

**Results of the U.S. Geological Survey's Analytical
Evaluation Program for Standard Reference Samples
Distributed in October 2000**

By Brooke F. Connor, Jonathan P. Currier, and Mark T. Woodworth

U.S. GEOLOGICAL SURVEY

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Definition of analytical methods, abbreviations, and symbols

Analytical methods and codes	
Code	Method
0	Other
1	Atomic absorption: direct, air
2	Atomic absorption: direct, nitrous oxide
3	Atomic absorption: graphite furnace
4	Inductively coupled plasma
6	Inductively coupled plasma/mass spectrometry
7	Ion chromatography
8	Atomic absorption: cold vapor
11	Atomic absorption: hydride
12	Flame emission
20	Titration: colorimetric
21	Titration: electrometric
22	Colorimetric
40	Ion selective electrode
41	Electrometric [pH and specific conductance]
50	Gravimetric
51	Turbidimetric

Abbreviations and figure symbols	
C	= Celsius
F-pseudosigma	= nonparametric statistic deviation
Hg	= mercury
Lh	= lower hinge value
L	= liter
Lab	= laboratory
mg/L	= milligrams per liter
mL	= milliliter
M	= inorganic major analytes
MPV	= most probable value (center line on graphs)
n	= number of analyses
N	= Normality
N	= nutrient analytes
NR	= not rated, less than values reported or insufficient data
OLR	= average laboratory rating per SRS type
OWR	= overall weighted rating
P	= precipitation sample (low-ionic strength)
ppm	= parts per million
SRS	= USGS standard reference sample
T	= inorganic trace analytes
Uh	= upper hinge value
USGS	= U.S. Geological Survey
V	= number of reported values
Z-value	= Z-score
µg/L	= micrograms per liter
µm	= micrometer
µS/cm	= microsiemens per centimeter at 25° C
<	= less than
--	= not reported

Formulas

MPV = median value

F-pseudosigma = $(U_h - L_h)/1.349$

U_h = median of the upper half of the reported values (excluding less than values)

L_h = median of the lower half of the reported values (excluding less than values)

Z-value = $(\text{reported value} - \text{MPV})/\text{F-pseudosigma}$

OWR =
$$\frac{(\text{OLR} \cdot V_1) + (\text{OLR} \cdot V_2) \dots (\text{OLR} \cdot V_N)}{(V_1 + V_2 + \dots V_N)}$$
 for each SRS type reported

Ratings

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 (Marginal)	1.51 to 2.00
0 (Unsatisfactory)	Greater than 2.00

RESULTS OF THE U.S. GEOLOGICAL SURVEY'S ANALYTICAL EVALUATION PROGRAM FOR STANDARD REFERENCE SAMPLES DISTRIBUTED IN OCTOBER 2000

By Brooke F. Connor, Jonathan P. Currier and Mark T. Woodworth

ABSTRACT

This report presents the results of the U.S. Geological Survey's analytical evaluation program for six standard reference samples -- T-163 (trace constituents), M-156 (major constituents), N-67 (nutrient constituents), N-68 (nutrient constituents), P-35 (low ionic strength constituents), and Hg-31 (mercury) -- that were distributed in October 2000 to 126 laboratories enrolled in the U.S. Geological Survey sponsored interlaboratory testing program. Analytical data that were received from 122 of the laboratories were evaluated with respect to overall laboratory performance and relative laboratory performance for each analyte in the six 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 six 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 analytical evaluation program semiannually. This program provides a variety of standard reference samples (SRSs) 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. 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 first analytical evaluation program. 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) evaluate the accuracy and precision of analytical methods.

A total of 266 USGS and non-USGS laboratories are enrolled in the program, which can currently provide 9 different types of SRSs:

1. Trace constituents.
2. Major constituents.
3. Nutrient constituents.
4. Low ionic-strength constituents.
5. Mercury.
6. Whole water (water with suspended sediment).
7. Acid mine water constituents.
8. Ground-water trace constituents.
9. Ground-water major constituents.

Though this is not a laboratory certification program, participation in this continuing quality assurance program is mandatory for all laboratories providing water-quality data for USGS sponsored reports or storage in the USGS national databases. The results from this study can be used to alert participating laboratories of possible deficiencies in their analytical operations and provide reference materials for laboratory quality-control programs. Participating laboratories are identified only by a confidential laboratory code number.

A library of SRSs from previous evaluations, is available. USGS offices and participating laboratories can purchase these SRSs for further testing, continuing quality assurance, and quality-control programs on-line (<http://bqs.usgs.gov/srs>) or by contacting:

U.S. Geological Survey
Branch of Quality Systems
SRS Purchasing
Denver Federal Center, Bldg. 53
P. O. Box 25046 MS 401
Denver, Colorado 80225-0046
(303) 236-1871

This report summarizes the analytical results submitted by 122 laboratories that requested and were shipped SRSs for the October 2000 evaluation (table 1). Not all SRSs are requested or necessarily analyzed by all the laboratories; nor do all laboratories enrolled in the program participate in each evaluation. Analytical results for the following are presented in this report:

T-163	Trace constituents	N-68	Nutrient constituents
M-156	Major constituents	P-35	Low ionic strength constituents
N-67	Nutrient constituents	Hg-31	Mercury

Laboratories that are providing analytical services to USGS offices are requested to analyze the appropriate SRSs for the same analytes requested by the USGS offices. All laboratories are requested to include the analytical methods used to determine the concentration of each analyte. When analytical method information was provided, it has been included in tables 11 – 16.

Table 1. *Laboratory participants in the analyses of standard reference samples distributed in October 2000*

State	City	Participating Laboratory
Alabama	Tuscaloosa	Geological Survey of Alabama
Alaska	Soldotna	Alaska Department of Fish and Game
Arkansas	Arkadelphia	Ouachita Baptist University
	Fayetteville	University of Arkansas Water Quality Laboratory
California	Davis	University of California, Davis, Division of Environmental Studies
	La Verne	Metropolitan Water District
	Martinez	Central Contra Costa Sanitary District
	Menlo Park	U.S. Geological Survey
	San Diego	U.S. Geological Survey – Water Resources Division
	Santa Fe Springs	West Coast Analytical Services
	Tahoe City	Tahoe Research Group - High Sierra Water Laboratory
	West Sacramento	California Department of Water Resources
Colorado	Alamosa	U.S. Bureau of Reclamation Closed Basin Division
	Arvada	Severn Trent Laboratories Denver
	Boulder	U.S. Geological Survey Surface Water Chemistry Research
	Colorado Springs	Colorado Springs Utilities, Water Resource Department
	Denver	U.S. Geological Survey, National Water Quality Laboratory
	Denver	U.S. Bureau of Reclamation - Denver Environmental Chemistry Laboratory
	Denver	Metro Wastewater Reclamation
	Denver	WRD Earth Science Investigation Program, Yucca Mtn. Project
	Ft. Collins	U.S. Department of Agriculture, Forest Service
	Ft. Collins	Water Quality Laboratory - City of Fort Collins
	Golden	Accu-Labs
	Grand Junction	Enviro-Chem Analytical, Inc.
	Greeley	Central Colorado Water Conservancy
	Lakewood	U.S. Geological Survey, WEBB Colorado District Office
	Northglenn	City of Northglenn Water Treatment Facility
	Pueblo	City of Pueblo Waste Water Treatment Plant
	Westminster	City of Westminster - Semper Water Quality Laboratory
Delaware	Dover	Delaware Department of Natural Resources
Florida	Brooksville	South West Florida Water Management District
	Ocala	U.S. Geological Survey, Ocala Water Quality and Research Laboratory
	Tallahassee	City of Tallahassee
	Tallahassee	Florida Department of Environmental Protection
	Tampa	Hillsborough County EPC
	West Palm Beach	South Florida Water Management District
Georgia	Athens	Soil Testing Laboratory University of Georgia
	Decatur	Dekalb County WQC Laboratory
	Tifton	U.S. Department of Agriculture – ARS SEWRL Watershed
Hawaii	Honolulu	University of Hawaii
Idaho	Boise	U.S. Bureau of Reclamation
	Boise	Boise City Water Quality Laboratory
Illinois	Champaign	Illinois Environmental Protection Agency
Iowa	Des Moines	University Hygienic Laboratory
Kansas	Lawrence	Kansas Geological Survey

Table 1. *Laboratory participants in the analyses of standard reference samples distributed in October 2000 – Continued*

State	City	Participating Laboratory
	Wichita	City of Wichita
Kentucky	Frankfort	Division of Environmental Services
	Lexington	Kentucky Geological Survey
Maine	Orono	University of Maine - Water Research Institute
Maryland	Baltimore	Maryland Department of Health and Mental Hygiene
	Cambridge	University of Maryland, Horn Point Laboratory
	Solomons	University of Maryland Chesapeake Biology Laboratory
Michigan	Detroit	Detroit Water and Sewerage Department
Minnesota	St Paul	Metropolitan Council Environmental Services
Missouri	Jefferson City	Missouri State Health Laboratory - Department of Health
Montana	Butte	Montana Bureau of Mines and Geology
	Helena	Department of Health and Environmental Sciences- DPHHS Environmental Laboratory
New Jersey	Trenton	New Jersey Department of Health
New York	Bolton Landing	Darrin Freshwater Institute
	Brewster	N.Y. DEP Brewster Laboratory
	Grahamsville	N.Y. DEP Grahamsville Laboratory
	Hauppauge	Suffolk County Water Authority Laboratory
	Hempstead	Nassau County Department of Health
	Millbrook	Institute of Ecosystem Studies
	North Babylon	EcoTest Laboratories, Inc.
	Rochester	Monroe County Environmental Health Laboratory
	Rochester	Columbia Analytical
	Shokan	N.Y. DEP Ben Nessin Laboratory
	Syracuse	Onondaga County (OCDDS)
	Syracuse	State University of New York College of Environmental Science and Forestry
	Troy	U.S. Geological Survey – WRD Troy
	Troy	Rensselaer Polytechnic Institute
North Carolina	Valhalla	N.Y. DEP Kensico Laboratory
	Charlotte	Mecklenburg County DEP
	Rocky Mount	City of Rocky Mount WWTP
North Dakota	Bismarck	North Dakota State Water Commission
	Bismarck	North Dakota Department of Health
	Bismarck	U.S. Bureau of Reclamation
Ohio	Cincinnati	U.S. Environmental Protection Agency, NRMRL Treatment Technology
	Cincinnati	U.S. Environmental Protection Agency, WSWRD NERL
	Cuyahoga Heights	Northeast Ohio Regional Sewer District
	Marion	Aquatech Laboratory (ATEL)
Oregon	Corvallis	U.S. Department of Agriculture, Forest Service – CCAL
	Hillsboro	Unified Sewerage Agency
	Portland	Department of Environmental Quality
Pennsylvania	Harrisburg	Pennsylvania Department of Environmental Protection
South Carolina	Charleston	College of Charleston, Department of Geology

Table 1. *Laboratory participants in the analyses of standard reference samples distributed in October 2000 -- Continued*

State	City	Participating Laboratory
South Dakota	Brookings	South Dakota State University, Northern Great Plains Water Research
	Brookings	South Dakota State University, Water Quality Laboratory, WRI
Tennessee	Chattanooga	TVA Environmental Chemistry
Texas	Arlington	Armstrong Forensic Laboratory
	Austin	Lower Colorado River Authority Environmental Laboratory
	College Station	Texas A & M University
	College Station	Albion Environmental
Vermont	Waterbury	Vermont Department of Environmental Conservation
Virginia	Chesapeake	City of Chesapeake
	Manassas	Occoquan Watershed
	Norfolk	Old Dominion University
	Richmond	Division of Consolidated Laboratory Services
Washington	Richland	Battelle Pacific N.W. Laboratory
Wisconsin	Madison	Wisconsin State Laboratory of Hygiene
	Middleton	U. S. Geological Survey
	Middleton	Wisconsin WEBB Laboratory
Wyoming	Laramie	Wyoming Department of Agriculture

Table 2. *Middle East laboratory participants in the analyses of standard reference samples distributed in October 2000*

Location	Middle East Laboratories
Israel	Mekerot Water Co. Ltd. Central Laboratory
Israel	Mekerot Laboratory
Israel	Shafdan Dan Sewage Treatment Plant
Israel	Geological Survey of Israel Laboratory
Israel	Public Health Laboratory, Tel-Aviv
Israel	Public Health Laboratory, Beer Shiva
Israel	Environmental Hydrology & Microbiology
Israel	Public Health Laboratory, Haifa
Jordan	Water Authority of Jordan
Jordan	Royal Scientific Society - Environmental Research Centre
West Bank	Center for Chemical and Biological Analysis
West Bank	Ministry of Agriculture
West Bank	CEOHS/Birzeit University
West Bank	Najah University
West Bank	Water & Soil Environmental Research Unit
West Bank	Center for Environmental Health
West Bank	Palestinian Water Authority Laboratory

PREPARATION OF STANDARD REFERENCE SAMPLES

All of the SRSs used in this evaluation were prepared by USGS personnel located in Lakewood, Colorado, and were analyzed for analyte concentrations and physical property values before mailing. A library of these SRSs is maintained, and these SRSs can be purchased by participating laboratories and USGS offices for use in their quality-control programs.

Trace constituents sample T-163 was prepared using water collected from Big Thompson River near Drake, Colorado. The water was pumped through 0.45-, 0.2-, and 0.1-micrometer (μm) filters, in series, into a 1200-liter (L) polypropylene drum. The water was continuously circulated and passed through a 0.1- μm filter and ultraviolet sterilizer for 24 hours. Following this circulation, the water was acidified to pH 1.5 with nitric acid and chlorinated to 5 parts per million (ppm) free chlorine with sodium hypochlorite. The trace constituent concentrations were adjusted by adding reagent grade chemicals. The sample was circulated an additional 24 hours prior to bottling. During bottling, the sample was pumped through an ultraviolet sterilizer and a 0.1- μm filter. The polypropylene and fluorinated ethylene propylene bottles and caps used were acid leached with 0.2N HNO_3 , deionized-water rinsed, and autoclave sterilized.

Major constituents sample M-156 was prepared using water collected from the Eagle River near Edwards, Colorado. The water was pumped through 0.45- 0.2- and 0.1- μm filters, in series, into a 1200-L polypropylene drum. The water was chlorinated to 5-ppm free chlorine with sodium hypochlorite, continuously circulated, and passed through an ultraviolet sterilizer for 24 hours prior to bottling. The major constituent concentrations were adjusted by adding reagent grade chemicals. The sample was circulated an additional 24 hours prior to bottling. The sample is then allowed to settle for 48 hours. During bottling the sample was pumped through an ultraviolet sterilizer and a 0.1- μm filter. The polypropylene bottles and caps used were acid leached with 0.2N HNO_3 , deionized-water rinsed, and autoclave sterilized.

Nutrient constituents sample N-67 was prepared using deionized water. These samples were prepared the week prior to the mailing for this SRS evaluation. The water was pumped through 0.45-, 0.2-, and 0.1- μm filters, in series, into a 50-L polypropylene drum. The desired nutrient concentrations were obtained by adding reagent-grade chemicals. The sample was continuously circulated through an ultraviolet sterilizer for 24 hours prior to being bottled. The 60-milliliter (mL) glass vials used were new, amber, acid leached with 0.2N HCl , deionized-water rinsed, and autoclave sterilized.

Nutrient constituents sample N-68 was 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 0.45- 0.2- and 0.1- μm filters, in series, into a 200-L polypropylene drum and continuously circulated and passed through an ultraviolet sterilizer for 24 hours. The desired nutrient concentrations were obtained by adding reagent-grade chemicals. The sample was passed through a 0.1- μm filter while bottling. The 125-mL polyethylene bottles used were new, amber, acid leached with 0.2N HCl , deionized-water rinsed, and autoclave sterilized.

Low-ionic strength constituents sample P-35 was prepared in a 400-L polypropylene drum using snowmelt from Loveland Pass, Colorado. The water was pumped into the drum through 0.45- 0.2- and 0.1- μm filters in series. The desired phosphate and fluoride concentrations were

obtained by adding reagent-grade chemicals. Prior to bottling, the sample was continuously mixed for 24 hours while being circulated through a 0.1- μ m filter and an ultraviolet sterilizer. During bottling the sample was pumped through an ultraviolet sterilizer and a 0.1- μ m filter. The 500-mL polypropylene bottles used were acid leached with 0.2N HNO₃, deionized-water rinsed, and autoclave sterilized.

Mercury sample Hg-31 was prepared using water collected from Chicago Creek near Idaho Springs, Colorado. The sample was prepared in a 200-L polypropylene drum. The river water was pumped into this drum through 0.45-, 0.2-, 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 48 hours. Nitric acid (5-percent, by volume) and potassium dichromate (0.05-percent, by weight) 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, the sample was bottled. The 250-mL glass bottles and tetrafluoroethylene fluorocarbon resin caps used were new, acid leached, and deionized-water rinsed.

LABORATORY ANALYSES

The participating laboratories were asked to determine constituents that are summarized in table 2. The number of analytes varied from 28 in T-163 (trace constituents) to 1 in Hg-31 (mercury).

Table 3. *Analytes determined in standard reference samples distributed in October 2000*

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

Constituent or Property		Units	T-163	M-154	N-67	N-68	P-35	Hg-31
Acidity	Acidity as CaCO ₃	mg/L					X	
Alk	Alkalinity as CaCO ₃	mg/L		X				
Ag	Silver	µg/L	X					
Al	Aluminum	µg/L	X					
As	Arsenic	µg/L	X					
B	Boron	µg/L	X	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	µg/L	X					
Cu	Copper	µg/L	X					
ROE	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	X		
NH ₃ + Org N as N	Ammonia + Organic N	mg/L			X	X		
Ni	Nickel	µg/L	X					
NO ₃ as N	Nitrate	mg/L			X	X		
Pb	Lead	µg/L	X					
pH	pH	unit		X			X	
PO ₄ as P	Orthophosphate	mg/L			X	X	X	
total P as P	Phosphorus	mg/L		X	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				
Tl	Thallium	µg/L	X					
U	Uranium	µg/L	X					
V	Vanadium	µg/L	X	X				
Zn	Zinc	µg/L	X					

Laboratories were requested to identify the method used for each constituent according to analytical method codes in the list of definitions, abbreviations and symbols (page IV).

Participating laboratories were also asked to identify the method used, such as those references listed next, to further define the methods.

1. American Public Health Association, American Water Works Association, and Water Environment Federation, 1995, Standard methods for the examination of water and wastewater (19th ed.): Washington, D.C., American Public Health Association, variable pagination.
2. American Society for Testing and Materials, 1995, Annual book of ASTM standards: Philadelphia, v. 11.0, and v. 11.02.3.
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 (3rd ed.): U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 545 p.
5. Miscellaneous manufacturer's instrument manuals or references.

LABORATORY PERFORMANCE RATINGS

To facilitate laboratory intercomparison, laboratory performance ratings that are based on the analyses reported for each SRS are included in tables 4 - 17 in this report. For each SRS, averages of all the analyte ratings and the number of analyte values reported are given for each participating laboratory. In some cases, laboratory significant figures reported in tables 4 - 17 might have been reformatted because of software formatting requirements. For example, a reported value of 15 may have been changed to 15.0 or a value of 102.86 may have been changed to 102.9 in these tables. However, the actual reported values by all the laboratories were used to calculate the statistical results and performance ratings presented in the report. Laboratory determination of each analyte is rated on a scale 4 to 0, based on the absolute Z-value. The listing of ratings and Z-values are presented in the list of analytical methods, abbreviations, and symbols given on page IV.

A weighted laboratory rating that is greater than or equal to 2.0 is considered satisfactory, whereas ratings less than 2.0 are considered unsatisfactory. Ratings are based on the relative performance of laboratories on specific samples and should be reviewed and evaluated on a case-by-case basis for each laboratory considering such factors as methods used and data needs of specific USGS projects using the laboratory data.

STATISTICAL PRESENTATION OF DATA

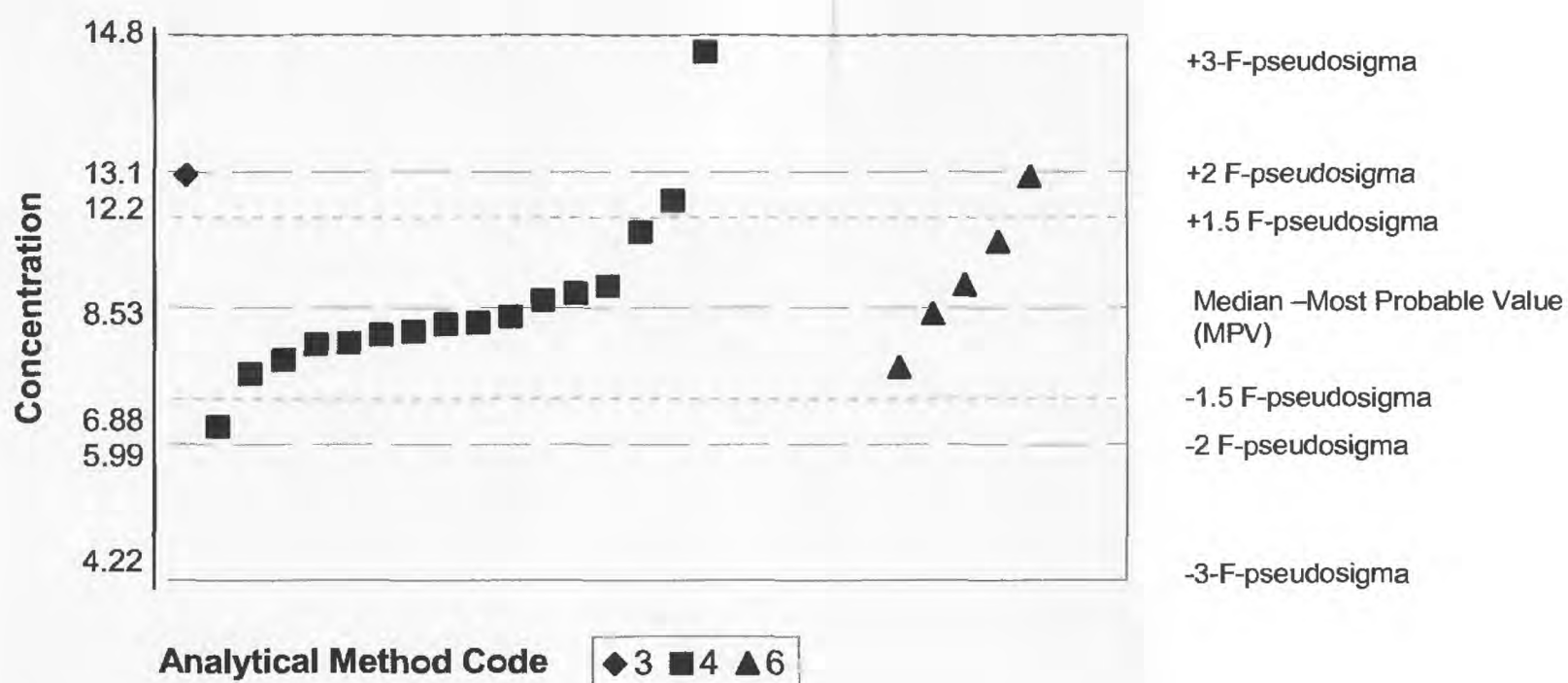
Data in this report are evaluated using nonparametric statistics as described by Hoaglin and others (1983). This statistical approach is a resistant statistic because outliers have less influence on the median, as they do the mean in traditional parametric statistics. Analytical data for each analyte are presented in tabular and graphical forms in tables 11 - 16. Tabulated data for each analyte include the laboratory code number; reported values; analytical method; most probable value (MPV); number of reported analyses, excluding less than values, (N); data range; the F-pseudosigma; and the Z-value. The Z-value is equivalent to the Z-score of traditional statistics. The F-pseudosigma approximates the standard deviation (σ) of traditional statistics when the data has a Gaussian distribution. If an analyte has a sufficient number of analyses by a given method, usually 7, the F-pseudosigma for that analytical method is reported in the block of data listed for each analyte.

The median value calculated from the reported results is the MPV. The F-pseudosigma is calculated by dividing the fourth-spread by 1.349; therefore the smaller the F-pseudosigma the more precise the determinations.

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-pseudosigma deviations from the median. Reported values are grouped by analytical method in ascending order of value.

In some cases, if the F-pseudosigma is less than 5 percent of the MPV, the rating criterion is set to 5 percent of the MPV; as shown in Table 11, page 46.

The term "insufficient data" is included in some of the tables and is used when the number of analyses is less than seven or the calculated F-pseudosigma is greater than the MPV. An estimated MPV may be calculated from the available data for a single analytical method, this estimated concentration is denoted by MPV = Estimated. Estimated values are not used to rate laboratories.



NOTE: vertical scale is the concentration value of the individual analyte in appropriate units (see table 2). Horizontal scale is the laboratory reported values separated by method (different symbols) and plotted by increasing values. Numbers next to each symbol at the bottom of the figure are analytical method codes that are described in table 3. Laboratory-reported results greater than 3 F-pseudosigma from the median are not shown on the graphs.

Figure 1. Statistical parameters shown on reported-data graphs in tables 11 – 16

REFERENCE

Hoaglin, D.C., Mosteller, F., and Tukey, J.W., Eds. 1983, *Understanding robust and exploratory data analysis*: New York, NY, John Wiley, Inc., p. 38-41.

Table 4. Overall laboratory performance ratings for standard reference samples distributed October 2000

[SRS, standard reference sample; Lab, laboratory; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for reported values of sample; V/66, number of reported values of 66 possible values from all sample types; V/28, V/16, V/5, V/5, V/11, and V/1 are number of reported values possible for T-163, M-156, N-67, N-68, P-35, and Hg-31 respectively; --, not reported.]

