	0.00				15.0		
133	2	1.43				16.7		
134	3	-0.84				14.0		
138	3	0.76				15.9		
141	4	-0.25				14.7		
142	4	0.32				15.4		
145	2	1.05				16.3		
146	3	0.84				16.0		
151	4	-0.34			14.6			
161	4	0.00				15.0		
180	4	-0.25				14.7		
182	0	-8.43	5.0					
183	1	-1.69		13.0				
184	4	-0.08				14.9		

Lab	Rating	Z-value	0	2	3	4	6	7
189	3	0.51				15.6		
196	4	0.31					15.4	

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

Ca (Calcium) m g/L



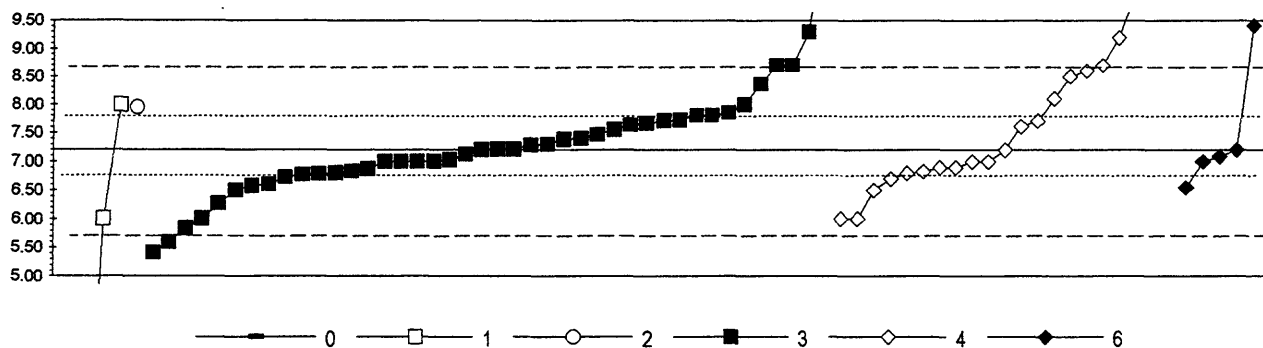
0. Other		4. ICP					
1. AA: direct air		5. DCP					
2. AA: direct nitrous oxide		7. IC					
	N =	5	21	4	36	2	2
	Minimum =	7.37	7.51	8.71	7.80	8.87	8.61
	Maximum =	9.79	19.00	11.00	10.30	9.53	9.71
	Median =	9.16					
	St Dev =	0.680		0.474			

MPV = 9.34
 F-pseudostigma = 0.526
 N = 70
 Hu = 9.71
 HI = 9.00

Lab	Rating	Z-value	0	1	2	4	5	7
1	4	0.05				9.36		
3	4	0.05				9.36		
4	4	-0.01				9.33		
5	4	0.15				9.42		
7	3	0.64				9.67		
8	0	-2.92				7.80		
9	4	-0.26	9.20					
11	3	0.71					9.71	
12	3	-0.64				9.00		
13	4	-0.09	9.29					
15	1	1.64				10.20		
16	3	-0.83				8.90		
19	4	0.03				9.35		
23	2	-1.19			8.71			
25	2	1.45				10.10		
32	4	-0.39	9.13					
33	4	0.37					9.53	
36	0	-3.73	7.37					
42	4	-0.07				9.30		
43	4	0.31				9.50		
45	2	-1.26		8.67				
46	4	0.33				9.51		
51	2	-1.09				8.76		
52	4	0.07				9.37		
55	4	-0.07				9.30		
58	0	-3.47		7.51				
59	4	-0.07				9.30		
61	3	-0.64				9.00		
63	4	0.12	9.40					
68	4	0.50				9.60		
69	3	-0.64		9.00				
70	3	0.67				9.69		
78	0	6.77		12.90				
84	0	-2.65		7.94				
85	4	0.01		9.34				
87	4	-0.26			9.20			
89	1	1.83		10.30				
92	3	0.88		9.80				
94	4	0.31				9.50		
97	3	-0.83		8.90				
101	4	0.03		9.35				
107	0	18.36		19.00				
109	4	-0.35		9.15				
113	4	-0.45		9.10				
116	4	-0.33				9.16		
119	4	-0.07				9.30		
120	2	-1.24		8.68				
122	3	-0.58		9.03				
124	3	0.86	9.79					
127	3	-0.69				8.97		

Lab	Rating	Z-value	0	1	2	4	5	7
133	4	0.03				9.35		
134	4	-0.26				9.20		
138	2	1.07				9.90		
139	0	3.16			11.00			
141	3	0.85				9.78		
142	1	1.83				10.30		
145	2	1.04				9.88		
146	1	-1.59				8.50		
153	2	-1.38						8.61
161	4	0.20				9.44		
164	4	-0.34		9.16				
180	3	0.85				9.78		
182	0	5.44		12.20				
184	3	0.81				9.76		
189	3	-0.58				9.03		
190	1	-1.74	8.42					
193	4	-0.12			9.27			
196	0	2.69		10.75				
197	3	-0.88						8.87
207	1	1.83		10.30				

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued
Cd (Cadmium) μ g/L



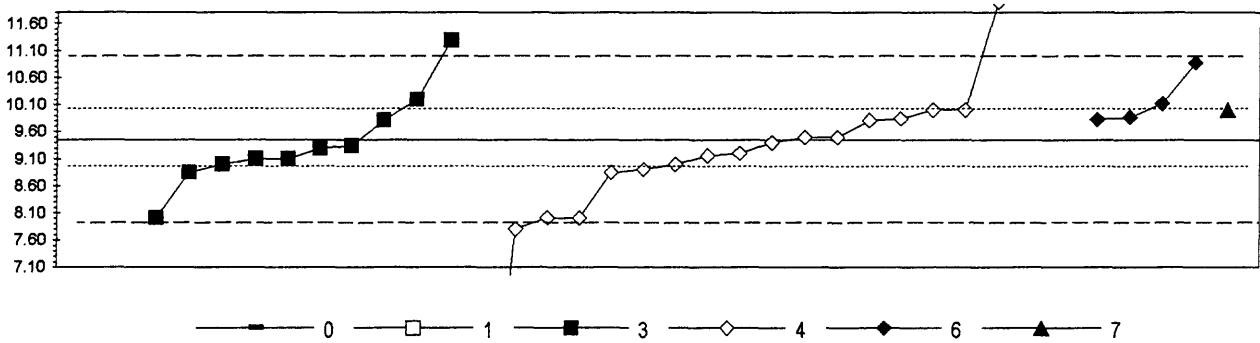
0. Other	3. AA: graphite furnace				
1. AA: direct air	4. ICP				
2. AA: direct nitrous oxide	6. ICP/MS				
N = 1	3	1	42	21	5
Minimum = 0.01	1.00	7.95	5.41	6.00	6.55
Maximum =	8.00		11.60	13.00	9.41
Median =			7.20	7.00	
St Dev =			0.800	0.937	

MPV = 7.20
F-pseudosigma = 0.749
N = 73
Hu = 7.80
Hi = 6.79

Lab	Rating	Z-value	0	1	2	3	4	6
1	4	0.00				7.20		
3	2	1.20					8.10	
4	0	7.75					13.00	
5	3	0.54					7.61	
7	4	0.00					7.20	
8	0	3.74					10.00	
9	4	-0.43				6.88		
10	3	-0.53				6.80		
11	3	1.00		7.95				
12	0	5.88				11.60		
13	4	0.47				7.55		
15	3	-0.57				6.77		
16	3	-0.67					6.70	
19	1	-1.60					6.00	
23	3	-0.83				6.58		
25	1	-1.60					6.00	
29	4	0.27				7.40		
30	0	2.96						9.41
32	3	-0.87						6.55
36	0	-9.61	0.01					
37	4	0.00					7.20	
42	4	-0.27					7.00	
45	3	-0.55				6.79		
46	4	-0.09				7.13		
51	1	-1.60				6.00		
52	4	0.24				7.38		
55	1	2.00				8.70		
58	1	2.00				8.70		
59	4	-0.40					6.90	
61	0	3.74					10.00	
63	4	-0.27				7.00		
69	3	0.71				7.73		
70	1	-1.82				5.84		
73	4	-0.27					7.00	
75	1	2.00					8.70	
76	3	0.87				7.85		
78	3	0.80				7.80		
79	0	2.80				9.30		
85	2	1.07		8.00				
87	0			< 2				
89	3	0.59				7.64		
90	4	0.01				7.21		
94	3	-0.53					6.80	
97	0	-2.39				5.41		
101	3	-0.93					6.50	
107	4	0.11				7.28		
109	4	-0.24				7.02		
113	4	0.03				7.22		
118	4	-0.27				7.00		
119	4	-0.27				7.00		

Lab	Rating	Z-value	0	1	2	3	4	6
120	4	0.35				7.46		
122	3	0.80				7.80		
124	NR		< 10					
127	4	-0.49					6.83	
133	0	2.67					9.20	
134	4	0.13				7.30		
138	4	-0.27				7.00		
139	3	0.63				7.67		
141	3	-0.80				6.60		
142	4	-0.49				6.83		
145	1	1.74					8.50	
146	4	-0.40					6.90	
149	3	0.67				7.70		
151	1	1.55				8.36		
153	2	-1.24				6.27		
161	4	-0.27					7.00	
180	3	0.67					7.70	
182	0	-8.28		1.00				
183	2	1.07				8.00		
184	1	1.87					8.60	
189	0	-2.14				5.60		
190	3	-0.93				6.50		
193	1	-1.60		6.00				
196a	4	-0.15						7.09
196b	3	-0.63				6.73		

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
Co (Cobalt)
 μ g/L

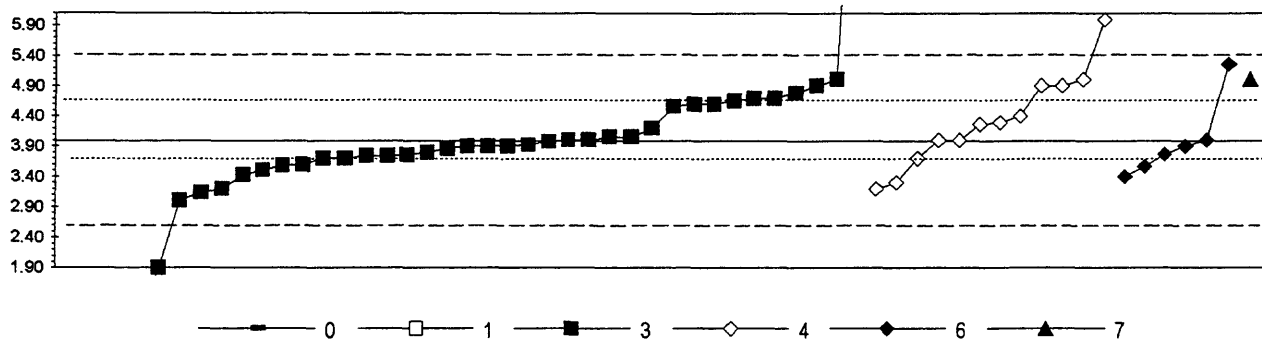


0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	7. IC
N =	1 1 10 19 4 1
Minimum =	0.02 15.00 8.00 2.00 9.83 10.00
Maximum =	11.30 16.00 10.87
Median =	9.20 9.20
St Dev =	0.885 0.721

MPV = 9.45
 F-pseudostigma = 0.778
 N = 36
 Hu = 10.00
 HI = 8.95

Lab	Rating	Z-value	0	1	3	4	6	7
1	1	1.82					10.87	
3	1	-1.86				8.00		
4	0	-9.57				2.00		
5	4	0.50				9.84		
7	4	-0.32				9.20		
8	1	-1.86				8.00		
11	3	0.71						10.00
15	4	-0.14			9.34			
16	0	-2.12				7.80		
25	NR					< 12		
30	3	0.86					10.12	
32	3	0.53					9.86	
36	0	-12.12	0.02					
39	3	0.71				10.00		
46	3	-0.58				9.00		
51	1	-1.86			8.00			
52	3	-0.78			8.84			
55	4	-0.45			9.10			
58	3	-0.58			9.00			
61	4	0.06				9.50		
63	4	-0.06				9.40		
68	0	3.28				12.00		
70	NR					< 50		
75	4	0.45				9.80		
85	NR					< 20		
89	0	2.38			11.30			
94	4	0.06				9.50		
97	3	0.96			10.20			
124	NR		< 10					
127	4	0.46			9.81			
134	4	-0.19			9.30			
138	4	-0.45			9.10			
141	3	-0.77				8.85		
145	4	-0.39				9.15		
161	3	0.71				10.00		
180	3	-0.71				8.90		
182	0	7.13		15.00				
184	0	3.53				12.20		
189	0	8.42				16.00		
193	NR		< 25					
196	4	0.49					9.83	

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
Cr (Chromium) μ g/L



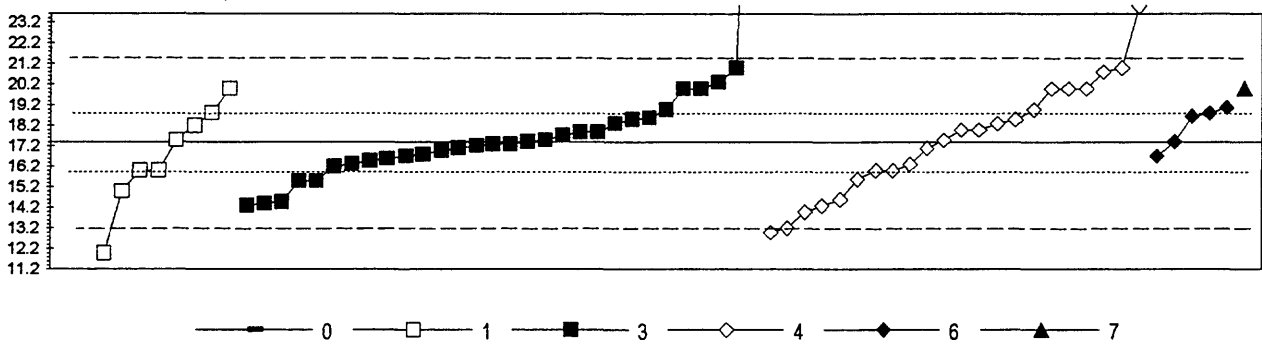
0. Other	4. ICP
1. AA: direct air	6. ICP/MS
3. AA: graphite furnace	7. IC
N = 1	2 36 12 6 1
Minimum = 0.00	7.00 1.10 3.20 3.40 5.00
Maximum = 9.00	10.40 6.00 5.26
Median = 3.90	4.29
St Dev = 0.628	0.789

MPV = 3.99
 F-pseudostigma = 0.712
 N = 58
 Hu = 4.66
 HI = 3.70

Lab	Rating	Z-value	0	1	3	4	6	7
1	3	-0.59					3.57	
3	3	0.58				4.40		
4	0	2.82				6.00		
5	NR					< 10		
7	2	1.42				5.00		
8	4	0.01				4.00		
9	3	-0.80			3.42			
10	3	-0.69			3.50			
11	2	1.42						5.00
12	NR					< 20		
13	3	0.86			4.60			
15	2	1.11			4.78			
16	NR				< 10			
19	4	0.01			4.00			
23	3	0.94			4.66			
25	NR				< 8			
29	0	-2.94			1.90			
30	1	1.78					5.26	
32	4	-0.13					3.90	
36	0	-5.60	0.00					
37	4	-0.31					3.77	
42	3	-0.83					3.40	
45	4	0.08			4.05			
46	3	-0.55			3.60			
51	4	0.01			4.00			
52	4	0.08			4.05			
55	3	1.00			4.70			
58	4	0.01			4.00			
59	4	-0.41				3.70		
61	NR					< 5		
63	NR				< 5			
68	2	1.28				4.90		
69	4	-0.41			3.70			
70	4	-0.08			3.93			
75	2	1.28			4.90			
76	4	-0.01			3.98			
78	4	-0.13			3.90			
79	4	-0.27			3.80			
85	NR				< 10			
89	2	1.42			5.00			
90	2	-1.21			3.13			
94	4	0.44				4.30		
97	4	-0.18			3.86			
101	2	-1.11				3.20		
107	3	0.86			4.60			
113	4	-0.37			3.73			
118	2	-1.11			3.20			
119	4	0.30			4.20			
120	4	-0.35			3.74			
122	3	1.00			4.70			

Lab	Rating	Z-value	0	1	3	4	6	7
124	NR		< 50					
127	4	-0.13			3.90			
133	3	-0.97				3.30		
138	3	0.80			4.56			
139	4	-0.13			3.90			
141	4	0.39				4.27		
142	4	-0.34			3.75			
145	2	1.28				4.90		
151	3	-0.58			3.58			
153	0	-4.06			1.10			
161	NR					< 5		
180	NR					< 3.8		
182	0	7.04		9.00				
183	0	4.23		7.00				
184	NR					< 10		
189	0				< 2			
190	4	-0.41			3.70			
193	2	-1.39			3.00			
196	4	0.01					4.00	
207	0	9.01			10.40			

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
Cu (Copper) $\mu\text{g/L}$



0. Other		4. ICP		5		1	
1. AA: direct air		6. ICP/MS		6		7	
3. AA: graphite furnace		7. IC		3		4	
N =	2	8	30	22	5	20.0	
Minimum =	0.0	12.0	14.3	13.0	16.7	20.0	
Maximum =	10.0	20.0	42.5	24.0	19.1		
Median =		16.8	17.3	17.5			
St Dev =		2.51	1.70	2.49			

MPV = 17.4
 F-pseudosigma = 2.08
 N = 68
 Hu = 18.8
 HI = 16.0

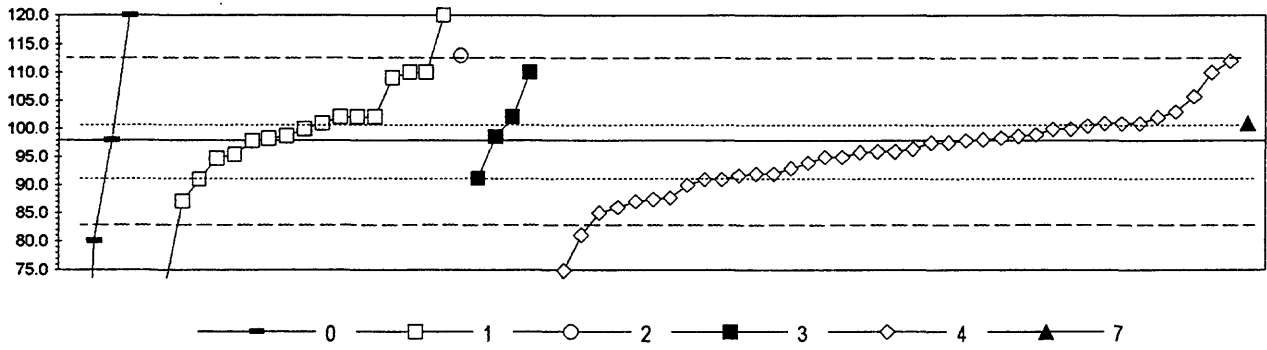
Lab	Rating	Z-value	0	1	3	4	6	7
1	4	0.05			17.5			
3	1	1.74				21.0		
4	3	-0.67				16.0		
5	4	0.44				18.3		
7	2	-1.49				14.3		
8	0	3.18				24.0		
10	4	-0.43			16.5			
11	2	1.26						20.0
12	2	1.26			20.0			
13	NR				< 50			
15	3	0.77			19.0			
16	2	-1.35				14.6		
23	4	0.15			17.7			
25	4	0.29				18.0		
29	0	-2.60		12.0				
30	3	0.60					18.7	
32	3	0.82					19.1	
36	0	-8.37	0.0					
37	4	0.00					17.4	
39	2	1.26				20.0		
42	4	-0.33					16.7	
45	0	12.10			42.5			
46	4	-0.14			17.1			
51	2	1.26			20.0			
52	3	-0.91			15.5			
55	4	-0.05			17.3			
58	1	1.74			21.0			
59	2	1.26				20.0		
61	1	-1.64				14.0		
63	3	0.53			18.5			
68	2	1.26				20.0		
69	4	-0.19			17.0			
70	4	0.05				17.5		
73	3	-0.67				16.0		
75	3	0.53				18.5		
78	4	-0.05			17.3			
79	3	-0.91			15.5			
85	3	0.68		18.8				
87	3	-0.67		16.0				
89	NR				< 10			
90	4	0.05		17.5				
94	0	-2.12				13.0		
97	3	-0.58			16.2			
101	4	-0.14				17.1		
107	2	1.40			20.3			
113	4	0.44			18.3			
118	2	-1.44			14.4			
119	4	0.29				18.0		
120	4	0.00			17.4			
122	4	-0.33			16.7			

Lab	Rating	Z-value	0	1	3	4	6	7
124	0	-3.56	10.0					
127	4	-0.38			16.6			
133	1	-2.02					13.2	
134	3	0.58			18.6			
138	3	-0.53			16.3			
139	4	0.24			17.9			
141	4	0.24			17.9			
142	4	-0.09			17.2			
145	3	-0.53					16.3	
149	3	-0.67		16.0				
151	4	0.39		18.2				
153	4	-0.29			16.8			
161	3	0.77					19.0	
180	3	-0.86					15.6	
182	2	1.26		20.0				
183	2	-1.15		15.0				
184	1	1.64					20.8	
189	2	-1.39			14.5			
190	2	-1.49			14.3			
193	NR			< 25				
196	3	0.68						18.8

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued

Fe (Iron)

μ g/L



0. Other							3. AA: graphite furnace
1. AA: direct air							4. ICP
2. AA: direct nitrous oxide							7. IC
N =	4	18	1	4	40	1	
Minimum =	0.1	9.3	113.0	91.2	54.0	101.0	
Maximum =	120.0	120.0		110.0	112.0		
Median =		100.5			96.3		
St Dev =		8.08			6.60		

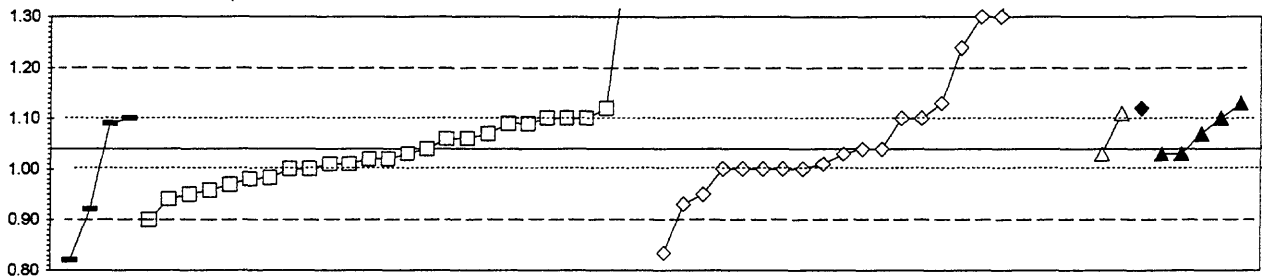
MPV = 97.9
 F-pseudosigma = 7.34
 N = 68
 Hu = 101.0
 HI = 91.1

Lab	Rating	Z-value	0	1	2	3	4	7
1	4	0.07					98.4	
3	3	-0.94					91.0	
4	1	1.92					112.0	
5	4	-0.05					97.5	
7	4	-0.19					96.5	
8	1	-1.62					86.0	
9	2	-1.49	87.0					
10	3	0.56	102.0					
11	4	0.42						101.0
12	2	-1.08					90.0	
13	3	0.56	102.0					
15	3	0.56					102.0	
16	4	-0.26					96.0	
19	3	-0.80					92.0	
21	4	0.01	98.0					
23	4	-0.42		94.8				
25	4	0.11					98.7	
33	0	-2.44	80.0					
36	0	-13.33	0.1					
39	1	1.65					110.0	
42	3	-0.80					92.0	
43	4	0.01					98.0	
45	4	0.10		98.6				
46	4	-0.26					96.0	
51	1	1.51		109.0				
52	2	-1.47					87.1	
55	0	-2.30					81.0	
58	4	0.29		100.0				
59	4	0.42					101.0	
61	4	0.29					100.0	
63	0	-3.53		72.0				
68	4	0.15					99.0	
70	2	-1.38					87.8	
73	4	-0.40					95.0	
75	4	0.29					100.0	
78	4	0.08				98.5		
79	0	-5.98					54.0	
84	1	1.65		110.0				
85	4	0.42					101.0	
87	0	2.06			113.0			
89	3	-0.91				91.2		
90	4	-0.33		95.5				
94	3	-0.67					93.0	
97	3	0.56				102.0		
101	3	0.69					103.0	
107	4	0.05		98.3				
109	4	-0.01		97.8				
113	4	0.42		101.0				
116	3	-0.94					91.0	
119	4	-0.40					95.0	

Lab	Rating	Z-value	0	1	2	3	4	7
122	1	1.65				110.0		
124	0	3.01	120.0					
127	4	0.03					98.1	
133	4	-0.05					97.5	
134	1	-1.76					85.0	
138	2	1.08					105.8	
139	3	-0.94		91.0				
141	4	-0.29					95.8	
142	0	-3.13					74.9	
145	4	0.35					100.5	
146	3	-0.53					94.0	
149	1	1.65		110.0				
161	4	0.42					101.0	
180	3	-0.84					91.7	
182	0	3.01		120.0				
184	2	-1.42					87.5	
189	0						< 50	
190	0	-12.07		9.3				
193	3	0.56		102.0				

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

K (Potassium) **m g/L**



—■— 0 —◇— 1 —△— 4 —○— 5 —◆— 6 —▲— 12

0. Other		5. DCP					
1. AA: direct air		6. ICP/MS					
4. ICP		12. AA: flame emission					
N =	4	26	22	2	1	5	
Minimum =	0.82	0.90	0.84	1.03	1.12	1.03	
Maximum =	1.10	1.70	3.20	1.11		1.13	
Median =		1.02	1.01				
St Dev =		0.059	0.091				

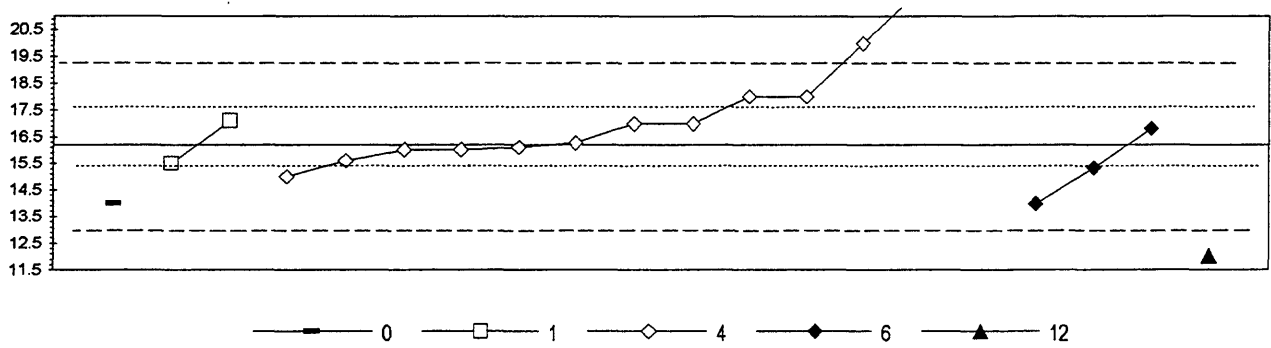
MPV = 1.04
 F-pseudosigma = 0.074
 N = 60
 Hu = 1.10
 HI = 1.00

Lab	Rating	Z-value	0	1	4	5	6	12
1	3	-0.77		0.98				
3	0	29.14			3.20			
7	2	-1.48			0.93			
8	0	6.21			1.50			
9	4	-0.27		1.02				
11	3	0.81		1.10				
12	3	-0.54			1.00			
13	4	0.00		1.04				
15	4	0.00			1.04			
16	3	0.81		1.10				
19	4	-0.13			1.03			
25	NR			< 1.21				
32	2	1.08				1.12		
33	3	0.94				1.11		
36	0	-2.97	0.82					
37	2	-1.11		0.96				
42	3	-0.54			1.00			
43	3	-0.54			1.00			
45	4	0.40		1.07				
46	3	-0.54			1.00			
51	2	1.21						1.13
52	3	-0.54			1.00			
55	4	-0.13						1.03
58	3	0.67		1.09				
59	3	0.81			1.10			
61	NR			< 1				
63	2	-1.21		0.95				
68	0	3.51			1.30			
69	3	0.81						1.10
70	NR			< 1				
78	3	0.81		1.10				
85	2	1.08			1.12			
87	4	-0.40		1.01				
89	4	-0.13		1.03				
92	0	8.90		1.70				
94	4	-0.40			1.01			
97	3	-0.81		0.98				
101	3	0.81	1.10					
107	4	0.40						1.07
109	4	-0.27		1.02				
113	4	-0.40		1.01				
116	0	7.55			1.60			
119	0	3.51			1.30			
120	2	-1.35		0.94				
122	3	-0.54		1.00				
127	4	0.27		1.06				
134	3	-0.54		1.00				
138	4	0.00			1.04			
139	4	-0.13						1.03
141	2	1.21			1.13			

Lab	Rating	Z-value	0	1	4	5	6	12
142	3	0.81			1.10			
145	2	-1.21			0.95			
153	1	-1.62	0.92					
161	NR				< 2			
164	3	-0.95		0.97				
180	0	21.85			2.66			
182	1	-1.89		0.90				
184	0	2.70			1.24			
189	0	-2.77			0.84			
190	3	0.67	1.09					
193	4	0.27		1.06				
196	3	0.67		1.09				
197	4	-0.13					1.03	
207	0	5.26		1.43				

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

Li (Lithium) **μ g/L**



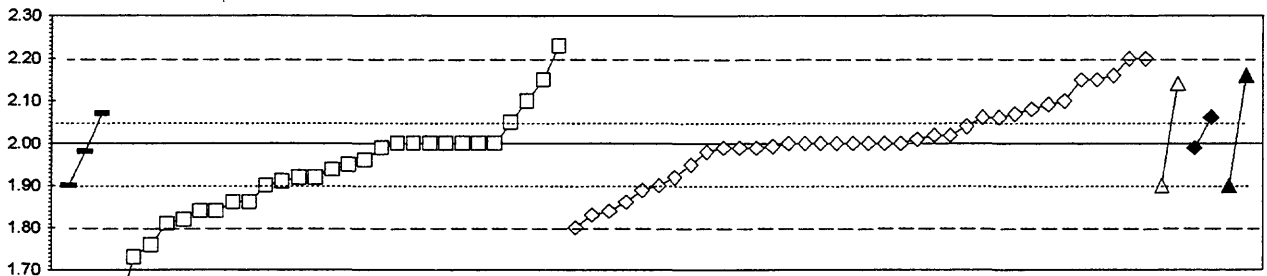
0. Other	6. ICP/MS					
1. AA: direct air	12. Flame emission					
4. ICP	N =	1	2	13	3	1
	Minimum =	14.0	15.5	15.0	14.0	12.0
	Maximum =		17.1	54.0	16.8	
	Median =			16.3		
	St Dev =			1.41		

MPV = 16.2
 F-pseudosigma = 1.58
 N = 20
 Hu = 17.6
 Hl = 15.4

Lab	Rating	Z-value	0	1	4	6	12
1	4	0.06			16.3		
3	0	2.41			20.0		
4	4	-0.12			16.0		
15	3	0.51			17.0		
16	NR				< 500		
25	4	-0.12			16.0		
30	3	-0.54				15.3	
32	4	0.39				16.8	
39	3	0.51			17.0		
42	2	1.15			18.0		
55	0	-2.65					12.0
63	NR		< 100				
68	2	1.15			18.0		
75	4	-0.37			15.6		
85	3	0.58			17.1		
109	4	-0.44			15.5		
116	0	23.95			54.0		
127	4	-0.06			16.1		
134	0	3.68			22.0		
145	3	-0.75			15.0		
182	2	-1.39	14.0				
189	NR				< 500		
196	2	-1.41				14.0	

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

Mg (Magnesium) m g/L



—■— 0 —□— 1 —◇— 4 —△— 5 —◆— 6 —▲— 7

0. Other	5. DCP				
1. AA: direct air	6. ICP/MS				
4. ICP	7. IC				
N = 3	28	36	2	2	2
Minimum = 1.90	1.60	1.80	1.90	1.99	1.90
Maximum = 2.07	2.23	2.20	2.14	2.06	2.16
Median = 1.95	2.00				
St Dev = 0.114	0.097				

MPV = 2.00
 F-pseudostigma = 0.111
 N = 73
 Hu = 2.05
 HI = 1.90

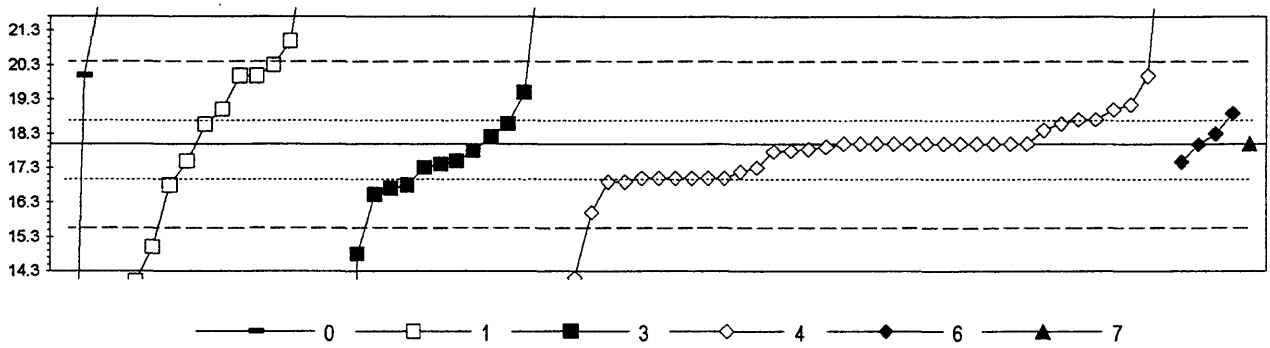
Lab	Rating	Z-value	0	1	4	5	6	7
1	4	0.00		2.00				
3	3	0.72			2.08			
4	4	-0.18			1.98			
5	4	-0.06			1.99			
7	4	-0.09			1.99			
8	1	-1.53			1.83			
9	0	-2.16		1.76				
11	2	1.44						2.16
12	4	0.00			2.00			
13	3	-0.72		1.92				
15	2	1.35			2.15			
16	4	0.00			2.00			
19	2	-1.26			1.86			
23	4	-0.09		1.99				
25	2	1.35			2.15			
30	4	-0.10				1.99		
32	3	0.54				2.06		
33	2	1.26				2.14		
36	3	-0.90	1.90					
39	3	0.63			2.07			
42	4	0.00			2.00			
43	4	0.00			2.00			
45	0	-2.43		1.73				
46	4	-0.09			1.99			
51	4	0.00		2.00				
52	3	-0.72			1.92			
55	2	-1.44			1.84			
58	1	-1.71		1.81				
59	4	0.00			2.00			
61	4	0.00			2.00			
63	1	-1.62		1.82				
68	1	1.80			2.20			
69	4	0.00		2.00				
70	4	0.18			2.02			
75	3	0.90			2.10			
78	4	0.00		2.00				
84	3	-0.90		1.90				
85	4	-0.45		1.95				
87	2	-1.44		1.84				
89	3	0.90		2.10				
92	4	0.00		2.00				
94	3	-0.99			1.89			
97	2	-1.26		1.86				
101	4	0.00		2.00				
107	0	2.07		2.23				
109	4	0.00		2.00				
113	2	1.35		2.15				
116	4	0.00			2.00			
119	4	0.00			2.00			
120	3	-0.72		1.92				

Lab	Rating	Z-value	0	1	4	5	6	7
122	4	-0.36		1.96				
124	4	-0.18	1.98					
127	4	-0.09			1.99			
133	4	-0.45			1.95			
134	3	-0.90			1.90			
138	3	0.81			2.09			
139	3	-0.81		1.91				
141	3	0.54			2.06			
142	1	1.80			2.20			
145	4	0.36			2.04			
146	1	-1.80			1.80			
153	3	-0.90						1.90
161	4	0.18			2.02			
164	3	-0.56		1.94				
180	2	1.44			2.16			
182	0	-3.60		1.60				
184	3	0.54			2.06			
189	4	0.09			2.01			
190	3	0.63	2.07					
193	2	-1.44		1.84				
196	4	0.45		2.05				
197	3	-0.90				1.90		
207	2	-1.26		1.86				

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

Mn (Manganese)

µ g/L



0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
3. AA: graphite furnace	7. IC				
N = 3	13	13	37	4	1
Minimum = 0.1	9.0	1.7	2.4	17.5	18.0
Maximum = 22.5	30.4	24.0	25.0	18.9	
Median = 19.0	17.4	18.0			
St Dev = 1.94	1.23	0.79			

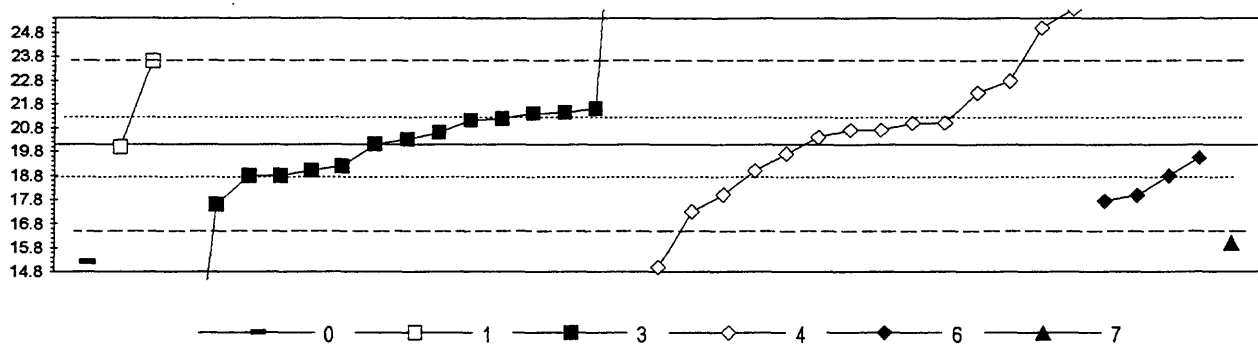
MPV = 18.0
 F-pseudostigma = 1.22
 N = 71
 Hu = 18.7
 HI = 17.0

Lab	Rating	Z-value	0	1	3	4	6	7
1	4	-0.13				17.8		
3	4	0.00				18.0		
4	4	0.00				18.0		
5	4	-0.18				17.8		
7	4	-0.16				17.8		
8	0	-12.75				2.4		
9	0	-2.62			14.8			
10	0	2.45		21.0				
11	4	0.00						18.0
12	NR					< 20		
13	1	1.88		20.3				
15	1	1.64				20.0		
16	3	-0.82				17.0		
19	3	-0.82				17.0		
23	3	-0.57			17.3			
25	3	-0.82				17.0		
29	0	-3.27		14.0				
30	4	-0.02					18.0	
32	3	0.74					18.9	
33	0	3.68	22.5					
36	0	-14.67	0.1					
37	4	0.25					18.3	
39	3	0.82				19.0		
42	3	-0.57				17.3		
43	4	0.00				18.0		
46	4	0.00				18.0		
51	0	4.91			24.0			
52	3	-0.90				16.9		
55	0	-3.19				14.1		
58	0	4.91		24.0				
59	4	0.00				18.0		
61	4	0.00				18.0		
63	3	-0.82				17.0		
70	4	0.00				18.0		
75	4	0.33				18.4		
76	3	-0.98		16.8				
78	3	-0.98			16.8			
79	0	5.72				25.0		
84	1	1.64		20.0				
85	3	0.82		19.0				
89	4	0.49				18.6		
90	4	-0.41		17.5				
94	3	-0.82				17.0		
97	4	-0.16				17.8		
101	3	-0.90				16.9		
107	4	-0.49				17.4		
109	4	0.47		18.6				
113	4	0.16			18.2			
116	4	0.00				18.0		
119	4	0.00				18.0		

Lab	Rating	Z-value	0	1	3	4	6	7
120	0	-13.33				1.7		
122	2	-1.06				16.7		
124	1	1.64	20.0					
127	3	-0.65					17.2	
134	4	0.00					18.0	
138	3	0.57					18.7	
139	0			< 10				
141	3	0.57					18.7	
142	4	-0.08					17.9	
145	3	0.94					19.2	
146	1	-1.64					16.0	
149	0	-7.36		9.0				
151	0	10.14		30.4				
153	2	1.23				19.5		
161	4	0.00					18.0	
180	4	0.49					18.6	
182	0	-2.45		15.0				
183	1	1.64		20.0				
184	4	0.00					18.0	
189	3	-0.82					17.0	
190	2	-1.23				16.5		
196a	4	-0.43					17.5	
196b	4	-0.42				17.5		

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued

Mo (Molybdenum) μ g/L



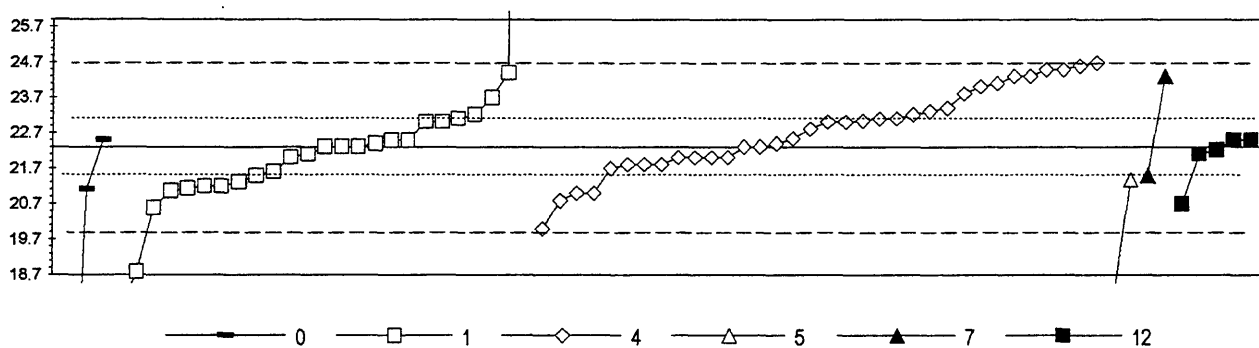
0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
3. AA: graphite furnace	7. IC				
N = 1	2	15	14	4	1
Minimum = 15.2	20.0	6.0	15.0	17.7	16.0
Maximum =	23.6	41.0	25.8	19.5	
Median =		20.3	20.7		
St Dev =		1.29	2.55		

MPV = 20.1
 F-pseudosigma = 1.78
 N = 37
 Hu = 21.2
 Hl = 18.8

Lab	Rating	Z-value	0	1	3	4	6	7
1	4	0.00			20.1			
3	3	0.51				21.0		
4	NR					< 20		
5	4	0.17				20.4		
7	1	-1.57				17.3		
8	4	0.34				20.7		
11	0	-2.30						16.0
12	NR					< 30		
15	4	0.28			20.6			
16	0	3.20				25.8		
23	NR		< 100					
29	0	-2.75	15.2					
30	4	-0.32						19.5
32	2	-1.19						18.0
39	2	-1.18				18.0		
42	3	-0.73					18.8	
45	3	0.73			21.4			
52	3	0.62			21.2			
58	0	11.75			41.0			
61	NR					< 50		
63	3	-0.51			19.2			
68	0	2.75				25.0		
70	NR					< 50		
75	4	0.34				20.7		
85	NR					< 20		
94	2	-1.41			17.6			
97	4	0.11			20.3			
109	3	0.85			21.6			
119	2	1.24				22.3		
120	3	0.56			21.1			
124	NR		< 20					
127	3	-0.73			18.8			
134	0	-2.87				15.0		
138	3	-0.62			19.0			
141	1	1.52				22.8		
142	3	0.75			21.4			
145	3	0.51				21.0		
146	3	-0.62				19.0		
151	3	-0.73			18.8			
161	NR					< 50		
180	4	-0.22				19.7		
182	4	-0.06		20.0				
189	0					< 10		
196a	2	-1.33					17.7	
196b	1	1.98		23.6				
207	0	-7.94			6.0			

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued

Na (Sodium) m g/L



0. Other		5. DCP					
1. AA: direct air		7. Ion chromatography					
4. ICP		12. AA: flame emission					
N =	3	25	34	2	2	5	
Minimum =	10.7	17.6	20.0	18.0	21.5	20.7	
Maximum =	22.5	122.0	24.7	21.4	24.3	22.5	
Median =		22.3	22.9				
St Dev =		1.17	1.21				

MPV = 22.3
 F-pseudostigma = 1.19
 N = 71
 Hu = 23.1
 HI = 21.5

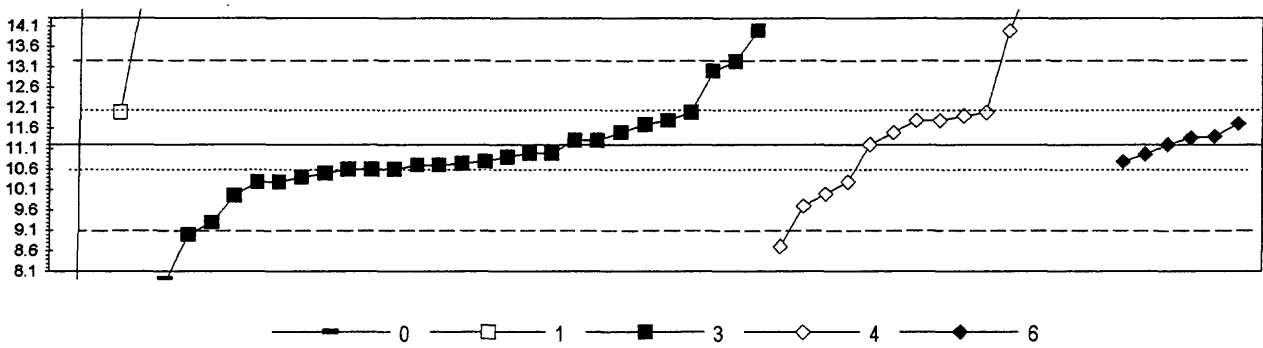
Lab	Rating	Z-value	0	1	4	5	7	12
1	4	0.19			22.5			
3	2	1.26			23.8			
4	4	-0.42			21.8			
5	3	0.62			23.0			
7	4	0.00			22.3			
8	2	1.43			24.0			
9	3	0.76		23.2				
11	1	1.69				24.3		
12	2	-1.10			21.0			
13	4	0.00		22.3				
15	1	1.94			24.6			
16	1	1.69			24.3			
19	4	-0.25			22.0			
23	3	-0.67		21.5				
25	1	1.52			24.1			
33	0	-3.63				18.0		
36	2	-1.01	21.1					
39	3	0.76			23.2			
42	4	-0.42			21.8			
43	3	0.67			23.1			
45	4	0.00		22.3				
46	4	-0.25			22.0			
51	4	0.17						22.5
52	4	0.08			22.4			
55	4	-0.17						22.1
58	0	84.06		122.0				
59	4	-0.25			22.0			
61	3	0.59			23.0			
63	1	-1.94			20.0			
68	3	0.59			23.0			
69	2	-1.35						20.7
70	4	0.42			22.8			
75	3	-0.51			21.7			
76	4	0.17		22.5				
78	3	0.59			23.0			
84	4	-0.08						22.2
85	4	-0.17			22.1			
87	2	-1.43			20.6			
89	3	0.59			23.0			
90	4	0.08			22.4			
92	2	1.18			23.7			
94	4	-0.41			21.8			
97	3	-0.93			21.2			
101	4	0.17			22.5			
107	3	-0.84			21.3			
109	3	-0.99			21.1			
113	3	0.67			23.1			
116	2	-1.26			20.8			
119	0	-9.78	10.7					
120	4	0.00		22.3				

Lab	Rating	Z-value	0	1	4	5	7	12
122	1	1.77		24.4				
127	4	-0.25			22.0			
134	4	-0.25		22.0				
138	3	0.93			23.4			
139	4	0.17						22.5
141	1	1.69			24.3			
142	1	1.85			24.5			
145	3	0.86			23.3			
146	2	-1.10			21.0			
153	3	-0.67						21.5
161	4	0.00			22.3			
164	2	-1.04		21.1				
180	3	0.67			23.1			
182	0	-3.93		17.6				
183	3	-0.59		21.6				
184	1	1.85			24.5			
189	1	2.02			24.7			
190	4	0.17		22.5				
193	3	-0.93		21.2				
197	3	-0.78						21.4
207	0	-2.95		18.8				

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

Ni (Nickel)

μ g/L



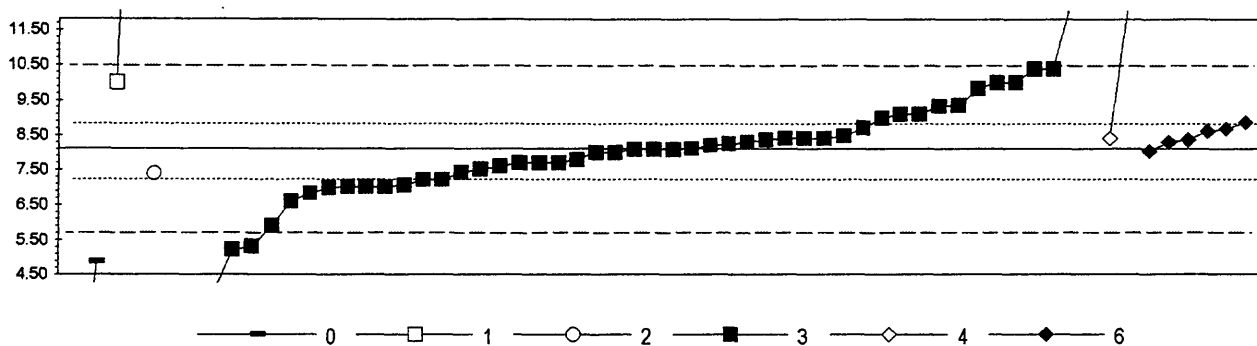
0. Other	4. ICP					
1. AA: direct air	6. ICP/MS					
3. AA: graphite furnace	N =	2	2	27	15	6
	Minimum =	0.0	12.0	7.8	8.7	10.8
	Maximum =	50.0	15.0	14.0	23.0	11.7
	Median =			10.8	11.5	
	St Dev =			1.11	1.43	

MPV = 11.2
 F-pseudosigma = 1.04
 N = 52
 Hu = 12.0
 HI = 10.6

Lab	Rating	Z-value	0	1	3	4	6
1	4	-0.22					11.0
3	0	8.48				20.0	
4	NR					< 20	
7	0	3.95				15.3	
8	0	11.37				23.0	
9	3	-0.87			10.3		
12	NR				< 20		
13	NR		< 50				
15	4	0.10			11.3		
16	NR				< 25		
23	NR				< 20		
25	NR				< 49		
30	4	0.49					11.7
32	4	-0.39					10.8
36	0	-10.78	0.0				
37	4	0.00					11.2
42	4	0.19					11.4
45	3	-0.67			10.5		
46	3	-0.87				10.3	
51	3	0.77			12.0		
52	4	-0.29			10.9		
55	4	-0.48			10.7		
58	4	-0.48			10.7		
59	3	0.67				11.9	
61	NR					< 25	
63	3	0.58			11.8		
68	0	2.70				14.0	
69	4	-0.19			11.0		
70	NR					< 50	
73	2	-1.16				10.0	
78	3	-0.58			10.6		
79	0	2.70			14.0		
85	NR					< 20	
87	3	0.77		12.0			
89	0	-3.28			7.8		
90	4	0.29			11.5		
94	3	0.77				12.0	
97	1	1.73			13.0		
101	3	0.58				11.8	
107	3	-0.58			10.6		
113	3	-0.58			10.6		
118	3	-0.87			10.3		
119	2	-1.45				9.7	
120	1	-1.83			9.3		
124	0	37.39	50.0				
127	4	-0.39			10.8		
133	3	0.58				11.8	
134	3	-0.77			10.4		
138	4	0.48			11.7		
139	NR		< 40				

Lab	Rating	Z-value	0	1	3	4	6
141	4	0.00					11.2
142	4	0.10				11.3	
145	0	-2.41					8.7
151	2	-1.19			10.0		
161	0	4.63					16.0
180	4	0.29					11.5
182	0	3.66		15.0			
183	0	-2.12			9.0		
184	NR						< 10
189	NR						< 20
190	4	-0.43				10.8	
193	4	-0.19				11.0	
196a	4	0.16					11.4
196b	1	1.98			13.3		

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
Pb (Lead) μ g/L



0. Other	3. AA: graphite furnace					
1. AA: direct air	4. ICP					
2. AA: direct nitrous oxide	6. ICP/MS					
N =	2	2	1	49	2	6
Minimum =	0.01	10.00	7.40	1.30	8.40	8.03
Maximum =	4.88	24.00		22.80	12.60	8.86
Median =	8.10					
St Dev =	1.196					

MPV = 8.11
 F-pseudostigma = 1.216
 N = 62
 Hu = 8.86
 HI = 7.22

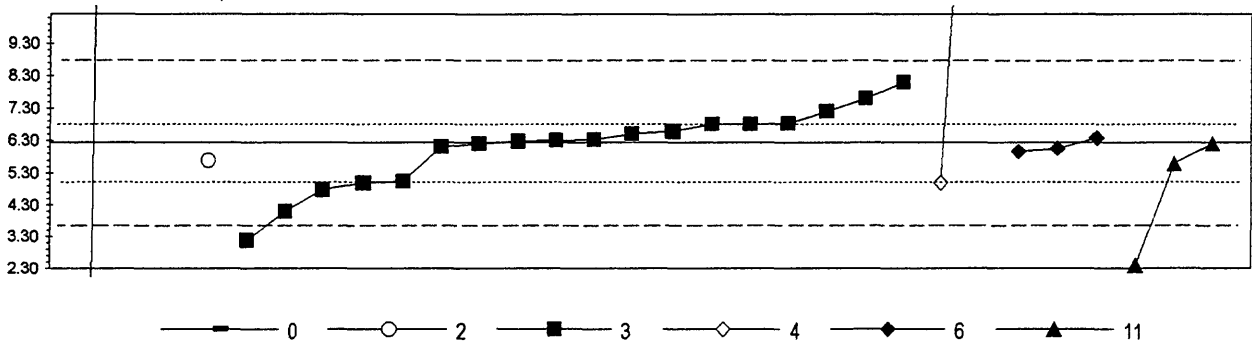
Lab	Rating	Z-value	0	1	2	3	4	6
1	4	0.22						8.37
3	1	1.56				10.00		
4	NR							< 20
9	4	0.30				8.47		
10	4	-0.25				7.80		
11	3	-0.58		7.40				
12	NR					< 10		
13	0	-2.39				5.20		
15	4	0.00				8.11		
16	4	-0.33				7.70		
23	2	-1.23				6.61		
25	NR							< 71
29	0	12.09				22.80		
30	4	0.41						8.61
32	4	0.47						8.68
33	0	-2.65	4.88					
36	0	-6.66	0.01					
37	3	0.62						8.86
42	4	0.16						8.30
45	3	-0.73				7.22		
46	0	-5.60				1.30		
51	3	-0.91				7.00		
52	1	1.89				10.40		
55	4	0.24				8.40		
58	1	1.56				10.00		
59	4	0.24					8.40	
61	3	0.74				9.00		
63	4	0.00				8.10		
68	3	0.82				9.10		
69	4	-0.09				8.00		
70	2	1.01				9.33		
76	4	-0.32				7.71		
78	4	0.24				8.40		
79	3	-0.91				7.00		
85	NR		<50					
87	0	13.07	24.00					
89	4	-0.47				7.53		
90	4	0.16				8.30		
94	4	-0.42				7.60		
97	2	1.03				9.36		
101	0	3.70						12.60
107	4	-0.01				8.09		
109	4	0.00				8.10		
113	4	0.12				8.25		
118	4	0.24				8.40		
120	2	-1.06				6.82		
122	1	1.89				10.40		
124	NR		< 50					
127	3	-0.56				7.42		
133	1	-1.81				5.90		

Lab	Rating	Z-value	0	1	2	3	4	6
134	4	-0.33					7.70	
138	2	1.43					9.84	
139	0	3.62					12.50	
141	3	-0.85					7.07	
142	4	-0.09					8.00	
145	NR							< 14.8
146	4	0.49					8.70	
149	0	-2.31					5.30	
151	4	0.22					8.37	
153	3	0.82					9.10	
161	NR							< 20
180	NR							< 27.8
182	1	1.56		10.00				
183	4	0.08					8.20	
184	NR							< 50
189	0	-3.46					3.90	
190	3	-0.93					6.98	
193	3	-0.91					7.00	
196a	4	-0.06						8.03
196b	3	-0.73					7.22	
207	0	-3.80					3.48	

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued

Sb (Antimony)

μ g/L

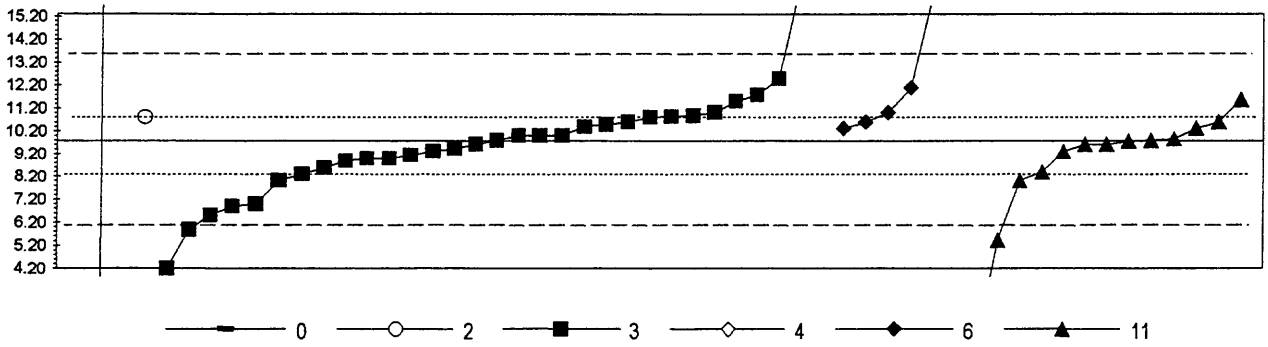


0. Other	4. ICP
2. AA: direct nitrous oxide	6. ICP/MS
3. AA: graphite furnace	11. AA: hydride
N = 3	1 18 2 3 3
Minimum = 0.01	5.70 3.17 5.00 5.97 2.40
Maximum = 150.00	8.10 24.00 6.39 6.20
Median =	6.31
St Dev =	1.241

MPV = 6.24
 F-pseudosigma = 1.305
 N = 30
 Hu = 6.80
 HI = 5.04

Lab	Rating	Z-value	0	2	3	4	6	11
1	4	-0.15					6.05	
3	4	-0.03			6.20			
7	0	13.61				24.00		
11	4	-0.41		5.70				
12	NR					< 100		
15	2	-1.13			4.77			
16	4	0.20			6.50			
25	NR					< 51		
32	4	0.11					6.39	
36	0	-4.78	0.01					
45	0	-2.35			3.17			
46	4	0.05			6.30			
52	NR				< 6			
55	4	0.43			6.80			
58	0	-2.94						2.40
59	3	-0.95				5.00		
61	NR					< 50		
63	2	1.04			7.60			
68	NR				< 5			
78	4	0.43			6.80			
85	NR					< 100		
94	3	0.74			7.20			
97	4	-0.10			6.11			
113	2	1.43			8.10			
119	4	-0.49						5.60
120	4	0.03			6.28			
124	0	71.86	100.00					
127	3	-0.92			5.04			
134	4	-0.03						6.20
141	4	0.45			6.83			
142	4	0.27			6.59			
149	1	-1.64			4.10			
151	4	0.06			6.32			
161	NR					< 50		
180	NR					< 18.9		
182	0	110.19	150.00					
184	NR					< 50		
189	3	-0.95			5.00			
196	4	-0.21						5.97

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued
 Se (Selenium) $\mu\text{g/L}$



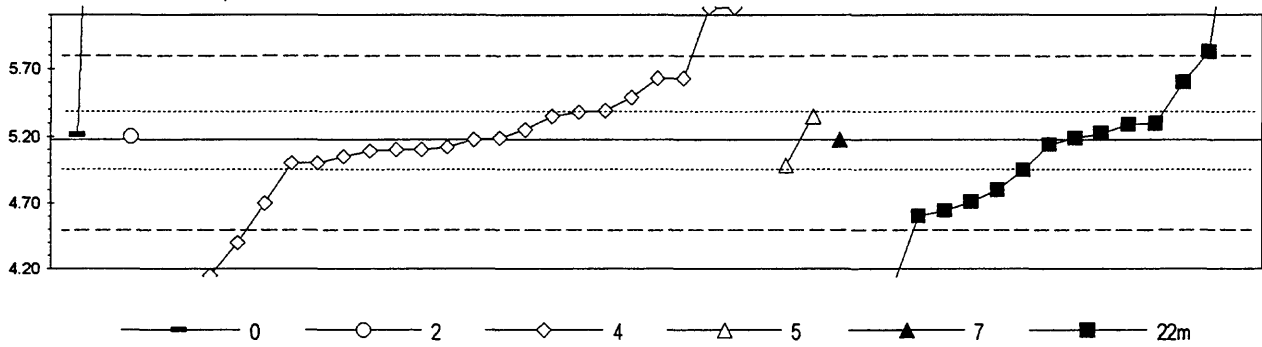
0. Other	4. ICP
2. AA: direct nitrous oxide	6. ICP/MS
3. AA: graphite furnace	11. AA: hydride
N = 3	1 30 1 5 14
Minimum = 0.02	10.80 4.20 0.01 10.30 0.67
Maximum = 260.00	16.60 16.09 11.60
Median = 9.60	9.68
St Dev = 1.868	1.5434

MPV = 9.78
 F-pseudostigma = 1.853
 N = 54
 Hu = 10.80
 HI = 8.30

Lab	Rating	Z-value	0	2	3	4	6	11
1	4	0.01			9.80			
3	3	-0.66			8.56			
8	3	-0.96					8.00	
10	4	0.39			10.50			
11	3	0.55	10.80					
12	3	-0.96			8.00			
13	4	0.45			10.60			
15	4	-0.09					9.60	
16	1	-1.77			6.50			
23	0	-2.33						5.45
25	NR				< 129			
29	0	3.68			16.60			
30	0	3.41				16.09		
32	3	0.66				11.00		
36	0	-5.27	0.02					
37	2	1.25				12.10		
42	4	0.28				10.30		
45	4	-0.48			8.88			
46	1	-1.55			6.90			
52	0							< 5
55	4	0.12			10.00			
58	0	-4.91						0.67
61	4	0.34			10.40			
63	4	0.12			10.00			
68	4	-0.42			9.00			
69	4	-0.26			9.30			
70	3	0.66			11.00			
75	4	-0.01					9.75	
76	2	1.47			12.50			
78	4	0.12			10.00			
79	4	-0.20			9.40			
85	4	-0.26						9.30
89	0							< 2
94	2	-1.50			7.00			
97	0	-4.85						0.78
107	3	0.55			10.80			
109	4	-0.35			9.13			
113	4	-0.09			9.60			
118	0	-2.09			5.90			
119	3	-0.74						8.40
120	4	0.28						10.30
122	0							< 1
124	0	135.02 260.00						
127	2	1.09			11.80			
133	3	-0.80			8.30			
134	4	-0.09						9.60
138	4	0.45						10.60
139	3	0.61			10.90			
141	3	0.98						11.60
142	3	0.93			11.50			

Lab	Rating	Z-value	0	2	3	4	6	11
151	4	0.04						9.85
161	NR					< 100		
180	NR					< 29.6		
182	4	0.01						9.80
183	0	-3.66	3.00					
184	0	-5.27					0.01	
189	0	-3.01			4.20			
190	3	0.58			10.85			
193	4	-0.42			9.00			
196	4	0.43						10.58

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)--Continued
SiO2 (Silica) **m g/L**

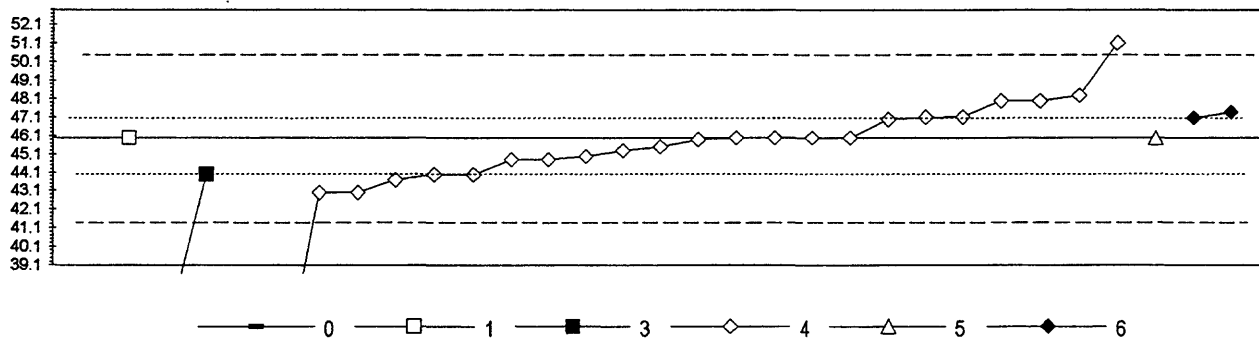


0. Other	5. DCP				
2. AA: direct nitrous oxide	7. Ion chromatography				
4. ICP	22m. Color: molybdate blue				
N = 2	1	24	2	1	15
Minimum = 5.21	5.20	2.50	4.98	5.18	3.94
Maximum = 10.80		8.34	5.35		7.18
Median =		5.15			5.14
St Dev =		0.303			0.773