Lab	SRS=		T-163		M-156		N-67		N-68		P-35		Hg-31	
	OWR	V/66	OLR	V/28	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1
1	3.6	63	3.6	28	3.5	15	3.6	5	3.8	5	3.3	9	4.0	1
2	3.3	9	--	--	--	--	--	--	--	--	3.3	9	--	--
5	2.2	10	--	--	--	--	1.8	5	2.6	5	--	--	--	--
10	3.5	22	3.1	9	3.8	12	--	--	--	--	--	--	4.0	1
12	2.8	33	2.3	12	3.5	10	2.4	5	3.4	5	--	--	0.0	1
13	2.8	46	3.1	23	2.8	14	2.3	4	2.3	4	--	--	1.0	1
18	2.7	36	3.2	18	2.9	7	1.6	5	2.6	5	--	--	0.0	1
21	3.8	6	4.0	1	--	--	3.8	5	--	--	--	--	--	--
23	2.8	54	3.0	21	2.4	13	2.2	5	3.2	5	2.9	10	--	--
24	3.6	27	3.6	14	3.5	13	--	--	--	--	--	--	--	--
25	1.7	63	1.1	26	2.5	16	1.8	5	2.0	5	1.7	11	--	--
26	0.0	2	--	--	--	--	--	--	0.0	2	--	--	--	--
31	3.8	5	--	--	--	--	3.8	5	--	--	--	--	--	--
32	3.4	26	3.4	26	--	--	--	--	--	--	--	--	--	--
38	3.0	25	--	--	3.3	8	3.0	5	2.4	5	3.1	7	--	--
42	3.2	48	3.5	27	3.3	15	1.7	3	1.7	3	--	--	--	--
45	2.6	41	2.2	12	2.9	12	2.3	3	4.0	3	2.4	10	4.0	1
46	2.9	10	--	--	--	--	2.2	5	3.6	5	--	--	--	--
48	2.9	57	3.2	24	3.0	13	1.4	5	3.0	5	3.4	9	0.0	1
50	3.6	41	3.5	26	3.7	14	--	--	--	--	--	--	3.0	1
51	3.4	10	--	--	3.8	5	3.0	5	--	--	--	--	--	--
55	3.6	7	--	--	3.5	6	--	--	--	--	--	--	4.0	1
57	2.4	43	2.4	27	2.3	16	--	--	--	--	--	--	--	--
59	3.0	47	2.5	19	3.3	12	3.6	5	3.8	5	2.8	5	3.0	1
64	3.3	30	3.0	5	3.3	10	3.0	3	3.7	3	3.6	9	--	--
69	3.0	32	3.0	20	2.9	10	4.0	1	4.0	1	--	--	--	--
70	2.5	43	2.7	20	2.5	13	2.2	5	2.2	5	--	--	--	--
72	0.9	10	--	--	--	--	0.4	5	1.4	5	--	--	--	--
76	3.8	18	4.0	12	3.5	6	--	--	--	--	--	--	--	--
81	2.6	60	2.0	24	3.4	14	2.8	5	3.4	5	2.6	11	4.0	1
83	3.8	8	--	--	--	--	3.8	4	3.8	4	--	--	--	--
84	2.5	2	--	--	--	--	--	--	2.5	2	--	--	--	--
86	2.8	47	2.8	20	3.2	13	1.0	3	2.7	3	2.8	8	--	--
87	2.4	41	1.8	18	3.2	12	2.8	5	3.0	5	--	--	0.0	1
88	0.7	6	--	--	--	--	0.0	3	1.3	3	--	--	--	--
89	2.7	59	2.0	23	2.7	14	3.8	5	3.6	5	3.0	11	4.0	1
90	3.0	6	--	--	--	--	3.3	3	2.7	3	--	--	--	--
93	2.6	29	--	--	2.9	11	1.8	4	2.5	4	2.5	10	--	--
96	3.3	34	3.1	16	3.7	7	3.8	5	3.6	5	--	--	0.0	1
97	2.9	33	2.4	13	3.8	9	2.4	5	3.4	5	--	--	3.0	1
105	3.2	65	3.6	27	3.1	16	2.8	5	3.3	5	2.6	11	3.0	1
107	2.7	27	2.8	16	2.5	4	--	--	2.5	4	3.5	2	2.0	1
109	2.8	19	2.8	8	2.8	11	--	--	--	--	--	--	--	--
110	3.6	14	3.2	5	--	--	4.0	1	--	--	3.9	8	--	--
113	3.7	51	3.7	21	3.6	14	3.8	5	3.8	4	3.9	7	--	--
114	3.3	10	--	--	3.3	7	3.0	2	4.0	1	--	--	--	--
118	2.0	30	1.7	12	2.9	7	0.0	5	4.0	5	--	--	0.0	1
121	2.9	22	2.8	17	3.8	5	--	--	--	--	--	--	--	--
127	2.9	55	2.8	28	2.9	16	2.8	5	3.2	5	--	--	4.0	1
129	2.8	22	--	--	3.0	12	2.8	5	2.2	5	--	--	--	--

Table 4. Overall laboratory performance ratings for standard reference samples distributed October 2000 - Continued

[SRS, standard reference sample; Lab, laboratory; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for reported values of sample; V/66, number of reported values of 66 possible values from all sample types; V/28, V/16, V/5, V/5, V/11, and V/1 are number of reported values possible for T-163, M-156, N-67, N-68, P-35, and Hg-31 respectively; --, not reported.]

Lab	SRS=		T-163		M-156		N-67		N-68		P-35		Hg-31	
	OWR	V/66	OLR	V/28	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1
131	2.0	4	--	--	2.0	4	--	--	--	--	--	--	--	--
134	3.7	65	3.7	28	3.8	16	3.6	5	3.2	5	3.8	10	4.0	1
138	3.3	62	3.2	25	3.4	16	3.6	5	3.8	5	3.1	10	3.0	1
140	2.4	47	2.3	15	2.7	12	2.4	5	1.8	5	2.5	10	--	--
142	2.8	54	2.9	27	2.6	16	2.6	5	2.8	5	--	--	3.0	1
144	2.0	11	1.9	10	--	--	--	--	--	--	--	--	3.0	1
147	3.8	8	4.0	7	--	--	--	--	--	--	--	--	2.0	1
151	3.0	1	--	--	--	--	3.0	1	--	--	--	--	--	--
154	3.0	47	3.0	23	3.3	14	2.6	5	3.0	5	--	--	--	--
155	3.0	22	--	--	3.1	7	3.2	5	3.0	5	2.4	5	--	--
180	1.2	55	0.0	23	0.0	12	3.6	5	3.0	5	3.6	10	--	--
183	2.6	10	--	--	2.0	3	3.5	2	3.5	2	2.0	3	--	--
190	3.2	45	3.0	14	2.9	13	4.0	4	3.0	4	3.6	10	--	--
193	3.1	36	3.3	16	3.4	7	2.5	4	1.8	4	3.8	5	--	--
198	3.0	24	3.0	23	--	--	--	--	--	--	--	--	3.0	1
203	2.9	47	3.1	18	3.3	10	2.2	5	2.4	5	2.7	8	4.0	1
204	3.0	31	3.0	20	2.8	4	--	--	3.0	5	3.5	2	--	--
208	2.8	6	--	--	2.5	2	--	--	2.0	2	4.0	2	--	--
209	3.0	2	--	--	--	--	2.0	1	4.0	1	--	--	--	--
212	2.7	54	2.6	28	3.1	15	2.8	5	2.4	5	--	--	2.0	1
213	2.7	13	--	--	3.5	4	2.5	4	2.7	4	--	--	0.0	1
215	1.5	46	1.6	16	2.5	11	0.2	5	0.6	5	1.6	8	1.0	1
220	2.6	36	3.1	14	3.0	9	1.5	2	2.5	2	1.6	8	0.0	1
224	2.5	10	--	--	--	--	1.8	5	3.2	5	--	--	--	--
230	2.1	10	--	--	2.1	10	--	--	--	--	--	--	--	--
234	3.4	51	3.6	26	3.3	16	3.8	4	2.8	4	--	--	4.0	1
235	3.5	31	3.7	23	3.0	8	--	--	--	--	--	--	--	--
243	3.7	10	--	--	4.0	2	3.7	3	3.3	3	4.0	2	--	--
247	2.9	65	2.9	27	3.1	16	2.0	5	2.6	5	2.9	11	4.0	1
254	3.2	21	3.3	13	3.1	8	--	--	--	--	--	--	--	--
255	3.4	23	3.2	14	4.0	5	--	--	--	--	3.5	4	--	--
256	1.7	33	1.9	18	2.5	8	--	--	--	--	0.5	7	--	--
257	2.4	22	1.1	10	3.4	12	--	--	--	--	--	--	--	--
258	1.5	12	--	--	1.5	12	--	--	--	--	--	--	--	--
259	3.7	15	--	--	3.7	15	--	--	--	--	--	--	--	--
261	0.8	12	0.0	4	1.1	8	--	--	--	--	--	--	--	--
263	3.5	10	--	--	3.5	10	--	--	--	--	--	--	--	--
265	3.4	46	3.6	28	3.3	11	--	--	--	--	3.0	6	2.0	1
266	3.8	11	--	--	3.8	11	--	--	--	--	--	--	--	--
267	3.6	7	--	--	3.6	7	--	--	--	--	--	--	--	--
268	2.6	21	2.5	4	2.8	9	--	--	--	--	2.5	8	--	--
270	0.9	29	1.2	16	0.6	8	--	--	--	--	0.4	5	--	--
273	2.3	46	2.3	20	2.6	15	--	--	--	--	2.0	11	--	--
274	1.3	34	1.1	11	1.8	12	--	--	--	--	0.8	11	--	--
275	1.9	9	--	--	1.9	9	--	--	--	--	--	--	--	--
276	2.4	8	--	--	2.4	8	--	--	--	--	--	--	--	--
277	2.3	28	2.2	14	2.4	11	--	--	--	--	2.0	2	4.0	1
279	1.2	18	1.0	4	1.3	7	--	--	--	--	1.1	7	--	--
280	3.0	5	--	--	3.0	5	--	--	--	--	--	--	--	--
287	2.2	35	2.2	10	3.2	10	0.0	3	0.7	3	2.3	9	--	--

Table 4. Overall laboratory performance ratings for standard reference samples distributed October 2000 - Continued

[SRS, standard reference sample; Lab, laboratory; OWR, overall weighted rating for all sample types; OLR, overall laboratory rating for reported values of sample; V/66, number of reported values of 66 possible values from all sample types; V/28, V/16, V/5, V/5, V/11, and V/1 are number of reported values possible for T-163, M-156, N-67, N-68, P-35, and Hg-31 respectively; --, not reported.]

Lab	OWR	SRS=	T-163		M-156		N-67		N-68		P-35		Hg-31	
		V/66	OLR	V/28	OLR	V/16	OLR	V/5	OLR	V/5	OLR	V/11	OLR	V/1
291	0.0	1	--	--	--	--	--	--	0.0	1	--	--	--	--
297	2.4	44	2.5	23	1.8	11	3.0	5	2.6	5	--	--	--	--
298	4.0	1	--	--	--	--	--	--	--	--	--	--	4.0	1
301	1.3	3	--	--	--	--	--	--	--	--	1.3	3	--	--
304	3.8	20	3.9	17	2.0	2	--	--	--	--	--	--	4.0	1
305	2.8	37	2.6	19	2.8	9	2.5	5	4.0	4	--	--	--	--
306	1.5	23	0.8	7	2.0	6	1.8	5	1.4	5	--	--	--	--
307	2.0	24	1.3	12	2.7	7	3.0	4	--	--	--	--	3.0	1
309	1.4	19	0.9	8	1.7	11	--	--	--	--	--	--	--	--
313	3.0	10	--	--	--	--	2.8	5	3.2	5	--	--	--	--
314	4.0	5	--	--	--	--	--	--	4.0	5	--	--	--	--
315	2.4	18	2.3	6	2.8	6	--	--	--	--	2.2	6	--	--
316	2.9	10	--	--	--	--	3.2	5	2.6	5	--	--	--	--
318	3.2	5	--	--	--	--	3.2	5	--	--	--	--	--	--
320	2.2	10	--	--	--	--	2.4	5	2.0	5	--	--	--	--
321	2.3	13	--	--	--	--	1.8	4	--	--	2.9	8	0.0	1
323	3.4	19	--	--	3.3	14	3.6	5	--	--	--	--	--	--
324	0.5	11	0.2	5	0.7	6	--	--	--	--	--	--	--	--
328	1.6	66	1.7	28	2.1	16	0.0	5	2.2	5	1.1	11	0.0	1
331	2.1	43	2.2	27	1.9	16	--	--	--	--	--	--	--	--
333	3.4	16	--	--	3.6	5	3.0	2	--	--	3.3	9	--	--
334	2.5	13	3.0	7	2.0	6	--	--	--	--	--	--	--	--

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents)

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

			Rating		Absolute Z-value		Rating		Absolute Z-value			
			4 (Excellent)		0.00 - 0.50		1 (Marginal)		1.51 - 2.00			
			3 (Good)		0.51 - 1.00		0 (Unacceptable)		greater than 2.00			
			2 (Satisfactory)		1.01 - 1.50		NR (Not Rated)					
Analyte =			Silver		Aluminum		Arsenic		Boron		Barium	
MPV =			16.9 µg/L		16.8 µg/L		25.3 µg/L		10.6 µg/L		7.40 µg/L	
F-pseudosigma =			1.47		1.67		1.78		2.39		0.537	
Lab	OLR	V/28	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.6	28	17.48	4	17.4	4	24.55	4	<12	NR	7.49	4
10	3.1	9	--	--	--	--	27.7	2	--	--	--	--
12	2.3	12	8.7	0	--	--	22.2	1	--	--	--	--
13	3.1	23	16.8	4	17.7	3	22.7	2	--	--	6.5	1
18	3.2	18	17.12	4	17.4	4	25.8	4	--	--	7.67	4
21	4.0	1	--	--	--	--	--	--	--	--	--	--
23	3.0	21	16.5	4	17.3	4	25.7	4	--	--	9.22	0
24	3.6	14	--	--	--	--	--	--	--	--	7	3
25	1.1	26	17.4	4	<4.6	NR	17.7	0	<2	NR	6	0
32	3.4	26	17.6	4	16.8	4	26	4	10.6	4	7.2	4
42	3.5	27	17.4	4	15.9	3	24.1	3	8.39	3	7.11	3
45	2.2	12	--	--	--	--	25.7	4	--	--	--	--
48	3.2	24	15.3	2	21	0	24.7	4	10.5	4	8.2	2
50	3.5	26	16.7	4	16.8	4	24.4	4	--	--	7.2	4
57	2.4	27	18.2	3	29.1	0	25.3	4	13.4	2	7.6	4
59	2.5	19	14.4	1	15.9	3	26.5	3	--	--	8	2
64	3.0	5	--	--	--	--	--	--	--	--	--	--
69	3.0	20	16.5	4	<50	NR	24.3	3	--	--	--	--
70	2.7	20	--	--	18.6	2	--	--	--	--	7.92	3
76	4.0	12	--	--	--	--	--	--	--	--	--	--
81	2.0	24	13	0	<15	NR	24	3	--	--	6	0
86	2.8	20	17.7	3	--	--	20.1	0	--	--	7.9	3
87	1.8	18	16.7	4	--	--	27	3	--	--	10	0
89	2.0	23	16.2	4	21.5	0	25.4	4	--	--	<50	NR
96	3.1	16	17.2	4	--	--	25.3	4	--	--	<100	NR
97	2.4	13	14.7	2	--	--	26	4	--	--	--	--
105	3.6	27	16.9	4	17.7	3	26.2	4	<200	NR	7.4	4
107	2.8	16	17.2	4	15.6	3	25.7	4	--	--	7.4	4
109	2.8	8	--	--	--	--	24.7	4	--	--	--	--
110	3.2	5	--	--	14.54	2	--	--	--	--	--	--
113	3.7	21	18.5	2	18.5	2	25.9	4	--	--	7.17	4
118	1.7	12	15.62	3	--	--	33.4	0	--	--	--	--
121	2.6	17	--	--	--	--	--	--	--	--	7	3
127	2.8	28	20.5	0	<60	NR	23.2	2	<8	NR	7.31	4
134	3.7	28	16.6	4	16.74	4	26.5	3	10.64	4	7.466	4
138	3.2	25	17.8	3	14.7	2	26.2	4	11.2	4	7.26	4
140	2.3	15	7	0	--	--	--	--	--	--	10	0
142	2.9	27	16.9	4	<30	NR	26.1	4	<30	NR	7.45	4
144	1.9	10	17.6	4	--	--	22.6	1	--	--	--	--
147	4.0	7	--	--	--	--	25.5	4	--	--	--	--
154	3.0	23	--	--	16.4	4	23.7	3	--	--	7.4	4
180	0.0	23	<3.72	NR	<23.8	NR	--	--	69.4	0	39.5	0
190	3.0	14	14	1	16.2	4	23.6	3	--	--	--	--
193	3.3	16	17.5	4	--	--	25.3	4	--	--	--	--
198	3.0	23	17.7	3	16.4	4	23.2	2	--	--	7.17	4

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte =			Silver		Aluminum		Arsenic		Boron		Barium	
MPV =			16.9 µg/L		16.8 µg/L		25.3 µg/L		10.6 µg/L		7.40 µg/L	
F-pseudosigma =			1.47		1.67		1.78		2.39		0.537	
Lab	OLR	V/28	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
203	3.1	18	16.4	4	<14	NR	25.8	4	--	--	9.2	0
204	3.0	20	13.2	0	17.6	4	26.2	4	--	--	7.55	4
212	2.6	28	16.3	4	27.1	0	24.3	3	11.3	4	7	3
215	1.6	16	18	3	--	--	19	0	--	--	--	--
220	3.1	14	16.89	4	--	--	27.2	2	--	--	--	--
234	3.6	26	17.6	4	16.7	4	23.6	3	9.08	3	7.4	4
235	3.7	23	17.6	4	16.4	4	--	--	10.87	4	7.4	4
247	2.9	27	16.6	4	16.1	4	21.2	0	5.73	0	7.32	4
254	3.3	13	--	--	<20	NR	--	--	--	--	--	--
255	3.2	14	17.5	4	--	--	26	4	7.65	2	--	--
256	1.9	18	21	0	14	1	28	1	--	--	7	3
257	1.1	10	<20	NR	--	--	16.3	0	--	--	--	--
261	0.0	4	--	--	--	--	--	--	--	--	--	--
265	3.6	28	17.4	4	16.5	4	26	4	10	4	7.5	4
268	2.5	4	--	--	--	--	--	--	--	--	--	--
270	1.2	16	8.33	0	--	--	--	--	--	--	7.83	3
273	2.3	20	18.5	2	--	--	--	--	6.5	1	7	3
274	1.1	11	--	--	--	--	--	--	--	--	--	--
277	2.2	14	11.2	0	--	--	26	4	--	--	--	--
279	1.0	4	--	--	--	--	--	--	--	--	--	--
287	2.2	10	--	--	26.5	0	--	--	--	--	--	--
297	2.5	23	18.4	2	<200	NR	25.3	4	--	--	7.56	4
304	3.9	17	17.4	4	16.8	4	25.2	4	--	--	7.36	4
305	2.6	19	17.9	3	--	--	28.1	1	--	--	7.05	3
306	0.8	7	15.59	3	--	--	--	--	--	--	--	--
307	1.3	12	14.5	1	--	--	22.1	1	--	--	--	--
309	0.9	8	--	--	--	--	--	--	7	2	9	0
315	2.3	6	--	--	--	--	--	--	--	--	--	--
324	0.2	5	--	--	26.6	0	--	--	--	--	--	--
328	1.7	28	16.5	4	<100	NR	26	4	16	0	8.2	2
331	2.2	27	19	0	24	0	21	0	<80	NR	7	3
334	3.0	7	17.3	4	--	--	22.2	1	--	--	--	--

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte = MPV = F-pseudosigma =		Beryllium 22.0 µg/L 1.04		Calcium 6.30 mg/L 0.259		Cadmium 6.59 µg/L 0.419		Cobalt 12.0 µg/L 0.371		Chromium 40.1 µg/L 2.15	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1		23.16	2	6.468	3	6.76	4	12.8	2	40.93	4
10		--	--	--	--	6.4	4	--	--	40.1	4
12		--	--	6.3	4	4	0	--	--	49	0
13		22	4	6.3	4	6.3	3	<50	NR	40.8	4
18		22.49	4	--	--	6.59	4	12.4	3	40.8	4
21		--	--	--	--	--	--	--	--	--	--
23		21.3	3	6.21	4	6.26	3	--	--	37.6	2
24		--	--	6.1	3	--	--	12	4	39	3
25		21.6	4	5.38	0	6	2	10.3	0	47.9	0
32		22.6	3	6.3	4	6.7	4	12.5	3	40.5	4
42		21.4	3	6.38	4	6.44	4	12.1	4	40.9	4
45		--	--	6.33	4	--	--	--	--	--	--
48		21	3	6.65	2	6.5	4	12.1	4	39	3
50		21.1	3	6.18	4	6.4	4	11.9	4	39.3	4
57		21.2	3	6.17	4	5.96	2	12	4	34.6	0
59		22.8	3	6.5	3	7.1	2	--	--	38.3	3
64		--	--	6.19	4	--	--	--	--	--	--
69		22	4	5.72	1	6.2	3	--	--	41.4	3
70		24.5	0	6.61	3	6.75	4	12.7	2	42	3
76		22.06	4	6.288	4	6.601	4	12.02	4	40.16	4
81		18.8	0	6.37	4	7	3	11	1	52	0
86		22.1	4	6.47	3	7.7	0	9	0	41	4
87		--	--	4.62	0	4.8	0	--	--	41.8	3
89		21.9	4	4.09	0	7.06	2	10.8	1	43.4	1
96		20.4	2	--	--	6.53	4	12.7	2	37.9	2
97		19	0	6.15	4	5.8	1	--	--	42.6	2
105		22	4	6.23	4	6.5	4	11.9	4	39.6	4
107		--	--	7.5	0	7	3	--	--	37.1	2
109		--	--	6.5	3	--	--	--	--	--	--
110		--	--	6.45	4	--	--	--	--	--	--
113		22.9	3	6.2	4	6.6	4	--	--	39.7	4
118		--	--	--	--	7.85	0	--	--	--	--
121		--	--	6.43	4	7	3	11	1	36	1
127		23.4	2	5.85	2	6.38	4	11.8	4	41.8	3
134		21.63	4	6.265	4	6.68	4	12.19	4	40.13	4
138		21.1	3	6.11	3	6.41	4	11.9	4	37.5	2
140		--	--	5.7	1	7	3	--	--	46	0
142		21.2	3	6.81	1	6.94	3	11.9	4	36.6	3
144		20	1	--	--	7.1	2	--	--	38.4	3
147		--	--	--	--	6.7	4	--	--	--	--
154		22	4	6.1	3	5.37	0	12.2	4	39.5	4
180		<0.6	NR	30	0	<3.78	NR	<3.98	NR	<4.5	NR
190		--	--	6.45	4	6.83	3	--	--	37.8	2
193		23	3	6.18	4	6.4	4	--	--	41.4	3
198		22.6	3	5.53	0	6.44	4	12.3	4	38	3

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte = MPV = F-pseudosigma =	Beryllium 22.0 µg/L 1.04		Calcium 6.30 mg/L 0.259		Cadmium 6.59 µg/L 0.419		Cobalt 12.0 µg/L 0.371		Chromium 40.1 µg/L 2.15	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
203	--	--	6.3	4	6.6	4	--	--	39.9	4
204	22.1	4	6.48	3	6.57	4	--	--	41.2	4
212	20.9	3	5.95	2	6	2	12	4	40.1	4
215	23	3	6.8	1	6.9	3	--	--	41	4
220	21.91	4	6.574	3	6.4	4	--	--	43.03	2
234	21.9	4	6.29	4	6.58	4	12.4	3	40.6	4
235	21.94	4	6.14	4	6.69	4	11.9	4	38.7	3
247	20.2	1	6.27	4	6.34	3	12	4	38.4	3
254	--	--	6.45	4	--	--	13.3	0	--	--
255	--	--	6.32	4	6.93	3	--	--	42.8	2
256	25	0	--	--	6	2	13	1	41	4
257	--	--	--	--	8	0	--	--	--	--
261	--	--	32	0	--	--	--	--	--	--
265	21.9	4	6.2	4	6.8	3	12	4	40	4
268	--	--	5.64	0	--	--	--	--	--	--
270	--	--	5.18	0	6.99	3	13	1	32.6	0
273	--	--	6.4	4	6	2	11.5	3	40	4
274	--	--	5.51	0	6.57	4	--	--	--	--
277	--	--	6.4	4	6.45	4	12.3	4	38.3	3
279	--	--	6.45	4	--	--	--	--	--	--
287	--	--	6.55	3	--	--	--	--	--	--
297	22.2	4	4.47	0	6.68	4	12.6	3	38.3	3
304	--	--	--	--	6.36	3	11.9	4	40.5	4
305	22.7	3	5.96	2	7.04	2	--	--	41.3	3
306	--	--	--	--	--	--	--	--	37.53	2
307	--	--	--	--	9.25	0	--	--	40.5	4
309	--	--	6.9	1	--	--	--	--	--	--
315	--	--	6.2	4	--	--	--	--	--	--
324	--	--	9.06	0	--	--	--	--	--	--
328	22.2	4	6.8	1	7.2	2	18	0	53	0
331	21	3	6.89	1	6	2	12	4	40	4
334	--	--	--	--	--	--	--	--	--	--

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte =		Copper		Iron		Potassium		Lithium		Magnesium	
MPV =		35.8 µg/L		60.0 µg/L		1.02 mg/L		1.60 µg/L		1.23 mg/L	
F-pseudosigma =		1.74		5.93		0.137		0.993		0.074	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1		36.92	3	63.207	3	1.02	4	1.189	4	1.27	3
10		36	4	63	4	--	--	--	--	--	--
12		35.7	4	64	3	--	--	--	--	1.32	2
13		31.2	0	56.3	3	0.99	4	--	--	1.3	3
18		40	0	--	--	--	--	--	--	--	--
21		--	--	60.87	4	--	--	--	--	--	--
23		33.2	2	60	4	0.94	3	--	--	1.18	3
24		35	4	61	4	0.96	4	--	--	1.18	3
25		39.7	0	62.5	4	1.078	4	9	0	1.053	0
32		36	4	--	--	1.02	4	1.08	3	1.3	3
42		35.8	4	61.1	4	0.986	4	<5	NR	1.23	4
45		36.5	4	72.5	0	0.694	0	--	--	0.94	0
48		35	4	71	1	0.97	4	--	--	1.22	4
50		34.5	3	54.1	3	0.928	3	0.96	3	1.23	4
57		37.2	3	59.5	4	1.48	0	1.6	4	1.31	2
59		34.2	3	--	--	1	4	--	--	1.3	3
64		--	--	26.5	0	0.99	4	--	--	1.21	4
69		<50	NR	<50	NR	1	4	<50	NR	<2.0	NR
70		36.7	4	38	0	1.04	4	--	--	1.26	4
76		--	--	--	--	--	--	--	--	1.249	4
81		37	3	42	0	1.17	2	--	--	1.23	4
86		35.6	4	--	--	1	4	--	--	1.27	3
87		38.3	2	60.4	4	944	0	--	--	1.14	2
89		34	3	60	4	0.885	3	--	--	1.29	3
96		36	4	60	4	--	--	--	--	--	--
97		--	--	--	--	--	--	--	--	1.2	4
105		36	4	67	2	<1.00	NR	<26.0	NR	1.22	4
107		32.6	1	60	4	1.18	2	--	--	1.22	4
109		--	--	52.33	2	1.12	3	2.44	3	1.5	0
110		--	--	--	--	1.08	4	--	--	1.299	3
113		36.2	4	59.6	4	1	4	--	--	1.22	4
118		45.1	0	98	0	--	--	--	--	--	--
121		33	1	58	4	--	--	--	--	1.16	3
127		32.9	1	61.8	4	1.03	4	<10	NR	1.35	1
134		35.9	4	58	4	0.978	4	1.1	4	1.199	4
138		35.5	4	55.2	3	0.968	4	--	--	1.19	3
140		37	3	60	4	0.95	3	--	--	1.2	4
142		33.6	2	62	4	<1	NR	--	--	1.55	0
144		31.6	0	--	--	--	--	--	--	--	--
147		35.3	4	59	4	--	--	--	--	--	--
154		35	4	62.1	4	--	--	--	--	1.1	1
180		3.23	0	<3.81	NR	2.19	0	--	--	6.73	0
190		37.5	3	62.4	4	--	--	--	--	--	--
193		35.9	4	59	4	0.991	4	--	--	1.24	4
198		32.8	1	60.7	4	0.89	3	--	--	1.13	2

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte = MPV = F-pseudosigma =	Copper 35.8 µg/L 1.74		Iron 60.0 µg/L 5.93		Potassium 1.02 mg/L 0.137		Lithium 1.60 µg/L 0.993		Magnesium 1.23 mg/L 0.074	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
203	36	4	55	3	1.02	4	--	--	1.13	2
204	37.3	3	52	2	1.14	3	--	--	1.25	4
212	34.7	3	74.9	0	1.02	4	<10	NR	1.18	3
215	45	0	72	0	--	--	--	--	14	0
220	36.13	4	55.64	3	1.038	4	--	--	1.21	4
234	36.7	4	63.4	3	1.02	4	--	--	1.25	4
235	35.1	4	59.7	4	0.985	4	0.91	3	1.16	3
247	34.6	3	55.04	3	1	4	2.31	3	1.16	3
254	36.7	4	61.8	4	1.21	2	--	--	1.24	4
255	36.4	4	54.5	3	--	--	--	--	1.22	4
256	--	--	54	2	--	--	2	4	--	--
257	35	4	--	--	--	--	<25	NR	--	--
261	--	--	20	0	--	--	--	--	35.3	0
265	36	4	65	3	0.93	3	1.2	4	1.25	4
268	--	--	--	--	1.21	2	--	--	1.216	4
270	40.54	0	40.85	0	1.14	3	5.05	0	--	--
273	21.6	0	63	4	1.05	4	6	0	1.26	4
274	39.81	0	61.33	4	0.96	4	--	--	2.13	0
277	33	1	52.1	2	1.25	1	--	--	--	--
279	--	--	--	--	0.66	0	--	--	4.15	0
287	33.5	2	68	2	1.036	4	--	--	1.24	4
297	37.8	2	68.3	2	1.37	0	--	--	1.31	2
304	35	4	--	--	--	--	--	--	--	--
305	36.7	4	52	2	1.47	0	--	--	1.21	4
306	56.98	0	--	--	1.483	0	--	--	--	--
307	31.8	0	5.6	0	--	--	--	--	--	--
309	--	--	--	--	4	0	--	--	1.13	2
315	--	--	0.022	0	1.13	3	--	--	1.2	4
324	--	--	94.6	0	--	--	--	--	--	--
328	35	4	53	2	1.56	0	<10	NR	1.3	3
331	34	3	62	4	1.3	0	<2	NR	1.51	0
334	35.6	4	78	0	--	--	--	--	--	--

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte =		Manganese		Molybdenum		Sodium		Nickel		Lead	
MPV =		15.8 µg/L		12.6 µg/L		39.6 mg/L		15.4 µg/L		32.0 µg/L	
F-pseudosigma =		1.11		0.926		1.89		1.26		2.17	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1		15.49	4	12.997	4	41.71	2	15.7	4	32.7	4
10		17.6	1	--	--	--	--	--	--	29	2
12		--	--	--	--	38.7	4	--	--	32.3	4
13		17.2	2	--	--	40.6	4	<20	NR	30.6	3
18		16.03	4	12.01	3	--	--	15.65	4	34.49	2
21		--	--	--	--	--	--	--	--	--	--
23		14.9	3	13.3	3	37.4	2	14.5	3	30.6	3
24		16	4	--	--	39.5	4	--	--	--	--
25		11.7	0	--	--	37.9	3	10	0	26.9	0
32		16.5	3	12.6	4	42	2	14.7	3	32.1	4
42		15.5	4	12	3	39.4	4	15.5	4	32.6	4
45		17	2	--	--	37.55	2	22	0	33.6	3
48		16.8	3	13	4	40.5	4	15	4	33	4
50		14.8	3	12.5	4	40.8	3	14.9	4	29.7	2
57		15.1	3	10.9	1	3.81	0	15.6	4	30.4	3
59		15.1	3	--	--	46.9	0	14.2	3	34.5	2
64		--	--	--	--	--	--	--	--	--	--
69		<20	NR	--	--	39.8	4	<50	NR	32.8	4
70		17	2	13.4	3	42.5	2	15.9	4	--	--
76		--	--	--	--	--	--	15.18	4	--	--
81		15	3	11	1	40.9	3	6	0	28	1
86		15.8	4	--	--	40.5	4	17.3	2	32	4
87		17.2	2	9.5	0	38.6	4	10.4	0	35	2
89		19.2	0	--	--	38.5	3	14.5	3	26.1	0
96		<20.0	NR	--	--	--	--	14.1	2	33.4	3
97		--	--	10.7	1	--	--	15.8	4	31	4
105		16.4	3	13.7	2	39.6	4	15.9	4	34.4	2
107		<40	NR	--	--	40.4	4	14.2	3	35	2
109		16.5	3	--	--	39.8	4	--	--	--	--
110		--	--	--	--	--	--	--	--	--	--
113		15.5	4	--	--	40.2	4	15.5	4	33	4
118		16.5	3	--	--	40	4	15.9	4	30.6	3
121		15	3	11	1	40.2	4	14	2	32	4
127		14.3	2	15.1	0	40	4	13.9	2	31.6	4
134		15.75	4	12.19	4	40.68	3	15.49	4	32	4
138		15.2	3	12.6	4	39	4	17.5	1	32.3	4
140		15	3	--	--	37.5	2	17	2	32	4
142		<10	NR	12.6	4	43.3	1	14.8	4	30.4	3
144		--	--	--	--	--	--	12.2	0	34.4	2
147		16.1	4	--	--	--	--	--	--	33.1	4
154		15.5	4	12.1	4	36.4	1	15.3	4	28.8	2
180		<0.94	NR	<6.05	NR	44.7	0	<15.6	NR	<28.5	NR
190		15.3	4	--	--	--	--	15.8	4	31.3	4
193		--	--	--	--	38.8	4	16.4	3	31.5	4
198		14.9	3	12.8	4	36.4	1	14.2	3	30.5	3

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte =		Manganese		Molybdenum		Sodium		Nickel		Lead	
MPV =		15.8 µg/L		12.6 µg/L		39.6 mg/L		15.4 µg/L		32.0 µg/L	
F-pseudostigma =		1.11		0.926		1.89		1.26		2.17	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
203		9	0	--	--	40.36	4	<30	NR	29.8	2
204		15.6	4	--	--	41.7	2	14.2	3	38.3	0
212		16.4	3	10	0	39.6	4	16.3	3	29	2
215		18	1	--	--	42	2	29	0	15	0
220		--	--	--	--	37.715	3	--	--	27.7	1
234		15.9	4	11.7	3	39.5	4	15.7	4	31.7	4
235		15.27	4	--	--	38.4	3	15.17	4	31.24	4
247		12.6	0	12.5	4	39.356	4	14.8	4	33	4
254		15.9	4	--	--	40.4	4	<15	NR	--	--
255		16.5	3	--	--	--	--	16.7	2	34.6	2
256		17	2	--	--	--	--	16	4	35	2
257		--	--	--	--	--	--	17	2	47.5	0
261		--	--	--	--	--	--	--	--	--	--
265		16.5	3	12.8	4	39.7	4	15.5	4	32	4
268		--	--	--	--	38.9	4	--	--	--	--
270		16.8	3	--	--	38.1	3	30.29	0	--	--
273		16.5	3	13.6	2	40	4	18.5	0	19.6	0
274		72.82	0	--	--	48.75	0	--	--	48.66	0
277		14.1	1	--	--	24.8	0	13.6	2	33.3	3
279		--	--	--	--	28.45	0	--	--	--	--
287		14	1	--	--	38.08	3	--	--	30.15	3
297		16.2	4	--	--	36.2	1	17.9	1	31.8	4
304		16	4	--	--	--	--	15.4	4	32	4
305		15.5	4	12.6	4	33.9	0	14.2	3	35.7	1
306		--	--	--	--	50.9	0	11.45	0	--	--
307		4.5	0	--	--	41.5	3	14	2	28.6	1
309		--	--	--	--	35.7	1	--	--	--	--
315		0.014	0	--	--	38.4	3	--	--	--	--
324		18.1	0	--	--	--	--	--	--	--	--
328		21	0	11.8	3	43	1	13	1	28	1
331		15	3	14	1	34.7	0	14	2	29	2
334		15.4	4	--	--	--	--	15.8	4	32.5	4

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte =		Antimony		Selenium		Silica		Strontium		Thallium	
MPV =		32.5 µg/L		8.88 µg/L		4.56 mg/L		35.5 µg/L		39.9 µg/L	
F-pseudosigma =		1.89		1.11		0.188		1.78		3.00	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1		32.14	4	9.09	4	4.654	4	34.16	3	39.634	4
10		--	--	9	4	--	--	--	--	--	--
12		--	--	7.4	2	--	--	--	--	--	--
13		32.1	4	9.8	3	4.4	3	--	--	37.1	3
18		37.5	0	9.21	4	--	--	--	--	42.5	3
21		--	--	--	--	--	--	--	--	--	--
23		35.4	1	8.8	4	--	--	--	--	38.8	4
24		--	--	--	--	4.73	3	36	4	--	--
25		<60	NR	<11	NR	1.88	0	24.5	0	<7.5	NR
32		34.5	2	--	--	4.93	1	35	4	40	4
42		31.9	4	8.53	4	3.88	0	35.7	4	41.6	3
45		34	3	--	--	--	--	--	--	--	--
48		35	2	8.1	3	--	--	--	--	42	3
50		31.8	4	8.73	4	4.62	4	36.1	4	36	2
57		31.7	4	13	0	4.25	2	34.5	3	41.6	3
59		35.5	1	9.6	3	--	--	--	--	44.3	2
64		--	--	--	--	4.43	3	--	--	--	--
69		28.3	0	8	3	--	--	--	--	42.3	3
70		34.8	2	8.95	4	4.83	2	--	--	--	--
76		33.06	4	--	--	--	--	35.43	4	40.97	4
81		30	2	8	3	--	--	36	4	44	2
86		--	--	8.74	4	--	--	36.7	3	31.9	0
87		--	--	2.1	0	4.45	4	--	--	--	--
89		28.9	1	5.62	0	4.6	4	--	--	46.4	0
96		32.2	4	8.03	3	--	--	--	--	--	--
97		--	--	--	--	4.41	3	33.5	2	--	--
105		32.6	4	9.4	4	4.47	4	34	3	39.8	4
107		--	--	10.1	2	--	--	--	--	--	--
109		--	--	--	--	--	--	--	--	--	--
110		--	--	--	--	4.759	3	--	--	--	--
113		31.9	4	8.57	4	--	--	34.8	4	37.7	3
118		--	--	7.65	2	2.23	0	--	--	--	--
121		--	--	--	--	4.57	4	32	1	--	--
127		29.8	2	9.71	3	4.64	4	34.5	3	38.3	3
134		33.88	3	10	2	4.453	4	35.2	4	40.04	4
138		33.1	4	9.63	3	--	--	33.4	2	43.7	2
140		--	--	--	--	4.63	4	--	--	--	--
142		38.5	0	9.63	3	4.9	2	37	3	40.5	4
144		--	--	7.5	2	--	--	--	--	--	--
147		--	--	--	--	--	--	--	--	--	--
154		34.2	3	9.8	3	4.6	4	35.6	4	34.2	1
180		<26.6	NR	<65.2	NR	--	--	--	--	<37.9	NR
190		--	--	8.16	3	5.1	0	--	--	--	--
193		29	1	9.7	3	--	--	--	--	--	--
198		31.2	3	9.13	4	--	--	--	--	37.9	3

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte = MPV = F-pseudosigma =	Antimony 32.5 µg/L 1.89		Selenium 8.88 µg/L 1.11		Silica 4.56 mg/L 0.188		Strontium 35.5 µg/L 1.78		Thallium 39.9 µg/L 3.00	
Lab	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
203	--	--	8.4	4	4.46	4	--	--	--	--
204	32.4	4	8.24	3	--	--	--	--	7.62	0
212	28.5	0	8.1	3	2.15	0	33.8	3	42	3
215	--	--	8.5	4	--	--	--	--	16	0
220	--	--	9.52	3	--	--	--	--	--	--
234	33.5	3	9.44	4	4.61	4	35.7	4	46.9	0
235	--	--	--	--	4.53	4	35.49	4	38.3	3
247	32	4	8.47	4	4.18	1	36.7	3	41.7	3
254	--	--	--	--	4.56	4	37.9	2	--	--
255	--	--	9.02	4	--	--	--	--	--	--
256	--	--	10	2	4.75	3	39	1	--	--
257	30.64	3	0.32	0	--	--	--	--	--	--
261	--	--	--	--	--	--	--	--	--	--
265	32.5	4	9.5	3	4.7	3	34	3	38	3
268	--	--	--	--	--	--	--	--	--	--
270	--	--	--	--	--	--	36.81	3	32.59	0
273	--	--	--	--	4.4	3	37.6	2	--	--
274	--	--	--	--	3.23	0	--	--	--	--
277	--	--	--	--	--	--	--	--	--	--
279	--	--	--	--	--	--	--	--	--	--
287	--	--	--	--	--	--	--	--	--	--
297	35.2	2	9.49	3	3.85	0	--	--	43.2	2
304	32	4	8.6	4	--	--	36.1	4	39.2	4
305	--	--	--	--	--	--	--	--	40.9	4
306	--	--	--	--	--	--	--	--	--	--
307	--	--	8.02	3	--	--	--	--	--	--
309	--	--	--	--	2.88	0	32	1	--	--
315	--	--	--	--	--	--	--	--	--	--
324	--	--	--	--	--	--	--	--	--	--
328	34.4	2	9.6	3	4.69	3	32	1	38.9	4
331	33	4	<40	NR	4.6	4	37	3	39	4
334	--	--	--	--	--	--	--	--	--	--

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte =		Uranium		Vanadium		Zinc	
MPV =		4.60 µg/L		35.0 µg/L		18.5 µg/L	
F-pseudosigma =		0.156		1.78		1.33	
Lab		RV	Rating	RV	Rating	RV	Rating
1		4.59	4	34.27	4	18.27	4
10		--	--	--	--	19.5	3
12		--	--	--	--	19.5	3
13		--	--	<50	NR	18.7	4
18		--	--	36.54	3	17.31	3
21		--	--	--	--	--	--
23		--	--	--	--	18.5	4
24		--	--	34	3	18	4
25		--	--	36.4	3	25	0
32		4.6	4	36	3	17.3	3
42		--	--	34.5	4	17.5	3
45		--	--	--	--	18	4
48		--	--	35	4	19	4
50		--	--	33.7	3	17.7	3
57		--	--	33.5	3	23.7	0
59		--	--	--	--	19.6	3
64		--	--	--	--	--	--
69		--	--	--	--	<50	NR
70		--	--	36.4	3	20	2
76		4.7	4	35.48	4	--	--
81		--	--	34	3	19	4
86		--	--	36.7	3	18.9	4
87		--	--	--	--	19.6	3
89		--	--	37.7	1	18.4	4
96		--	--	<40	NR	17	2
97		--	--	30.5	0	--	--
105		--	--	34.3	4	18	4
107		--	--	--	--	--	--
109		--	--	--	--	--	--
110		--	--	--	--	--	--
113		--	--	--	--	18.4	4
118		--	--	--	--	16	1
121		--	--	33	2	18	4
127		<100	NR	34.4	4	18.8	4
134		5.07	0	34.99	4	18.63	4
138		--	--	33.7	3	18.3	4
140		--	--	--	--	21	1
142		4.62	4	34	3	18.4	4
144		--	--	--	--	18	4
147		--	--	--	--	18.4	4
154		--	--	34.6	4	15.1	0
180		--	--	<5.97	NR	12	0
190		--	--	--	--	19.4	3
193		--	--	--	--	25	0
198		--	--	36.5	3	17.8	4

Table 5. Laboratory performance ratings for standard reference sample T-163 (trace constituents) -- Continued

[MPV, most probable value; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/28, number of reported values of 28 possible values; RV, reported value; <, less than; NR, not rated; --, not reported; mg/L, milligrams per liter.]

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

Analyte =	Uranium		Vanadium		Zinc	
MPV =	4.60 µg/L		35.0 µg/L		18.5 µg/L	
F-pseudosigma =	0.156		1.78		1.33	
Lab	RV	Rating	RV	Rating	RV	Rating
203	--	--	--	--	17.4	3
204	--	--	--	--	17.8	4
212	4.4	3	33.8	3	18.9	4
215	--	--	--	--	18	4
220	--	--	35.96	3	--	--
234	--	--	35	4	19.6	3
235	--	--	33.6	3	19.51	3
247	--	--	34.2	4	11.4	0
254	--	--	--	--	19	4
255	--	--	--	--	18.5	4
256	--	--	37	2	15	0
257	--	--	--	--	50	0
261	--	--	--	--	55.5	0
265	4.5	4	37	2	18	4
268	--	--	--	--	--	--
270	--	--	--	--	22.93	0
273	--	--	--	--	21.1	1
274	--	--	--	--	15.55	0
277	--	--	--	--	17.1	2
279	--	--	--	--	--	--
287	--	--	--	--	15	0
297	--	--	36.7	3	18.2	4
304	--	--	34.2	4	17.9	4
305	--	--	35.6	4	19.4	3
306	--	--	--	--	<50	NR
307	--	--	--	--	23	0
309	--	--	--	--	--	--
315	--	--	--	--	--	--
324	--	--	--	--	20.7	1
328	3.6	0	42	0	22	0
331	--	--	35	4	21	1
334	--	--	--	--	--	--

Table 6. Laboratory performance ratings for standard reference sample M-156 (major constituents)

[MPV, most probable value; mg/L, milligrams per liter; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; --, not reported; <, less than; NR, not rated.]

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

Analyte = MPV = F-pseudosigma =			Alkalinity 61.8 mg/L 2.52		Boron 78.6 µg/L 5.11		Calcium 30.2 mg/L 1.13		Chloride 64.7 mg/L 1.87		Fluoride 0.523 mg/L 0.045	
Lab	OLR	V/16	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.5	15	62.87	4	76.257	4	30.433	4	64.28	4	0.511	4
10	3.8	12	61	4	--	--	29.98	4	64.1	4	0.51	4
12	3.5	10	62.2	4	--	--	30	4	62.5	3	--	--
13	2.8	14	58.2	2	--	--	31.2	3	63	3	0.46	2
18	2.9	7	58.8	3	--	--	--	--	64.4	4	0.5	4
23	2.4	13	60.8	4	--	--	76.4	0	66.1	4	0.54	4
24	3.5	13	62.3	4	77	4	30	4	62.9	3	0.54	4
25	2.5	16	66	2	61	0	29.2	3	65.2	4	0.53	4
38	3.3	8	61.72	4	--	--	29.45	4	--	--	--	--
42	3.3	15	61	4	76.3	4	30.4	4	65.9	4	0.444	1
45	2.9	12	62.4	4	--	--	29.69	4	64.6	4	0.472	2
48	3.0	13	62	4	76	4	31.4	3	70	1	--	--
50	3.7	14	60	3	80.6	4	30.16	4	62.9	3	0.523	4
51	3.8	5	--	--	--	--	--	--	62.7	3	--	--
55	3.5	6	62	4	--	--	--	--	65	4	0.56	3
57	2.3	16	84	3	89.2	0	29.8	4	70	1	0.49	3
59	3.3	12	58.7	3	--	--	30	4	65	4	0.53	4
64	3.3	10	--	--	--	--	30.8	4	65.4	4	--	--
69	2.9	10	57.8	2	--	--	28.7	3	64.3	4	0.53	4
70	2.5	13	60.8	4	--	--	31.2	3	65.5	4	0.58	2
76	3.5	6	--	--	--	--	30.43	4	66.6	3	--	--
81	3.4	14	61.7	4	--	--	30.6	4	63.6	4	0.489	3
86	3.2	13	--	--	82.5	3	30.3	4	67.4	3	0.585	2
87	3.2	12	60.2	4	--	--	27.5	1	64	4	--	--
89	2.7	14	62.9	4	--	--	28.2	2	64.6	4	0.56	2
93	2.9	11	62.12	4	--	--	30.4	4	67.5	3	0.489	3
96	3.7	7	59.5	3	--	--	--	--	64.4	4	0.519	4
97	3.8	9	61.3	4	--	--	--	--	64.7	4	0.518	4
105	3.1	16	61.4	4	<200	NR	32.6	1	67	3	0.48	3
107	2.5	4	60.3	4	--	--	--	--	69.7	1	0.565	3
109	2.8	11	65.6	2	--	--	29.4	4	57	0	0.48	3
113	3.6	14	61.8	4	--	--	29.7	4	64.7	4	0.518	4
114	3.3	7	62.8	4	--	--	--	--	63.5	4	0.56	3
118	2.9	7	61	4	--	--	--	--	--	--	--	--
121	3.8	5	--	--	--	--	30.2	4	--	--	--	--
127	2.9	16	62.6	4	75.5	3	31.3	3	64.1	4	0.476	2
129	3.0	12	64	3	75	3	30	4	68	2	--	--
131	2.0	4	--	--	--	--	--	--	67.3	3	0.45	1
134	3.8	16	62.7	4	80.52	4	30.15	4	64.79	4	0.49	3
138	3.4	16	61.5	4	85.7	2	29.8	4	62.4	3	0.535	4
140	2.7	12	--	--	--	--	29.25	3	64.61	4	0.568	3
142	2.6	16	82	4	80.5	4	32.5	1	64.5	4	0.55	3
154	3.3	14	64	3	--	--	31.2	3	64.6	4	0.567	3
155	3.1	7	59.4	3	--	--	30.918	4	--	--	--	--
180	0.0	12	--	--	<21.9	NR	6.3	0	47.1	0	0.155	0
183	2.0	3	--	--	--	--	--	--	60.71	2	0.64	0
190	2.9	13	59	3	--	--	32.5	1	65.2	4	0.539	4
193	3.4	7	62.6	4	--	--	29.1	3	--	--	--	--
203	3.3	10	57.8	2	--	--	29.48	4	--	--	--	--
204	2.8	4	59	3	--	--	--	--	62.2	3	--	--

Table 6. Laboratory performance ratings for standard reference sample M-156 (major constituents) -- Continued

[MPV, most probable value; mg/L, milligrams per liter; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; --, not reported; <, less than; NR, not rated.]

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

Analyte = MPV = F-pseudosigma =			Alkalinity 61.8 mg/L 2.52		Boron 78.6 µg/L 5.11		Calcium 30.2 mg/L 1.13		Chloride 64.7 mg/L 1.87		Fluoride 0.523 mg/L 0.045	
Lab	OLR	V/16	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
208	2.5	2	--	--	--	--	--	--	59.8	1	--	--
212	3.1	15	60.1	3	79.3	4	30.3	4	65.3	4	0.53	4
213	3.5	4	59	3	--	--	--	--	64	4	--	--
215	2.5	11	63	4	--	--	33	1	--	--	0.52	4
220	3.0	9	57.101	2	78.23	4	30.73	4	63.02	3	--	--
230	2.1	10	59.1	3	--	--	30.84	4	66.97	3	0.73	0
234	3.3	16	63	4	87.1	1	29.8	4	63.9	4	0.549	3
235	3.0	8	--	--	75.6	3	29.4	4	--	--	--	--
243	4.0	2	--	--	--	--	--	--	--	--	--	--
247	3.1	16	55.6	1	78.4	4	30	4	65.5	4	0.4	0
254	3.1	8	--	--	--	--	31.1	3	64.8	4	--	--
255	4.0	5	--	--	80.6	4	30.3	4	--	--	0.506	4
256	2.5	8	--	--	--	--	--	--	64.21	4	--	--
257	3.4	12	61.5	4	--	--	30.4	4	67.5	3	0.51	4
258	1.5	12	60.2	4	90	0	23.14	0	72.8	0	0.734	0
259	3.7	15	82	4	78.8	4	30	4	65	4	0.53	4
261	1.1	8	--	--	--	--	64	0	69.97	1	--	--
263	3.5	10	62	4	--	--	30	4	65	4	0.49	3
265	3.3	11	--	--	87	1	30.8	4	63.7	4	0.47	2
266	3.8	11	62	4	--	--	30	4	64.5	4	0.51	4
267	3.6	7	62.3	4	--	--	30.9	4	65.3	4	--	--
268	2.8	9	81.9	4	--	--	26.95	0	63.5	4	--	--
270	0.6	8	--	--	--	--	13.16	0	--	--	0.31	0
273	2.6	15	67.6	1	61.5	0	31	3	65.4	4	0.623	0
274	1.8	12	72.12	0	--	--	29.14	3	70.78	1	0.57	2
275	1.9	9	51	0	--	--	32	2	59	1	--	--
276	2.4	8	64.4	3	--	--	--	--	71	1	--	--
277	2.4	11	118	0	--	--	31.9	2	66.3	4	0.46	2
279	1.3	7	--	--	--	--	23.95	0	66.25	4	--	--
280	3.0	5	--	--	--	--	30	4	67	3	--	--
287	3.2	10	62	4	--	--	30.49	4	62.7	3	0.54	4
297	1.8	11	56	1	--	--	27	0	65	4	--	--
304	2.0	2	--	--	--	--	--	--	51	0	--	--
305	2.8	9	64	3	--	--	29.5	4	--	--	0.48	3
306	2.0	6	--	--	--	--	--	--	65.5	4	--	--
307	2.7	7	65	2	--	--	--	--	64.5	4	--	--
309	1.7	11	64.2	3	71	2	34.3	0	72	0	--	--
315	2.8	6	--	--	--	--	29.6	4	70.6	1	--	--
323	3.3	14	--	--	89.2	0	29.4	4	66	4	0.53	4
324	0.7	6	55.2	0	--	--	23.4	0	--	--	--	--
328	2.1	16	59	3	70	1	31	3	60	2	0.64	0
331	1.9	16	58	2	<80	NR	35.5	0	64.7	4	0.55	3
333	3.6	5	58.4	2	--	--	--	--	--	--	--	--
334	2.0	6	88.1	0	--	--	32	2	62.9	3	--	--

Table 6. Laboratory performance ratings for standard reference sample M-156 (major constituents) -- Continued

[MPV, most probable value; mg/L, milligrams per liter; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; --, not reported; <, less than; NR, not rated.]

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

Analyte =		pH		Potassium		Magnesium		Sodium		Phosphorus	
MPV =		7.95		2.13 mg/L		6.92 mg/L		44.6 mg/L		0.578 mg/L	
F-pseudosioma =		0.203		0.163		0.319		2.30		0.039	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1		6.885	0	2.17	4	6.97	4	46.027	3	--	--
10		8.12	4	2.07	4	6.94	4	44.02	4	--	--
12		7.68	3	--	--	7.11	3	45.9	3	0.565	4
13		8.1	4	2.1	4	7.2	3	45.8	3	0.47	0
18		--	--	--	--	--	--	--	--	0.56	4
23		8.03	4	1.9	2	6.9	4	40.4	1	0.66	0
24		7.85	4	2.02	3	6.77	4	45.1	4	--	--
25		7.92	4	2.01	3	6.94	4	43	3	0.54	3
38		8.1	4	2.18	4	6.27	1	42.93	3	0.53	2
42		7.91	4	2.04	3	6.86	4	44.6	4	0.564	4
45		8.29	3	1.62	1	6.26	1	42.1	2	0.577	4
48		8.1	4	2.04	3	6.98	4	45	4	0.65	1
50		7.92	4	2.06	4	6.962	4	46.87	3	0.582	4
51		7.98	4	--	--	--	--	--	--	0.569	4
55		--	--	--	--	--	--	--	--	0.573	4
57		7.9	4	3.19	0	6.94	4	43.1	3	0.52	2
59		6.1	0	2.2	4	7.1	3	45.4	4	--	--
64		8.16	3	2.1	4	6.7	3	45.2	4	0.45	0
69		7.48	2	2.14	4	6.39	1	42.6	3	--	--
70		7.99	4	2.14	4	7	4	48	2	0.7	0
76		8.184	3	--	--	6.637	3	--	--	--	--
81		8.06	4	2.22	3	6.99	4	47.2	2	0.53	2
86		7.99	4	2.15	4	7.09	4	46.1	3	0.566	4
87		8.04	4	2.21	3	6.37	1	43.6	4	0.586	4
89		8.05	4	1.93	2	6.04	0	43.3	3	0.573	4
93		7.95	4	2.09	4	6.42	2	48.1	1	--	--
96		7.82	4	--	--	--	--	--	--	--	--
97		8.07	4	--	--	--	--	--	--	0.53	2
105		8	4	2.07	4	6.84	4	46.6	3	0.55	3
107		--	--	--	--	--	--	--	--	--	--
109		7.41	2	2.14	4	7	4	44.3	4	--	--
113		7.87	4	2.08	4	6.81	4	45.3	4	0.574	4
114		7.94	4	--	--	--	--	--	--	--	--
118		7.8	4	--	--	--	--	45	4	0.61	3
121		--	--	--	--	6.7	3	44.5	4	--	--
127		8.18	3	2.15	4	7.41	2	41.3	2	0.582	4
129		7.46	2	2	3	6.8	4	45	4	0.59	4
131		--	--	--	--	--	--	--	--	0.45	0
134		7.803	4	2.074	4	6.602	3	46.63	3	0.593	4
138		8.06	4	2.03	3	8.7	3	44.4	4	0.587	4
140		7.04	0	2	3	6.8	4	42	2	0.6	3
142		7.5	2	2.08	4	7.44	2	49.9	0	0.637	1
154		8.09	4	--	--	6.8	4	42.6	3	0.628	2
155		7.83	4	--	--	6.2859	1	--	--	0.5786	4
180		2.5	0	0.857	0	1.22	0	39.6	0	0.2	0
183		--	--	--	--	--	--	--	--	0.58	4
190		7.86	4	2.87	0	7.22	3	46	3	0.565	4
193		--	--	2.04	3	6.81	4	44.2	4	--	--
203		8.06	4	2.16	4	6.36	1	42.61	3	0.54	3
204		--	--	--	--	--	--	--	--	--	--

Table 6. Laboratory performance ratings for standard reference sample M-156 (major constituents) -- Continued

[MPV, most probable value; mg/L, milligrams per liter; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; --, not reported; <, less than; NR, not rated.]