MPV = 5.18
 F-pseudosigma = 0.319
 N = 45
 Hu = 5.38
 HI = 4.95

Lab	Rating	Z-value	0	2	4	5	7	22m
1	4	-0.28			5.09			
3	2	1.41			5.63			
4	4	-0.19			5.12			
5	4	0.00			5.18			
8	0	-2.45			4.40			
9	0	6.27						7.18
11	4	0.00				5.18		
13	1	2.04						5.83
15	3	0.97			5.49			
25	2	1.41			5.63			
32	4	0.09	5.21					
33	3	0.53			5.35			
36	0	17.63	10.80					
37	4	0.35						5.29
42	3	-0.56			5.00			
43	4	-0.25			5.10			
45	3	0.66			5.39			
51	4	0.13						5.22
52	1	-1.69						4.64
55	4	0.03			5.19			
58	0	-3.51						4.06
61	0	-8.41			2.50			
63	3	0.53			5.35			
70	3	-0.72						4.95
78	4	0.06	5.20					
87	2	-1.19						4.80
89	4	-0.13						5.14
92	1	-1.82						4.60
97	4	0.38						5.30
101	1	-1.51			4.70			
109	0	3.07			6.16			
112	3	-0.63				4.98		
113	4	0.03						5.19
116	0	-3.23			4.15			
119	3	-0.56			5.00			
127	4	0.22			5.25			
134	4	-0.25			5.10			
138	2	1.32						5.60
141	0	-3.89						3.94
142	0	3.07			6.16			
145	3	0.63			5.38			
146	0	-3.70			4.00			
184	0	9.91			8.34			
189	4	-0.41			5.05			
190	2	-1.47						4.71

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
Sr (Strontium) μ g/L



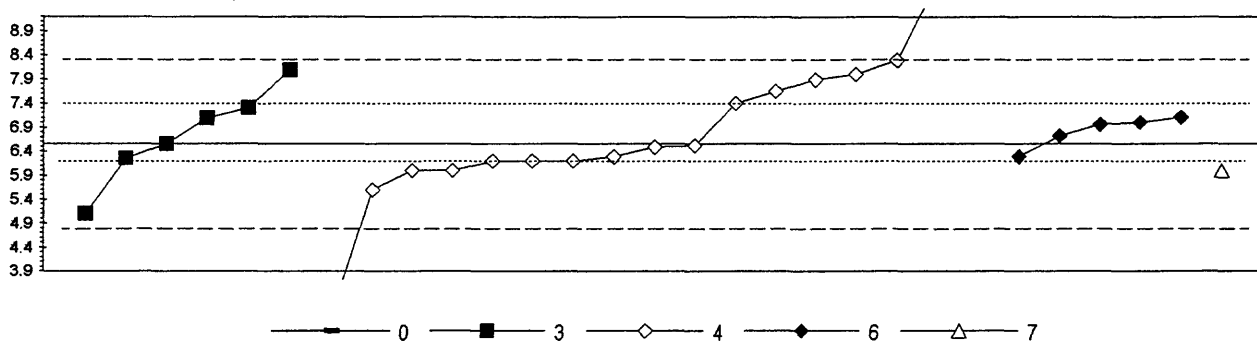
0. Other	4. ICP					
1. AA: direct air	5. DCP					
3. AA: graphite furnace	6. ICP/MS					
N =	1	1	2	24	1	2
Minimum =	240.0	46.0	35.8	4.8	46.0	47.1
Maximum =			44.0	51.1		47.4
Median =				46.0		
St Dev =				1.93		

MPV = 46.0
 F-pseudosigma = 2.29
 N = 31
 Hu = 47.1
 HI = 44.0

Lab	Rating	Z-value	0	1	3	4	5	6
1	4	-0.22				45.5		
3	4	0.00				46.0		
4	4	0.00				46.0		
7	4	-0.04				45.9		
8	3	1.00				48.3		
9	0		< 27					
15	4	-0.31				45.3		
16	3	-1.00				43.7		
25	3	0.87				48.0		
32	3	0.61						47.4
33	4	0.00					46.0	
39	3	0.87				48.0		
42	0	-17.96				4.8		
52	3	-0.52				44.8		
55	2	-1.31				43.0		
59	4	0.44				47.0		
63	0	2.22				51.1		
68	3	-0.87				44.0		
70	0					< 10		
85	3	-0.52				44.8		
94	4	-0.44				45.0		
97	0	-4.45			35.8			
109	4	0.00	46.0					
113	NR			< 200				
116	4	0.00				46.0		
127	4	0.00				46.0		
134	2	-1.31				43.0		
138	4	0.48				47.1		
141	3	-0.87			44.0			
145	4	0.50				47.2		
146	3	-0.87				44.0		
161	NR					< 100		
182	0	84.56	240.0					
189	0	-5.75				32.8		
196	4	0.48						47.1

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued

V (Vanadium) $\mu\text{g/L}$

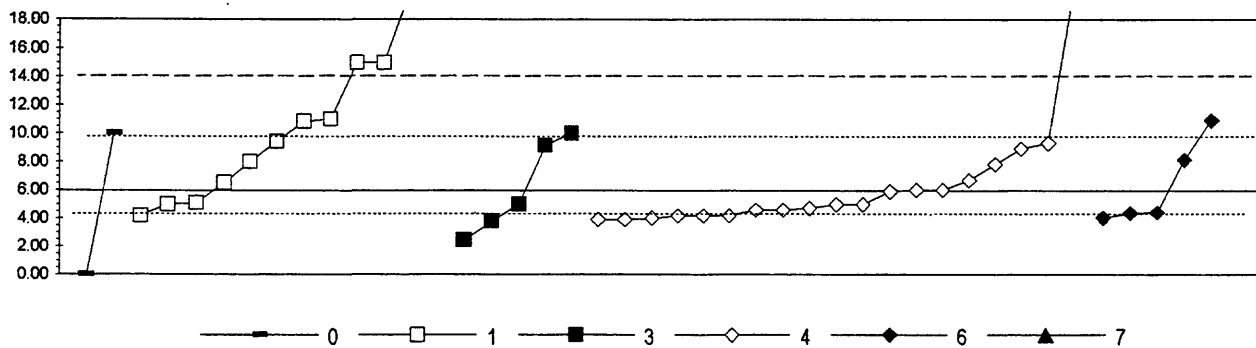


0. Other	6. ICP/MS
3. AA: graphite furnace	7. Ion chromatography
4. ICP	
N = 0	6 17 5 1
Minimum =	5.11 3.00 6.30 6.00
Maximum =	8.10 13.90 7.11
Median =	6.40
St Dev =	1.295

MPV = 6.56
 F-pseudosigma = 0.890
 N = 29
 Hu = 7.40
 HI = 6.20

Lab	Rating	Z-value	0	3	4	6	7
1	4	-0.04			6.52		
3	NR				< 10		
4	0	-4.00			3.00		
5	2	1.23			7.66		
7	1	1.96			8.30		
11	3	-0.63					6.00
15	1	1.73		8.10			
16	3	0.94			7.40		
25	3	-0.63			6.00		
30	3	0.62				7.11	
32	4	0.49				7.00	
37	4	0.45				6.96	
42	4	-0.29				6.30	
45	0	8.25			13.90		
46	3	-0.63			6.00		
52	4	0.00		6.56			
61	0	3.87			10.00		
63	NR				< 10		
68	1	1.62			8.00		
70	NR				<50		
75	1	1.51			7.90		
85	NR				<20		
94	4	-0.40			6.20		
97	1	-1.63		5.11			
101	4	-0.29			6.30		
124	NR		< 10				
127	3	0.84		7.31			
134	3	0.61		7.10			
138	4	-0.40			6.20		
141	4	-0.07			6.50		
142	4	-0.35		6.25			
145	4	-0.40			6.20		
161	NR				< 100		
180	2	-1.08			5.60		
184	NR				< 10		
189	NR				< 8		
196	4	0.18				6.72	

Table 13. Statistical summary of reported data for standard reference water sample T-125 (trace constituent)—Continued
Zn (Zinc) μ g/L



0. Other	4. ICP				
1. AA: direct air	6. ICP/MS				
3. AA: graphite furnace	7. IC				
N = 2	12	5	19	5	1
Minimum = 0.00	4.20	2.41	3.90	4.07	25.00
Maximum = 10.00	24.00	10.00	21.00	10.89	
Median = 8.70			4.87		
St Dev = 3.957		1.691			

MPV = 5.95
 F-pseudostigma = 4.007
 N = 44
 Hu = 9.70
 HI = 4.30

Lab	Rating	Z-value	0	1	3	4	6	7
1	3	0.54					8.12	
3	4	0.19				6.70		
4	NR					< 10		
5	4	-0.30				4.73		
7	3	-0.51				3.90		
9	NR			< 4				
11	0	4.75						25.00
12	NR					< 20		
13	NR			< 10				
15	4	-0.21		5.10				
16	4	-0.44				4.20		
23	NR			< 20				
25	NR					< 4		
29	0	2.26		15.00				
30	2	1.23						10.89
32	4	-0.39						4.40
36	2	-1.48	0.00					
37	4	-0.39						4.39
39	4	-0.24					5.00	
46	3	0.84					9.32	
51	4	-0.24			5.00			
52	NR					< 10		
58	0	4.50		24.00				
59	4	-0.44				4.20		
61	NR					< 10		
63	2	1.26		11.00				
68	3	-0.51				3.90		
70	NR					< 10		
73	4	0.01				6.00		
75	4	-0.34				4.60		
78	3	-0.54			3.80			
79	4	0.46				7.80		
85	3	0.86		9.40				
87	4	-0.24		5.00				
89	NR			< 40				
90	3	0.51		8.00				
94	4	0.01				6.00		
97	3	0.79			9.13			
101	4	-0.01				5.90		
107	0	3.51		20.00				
113	2	1.21		10.80				
116	NR					< 5		
119	4	-0.24				5.00		
120	3	-0.88			2.41			
122	2	1.01			10.00			
124	2	1.01	10.00					
127	4	0.14		6.50				
133	3	0.74				8.90		
134	4	-0.34				4.60		
138	4	-0.44				4.20		

Lab	Rating	Z-value	0	1	3	4	6	7
139	NR			< 10				
141	4	-0.48				4.03		
145	NR					< 0.7		
151	NR			< 20				
161	0	3.76					21.00	
180	NR						< 3	
182	0	2.26		15.00				
184	NR					< 10		
189	NR					< 20		
190	4	-0.44		4.20				
193	NR			< 25				
196	4	-0.47					4.07	

Table 14.-- *Statistical summary of reported data for standard reference sample M-126 (major constituents)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

0. Other/Not reported	=	
1. AA: direct, air	=	atomic absorption: direct,air
2. AA: direct, N ₂ O	=	atomic absorption: direct,nitrous oxide
3. AA: graphite furnace	=	atomic absorption: graphite furnace
4. ICP	=	inductively coupled plasma
5. DCP	=	direct current plasma
6. ICP/MS	=	mass spectrometry/inductively coupled plasma
7. IC	=	ion chromatography
12. Flame photo	=	flame photometric
20. Titrate: color	=	titration: colorimetric [color reagent specified]
21. Titrate: electro	=	titration: electrometric
22. Color:	=	colorimetric [color reagent specified]
40. Ion electrode	=	ion selective electrode
41. Electro	=	electrometric: [type meter specified]
50. Gravimetric	=	gravimetric: [precipitate specified]

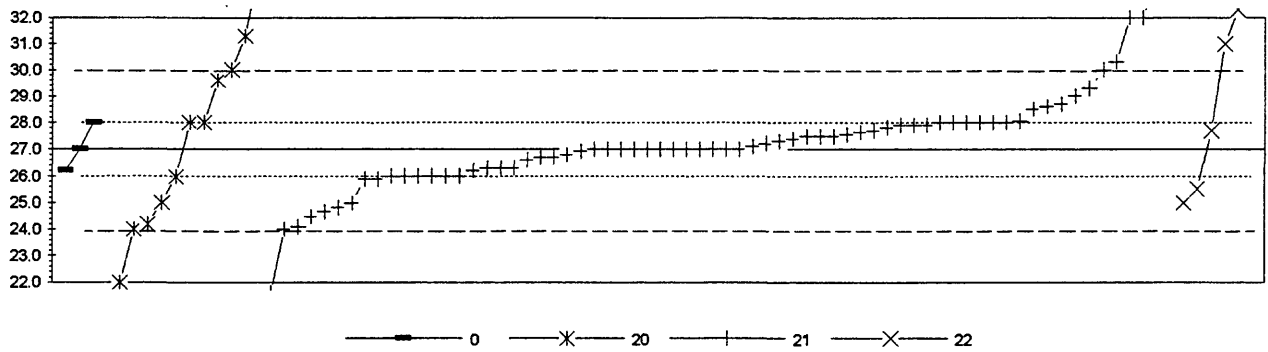
Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	95% confidence most probable value
F-pseudosigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
m g/L	=	milligrams per liter
μ g/L	=	micrograms per liter
μ S/cm	=	microsiemens per centimeter at 25 C
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>	<u>page</u>
Alk Alkalinity as CaCO ₃	97
B Boron	98
Ca Calcium	99
Cl Chloride	100
DSRD Dissolved solids	101
F Fluoride	102
K Potassium	103
Mg Magnesium	104
Na Sodium	105
total P Phosphorus	106
pH	107
SiO ₂ Silica	108
SO ₄ Sulfate	109
Sp Cond Specific Conductance	110
Sr Strontium	111
V Vanadium	112

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued

Alk (Alkalinity as calcium carbonate) mg/L



0. Other	22. Colorimetric			
20. Titrant: colorimetric	0. Other			
21. Titrant: electrometric				
N =	3	12	68	5
Minimum =	26.2	21.0	21.6	25.0
Maximum =	28.0	33.8	546.0	32.3
Median =	26.0	27.0		
St Dev =	2.67	1.26		

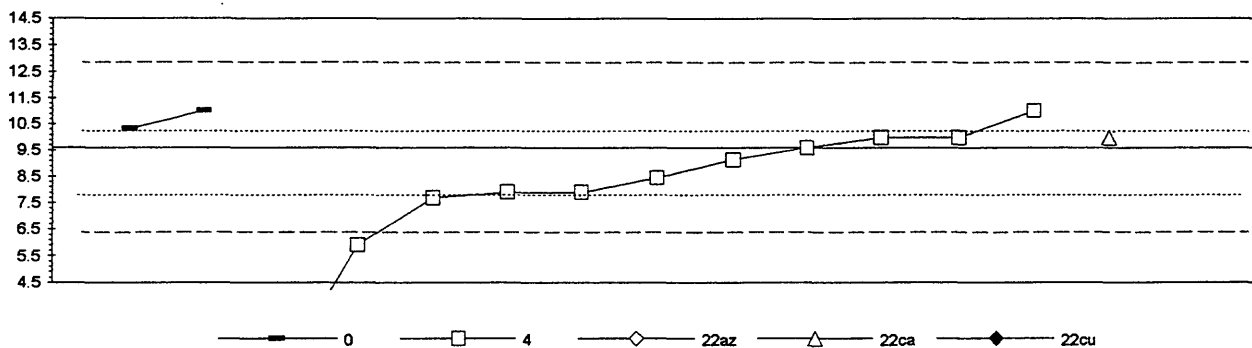
MPV = 27.0
 F-pseudostigma = 1.48
 N = 88
 Hu = 28.0
 HI = 26.0

Lab	Rating	Z-value	0	20	21	22
1	2	1.08			28.6	
2	0	350.07			546.0	
3	4	-0.47			26.3	
5	0	4.38			33.5	
7	2	1.15			28.7	
8	3	0.67	28.0			
9	4	0.00			27.0	
10	4	0.34			27.5	
11	3	-0.54	26.2			
12	3	0.67			28.0	
13	3	-0.74			25.9	
15	4	0.00			27.0	
16	0	2.90	31.3			
18	2	-1.35				25.0
19	3	0.61			27.9	
24	4	0.00			27.0	
25	0	3.37			32.0	
26	3	-0.67			26.0	
29	4	0.00			27.0	
32	4	-0.13			26.8	
33	3	-0.67			26.0	
36	3	0.67	28.0			
37	4	-0.20			26.7	
38	4	0.39			27.6	
39	4	0.00			27.0	
42	0	2.23			30.3	
43	3	0.67			28.0	
45	3	0.61			27.9	
46	4	0.20			27.3	
50	4	0.00			27.0	
51	3	-0.67			26.0	
52	1	2.02			30.0	
54	4	0.00			27.0	
55	1	1.55			29.3	
56	4	0.27			27.4	
57	1	-2.02	24.0			
58	3	0.67			28.0	
60	4	-0.07			26.9	
61	0	-3.64			21.6	
63	4	-0.47			26.3	
68	0	3.57				32.3
69	4	0.47				27.7
70	1	-1.69			24.5	
75	3	0.67			28.0	
76	1	-1.89	24.2			
78	2	1.01			28.5	
79	4	0.00			27.0	
84	3	-0.54			26.2	
85	1	-1.57			24.7	
87	3	0.67			28.0	
89	3	0.54				27.8
90	3	-0.67				26.0
92	2	-1.46				24.8
94	3	-0.67		26.0		
96	2	1.35				29.0
97	4	-0.47				26.3
107	3	-0.67				26.0
109	3	0.71				28.1
113	4	0.13				27.2
114	4	0.00				27.0
116	3	-0.74				25.9
118	1	2.02		30.0		
119	0	-3.37		22.0		
120	4	0.00				27.0
122	4	0.34				27.5
124	4	0.00	27.0			
127	4	0.47				27.7
128	0	2.70				31.0
134	4	0.09				27.1
138	4	-0.20				26.7
139	0	3.37				32.0
141	3	-0.67				26.0
142	4	0.00				27.0
145	2	-1.01				25.5
146	1	-1.96				24.1
151	3	0.67				28.0
153	4	-0.27				26.6
161	0	4.59		33.8		
180	4	0.34				27.5
182	1	-2.02				24.0
183	3	0.67		28.0		
184	2	-1.35		25.0		
189	0	-4.05		21.0		
190	2	-1.35				25.0
194	3	0.61				27.9
197	4	0.44				27.7
202	1	1.75		29.6		
207	4	0.00				27.0

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued

B (Boron)

μ g/L

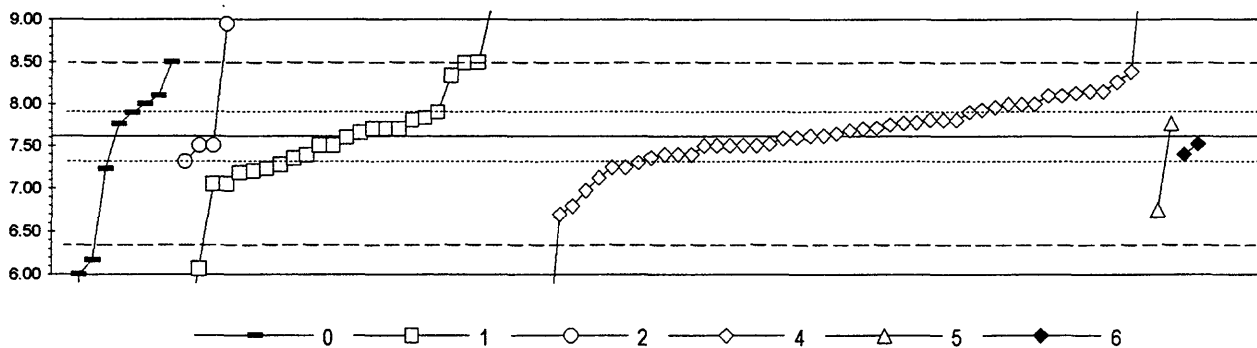


0. Other	22ca. Color: carmine				
4. ICP	22cu: Color: curcumin				
22az. Color: azomethine					
N =	2	11	0	1	1
Minimum =	10.3	1.1		10.0	114.0
Maximum =	11.0	11.0		10.0	114.0
Median =		8.4			
St Dev =		1.48			

MPV = 9.6
 F-pseudosigma = 1.67
 N = 15
 Hu = 10.2
 HI = 7.9

Lab	Rating	Z-value	0	4	22az	22ca	22cu
1	3	-0.70		8.4			
3	NR			< 10			
4	4	0.24		10.0			
11	3	0.84	11.0				
15	4	0.00		9.6			
16	NR			< 500			
18	NR			< 5			
25	NR			< 23			
29	4	0.24				10.0	
45	4	0.42	10.3				
46	0	-2.22		5.9			
50	NR				< 50		
52	NR			< 300			
57	NR			< 50			
58	0	62.59					114.0
61	NR			< 50			
63	NR			< 100			
70	NR			< 50			
85	NR			< 20			
94	3	0.84		11.0			
103	0	-5.10		1.1			
109	2	-1.02		7.9			
116	NR			< 10			
121	NR			< 10			
122	0				< 0.1		
127	4	0.23		10.0			
128	NR			< 10			
134	NR			< 20			
142	2	-1.02		7.9			
145	4	-0.27		9.2			
180	2	-1.14		7.7			
189	NR			< 10			

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued
Ca (Calcium) **m g/L**



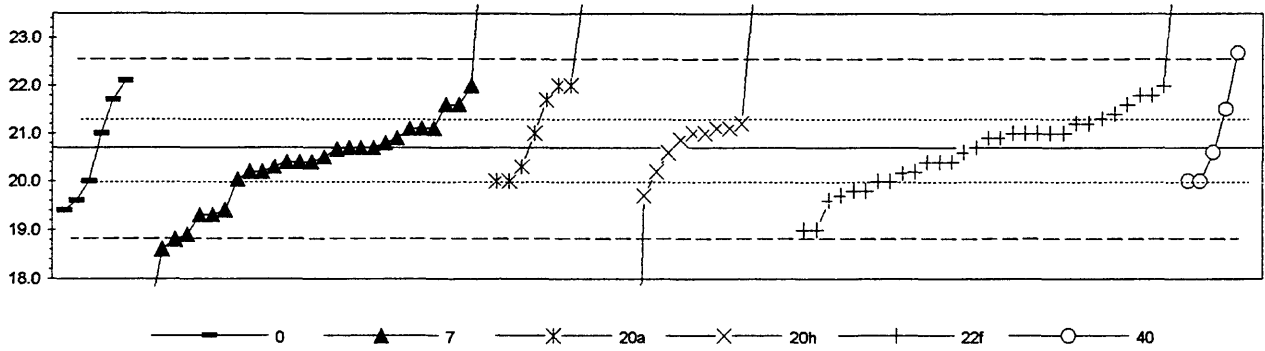
0. Other	4. ICP					
1. AA: direct air	5. DCP					
2. AA: direct nitrous oxide	6. ICP/MS					
N = 9	26	5	46	2	2	
Minimum = 0.99	5.30	0.75	4.91	6.76	7.40	
Maximum = 8.50	9.80	8.95	9.93	7.77	7.52	
Median = 7.76	7.63		7.66			
St Dev = 0.762	0.529		0.368			

MPV = 7.62
 F-pseudostigma = 0.460
 N = 90
 Hu = 7.93
 Hl = 7.31

Lab	Rating	Z-value	0	1	2	4	5	6
1	4	-0.25				7.40		
3	4	-0.23				7.50		
4	3	-0.79				6.80		
5	4	0.14				7.60		
7	3	0.82				7.90		
8	0	-5.89						7.40
9	3	-0.90		7.20				
10	4	0.18		7.70				
11	3	0.60	7.89					
12	3	0.84				7.93		
13	3	-0.84		7.23				
15	0	5.04				8.15		
16	3	-0.69				6.98		
18	4	0.40				7.77		
19	4	-0.03				7.51		
23	3	-0.66				8.26		
24	4	-0.21				7.50		
25	1	1.66				8.13		
26	1	1.93	8.50					
29	0	-3.51	6.00					
30	0	-14.94				8.15		
32	4	-0.47						
33	4	0.34						
36	0	-3.14	6.17					
38	4	-0.23				9.93		
39	2	1.40				8.10		
42	4	-0.25				7.40		
43	4	0.40				7.75		
45	3	-0.75		7.27				
46	3	-0.55				7.12		
50	4	-0.03		7.60				
51	2	-1.08				4.91		
52	4	0.21				7.62		
54	4	-0.25		7.50				
55	4	-0.05				7.50		
56	3	0.62		7.90				
57	1	-1.99						7.52
58	0	-3.36		6.07	7.50			
61	4	-0.47				7.30		
63	3	0.82				7.80		
64	4	0.05				7.59		
68	4	0.40				7.71		
69	4	-0.25		7.50				
70	4	0.36				7.70		
78	0	4.75		9.80				
84	0	4.43		9.65				
85	4	0.47		7.83				
86	4	0.29				7.64		
89	1	1.93		8.50				
90	2	1.06	8.10					

Lab	Rating	Z-value	0	1	2	4	5	6
92	4	0.40		7.80				
94	3	0.62				7.78		
97	3	-0.95		7.18				
101	4	0.18		7.70				
102	4	-0.25				7.36		
103	1	-1.77						6.76
109	4	0.08		7.65				
113	2	-1.23		7.05	8.95			
114	4	-0.25				8.38		
116	3	-0.79				6.70		
119	4	-0.47				7.25		
120	2	-1.23		7.05	7.51			
121	4	0.18				7.61		
122	3	-0.58		7.35				
124	3	0.84	8.00					
127	4	-0.23				7.40		
128	2	1.12				7.99		
134	4	-0.47				7.25		
138	2	1.06				7.99		
139	0	2.90			0.75			
140	4	0.18		7.70				
141	4	0.01				7.52		
142	2	1.06				7.96		
145	4	-0.01				7.51		
146	2	-1.38						7.77
153	4	0.32	7.76					
164	4	-0.49		7.39				
179	0	-5.04		5.30	7.31			
180	2	1.16				8.10		
182	0	3.45		9.20				
183	0	-14.41	0.99					
184	3	0.75				7.80		
189	4	0.34				7.68		
190	3	-0.84	7.23					
191	4	-0.21						
196	1	1.88		8.48				
197	1	-1.86						
202	3	0.69				7.80		
207	1	1.56		8.33				
207	2	1.16				8.00		

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)--Continued
Cl (Chloride) mg/L

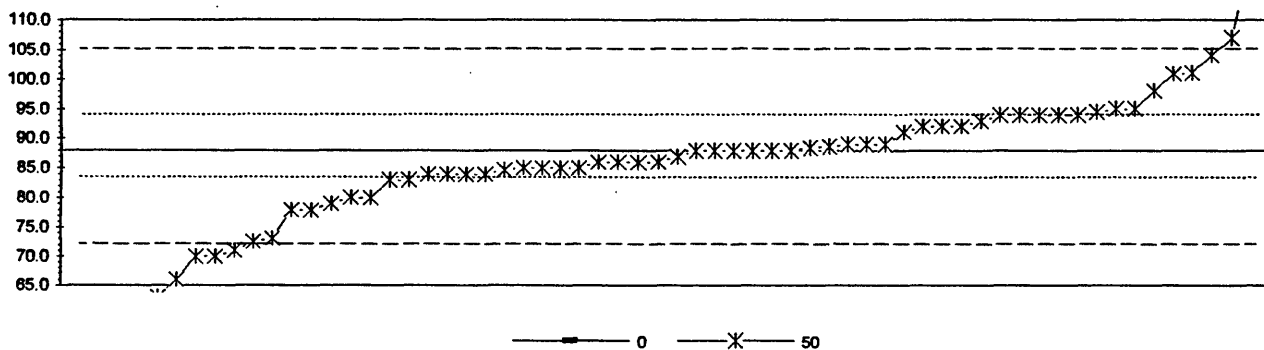


0. Other	20h: Titrate: mercury					
7. Ion chromatography	22f. Color: FeSCN					
20a: Titrate: silver	40. Selective ion electrode					
N =	7	29	9	17	31	5
Minimum =	19.4	6.0	20.0	0.3	19.0	20.0
Maximum =	22.1	26.0	28.0	26.0	25.0	22.7
Median =	20.4	21.7	21.0	20.9		
St Dev =	0.88	0.91	1.16	0.79		

MPV = 20.7
 F-pseudosigma = 0.93
 N = 98
 Hu = 21.3
 Hl = 20.0

Lab	Rating	Z-value	0	7	20a	20h	22f	40
1	3	-0.57					20.2	
3	3	0.54					21.2	
4	0	-2.27		18.6				
5	0	-2.05		18.8				
7	3	0.97		21.6				
8	4	-0.32		20.4				
9	2	-1.19				19.6		
10	3	0.97				21.6		
11	1	1.51	22.1					
12	0	4.64				25.0		
13	2	-1.08				19.7		
15	4	0.22		20.9				
16	4	-0.11				20.6		
18	3	-0.97				19.8		
19	3	-0.76			20.0			
23	2	1.19				21.8		
24	4	0.22				20.9		
26	4	-0.43		20.3				
29	4	0.43				21.1		
30	0	-15.89		6.0				
32	4	0.43		21.1				
33	0	-3.78		17.2				
36	3	-0.76	20.0					
37	1	-1.51		19.3				
39	3	-0.76			20.0			
42	4	0.11		20.8				
43	3	-0.76						20.0
45	4	0.32				21.0		
46	4	0.32				21.0		
50	3	-0.76				20.0		
51	3	0.97		21.6				
52	3	0.54				21.2		
54	3	0.76				21.4		
55	4	0.32				21.0		
56	4	0.19				20.9		
57	2	1.40		22.0				
58	3	0.54				21.2		
60	0	3.67				24.1		
61	4	-0.32				20.4		
63	1	-1.83				19.0		
64	4	-0.22		20.5				
68	2	1.08	21.7					
69	4	-0.32				20.4		
70	3	-0.54				20.2		
75	3	-0.54		20.2				
76	4	0.00		20.7				
78	0	4.64				25.0		
79	4	0.32				21.0		
84	0	4.42				24.8		
85	2	1.19				21.8		
86	2	1.40		22.0				
87	2	1.40						22.0
89	0	-20.18				2.0		
92	4	0.43				21.1		
93	4	0.00		20.7				
94	4	0.22						20.9
96	4	-0.32						20.4
97	3	0.65						21.3
101	4	-0.43			20.3			
102	1	-1.83						19.0
107	0	3.56			24.0			
109	0	2.14						22.7
113	1	-1.94		18.9				
114	3	0.86						21.5
116	4	-0.32		20.4				
119	4	0.32					21.0	
120	4	0.32			21.0			
121	4	-0.11						20.6
122	2	1.08			21.7			
124	4	0.32	21.0					
127	1	-1.51		19.3				
128	3	-0.97						19.8
134	3	-0.54		20.2				
138	4	-0.32		20.4				
139	2	-1.08					19.7	
140	4	0.32						21.0
141	3	-0.54						20.2
142	4	-0.11					20.6	
145	4	-0.02		20.7				
146	2	1.40			22.0			
153	0	5.72		25.0				
161	4	0.43		21.1				
164	4	0.43		21.1				
179	0	5.72					26.0	
180	4	0.00						20.7
182	0	-11.55					10.0	
183	0	-22.07					0.3	
184	4	0.32						21.0
189	3	-0.76						20.0
190	2	-1.19	19.6					
191	4	0.00		20.7				
193	2	-1.40	19.4					
194	3	-0.76						20.0
196	2	-1.40		19.4				
197	3	-0.71		20.0				
202	0	7.88				28.0		
207	0	2.47					23.0	
209	0	-21.59	0.62					

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)--Continued
DSRD (Dissolved solids) mg/L



0. Other			
50. Gravimetric			
N =	2	61	
Minimum =	196.0	18.0	
Maximum =	320.0	140.0	
Median =	88.0		
St Dev =	8.39		

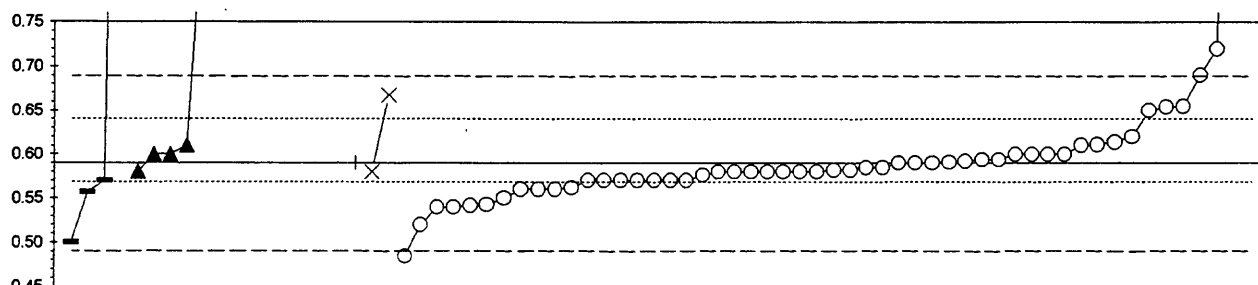
MPV = 88.0
 F-pseudosigma = 7.78
 N = 63
 Hu = 94.0
 HI = 83.5