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

Analyte =		pH		Potassium		Magnesium		Sodium		Phosphorus	
MPV =		7.95		2.13 mg/L		6.92 mg/L		44.6 mg/L		0.578 mg/L	
F-pseudosigma =		0.203		0.163		0.319		2.30		0.039	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
208		--	--	--	--	--	--	--	--	--	--
212		8.2	3	2.37	2	6.98	4	47	2	0.43	0
213		7.95	4	--	--	--	--	--	--	0.54	3
215		7.95	4	--	--	7.5	1	48	2	0.58	4
220		--	--	2.28	3	6.54	2	45.6	4	0.595	4
230		8.2	3	2.82	0	6.19	0	45.47	4	--	--
234		8.08	4	1.96	2	6.8	4	44.6	4	0.65	1
235		--	--	2.05	4	6.28	1	42	2	--	--
243		7.91	4	--	--	--	--	--	--	--	--
247		8.11	4	2.06	4	6.7	3	44.2	4	0.541	3
254		--	--	2.21	3	7.13	3	46.7	3	--	--
255		--	--	--	--	6.82	4	--	--	--	--
256		7.96	4	--	--	7.9	0	34.79	0	--	--
257		7.9	4	2	3	7	4	42.5	3	0.58	4
258		7.88	3	2.58	0	13.46	0	35.1	0	--	--
259		8.14	4	1.87	1	6.77	4	44.3	4	0.54	3
261		7.96	4	0.31	0	46.4	0	45	4	--	--
263		8.05	4	--	--	7	4	--	--	--	--
265		--	--	2.1	4	6.9	4	45.7	4	--	--
266		8.12	4	2.2	4	7	4	44.5	4	--	--
267		8.1	4	--	--	7.3	2	--	--	0.6	3
268		7.73	3	2.42	1	6.52	2	45.5	4	--	--
270		--	--	14.66	0	14.68	0	47	2	4.71	0
273		7.98	4	2.2	4	7.3	2	46.4	3	0.57	4
274		7.57	3	2.11	4	7.57	1	50	0	0.63	2
275		--	--	2.4	1	7.5	1	49	1	--	--
276		7.94	4	2	3	--	--	52.5	0	--	--
277		7.81	4	2.57	0	7.35	2	41.9	2	--	--
279		7.5	2	1.45	0	18.94	0	28.5	0	--	--
280		8	4	--	--	7.8	0	--	--	--	--
287		7.84	4	2.23	3	6.49	2	44.03	4	--	--
297		8.06	4	3.2	0	7.69	0	43	3	0.619	2
304		--	--	--	--	--	--	--	--	--	--
305		8.2	3	2.78	0	6.99	4	37.3	0	0.587	4
306		7.8	4	2.38	1	--	--	56.88	0	0.678	0
307		8.2	3	--	--	--	--	44.5	4	0.578	4
309		7.8	4	5	0	6.9	4	42.7	3	--	--
315		--	--	2.4	1	6.8	4	43.1	3	--	--
323		7.8	4	2.22	3	6.76	4	43.8	4	0.584	4
324		7.8	4	--	--	--	--	--	--	--	--
328		7.72	3	2	3	6.9	4	45	4	0.6	3
331		7.98	4	2.95	0	7.96	0	41.5	2	0.57	4
333		8.12	4	--	--	--	--	--	--	--	--
334		--	--	--	--	7.08	4	47.7	2	--	--

Table 6. Laboratory performance ratings for standard reference sample M-156 (major constituents) -- Continued

[MPV, most probable value; mg/L, milligrams per liter; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; --, not reported; <, less than; NR, not rated.]

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

Analyte =		ROE (solids)		Silica		Sulfate		Specific conductance		Strontium	
MPV =		244 mg/L		4.73 mg/L		43.0 mg/L		440 µS/cm		239 µg/L	
F-pseudosigma =		13.4		0.308		1.78		14.8		9.64	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1		245	4	4.872	4	42.3	4	442.3	4	239	4
10		244	4	4.6	4	45.4	2	440	4	--	--
12		255	3	--	--	42.8	4	446	4	--	--
13		206	0	4.7	4	43.5	4	438	4	--	--
18		268	1	4.75	4	38.2	0	--	--	--	--
23		218	1	5.04	3	47.4	0	432	4	--	--
24		--	--	5.04	3	40.8	2	440	4	247	3
25		170	0	4.29	2	44.4	3	464	2	220	1
38		--	--	4.76	4	--	--	--	--	--	--
42		--	--	4.07	0	44.4	3	449	4	250	3
45		230	2	--	--	43	4	443	4	--	--
48		251	3	--	--	50	0	449	4	--	--
50		255	3	4.873	4	43.4	4	442	4	--	--
51		--	--	--	--	42.3	4	432	4	--	--
55		250	4	--	--	46.2	2	--	--	--	--
57		230	2	4.55	3	36	0	390	0	233	4
59		243	4	4.37	2	41.86	3	439	4	--	--
64		--	--	4.73	4	44	4	459	3	--	--
69		228	2	--	--	42.5	4	--	--	--	--
70		266	1	5.08	2	47.8	0	452	3	--	--
76		241.3	4	--	--	42.57	4	--	--	--	--
81		245	4	--	--	39.8	2	425	3	244	4
86		--	--	--	--	48	0	446	4	244	4
87		242	4	4.76	4	43	4	400	1	--	--
89		239	4	4.8	4	41.2	3	26.6	0	--	--
93		--	--	4.38	2	44.9	3	416.3	2	--	--
96		249	4	--	--	45	3	447	4	--	--
97		243	4	4.59	4	42.4	4	446	4	--	--
105		772	0	4.71	4	42.1	4	444	4	225	2
107		--	--	--	--	45.2	2	--	--	--	--
109		243	4	--	--	37.5	0	439	4	--	--
113		271	0	5.1	2	42.3	4	438	4	233	4
114		255	3	--	--	46.1	2	428	3	--	--
118		246	4	2.3	0	--	--	400	1	--	--
121		--	--	4.75	4	--	--	--	--	240	4
127		243	4	5.24	1	42.8	4	243	0	238	4
129		232	3	--	--	40	2	413	2	--	--
131		--	--	--	--	43.7	4	--	--	--	--
134		254.1	3	4.702	4	41.98	4	439.7	4	236.8	4
138		226	2	4.82	4	43.4	4	449	4	226	2
140		230	2	4.7	4	46	2	410	2	--	--
142		260	2	5.52	0	42.9	4	440	4	246	3
154		246	4	4.8	4	43.7	4	389.6	0	239	4
155		--	--	4.9411	3	--	--	422	3	--	--
180		--	--	--	--	4.01	0	2480	0	--	--
183		--	--	--	--	--	--	--	--	--	--
190		248.5	4	5.4	0	43.4	4	448	4	--	--
193		--	--	5.12	2	--	--	436	4	--	--
203		--	--	4.61	4	43.4	4	442	4	--	--
204		--	--	5.13	2	44.4	3	--	--	--	--

Table 6. Laboratory performance ratings for standard reference sample M-156 (major constituents) -- Continued

[MPV, most probable value; mg/L, milligrams per liter; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; --, not reported; <, less than; NR, not rated.]

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

Analyte =		ROE (solids)		Silica		Sulfate		Specific conductance		Strontium	
MPV =		244 mg/L		4.73 mg/L		43.0 mg/L		440 µS/cm		239 µg/L	
F-pseudosigma =		13.4		0.308		1.78		14.8		9.64	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
208		--	--	--	--	42	4	--	--	--	--
212		--	--	2.34	0	42.3	4	431	4	233	4
213		--	--	--	--	--	--	--	--	--	--
215		245	4	--	--	100	0	438	4	--	--
220		--	--	--	--	39.218	1	--	--	--	--
230		--	--	--	--	42.43	4	390	0	--	--
234		261	2	4.72	4	40.9	3	438	4	236	4
235		--	--	4.61	4	--	--	--	--	235	4
243		--	--	--	--	--	--	449	4	--	--
247		208	0	4.6	4	44.8	3	445	4	237	4
254		--	--	4.94	3	42.8	4	--	--	257	2
255		--	--	--	--	43.7	4	--	--	--	--
256		--	--	3.78	0	42.33	4	447	4	240	4
257		250	4	--	--	45.6	2	467	2	--	--
258		236	3	--	--	43.4	4	440	4	--	--
259		240	4	4.83	4	43	4	444	4	239.5	4
261		--	--	--	--	20	0	368	0	--	--
263		237	3	5.2	1	44	4	448	4	--	--
265		--	--	4.5	3	42	4	--	--	230	3
266		240	4	4.3	2	44	4	--	--	--	--
267		--	--	--	--	--	--	444	4	--	--
268		--	--	--	--	42.6	4	457	3	--	--
270		--	--	--	--	56.77	0	--	--	248.15	3
273		240	4	4.4	2	44	4	448	4	268	0
274		--	--	3.46	0	45.69	2	437	4	--	--
275		235	3	--	--	43	4	450	4	--	--
276		245	4	--	--	20.5	0	440	4	--	--
277		225	2	--	--	42.1	4	432	4	--	--
279		--	--	--	--	--	--	418	3	--	--
280		--	--	--	--	--	--	442	4	--	--
287		--	--	--	--	40.14	2	414	2	--	--
297		--	--	3.09	0	--	--	463	2	--	--
304		--	--	--	--	43	4	--	--	--	--
305		--	--	--	--	--	--	--	--	--	--
306		--	--	--	--	--	--	453.5	3	--	--
307		--	--	--	--	51	0	464	2	--	--
309		--	--	3	0	48	0	--	--	247	3
315		--	--	--	--	43.6	4	--	--	--	--
323		--	--	4.66	4	41.7	3	75	0	237	4
324		277.9	0	--	--	33.1	0	964	0	--	--
328		263	2	5.64	0	39	1	440	4	210	0
331		256	3	5.5	0	44.2	3	327	0	267	0
333		--	--	4.73	4	--	--	441	4	243	4
334		--	--	--	--	46.9	1	--	--	--	--

Table 6. Laboratory performance ratings for standard reference sample M-156 (major constituents) -- Continued

[MPV, most probable value; mg/L, milligrams per liter; µg/L, micrograms per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/16, number of reported values of 16 possible values; RV, reported value; --, not reported; <, less than; NR, not rated.]

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

Analyte = MPV = F-pseudosigma =	Vanadium	
	9.53 µg/L	
Lab	RV	Rating
1	12.08	2
10	--	--
12	--	--
13	<50	NR
18	--	--
23	--	--
24	--	--
25	<0.01	NR
38	--	--
42	10.8	3
45	--	--
48	9.4	4
50	--	--
51	--	--
55	--	--
57	8.83	4
59	--	--
64	--	--
69	--	--
70	--	--
76	--	--
81	9	4
86	11.6	2
87	--	--
89	12.1	2
93	--	--
96	--	--
97	--	--
105	<20.0	NR
107	--	--
109	--	--
113	--	--
114	--	--
118	--	--
121	--	--
127	8.24	3
129	--	--
131	--	--
134	9.06	4
138	9.34	4
140	--	--
142	8.37	3
154	9.8	4
155	--	--
180	22.5	0
183	--	--
190	--	--
193	--	--
203	--	--
204	--	--

Analyte= MPV = F-pseudosigma =	Vanadium	
	9.53 µg/L	
Lab	RV	Rating
208	--	--
212	8.8	4
213	--	--
215	29	0
220	--	--
230	--	--
234	9.66	4
235	7.21	2
243	--	--
247	9.97	4
254	--	--
255	--	--
256	--	--
257	--	--
258	--	--
259	--	--
261	--	--
263	--	--
265	8.5	3
266	--	--
267	--	--
268	--	--
270	--	--
273	--	--
274	--	--
275	--	--
276	--	--
277	--	--
279	--	--
280	--	--
287	--	--
297	9.94	4
304	--	--
305	9.21	4
306	--	--
307	--	--
309	--	--
315	--	--
323	9.23	4
324	--	--
328	14.5	0
331	11	3
333	--	--
334	--	--

Table 7. Laboratory performance ratings for standard reference sample N-67 (nutrient constituents)

[N, nitrogen; MPV, most probable value; 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; --, not reported; NR, not rated.]

			Rating		Absolute Z-value					Rating		Absolute Z-value	
			4 (Excellent)		0.00 - 0.50					1 (Marginal)		1.51 - 2.00	
			3 (Good)		0.51 - 1.00					0 (Unacceptable)		greater than 2.00	
			2 (Satisfactory)		1.01 - 1.50					NR (Not Rated)			
Analyte = MPV = F-pseudosigma =			Ammonia as N 0.433 mg/L 0.030		Ammonia + Organic N as N 0.450 mg/L 0.059		Nitrate as N 0.222 mg/L 0.009		Total Phosphorus 0.279 mg/L 0.010		Orthophosphate ss P 0.274 mg/L 0.013		
Lab	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating	
1	3.6	5	0.433	4	0.451	4	0.21	2	0.279	4	0.274	4	
5	1.8	5	0.409	3	0.74	0	0.219	4	0.26	2	0.23	0	
12	2.4	5	0.582	0	0.76	0	0.22	4	0.273	4	0.276	4	
13	2.3	4	0.48	1	--	--	0.221	4	0.28	4	0.224	0	
18	1.6	5	0.289	0	0.58	0	0.196	0	0.273	4	0.276	4	
21	3.8	5	0.433	4	0.487	3	0.218	4	0.276	4	0.273	4	
23	2.2	5	0.45	3	0.349	1	0.217	4	0.236	0	0.263	3	
25	1.8	5	0.39	2	0.78	0	0.226	4	0.25	0	0.267	3	
31	3.8	5	0.433	4	0.487	3	0.218	4	0.276	4	0.273	4	
38	3.0	5	0.447	4	0.39	2	0.222	4	0.263	2	0.262	3	
42	1.7	3	--	--	--	--	0.219	4	0.252	1	0.305	0	
45	2.3	3	--	--	--	--	0.23	3	0.25	0	0.28	4	
46	2.2	5	0.456	3	0.482	3	0.201	1	0.274	4	0.302	0	
48	1.4	5	0.36	0	0.5	3	0.45	0	0.3	2	0.29	2	
51	3.0	5	0.45	3	0.45	4	0.26	0	0.272	4	0.27	4	
59	3.6	5	0.429	4	0.443	4	0.22	4	0.269	3	0.266	3	
64	3.0	3	0.49	1	--	--	0.22	4	--	--	0.278	4	
69	4.0	1	--	--	--	--	0.22	4	--	--	--	--	
70	2.2	5	0.059	0	0.404	3	0.219	4	0.204	0	0.268	4	
72	0.4	5	0.36	0	0.384	2	0.37	0	0.175	0	0.334	0	
81	2.8	5	0.421	4	0.42	3	0.238	2	0.29	3	0.288	2	
83	3.8	4	0.407	3	--	--	0.22	4	0.28	4	0.274	4	
86	1.0	3	0.363	0	--	--	0.191	0	0.266	3	--	--	
87	2.8	5	0.41	3	0.41	3	0.25	0	0.277	4	0.268	4	
88	0.0	3	0.102	0	--	--	0.105	0	--	--	0.339	0	
89	3.8	5	0.433	4	0.477	4	0.223	4	0.27	3	0.27	4	
90	3.3	3	0.41	3	0.408	3	0.22	4	--	--	--	--	
93	1.8	4	0.46	3	--	--	0.223	4	0.325	0	0.23	0	
96	3.8	5	0.433	4	0.413	3	0.224	4	0.28	4	0.268	4	
97	2.4	5	0.489	1	0.39	2	0.23	3	0.3	2	0.275	4	
105	2.8	5	0.46	3	<1.00	NR	0.23	3	0.27	3	0.29	2	
110	4.0	1	0.4466	4	--	--	--	--	--	--	--	--	
113	3.8	5	0.45	3	<0.5	NR	0.224	4	0.278	4	0.27	4	
114	3.0	2	0.44	4	--	--	--	--	0.26	2	--	--	
118	0.0	5	0.04	0	0.06	0	0.03	0	0.03	0	0.03	0	
127	2.8	5	0.445	4	0.453	4	0.255	0	0.291	3	0.287	3	
129	2.8	5	0.408	3	1.187	0	0.224	4	0.284	4	0.282	3	
134	3.6	5	0.441	4	0.474	4	0.23	3	0.283	4	0.283	3	
138	3.6	5	0.451	3	0.481	3	0.221	4	0.281	4	0.272	4	
140	2.4	5	0.59	0	0.68	0	0.223	4	0.28	4	0.27	4	
142	2.6	5	0.451	3	0.384	2	0.252	0	0.279	4	0.273	4	
151	3.0	1	0.41	3	--	--	--	--	--	--	--	--	
154	2.6	5	0.45	3	0.48	3	0.22	4	0.295	2	0.295	1	
155	3.2	5	0.4333	4	0.4353	4	0.1742	0	0.2801	4	0.2716	4	
180	3.6	5	0.404	3	0.441	4	0.225	4	0.273	4	0.282	3	
183	3.5	2	--	--	--	--	--	--	0.275	4	0.266	3	
190	4.0	4	0.436	4	--	--	0.219	4	0.273	4	0.273	4	
193	2.5	4	0.4	2	0.41	3	0.23	3	0.258	2	--	--	
203	2.2	5	0.45	3	0.26	0	0.21	2	0.284	4	0.257	2	
209	2.0	1	--	--	--	--	0.208	2	--	--	--	--	

Table 7. Laboratory performance ratings for standard reference sample N-67 (nutrient constituents) -- Continued

[N, nitrogen; MPV, most probable value; 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; --, not reported; NR, not rated.]

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

Analyte = MPV = F-pseudosigma =			Ammonia as N 0.433 mg/L 0.030		Ammonia + Organic N as N 0.450 mg/L 0.059		Nitrate as N 0.222 mg/L 0.009		Total Phosphorus 0.279 mg/L 0.010		Orthophosphate as P 0.274 mg/L 0.013	
Lab	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
212	2.8	5	0.426	4	0.477	4	0.236	2	0.225	0	0.269	4
213	2.5	4	<1.0	NR	<1.0	NR	--	--	0.27	3	0.26	2
215	0.2	5	0.49	1	0.7	0	1.7	0	0.87	0	0.81	0
220	1.5	2	--	--	--	--	0.248	0	--	--	0.285	3
224	1.8	5	0.48	1	0.553	1	0.229	3	0.3	2	0.291	2
234	3.8	4	0.432	4	--	--	0.216	3	0.284	4	0.28	4
243	3.7	3	0.428	4	--	--	0.23	3	0.28	4	--	--
247	2.0	5	0.38	1	0.352	1	0.19	0	0.286	4	0.27	4
287	0.0	3	0.5	0	--	--	0.64	0	--	--	2.99	0
297	3.0	5	0.464	2	0.428	4	0.244	1	0.281	4	0.272	4
305	2.5	5	0.46	3	<1.0	NR	0.27	0	0.278	4	0.281	3
306	1.8	5	0.472	2	0.648	0	0.216	3	0.308	0	0.276	4
307	3.0	4	0.42	4	--	--	0.232	3	0.283	4	0.296	1
313	2.8	5	0.408	3	0.371	2	0.213	3	0.286	4	0.288	2
316	3.2	5	0.4289	4	0.439	4	0.2204	4	0.3188	0	0.2728	4
318	3.2	5	0.445	4	0.465	4	0.235	2	0.281	4	0.294	2
320	2.4	5	0.414	3	0.665	0	0.212	3	0.283	4	0.256	2
321	1.8	4	5.31	0	--	--	0.21	2	0.301	1	0.272	4
323	3.6	5	0.448	4	0.41	3	0.228	3	0.279	4	0.277	4
328	0.0	5	<.05	NR	0.032	0	<.05	NR	0.33	0	1.01	0
333	3.0	2	0.44	4	--	--	0.234	2	--	--	--	--

Table 8. Laboratory performance ratings for standard reference sample N-68 (nutrient constituents)

[MPV, most probable value; 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; NR, not rated; --, not reported.]

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

Analyte =			Ammonia as N		Ammonia + Organic N as N		Nitrate as N		Total Phosphorus		Orthophosphate as P	
MPV =			0.480 mg/L		0.650 mg/L		1.68 mg/L		0.830 mg/L		0.809 mg/L	
F-pseudosigma =			0.048		0.103		0.076		0.030		0.035	
Lab	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.8	5	0.466	4	0.635	4	1.624	3	0.837	4	0.81	4
5	2.6	5	1.447	0	0.67	4	1.67	4	0.83	4	0.743	1
12	3.4	5	0.423	2	0.72	3	1.72	4	0.836	4	0.802	4
13	2.3	4	0.52	3	--	--	1.61	3	0.8	3	0.21	0
18	2.6	5	0.346	0	0.83	1	1.68	4	0.811	4	0.82	4
23	3.2	5	0.44	3	0.66	4	1.75	3	0.89	2	0.81	4
25	2.0	5	0.41	2	0.9	0	1.6	3	0.78	2	0.778	3
26	0.0	2	--	--	--	--	1.47	0	--	--	0.64	0
38	2.4	5	0.669	0	0.58	3	1.702	4	0.788	2	0.788	3
42	1.7	3	--	--	--	--	1.684	4	0.75	1	0.724	0
45	4.0	3	--	--	--	--	1.7	4	0.84	4	0.81	4
46	3.6	5	0.534	2	0.619	4	1.66	4	0.812	4	0.817	4
48	3.0	5	0.43	2	0.58	3	1.8	2	0.84	4	0.828	4
59	3.8	5	0.469	4	0.675	4	1.71	4	0.83	4	0.781	3
64	3.7	3	0.46	4	--	--	1.69	4	--	--	0.849	3
69	4.0	1	--	--	--	--	1.7	4	--	--	--	--
70	2.2	5	4.73	0	0.556	3	1.58	2	0.867	3	0.782	3
72	1.4	5	0.4	1	0.597	3	1.83	1	0.773	2	0.909	0
81	3.4	5	0.459	4	0.464	1	1.66	4	0.812	4	0.815	4
83	3.8	4	0.439	3	--	--	1.68	4	0.836	4	0.822	4
84	2.5	2	0.53	2	--	--	1.74	3	--	--	--	--
86	2.7	3	0.444	3	--	--	1.54	1	0.842	4	--	--
87	3.0	5	0.56	1	0.71	3	1.64	4	0.845	4	0.842	3
88	1.3	3	0.04	0	--	--	0.263	0	--	--	0.792	4
89	3.6	5	0.467	4	0.717	3	1.75	3	0.82	4	0.82	4
90	2.7	3	0.439	3	0.486	1	1.697	4	--	--	--	--
93	2.5	4	0.52	3	--	--	1.51	0	0.854	3	0.82	4
96	3.6	5	0.473	4	0.604	4	1.66	4	0.796	3	0.77	3
97	3.4	5	0.489	4	0.56	3	1.76	3	0.8	3	0.807	4
105	3.3	5	0.47	4	<1.00	NR	1.68	4	0.75	1	0.82	4
107	2.5	4	0.657	0	--	--	1.57	2	0.821	4	0.829	4
113	3.8	4	0.488	4	--	--	1.654	4	0.808	3	0.815	4
114	4.0	1	--	--	--	--	--	--	0.84	4	--	--
118	4.0	5	0.47	4	0.66	4	1.72	4	0.85	4	0.79	4
127	3.2	5	0.468	4	0.747	3	1.56	2	0.84	4	0.836	3
129	2.2	5	0.48	4	0.827	1	1.617	3	0.895	1	0.858	2
134	3.2	5	0.582	0	0.666	4	1.717	4	0.831	4	0.809	4
138	3.8	5	0.492	4	0.653	4	1.66	4	0.842	4	0.776	3
140	1.8	5	0.65	0	0.89	0	1.761	3	0.84	4	0.85	2
142	2.8	5	0.572	1	0.678	4	1.59	2	0.824	4	0.83	3
154	3.0	5	0.46	4	0.65	4	1.72	4	0.878	2	0.733	1
155	3.0	5	0.4903	4	0.6042	4	1.487	0	0.8143	4	0.7879	3
180	3.0	5	0.463	4	0.676	4	1.71	4	0.807	3	0.996	0
183	3.5	2	--	--	--	--	--	--	0.833	4	0.77	3
190	3.0	4	0.486	4	--	--	1.99	0	0.813	4	0.812	4
193	1.8	4	0.39	1	0.88	0	1.66	4	0.779	2	--	--
203	2.4	5	0.49	4	0.72	3	1.48	0	0.86	3	0.749	2
204	3.0	5	0.48	4	0.578	3	1.73	3	0.833	4	0.882	1
208	2.0	2	--	--	--	--	1.69	4	--	--	0.7	0
209	4.0	1	--	--	--	--	1.69	4	--	--	--	--

Table 8. Laboratory performance ratings for standard reference sample N-68 (nutrient constituents) -- Continued

[MPV, most probable value; 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; NR, not rated; --, not reported.]

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

Analyte =			Ammonia as N		Ammonia + Organic N as N		Nitrate as N		Total Phosphorus		Orthophosphate as P	
MPV =			0.480 mg/L		0.650 mg/L		1.68 mg/L		0.830 mg/L		0.809 mg/L	
F-pseudosigma =			0.048		0.103		0.076		0.030		0.035	
Lab	OLR	V/5	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
212	2.4	5	0.569	1	0.588	3	1.65	4	0.648	0	0.797	4
213	2.7	4	<1.0	NR	1.2	0	--	--	0.84	4	0.79	4
215	0.6	5	0.43	2	0.46	1	0.22	0	0.29	0	0.28	0
220	2.5	2	--	--	--	--	1.69	4	--	--	0.88	1
224	3.2	5	0.51	3	0.553	3	1.787	2	0.82	4	0.796	4
234	2.8	4	0.432	3	--	--	1.63	3	0.841	4	0.74	1
243	3.3	3	0.478	4	--	--	1.74	3	0.8	3	--	--
247	2.6	5	0.501	4	0.483	1	1.49	0	0.818	4	0.82	4
287	0.7	3	0.56	0	--	--	1.8	2	--	--	4.62	0
291	0.0	1	--	--	--	--	0.79	0	--	--	--	--
297	2.6	5	0.514	3	0.521	2	1.77	2	0.878	2	0.804	4
305	4.0	4	--	--	<1.0	NR	1.66	4	0.832	4	0.817	4
306	1.4	5	0.498	4	0.57	3	1.48	0	0.734	0	0.724	0
313	3.2	5	0.476	4	0.702	4	1.7	4	0.858	3	0.88	1
314	4.0	5	0.48	4	0.647	4	1.713	4	0.811	4	0.797	4
316	2.6	5	0.4862	4	0.5289	2	1.6826	4	0.9131	0	0.7777	3
320	2.0	5	0.518	3	2.436	0	1.7	4	0.778	2	0.747	1
328	2.2	5	0.45	3	0.495	2	1.74	3	0.8	3	2.45	0

Table 9. Laboratory performance ratings for standard reference sample P-35 (low-ionic strength constituents)

[MPV, most probable value; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/11, number of reported values of 11 possible values; RV, reported value; --, not reported; <, less than; NR, not rated; μ S/cm, microsiemens per centimeter.]