Lab	Rating	Z-value	0	50
1	4	-0.42		84.7
3	0	-2.31		70.0
5	4	-0.26		86.0
9	4	0.00		88.0
10	4	0.00		88.0
11	4	0.13		89.0
12	3	0.77		94.0
13	3	-0.64		83.0
15	1	-1.99		72.5
16	4	0.09		88.7
18	3	0.77		94.0
19	3	0.82		94.4
23	0	-2.18		71.0
25	3	0.51		92.0
26	4	0.00		88.0
29	4	-0.26		86.0
32	0	13.88	196.0	
36	4	0.06		88.5
38	4	-0.26		86.0
43	4	0.00		88.0
45	1	1.67		101.0
46	3	-0.51		84.0
51	4	-0.39		85.0
52	3	-0.51		84.0
54	4	-0.39		85.0
55	2	-1.28		78.0
57	0	-2.83		66.0
60	0	-3.21		63.0
61	2	1.28		98.0
63	3	0.90		95.0
69	3	0.51		92.0
70	3	0.77		94.0
75	4	0.00		88.0
76	2	-1.03		80.0
78	0	29.81	320.0	
85	3	-0.64		83.0
87	0	4.37		122.0
89	4	-0.13		87.0
90	4	0.13		89.0
92	4	0.39		91.0
94	3	0.77		94.0
98	2	-1.28		78.0
97	4	-0.26		86.0
101	1	-1.93		73.0
109	3	0.77		94.0
113	2	-1.16		79.0
118	3	0.64		93.0
119	3	-0.51		84.0
120	0	2.06		104.0
122	1	1.64		100.8

Lab	Rating	Z-value	0	50
127	4	0.13		89.0
134	0	-3.85		58.0
138	3	-0.51		84.0
140	2	-1.03		80.0
141	4	0.00		88.0
142	3	0.90		95.0
146	4	-0.39		85.0
182	0	-8.99		18.0
183	0	2.44		107.0
184	3	0.51		92.0
189	0	6.68		140.0
190	4	-0.39		85.0
202	0	-2.31		70.0

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)--Continued

F (Fluoride) mg/L



—■— 0 —▲— 7 —|— 21 —×— 22 —○— 40

0. Other	22. Colorimetric				
7. Ion chromatography	40. Selective ion electrode				
21. Titrate: electrometric	N = 4	13	1	2	52
Minimum =	0.50	0.58	0.59	0.58	0.49
Maximum =	1.76	8.20	0.59	0.67	1.50
Median =	0.93				
St Dev =	0.202				

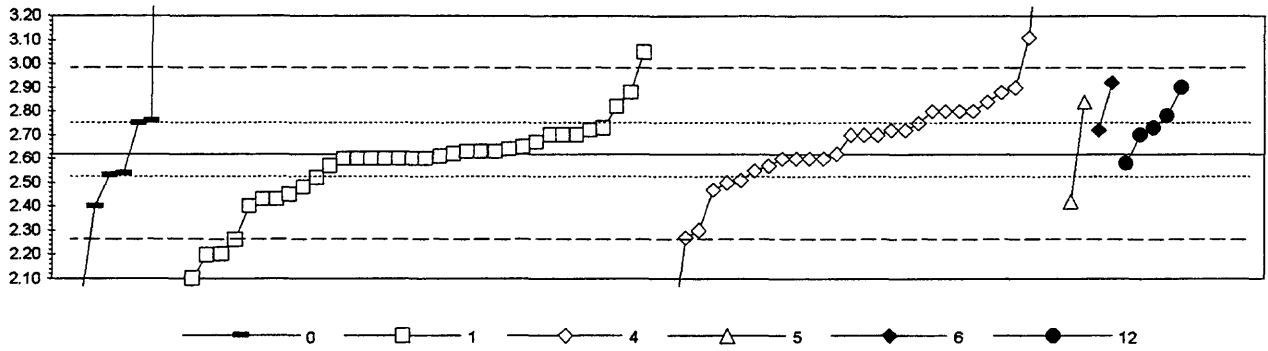
MPV = 0.59
 F-pseudosigma = 0.048
 N = 72
 Hu = 0.64
 HI = 0.57

Lab	Rating	Z-value	0	7	21	22	40
1	0	9.34		1.04			
3	1	1.60				0.67	
4	0	6.43		0.90			
7	0	157.94		8.20			
8	4	0.21					0.60
9	4	0.21					0.60
10	4	0.00					0.59
11	4	-0.42	0.57				
12	0	18.89					1.50
13	4	-0.42					0.57
15	3	-1.00					0.54
16	4	-0.42					0.57
18	4	-0.21					0.58
23	4	-0.42					0.57
24	3	0.62					0.62
25	4	-0.21					0.58
26	0	6.85		0.92			
29	4	0.00					0.59
32	0	9.13		1.03			
33	0	9.55		1.05			
36	3	-0.68	0.56				
37	3	-0.58					0.56
39	4	-0.21					0.58
42	0	9.13		1.03			
45	2	1.35					0.66
46	4	0.08					0.59
50	3	-0.62					0.56
52	0	-2.18					0.49
54	4	-0.29					0.58
55	4	0.42		0.61			
57	4	-0.21					0.58
58	4	-0.10					0.59
61	4	-0.42					0.57
63	4	0.00					0.59
70	4	-0.42					0.57
78	2	-1.04					0.54
85	0	2.08					0.69
89	4	-0.17					0.58
90	2	1.25					0.65
93	0	12.66					1.20
94	3	-0.62					0.56
96	4	0.44					0.61
97	3	-0.98					0.54
107	4	0.04					0.59
109	4	-0.21					0.58
113	4	0.02					0.59
114	4	-0.10					0.59
119	4	-0.42					0.57
120	4	-0.21			0.58		
122	4	-0.21					0.58

Lab	Rating	Z-value	0	7	21	22	40
124	1	-1.87	0.50				
127	4	0.21					0.60
128	3	-0.62					0.56
134	4	0.00			0.59		
138	4	0.21		0.60			
140	4	0.08					0.59
141	4	-0.17					0.58
142	2	-1.04					0.54
145	4	-0.21		0.58			
146	0	24.28	1.76				
153	4	0.21		0.60			
161	2	-1.45					0.52
180	2	1.31					0.65
182	0	2.70					0.72
183	4	0.21					0.60
184	3	-0.83					0.55
189	4	-0.42					0.57
190	4	0.50					0.61
194	4	0.42					0.61
196	0	7.08		0.93			
197	0	10.38		1.09			
202	4	-0.21					0.58

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued

K (Potassium) mg/L



0. Other	5. DCP				
1. AA: direct air	6. ICP/MS				
4. ICP	12. Flame emission				
N = 8	36	30	2	2	5
Minimum = 1.60	1.48	1.76	2.42	2.72	2.58
Maximum = 7.60	3.05	4.30	2.84	2.92	2.90
Median = 2.54	2.60	2.70			
St Dev = 1.892	0.265	0.468			

MPV = 2.62
 F-pseudosigma = 0.178
 N = 83
 Hu = 2.75
 HI = 2.51

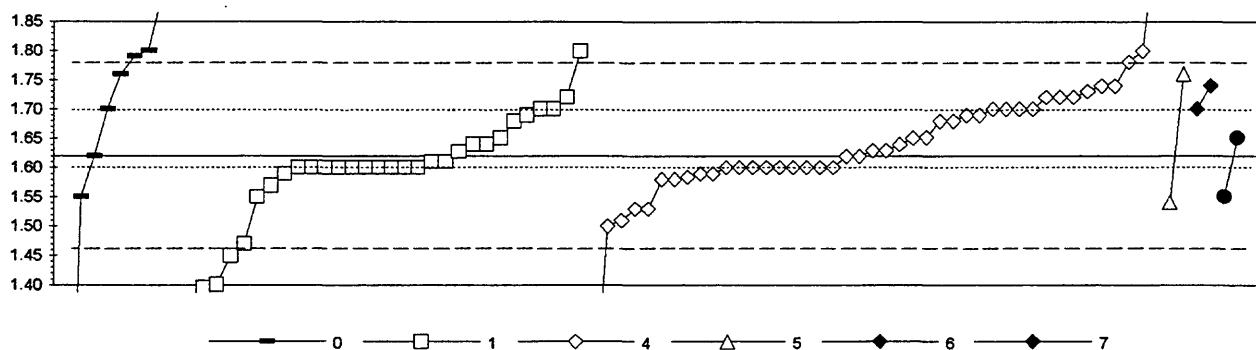
Lab	Rating	Z-value	0	1	4	5	6	12
1	3	0.62		2.73				
3	0	9.44			4.30			
5	3	0.73			2.75			
7	3	-0.62			2.51			
8	0	-4.61			1.80			
9	4	0.28		2.67				
10	4	0.45		2.70				
11	0	-3.54	1.99					
12	4	-0.11			2.60			
13	1	-2.02		2.26				
15	3	0.56			2.72			
16	4	-0.11		2.60				
18	2	1.01			2.80			
19	1	-1.97			2.27			
24	4	0.00			2.62			
25	0	2.75			3.11			
26	3	0.79	2.76					
29	4	0.45						2.70
32	1	1.69				2.92		
33	2	1.24			2.84			
36	2	-1.24	2.40					
37	3	-0.79		2.48				
38	4	0.11		2.64				
42	1	-1.80			2.30			
43	4	0.45			2.70			
45	4	0.06		2.63				
46	4	-0.39			2.55			
50	4	-0.11		2.60				
51	3	0.90						2.78
52	4	-0.28			2.57			
54	4	-0.11		2.60				
55	4	-0.22						2.58
56	2	-1.07		2.43				
57	0	2.42		3.05				
58	3	-0.56		2.52				
61	4	-0.11			2.60			
63	4	-0.28		2.57				
64	4	-0.06		2.61				
68	1	1.57			2.90			
69	1	1.57						2.90
70	0	-2.92		2.10				
78	2	-1.24		2.40				
85	2	1.12		2.82				
86	3	0.56			2.72			
89	4	0.45		2.70				
92	0	-2.36		2.20				
94	3	-0.67			2.50			
97	3	-0.96		2.45				
101	4	-0.11		2.60				
102	0	-5.73	1.60					

Lab	Rating	Z-value	0	1	4	5	6	12
103	2	1.01			2.80			
109	2	-1.07		2.43				
113	4	0.06		2.63				
114	0	-6.41		1.48				
116	4	-0.11			2.60			
119	2	1.01			2.80			
120	4	-0.11		2.60				
121	4	0.17		2.65				
122	4	0.00			2.62			
124	0	27.99	7.60					
127	4	0.45		2.70				
128	4	0.45			2.70			
134	4	-0.11		2.60				
138	4	0.45			2.70			
139	3	0.62						2.73
140	4	0.06		2.63				
141	2	1.46			2.88			
142	2	1.01			2.80			
145	3	-0.84			2.47			
146	0	-4.83			1.76			
153	4	-0.45	2.54					
164	0	-2.37		2.20				
179	3	0.56		2.72				
180	0	6.69			3.81			
182	4	-0.11		2.60				
184	2	1.24			2.84			
189	3	0.73	2.75					
190	3	-0.51	2.53					
191	3	0.56						2.72
196	2	1.46		2.88				
197	2	-1.12			2.42			
202	4	-0.11			2.60			
207	0	3.31		3.21				

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)--Continued

Mg (Magnesium)

mg/L



0. Other	5. DCP				
1. AA: direct air	6. ICP/MS				
4. ICP	7. Ion chromatography				
N = 9	31	44	2	2	2
Minimum = 0.84	1.20	1.18	1.54	1.70	1.55
Maximum = 3.70	1.80	1.99	1.76	1.74	1.65
Median = 1.76	1.60	1.63			
St Dev = 0.118	0.089	0.072			

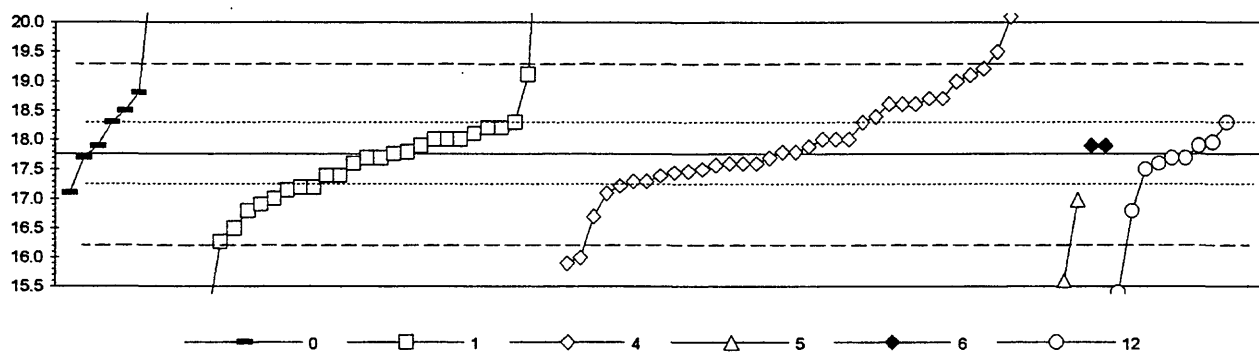
MPV = 1.62
 F-pseudostigma = 0.078
 N = 90
 Hu = 1.70
 HI = 1.60

Lab	Rating	Z-value	0	1	4	5	6	7
1	2	-1.41			1.51			
3	2	1.28			1.72			
4	4	-0.39			1.59			
5	4	0.42			1.65			
7	3	0.77			1.68			
8	4	0.26			1.64			
9	0	-2.18		1.45				
10	2	1.03		1.70				
11	1	1.80	1.76					
12	4	-0.26			1.60			
13	4	-0.13		1.61				
15	0	4.75			1.99			
16	4	-0.26			1.60			
18	2	1.03			1.70			
19	2	-1.16			1.53			
23	4	-0.26		1.60				
24	4	0.00			1.62			
25	0	2.06			1.78			
26	3	-0.90						1.55
29	0	26.72	3.70					
30	0	-10.02	0.84					
32	1	1.54				1.74		
33	1	1.80			1.76			
36	3	-0.90	1.55					
38	4	0.10		1.63				
39	2	1.41			1.73			
42	4	-0.26			1.60			
43	4	-0.26			1.60			
45	4	-0.26		1.60				
46	3	-0.51			1.58			
50	0	-2.83		1.40				
51	3	0.90		1.69				
52	4	0.13			1.63			
54	4	-0.26		1.60				
55	4	-0.46			1.58			
56	3	-0.90		1.55				
57	1	-1.54			1.50			
58	1	-1.93		1.47				
61	4	-0.26			1.60			
63	2	1.28			1.72			
64	3	0.90			1.69			
68	4	-0.26			1.60			
69	4	-0.26		1.60				
70	4	0.13			1.63			
78	4	-0.26		1.60				
84	4	-0.26		1.60				
85	4	0.26		1.64				
86	1	1.54			1.74			
87	4	0.39		1.65				
89	0	2.31		1.80				
92	4	-0.26		1.60				
94	3	-0.51			1.58			
97	4	-0.26		1.60				
101	2	1.03		1.70				
102	0	3.60	1.90					
103	4	-0.26			1.60			
109	4	-0.26		1.60				
113	3	-0.64		1.57				
114	2	1.03	1.70					
116	3	0.90			1.69			
119	2	1.03			1.70			
120	4	-0.13		1.61				
121	4	0.39			1.65			
122	4	0.26		1.64				
124	0	2.31	1.80					
127	3	0.77			1.68			
128	2	1.03			1.70			
134	4	-0.26			1.60			
138	1	1.54			1.74			
139	4	-0.39		1.59				
140	4	-0.26		1.60				
141	4	0.00			1.62			
142	0	2.31			1.80			
145	4	-0.26			1.60			
146	2	-1.16			1.53			
153	4	0.39						1.65
164	0	-2.89		1.40				
179	3	0.77		1.68				
180	0	-5.65			1.18			
182	0	-5.40		1.20				
183	4	0.00	1.62					
184	2	1.28			1.72			
189	4	-0.39			1.59			
190	0	2.18	1.79					
191	2	1.03						1.70
196	2	1.28		1.72				
197	2	-1.03			1.54			
202	2	1.03			1.70			
207	3	0.64		1.67				
209	2	1.41			1.73			

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued

Na (Sodium)

mg/L

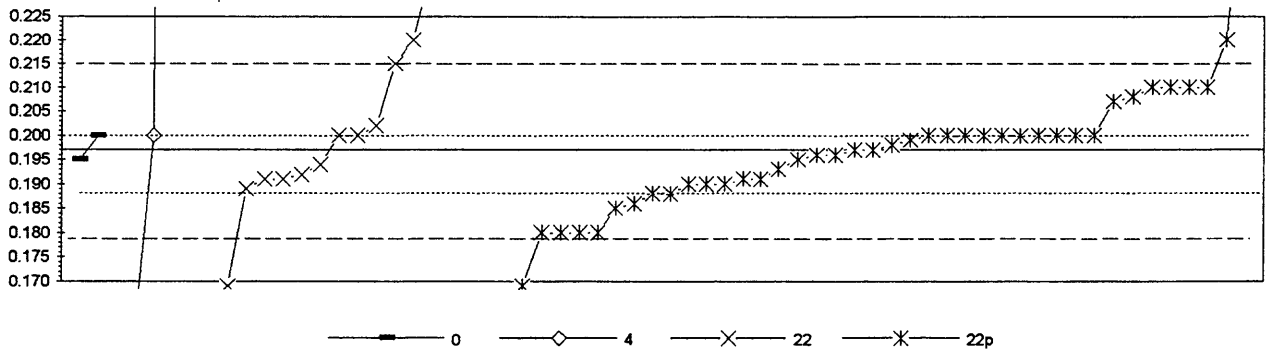


0. Other	5. DCP				
1. AA: direct air	6. ICP/MS				
4. ICP	12. Flame emission				
N = 7	31	37	2	2	9
Minimum = 17.1	12.6	15.9	15.6	17.9	15.4
Maximum = 21.0	25.0	23.3	17.0	17.9	18.3
Median = 17.7	17.9				17.7
St Dev = 0.84	0.90				0.86

MPV = 17.8
 F-pseudostigma = 0.77
 N = 88
 Hu = 18.3
 HI = 17.3

Lab	Rating	Z-value	0	1	4	5	6	12
1	4	0.00		17.8				
3	2	1.21			18.7			
4	3	-0.71			17.2			
5	4	0.14			17.9			
7	4	-0.35			17.5			
8	0	7.17			23.3			
9	3	0.69		18.3				
10	4	-0.09		17.7				
11	2	1.34	18.8					
12	0	-2.30			16.0			
13	3	0.56		18.2				
15	0	4.19			21.0			
16	1	1.60			19.0			
18	3	0.82			18.4			
19	4	-0.39			17.5			
23	4	-0.09		17.7				
24	3	-0.61			17.3			
25	1	1.85			19.2			
26	3	0.69	18.3					
29	0	-3.07						15.4
32	4	0.17				17.9		
33	0	-2.81			15.6			
36	3	0.95	18.5					
38	1	-1.65		16.5				
39	2	1.08			18.6			
42	3	-0.61			17.3			
43	4	0.30			18.0			
45	4	-0.22		17.6				
46	4	-0.48			17.4			
50	4	0.30		18.0				
51	4	-0.35						17.5
52	4	-0.22			17.6			
54	4	0.30		18.0				
55	4	-0.09						17.7
56	1	-1.96		16.3				
57	0	-2.43			15.9			
58	0	-6.71		12.6				
61	4	0.30			18.0			
63	4	0.17		17.9				
64	4	0.43		18.1				
68	4	0.30			18.0			
69	2	-1.26						16.8
70	2	1.08			18.6			
76	4	0.17						17.9
78	3	-0.74		17.2				
84	4	0.25						18.0
85	4	0.04		17.8				
86	3	0.69			18.3			
89	3	0.56		18.2				
90	4	-0.09						17.7
92	0	-6.32		12.9				
94	4	-0.42					17.5	
97	2	-1.26		16.8				
101	4	-0.48		17.4				
102	3	-0.87	17.1					
103	0	3.54					20.5	
109	3	-1.00		17.0				
113	0	7.04		23.2				
114	0	9.38		25.0				
116	3	-0.87					17.1	
119	4	-0.09					17.7	
120	3	-0.80		17.2				
121	4	0.04					17.8	
122	1	1.75		19.1				
124	0	4.19	21.0					
127	4	-0.22					17.6	
128	4	0.04					17.8	
134	4	0.30		18.0				
138	2	1.08					18.6	
139	3	0.69						18.3
140	4	-0.48		17.4				
141	4	-0.22					17.6	
142	1	1.73					19.1	
145	4	-0.26					17.6	
146	2	-1.39					16.7	
153	4	-0.09	17.7					
164	2	-1.12		16.9				
179	3	-0.74		17.2				
180	2	1.21					18.7	
182	0	-4.06		14.6				
183	4	-0.22						17.6
184	0	2.24					19.5	
189	0	3.02					20.1	
190	4	0.17	17.9					
191	4	0.17						17.9
196	0	-3.83		14.8				
197	2	-1.01					17.0	
207	4	0.30		18.0				

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued
total P (total Phosphorus) mg/L



0. Other	22p. Color: phosphomolybdate			
4. ICP				
22. Colorimetric				
N =	2	4	15	45
Minimum =	0.195	0.140	0.030	0.120
Maximum =	0.200	2.260	0.270	0.960
Median =			0.194	0.197
St Dev =			0.014	0.010

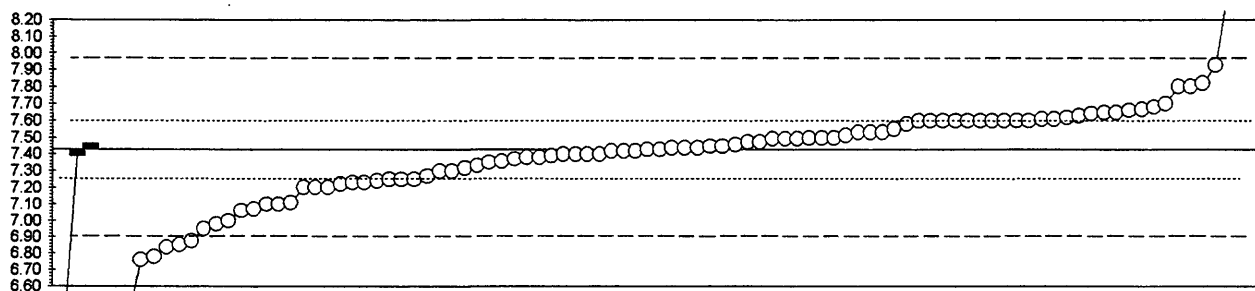
MPV = 0.197
 F-pseudostigma = 0.009
 N = 66
 Hu = 0.200
 HI = 0.188

Lab	Rating	Z-value	0	4	22	22p
1	4	-0.34			0.194	
3	1	2.02			0.215	
7	0	8.21			0.270	
8	0	-6.41		0.140		
9	3	-0.67			0.191	
11	4	0.34	0.200			
12	2	1.46			0.210	
13	2	1.46			0.210	
15	3	-0.67			0.191	
16	3	-0.56			0.192	
18	2	-1.35			0.185	
19	3	-0.79			0.190	
23	2	-1.24			0.186	
25	0	231.92		2.260		
36	4	-0.22	0.195			
37	0	-3.15			0.169	
38	3	-0.90			0.189	
42	4	0.00			0.197	
45	0	4.27			0.235	
46	3	-0.79			0.190	
52	3	0.56			0.202	
54	4	0.34			0.200	
55	0	2.59			0.220	
57	4	0.34			0.200	
58	0	-6.63			0.138	
59	4	0.34			0.200	
60	4	0.34			0.200	
61	0	-3.15			0.169	
63	4	0.34		0.200		
64	4	0.34			0.200	
68	3	-0.67			0.191	
70	4	0.34			0.200	
75	2	1.46			0.210	
78	4	0.11			0.198	
85	3	-0.79			0.190	
87	4	0.34			0.200	
89	4	-0.45			0.193	
92	0	-4.16			0.160	
94	1	-1.91			0.180	
102	4	0.34			0.200	
103	0	-4.16		0.160		
104	4	0.00			0.197	
107	3	-0.67			0.191	
108	0	7.08			0.260	
111	2	1.12			0.207	
113	2	-1.01			0.188	
114	2	-1.01			0.188	
118	4	0.34			0.200	
119	4	0.34			0.200	
120	1	-1.91			0.180	

Lab	Rating	Z-value	0	4	22	22p
127	2	1.24				0.208
128	1	-1.91				0.180
134	4	-0.22				0.195
138	4	-0.11				0.196
139	4	0.22				0.199
140	0	-18.77			0.030	
141	2	1.46				0.210
142	4	0.34				0.200
179	0	2.59			0.220	
180	4	-0.11				0.196
183	0	85.77				0.960
184	1	-1.91				0.180
189	4	0.34			0.200	
190	0	-7.08			0.134	
202	0	-8.66				0.120
207	4	0.34				0.20

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)--Continued

pH



0. Other			
41. Direct reading			
N =	3	93	
Minimum =	6.34	5.89	
Maximum =	7.45	8.39	
Median =	7.44		
St Dev =	0.351		

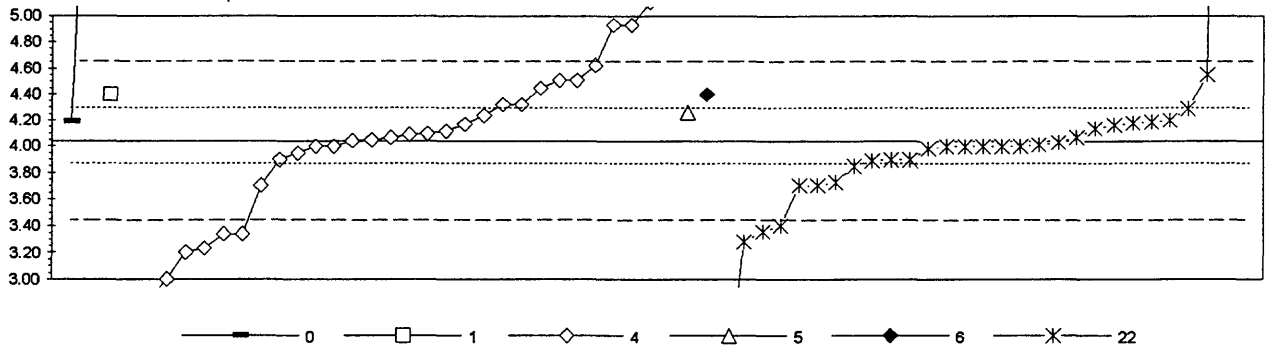
MPV = 7.43
 F-pseudostigma = 0.263
 N = 96
 Hu = 7.60
 HI = 7.25

Lab	Rating	Z-value	0	41
1	3	0.84		7.65
2	4	0.30		7.51
3	4	0.23		7.49
5	0	-4.14	6.34	
7	1	-1.63		7.00
8	0	-2.24		6.84
10	3	0.95		7.68
11	4	-0.11		7.40
12	2	-1.25		7.10
13	3	0.65		7.60
15	1	-1.71		6.98
16	3	-0.87		7.20
18	3	0.76		7.63
19	4	0.08		7.45
23	3	-0.68		7.25
24	4	-0.11		7.40
25	4	0.00		7.43
26	2	1.41		7.80
29	3	0.91		7.67
30	2	-1.37		7.07
32	3	-0.87		7.20
33	4	0.15		7.47
36	4	-0.11	7.40	
37	3	-0.72		7.24
38	4	0.27		7.50
39	3	0.65		7.60
41	0	-2.47		6.78
42	4	-0.27		7.36
43	4	-0.19		7.38
45	3	0.80		7.64
46	4	0.27		7.50
50	4	-0.49		7.30
51	4	0.38		7.53
52	4	-0.42		7.32
54	3	0.68		7.61
55	4	0.23		7.49
56	4	-0.04		7.42
57	3	0.65		7.60
58	4	-0.49		7.30
60	3	0.65		7.60
61	4	0.08		7.45
63	4	0.15		7.47
64	4	0.46		7.55
68	4	-0.11		7.40
69	4	0.38		7.53
70	4	-0.19		7.38
75	0	-2.55		6.76
76	4	-0.15		7.39
78	3	0.65		7.60
79	4	0.27		7.50

Lab	Rating	Z-value	0	41
84	0	-5.85		5.89
85	2	1.03		7.70
86	1	-1.82		6.95
87	4	0.00		7.43
89	4	-0.04		7.42
90	0	3.65		8.39
92	4	0.23		7.49
93	3	0.65		7.60
94	3	0.68		7.61
96	3	-0.80		7.22
97	4	-0.30		7.35
101	0	-2.20		6.85
104	2	1.48		7.82
107	3	-0.68		7.25
109	2	-1.22		7.11
113	4	0.04		7.44
114	3	-0.76		7.23
118	2	1.41		7.80
119	1	1.90		7.93
120	3	0.65		7.60
122	3	0.65		7.60
124	4	0.08	7.45	
127	4	0.38		7.53
128	3	0.57		7.58
134	3	0.84		7.65
138	4	0.11		7.46
139	3	-0.87		7.20
140	0	-2.09		6.88
141	3	0.65		7.60
142	2	-1.41		7.06
145	3	0.65		7.60
146	4	-0.11		7.40
151	3	-0.76		7.23
153	3	-0.68		7.25
161	3	0.87		7.66
179	0	-5.05		6.10
180	4	-0.23		7.37
182	4	0.04		7.44
183	3	-0.61		7.27
184	2	-1.25		7.10
189	0	-3.91		6.40
190	4	-0.38		7.33
194	3	0.72		7.62
197	4	-0.04		7.42
202	4	0.04		7.44
207	3	0.65		7.60

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued

SiO₂ (Silica) mg/L



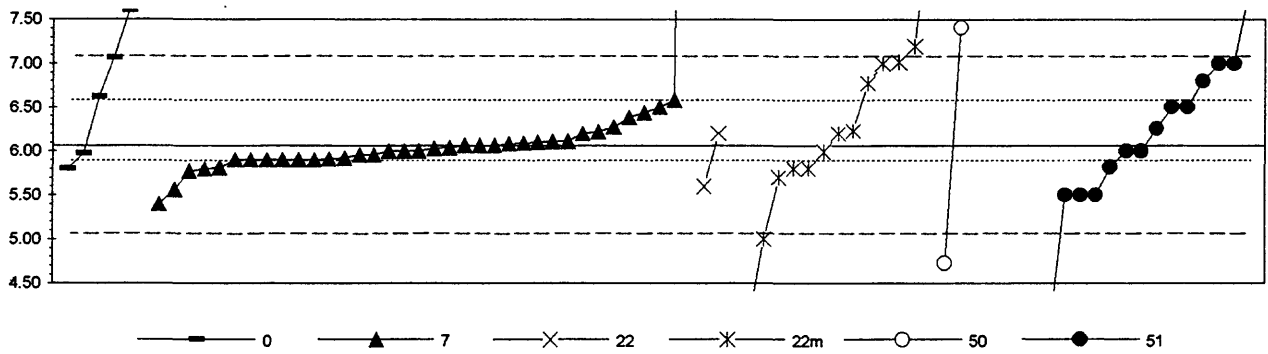
0. Other	5. DCP				
1. AA: direct air	6. ICP/MS				
4. ICP	22. Color: molybdate blue				
N = 2	1	30	1	1	29
Minimum = 4.19	4.40	2.00	4.26	4.40	2.00
Maximum = 7.71	4.40	6.52	4.26	4.40	12.00
Median = 4.08					4.00
St Dev = 0.465					0.287

MPV = 4.04
 F-pseudosigma = 0.300
 N = 64
 Hu = 4.28
 HI = 3.87

Lab	Rating	Z-value	0	1	4	5	6	22
1	4	0.10						4.07
2	0	-2.26						3.36
3	1	1.93			4.62			
4	4	0.00			4.04			
5	4	0.08			4.06			
8	0	3.53			5.10			
9	4	-0.50						3.89
10	4	-0.47						3.90
11	4	0.50	4.19					
13	4	-0.03						4.03
15	2	1.37			4.45			
18	4	-0.20						3.98
24	0	-2.33			3.34			
25	1	1.57			4.51			
32	2	1.20					4.40	
33	3	0.73				4.26		
36	0	12.22	7.71					
37	3	0.83						4.29
38	4	-0.13						4.00
39	0	-2.70			3.23			
42	4	-0.13			4.00			
43	4	0.20			4.10			
45	3	0.93			4.32			
50	4	-0.13						4.00
51	4	0.50						4.19
52	2	-1.13						3.70
55	3	0.67			4.24			
57	0	-2.80			3.20			
58	0	-2.53						3.28
59	4	-0.47						3.90
61	0	-6.79			2.00			
63	1	1.57			4.51			
64	4	-0.47			3.90			
68	4	0.33						4.14
70	4	-0.13						4.00
78	2	1.20	4.40					
85	3	0.53						4.20
87	4	-0.13						4.00
89	4	-0.13						4.00
92	2	-1.13						3.70
97	2	-1.03						3.73
101	2	-1.13			3.70			
102	0	26.51						12.00
103	0	-3.46			3.00			
104	4	-0.10						4.01
109	0	2.96			4.93			
113	4	0.40						4.16
116	0	-2.33			3.34			
118	4	0.47						4.18
119	4	-0.13			4.00			

Lab	Rating	Z-value	0	1	4	5	6	22
121	4	0.03			4.05			
127	4	0.43			4.17			
128	4	0.27			4.12			
134	4	0.17			4.09			
138	1	1.70						4.55
140	0	-6.79						2.00
141	0	-2.13						3.40
142	0	2.97			4.93			
145	4	-0.30			3.95			
146	0	-3.96			2.85			
184	0	8.26			6.52			
189	3	0.93			4.32			
190	3	-0.63						3.85
207	0	-3.46						3.00

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued
SO4 (Sulfate) mg/L

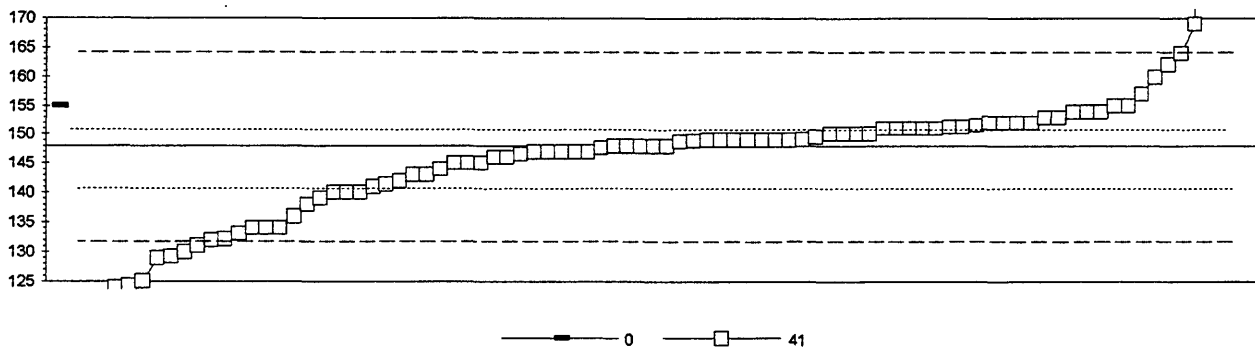


0. Other	22m. Color: methyl thymol blue					
7. Ion chromatography	50. Gravimetric					
22. Colorimetric	51. Turbidimetric					
N =	7	36	2	14	2	21
Minimum =	5.80	5.40	5.60	4.00	4.73	0.40
Maximum =	144.00	19.66	6.20	8.60	7.41	15.00
Median =	6.02			6.10		5.91
St Dev =	0.235		0.683			0.922

MPV = 6.06
 F-pseudostigma = 0.504
 N = 82
 Hu = 6.58
 HI = 5.90

Lab	Rating	Z-value	0	7	22	22m	50	51
1	4	0.00		6.06				
3	4	-0.04		6.04				
4	3	0.87		6.50				
5	4	-0.12		6.00				
7	4	-0.32		5.90				
8	4	-0.12		6.00				
9	3	-0.52			5.80			
10	2	-1.11					5.50	
11	3	-0.52	5.80					
12	0	-4.09			4.00			
13	0	5.04			8.60			
15	2	1.03		6.58				
16	4	0.40					6.26	
18	2	1.41			6.77			
19	4	-0.14			5.99			
23	4	-0.48						5.82
24	0	-3.89			4.10			
26	4	-0.32		5.90				
29	3	-0.52		5.80				
30	0	26.98		19.66				
32	4	-0.30		5.91				
33	2	-1.31		5.40				
36	4	-0.18	5.97					
37	NR			< 6				
39	3	-0.58		5.77				
42	4	-0.28		5.92				
43	NR					< 10		
45	2	1.47					6.80	
46	4	-0.20		5.96				
50	3	-0.52			5.80			
51	3	0.63		6.38				
52	NR						< 10	
54	1	1.86					7.00	
55	1	1.86			7.00			
56	0	3.06	7.60					
57	4	-0.12						6.00
58	0	-2.64				4.73		
61	0	-7.86					2.10	
63	0	17.74					15.00	
64	4	-0.32		5.90				
69	0	2.26			7.20			
70	3	-0.97		5.57				
75	NR			< 10				
76	4	0.32		6.22				
78	0	-7.06					2.50	
84	0	-11.23					0.40	
85	4	0.00		6.06				
86	4	0.06		6.09				
87	3	0.87					6.50	
89	0	-4.09					4.00	
92	3	0.87						6.50
93	4	-0.32		5.90				
94	3	-0.71					5.70	
96	2	-1.11						5.50
97	3	-0.91				5.60		
102	4	0.28				6.20		
109	0	2.68					7.41	
113	4	-0.20		5.96				
114	0	3.55						7.85
116	4	-0.12		6.00				
119	4	-0.12						6.00
120	0	-2.10					5.00	
121	4	0.08		6.10				
124	NR		< 10					
127	4	-0.06		6.03				
128	1	1.90					7.02	
134	4	0.28		6.20				
138	4	-0.32		5.90				
139	2	-1.11						5.50
140	0	273.65	144.00					
141	2	1.11	6.52					
142	1	1.86						7.00
145	4	0.10		6.11				
153	4	0.00		6.06				
161	3	0.75		6.44				
164	4	0.10		6.11				
180	4	0.34					6.23	
182	0	-10.04						1.00
183	0	-10.04						1.00
184	4	0.28				6.20		
189	0							< 1
190	1	1.98	7.06					
191	4	0.04		6.08				
193	4	-0.50		5.81				
194	NR						< 10	
196	4	-0.32		5.90				
197	4	0.42		6.27				
207	3	-0.58						5.77
209	0	-10.77	0.63					

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)--Continued
Sp Cond (Specific Conductance) μ S/cm



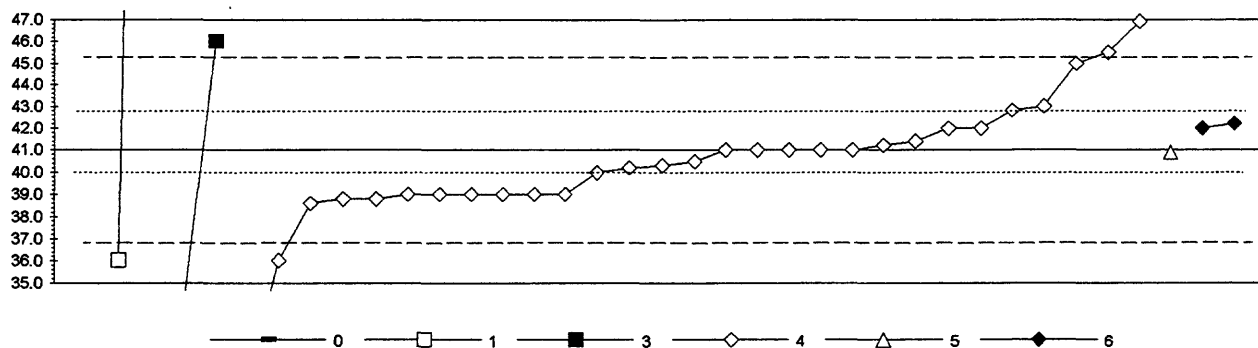
0. Other			
41. Direct reading			
N =	1	88	
Minimum =	155	89	
Maximum =	155	1500	
Median =		148	
St Dev =		8.9	

MPV = 148
 F-pseudostigma = 8.1
 N = 89
 Hu = 151
 HI = 141

Lab	Rating	Z-value	0	41
1	4	0.12		149
2	0	-2.35		129
3	4	0.00		148
5	2	1.11		157
7	4	0.50		152
8	0	-2.33		129
9	3	-0.74		142
10	4	0.12		149
11	0	-7.31		89
12	0	-2.10		131
13	4	0.20		150
15	3	0.74		154
16	4	0.42		151
18	1	1.73		162
19	4	0.09		149
23	0	-6.45		96
24	3	0.74		154
25	4	0.37		151
26	1	1.98		164
29	4	0.00		148
32	4	-0.12		147
33	3	-0.62		143
36	3	0.87	155	
37	4	-0.25		146
38	4	0.26		150
42	2	1.49		160
43	4	0.12		149
45	4	0.12		149
46	4	-0.25		146
50	4	0.37		151
51	3	-0.62		143
52	1	-1.73		134
54	4	0.12		149
56	0	-2.85		125
57	4	0.25		150
58	0	-2.97		124
60	2	-1.24		138
61	3	-0.99		140
63	4	0.45		152
64	4	0.42		151
68	4	0.12		149
69	3	0.87		155
70	1	-1.98		132
75	4	-0.12		147
76	4	0.37		151
78	0	-4.90		108
79	4	0.25		150
84	0	2.60		169
85	2	-1.11		139
86	4	0.50		152

Lab	Rating	Z-value	0	41
87	3	-0.99		140
89	4	-0.37		145
90	3	0.62		153
92	4	-0.05		148
93	3	-0.82		141
94	4	0.25		150
96	3	0.74		154
97	4	0.50		152
101	3	-0.87		141
102	2	-1.49		136
107	4	0.15		149
109	4	0.00		148
113	4	0.50		152
114	4	0.12		149
118	3	-0.99		140
119	4	0.00		148
122	4	0.00		148
124	4	-0.37		145
127	4	-0.12		147
128	4	-0.50		144
134	4	0.37		151
139	4	-0.12		147
141	4	0.37		151
142	4	-0.17		147
145	1	-1.73		134
146	3	0.62		153
153	3	0.87		155
161	1	-1.73		134
179	0	-2.23		130
182	0	146.72		1333
183	1	-1.86		133
184	0	167.40		1500
189	4	-0.12		147
190	4	0.11		149
193	4	-0.37		145
194	0	160.47		1444
197	0	-2.93		124
202	1	-1.96		132
207	4	-0.25		146

Table 7. Statistical summary of reported data for standard reference water sample M-126 (major constituent)—Continued
Sr (Strontium) μ g/L



0. Other	4. ICP					
1. AA: direct air	5. DCP					
3. AA: graphite furnace	6. ICP/MS					
N =	1	2	2	29	1	2
Minimum =	220.0	36.0	34.2	30.5	40.9	42.0
Maximum =	220.0	107.0	46.0	46.9	40.9	42.2
Median =				40.5		
St Dev =				2.58		

MPV = 41.0
 F-pseudostigma = 2.08
 N = 37
 Hu = 42.8
 HI = 40.0

Lab	Rating	Z-value	0	1	3	4	5	6
1	4	-0.39				40.2		
3	3	-0.96				39.0		
4	3	-0.96				39.0		
7	4	0.10				41.2		
8	0	2.84				46.9		
9	0	31.80	107.0					
15	4	-0.48				40.0		
16	3	-0.96				39.0		
18	4	0.00				41.0		
24	4	-0.34				40.3		
25	3	0.87				42.8		
32	3	0.58						42.2
33	4	-0.05					40.9	
39	3	0.96				43.0		
42	4	0.48				42.0		
46	2	-1.06				38.8		
52	2	-1.16				38.6		
55	0	-2.41				36.0		
57	NR					< 100		
63	0	2.17				45.5		
68	3	-0.96				39.0		
70	0					< 10		
85	4	-0.24				40.5		
94	4	0.00				41.0		
97	0	-3.28			34.2			
102	1	1.93				45.0		
103	4	0.00				41.0		
109	0	-2.41	36.0					
113	NR			< 200				
116	4	0.00				41.0		
121	4	0.00				41.0		
127	4	0.19				41.4		
128	NR					< 5		
134	3	-0.96				39.0		
138	4	0.48				42.0		
141	0	2.41			46.0			
145	3	-0.96				39.0		
146	2	-1.06				38.8		
182	0	86.24	220.0					
189	0	-5.06				30.5		
191	4	0.48						42.0

Table 14. Statistical summary of reported data for standard reference water sample M-126 (major constituent)--Continued

V (Vanadium)

μ g/L

0. Other		4. ICP	
1. AA: Direct air		6. ICP/MS	
3. AA: graphite furnace		22. Colorimetric	
N =	2	1	2
Minimum =	1.0	60.0	0.9
Maximum =	60.0	60.0	1.1
Median =			
St Dev =			

MPV = insufficient data
 F-pseudostigma =
 N =
 Hu =
 HI =

Lab	Rating	Z-value	0	1	3	4	6	22
1								4.1
3						< 3		
4						< 1		
5						< 4		
7						7.0		
11			1.0					
15					0.9			
16						< 10		
18						< 5		
25						< 4		
32							0.3	
46						< 6		
52					< 2			
57						< 50		
61						< 10		
63						< 10		
68						< 3		
70						< 50		
85						< 20		
94						< 5		
97					1.1			
102						3.9		
103						< 10		
127					< 2			
134					< 1			
138						< 3		
141						< 1		
145						< 1.3		
180						< 3.0		
182			60.0	60.0				
184						< 10		
189						23.9		

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Table 15.-- *Statistical summary of reported data for standard reference sample N-38 (nutrients)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

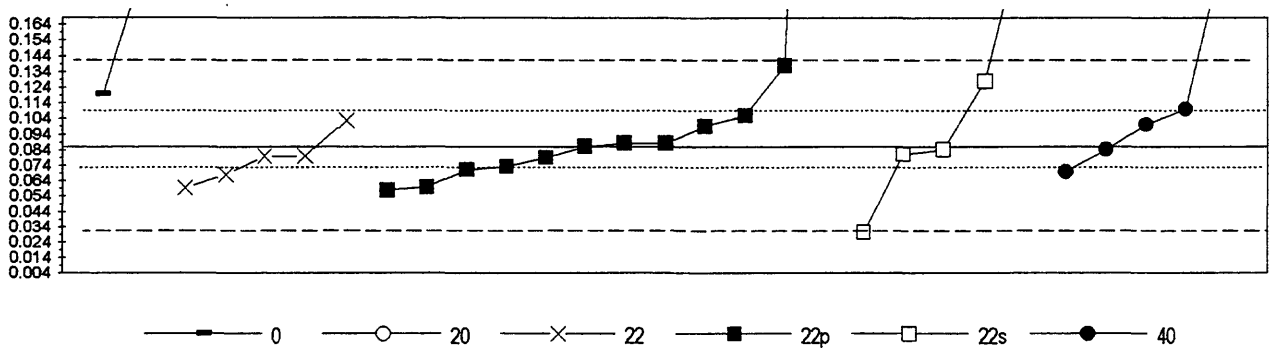
0. Other/Not reported	=	
7. IC	=	ion chromatography
22. Color:	=	colorimetric [color reagent specified]
40. Ion electrode	=	ion selective electrode

Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	95% confidence most probable value
F-pseudostigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
mg/L	=	milligrams per liter
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>		<u>page</u>
NH3 as N	Ammonia as nitrogen	114
NH3+Org N as N	Ammonia plus organic nitrogen	116
NO3+NO2 as N	Nitrate plus nitrite as nitrogen	118
Total P as P	Total Phosphorus as phosphorus	120
PO4 as P	Orthophosphate as phosphorus	122

Table 15. Statistical summary of reported data for standard reference water sample N-38 (preserved nutrients)--Continued
NH3 as N (Ammonia) m g/L

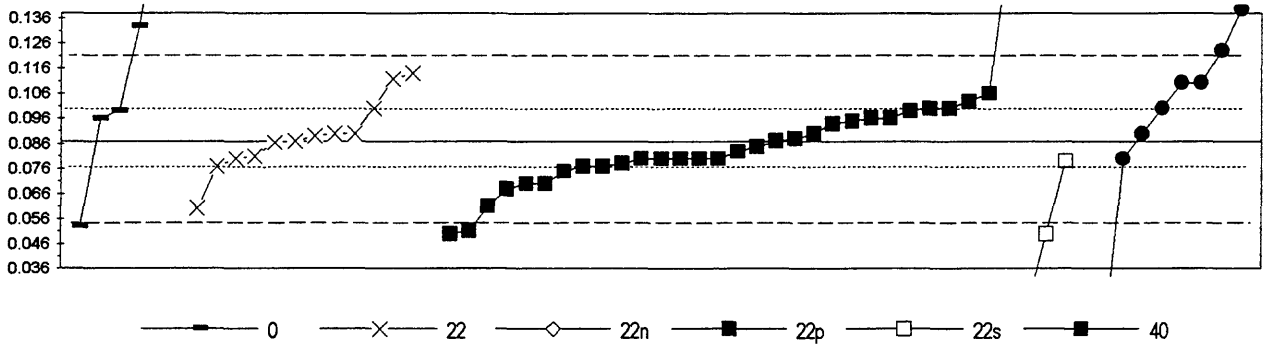


0. Other	22p. Color: phenate				
20. Titrate: colorimetric	22s. Color: salicylate				
22. Colorimetric	40. Ion electrode				
N = 2	0	5	12	5	5
Minimum = 0.120	0.059	0.058	0.030	0.070	
Maximum = 0.200	0.103	0.700	0.230	0.218	
Median =	0.086				
St Dev =	0.0228				

MPV = 0.086
 F-pseudosigma = 0.0274
 N = 29
 Hu = 0.110
 HI = 0.073

Lab	Rating	Z-value	0	20	22	22p	22s	40
1	4	-0.18					0.081	
7	3	-0.98			0.059			
11	2	1.24	0.120					
15	3	-0.55				0.071		
45	0	4.81						0.218
52	3	0.73				0.106		
61	1	1.90				0.138		
63	NR			< 0.3				
68	3	-0.58						0.070
75	1	1.53					0.128	
88	0	5.25					0.230	
89	4	0.47				0.099		
90	4	0.07				0.088		
93	4	-0.47				0.073		
97	4	-0.22			0.080			
108	4	-0.07						0.084
114	NR							< 0.10
118	3	-0.95				0.060		
119	3	0.88						0.110
120	4	0.07				0.088		
121	4	-0.26				0.079		
122	4	0.00				0.086		
124	0	4.16	0.200					
133	3	0.51						0.100
134	4	-0.07					0.084	
139	2	-1.02				0.058		
140	4	-0.22			0.080			
141	0	22.39				0.700		
145	1	-2.04					0.030	
179	3	0.62			0.103			
180	3	-0.66			0.068			

Table 15. Statistical summary of reported data for standard reference water sample N-38 (nonpreserved nutrients)—Continued
 NH₃ as N (Ammonia) m g/L



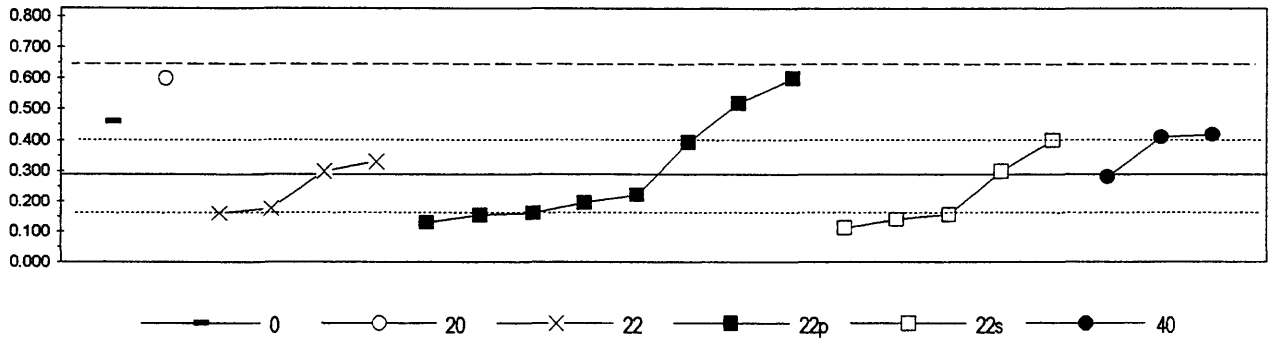
0. Other	22p. Color: phenate					
22. Colorimetric	22s. Color: salicylate					
22n. Color: Nesslerization	40. Ion electrode					
N =	6	12	1	30	3	10
Minimum =	0.053	0.060	0.440	0.050	0.019	0.002
Maximum =	0.420	0.114		0.165	0.079	0.289
Median =	0.088			0.080		0.105
St Dev =	0.0148			0.0144		0.0155

MPV = 0.087
 F-pseudostigma = 0.0170
 N = 61
 Hu = 0.100
 HI = 0.077

Lab	Rating	Z-value	0	22	22n	22p	22s	40
2	3	-0.59		0.077				
10	3	0.76				0.100		
11	0	5.45	0.180					
12	NR					< 0.2		
13	4	0.18				0.090		
15	0					< 0.05		
16	NR	< 0.1						
18	0	-2.11				0.051		
19	2	-1.11				0.068		
21	3	0.53				0.096		
23	3	0.70				0.099		
25	4	0.18					0.090	
32	0	2.70	0.133					
33	4	0.18		0.090				
36	NR	< 0.10						
37	4	-0.04		0.086				
38	3	0.53				0.096		
41	0	-4.75					0.006	
45	0	11.85					0.289	
46	3	0.94				0.103		
51	4	-0.41					0.080	
52	2	1.11				0.106		
55	4	-0.41				0.080		
58	1	-1.99	0.053					
59	4	-0.41				0.080		
63	NR	< 0.3						
68	0	-4.99					0.002	
70	4	-0.41				0.080		
74	3	0.76		0.100				
76	3	-0.70				0.075		
85	4	0.00				0.087		
87	0	4.57				0.165		
88	0	-3.99					0.019	
89	4	0.47				0.095		
91	1	-1.58		0.060				
92	0	3.11					0.140	
94	3	0.76				0.100		
96	1	-1.52				0.061		
97	4	0.18		0.090				
102	3	-1.00				0.070		
104	4	-0.23				0.083		
107	4	0.12		0.089				
111	4	-0.41				0.080		
113	0	-2.17				0.050		
114	NR						< 0.10	
118	4	-0.41				0.080		
119	2	1.35					0.110	
122	4	-0.12				0.085		
127	4	0.06				0.088		
128	3	-1.00				0.070		

Lab	Rating	Z-value	0	22	22n	22p	22s	40
134	4	-0.47						0.079
138	4	0.41				0.094		
139	3	-0.59				0.077		
142	4	-0.35		0.081				
145	0	-2.17					0.050	
151	3	0.76						0.100
161	0	2.11						0.123
179	2	1.47		0.112				
180	4	0.00		0.087				
182	0	20.70			0.440			
184	NR		< 0.1					
189	4	-0.41		0.080				
190	1	1.58		0.114				
194	NR		< 0.10					
197	3	-0.53				0.078		
198	3	0.71	0.099					
202	2	1.35						0.110
207	3	-0.59				0.077		
209	3	0.53	0.096					
210	0	19.53	0.420					

Table 15. Statistical summary of reported data for standard reference water sample N-38 (preserved nutrients)—Continued
NH₃ + Org. N as N (Ammonia + Organic N) m g/L

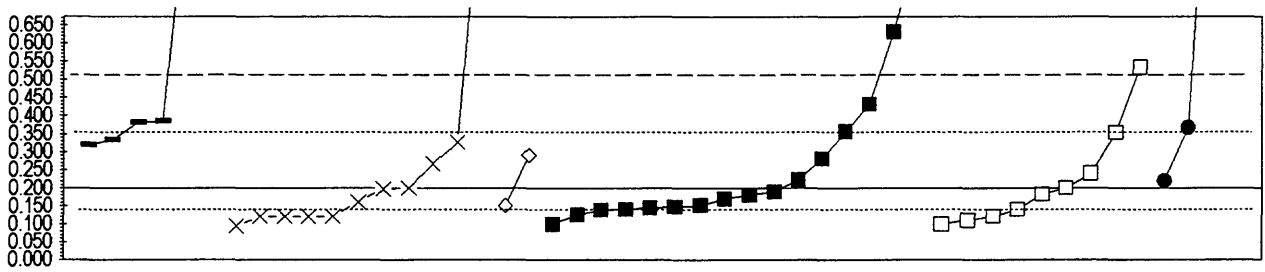


0. Other							22p. Color: phenate
20. Titrate: colorimetric							22s. Color: salicylate
22. Colorimetric							40. Ion electrode
N =	1	1	4	8	5	3	
Minimum =	0.460	0.600	0.160	0.129	0.110	0.280	
Maximum =			0.330	0.598	0.400	0.417	
Median =				0.208			
St Dev =				0.1823			

MPV = 0.289
 F-pseudosigma = 0.178
 N = 22
 Hu = 0.400
 HI = 0.160

Lab	Rating	Z-value	0	20	22	22p	22s	40
1	3	-0.75					0.156	
15	NR					< 0.5		
21	3	-0.52				0.196		
45	3	0.72						0.417
52	3	-0.90				0.129		
56	3	0.57				0.390		
61	3	-0.73				0.160		
63	1	1.75		0.600				
68	3	0.96	0.460					
89	2	-1.01					0.110	
97	3	-0.73			0.160			
114	3	0.62					0.400	
118	2	1.30				0.520		
119	4	-0.05						0.280
120	3	-0.76				0.154		
122	4	-0.39				0.220		
133	3	0.68						0.410
134	4	0.05					0.298	
139	1	1.74				0.598		
140	4	0.23			0.330			
141	NR					< 0.10		
145	3	-0.84					0.140	
179	4	0.06			0.300			
180	3	-0.64			0.176			

Table 15. Statistical summary of reported data for standard reference water sample N-38 (nonpreserved nutrients)—Continued
NH₃ + Org N as N (Ammonia + Organic N) m g/L



—■— 0 —×— 22 —◇— 22n —■— 22p —□— 22s —●— 40

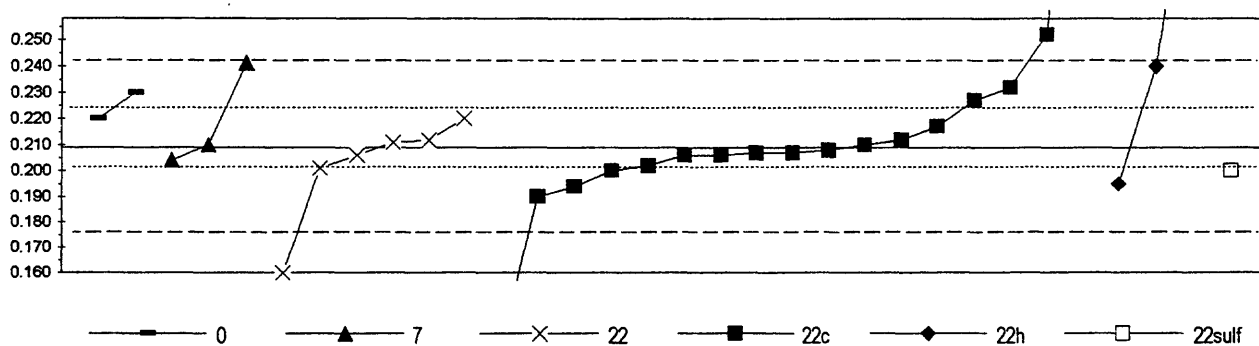
0. Other						22p. Color: phenate
22. Colorimetric						22s. Color: salicylate
22n. Color: Nesslerization						40. Ion electrode
N =	6	11	2	16	9	4
Minimum =	0.320	0.094	0.150	0.100	0.100	0.200
Maximum =	1.700	1.090	0.290	0.872	0.532	1.470
Median =	0.141			0.160	0.182	
St Dev =	0.0753			0.0944	0.1414	

MPV = 0.200
 F-pseudosigma = 0.158
 N = 48
 Hu = 0.353
 HI = 0.140

Lab	Rating	Z-value	0	22	22n	22p	22s	40
2	NR	< 1						
10	3	-0.51					0.120	
12	NR				< 0.3			
13	0	2.72			0.630			
15	NR				< 0.5			
16	3	0.85	0.334					
18	3	0.98			0.354			
21	4	-0.34			0.146			
23	0	2.10					0.532	
36	2	1.17	0.384					
37	4	0.42		0.266				
38	4	-0.32			0.150			
41	0	8.04						1.470
45	2	1.05						0.366
46	NR				< 0.2			
51	4	0.13						0.220
52	4	-0.47			0.126			
55	4	-0.06			0.190			
58	2	1.15	0.382					
59	3	-0.63					0.100	
63	0	9.50	1.700					
70	2	1.46			0.430			
74	3	-0.67		0.094				
79	NR						< 0.2	
85	3	-0.63			0.100			
87	0	4.26			0.872			
89	4	-0.38					0.140	
90	4	-0.39			0.138			
91	3	-0.51		0.120				
94	3	0.51			0.280			
96	4	-0.38			0.140			
97	3	-0.51		0.120				
102	4	-0.32			0.150			
107	3	0.80		0.326				
113	NR						< 0.5	
114	4	0.25					0.240	
118	4	-0.19			0.170			
119	4	0.00						0.200
122	4	-0.13			0.180			
127	4	-0.33			0.148			
128	NR				< 0.5			
134	3	0.96					0.352	
138	4	-0.11					0.182	
139	4	0.15			0.223			
142	4	-0.01		0.198				
145	3	-0.57					0.110	
179	4	0.00		0.200				
180	4	-0.24		0.162				
183	3	0.76	0.320					
184	NR			< 0.1				

Lab	Rating	Z-value	0	22	22n	22p	22s	40
189	0	5.64		1.090				
190	3	-0.51		0.120				
194	3	-0.51		0.120				
198	NR		< 0.1					
202	4	0.00						0.200
207	3	0.57			0.290			
210	0	5.38	1.050					

Table 15. Statistical summary of reported data for standard reference water sample N-38 (preserved nutrients)—Continued
NO₃ + NO₂ as N (Nitrate + Nitrite) m g/L

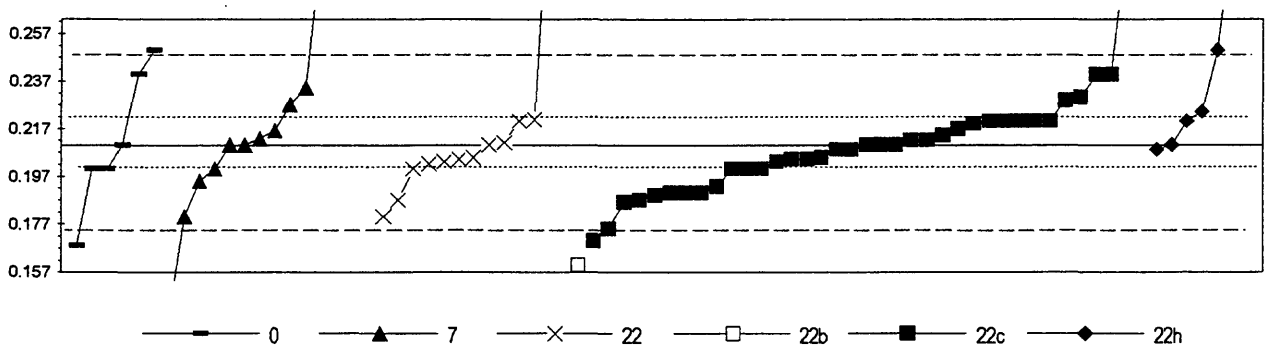


0. Other	22c. Color: Cd diazo					
7. Ion chromatography	22h. Color: hydrazine diazo					
22. Colorimetric	22sulf. Color: sulfanilamide					
N =	2	3	6	17	3	1
Minimum =	0.220	0.204	0.160	0.130	0.195	0.200
Maximum =	0.230	0.241	0.220	0.403	0.330	
Median =	0.207					
St Dev =	0.0157					

MPV = 0.209
 F-pseudostigma = 0.0163
 N = 32
 Hu = 0.224
 HI = 0.202

Lab	Rating	Z-value	0	7	22	22c	22h	22sulf
1	4	-0.06				0.208		
7	4	0.18			0.212			
11	3	0.67	0.220					
21	3	-0.86					0.195	
29	4	0.06		0.210				
39	4	-0.31		0.204				
42	1	1.96		0.241				
43	3	-0.55						0.200
45	2	1.41				0.232		
52	4	0.18				0.212		
53	0	-4.84				0.130		
61	4	0.49				0.217		
63	3	0.67		0.220				
75	4	-0.18				0.206		
78	2	1.10				0.227		
88	0	11.90				0.403		
92	4	-0.43				0.202		
97	4	0.06				0.210		
108	3	-0.55				0.200		
114	0	7.42					0.330	
118	1	1.90					0.240	
119	0	-3.00		0.160				
121	4	-0.18				0.206		
122	4	-0.12				0.207		
124	2	1.29	0.230					
134	4	-0.12				0.207		
139	3	-0.92				0.194		
140	4	-0.49		0.201				
141	0	2.64				0.252		
145	2	-1.17				0.190		
179	4	-0.18				0.206		
180	4	0.12		0.211				

Table 15. Statistical summary of reported data for standard reference water sample N-38 (nonpreserved nutrients)—Continued
NO3 + NO2 as N (Nitrate + Nitrite) m g/L