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

Analyte =			Acidity		Calcium		Chloride		Fluoride		Potassium	
MPV =			4.10 mg/L		0.541 mg/L		5.31 mg/L		0.238 mg/L		0.184 mg/L	
F-pseudostigma =			1.91		0.053		0.432		0.032		0.017	
Lab	OLR	V/11	RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1	3.3	9	--	--	0.541	4	5.625	3	0.242	4	0.177	4
2	3.3	9	--	--	0.551	4	4.651	1	0.239	4	0.177	4
23	2.9	10	--	--	2.4	0	5.32	4	0.24	4	<0.2	NR
25	1.7	11	<8	NR	0.241	0	5.3	4	0.25	4	0.225	0
38	3.1	7	0.71	1	0.56	4	--	--	--	--	0.19	4
45	2.4	10	--	--	0.38	0	5.02	3	0.21	3	<1	NR
48	3.4	9	--	--	0.527	4	5	3	--	--	0.184	4
59	2.8	5	--	--	--	--	4.12	0	0.23	4	--	--
64	3.6	9	--	--	0.52	4	5.4	4	--	--	0.18	4
81	2.6	11	2.05	2	0.555	4	5.52	4	0.235	4	0.138	0
88	2.8	8	--	--	0.449	1	5.31	4	0.27	3	--	--
89	3.0	11	2.9	3	0.502	3	5.4	4	0.2	2	0.2	3
93	2.5	10	--	--	0.66	0	5.63	3	0.237	4	0.18	4
105	2.6	11	26	0	0.668	0	5	3	0.22	3	<1.00	NR
107	3.5	2	--	--	--	--	--	--	--	--	--	--
110	3.9	8	--	--	0.522	4	5.032	3	--	--	0.1788	4
113	3.9	7	--	--	--	--	5.2	4	0.229	4	--	--
134	3.8	10	--	--	0.527	4	5.39	4	0.22	3	0.194	3
138	3.1	10	--	--	0.546	4	5.03	3	0.2	2	0.197	3
140	2.5	10	--	--	0.533	4	5.9	2	0.267	3	0.187	4
155	2.4	5	--	--	0.6563	0	--	--	--	--	--	--
180	3.6	10	--	--	0.582	3	5.48	4	0.263	3	<0.69	NR
183	2.0	3	--	--	--	--	10.12	0	0.26	3	--	--
190	3.6	10	--	--	0.5	3	5.25	4	0.238	4	0.2	3
193	3.8	5	--	--	0.516	4	--	--	--	--	0.174	3
203	2.7	8	--	--	0.4	0	--	--	--	--	0.18	4
204	3.5	2	--	--	--	--	--	--	--	--	--	--
208	4.0	2	--	--	--	--	5.2	4	--	--	--	--
215	1.6	8	5	4	3.1	0	--	--	0.3	1	--	--
220	1.6	8	5.109	3	0.409	0	2.397	0	--	--	0.108	0
243	4.0	2	--	--	--	--	--	--	--	--	--	--
247	2.9	11	4.1	4	0.547	4	4.76	2	0.2	2	0.234	0
255	3.5	4	--	--	0.588	3	--	--	<0.4	NR	--	--
256	0.5	7	--	--	--	--	6.53	0	0.14	0	<0.02	NR
265	3.0	6	--	--	0.52	4	4.85	2	--	--	0.19	4
268	2.5	8	--	--	0.583	3	4.48	1	--	--	0.242	0
270	0.4	5	--	--	13	0	--	--	--	--	14.66	0
273	2.0	11	18.86	0	0.52	4	5	3	0.29	1	0.15	0
274	0.8	11	4.11	4	0.79	0	24.41	0	0.07	0	0.1	0
277	2.0	2	--	--	--	--	--	--	--	--	--	--
279	1.1	7	--	--	0.53	4	8.1	0	--	--	1.21	0
287	2.3	9	--	--	0.619	2	5.02	3	0.3	1	0.178	4
301	1.3	3	--	--	--	--	6.3	0	--	--	--	--
315	2.2	6	--	--	0.48	2	5.44	4	--	--	0.25	0
321	2.9	8	--	--	0.49	3	4.8	2	--	--	--	--
328	1.1	11	3.6	4	0.7	0	6	1	0.33	0	<2.0	NR
333	3.3	9	0.58	1	0.55	4	5.54	3	--	--	0.18	4

Table 9. Laboratory performance ratings for standard reference sample P-35 (low-ionic strength constituents) --Continued

[MPV, most probable value; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/11, number of reported values of 11 possible values; RV, reported value; --, not reported; <, less than; NR, not rated; μ S/cm, microsiemens per centimeter.]

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

Analyte = MPV = F-pseudosioma =		Magnesium 0.090 mg/L 0.015		Sodium 3.00 mg/L 0.200		pH 4.89 0.126		Orthophosphate 0.022 mg/L 0.004		Sulfate 0.673 mg/L 0.328	
Lab		RV	Rating	RV	Rating	RV	Rating	RV	Rating	RV	Rating
1		0.089	4	3.056	4	6.872	0	--	--	0.661	4
2		0.096	4	3.096	4	5.112	3	--	--	0.702	4
23		<0.2	NR	3	4	4.86	4	0.02	3	1.35	0
25		0.019	0	2.88	3	5.12	3	0.007	0	<5.0	NR
38		0.106	2	2.86	3	4.9	4	0.021	4	--	--
45		<1	NR	2.58	0	4.96	4	<0.1	NR	0.68	4
48		0.102	3	3.01	4	4.8	4	0.024	3	<1.0	NR
59		--	--	--	--	4.71	3	--	--	0.44	3
64		0.08	3	2.94	4	4.96	4	0.025	3	0.62	4
81		0.067	1	3.39	1	5.06	3	0.022	4	<5	NR
86		0.062	1	2.98	4	4.93	4	--	--	1.13	2
89		0.09	4	2.94	4	4.94	4	0.0186	3	<1.0	NR
93		0.09	4	3.24	2	4.88	4	22.2	0	0.659	4
105		0.096	4	3.19	3	4.8	4	0.019	3	<1.00	NR
107		--	--	--	--	4.78	4	--	--	--	--
110		0.089	4	2.995	4	4.96	4	--	--	0.626	4
113		--	--	2.9	4	4.79	4	0.025	3	0.54	4
134		0.0873	4	3.08	4	4.859	4	0.022	4	0.7	4
138		0.0844	4	3.06	4	4.39	0	0.0221	4	0.673	4
140		0.089	4	2.86	3	7.01	0	0.01	0	1	3
155		0.114	1	--	--	4.81	4	0.0232	4	--	--
180		0.107	2	3.08	4	4.8	4	0.023	4	0.655	4
183		--	--	--	--	--	--	0.0195	3	--	--
190		0.08	3	3.08	4	4.74	3	0.021	4	0.61	4
193		0.09	4	2.96	4	--	--	--	--	--	--
203		<0.20	NR	2.81	3	4.85	4	0.027	2	<2.5	NR
204		--	--	--	--	4.91	4	--	--	--	--
208		--	--	--	--	--	--	--	--	<2.0	NR
215		0.2	0	3.3	2	5.37	1	0.02	3	--	--
220		0.076	3	2.959	4	--	--	0.024	3	1.909	0
243		--	--	--	--	4.83	4	--	--	--	--
247		<0.2	NR	3.15	3	4.98	4	0.02	3	<1.0	NR
255		0.091	4	--	--	--	--	--	--	<15	NR
256		--	--	2.76	2	5.27	1	0.032	0	1.42	0
265		0.89	0	3	4	--	--	--	--	0.56	4
268		0.095	4	2.6	1	4.77	4	--	--	0.633	4
270		0.25	0	3.61	0	--	--	--	--	0.34	2
273		0.11	2	2.7	2	4.97	4	0.035	0	0.6	4
274		0.47	0	7.5	0	4.47	1	0.046	0	1.86	0
277		--	--	--	--	4.53	2	--	--	--	--
279		1.14	0	1.45	0	3.66	0	--	--	--	--
287		0.088	4	3.12	3	3.98	0	--	--	1.77	0
301		--	--	--	--	4.91	4	--	--	--	--
315		0.07	2	3.4	1	--	--	--	--	0.73	4
321		0.1	3	2.8	3	4.91	4	0.026	2	0.84	4
328		0.2	0	3.5	0	5.07	3	<0.02	NR	1.3	1
333		0.09	4	3.15	3	4.89	4	--	--	0.65	4

Table 9. Laboratory performance ratings for standard reference sample P-35 (low-ionic strength constituents) --Continued

[MPV, most probable value; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/11, number of reported values of 11 possible values; RV, reported value; --, not reported; <, less than; NR, not rated; $\mu\text{S}/\text{cm}$, microsiemens per centimeter.]

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

Analyte =		Specific conductance	
MPV =		27.0 $\mu\text{S}/\text{cm}$	
F-pseudosioma =		1.93	
Lab	RV	Rating	
1	25.7	3	
2	29.9	2	
23	27.2	4	
25	30	1	
38	--	--	
45	25.7	3	
48	24.3	2	
59	26.7	4	
64	29.3	2	
81	25.9	3	
88	28.7	3	
89	442	0	
93	21.32	0	
105	25.8	3	
107	28	3	
110	26.05	4	
113	26.6	4	
134	27.26	4	
138	28	3	
140	29.8	2	
155	25.8	3	
180	27	4	
183	--	--	
190	26.1	4	
193	27	4	
203	28	3	
204	26	3	
208	--	--	
215	24.9	2	
220	--	--	
243	27.9	4	
247	27.4	4	
255	--	--	
256	--	--	
285	--	--	
268	28.4	3	
270	--	--	
273	29.6	2	
274	27.1	4	
277	25	2	
279	26.8	4	
287	26.1	4	
301	15.3	0	
315	--	--	
321	24.2	2	
328	30	1	
333	28.9	3	

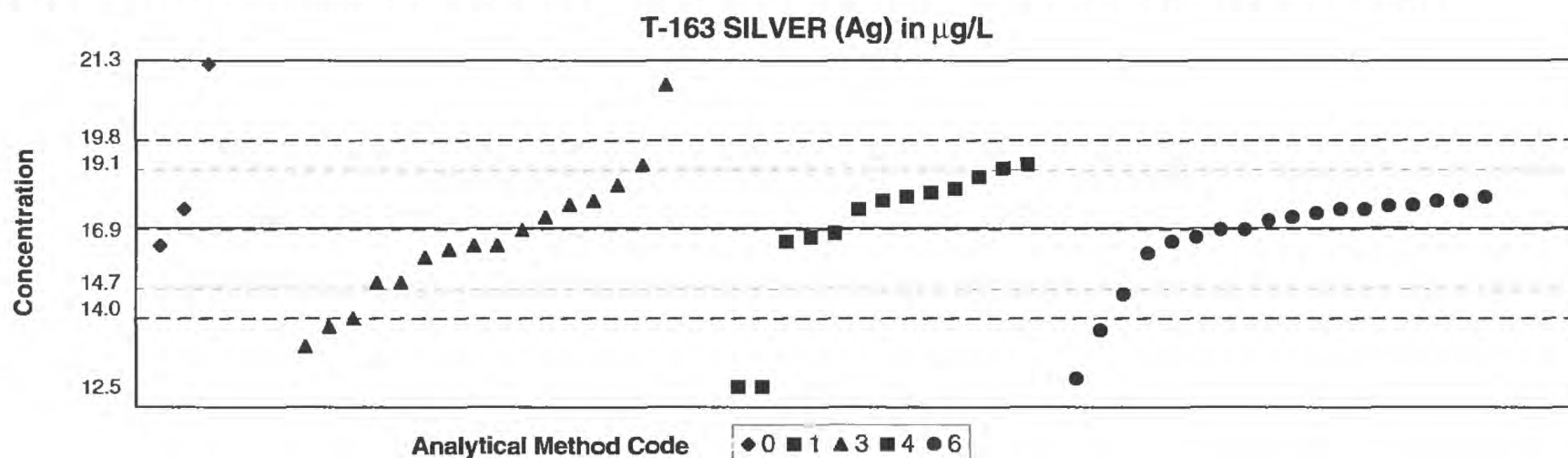
Table 10. Laboratory performance ratings for standard reference sample Hg-31 (Mercury)

[MPV, most probable value; µg/L, micrograms per liter; mg/L, milligrams per liter; Lab, laboratory number; OLR, overall laboratory rating for all reported values; V/1, number of reported values of 1 possible value; RV, reported value; <, less than; NR, not rated; --, not reported.]

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

Analyte = MPV = F-pseudosigma =			Mercury 0.498 µg/L 0.035	
Lab	OLR	V/1	RV	Rating
1	4.0	1	0.499	4
10	4.0	1	0.5	4
12	0.0	1	0.28	0
13	1.0	1	0.43	1
18	0.0	1	0.593	0
45	4.0	1	0.51	4
48	0.0	1	0.4	0
50	3.0	1	0.471	3
55	4.0	1	0.5	4
59	3.0	1	0.47	3
69	NR	1	<0.50	NR
81	4.0	1	0.486	4
87	0.0	1	0.0004	0
89	4.0	1	0.49	4
96	0.0	1	0.593	0
97	3.0	1	0.48	3
105	3.0	1	0.527	3
107	2.0	1	0.54	2
118	0.0	1	0.39	0
127	4.0	1	0.496	4
134	4.0	1	0.502	4
138	3.0	1	0.471	3
142	3.0	1	0.47	3
144	3.0	1	0.52	3
147	2.0	1	0.452	2
198	3.0	1	0.473	3
203	4.0	1	0.51	4
212	2.0	1	0.54	2
213	0.0	1	0.6	0
215	1.0	1	0.56	1
220	0.0	1	0.41	0
234	4.0	1	0.506	4
247	4.0	1	0.49	4
265	2.0	1	0.46	2
277	4.0	1	0.51	4
298	4.0	1	0.514	4
304	4.0	1	0.498	4
307	3.0	1	0.469	3
321	0.0	1	44	0
328	0.0	1	0.62	0

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents)

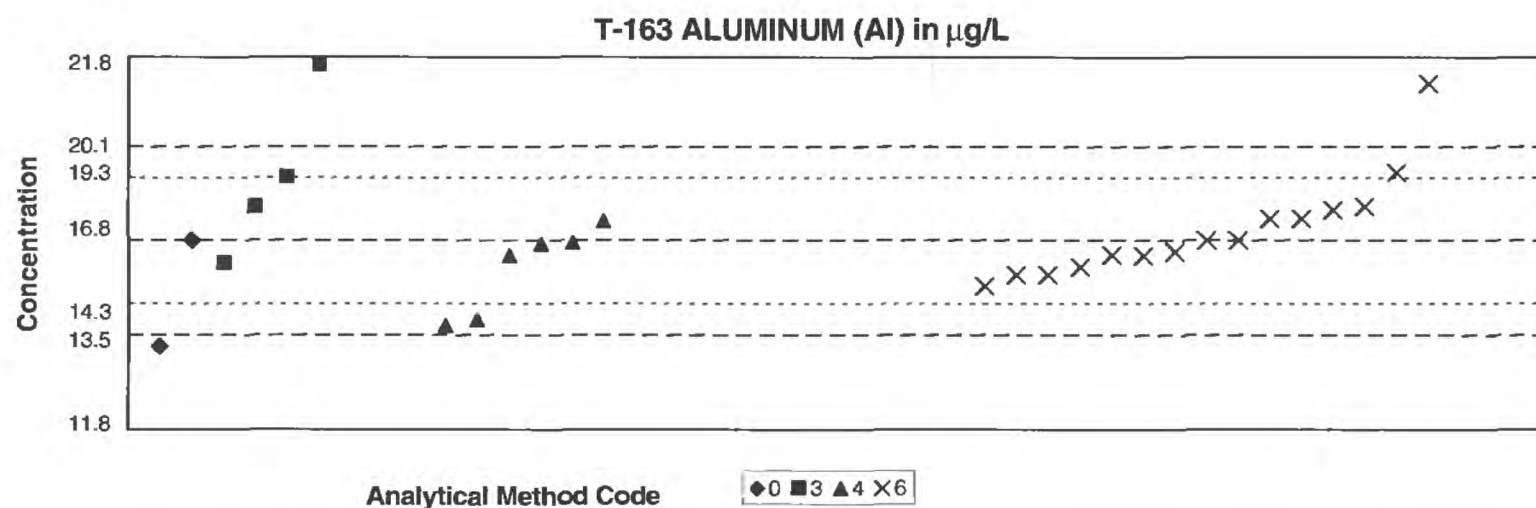


Summary		Methods					Statistics	
		0	1	3	4	6	Method Codes	
N =	3	1	17	15	18		0. Other	
Minimum =	16.5	7.00	8.70	8.33	13.2		1. Atomic absorption: direct, air	
Maximum =	21.0		20.5	18.5	17.7		3. Atomic absorption: graphite furnace	
Median =			16.5	17.4	17.2		4. Inductively coupled plasma	
F-pseudosigma =			1.42	2.26	0.652		6. Inductively coupled plasma/mass spectrometry	
							MPV =	16.9 $\mu\text{g/L}$
							F-pseudosigma =	1.47
							N =	54
							Uh =	17.6
							Lh =	15.6

		Methods					
Lab	Rating	Z-value	0	1	3	4	6
1	4	0.40	--	--	--	--	17.5
12	0	-5.59	--	--	8.7	--	--
13	4	-0.07	--	--	--	16.8	--
18	4	0.15	--	--	--	--	17.1
23	4	-0.27	--	--	16.5	--	--
25	4	0.34	--	--	--	17.4	--
32	4	0.48	--	--	--	--	17.6
42	4	0.34	--	--	--	--	17.4
48	2	-1.09	--	--	--	--	15.3
50	4	-0.14	--	--	--	--	16.7
57	3	0.89	--	--	--	18.2	--
59	1	-1.70	--	--	--	--	14.4
69	4	-0.27	--	--	16.5	--	--
81	0	-2.66	--	--	--	13.0	--
86	3	0.55	--	--	--	17.7	--
87	4	-0.14	--	--	--	16.7	--
89	4	-0.48	--	--	16.2	--	--
96	4	0.20	--	--	17.2	--	--
97	2	-1.50	--	--	14.7	--	--
105	4	0.00	--	--	--	--	16.9
107	4	0.20	--	--	--	--	17.2
113	2	1.09	--	--	18.5	--	--
118	3	-0.87	--	--	15.6	--	--
127	0	2.45	--	--	20.5	--	--
134	4	-0.20	--	--	--	16.6	--
138	3	0.61	--	--	--	17.8	--
140	0	-6.74	--	7.0	--	--	--
142	4	0.00	--	--	--	--	16.9
144	4	0.48	--	--	17.6	--	--
180	NR	--	--	--	--	<3.72	--
190	1	-1.98	--	--	14.0	--	--
193	4	0.41	--	--	17.5	--	--
198	3	0.55	--	--	--	--	17.7
203	4	-0.34	--	--	16.4	--	--
204	0	-2.52	--	--	--	--	13.2
212	4	-0.41	--	--	--	--	16.3
215	3	0.75	--	--	18.0	--	--
220	4	-0.01	--	--	16.9	--	--
234	4	0.48	--	--	--	17.6	--
235	4	0.48	--	--	--	--	17.6
247	4	-0.20	--	--	--	--	16.6
255	4	0.41	--	--	--	--	17.5
256	0	2.79	21.0	--	--	--	--
257	NR	--	--	<20	--	--	--
265	4	0.34	--	--	--	--	17.4
270	0	-5.84	--	--	--	8.3	--
273	2	1.09	--	--	--	18.5	--
277	0	-3.88	--	--	--	11.2	--
297	2	1.02	--	--	--	18.4	--
304	4	0.34	17.4	--	--	--	--

		Methods					
Lab	Rating	Z-value	0	1	3	4	6
305	3	0.68	--	--	--	17.9	--
306	3	-0.89	--	--	15.6	--	--
307	1	-1.64	--	--	14.5	--	--
328	4	-0.27	16.5	--	--	--	--
331	0	-2.66	--	--	--	13.0	--
334	4	0.27	--	--	--	--	17.3

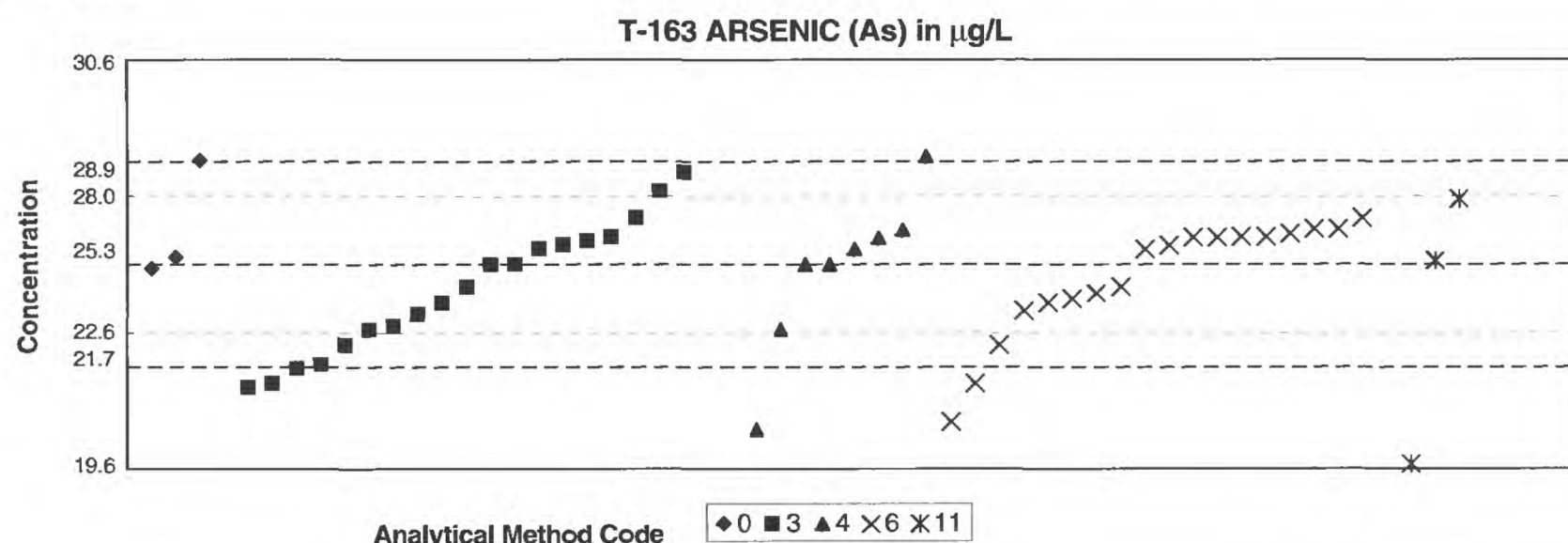
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods				Statistics
	0	3	4	6	
N =	2	6	8	16	
Minimum =	14.0	16.2	14.5	15.6	MPV = 16.8 µg/L
Maximum =	16.8	26.6	29.1	27.1	F-pseudosigma = 1.67
Median =		20.0	16.7	16.8	N = 32
F-pseudosigma =		6.52	3.78	1.04	Uh = 18.6
					Lh = 16.3

Lab	Rating	Z-value	Methods			
			0	3	4	6
1	4	0.36	--	--	--	17.4
13	3	0.54	--	17.7	--	--
18	4	0.36	--	--	--	17.4
23	4	0.30	--	--	17.3	--
25	NR	--	--	--	<4.6	--
32	4	0.00	--	--	--	16.8
42	3	-0.54	--	--	--	15.9
48	0	2.52	--	--	--	21.0
50	4	0.00	--	--	--	16.8
57	0	7.37	--	--	29.1	--
59	3	-0.54	--	--	--	15.9
69	NR	--	--	<50	--	--
70	2	1.08	--	--	--	18.6
81	NR	--	--	--	<15	--
89	0	2.82	--	21.5	--	--
105	3	0.54	--	--	--	17.7
107	3	-0.72	--	--	--	15.6
110	2	-1.35	--	--	14.5	--
113	2	1.02	--	18.5	--	--
127	NR	--	--	--	<60	--
134	4	-0.04	--	--	16.7	--
138	2	-1.26	--	--	14.7	--
142	NR	--	--	--	<30	--
154	4	-0.24	--	--	16.4	--
180	NR	--	--	--	<23.8	--
190	4	-0.36	--	16.2	--	--
198	4	-0.24	--	--	--	16.4
203	NR	--	--	--	<14	--
204	4	0.48	--	--	--	17.6
212	0	6.18	--	--	--	27.1
234	4	-0.06	--	--	16.7	--
235	4	-0.24	--	--	--	16.4
247	4	-0.42	--	--	--	16.1
254	NR	--	--	--	<20	--
256	1	-1.68	14.0	--	--	--
265	4	-0.18	--	--	--	16.5
287	0	5.82	--	26.5	--	--
297	NR	--	--	--	<200	--
304	4	0.00	16.8	--	--	--
324	0	5.88	--	26.6	--	--
328	NR	--	--	--	<100	--
331	0	4.32	--	--	24.0	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

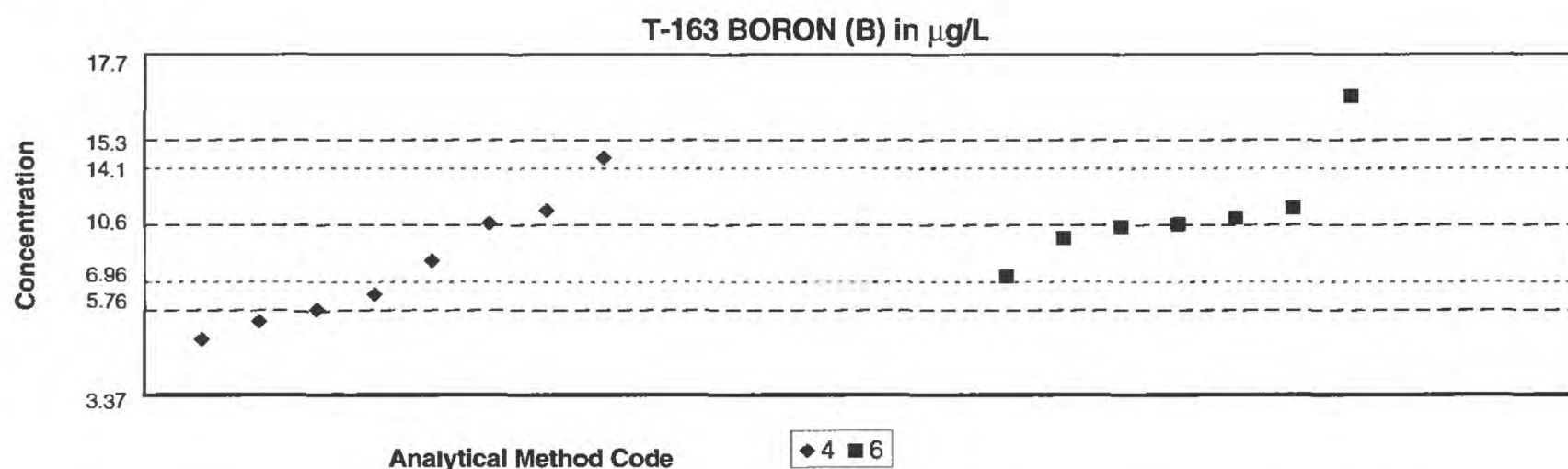


Summary						Methods		Statistics		
		0	3	4	6	11	Method Codes			
N =		3	21	9	18	4	0. Other		MPV =	25.3 µg/L
Minimum =	25.2	19.0	17.7	21.2	16.3		3. Atomic absorption: graphite furnace		F-pseudosigma =	1.78
Maximum =	28.0	33.4	28.1	26.5	27.0		4. Inductively coupled plasma		N =	55
Median =	24.7	25.3	25.8				6. Inductively coupled plasma/mass spectrometry		Uh =	26.0
F-pseudosigma =	2.00	1.78	1.26				11. Atomic absorption: hydride		Lh =	23.6