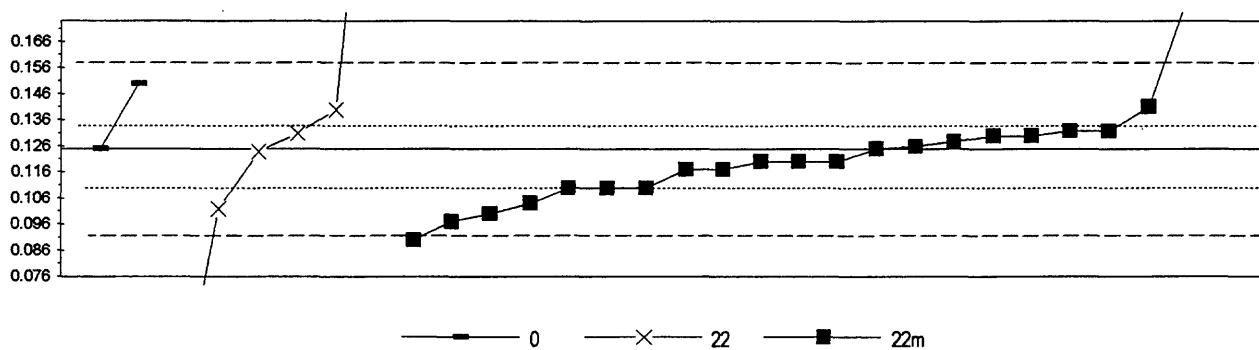
0. Other	22b. Color: brucine					
7. Ion chromatography	22c. Color: Cd diazo					
22. Colorimetric	22h. Color: hydrazine diazo					
N =	6	14	13	1	37	7
Minimum =	0.168	0.140	0.180	0.160	0.170	0.208
Maximum =	0.250	0.810	0.407		0.400	0.310
Median =	0.210	0.204			0.208	0.220
St Dev =	0.0163	0.0123			0.0165	0.0168

MPV = 0.210
 F-pseudostigma = 0.018
 N = 78
 Hu = 0.224
 HI = 0.200

Lab	Rating	Z-value	0	7	22	22b	22c	22h
2	2	-1.29			0.187			
10	4	0.00				0.210		
11	4	0.00	0.210					
12	3	0.56				0.220		
13	2	-1.12				0.190		
15	NR		< 0.5					
16	0	11.07		0.407				
18	2	-1.29				0.187		
19	1	1.69				0.240		
21	3	0.56					0.220	
23	4	0.11				0.212		
25	0	11.80	0.420					
29	3	-0.56	0.200					
32	4	0.17	0.213					
33	0	-3.93	0.140					
36	3	-0.56	0.200					
37	4	0.34	0.216					
38	3	0.51				0.219		
41	4	-0.28				0.205		
42	2	1.35	0.234					
45	2	1.07				0.229		
46	4	0.22				0.214		
51	4	0.00	0.210					
52	4	0.11				0.212		
55	3	0.56				0.220		
56	0	-2.25				0.170		
58	0	2.25	0.250				0.210	
59	4	0.00					0.210	
63	3	-0.56		0.200				
68	3	-0.56	0.200					
69	3	-0.56				0.200		
70	3	0.56				0.220		
74	4	-0.34		0.204				
76	3	0.96	0.227					
78	1	-1.97				0.175		
85	4	0.00				0.210		
87	2	-1.12				0.190		
88	0	10.68				0.400		
89	4	-0.11				0.208		
90	3	0.79						0.224
91	1	-1.69		0.180				
92	4	-0.34				0.204		
94	2	-1.12				0.190		
96	4	-0.11					0.208	
97	3	0.56				0.220		
102	3	0.56				0.220		
104	4	0.39				0.217		
107	4	-0.45		0.202				
113	2	-1.18				0.189		
114	0	5.06						0.300

Lab	Rating	Z-value	0	7	22	22b	22c	22h
118	4	0.00						0.210
119	0	-2.81				0.160		
120	3	-0.56					0.200	
122	4	-0.11					0.208	
127	4	-0.39					0.203	
128	0	2.25						0.250
134	4	-0.34					0.204	
138	3	-0.96					0.193	
139	2	-1.35					0.186	
142	4	0.06			0.211			
145	3	-0.56					0.200	
146	0	4.78					0.295	
151	4	0.00	0.210					
161	0	10.45	0.396					
179	4	-0.28			0.205			
180	4	-0.39			0.203			
184	4	0.00			0.210			
189	0	6.75			0.330			
190	3	0.62			0.221			
191	3	-0.84	0.195					
193	1	-1.69	0.180					
194	3	0.56			0.220			
196	0	4.67	0.293					
197	1	1.69					0.240	
198	1	1.69	0.240					
202	2	1.12					0.230	
206	0	33.73		0.810				
207	0	5.62						0.310
210	0	-2.36	0.168					

Table 15. Statistical summary of reported data for standard reference water sample N-38 (preserved nutrients)—Continued
Total P as P (total Phosphorus) m g/L



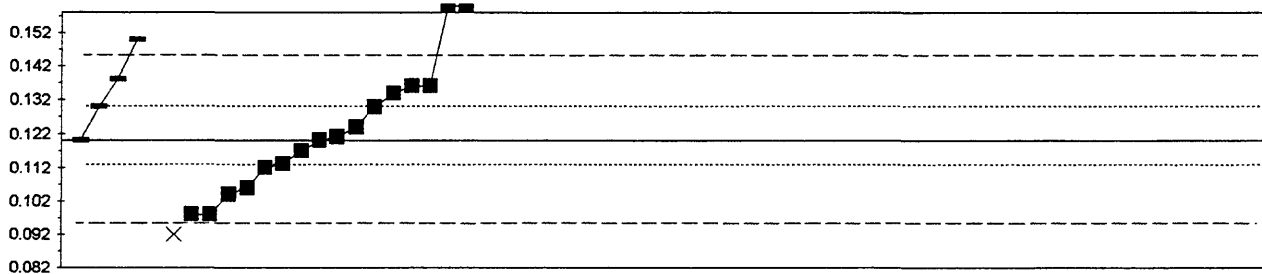
0. Other			
22. Colorimetric			
22m. Color: phosphomolybdate			
N =	2	6	22
Minimum =	0.125	0.020	0.090
Maximum =	0.150	0.290	0.250
Median =	0.120		
St Dev =	0.0133		

MPV = 0.125
 F-pseudosigma = 0.0163
 N = 30
 Hu = 0.132
 HI = 0.110

Lab	Rating	Z-value	0	22	22m
1	4	-0.49			0.117
7	0	10.12	0.290		
11	1	1.53	0.150		
15	4	0.06			0.126
42	4	0.37	0.131		
45	3	0.98			0.141
52	4	-0.31			0.120
53	1	-1.72			0.097
56	3	-0.92			0.110
61	4	-0.49			0.117
63	4	-0.31			0.120
68	4	0.00	0.125		
75	4	0.43			0.132
78	0	-2.15			0.090
89	4	0.00			0.125
92	1	-1.53			0.100
97	3	0.92	0.140		
108	0	7.66			0.250
114	4	-0.31			0.120
118	3	-0.92			0.110
119	4	0.31			0.130
122	2	-1.29			0.104
133	4	0.31			0.130
134	4	0.18			0.128
139	4	0.43			0.132
140	0	-6.44	0.020		
141	0	3.68			0.185
145	3	-0.92			0.110
179	4	-0.06	0.124		
180	2	-1.41	0.102		

Table 15. Statistical summary of reported data for standard reference water sample N-38 (nonpreserved nutrients)—Continued

Total P as P (total Phosphorus) m g/L



— 0 —◆— 4 —×— 6 —■— 22

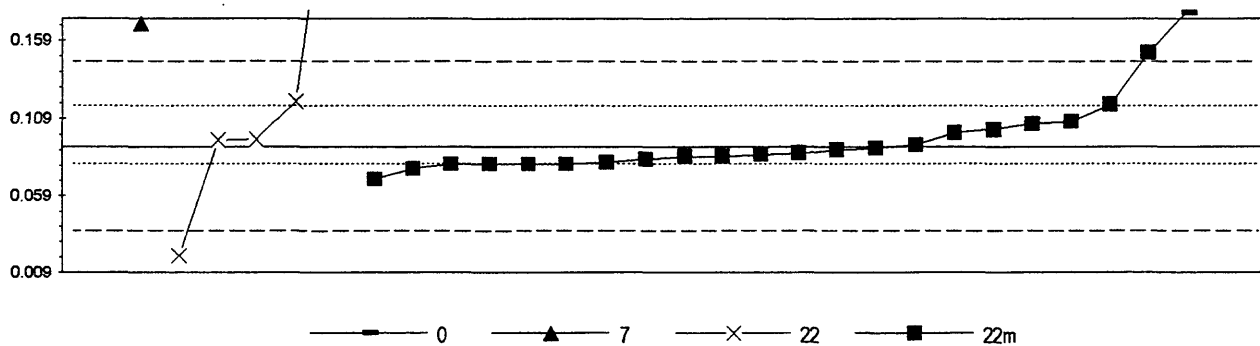
0. Other	22. Colorimetric
4. ICP	22m. Color: phosphomolybdate
6. ICP/MS	
N =	4 0 1 17 43
Minimum =	0.120 0.092 0.098 0.060
Maximum =	0.150 0.860 0.316
Median =	0.119 0.120
St Dev =	0.0133 0.0125

MPV = 0.120
 F-pseudosigma = 0.0126
 N = 65
 Hu = 0.130
 HI = 0.113

Lab	Rating	Z-value	0	4	6	22	22m
2	2	1.11				0.134	
5	2	-1.11				0.106	
10	1	1.59				0.140	
11	3	0.79	0.130				
12	0	2.38				0.150	
13	3	0.79				0.130	
15	4	0.48				0.126	
16	2	1.27			0.136		
18	4	-0.48				0.114	
19	4	0.00				0.120	
21	3	0.79				0.130	
23	4	0.16				0.122	
25	NR		< 0.121				
36	4	0.00	0.120				
37	1	-1.75				0.098	
38	3	0.63				0.128	
45	1	1.59				0.140	
46	4	-0.48				0.114	
51	4	-0.24				0.117	
52	3	-0.56				0.113	
55	3	-0.79				0.110	
58	0	7.78				0.218	
59	1	-1.59				0.100	
63	4	0.00				0.120	
70	4	0.00				0.120	
74	4	0.32				0.124	
78	1	1.59				0.140	
79	NR					< 0.20	
85	4	0.00				0.120	
87	0	15.55				0.316	
89	4	-0.48				0.114	
90	0	2.46				0.151	
91	0	3.17				0.160	
92	3	-0.79				0.110	
94	4	0.00				0.120	
96	0	-2.06				0.094	
97	0	3.17				0.160	
102	4	0.32				0.124	
104	3	0.63				0.128	
107	3	-0.63				0.112	
111	4	-0.08				0.119	
113	4	0.00				0.120	
114	4	0.00				0.120	
118	3	-0.79				0.110	
119	3	0.79				0.130	
120	3	-0.79				0.110	
122	1	-1.90				0.096	
127	4	0.00				0.120	
128	4	0.00				0.120	
134	4	0.08				0.121	

Lab	Rating	Z-value	0	4	6	22	22m
138	4	-0.40					0.115
139	2	1.19					0.135
142	2	-1.27				0.104	
145	3	-0.79					0.110
161	2	1.27				0.136	
179	4	0.08				0.121	
180	1	-1.75				0.098	
183	4	-0.40					0.115
184	0	58.72				0.860	
189	4	0.00				0.120	
190	3	-0.56				0.113	
191	0	-2.22			0.092		
194	3	0.79				0.130	
198	2	1.43	0.138				
202	4	0.00					0.120
207	0	-4.76					0.060
210	0	2.37	0.150				

Table 15. Statistical summary of reported data for standard reference water sample N-38 (preserved nutrients)—Continued
PO4 as P (Orthophosphate) m g/L

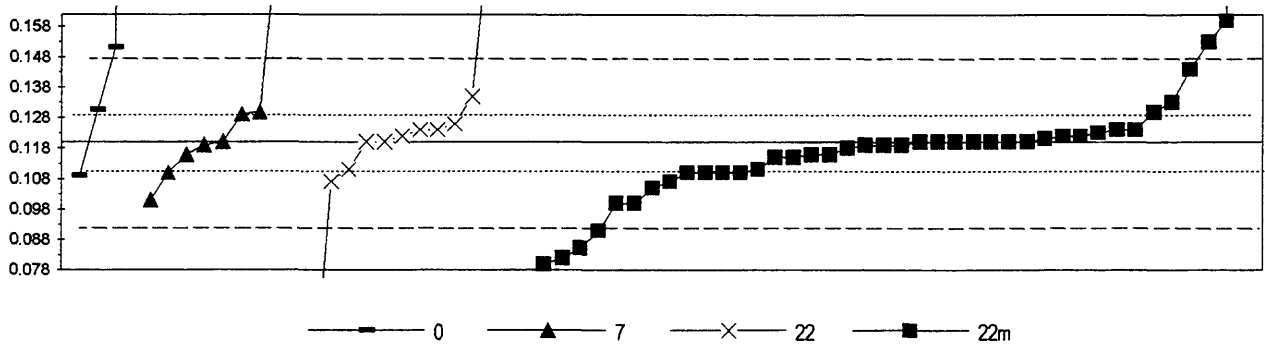


0. Other	22m. Color: phosphomolybdate			
7. Ion chromatography				
22. Colorimetric				
N =	1	1	5	23
Minimum =	0.840	0.170	0.020	0.070
Maximum =			0.300	0.674
Median =				0.086
St Dev =				0.0179

MPV = 0.091
 F-pseudosigma = 0.0274
 N = 30
 Hu = 0.118
 HI = 0.081

Lab	Rating	Z-value	0	7	22	22m
1	4	-0.36				0.081
7	0	7.62			0.300	
11	0	27.31	0.840			
29	0	2.88		0.170		
42	4	-0.07				0.089
45	3	0.58				0.107
52	4	-0.15				0.087
56	3	-0.77				0.070
61	3	0.55				0.106
63	4	0.33				0.100
75	4	-0.29				0.083
78	0	2.19				0.151
88	0	21.26				0.674
89	4	-0.18				0.086
90	3	-0.51				0.077
92	4	0.40				0.102
97	2	1.06			0.120	
108	0	3.24				0.180
118	4	-0.40				0.080
119	4	-0.40				0.080
121	4	-0.22				0.085
122	4	-0.40				0.080
133	4	-0.40				0.080
134	4	0.04				0.092
139	4	-0.22				0.085
140	0	-2.59			0.020	
141	3	0.98				0.118
145	4	-0.04				0.090
179	4	0.18			0.096	
180	4	0.15			0.095	

Table 15. Statistical summary of reported data for standard reference water sample N-38 (nonpreserved nutrients)—Continued
PO4 as P (Orthophosphate) **m g/L**



0. Other	22e. Color: phosphomolybdate			
7. Ion chromatography				
22. Colorimetric				
N =	4	9	13	40
Minimum =	0.109	0.101	0.030	0.080
Maximum =	0.890	0.360	2.600	0.703
Median =	0.119	0.122	0.119	
St Dev =	0.0102	0.0082	0.0162	

MPV = 0.120
 F-pseudosigma = 0.0141
 N = 66
 Hu = 0.129
 Hi = 0.110

Lab	Rating	Z-value	0	7	22	22m
2	4	0.14			0.122	
10	4	0.28				0.124
11	0	54.67	0.890			
12	3	-0.71				0.110
13	4	0.00				0.120
15	4	0.14				0.122
16	3	-0.64			0.111	
18	1	1.70				0.144
19	4	0.14				0.122
21	4	0.21				0.123
23	0	-2.70				0.082
25	NR				< 0.168	
29	0	4.97		0.190		
32	4	-0.28		0.116		
33	3	0.71		0.130		
36	3	-0.78	0.109			
37	0	5.18			0.193	
38	4	-0.14				0.118
45	3	0.92				0.133
46	3	-0.64				0.111
51	3	-0.92			0.107	
52	4	-0.07				0.119
55	4	0.00				0.120
58	4	-0.07				0.119
59	4	0.00				0.120
63	3	0.71				0.130
70	2	-1.42				0.100
74	4	0.28			0.124	
78	0					< 0.05
85	4	0.00				0.120
87	0	2.34				0.153
88	0	41.39				0.703
89	4	0.07				0.121
92	3	-0.71				0.110
96	2	-1.07				0.105
97	4	0.00			0.120	
102	0	-2.49				0.085
104	4	0.00				0.120
111	4	-0.28				0.116
113	4	-0.35				0.115
118	3	-0.71				0.110
119	3	-0.71				0.110
120	2	-1.42				0.100
122	4	-0.35				0.115
127	4	-0.07		0.119		
134	4	-0.28				0.116
138	4	0.28				0.124
139	0	-2.06				0.091
142	4	0.28			0.124	
145	4	0.00				0.120

Lab	Rating	Z-value	0	7	22	22m
146	4	-0.07				0.119
151	4	0.00		0.120		
161	0	-6.39			0.030	
179	2	1.07			0.135	
180	4	0.43			0.126	
182	0	2.84				0.160
183	3	-0.92				0.107
184	0	176.08			2.600	
189	4	0.00			0.120	
190	0	90.17			1.390	
191	3	-0.71		0.110		
196	3	0.64		0.129		
197	2	-1.35		0.101		
198	3	0.75	0.131			
202	4	0.00				0.120
206	0	17.04		0.360		
207	0	-2.84				0.080
210	0	2.20	0.151			

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Table 16.-- *Statistical summary of reported data for standard reference sample N-39 (nutrients)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

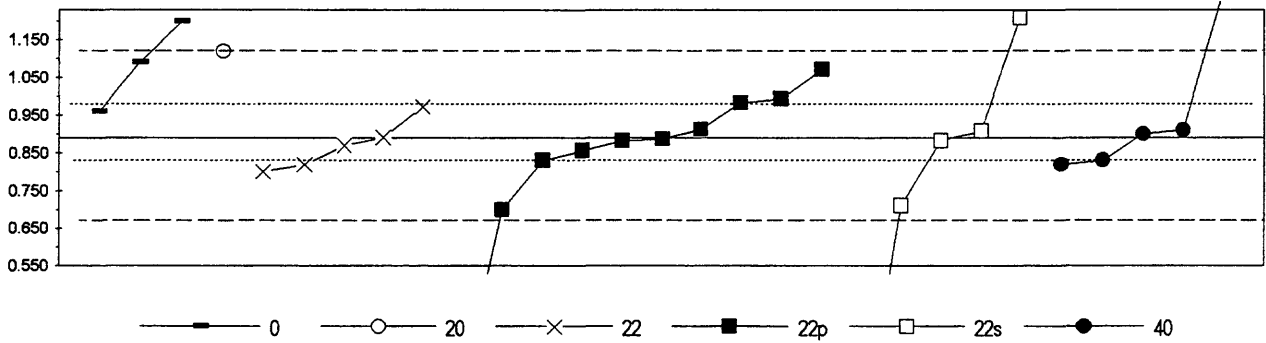
0. Other/Not reported	=	ion chromatography
7. IC	=	ion chromatography
22. Color:	=	colorimetric [color reagent specified]
40. Ion electrode	=	ion selective electrode

Abbreviations and symbols

N =	number of samples
St dev =	traditional standard deviation
MPV =	95% confidence most probable value
F-pseudostigma =	nonparametric statistic deviation
Hu =	upper hinge value
Hi =	lower hinge value
mg/L =	milligrams per liter
Lab =	laboratory code number
NR =	not rated, less than value reported
< =	less than

<u>Constituent</u>		<u>page</u>
NH3 as N	Ammonia as nitrogen	125
NH3+Org N as N	Ammonia plus organic nitrogen	127
NO3+NO2 as N	Nitrate plus nitrite as nitrogen	129
Total P as P	Total Phosphorus as phosphorus	131
PO4 as P	Orthophosphate as phosphorus	133

Table 16. Statistical summary of reported data for standard reference water sample N-39 (preserved nutrients)--Continued
NH3 as N (Ammonia)
m g/L

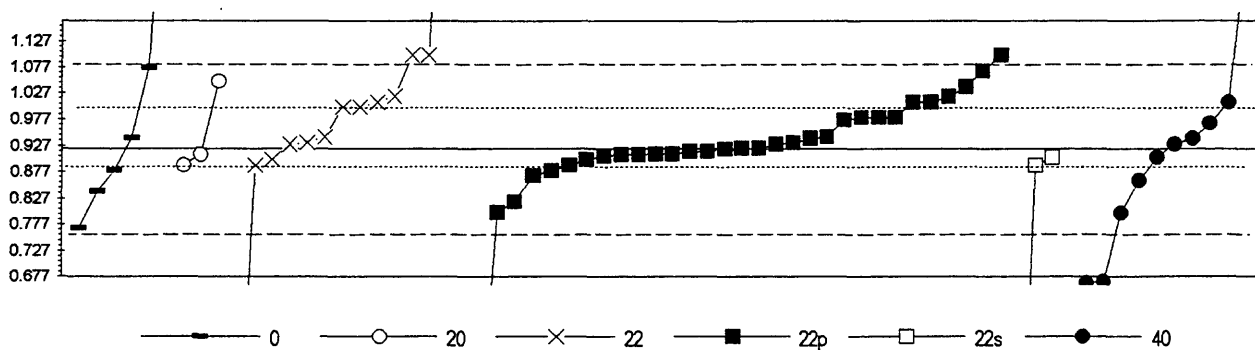


0. Other	22p. Color: phenate					
20. Titrate: colorimetric	22s. Color: salicylate					
22. Colorimetric	40. Ion electrode					
N =	3	1	5	10	5	5
Minimum =	0.960	1.120	0.801	0.216	0.063	0.820
Maximum =	1.200	1.120	0.972	1.070	1.210	1.290
Median =	0.886					
St Dev =	0.1071					

MPV = 0.890
 F-pseudosigma = 0.1134
 N = 29
 Hu = 0.983
 HI = 0.830

Lab	Rating	Z-value	0	20	22	22p	22s	40
1	4	0.15					0.907	
7	4	-0.18			0.870			
11	3	0.62	0.960					
15	1	1.59				1.070		
45	0	3.53						1.290
52	3	0.72			0.972			
60	1	2.03		1.120				
61	3	0.90				0.992		
63	0				< 0.3			
68	3	-0.62						0.820
75	0	2.82					1.210	
88	0	-7.29					0.063	
89	4	-0.08				0.881		
90	3	0.82				0.983		
93	4	0.20				0.913		
97	3	-0.62			0.820			
114	4	0.18						0.910
118	1	-1.68				0.700		
119	3	-0.53						0.830
120	4	-0.30				0.856		
122	0	-5.94				0.216		
124	0	2.73	1.200					
133	4	0.09						0.900
134	4	-0.06					0.883	
139	3	-0.53				0.830		
140	4	0.00			0.890			
141	4	-0.04				0.886		
145	1	-1.59					0.710	
179	1	1.76	1.090					
180	3	-0.78			0.801			

Table 16. Statistical summary of reported data for standard reference water sample N-39 (nonpreserved nutrients)—Continued
NH₃ as N (Ammonia) **m g/L**



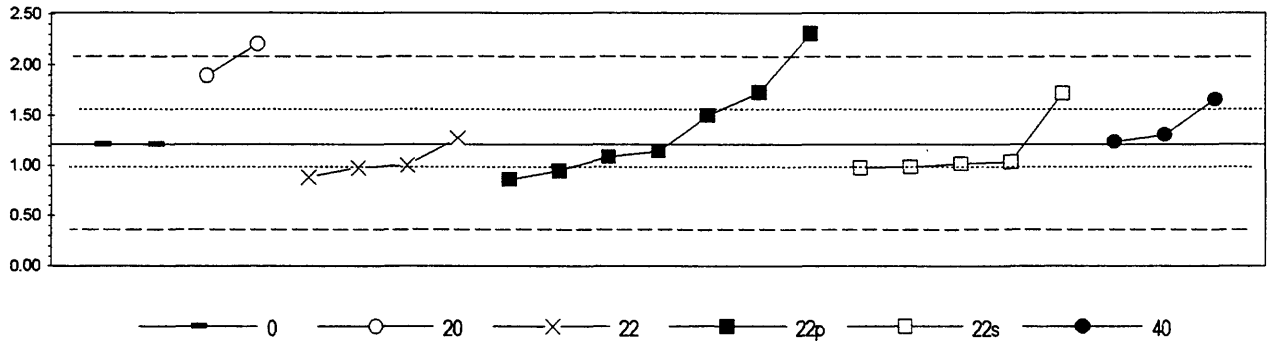
0. Other						
20. Titrate: colorimetric	22p. Color: phenate					
22. Colorimetric	22s. Color: salicylate					
	40. Ion electrode					
N =	6	3	13	32	3	11
Minimum =	0.770	0.890	0.221	0.216	0.065	0.154
Maximum =	1.600	1.050	1.880	1.100	0.905	1.310
Median =			1.000	0.922		0.930
St Dev =			0.0726	0.0665		0.0701

MPV = 0.922
 F-pseudosigma = 0.0815
 N = 68
 Hu = 1.000
 Hl = 0.890

Lab	Rating	Z-value	0	20	22	22p	22s	40
3	4	0.10			0.930			
9	4	0.13			0.932			
10	3	0.72				0.980		
11	0	8.32	1.600					
12	0	2.19				1.100		
13	4	-0.14				0.910		
15	4	-0.07				0.916		
16	4	-0.39		0.890				
18	4	-0.01				0.921		
19	4	-0.02				0.920		
23	4	-0.08				0.915		
25	4	-0.20						0.905
32	4	0.24	0.941					
33	0	2.19			1.100			
36	3	-0.51	0.880					
37	4	0.26			0.943			
38	2	1.44				1.039		
41	0	-3.15						0.665
45	0	-3.12						0.667
46	4	0.26				0.943		
52	3	0.96			1.000			
55	4	0.10				0.930		
57	2	1.09						1.010
58	1	-1.86	0.770					
59	3	0.72				0.980		
60	4	-0.14		0.910				
63	0	2.19			1.100			
68	0	-9.41						0.154
70	3	-0.63				0.870		
74	2	1.22			1.021			
76	4	0.01				0.922		
84	4	0.23				0.940		
85	2	1.09				1.010		
87	0	-6.69				0.376		
88	0	-10.50					0.065	
89	4	-0.14				0.910		
91	4	-0.39			0.890			
92	0	4.76						1.310
94	2	1.09				1.010		
96	4	-0.13				0.911		
97	2	1.09			1.010			
102	2	-1.49				0.800		
104	4	-0.19				0.906		
111	4	-0.26				0.900		
113	1	1.82				1.070		
114	4	0.10						0.930
118	4	-0.39				0.890		
119	3	-0.75						0.860
122	0	-8.65				0.216		
127	3	0.67				0.976		

Lab	Rating	Z-value	0	20	22	22p	22s	40
128	3	-0.51				0.880		
134	4	-0.20						0.905
138	3	0.72				0.980		
139	4	0.14				0.933		
145	4	-0.39						0.890
151	4	0.23						0.940
161	2	-1.50						0.799
179	1	1.88	1.075					
180	3	0.96				1.000		
182	0	11.75				1.880		
184	2	-1.24					0.820	
189	4	-0.26				0.900		
190	0	-8.59				0.221		
197	4	-0.13					0.911	
202	3	0.59						0.970
205	1	1.58		1.050				
207	2	1.21					1.020	
210	3	-1.00	0.840					

Table 16. Statistical summary of reported data for standard reference water sample N-39 (preserved nutrients)—Continued
NH3 + Org N as N (Ammonia + Organic N) m g/L

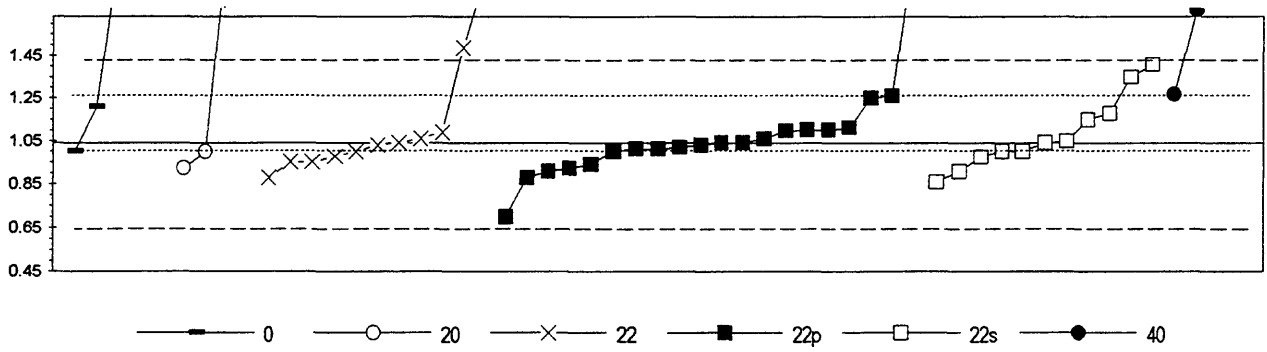


0. Other							22p. Color: phenate
20. Titrate: colorimetric							22s. Color: salicylate
22. Colorimetric							40. Ion electrode
N =	2	2	4	7	5	3	
Minimum =	1.22	1.90	0.89	0.86	0.99	1.24	
Maximum =	1.22	2.21	1.28	2.31	1.72	1.66	
Median =							1.15
St Dev =							0.515

MPV = 1.22
 F-pseudosigma = 0.430
 N = 23
 Hu = 1.58
 HI = 1.00

Lab	Rating	Z-value	0	20	22	22p	22s	40
1	4	-0.47					1.02	
15	4	-0.16				1.15		
45	4	0.21						1.31
52	3	-0.78			0.89			
60	0	2.30		2.21				
61	2	1.19				1.73		
63	1	1.58		1.90				
68	4	0.00	1.22					
89	3	-0.55					0.99	
97	3	-0.56			0.98			
114	2	1.16					1.72	
118	3	0.65				1.50		
119	2	1.02						1.66
120	3	-0.62				0.95		
122	4	-0.30				1.09		
133	4	0.05						1.24
134	4	-0.42					1.04	
139	0	2.54				2.31		
140	4	0.14			1.28			
141	3	-0.84				0.86		
145	3	-0.53					0.99	
179	4	0.00	1.22					
180	4	-0.49			1.01			

Table 16. Statistical summary of reported data for standard reference water sample N-39 (nonpreserved nutrients)—Continued
NH₃ + Org N as N (Ammonia + Organic N) m g/L



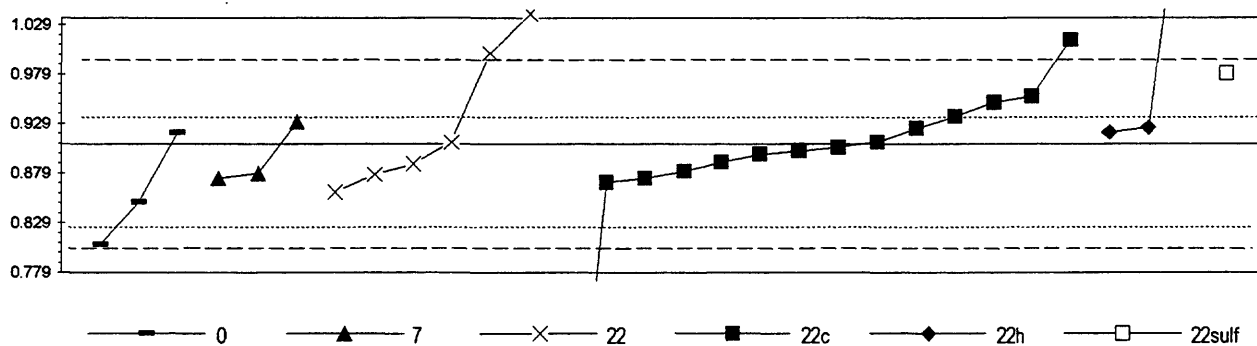
0. Other							22p. Color: phenate
20. Titrate: colorimetric							22s. Color: salicylate
22. Colorimetric							40. Ion electrode
N =	5	4	11	20	11	4	
Minimum =	1.00	0.92	0.88	0.70	0.86	1.27	
Maximum =	2.98	1.96	1.82	1.97	1.41	2.60	
Median =							1.02 1.03 1.04
St Dev =							0.168 0.127 0.173

MPV = 1.04
 F-pseudostigma = 0.196
 N = 55
 Hu = 1.27
 HI = 1.00

Lab	Rating	Z-value	0	20	22	22p	22s	40
3	NR			< 1				
9	4	-0.05			1.03			
10	4	0.00					1.04	
12	1	-1.73				0.70		
13	2	1.12				1.26		
15	4	0.10				1.06		
16	3	-0.61		0.92				
18	2	1.07				1.25		
21	4	0.28				1.10		
23	1	1.58					1.35	
36	0	4.48	1.92					
37	0	2.29			1.49			
38	4	-0.46			0.95			
41	0	3.16						1.66
45	2	1.17						1.27
46	3	-0.61				0.92		
52	3	-0.84			0.88			
55	4	-0.15				1.01		
57	0	7.94						2.60
58	0	9.72	2.95					
59	4	-0.20					1.00	
60	0	4.63		1.95				
70	4	-0.15				1.01		
74	4	-0.20			1.00			
79	3	-0.92					0.86	
85	4	0.31				1.10		
87	4	0.00				1.04		
89	4	-0.34					0.97	
90	4	-0.05				1.03		
91	4	0.00			1.04			
94	4	0.36				1.11		
96	4	0.00				1.04		
97	4	-0.46			0.95			
102	4	-0.20				1.00		
113	3	0.71					1.18	
114	1	1.88					1.41	
118	3	-0.81				0.88		
119	0	3.77						1.78
122	3	-0.51				0.94		
127	4	-0.10				1.02		
128	3	-0.66				0.91		
134	3	0.56					1.15	
138	4	-0.20					1.00	
139	0	4.73				1.97		
145	3	-0.66					0.91	
179	3	0.87	1.21					
180	4	-0.32			0.98			
183	0	4.68		1.96				
184	4	0.31				1.10		
189	0	3.97			1.82			