Lab	Rating	Z-value	Methods				
			0	3	4	6	11
1	4	-0.42	--	--	--	24.6	--
10	2	1.35	--	27.7	--	--	--
12	1	-1.74	--	22.2	--	--	--
13	2	-1.46	--	22.7	--	--	--
18	4	0.28	--	--	--	25.8	--
23	4	0.22	--	--	25.7	--	--
25	0	-4.27	--	--	17.7	--	--
32	4	0.39	--	--	--	26.0	--
42	3	-0.67	--	--	--	24.1	--
45	4	0.22	--	25.7	--	--	--
48	4	-0.34	--	--	--	24.7	--
50	4	-0.51	--	--	--	24.4	--
57	4	0.00	--	--	25.3	--	--
59	3	0.67	--	--	--	26.5	--
69	3	-0.56	--	24.3	--	--	--
81	3	-0.73	--	24.0	--	--	--
86	0	-2.92	--	--	--	--	20.1
87	3	0.96	--	--	--	--	27.0
89	4	0.06	--	--	--	--	25.4
96	4	0.00	--	25.3	--	--	--
97	4	0.39	--	26.0	--	--	--
105	4	0.51	--	--	--	26.2	--
107	4	0.22	--	--	--	25.7	--
109	4	-0.34	--	24.7	--	--	--
113	4	0.34	--	25.9	--	--	--
118	0	4.55	--	33.4	--	--	--
127	2	-1.18	--	23.2	--	--	--
134	3	0.67	--	26.5	--	--	--
138	4	0.51	--	--	26.2	--	--
142	4	0.45	--	--	--	26.1	--
144	1	-1.52	--	22.6	--	--	--
147	4	0.11	25.5	--	--	--	--
154	3	-0.90	--	23.7	--	--	--
190	3	-0.96	--	23.6	--	--	--
193	4	0.00	--	25.3	--	--	--
198	2	-1.18	--	--	--	23.2	--
203	4	0.28	--	25.8	--	--	--
204	4	0.51	--	--	--	26.2	--
212	3	-0.56	--	--	--	24.3	--
215	0	-3.54	--	19.0	--	--	--
220	2	1.07	--	27.2	--	--	--
234	3	-0.96	--	--	23.6	--	--
247	0	-2.30	--	--	--	21.2	--
255	4	0.39	--	--	--	26.0	--
256	1	1.52	28.0	--	--	--	--
257	0	-5.06	--	--	--	--	16.3
265	4	0.39	--	--	--	26.0	--
277	4	0.39	--	--	26.0	--	--
297	4	0.00	--	--	25.3	--	--
304	4	-0.06	25.2	--	--	--	--

Lab	Rating	Z-value	Methods				
			0	3	4	6	11
305	1	1.57	--	--	28.1	--	--
307	1	-1.80	--	22.1	--	--	--
328	4	0.39	--	--	--	26.0	--
331	0	-2.42	--	--	21.0	--	--
334	1	-1.74	--	--	--	22.2	--

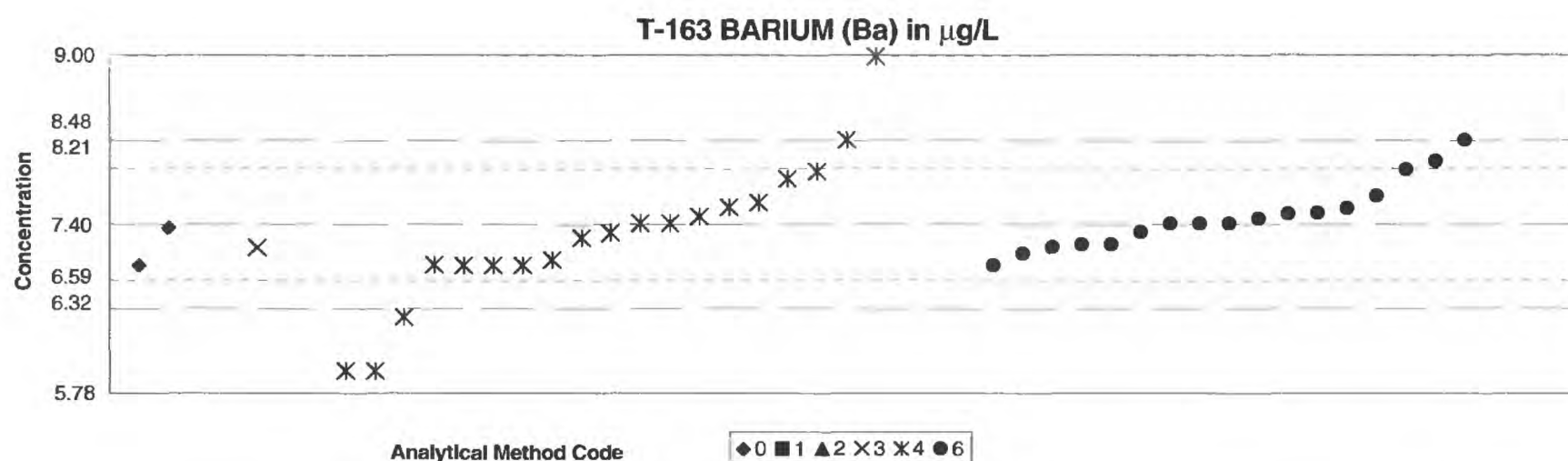
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods		Statistics
	4	6	
N =	9	7	MPV = 10.6 µg/L
Minimum =	5.73	8.39	F-pseudosigma = 2.39
Maximum =	69.4	16.0	N = 16
Median =	9.08	10.6	Uh = 11.3
F-pseudosigma =	3.11	0.619	Lh = 8.02

Lab	Rating	Z-value	Methods	
			4	6
1	NR	--	--	<12
25	NR	--	<2	--
32	4	0.02	--	10.6
42	3	-0.90	--	8.4
48	4	-0.02	--	10.5
57	2	1.19	13.4	--
105	NR	--	<200	--
127	NR	--	<8	--
134	4	0.04	10.6	--
138	4	0.27	11.2	--
142	NR	--	<30	--
180	0	24.58	69.4	--
212	4	0.31	--	11.3
234	3	-0.61	9.1	--
235	4	0.13	--	10.9
247	0	-2.01	5.7	--
255	2	-1.21	7.7	--
265	4	-0.23	--	10.0
273	1	-1.69	6.5	--
309	2	-1.48	7.0	--
328	0	2.28	--	16.0
331	NR	--	<80	--

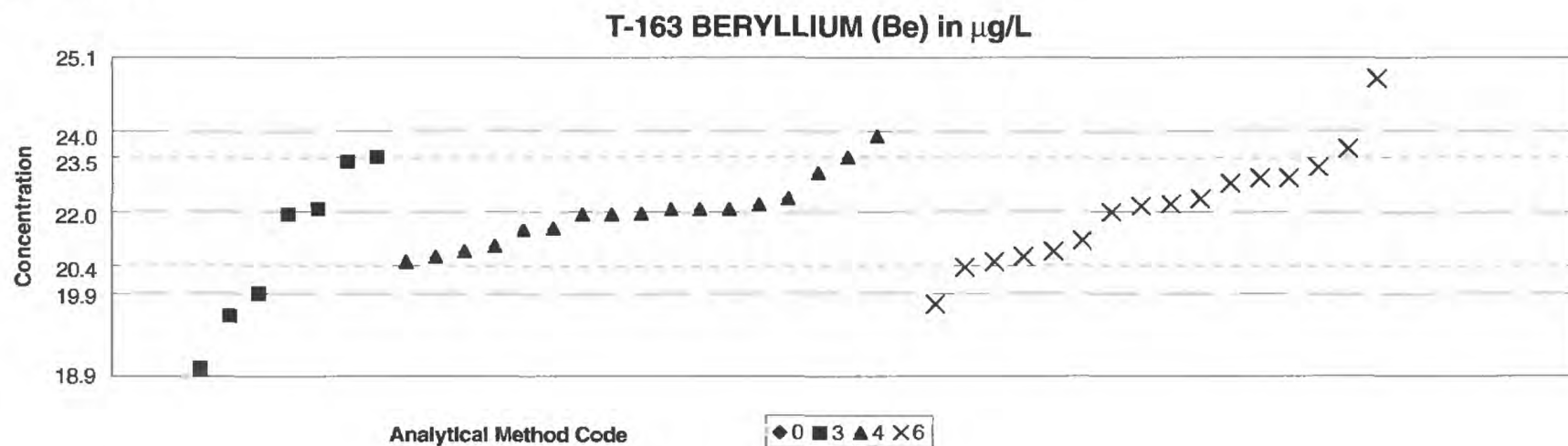
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods						Statistics
	0	1	2	3	4	6	
N =	2	1	0	2	22	17	Method Codes
Minimum =	7.00	10.0	<100	7.17	6.00	7.00	0. Other
Maximum =	7.36			10.0	39.5	8.20	1. Atomic absorption: direct, air
Median =					7.40	7.40	2. Atomic absorption: direct, nitrous oxide
F-pseudosigma =				0.667	0.259		3. Atomic absorption: graphite furnace
							4. Inductively coupled plasma
							6. Inductively coupled plasma/mass spectrometry
							MPV = 7.40 $\mu\text{g/L}$
							F-pseudosigma = 0.537
							N = 44
							Uh = 7.87
							Lh = 7.14

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
1	4	0.17	--	--	--	--	--	7.49
13	1	-1.67	--	--	--	--	6.50	--
18	4	0.50	--	--	--	--	--	7.67
23	0	3.39	--	--	--	--	9.22	--
24	3	-0.74	--	--	--	--	7.00	--
25	0	-2.60	--	--	--	--	6.00	--
32	4	-0.37	--	--	--	--	--	7.20
42	3	-0.54	--	--	--	--	--	7.11
48	2	1.49	--	--	--	--	--	8.20
50	4	-0.37	--	--	--	--	--	7.20
57	4	0.37	--	--	--	--	7.60	--
59	2	1.12	--	--	--	--	--	8.00
70	3	0.97	--	--	--	--	--	7.92
81	0	-2.60	--	--	--	--	6.00	--
86	3	0.93	--	--	--	--	7.90	--
87	0	4.84	--	--	--	10.00	--	--
89	NR	--	--	--	--	<50	--	--
96	NR	--	--	--	<100	--	--	--
105	4	0.00	--	--	--	--	--	7.40
107	4	0.00	--	--	--	--	--	7.40
113	4	-0.43	--	--	--	7.17	--	--
121	3	-0.74	--	--	--	--	7.00	--
127	4	-0.17	--	--	--	--	7.31	--
134	4	0.12	--	--	--	--	7.47	--
138	4	-0.26	--	--	--	--	7.26	--
140	0	4.84	--	10.00	--	--	--	--
142	4	0.09	--	--	--	--	--	7.45
154	4	0.00	--	--	--	--	7.40	--
180	0	59.73	--	--	--	--	39.50	--
198	4	-0.43	--	--	--	--	--	7.17
203	0	3.35	--	--	--	--	9.20	--
204	4	0.28	--	--	--	--	--	7.55
212	3	-0.74	--	--	--	--	--	7.00
234	4	0.00	--	--	--	--	7.40	--
235	4	0.00	--	--	--	--	--	7.40
247	4	-0.15	--	--	--	--	--	7.32
256	3	-0.74	7.00	--	--	--	--	--
265	4	0.19	--	--	--	--	--	7.50
270	3	0.80	--	--	--	--	7.83	--
273	3	-0.74	--	--	--	--	7.00	--
297	4	0.30	--	--	--	--	7.56	--
304	4	-0.07	7.36	--	--	--	--	--
305	3	-0.65	--	--	--	--	7.05	--
309	0	2.98	--	--	--	--	9.00	--
328	2	1.49	--	--	--	--	8.20	--
331	3	-0.74	--	--	--	--	7.00	--

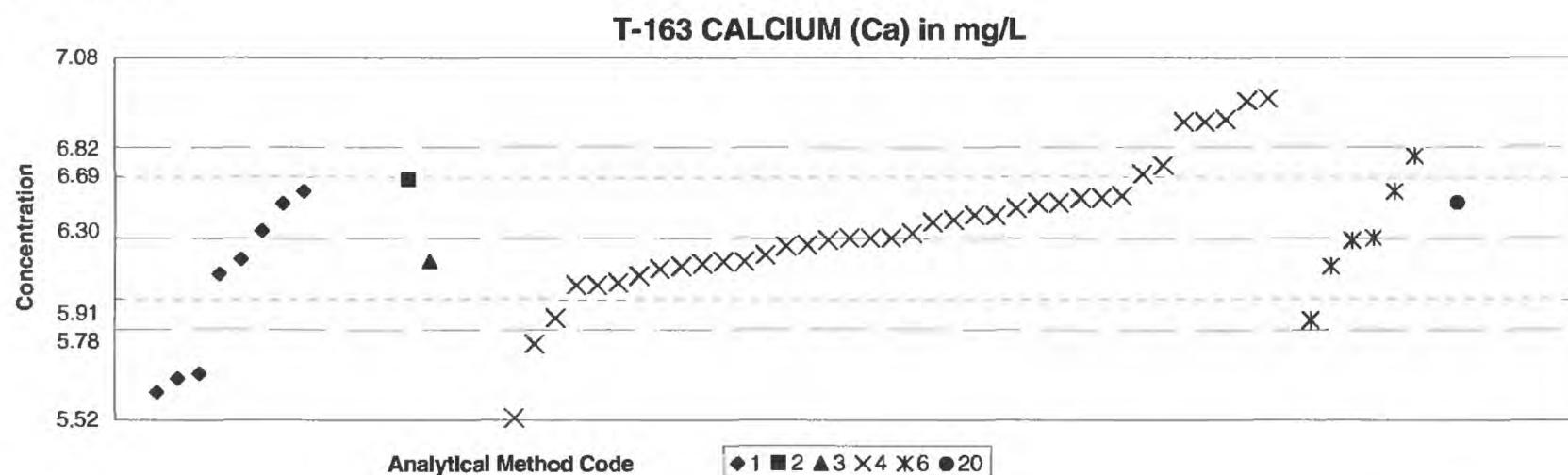
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary					Methods		Statistics	
		0	3	4	6	Method Codes		
N =	1	8	17	16		0. Other		MPV = 22.0 µg/L
Minimum =	25.0	18.8	21.0	20.2		3. Atomic absorption: graphite furnace		F-pseudosigma = 1.04
Maximum =		23.0	23.4	24.5		4. Inductively coupled plasma		Rating criterion = 1.10
Median =		21.2	21.9	22.1		6. Inductively coupled plasma/mass spectrometry		N = 42
F-pseudosigma =		2.19	0.371	1.07				Uh = 22.6
							Lh = 21.2	

Lab	Rating	Z-value	Methods			
			0	3	4	6
1	2	1.08	--	--	--	23.2
13	4	0.03	--	--	22.0	--
18	4	0.47	--	--	--	22.5
23	3	-0.61	--	--	21.3	--
25	4	-0.34	--	--	21.6	--
32	3	0.57	--	--	--	22.6
42	3	-0.52	--	--	--	21.4
48	3	-0.88	--	--	--	21.0
50	3	-0.79	--	--	--	21.1
57	3	-0.70	--	--	21.2	--
59	3	0.76	--	--	--	22.8
69	4	0.03	--	22.0	--	--
70	0	2.30	--	--	--	24.5
76	4	0.08	--	--	--	22.1
81	0	-2.89	--	18.8	--	--
86	4	0.12	--	--	22.1	--
89	4	-0.06	--	21.9	--	--
96	2	-1.43	--	20.4	--	--
97	0	-2.70	--	19.0	--	--
105	4	0.03	--	--	22.0	--
113	3	0.85	--	22.9	--	--
127	2	1.30	--	--	23.4	--
134	4	-0.31	--	--	21.6	--
138	3	-0.79	--	--	21.1	--
142	3	-0.70	--	--	--	21.2
144	1	-1.79	--	20.0	--	--
154	4	0.03	--	--	22.0	--
180	NR	--	--	--	<0.6	--
193	3	0.94	--	23.0	--	--
198	3	0.57	--	--	--	22.6
204	4	0.12	--	--	--	22.1
212	3	-0.97	--	--	--	20.9
215	3	0.94	--	--	23.0	--
220	4	-0.05	--	--	21.9	--
234	4	-0.08	--	--	21.9	--
235	4	-0.03	--	--	--	21.9
247	1	-1.61	--	--	--	20.2
256	0	2.76	25.0	--	--	--
265	4	-0.06	--	--	21.9	--
297	4	0.21	--	--	22.2	--
305	3	0.66	--	--	22.7	--
328	4	0.21	--	--	--	22.2
331	3	-0.88	--	--	21.0	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

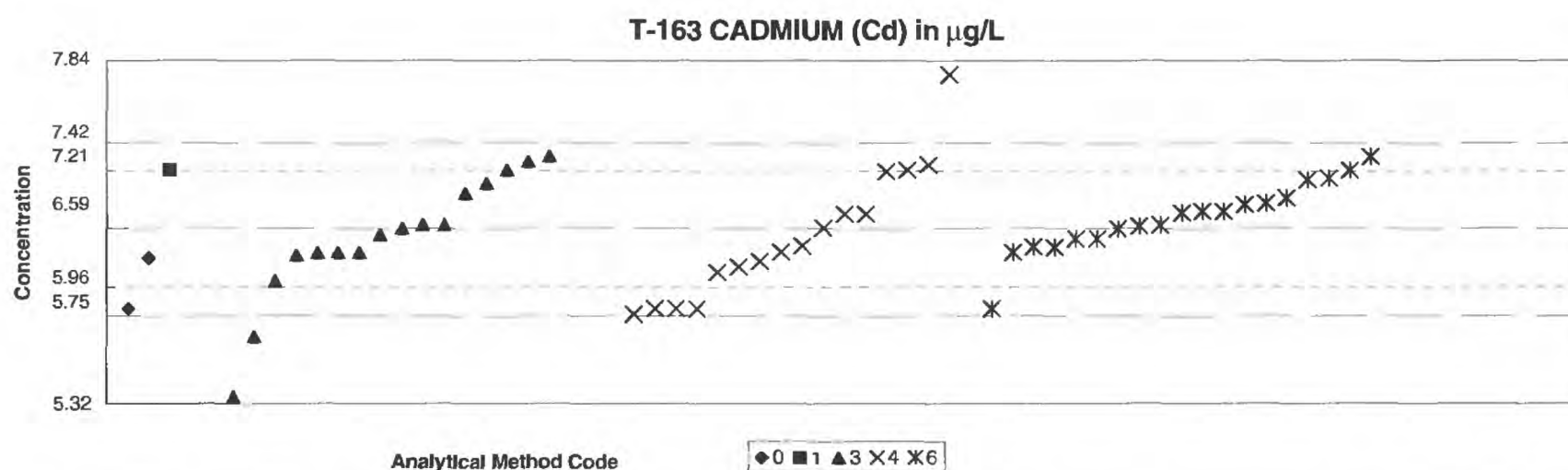


Summary	Methods						Statistics
	1	2	3	4	6	20	
N =	12	2	1	41	6	2	MPV = 6.30 mg/L
Minimum =	4.09	4.62	6.20	4.47	5.95	5.51	F-pseudosigma = 0.259
Maximum =	32.0	6.55		30.0	6.65	6.45	Rating criterion = 0.315
Median =	6.27			6.30	6.29		N = 64
F-pseudosigma =	0.956			0.221	0.237		Uh = 6.48
							Lh = 6.13

Lab	Rating	Z-value	Methods					
			1	2	3	4	6	20
1	3	0.53	--	--	--	6.47	--	--
12	4	0.00	--	--	--	6.30	--	--
13	4	0.00	--	--	--	6.30	--	--
23	4	-0.29	6.21	--	--	--	--	--
24	3	-0.63	--	--	--	6.10	--	--
25	0	-2.92	--	--	--	5.38	--	--
32	4	0.00	--	--	--	6.30	--	--
42	4	0.25	--	--	--	6.38	--	--
45	4	0.10	6.33	--	--	--	--	--
48	2	1.11	--	--	--	6.65	--	--
50	4	-0.38	--	--	--	6.18	--	--
57	4	-0.41	--	--	--	6.17	--	--
59	3	0.63	--	--	--	6.50	--	--
64	4	-0.35	--	--	--	6.19	--	--
69	1	-1.84	5.72	--	--	--	--	--
70	3	0.98	--	--	--	6.61	--	--
76	4	-0.04	--	--	--	6.29	--	--
81	4	0.22	--	--	--	6.37	--	--
86	3	0.54	--	--	--	6.47	--	--
87	0	-5.33	--	4.62	--	--	--	--
89	0	-7.02	4.09	--	--	--	--	--
97	4	-0.48	6.15	--	--	--	--	--
105	4	-0.22	--	--	--	6.23	--	--
107	0	3.81	7.50	--	--	--	--	--
109	3	0.63	6.50	--	--	--	--	--
110	4	0.48	--	--	--	6.45	--	--
113	4	-0.32	--	--	6.20	--	--	--
121	4	0.41	--	--	--	6.43	--	--
127	2	-1.43	--	--	--	5.85	--	--
134	4	-0.11	--	--	--	6.27	--	--
138	3	-0.60	--	--	--	6.11	--	--
140	1	-1.90	5.70	--	--	--	--	--
142	1	1.62	--	--	--	6.81	--	--
154	3	-0.63	--	--	--	6.10	--	--
180	0	75.24	--	--	--	30.00	--	--
190	4	0.48	6.45	--	--	--	--	--
193	4	-0.38	--	--	--	6.18	--	--
198	0	-2.44	--	--	--	5.53	--	--
203	4	0.00	--	--	--	6.30	--	--
204	3	0.57	--	--	--	6.48	--	--
212	2	-1.11	--	--	--	5.95	--	--
215	1	1.59	--	--	--	6.80	--	--
220	3	0.87	--	--	--	6.57	--	--
234	4	-0.03	--	--	--	6.29	--	--
235	4	-0.51	--	--	--	6.14	--	--
247	4	-0.10	--	--	--	6.27	--	--
254	4	0.48	--	--	--	6.45	--	--
255	4	0.08	--	--	--	6.32	--	--
261	0	81.59	32.00	--	--	--	--	--
265	4	-0.32	--	--	--	6.20	--	--

Lab	Rating	Z-value	Methods					
			1	2	3	4	6	20
268	0	-2.10	5.64	--	--	--	--	--
270	0	-3.56	--	--	--	5.18	--	--
273	4	0.32	--	--	--	6.40	--	--
274	0	-2.51	--	--	--	--	--	5.51
277	4	0.32	--	--	--	6.40	--	--
279	4	0.48	--	--	--	--	--	6.45
287	3	0.79	--	6.55	--	--	--	--
297	0	-5.81	--	--	--	4.47	--	--
305	2	-1.08	--	--	--	5.96	--	--
309	1	1.90	--	--	--	6.90	--	--
315	4	-0.32	--	--	--	6.20	--	--
324	0	8.76	9.06	--	--	--	--	--
328	1	1.59	--	--	--	6.80	--	--
331	1	1.87	--	--	--	6.89	--	--

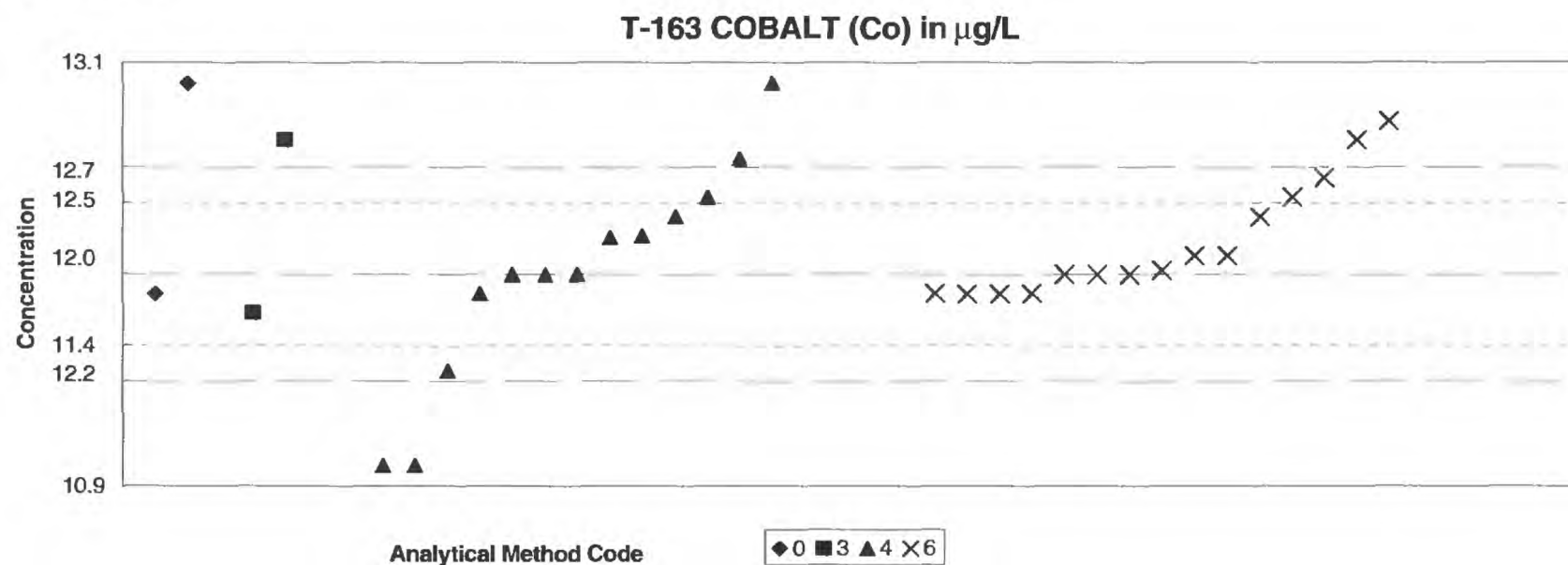
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary						Methods		Statistics	
		0	1	3	4	6	Method Codes		
N =		2	2	19	17	20	0. Other	MPV =	6.59 µg/L
Minimum =		6.00	7.00	4.00	4.80	6.00	1. Atomic absorption: direct, air	F-pseudosigma =	0.419
Maximum =		6.36	8.00	9.25	7.70	7.20	3. Atomic absorption: graphite furnace	N =	60
Median =				6.57	6.41	6.70	4. Inductively coupled plasma	Uh =	6.94
F-pseudosigma =				0.415	0.504	0.271	6. Inductively coupled plasma/mass spectrometry	Lh =	6.37

Lab	Rating	Z-value	Methods				
			0	1	3	4	6
1	4	0.42	--	--	--	--	6.76
10	4	-0.44	--	--	6.40	--	--
12	0	-6.17	--	--	4.00	--	--
13	3	-0.68	--	--	--	6.30	--
18	4	0.01	--	--	--	--	6.59
23	3	-0.78	--	--	--	6.26	--
25	2	-1.40	--	--	--	6.00	--
32	4	0.27	--	--	--	--	6.70
42	4	-0.35	--	--	--	--	6.44
48	4	-0.20	--	--	--	--	6.50
50	4	-0.44	--	--	--	--	6.40
57	2	-1.49	--	--	--	5.96	--
59	2	1.23	--	--	--	--	7.10
69	3	-0.92	--	--	6.20	--	--
70	4	0.39	--	--	--	--	6.75
76	4	0.04	--	--	--	--	6.60
81	3	0.99	--	--	7.00	--	--
86	0	2.66	--	--	--	7.70	--
87	0	-4.26	--	--	--	4.80	--
89	2	1.13	--	--	7.06	--	--
96	4	-0.13	--	--	6.53	--	--
97	1	-1.87	--	--	5.80	--	--
105	4	-0.20	--	--	--	--	6.50
107	3	0.99	--	--	--	--	7.00
113	4	0.04	--	--	6.60	--	--
118	0	3.02	--	--	7.85	--	--
121	3	0.99	--	--	--	7.00	--
127	4	-0.49	--	--	6.38	--	--
134	4	0.23	--	--	--	6.68	--
138	4	-0.42	--	--	--	6.41	--
140	3	0.99	--	7.00	--	--	--
142	3	0.85	--	--	--	--	6.94
144	2	1.23	--	--	7.10	--	--
147	4	0.27	--	--	--	--	6.70
154	0	-2.90	--	--	5.37	--	--
180	NR	--	--	--	--	<3.78	--
190	3	0.58	--	--	6.83	--	--
193	4	-0.44	--	--	6.40	--	--
198	4	-0.35	--	--	--	--	6.44
203	4	0.04	--	--	6.60	--	--
204	4	-0.04	--	--	--	--	6.57
212	2	-1.40	--	--	--	--	6.00
215	3	0.75	--	--	6.90	--	--
220	4	-0.44	--	--	6.40	--	--
234	4	-0.01	--	--	--	6.58	--
235	4	0.25	--	--	--	--	6.69
247	3	-0.58	--	--	--	6.34	--
255	3	0.82	--	--	--	--	6.93
256	2	-1.40	6.00	--	--	--	--
257	0	3.38	--	8.00	--	--	--

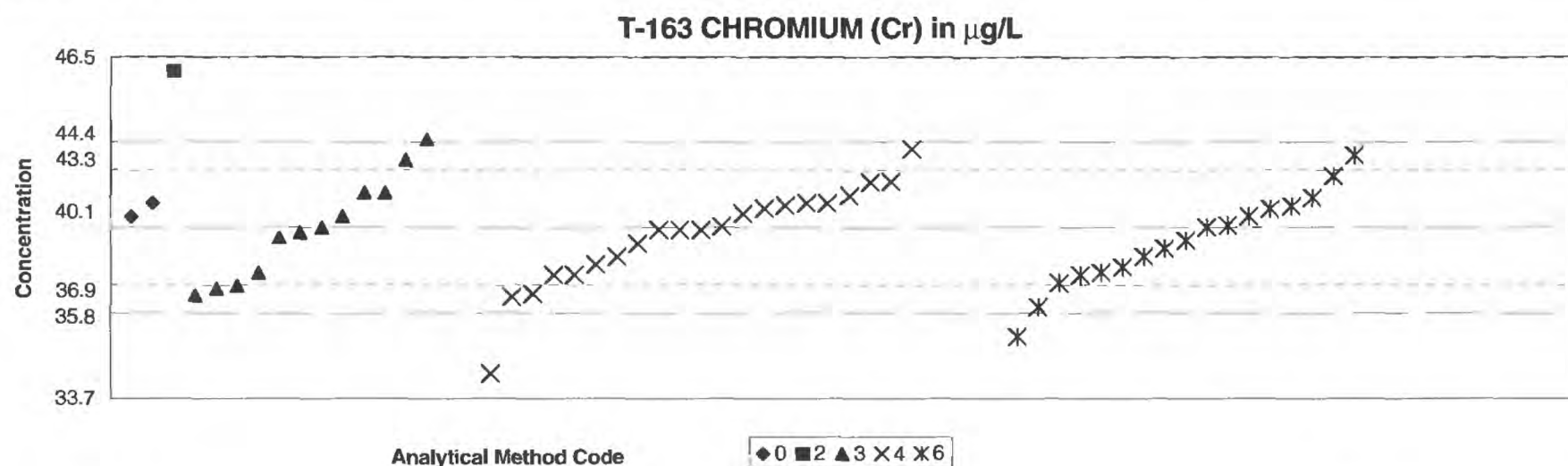
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods				Statistics	
	0	3	4	6	Method Codes	
N =	2	3	17	15	0. Other	
Minimum =	11.9	10.8	9.0	11.9	3. Atomic absorption: graphite furnace	
Maximum =	13.0	12.7	18.0	12.8	4. Inductively coupled plasma	
Median =			12.0	12.0	6. Inductively coupled plasma/mass spectrometry	
F-pseudosigma =			0.667	0.297		
					MPV = 12.0 µg/L	
					F-pseudosigma = 0.371	
					Rating criterion = 0.600	
					N = 37	
					Uh = 12.4	
					Lh = 11.9	

Lab	Rating	Z-value	Methods			
			0	3	4	6
1	2	1.33	--	--	--	12.8
13	NR	--	--	--	<50	--
18	3	0.67	--	--	--	12.4
24	4	0.00	--	--	12.0	--
25	0	-2.83	--	--	10.3	--
32	3	0.83	--	--	--	12.5
42	4	0.17	--	--	--	12.1
48	4	0.17	--	--	--	12.1
50	4	-0.17	--	--	--	11.9
57	4	0.00	--	--	12.0	--
70	2	1.17	--	--	--	12.7
76	4	0.03	--	--	--	12.0
81	1	-1.67	--	--	11.0	--
86	0	-5.00	--	--	9.0	--
89	1	-2.00	--	10.8	--	--
96	2	1.17	--	12.7	--	--
105	4	-0.17	--	--	--	11.9
121	1	-1.67	--	--	11.0	--
127	4	-0.33	--	11.8	--	--
134	4	0.32	--	--	12.2	--
138	4	-0.17	--	--	11.9	--
142	4	-0.17	--	--	--	11.9
154	4	0.33	--	--	12.2	--
180	NR	--	--	--	<3.98	--
198	4	0.50	--	--	--	12.3
212	4	0.00	--	--	--	12.0
234	3	0.67	--	--	12.4	--
235	4	-0.17	--	--	--	11.9
247	4	0.00	--	--	--	12.0
254	0	2.17	--	--	13.3	--
256	1	1.67	13.0	--	--	--
265	4	0.00	--	--	--	12.0
270	1	1.67	--	--	13.0	--
273	3	-0.83	--	--	11.5	--
277	4	0.50	--	--	12.3	--
297	3	1.00	--	--	12.6	--
304	4	-0.17	11.9	--	--	--
328	0	10.00	--	--	18.0	--
331	4	0.00	--	--	12.0	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

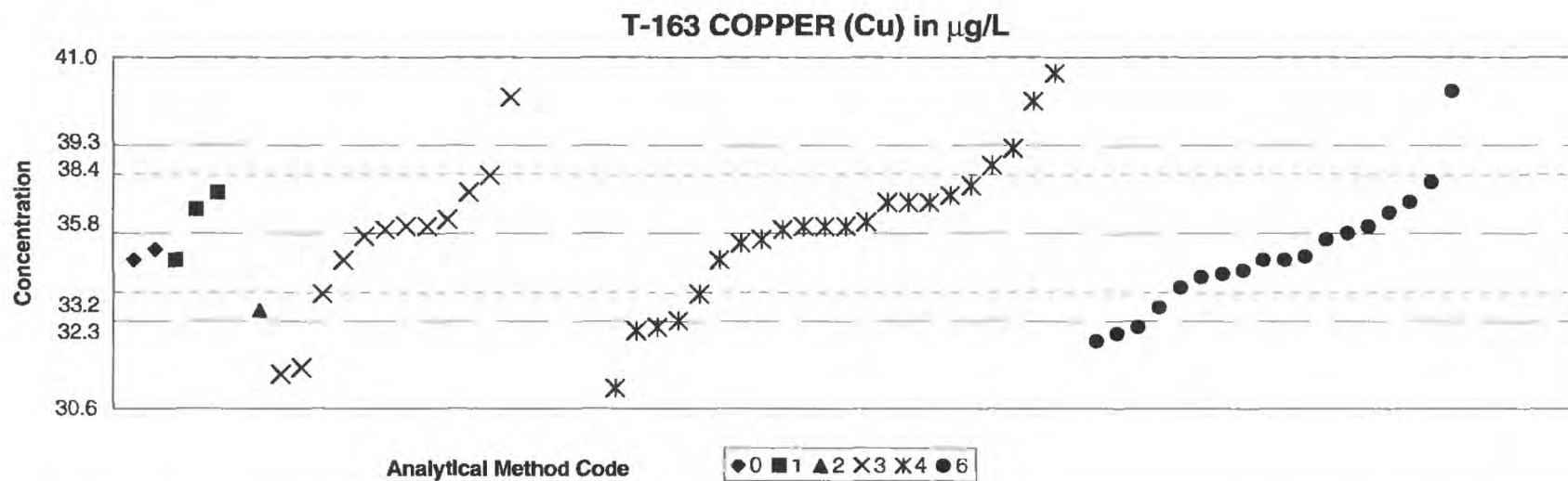


Summary	Methods					Statistics
	0	2	3	4	6	
N =	2	1	13	25	17	MPV = 40.1 µg/L
Minimum =	40.5	46.0	37.5	32.6	36.0	F-pseudosigma = 2.15
Maximum =	41.0		52.0	53.0	42.8	N = 58
Median =			40.1	40.1	39.6	Uh = 41.3
F-pseudosigma =			2.22	1.93	1.78	Lh = 38.4
Methods 0. Other 2. Atomic absorption: direct, nitrous oxide 3. Atomic absorption: graphite furnace 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry						
Method Codes						

Lab	Rating	Z-value	Methods				
			0	2	3	4	6
1	4	0.38	--	--	--	40.9	--
10	4	-0.01	--	--	40.1	--	--
12	0	4.13	--	--	--	49.0	--
13	4	0.32	--	--	--	40.8	--
18	4	0.32	--	--	--	--	40.8
23	2	-1.17	--	--	--	37.6	--
24	3	-0.52	--	--	--	39.0	--
25	0	3.62	--	--	--	47.9	--
32	4	0.18	--	--	--	--	40.5
42	4	0.37	--	--	--	--	40.9
48	3	-0.52	--	--	--	--	39.0
50	4	-0.38	--	--	--	--	39.3
57	0	-2.57	--	--	--	34.6	--
59	3	-0.84	--	--	--	--	38.3
69	3	0.60	--	--	41.4	--	--
70	3	0.88	--	--	--	--	42.0
76	4	0.02	--	--	--	--	40.2
81	0	5.53	--	--	52.0	--	--
86	4	0.41	--	--	--	41.0	--
87	3	0.78	--	--	--	41.8	--
89	1	1.53	--	--	43.4	--	--
96	2	-1.03	--	--	37.9	--	--
97	2	1.16	--	--	42.6	--	--
105	4	-0.24	--	--	--	--	39.6
107	2	-1.40	--	--	--	--	37.1
113	4	-0.19	--	--	39.7	--	--
121	1	-1.91	--	--	--	--	36.0
127	3	0.78	--	--	--	41.8	--
134	4	0.01	--	--	--	40.1	--
138	2	-1.22	--	--	--	37.5	--
140	0	2.74	--	46.0	--	--	--
142	3	-0.70	--	--	--	--	38.6
144	3	-0.80	--	--	38.4	--	--
154	4	-0.29	--	--	--	39.5	--
180	NR	--	--	--	--	<4.5	--
190	2	-1.08	--	--	37.8	--	--
193	3	0.60	--	--	41.4	--	--
198	3	-0.98	--	--	--	--	38.0
203	4	-0.10	--	--	39.9	--	--
204	4	0.50	--	--	--	--	41.2
212	4	-0.01	--	--	--	--	40.1
215	4	0.41	--	--	--	41.0	--
220	2	1.36	--	--	--	43.0	--
234	4	0.23	--	--	--	40.6	--
235	3	-0.66	--	--	--	38.7	--
247	3	-0.80	--	--	--	--	38.4
255	2	1.25	--	--	--	--	42.8
256	4	0.41	41.0	--	--	--	--
265	4	-0.05	--	--	--	40.0	--
270	0	-3.50	--	--	--	32.6	--

Lab	Rating	Z-value	Methods				
			0	2	3	4	6
273	4	-0.05	--	--	--	40.0	--
277	3	-0.84	--	--	--	38.3	--
297	3	-0.84	--	--	--	38.3	--
304	4	0.18	40.5	--	--	--	--
305	3	0.55	--	--	--	41.3	--
306	2	-1.20	--	--	37.5	--	--
307	4	0.18	--	--	40.5	--	--
328	0	5.99	--	--	--	53.0	--
331	4	-0.05	--	--	--	40.0	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

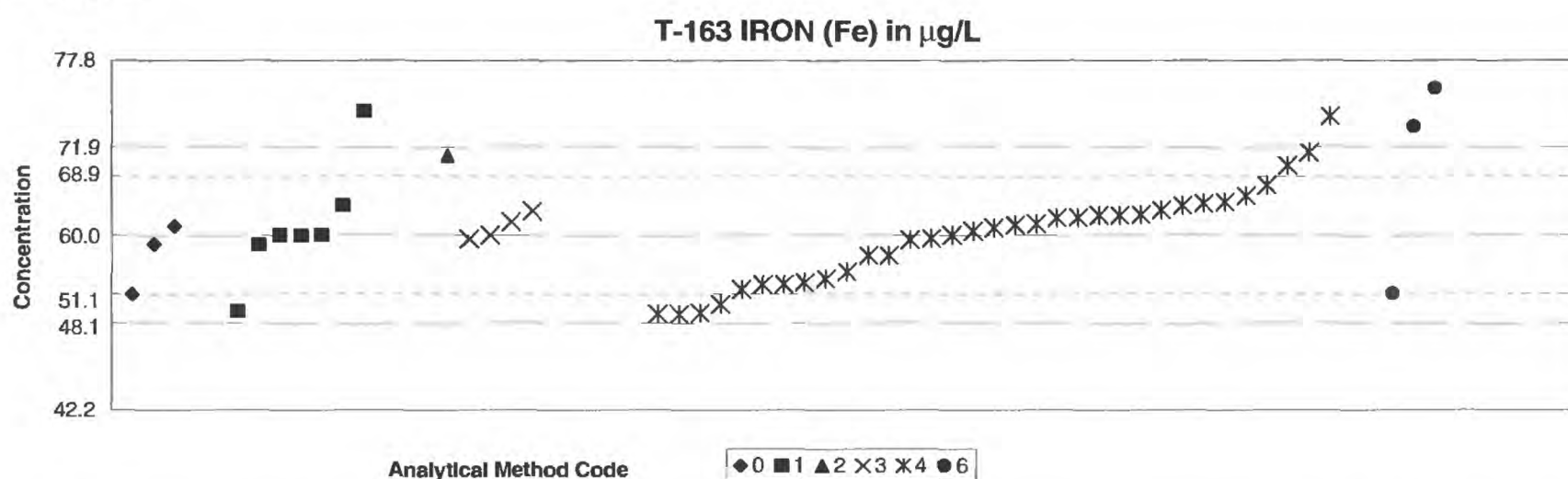


Summary	Methods						Statistics	
	0	1	2	3	4	6		
N =	2	3	1	14	25	18	MPV =	35.8 µg/L
Minimum =	35.0	35.0	33.5	31.6	32.3	32.6	F-pseudosigma =	1.74
Maximum =	35.3	37.0		57.0	45.0	40.0	Rating criterion =	1.79
Median =				36.0	36.0	35.0	N =	63
F-pseudosigma =				1.85	2.16	1.33	Uh =	36.7
							Lh =	34.4
	0. Other 1. Atomic absorption: direct, air 2. Atomic absorption: direct, nitrous oxide 3. Atomic absorption: graphite furnace 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry							

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
1	3	0.63	--	--	--	--	36.9	--
10	4	0.11	--	--	--	36.0	--	--
12	4	-0.06	--	--	--	35.7	--	--
13	0	-2.57	--	--	--	--	31.2	--
18	0	2.35	--	--	--	--	--	40.0
23	2	-1.45	--	--	--	--	33.2	--
24	4	-0.45	--	--	--	35.0	--	--
25	0	2.18	--	--	--	--	39.7	--
32	4	0.11	--	--	--	--	--	36.0
42	4	0.00	--	--	--	--	--	35.8
45	4	0.39	--	36.5	--	--	--	--
48	4	-0.45	--	--	--	--	--	35.0
50	3	-0.73	--	--	--	--	--	34.5
57	3	0.78	--	--	--	--	37.2	--
59	3	-0.89	--	--	--	--	--	34.2
69	NR	--	--	<50	--	--	--	--
70	4	0.50	--	--	--	--	--	36.7
81	3	0.67	--	--	--	37.0	--	--
86	4	-0.11	--	--	--	--	35.6	--
87	2	1.40	--	--	--	--	38.3	--
89	3	-1.01	--	--	--	34.0	--	--
96	4	0.11	--	--	--	36.0	--	--
105	4	0.11	--	--	--	--	36.0	--
107	1	-1.79	--	--	--	--	--	32.6
113	4	0.22	--	--	--	38.2	--	--
118	0	5.20	--	--	--	45.1	--	--
121	1	-1.56	--	--	--	--	--	33.0
127	1	-1.62	--	--	--	--	32.9	--
134	4	0.06	--	--	--	--	35.9	--
138	4	-0.17	--	--	--	--	35.5	--
140	3	0.67	--	37.0	--	--	--	--
142	2	-1.23	--	--	--	--	--	33.6
144	0	-2.35	--	--	--	31.6	--	--
147	4	-0.28	35.3	--	--	--	--	--
154	4	-0.45	--	--	--	--	35.0	--
180	0	-18.20	--	--	--	--	3.2	--
190	3	0.95	--	--	--	37.5	--	--
193	4	0.06	--	--	--	35.9	--	--
198	1	-1.68	--	--	--	--	--	32.8
203	4	0.11	--	--	--	--	38.0	--
204	3	0.84	--	--	--	--	--	37.3
212	3	-0.61	--	--	--	--	--	34.7
215	0	5.14	--	--	--	--	45.0	--
220	4	0.18	--	--	--	--	36.1	--
234	4	0.50	--	--	--	--	--	38.7
235	4	-0.39	--	--	--	--	--	35.1
247	3	-0.67	--	--	--	--	--	34.6
254	4	0.50	--	--	--	--	36.7	--
255	4	0.34	--	--	--	--	--	36.4
257	4	-0.45	--	35.0	--	--	--	--

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
265	4	0.11	--	--	--	--	36.0	--
270	0	2.65	--	--	--	--	40.5	--
273	0	-7.93	--	--	--	--	21.6	--
274	0	2.24	--	--	--	39.8	--	--
277	1	-1.56	--	--	--	--	33.0	--
287	2	-1.28	--	--	33.5	--	--	--
297	2	1.12	--	--	--	--	37.8	--
304	4	-0.45	35.0	--	--	--	--	--
305	4	0.50	--	--	--	--	36.7	--
306	0	11.83	--	--	--	57.0	--	--
307	0	-2.23	--	--	--	31.8	--	--
328	4	-0.45	--	--	--	--	--	35.0
331	3	-1.01	--	--	--	--	34.0	--
334	4	-0.11	--	--	--	--	--	35.6

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

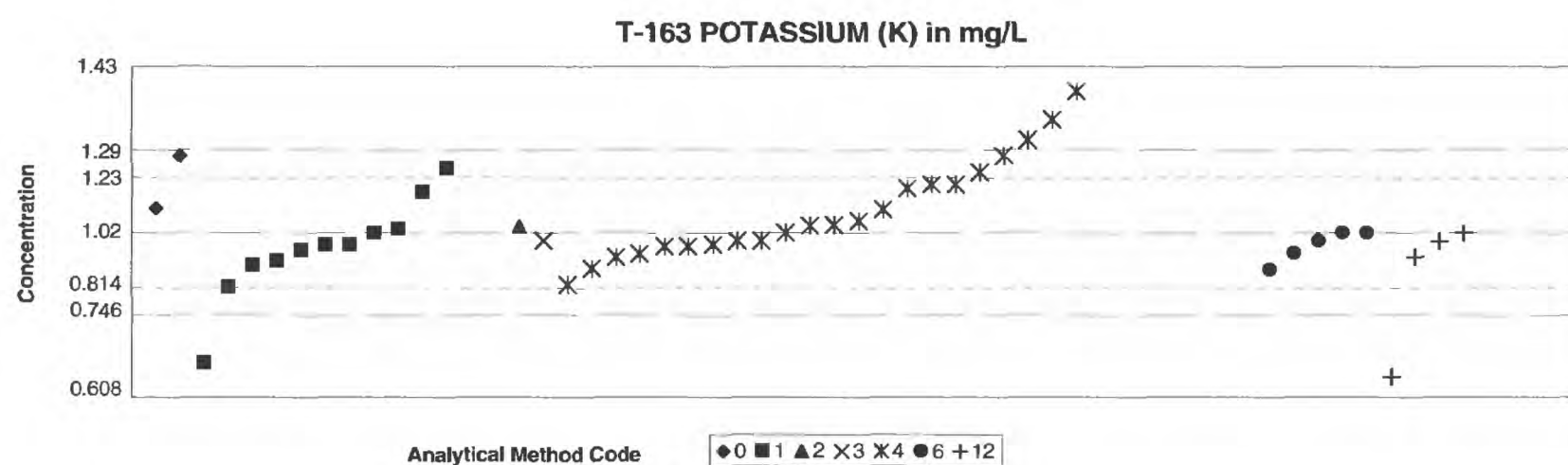


Summary	Methods						Statistics
	0	1	2	3	4	6	
N =	3	11	1	4	39	3	MPV = 60.0 µg/L
Minimum =	54.0	5.60	68.0	59.6	0.022	54.1	F-pseudosigma = 5.93
Maximum =	60.9	98.0		62.4	78.0	74.9	N = 61
Median =		60.0			60.0		Uh = 63.0
F-pseudosigma =		8.96			5.60		Lh = 55.0
Method Codes							
0. Other							
1. Atomic absorption: direct, air							
2. Atomic absorption: direct, nitrous oxide							
3. Atomic absorption: graphite furnace							
4. Inductively coupled plasma							
6. Inductively coupled plasma/mass spectrometry							

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
1	3	0.54	--	--	--	--	63.2	--
10	4	0.51	--	63.0	--	--	--	--
12	3	0.67	--	--	--	--	64.0	--
13	3	-0.62	--	--	--	--	56.3	--
21	4	0.15	60.9	--	--	--	--	--
23	4	0.00	--	--	--	--	60.0	--
24	4	0.17	--	--	--	--	61.0	--
25	4	0.42	--	--	--	--	62.5	--
42	4	0.19	--	--	--	--	61.1	--
45	0	2.11	--	72.5	--	--	--	--
48	1	1.85	--	--	--	--	--	71.0
50	3	-0.99	--	--	--	--	--	54.1
57	4	-0.08	--	--	--	--	59.5	--
64	0	-5.65	--	--	--	--	26.5	--
69	NR	--	--	<50	--	--	--	--
70	0	-3.71	--	--	--	--	38.0	--
81	0	-3.04	--	--	--	--	42.0	--
87	4	0.07	--	--	--	--	60.4	--
89	4	0.00	--	--	--	60.0	--	--
96	4	0.00	--	60.0	--	--	--	--
105	2	1.18	--	--	--	--	67.0	--
107	4	0.00	--	60.0	--	--	--	--
109	2	-1.29	--	52.3	--	--	--	--
113	4	-0.07	--	--	--	59.6	--	--
118	0	6.41	--	98.0	--	--	--	--
121	4	-0.34	--	--	--	--	58.0	--
127	4	0.30	--	--	--	--	61.8	--
134	4	-0.34	--	--	--	--	58.0	--
138	3	-0.81	--	--	--	--	55.2	--
140	4	0.00	--	60.0	--	--	--	--
142	4	0.34	--	--	--	--	62.0	--
147	4	-0.17	59.0	--	--	--	--	--
154	4	0.35	--	--	--	--	62.1	--
180	NR	--	--	--	--	--	<3.81	--
190	4	0.40	--	--	--	62.4	--	--
193	4	-0.17	--	59.0	--	--	--	--
198	4	0.12	--	--	--	--	60.7	--
203	3	-0.84	--	--	--	--	55.0	--
204	2	-1.35	--	--	--	--	52.0	--
212	0	2.51	--	--	--	--	--	74.9
215	0	2.02	--	--	--	--	72.0	--
220	3	-0.74	--	--	--	--	55.6	--
234	3	0.57	--	--	--	--	63.4	--
235	4	-0.05	--	--	--	--	59.7	--
247	3	-0.84	--	--	--	--	55.0	--
254	4	0.30	--	--	--	--	61.8	--
255	3	-0.93	--	--	--	--	54.5	--
256	2	-1.01	54.0	--	--	--	--	--
261	0	-6.75	--	20.0	--	--	--	--
265	3	0.84	--	--	--	--	65.0	--

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
270	0	-3.23	--	--	--	--	40.9	--
273	4	0.51	--	--	--	--	63.0	--
274	4	0.22	--	--	--	61.3	--	--
277	2	-1.33	--	--	--	--	52.1	--
287	2	1.35	--	--	68.0	--	--	--
297	2	1.40	--	--	--	--	68.3	--
305	2	-1.35	--	--	--	--	52.0	--
307	0	-9.17	--	5.6	--	--	--	--
315	0	-10.11	--	--	--	--	0.0	--
324	0	5.83	--	94.6	--	--	--	--
328	2	-1.18	--	--	--	--	53.0	--
331	4	0.34	--	--	--	--	62.0	--
334	0	3.04	--	--	--	--	78.0	--

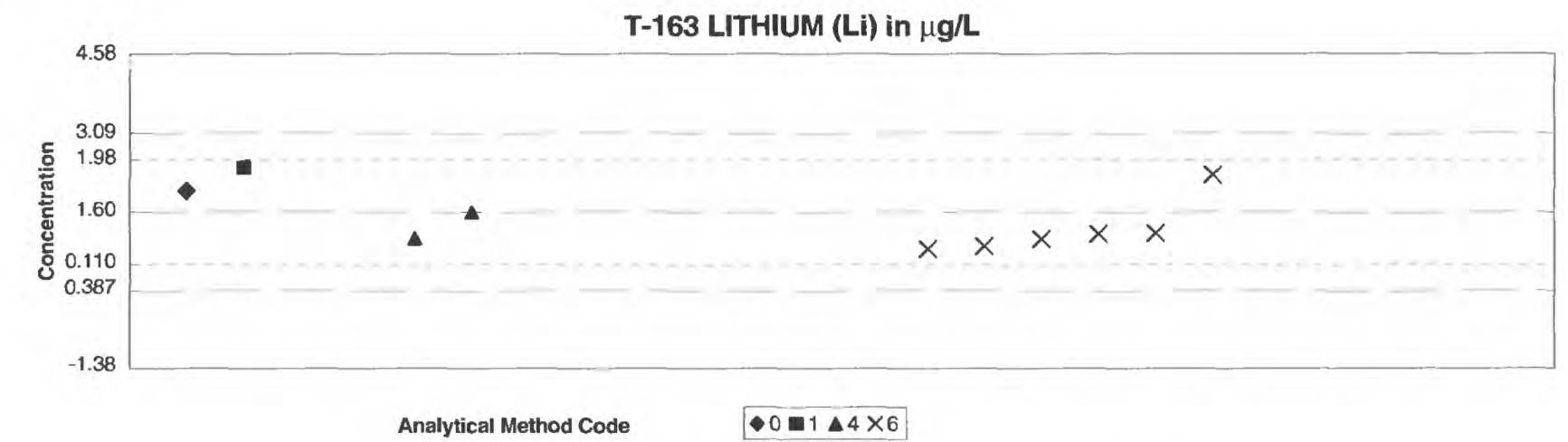
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods							Statistics
	0	1	2	3	4	6	12	
N =	2	13	1	1	27	5	4	MPV = 1.02 mg/L
Minimum =	1.08	0.694	1.04	1.00	0.890	0.928	0.660	F-pseudosigma = 0.137
Maximum =	1.21	944			4.00	1.02	1.02	N = 53
Median =		0.991			1.08	1.00		Uh = 1.17
F-pseudosigma =		0.126			0.208	0.037		Lh = 0.985
Method Codes 0. Other 1. Atomic absorption: direct, air 2. Atomic absorption: direct, nitrous oxide 3. Atomic absorption: graphite furnace 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry 12. Flame emission								