Lab	Rating	Z-value	0	20	22	22p	22s	40
190	4	0.25					1.09	
198	4	-0.20	1.00					
202	4	0.05						1.05
205	4	-0.20		1.00				
207	4	0.10					1.06	
210	0	9.85	2.98					

Table 16. Statistical summary of reported data for standard reference water sample N-39 (preserved nutrients)—Continued
NO3 + NO2 as N (Nitrate + Nitrite) m g/L

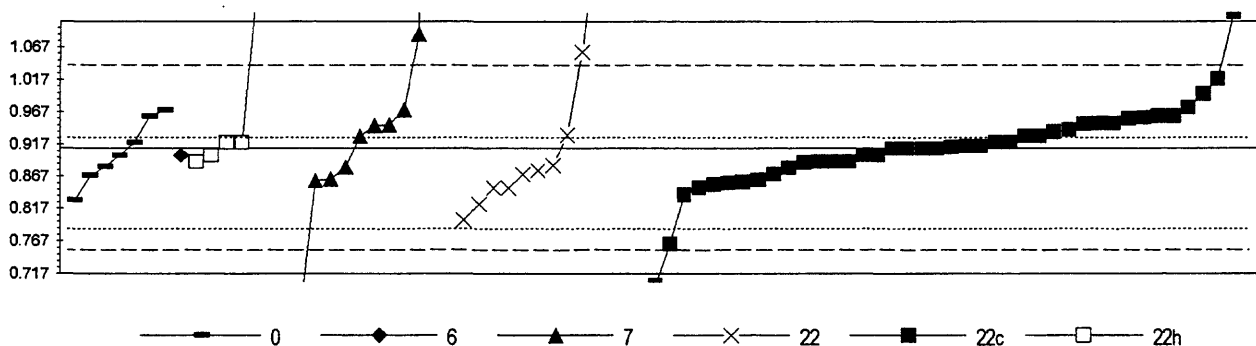


0. Other	22c. Color: Cd diazo					
7. Ion chromatography	22h. Color: hydrazine					
22. Colorimetric	22sulf. Color: sulfanilamide					
N =	3	3	6	14	3	1
Minimum =	0.807	0.874	0.860	0.500	0.920	0.980
Maximum =	0.920	0.930	1.040	1.014	1.220	
Median =	0.905					
St Dev =	0.0401					

MPV = 0.908
 F-pseudostigma = 0.043
 N = 30
 Hu = 0.936
 HI = 0.878

Lab	Rating	Z-value	0	7	22	22c	22h	22sulf
1	4	-0.15				0.901		
7	0	3.08			1.040			
11	4	0.29	0.920					
29	3	0.52		0.930				
39	3	-0.66		0.879				
42	3	-0.78		0.874				
43	1	1.69						0.980
45	3	0.66				0.936		
52	4	-0.45			0.888			
53	0	-9.48				0.500		
60	4	0.06			0.910			
61	4	0.06				0.910		
63	2	-1.10			0.860			
75	4	-0.22				0.898		
78	4	0.38				0.924		
88	0	2.48				1.014		
92	3	-0.62				0.881		
97	3	0.99				0.950		
114	0	7.27					1.220	
118	4	0.29					0.920	
119	0	2.15			1.000			
122	4	-0.06				0.905		
124	2	-1.34	0.850					
134	2	1.13				0.956		
139	3	-0.78				0.874		
140	3	-0.69			0.878			
141	4	0.41					0.925	
145	3	-0.87				0.870		
179	0	-2.34	0.807					
180	4	-0.41				0.890		

Table 16. Statistical summary of reported data for standard reference water sample N-39 (nonpreserved nutrients)--Continued
NO3 + NO2 as N (Nitrate + Nitrite) m g/L

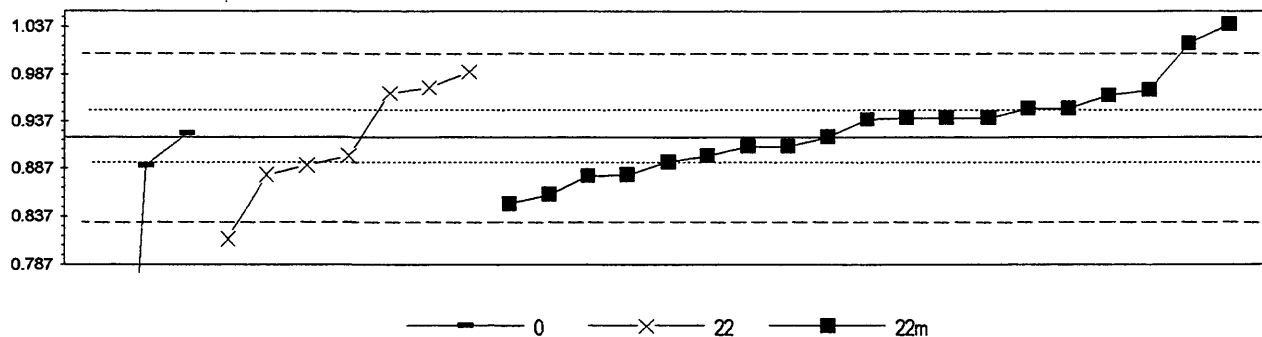


0. Other	22. Colorimetric
6. ICP/MS	22c. Color: Cd diazo
7. Ion chromatography	22h. Color: hydrazine
N = 7	1 12 12 42 6
Minimum = 0.830	0.900 0.656 0.799 0.450 0.890
Maximum = 0.970	3.500 1.276 1.180 1.180
Median = 0.900	0.938 0.870 0.910
St Dev = 0.0500	0.0740 0.0764 0.0484

MPV = 0.912
 F-pseudosigma = 0.0649
 N = 80
 Hu = 0.958
 HI = 0.870

Lab	Rating	Z-value	0	6	7	22	22c	22h
3	1	-1.73				0.799		
9	2	-1.36				0.823		
10	4	-0.02				0.910		
11	4	0.13	0.920					
12	4	-0.18				0.900		
13	4	-0.33				0.890		
15	0	-3.94		0.656				
16	0	5.22			1.250			
18	3	-0.82				0.858		
19	4	-0.49				0.880		
23	3	0.58				0.949		
25	0	32.35			3.010			
29	4	0.29			0.930			
32	3	0.53			0.946			
33	0	-3.88			0.660			
36	4	-0.45	0.882					
37	3	-0.67	0.868					
38	4	0.04				0.914		
41	0	-2.30				0.762		
42	4	-0.47			0.881			
45	3	0.72				0.958		
46	3	0.96				0.974		
52	4	-0.42			0.884			
55	4	0.29				0.930		
57	3	0.59				0.950		
58	3	0.90	0.970					
59	4	0.29				0.930		
60	3	-0.95			0.850			
63	3	-0.64			0.870			
68	4	-0.18	0.900					
69	4	-0.02				0.910		
70	3	0.75				0.960		
74	3	-0.55			0.876			
76	3	-0.79		0.860				
78	2	-1.13				0.838		
84	0	-3.26				0.700		
85	4	0.13				0.920		
87	4	-0.02				0.910		
88	1	1.64				1.018		
89	4	-0.02				0.910		
90	4	0.13					0.920	
91	3	-0.95			0.850			
92	3	-0.87				0.855		
94	3	-0.95				0.850		
96	4	-0.33					0.890	
97	4	0.44				0.940		
102	4	-0.18				0.900		
104	4	0.04				0.914		
113	3	-0.78				0.861		
114	0	4.14					1.180	
118	4	-0.18						0.900
119	0	2.29					1.060	
120	4	0.13						0.920
122	4	0.38						0.936
126	0	-7.12						0.450
127	4	0.02						0.913
128	4	0.13						0.920
133	3	0.75						0.960
134	3	0.70						0.957
138	3	-0.64						0.870
139	3	-0.84						0.857
145	4	-0.33						0.890
146	0	4.14						1.180
151	3	-0.75			0.863			
161	0	2.71			1.087			
179	2	-1.26	0.830					
180	4	-0.35						0.889
184	4	-0.33						0.890
189	0	5.53					1.270	
190	4	0.30					0.931	
191	4	-0.18		0.900				
193	3	0.90			0.970			
196	3	0.56			0.948			
197	2	1.29						0.995
198	3	0.75	0.960					
202	3	0.59						0.950
205	0	3.21						1.120
206	0	39.91			3.500			
207	0	3.99						1.170
210	0	5.62					1.276	

Table 16. Statistical summary of reported data for standard reference water sample N-39 (preserved nutrients)--Continued
Total P as P (total Phosphorus) m g/L

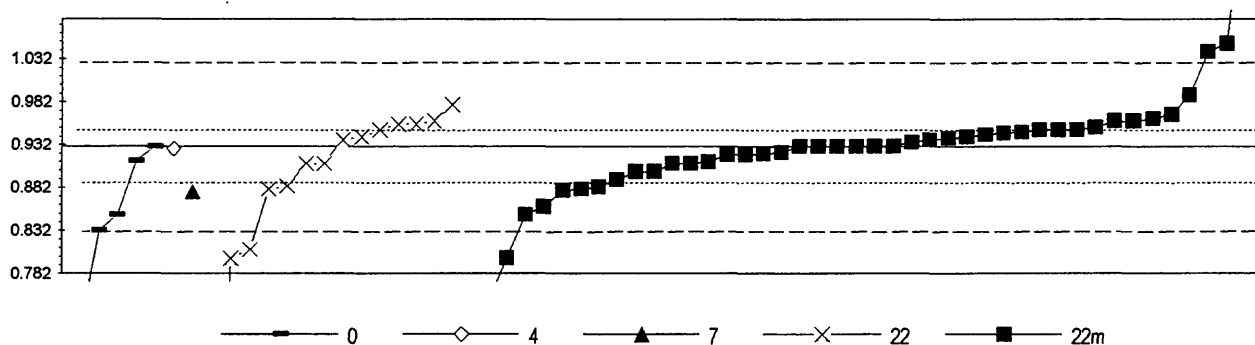


0. Other			
22. Colorimetric			
22m. Color: phosphomolybdate			
N =	3	7	19
Minimum =	0.200	0.814	0.850
Maximum =	0.924	0.990	1.040
Median =	0.900	0.939	
St Dev =	0.063	0.049	

MPV = 0.920
 F-pseudostigma = 0.044
 N = 29
 Hu = 0.950
 HI = 0.890

Lab	Rating	Z-value	0	22	22m
1	2	1.06		0.967	
7	1	1.57		0.990	
11	3	-0.67	0.890		
15	0	2.25			1.020
42	4	0.45			0.940
45	0	2.70			1.040
52	2	1.19		0.973	
53	4	-0.22			0.910
60	3	-0.67	0.890		
61	3	-0.58			0.894
63	4	0.00			0.920
68	4	0.09	0.924		
75	2	1.12			0.970
78	3	-0.90			0.880
89	3	0.67			0.950
92	2	-1.35			0.860
97	4	-0.45	0.900		
114	4	-0.45			0.900
118	3	0.67			0.950
119	4	0.45			0.940
122	4	0.45			0.940
133	1	-1.57			0.850
134	4	0.43			0.939
139	3	-0.92			0.879
140	3	-0.90	0.880		
141	2	1.01			0.965
145	4	-0.22			0.910
179	0	-16.19	0.200		
180	0	-2.38	0.814		

Table 16. Statistical summary of reported data for standard reference water sample N-39 (nonpreserved nutrients)—Continued
Total P as P (total Phosphorus) m g/L



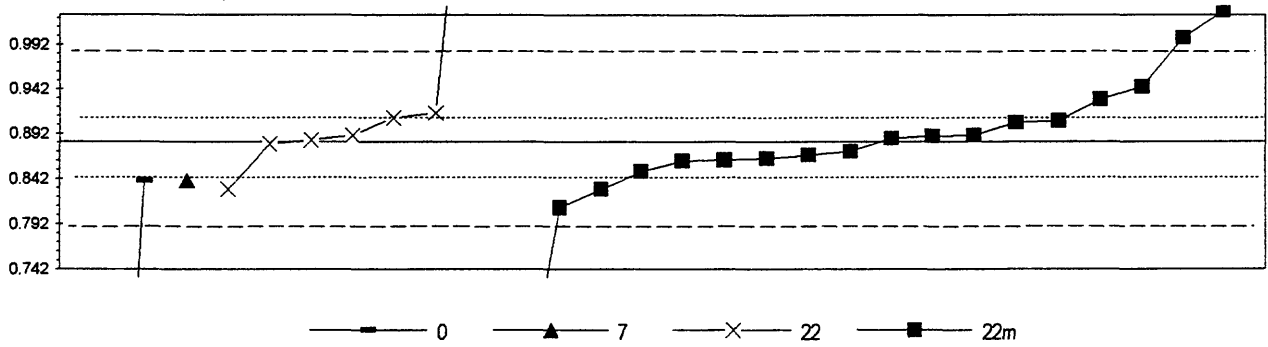
0. Other	22. Colorimetric			
4. ICP	22m. Color: phosphomolybdate			
7. Ion chromatography				
N = 5	1	1	14	43
Minimum = 0.720	0.928	0.877	0.136	0.160
Maximum = 0.930			0.979	1.240
Median =			0.938	0.930
St Dev =			0.057	0.045

MPV = 0.930
 F-pseudosigma = 0.0493
 N = 64
 Hu = 0.950
 Hl = 0.884

Lab	Rating	Z-value	0	4	7	22	22m
3	3	0.99				0.979	
5	4	0.22				0.941	
9	2	-1.01				0.880	
10	4	0.20					0.940
11	4	0.00	0.930				
12	2	1.22					0.990
13	4	0.41					0.950
15	4	0.28					0.944
16	4	0.16				0.938	
18	4	-0.14					0.923
19	3	-0.61					0.900
23	4	0.32					0.946
25	4	-0.04		0.928			
36	4	-0.34	0.913				
37	0	-2.43				0.810	
38	4	0.10					0.935
45	0	2.23					1.040
46	4	-0.37					0.912
52	3	0.55				0.957	
55	3	0.61					0.960
57	4	0.41					0.950
58	3	-0.95					0.883
59	3	-0.61					0.900
60	4	0.41				0.950	
63	3	0.61					0.960
70	4	0.00					0.930
74	3	0.55				0.957	
78	0	-2.64					0.800
79	4	-0.20					0.920
85	1	-1.62					0.850
87	0	6.29					1.240
89	4	0.34					0.947
90	0	2.43					1.050
91	3	0.61				0.960	
92	2	-1.01					0.880
94	4	0.41					0.950
96	3	-0.79					0.891
97	4	-0.41				0.910	
102	4	-0.18					0.921
104	4	0.47					0.953
111	4	0.16					0.938
113	4	0.02					0.931
114	2	-1.42					0.860
118	4	0.00					0.930
119	4	-0.20					0.920
120	4	0.00					0.930
122	3	0.77					0.968
127	3	0.67					0.963
128	4	-0.41					0.910
134	4	0.24					0.942

Lab	Rating	Z-value	0	4	7	22	22m
138	4	-0.41					0.910
139	2	-1.03					0.879
145	4	0.00					0.930
161	0	-16.11				0.136	
179	0	-4.26	0.720				
180	0	-2.64				0.800	
184	0	-15.62					0.160
189	4	-0.41				0.910	
190	3	-0.93				0.884	
191	2	-1.08		0.877			
198	1	-1.62	0.850				
202	4	0.00					0.930
207	0	-3.65					0.750
210	1	-1.98	0.833				

Table 16. Statistical summary of reported data for standard reference water sample N-39 (preserved nutrients)—Continued
PO4 as P (Orthophosphate) **m g/L**

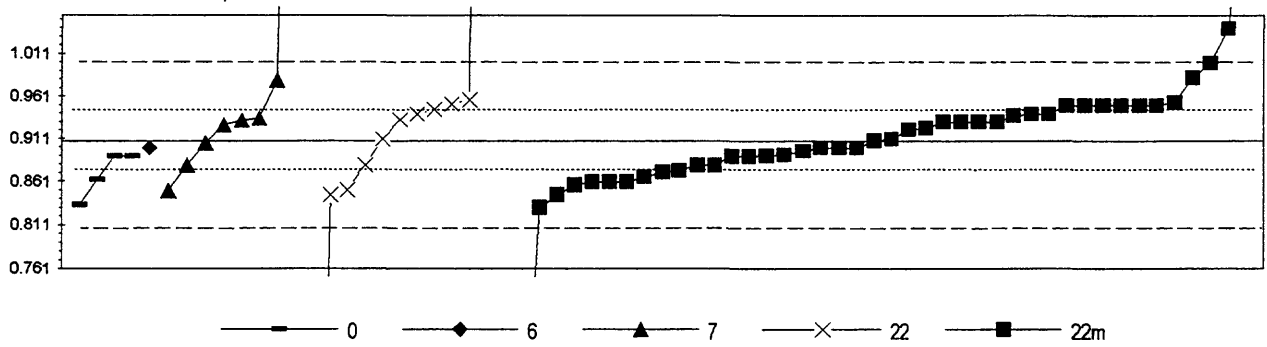


0. Other	22m. Color: phosphomolybdate			
7. Ion chromatography				
22. Colorimetric				
N =	2	1	7	18
Minimum =	0.082	0.840	0.830	0.565
Maximum =	0.840		1.400	1.030
Median =			0.888	0.879
St Dev =			0.0303	0.0458

MPV = 0.883
 F-pseudostigma = 0.0467
 N = 28
 Hu = 0.908
 HI = 0.845

Lab	Rating	Z-value	0	7	22	22m
1	4	-0.05			0.880	
7	0	11.08			1.400	
11	3	-0.91	0.840			
29	3	-0.91		0.840		
42	4	-0.40				0.864
45	0	3.16				1.030
52	4	0.05			0.885	
60	4	0.16			0.890	
61	4	0.14				0.889
63	0	2.52				1.000
75	4	-0.31				0.868
78	0	-6.80				0.565
88	4	0.07				0.886
89	4	-0.22				0.872
90	4	0.50				0.906
92	4	0.16				0.890
97	3	0.59			0.910	
118	2	1.02				0.930
119	1	-1.55				0.810
122	4	-0.46				0.861
133	3	-0.70				0.850
134	4	0.46				0.904
139	4	-0.42				0.863
140	2	-1.12			0.830	
141	2	1.34				0.945
145	2	-1.12				0.830
179	0	-17.14	0.082			
180	3	0.70			0.915	

Table 16. Statistical summary of reported data for standard reference water sample N-39 (nonpreserved nutrients)--Continued
PO4 as P (Orthophosphate) **m g/L**



0. Other	22. Colorimetric				
6. ICP/MS	22m. Color: phosphomolybdate				
7. Ion chromatography	N = 4	1	8	11	43
Minimum =	0.834	0.900	0.850	0.030	0.320
Maximum =	0.890		2.700	4.590	1.320
Median =			0.927	0.933	0.909
St Dev =			0.0420	0.0434	0.0440

MPV = 0.908
 F-pseudosigma = 0.0489
 N = 67
 Hu = 0.943
 HI = 0.877

Lab	Rating	Z-value	0	6	7	22	22m
3	3	0.76				0.945	
9	2	-1.17				0.851	
10	4	0.45					0.930
11	4	-0.37	0.890				
12	4	0.45					0.930
13	4	0.45					0.930
15	3	0.86					0.950
16	2	-1.27			0.846		
18	4	0.31					0.923
19	4	-0.16					0.900
23	3	-0.86					0.866
25	0	8.42					1.320
29	3	-0.57			0.880		
32	4	0.39			0.927		
33	2	1.47			0.980		
36	4	-0.37	0.890				
37	4	0.49			0.932		
38	4	-0.35					0.891
45	0	2.70					1.040
46	3	-0.72					0.873
52	3	0.51				0.933	
55	3	0.86					0.950
57	1	-1.59					0.830
58	3	-0.76					0.871
59	3	0.86					0.950
60	3	0.65				0.940	
63	1	1.88					1.000
70	3	-0.57					0.880
74	3	1.00				0.957	
78	2	-1.29					0.845
85	3	-0.98					0.860
87	1	1.53					0.983
88	4	0.04					0.910
89	3	0.61					0.938
92	3	-0.57					0.880
96	4	-0.33					0.892
97	3	-0.57			0.880		
102	0	-8.13					0.510
104	3	0.65					0.940
111	4	-0.16					0.900
113	4	-0.25					0.896
118	3	0.86					0.950
119	3	-0.98					0.860
120	3	-0.98					0.860
122	4	0.00					0.908
127	3	0.94					0.954
134	4	0.27					0.921
138	3	0.86					0.950
139	2	-1.04					0.857
145	4	-0.37					0.890

Lab	Rating	Z-value	0	6	7	22	22m
146	4	-0.37					0.890
151	2	-1.19			0.850		
161	0	-17.95				0.030	
179	1	-1.51	0.834				
180	3	0.90				0.952	
182	3	0.86					0.950
183	4	-0.16					0.900
184	0	-12.02					0.320
189	4	0.04				0.910	
190	0	75.26				4.590	
191	4	-0.16		0.900			
196	4	-0.04			0.906		
197	3	0.55			0.935		
202	4	0.45					0.930
206	0	36.63			2.700		
207	3	0.65					0.940
210	3	-0.93	0.863				

Table 17.-- *Statistical summary of reported data for standard reference sample P-20 (low ionic strength constituents)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

0. Other/Not reported	=	
1. AA: direct, air	=	atomic absorption: direct,air
2. AA: direct, N2O	=	atomic absorption: direct,nitrous oxide
4. ICP	=	inductively coupled plasma
5. DCP	=	direct current plasma
6. ICP/MS	=	mass spectrometry/inductively coupled plasma
7. IC	=	ion chromatography
20. Titrate: color	=	titration: colorimetric [color reagent specified]
21. Titrate: electro	=	titration: electrometric
22. Color:	=	colorimetric [color reagent specified]
40. Ion electrode	=	ion selective electrode
41. Electro	=	electrometric: [type meter specified]
50. Gravimetric	=	gravimetric: [precipitate specified]
51. Turbidimetric	=	turbidimetric: [suspension specified]

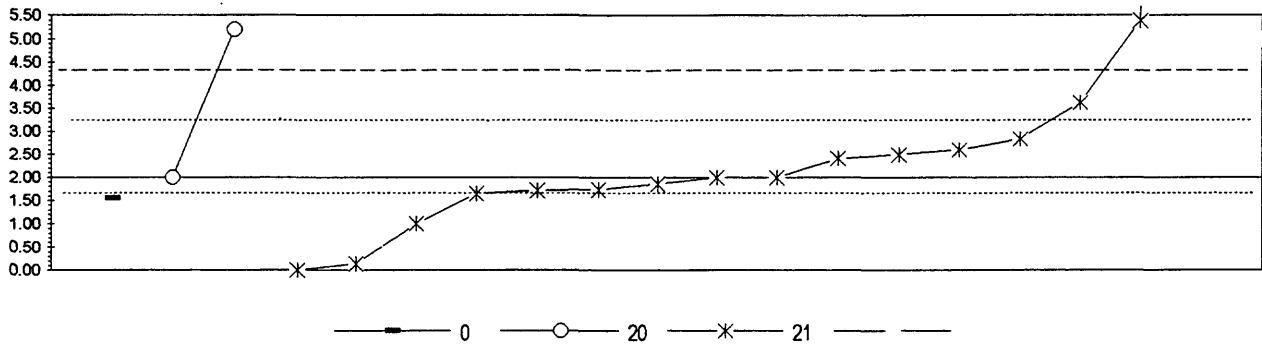
Abbreviations and symbols

N	=	number of samples
St dev	=	traditional standard deviation
MPV	=	95% confidence most probable value
F-pseudosigma	=	nonparametric statistic deviation
Hu	=	upper hinge value
Hi	=	lower hinge value
m g/L	=	milligrams per liter
μ S/cm	=	microsiemens per centimeter at 25 C
Lab	=	laboratory code number
NR	=	not rated, less than value reported
<	=	less than

<u>Constituent</u>		<u>page</u>
Acid	Acidity as CaCO ₃	136
Ca	Calcium	137
Cl	Chloride	138
F	Fluoride	139
K	Potassium	140
Mg	Magnesium	141
Na	Sodium	142
pH		143
PO ₄ as P	Orthophosphate as Phosphorus	144
SO ₄	Sulfate	145
Sp Cond	Specific Conductance	146

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)—Continued

Acidity as CaCO₃ m g/L



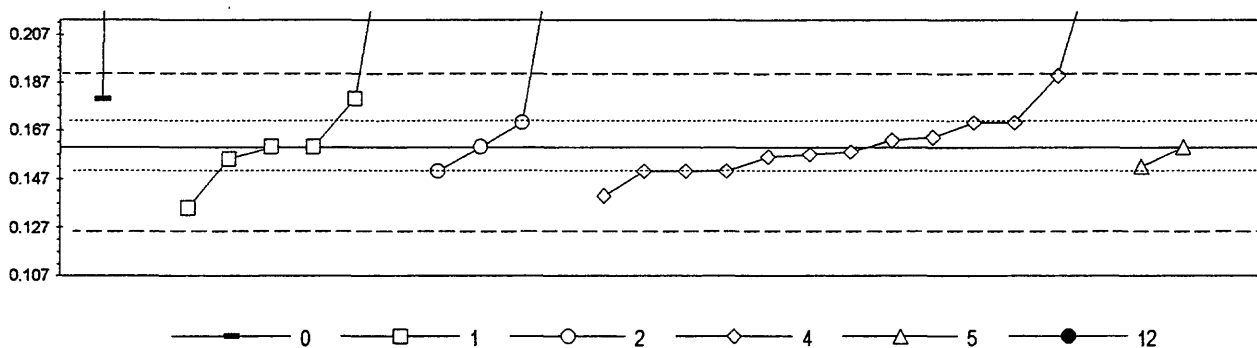
0. Other				
20. Titrate: colorimetric				
21. Titrate: electrometric				
N =	1	2	16	1
Minimum =	1.56	2.00	0.00	5.00
Maximum =		5.20	38.30	
Median =			2.00	
St Dev =			1.312	

MPV = 2.00
 F-pseudostigma = 1.142
 N = 20
 Hu = 3.23
 HI = 1.69

Lab	Rating	Z-value	0	20	21
1	4	-0.23			1.74
3	4	-0.30			1.66
5	3	0.74			2.84
7	4	0.35			2.40
11	4	-0.39	1.56		
15	0	31.80			38.30
23	4	0.00			2.00
32	2	1.42			3.62
38	4	-0.25			1.72
52	0	2.63			
58	0	2.96			5.38
61	3	0.53			2.60
62	1	-1.62			0.15
63	4	0.00		2.00	
78	4	0.44			2.50
89	4	-0.12			1.86
107	3	-0.88			1.00
145	4	0.00			2.00
184	NR			< 10	
189	0	2.80		5.20	
190	NR	-1.75			0.00

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)--Continued

Ca (Calcium) m g/L



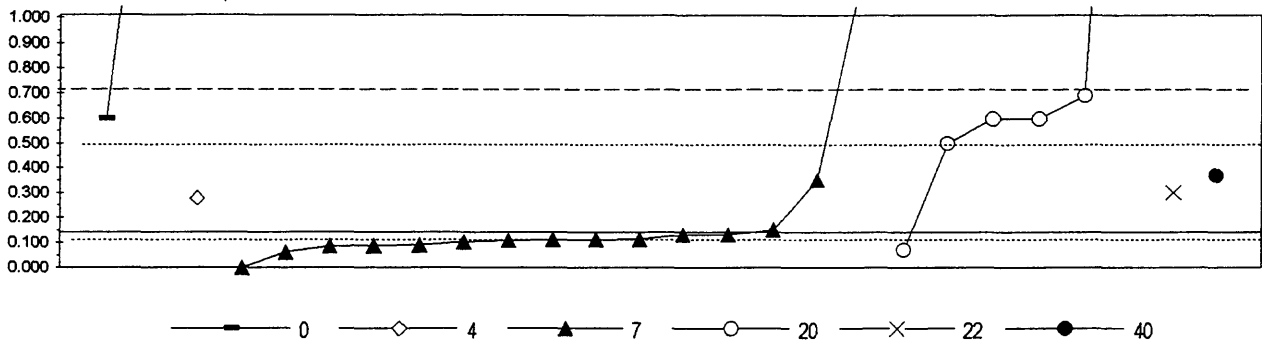
0. Other	4. ICP				
1. AA: direct air	5. DCP				
2. AA: direct nitrous oxide	12. AA: flame emission				
N = 2	6	4	13	2	1
Minimum = 0.180	0.135	0.150	0.140	0.152	0.017
Maximum = 1.200	0.280	0.270	0.250	0.160	
Median =	0.158				
St Dev =	0.013				

MPV = 0.160
 F-pseudostigma = 0.018
 N = 28
 Hu = 0.175
 HI = 0.151

Lab	Rating	Z-value	0	1	2	4	5	12
1	4	-0.17				0.157		
3	3	-0.56				0.150		
5	4	-0.11				0.158		
11	2	1.12	0.180					
15	4	0.17				0.163		
23	3	-0.56			0.150			
33	4	0.00					0.160	
38	3	0.56			0.170			
39	3	0.56				0.170		
44	4	0.00			0.160			
46	3	-0.56				0.150		
52	NR					< 0.6		
58	0	6.75	0.280					
61	4	-0.22				0.156		
63	NR		< 0.2					
64	2	-1.12				0.140		
89	4	0.00		0.160				
93	1	1.69				0.190		
101	2	1.12		0.180				
110	4	0.00		0.160				
112	4	-0.45					0.152	
124	0	58.46	1.200					
134	3	-0.56				0.150		
138	4	0.22				0.164		
139	0	6.18			0.270			
145	3	0.56				0.170		
164	4	-0.28		0.155				
183	0	-8.04						0.017
184	NR					< 1		
189	0	5.06				0.250		
196	2	-1.41		0.135				

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)—Continued

Cl (Chloride) m g/L



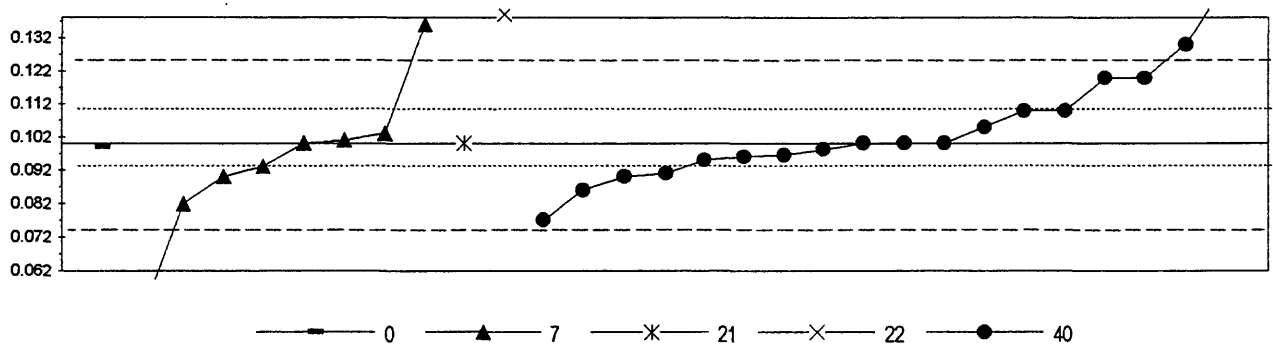
0. Other	20. Titrate: colorimetric				
4. ICP	22. Colorimetric				
7. Ion chromatography	40. Selective ion electrode				
N = 2	1	15	6	1	1
Minimum = 0.600	0.275	0.000	0.070	0.300	0.366
Maximum = 2.000		1.160	3.330		
Median =		0.110			
St Dev =		0.0763			

MPV = 0.140
 F-pseudostigma = 0.2898
 N = 26
 Hu = 0.500
 HI = 0.109

Lab	Rating	Z-value	0	4	7	20	22	40
1	4	-0.13			0.102			
2	4	-0.17			0.091			
3	NR						< 0.5	
7	NR				< 1			
15	0	3.52			1.160			
23	3	0.78						0.366
32	4	-0.27			0.061			
33	4	-0.10			0.110			
39	NR					< 2		
44	4	0.03			0.150			
46	4	-0.18			0.087			
52	NR						< 0.5	
58	1	1.59				0.600		
61	3	0.55					0.300	
63	NR						< 2	
64	4	-0.10			0.110			
74	3	0.72			0.350			
78	2	1.24				0.500		
89	NR					< 0.04		
93	NR	-0.48			0.000			
101	1	1.90				0.690		
107	0	11.01				3.330		
110	4	0.47		0.275				
112	4	-0.03			0.130			
124	0	6.42	2.000					
134	4	-0.03			0.130			
138	4	-0.11			0.109			
139	NR					< 1		
145	NR				< 0.2			
183	4	-0.24				0.070		
184	NR						< 1	
189	NR						< 1	
190	1	1.59	0.600					
196	4	-0.09			0.113			
197	4	-0.19			0.084			
202	1	1.59				0.600		

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)—Continued

F (Fluoride) m g/L



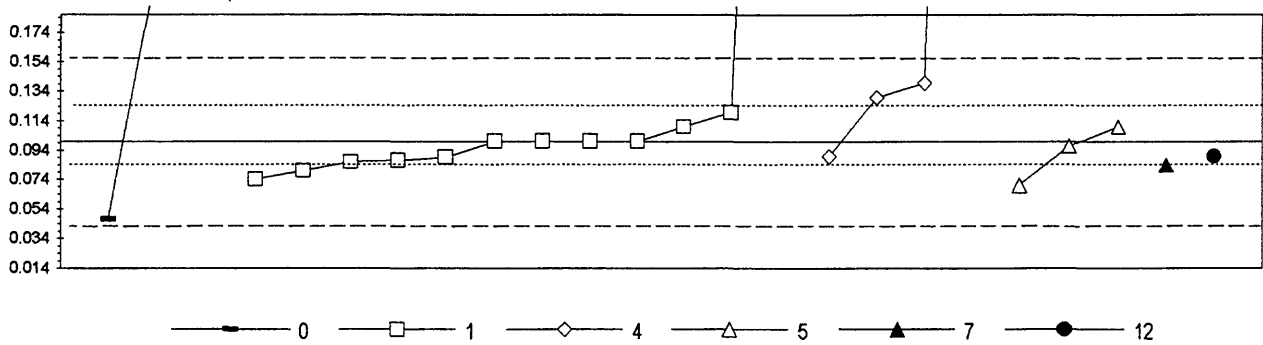
0. Other	22. Colorimetric
7. Ion chromatography	40. Selective ion electrode
21. Titrate: electrometric	
N =	1 8 1 1 18
Minimum =	0.099 0.050 0.100 0.139 0.077
Maximum =	0.136 0.100 0.139 0.100 0.150
Median =	0.100 0.100 0.100 0.100 0.100
St Dev =	0.0172 0.0172 0.0172 0.0172 0.0134

MPV = 0.100
 F-pseudosigma = 0.0126
 N = 29
 Hu = 0.110
 HI = 0.093

Lab	Rating	Z-value	0	7	21	22	40
1	4	0.24		0.103			
3	0	3.09				0.139	
7	NR		< 0.5				
11	4	-0.08	0.099				
15	4	-0.28					0.097
23	4	0.40					0.105
32	2	-1.43		0.082			
33	3	-0.79		0.090			
39	4	0.00					0.100
46	3	-0.71					0.091
52	1	-1.83					0.077
58	2	-1.11					0.086
61	3	-0.79					0.090
63	4	0.00					0.100
74	4	-0.32					0.096
78	1	1.59					0.120
89	4	-0.40					0.095
93	4	0.00					0.100
107	4	-0.16					0.098
112	4	0.00		0.100			
124	NR		< 0.1				
134	4	0.00			0.100		
138	3	-0.56		0.093			
145	0	-3.97		0.050			
183	3	0.79					0.110
184	0	3.97					0.150
189	0	2.38					0.130
190	3	0.79					0.110
196	0	2.86		0.136			
197	4	0.08		0.101			
202	1	1.59					0.120

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)—Continued

K (Potassium) m g/L



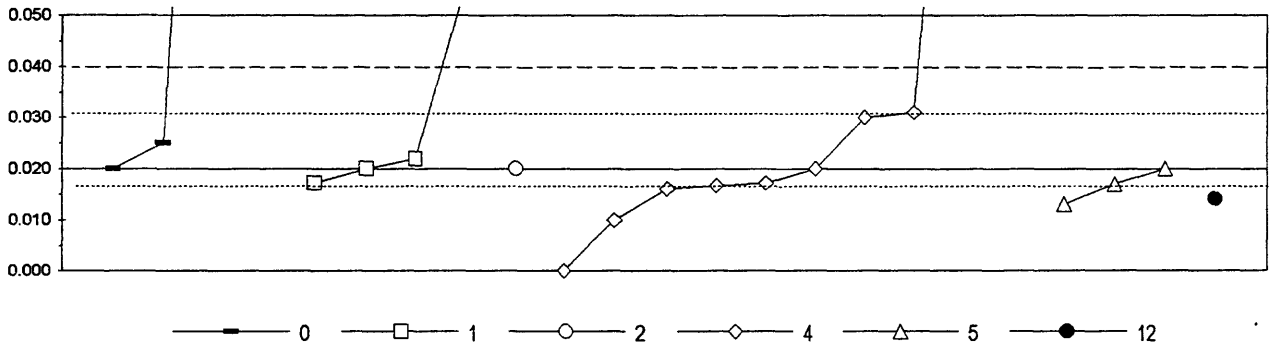
0. Other							5. DCP
1. AA: direct air							7. Ion chromatography
4. ICP	N =	3	12	4	3	1	1
	Minimum =	0.047	0.074	0.090	0.070	0.084	0.090
	Maximum =	2.400	0.890	1.500	0.110		
	Median =	0.100					
	St Dev =	0.0134					

MPV = 0.100
 F-pseudosigma = 0.0285
 N = 24
 Hu = 0.125
 HI = 0.087

Lab	Rating	Z-value	0	1	4	5	7	12
1	4	-0.49		0.086				
2	3	-0.56					0.084	
3	0	49.05			1.500			
5	NR				< 1			
11	1	-1.86	0.047					
15	4	-0.39		0.089				
33	4	0.35				0.110		
38	4	0.00		0.100				
44	4	0.35		0.110				
46	2	1.40			0.140			
52	NR				< 0.2			
58	3	0.70		0.120				
61	NR				< 0.5			
63	NR				< 0.2			
64	0	27.68		0.890				
89	4	0.00		0.100				
101	4	0.00		0.100				
110	3	-0.70		0.080				
112	4	-0.11				0.097		
124	0	80.59	2.400					
134	4	0.00		0.100				
138	2	1.05			0.130			
139	4	-0.35					0.090	
145	4	-0.35			0.090			
164	4	-0.46		0.087				
184	NR				< 1			
189	NR				< 0.5			
190	0	4.20	0.220					
196	3	-0.91		0.074				
197	2	-1.05			0.070			

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)--Continued

Mg (Magnesium) m g/L



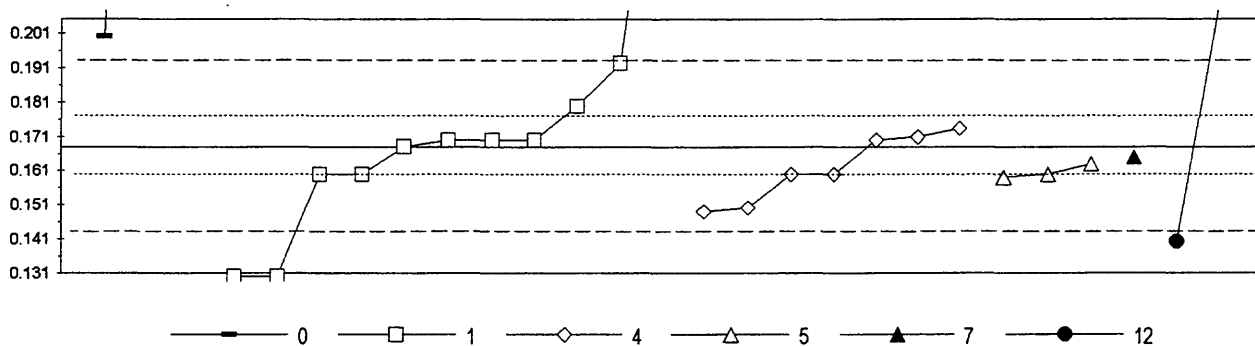
0. Other	4. ICP					
1. AA: direct air	5. DCP					
2. AA: direct nitrous oxide	12. Flame emission					
N =	4	4	1	10	3	1
Minimum =	0.020	0.017	0.020	0.000	0.013	0.014
Maximum =	0.300	0.056		0.150	0.020	
Median =	0.017					
St Dev =	0.0101					

MPV = 0.020
 F-pseudostigma = 0.0101
 N = 23
 Hu = 0.031
 HI = 0.017

Lab	Rating	Z-value	0	1	2	4	5	12
1	4	-0.28				0.017		
3	3	-0.99				0.010		
5	4	-0.33				0.017		
11	4	0.49	0.025					
15	4	0.00				0.020		
23	NR		< 0.5					
33	4	0.00					0.020	
38	4	0.20	0.022					
44	4	0.00		0.020				
46	0	11.86				0.140		
52	NR		< 0.05					
58	0	3.56	0.056					
61	NR		< 0.2					
63	NR		< 0.2					
64	0	12.85				0.150		
89	NR		< 0.025					
93	NR	-1.98				0.000		
101	4	0.00		0.020				
110	4	0.00	0.020					
112	4	-0.30					0.017	
124	0	27.67	0.300					
134	NR					< 0.01		
138	2	1.09				0.031		
139	NR		< 0.01					
145	3	0.99				0.030		
183	3	-0.59						0.014
184	NR					< 1		
189	4	-0.40				0.016		
190	0	15.81	0.180					
196	4	-0.28		0.017				
197	3	-0.69					0.013	

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)--Continued

Na (Sodium) m g/L

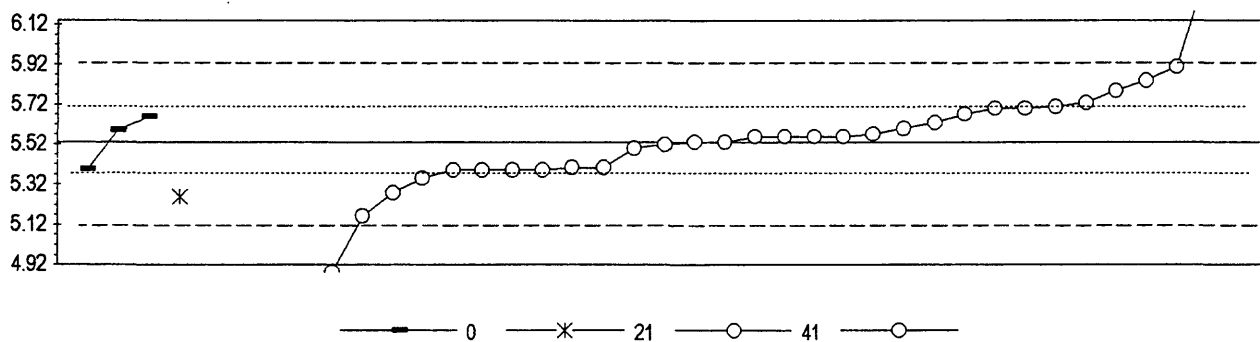


0. Other	5. DCP
1. AA: direct air	7. Ion chromatography
4. ICP	12. Flame emission
N =	3 11 7 3 1 2
Minimum =	0.200 0.130 0.149 0.159 0.165 0.140
Maximum =	1.000 0.280 0.173 0.163 0.165 0.210
Median =	0.169 0.160
St Dev =	0.0399 0.0100

MPV = 0.168
 F-pseudostigma = 0.0124
 N = 27
 Hu = 0.177
 HI = 0.160

Lab	Rating	Z-value	0	1	4	5	7	12
1	4	0.00		0.168				
2	4	-0.24				0.165		
3	NR				< 0.2			
5	4	0.44			0.173			
11	0	2.58	0.200					
15	3	-0.65			0.160			
23	NR		< 2					
33	3	-0.65				0.160		
38	4	0.16		0.170				
39	4	0.24			0.171			
44	3	-0.65		0.160				
46	2	-1.45				0.150		
52	NR					< 0.4		
58	0	9.05		0.280				
61	NR				< 0.5			
63	NR			< 0.2				
64	3	-0.65		0.160				
89	0	-3.07		0.130				
101	3	0.97				0.180		
110	0	-3.07		0.130				
112	3	-0.73				0.159		
124	0	67.21	1.000					
134	4	0.16		0.170				
138	4	0.16			0.170			
139	0	3.39						0.210
145	3	-0.65			0.160			
164	1	1.95		0.192				
183	0	-2.26						0.140
184	NR				< 1			
189	1	-1.53			0.149			
190	0	21.97	0.440					
196	4	0.16		0.170				
197	4	-0.40				0.163		

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)—Continued
pH

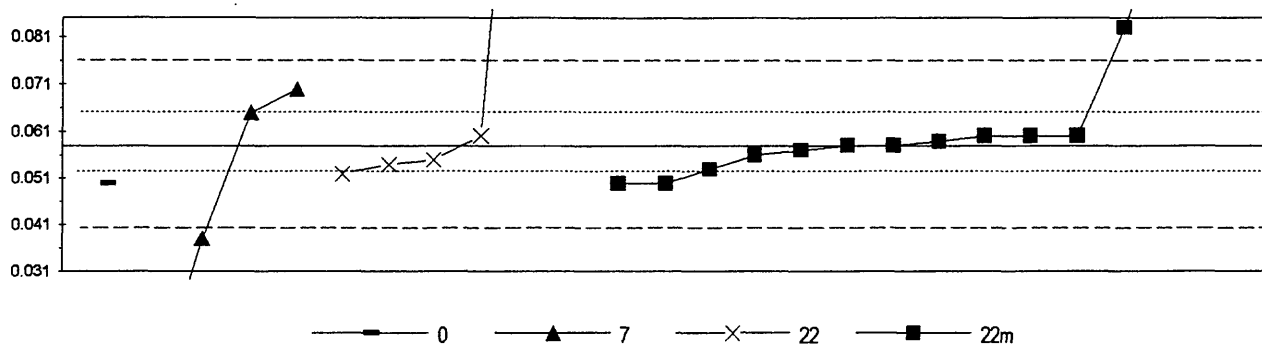


0. Other				
21. Titrator: electrometric				
41. Direct reading				
N =	3	1	35	
Minimum =	5.40	5.26	4.20	
Maximum =	5.66		6.40	
Median =			5.56	
St Dev =			0.174	

MPV = 5.53
 F-pseudostigma = 0.204
 N = 39
 Hu = 5.67
 HI = 5.39

Lab	Rating	Z-value	0	21	41
1	4	0.15			5.56
2	4	0.20			5.57
3	3	-0.69			5.39
5	2	-1.32		5.26	
7	0	4.27			6.40
11	3	0.64	5.66		
15	0	-4.86			4.54
23	4	0.15			5.56
32	0	4.27			6.40
33	4	0.15			5.56
38	3	0.83			5.70
39	3	-0.64			5.40
41	0	-4.86			4.54
46	4	0.00			5.53
52	1	1.86			5.91
58	4	0.00			5.53
61	2	1.28			5.79
62	3	-0.69			5.39
63	3	0.88			5.71
64	4	0.15			5.56
74	4	-0.15			5.50
78	3	0.98			5.73
89	3	0.69			5.67
93	3	-0.64			5.40
101	0	-6.52			4.20
107	3	-0.88			5.35
110	3	-0.66	5.40		
112	4	-0.05			5.52
124	4	0.29	5.59		
134	3	-0.69			5.39
138	1	-1.82			5.16
139	0	-3.19			4.88
145	4	0.34			5.60
183	1	1.52			5.84
184	3	0.83			5.70
189	0	-3.58			4.80
190	2	-1.23			5.28
197	4	0.49			5.63
202	3	-0.69			5.39

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)--Continued
PO4 as P (Orthophosphate) m g/L

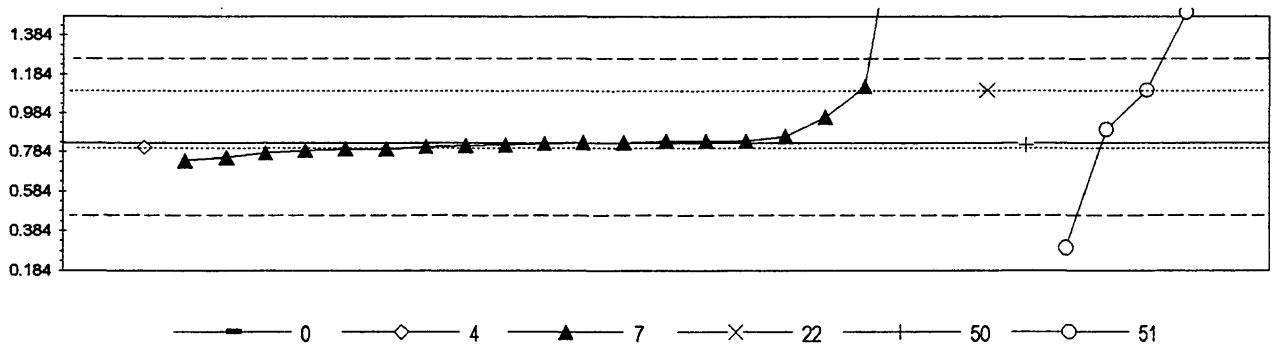


0. Other	22m Color: phosphomolybdate			
7. Ion chromatography				
22. Colorimetric				
N =	1	4	6	14
Minimum =	0.050	0.005	0.052	0.050
Maximum =		0.070	0.913	0.594
Median =				0.058
St Dev =				0.0085

MPV = 0.058
 F-pseudostigma = 0.0089
 N = 25
 Hu = 0.065
 HI = 0.053

Lab	Rating	Z-value	0	7	22	22m
1	4	-0.45			0.054	
2	0	-5.96		0.005		
3	3	-0.67			0.052	
7	NR				< 0.01	
11	3	-0.90	0.050			
15	0	60.26				0.594
33	2	1.35		0.070		
38	4	0.00				0.058
52	4	-0.34			0.055	
58	4	0.11				0.059
59	4	0.22				0.060
61	0	2.81				0.083
63	4	0.22				0.060
64	4	0.22				0.060
78	0	6.18				0.113
89	4	0.00				0.058
107	3	-0.56				0.053
134	3	-0.90				0.050
138	4	-0.11				0.057
139	4	-0.22				0.056
184	4	0.22			0.060	
189	0	13.71				0.180
190	0	96.12			0.913	
196	3	0.79		0.065		
197	0	-2.25		0.038		
202	3	-0.90				0.050

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)—Continued
SO4 (Sulfate) **m g/L**

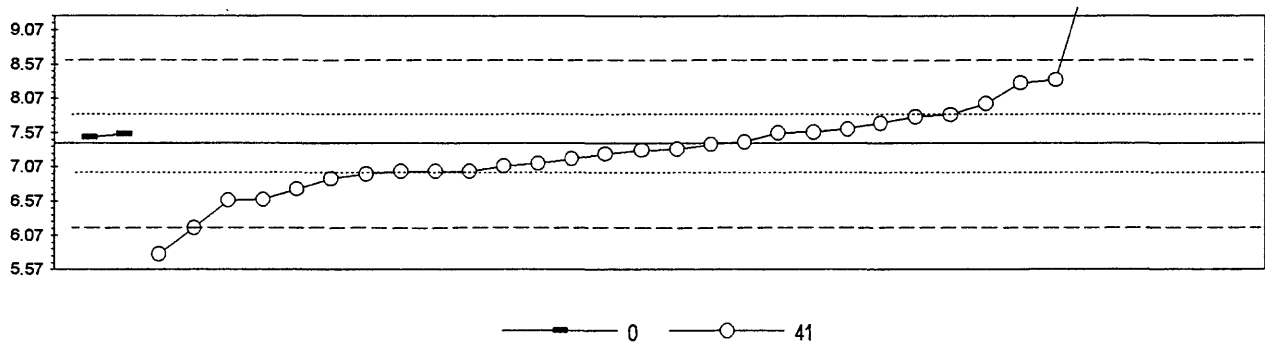


0. Other	22. Colorimetric
4. ICP	50. Gravimetric
7. Ion chromatography	51. Turbidimetric
N = 1	N = 1
N = 20	N = 1
N = 1	N = 1
N = 5	N = 5
Minimum = 3.070	0.809
Maximum = 3.070	0.740
Median = 0.826	1.100
St Dev = 0.0847	0.820
	0.300

MPV = 0.831
 F-pseudostigma = 0.2157
 N = 29
 Hu = 1.100
 HI = 0.809

Lab	Rating	Z-value	0	4	7	22	50	51
1	4	-0.04			0.822			
2	4	0.15			0.864			
3	4	-0.18			0.792			
5	0	7.60			2.470			
7	NR				< 1			
15	0	6.62			2.260			
23	NR							< 10
32	4	0.00			0.831			
33	4	-0.42			0.740			
39	4	0.05			0.841			
44	4	0.00			0.830			
46	4	-0.24			0.780			
52	NR							< 10
58	4	-0.05				0.820		
61	0	-2.46						0.300
63	NR							< 3
64	4	-0.14			0.800			
74	4	-0.14			0.800			
78	0	12.37						3.500
89	2	1.25						1.100
93	4	-0.10			0.810			
110	4	-0.10		0.809				
112	2	1.34			1.120			
124	NR		< 10					
134	4	-0.01			0.829			
138	4	-0.35			0.756			
139	0	3.10						1.500
145	4	0.04			0.840			
164	3	0.61			0.962			
183	4	0.32						0.900
184	2	1.25				1.100		
189	NR							< 1
190	0	10.38	3.070					
196	4	0.04			0.839			
197	4	-0.06			0.817			

Table 17. Statistical summary of reported data for standard reference water sample P-20 (low ionic strength)--Continued
Specific Conductance
 μ S/cm



0. Other	
41. Direct reading	
N =	2 32
Minimum =	7.50 5.80
Maximum =	7.55 1200
Median =	7.26
St Dev =	0.586

MPV = 7.42
 F-pseudostigma = 0.615
 N = 34
 Hu = 7.83
 HI = 7.00

Lab	Rating	Z-value	0	41
1	4	0.03		7.44
2	2	-1.09		6.75
3	4	-0.03		7.40
5	0	-2.63		5.80
7	3	-0.68		7.00
11	4	0.13	7.50	
15	4	0.24		7.57
23	4	0.47		7.71
32	0	4.18		9.99
33	4	-0.15		7.33
38	3	0.62		7.80
46	2	1.43		8.30
52	0	290.25		186.00
58	0	5.01		10.50
61	3	-0.73		6.97
62	2	-1.37		6.58
63	4	0.26		7.58
64	4	0.33		7.62
74	4	-0.26		7.26
78	0	7.61		12.10
89	3	-0.55		7.08
93	4	-0.49		7.12
101	2	-1.33		6.60
107	4	-0.16		7.32
110	3	0.67		7.83
124	4	0.21	7.55	
134	3	-0.68		7.00
139	3	-0.85		6.90
145	3	-0.68		7.00
183	0			< 0.2
184	0	1938.30		1200
189	3	0.94		8.00
190	4	-0.37		7.19
197	1	-2.02		6.18
202	2	1.50		8.34

Table 18-- *Statistical summary of reported data for standard reference sample Hg-15 (Mercury)*

Definition of analytical methods, abbreviations, and symbols

Analytical methods

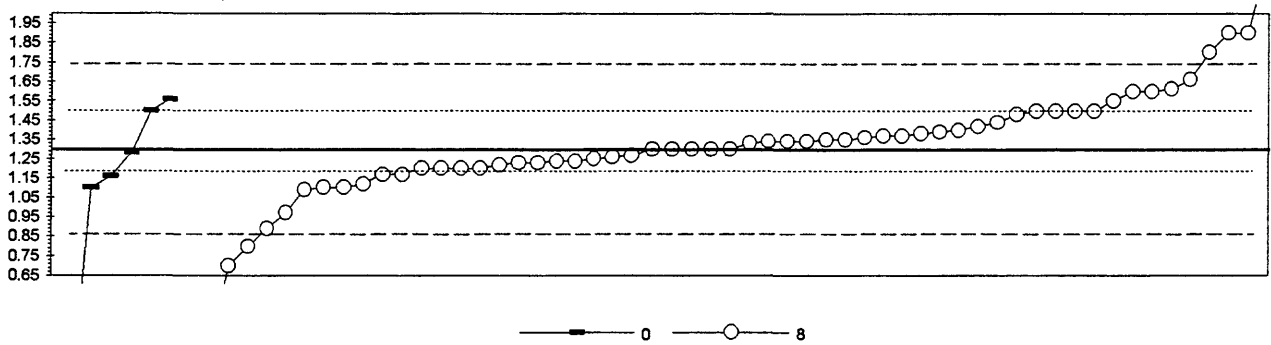
0. Other/Not reported
 11. AA: cold vapor = atomic absorption: cold vapor

Abbreviations and symbols

N = number of samples
 St dev = traditional standard deviation
 MPV = 95% confidence most probable value
 F-pseudostigma = nonparametric statistic deviation
 Hu = upper hinge value
 Hl = lower hinge value
 μ g/L = micrograms per liter
 Lab = laboratory code number
 NR = not rated, less than value reported
 < = less than

<u>Constituent</u>	<u>page</u>
Hg Mercury	148

Table 18. --Statistical summary of reported data for standard reference water sample Hg-16 (mercury)--Continued
 Hg (mercury) μ g/L



0. Other			
8. AA: cold vapor			
N =	6	58	
Minimum =	0.00	0.01	
Maximum =	1.56	2.30	
Median =	1.22	1.32	
St Dev =	0.5684	0.3676	

MPV = 1.30
 F-pseudostigma = 0.222
 N = 64
 Hu = 1.50
 HI = 1.20

Lab	Rating	Z-value	0	8
1	2	1.39		1.61
3	2	1.17	1.56	
7	3	-0.94		1.09
11	4	-0.31		1.23
12	4	0.00		1.30
13	4	0.36		1.38
15	4	0.22		1.35
16	3	0.90	1.50	
18	4	0.31		1.37
24	3	0.90		1.50
29	4	0.22		1.35
32	3	0.80		1.48
34	4	-0.09	1.28	
36	0	-5.84	0.00	
39	4	-0.22		1.25
42	4	0.18		1.34
45	3	-0.58		1.17
46	0	-5.78		0.01
50	4	0.00		1.30
51	0	2.70		1.90
52	4	-0.18		1.26
55	3	0.90		1.50
58	0	-4.95		0.20
59	2	1.35		1.60
61	3	-0.90		1.10
63	4	-0.45		1.20
68	0	2.70		1.90
69	4	-0.36		1.22
70	3	-0.81		1.12
74	4	0.00		1.30
76	3	-0.63	1.16	
78	2	1.35		1.60
79	1	1.62		1.66
81	4	0.00		1.30
86	4	-0.27		1.24
90	2	-1.48		0.97
96	0	2.25		1.80
97	1	-1.84		0.89
108	4	0.13		1.33
109	2	1.12		1.55
113	4	0.00		1.30
118	0	-2.25		0.80
119	3	0.90		1.50
120	3	0.54		1.42
122	NR			< 1.0
124	4	-0.45		1.20
127	3	-0.58		1.17
128	3	0.90		1.50
133	4	-0.45		1.20
134	4	-0.45		1.20

Lab	Rating	Z-value	0	8
138	4	0.18		1.34
139	4	0.27		1.36
141	4	0.40		1.39
142	4	-0.13		1.27
145	4	0.18		1.34
146	3	-0.90		1.10
149	4	0.45		1.40
179	3	-0.90	1.10	
182	0	4.50		2.30
184	4	-0.27		1.24
189	0	4.50		2.30
194	4	0.31		1.37
198	3	0.63		1.44
202	4	-0.32		1.23
207	0	-2.70		0.70

Table 19. --Most probable values for constituents and properties in standard reference samples distributed in April 1993

[MPV, most probable value; ug/L, microgram per liter; mg/L, milligram per liter; uS/cm, microsiemen per centimeter at 25 degrees Celsius]

T-123 (trace constituents)

Analyte	MPV		F-pseudosiigma	Analyte	MPV		F-pseudosiigma
Ag	1.44	μ g/L	0.601	Li	9.68	μ g/L	1.149
Al	10.0	μ g/L	12.02	Mg	1.80	m g/L	0.126
As	20.2	μ g/L	2.11	Mn	13.6	μ g/L	1.07
B	11.3	μ g/L	6.30	Mo	9.20	μ g/L	1.308
Ba	7.65	μ g/L	0.945	Na	19.3	m g/L	1.04
Be	8.10	μ g/L	0.778	Ni	4.30	μ g/L	1.119
Ca	9.10	m g/L	0.608	Pb	9.80	μ g/L	1.557
Cd	5.86	μ g/L	0.871	Sb	6.99	μ g/L	1.483
Co	5.27	μ g/L	0.852	Se	5.23	μ g/L	1.371
Cr	10.7	μ g/L	1.19	SiO2	6.08	m g/L	0.571
Cu	10.2	μ g/L	1.07	Sr	48.6	μ g/L	2.59
Fe	57.5	μ g/L	4.82	V	4.00	μ g/L	1.105
K	1.16	m g/L	0.096	Zn	6.00	μ g/L	4.448

T-125 (trace constituents)

Analyte	MPV		F-pseudosiigma	Analyte	MPV		F-pseudosiigma
Ag	3.83	μ g/L	0.604	Li	16.2	μ g/L	1.58
Al	24.0	μ g/L	8.56	Mg	2.00	m g/L	0.111
As	10.2	μ g/L	1.54	Mn	18.0	μ g/L	1.22
B	19.4	μ g/L	8.02	Mo	20.1	μ g/L	1.78
Ba	16.9	μ g/L	1.67	Na	22.3	m g/L	1.19
Be	15.0	μ g/L	1.19	Ni	11.2	μ g/L	1.04
Ca	9.34	m g/L	0.526	Pb	8.11	μ g/L	1.216
Cd	7.20	μ g/L	0.749	Sb	6.24	μ g/L	1.305
Co	9.45	μ g/L	0.778	Se	9.78	μ g/L	1.853
Cr	3.99	μ g/L	0.712	SiO2	5.18	m g/L	0.319
Cu	17.4	μ g/L	2.08	Sr	46.0	μ g/L	2.29
Fe	97.9	μ g/L	7.34	V	6.56	μ g/L	0.890
K	1.04	m g/L	0.074	Zn	5.95	μ g/L	4.007

M-126 (major constituents)

Analyte	MPV		F-pseudosiigma	Analyte	MPV		F-pseudosiigma
Alkalinity	27.0	m g/L	1.48	Na	17.8	m g/L	0.77
B	9.6	μ g/L	1.67	total P	0.197	m g/L	0.009
Ca	7.61	m g/L	0.441	pH	7.43		0.263
Cl	20.7	m g/L	0.93	SiO2	4.04	m g/L	0.300
DSRD	88.0	m g/L	7.78	SO4	6.06	m g/L	0.504
F	0.59	m g/L	0.048	Sp Cond	148	μ S/cm	8.1
K	2.62	m g/L	0.178	Sr	41.0	μ g/L	2.08
Mg	1.62	m g/L	0.078	V	insufficient data		

N-38 (preserved nutrients)

Analyte	MPV		F-pseudosiigma
NH3 as N	0.086	m g/L	0.0274
NH3+OrgN as N	0.289	m g/L	0.1780
NO3+NO2 as N	0.209	m g/L	0.0163
total P as P	0.125	m g/L	0.0163
PO4 as P	0.091	m g/L	0.0274

N-38 (nonpreserved nutrients)

Analyte	MPV		F-pseudosiigma
NH3 as N	0.087	m g/L	0.0170
NH3+OrgN as N	0.200	m g/L	0.158
NO3+NO2 as N	0.210	m g/L	0.018
total P as P	0.120	m g/L	0.0126
PO4 as P	0.120	m g/L	0.0141

N-39 (preserved nutrients)

Analyte	MPV		F-pseudosiigma
NH3 as N	0.890	m g/L	0.113
NH3+OrgN as N	1.22	m g/L	0.430
NO3+NO2 as N	0.908	m g/L	0.043
Total P as P	0.920	m g/L	0.044
PO4 as P	0.883	m g/L	0.0467

N-39 (nonpreserved nutrients)

Analyte	MPV		F-pseudosiigma
NH3 as N	0.922	m g/L	0.0815
NH3+OrgN as N	1.040	m g/L	0.196
NO3+NO2 as N	0.912	m g/L	0.0649
total P as P	0.930	m g/L	0.0493
PO4 as P	0.908	m g/L	0.0489

P-20 (low ionic strength constituents)

Analyte	MPV		F-pseudosiigma	Analyte	MPV		F-pseudosiigma
Acidity	2.00	m g/L	1.142	Na	0.168	m g/L	0.0124
Ca	0.160	m g/L	0.0180	pH	5.53		0.204
Cl	0.140	m g/L	0.2900	PO4 as P	0.058	m g/L	0.0089
F	0.100	m g/L	0.0126	SO4	0.831	m g/L	0.2157
K	0.100	m g/L	0.0290	Sp Cond	7.42	μ S/cm	0.615
Mg	0.020	m g/L	0.0100				

Hg-16 (mercury)

Analyte	MPV		F-pseudosiigma
Hg	1.30	μ g/L	0.222