Lab	Rating	Z-value	Methods						
			0	1	2	3	4	6	12
1	4	0.00	--	1.02	--	--	--	--	--
13	4	-0.22	--	--	--	--	0.99	--	--
23	3	-0.58	--	0.94	--	--	--	--	--
24	4	-0.44	--	--	--	--	0.96	--	--
25	4	0.42	--	--	--	--	1.08	--	--
32	4	0.00	--	--	--	--	--	1.02	--
42	4	-0.25	--	--	--	--	0.99	--	--
45	0	-2.38	--	0.69	--	--	--	--	--
48	4	-0.36	--	--	--	--	--	0.97	--
50	3	-0.67	--	--	--	--	--	0.93	--
57	0	3.35	--	--	--	--	1.48	--	--
59	4	-0.15	--	--	--	--	--	1.00	--
64	4	-0.22	--	0.99	--	--	--	--	--
69	4	-0.15	--	--	--	--	--	--	1.00
70	4	0.15	--	--	--	--	1.04	--	--
81	2	1.09	--	--	--	--	1.17	--	--
86	4	-0.15	--	--	--	--	1.00	--	--
87	0	6876	--	944	--	--	--	--	--
89	3	-0.98	--	0.89	--	--	--	--	--
105	NR	--	--	--	--	--	<1.00	--	--
107	2	1.17	--	1.18	--	--	--	--	--
109	3	0.73	--	1.12	--	--	--	--	--
110	4	0.44	1.08	--	--	--	--	--	--
113	4	-0.15	--	--	--	1.00	--	--	--
127	4	0.07	--	1.03	--	--	--	--	--
134	4	-0.31	--	0.98	--	--	--	--	--
138	4	-0.38	--	--	--	--	0.97	--	--
140	3	-0.51	--	0.95	--	--	--	--	--
142	NR	--	--	--	--	--	<1	--	--
180	0	8.53	--	--	--	--	2.19	--	--
193	4	-0.21	--	0.99	--	--	--	--	--
198	3	-0.95	--	--	--	--	0.89	--	--
203	4	0.00	--	--	--	--	--	--	1.02
204	3	0.88	--	--	--	--	1.14	--	--
212	4	0.00	--	--	--	--	--	1.02	--
220	4	0.13	--	--	--	--	1.04	--	--
234	4	0.00	--	--	--	--	1.02	--	--
235	4	-0.26	--	--	--	--	0.99	--	--
247	4	-0.15	--	--	--	--	1.00	--	--
254	2	1.39	--	--	--	--	1.21	--	--
265	3	-0.66	--	--	--	--	0.93	--	--
268	2	1.39	1.21	--	--	--	--	--	--
270	3	0.88	--	--	--	--	1.14	--	--
273	4	0.22	--	--	--	--	1.05	--	--
274	4	-0.44	--	--	--	--	--	--	0.96
277	1	1.68	--	--	--	--	1.25	--	--
279	0	-2.63	--	--	--	--	--	--	0.66
287	4	0.12	--	--	1.04	--	--	--	--
297	0	2.55	--	--	--	--	1.37	--	--
305	0	3.28	--	--	--	--	1.47	--	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



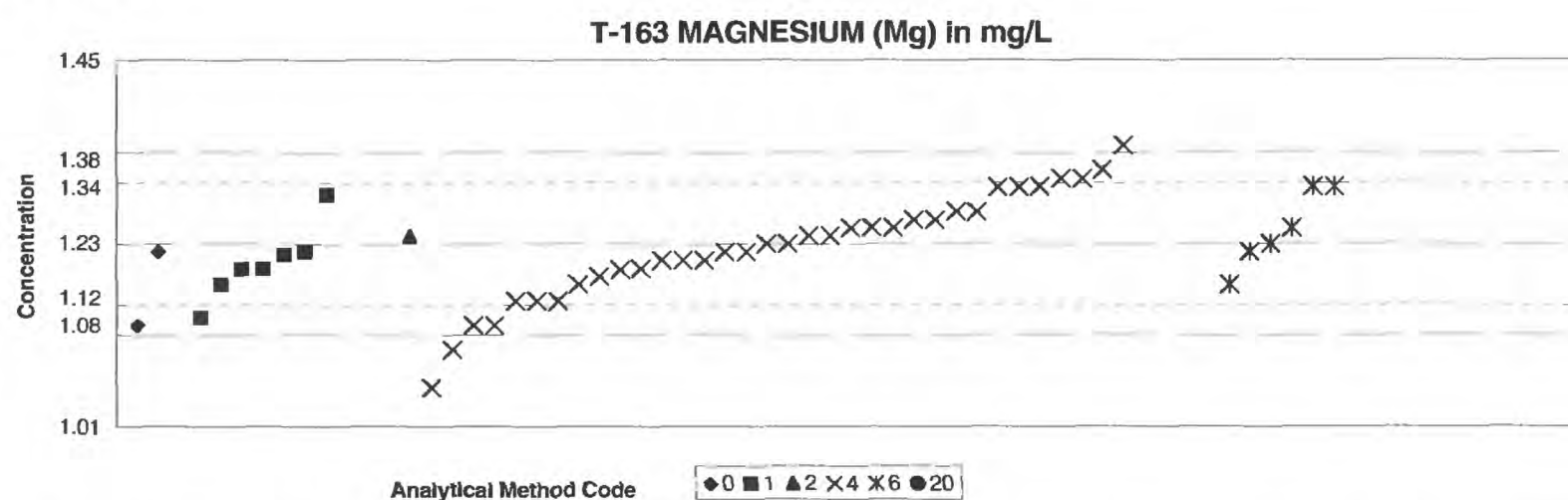
Summary	Methods				Statistics
	0	1	4	6	
N =	1	1	5	6	MPV = 1.60 $\mu\text{g/L}$
Minimum =	2.00	2.44	1.10	0.910	F-pseudosigma = 0.993
Maximum =			9.00	2.31	N = t3
Median =			5.05	1.13	Uh = 2.44
F-pseudosigma =			3.26	0.178	Lh = 1.10

Method Codes

0. Other
1. Atomic absorption: direct, air
4. Inductively coupled plasma
6. Inductively coupled plasma/mass spectrometry

Lab	Rsting	Z-value	Msthods			
			0	1	4	6
1	4	-0.41	--	--	--	1.19
25	0	7.45	--	--	9.00	--
32	3	-0.52	--	--	--	1.08
42	NR	--	--	--	<5	--
50	3	-0.64	--	--	--	0.96
57	4	0.00	--	--	1.60	--
69	NR	--	--	<50	--	--
105	NR	--	--	--	<26.0	--
109	3	0.85	--	2.44	--	--
127	NR	--	--	--	<10	--
134	4	-0.50	--	--	1.10	--
212	NR	--	--	--	--	<10
235	3	-0.69	--	--	--	0.91
247	3	0.71	--	--	--	2.31
256	4	0.40	2.00	--	--	--
257	NR	--	--	<25	--	--
265	4	-0.40	--	--	--	1.20
270	0	3.47	--	--	5.05	--
273	0	4.43	--	--	6.00	--
328	NR	--	--	--	--	<10
331	NR	--	--	--	<2	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

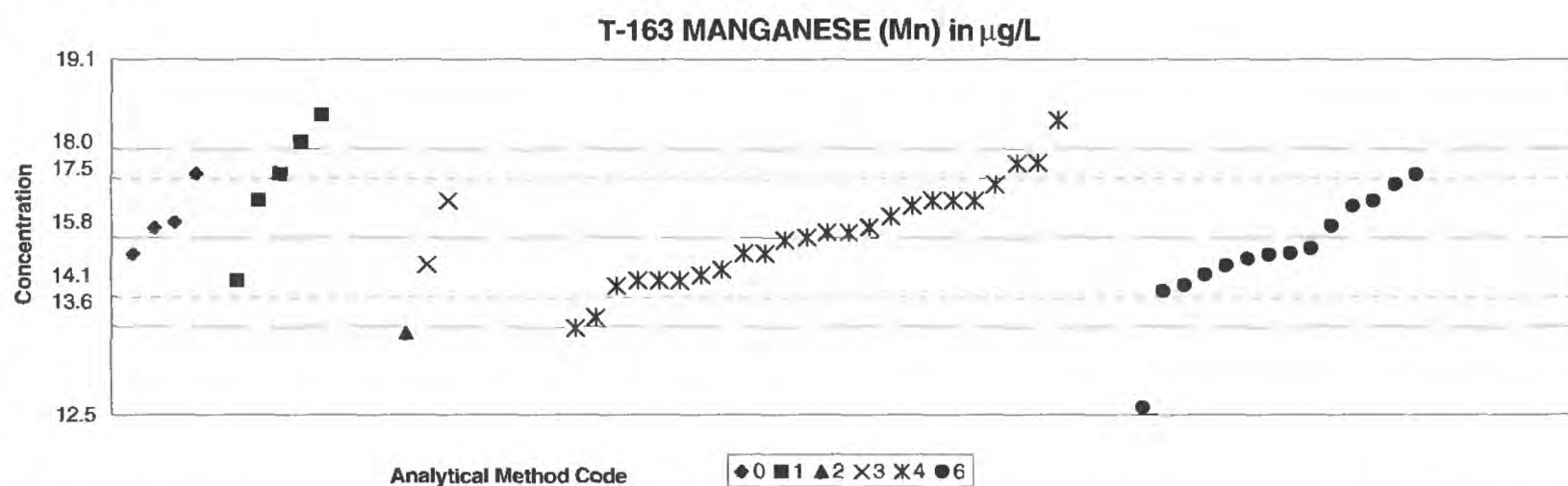


Summary	Methods						Statistics
	0	1	2	4	6	20	
N =	2	10	1	38	6	2	MPV = 1.23 mg/L
Minimum =	1.13	0.94	1.24	1.05	1.18	2.13	F-pseudosigma = 0.074
Maximum =	1.22	35.3		14.0	1.30	4.15	N = 59
Median =		1.21		1.24	1.24		Uh = 1.30
F-pseudosigma =		0.082		0.075	0.059		Lh = 1.20
Methods 0. Other 1. Atomic absorption: direct, air 2. Atomic absorption: direct, nitrous oxide 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry 20. Titration: colorimetric							

Lab	Rating	Z-value	Methods					
			0	1	2	4	6	20
1	3	0.54	--	--	--	1.27	--	--
12	2	1.21	--	--	--	1.32	--	--
13	3	0.94	--	--	--	1.30	--	--
23	3	-0.67	--	1.18	--	--	--	--
24	3	-0.67	--	--	--	1.18	--	--
25	0	-2.38	--	--	--	1.05	--	--
32	3	0.94	--	--	--	--	1.30	--
42	4	0.00	--	--	--	1.23	--	--
45	0	-3.89	--	0.94	--	--	--	--
48	4	-0.13	--	--	--	--	1.22	--
50	4	0.00	--	--	--	--	1.23	--
57	2	1.07	--	--	--	1.31	--	--
59	3	0.94	--	--	--	--	1.30	--
64	4	-0.27	--	--	--	1.21	--	--
69	NR	--	--	<2.0	--	--	--	--
70	4	0.40	--	--	--	1.26	--	--
76	4	0.26	--	--	--	--	1.25	--
81	4	0.00	--	--	--	1.23	--	--
86	3	0.54	--	--	--	1.27	--	--
87	2	-1.21	--	1.14	--	--	--	--
89	3	0.81	--	1.29	--	--	--	--
97	4	-0.40	--	1.20	--	--	--	--
105	4	-0.13	--	--	--	1.22	--	--
107	4	-0.13	--	1.22	--	--	--	--
109	0	3.62	--	1.50	--	--	--	--
110	3	0.93	--	--	--	1.30	--	--
113	4	-0.13	1.22	--	--	--	--	--
121	3	-0.94	--	--	--	1.16	--	--
127	1	1.61	--	--	--	1.35	--	--
134	4	-0.42	--	--	--	1.20	--	--
138	3	-0.54	--	--	--	1.19	--	--
140	4	-0.40	--	1.20	--	--	--	--
142	0	4.30	--	--	--	1.55	--	--
154	1	-1.74	--	--	--	1.10	--	--
180	0	73.83	--	--	--	6.73	--	--
193	4	0.13	--	--	--	1.24	--	--
198	2	-1.34	--	--	--	1.13	--	--
203	2	-1.34	--	--	--	1.13	--	--
204	4	0.27	--	--	--	1.25	--	--
212	3	-0.67	--	--	--	--	1.18	--
215	0	171.41	--	--	--	14.00	--	--
220	4	-0.27	--	--	--	1.21	--	--
234	4	0.27	--	--	--	1.25	--	--
235	3	-0.94	--	--	--	1.16	--	--
247	3	-0.94	--	--	--	1.16	--	--
254	4	0.13	--	--	--	1.24	--	--
255	4	-0.13	--	--	--	1.22	--	--
261	0	457.32	--	35.30	--	--	--	--
265	4	0.27	--	--	--	1.25	--	--
268	4	-0.19	--	1.22	--	--	--	--

Lab	Rating	Z-value	Methods					
			0	1	2	4	6	20
273	4	0.40	--	--	--	1.26	--	--
274	0	12.08	--	--	--	--	--	2.13
279	0	39.19	--	--	--	--	--	4.15
287	4	0.13	--	--	1.24	--	--	--
297	2	1.07	--	--	--	1.31	--	--
305	4	-0.27	--	--	--	1.21	--	--
309	2	-1.34	1.13	--	--	--	--	--
315	4	-0.40	--	--	--	1.20	--	--
328	3	0.94	--	--	--	1.30	--	--
331	0	3.76	--	--	--	1.51	--	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

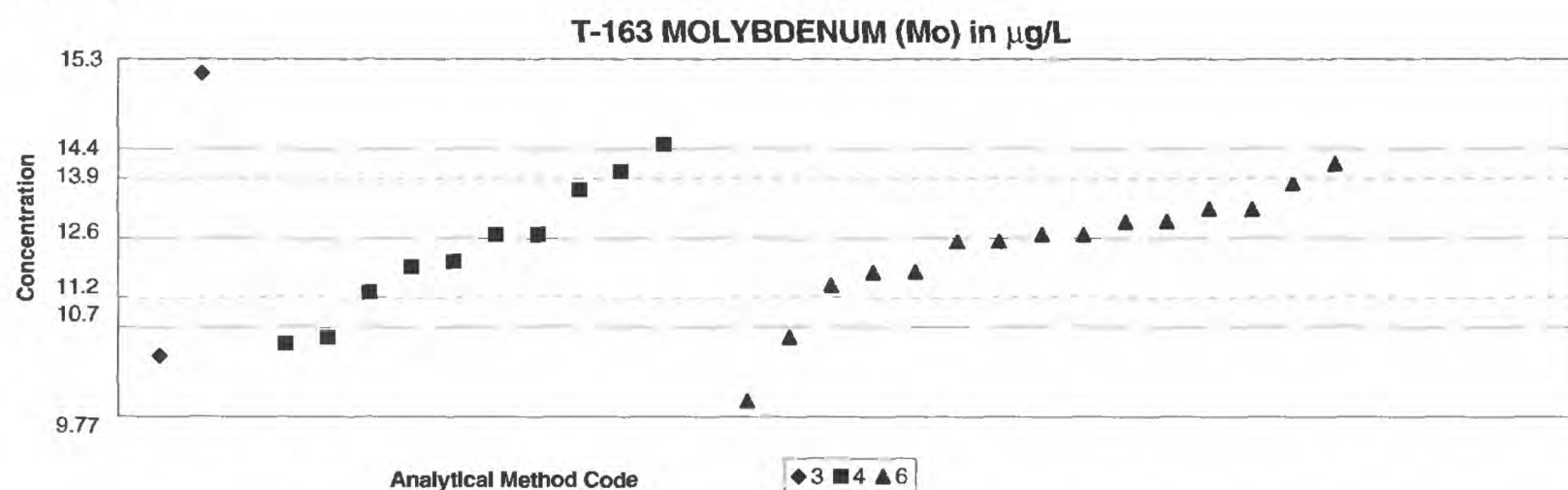


Summary	Methods						Statistics	
	0	1	2	3	4	6	Method Codes	
N =	4	6	1	4	28	14	0. Other	
Minimum =	15.5	4.50	14.0	15.3	0.014	12.6	1. Atomic absorption: direct, air	
Maximum =	17.0	18.1	72.8	21.0	17.0		2. Atomic absorption: direct, nitrous oxide	
Median =	16.8			15.8	15.5		3. Atomic absorption: graphite furnace	
F-pseudosigma =	1.93			1.11	0.964		4. Inductively coupled plasma	
							6. Inductively coupled plasma/mass spectrometry	
							MPV =	15.8 µg/L
							F-pseudosigma =	1.11
							N =	57
							Uh =	16.5
							Lh =	15.0

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	8
1	4	-0.28	--	--	--	--	--	15.5
10	1	1.62	--	17.6	--	--	--	--
13	2	1.26	--	--	--	--	17.2	--
18	4	0.21	--	--	--	--	--	16.0
23	3	-0.81	--	--	--	--	14.9	--
24	4	0.18	--	--	--	--	16.0	--
25	0	-3.69	--	--	--	--	11.7	--
32	3	0.63	--	--	--	--	--	16.5
42	4	-0.27	--	--	--	--	--	15.5
45	2	1.08	--	17.0	--	--	--	--
48	3	0.90	--	--	--	--	--	16.8
50	3	-0.90	--	--	--	--	--	14.8
57	3	-0.63	--	--	--	--	15.1	--
59	3	-0.63	--	--	--	--	--	15.1
69	NR	--	--	<20	--	--	--	--
70	2	1.08	--	--	--	--	--	17.0
81	3	-0.72	--	--	--	--	15.0	--
86	4	0.00	--	--	--	--	15.8	--
87	2	1.26	--	--	--	--	17.2	--
89	0	3.08	--	--	--	19.2	--	--
96	NR	--	--	<20.0	--	--	--	--
105	3	0.54	--	--	--	--	16.4	--
107	NR	--	--	<40	--	--	--	--
109	3	0.63	--	16.5	--	--	--	--
113	4	-0.27	15.5	--	--	--	--	--
118	3	0.63	--	--	--	16.5	--	--
121	3	-0.72	--	--	--	--	15.0	--
127	2	-1.35	--	--	--	--	14.3	--
134	4	-0.04	--	--	--	--	15.8	--
138	3	-0.54	--	--	--	--	15.2	--
140	3	-0.72	--	15.0	--	--	--	--
142	NR	--	--	--	--	--	<10	--
147	4	0.27	16.1	--	--	--	--	--
154	4	-0.27	--	--	--	--	15.5	--
180	NR	--	--	--	--	--	<0.94	--
190	4	-0.45	--	--	--	15.3	--	--
198	3	-0.81	--	--	--	--	--	14.9
203	0	-6.12	--	--	--	--	9.0	--
204	4	-0.18	--	--	--	--	--	15.6
212	3	0.54	--	--	--	--	--	16.4
215	1	1.98	--	--	--	--	18.0	--
234	4	0.09	--	--	--	--	15.9	--
235	4	-0.48	--	--	--	--	--	15.3
247	0	-2.88	--	--	--	--	--	12.6
254	4	0.09	--	--	--	--	15.9	--
255	3	0.63	--	--	--	--	16.5	--
256	2	1.08	17.0	--	--	--	--	--
265	3	0.63	--	--	--	--	16.5	--
270	3	0.90	--	--	--	--	16.8	--
273	3	0.63	--	--	--	--	16.5	--

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
274	0	51.28	--	--	--	72.8	--	--
277	1	-1.53	--	--	--	--	14.1	--
287	1	-1.62	--	--	14.0	--	--	--
297	4	0.36	--	--	--	--	16.2	--
304	4	0.18	16.0	--	--	--	--	--
305	4	-0.27	--	--	--	--	15.5	--
307	0	-10.16	--	4.5	--	--	--	--
315	0	-14.20	--	--	--	--	0.0	--
324	0	2.07	--	18.1	--	--	--	--
328	0	4.68	--	--	--	--	21.0	--
331	3	-0.72	--	--	--	--	15.0	--
334	4	-0.36	--	--	--	--	--	15.4

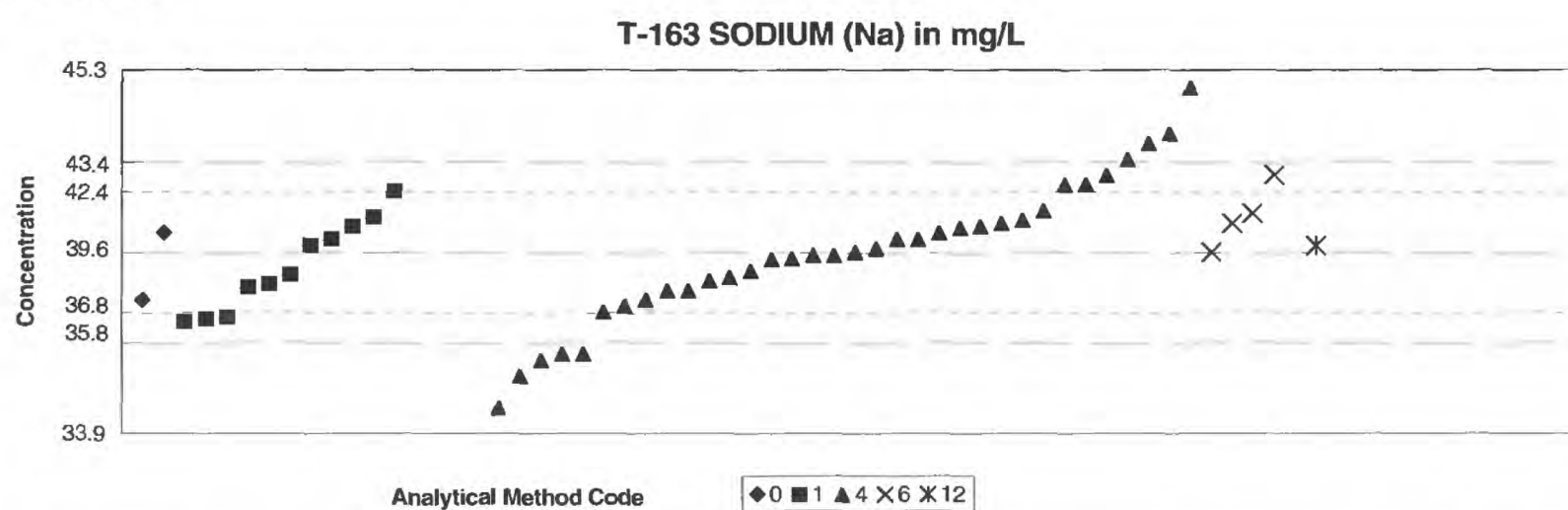
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods			Statistics
	3	4	6	
N =	2	11	15	MPV = 12.6 $\mu\text{g/L}$
Minimum =	10.7	9.50	10.0	F-pseudosigma = 0.926
Maximum =	15.1	14.0	13.7	N = 28
Median =		12.2	12.6	Uh = 13.0
F-pseudosigma =		1.19	0.662	Lh = 11.8

Lab	Rating	Z-value	Methods		
			3	4	6
1	4	0.48	--	--	13.0
18	3	-0.58	--	--	12.0
23	3	0.81	--	13.3	--
32	4	0.05	--	--	12.6
42	3	-0.59	--	--	12.0
48	4	0.49	--	--	13.0
50	4	-0.05	--	--	12.5
57	1	-1.78	--	10.9	--
70	3	0.92	--	--	13.4
81	1	-1.67	--	11.0	--
87	0	-3.30	--	9.5	--
97	1	-2.00	10.7	--	--
105	2	1.24	--	--	13.7
121	1	-1.67	--	--	11.0
127	0	2.76	15.1	--	--
134	4	-0.39	--	12.2	--
138	4	0.05	--	12.6	--
142	4	0.05	--	--	12.6
154	4	-0.49	--	12.1	--
180	NR	--	--	<6.05	--
198	4	0.27	--	--	12.8
212	0	-2.76	--	--	10.0
234	3	-0.92	--	11.7	--
247	4	-0.05	--	--	12.5
265	4	0.27	--	--	12.8
273	2	1.13	--	13.6	--
305	4	0.05	--	12.6	--
328	3	-0.81	--	--	11.8
331	1	1.57	--	14.0	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

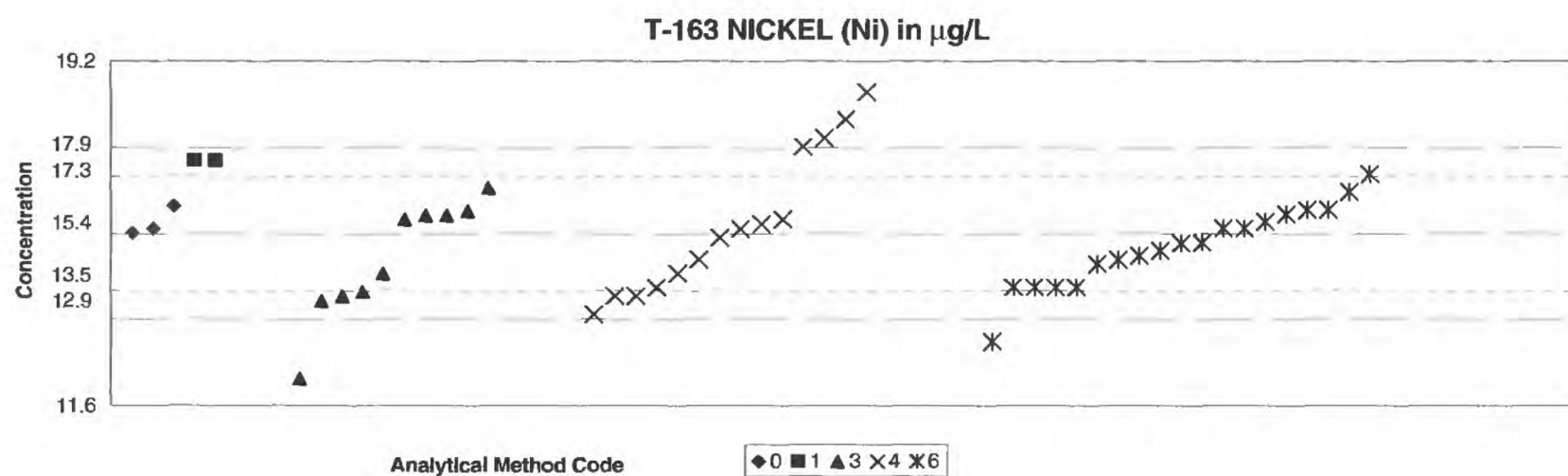


Summary	Methods					Statistics
	0	1	4	6	12	
N =	2	12	37	4	4	MPV = 39.6 mg/L
Minimum =	38.1	37.4	3.81	39.6	28.5	F-pseudosigma = 1.89
Maximum =	40.2	50.9	44.7	42.0	48.8	Rating criterion = 1.98
Median =		39.4	39.5			N = 59
F-pseudosigma =		1.86	1.93			Uh = 40.6
						Lh = 38.1

Lab	Rating	Z-value	Methods				
			0	1	4	6	12
1	2	1.07	--	--	41.7	--	--
12	4	-0.45	--	--	38.7	--	--
13	4	0.51	--	--	40.6	--	--
23	2	-1.11	--	37.4	--	--	--
24	4	-0.05	--	--	39.5	--	--
25	3	-0.86	--	--	37.9	--	--
32	2	1.21	--	--	--	42.0	--
42	4	-0.10	--	--	39.4	--	--
45	2	-1.04	--	37.6	--	--	--
48	4	0.45	--	--	--	40.5	--
50	3	0.61	--	--	--	40.8	--
57	0	-18.08	--	--	3.8	--	--
59	0	3.69	--	--	--	--	46.9
69	4	0.10	--	--	--	--	39.8
70	2	1.46	--	--	42.5	--	--
81	3	0.66	--	--	40.9	--	--
86	4	0.45	--	--	40.5	--	--
87	4	-0.51	--	38.6	--	--	--
89	3	-0.56	--	38.5	--	--	--
105	4	0.00	--	--	39.6	--	--
107	4	0.40	--	40.4	--	--	--
109	4	0.10	--	39.8	--	--	--
113	4	0.30	40.2	--	--	--	--
118	4	0.20	--	40.0	--	--	--
121	4	0.30	--	--	40.2	--	--
127	4	0.20	--	--	40.0	--	--
134	3	0.55	--	40.7	--	--	--
138	4	-0.30	--	--	39.0	--	--
140	2	-1.06	--	37.5	--	--	--
142	1	1.87	--	--	43.3	--	--
154	1	-1.62	--	--	36.4	--	--
180	0	2.58	--	--	44.7	--	--
193	4	-0.40	--	--	38.8	--	--
198	1	-1.62	--	--	36.4	--	--
203	4	0.38	--	--	40.4	--	--
204	2	1.06	--	--	41.7	--	--
212	4	0.00	--	--	--	39.6	--
215	2	1.21	--	--	42.0	--	--
220	3	-0.95	--	--	37.7	--	--
234	4	-0.05	--	--	39.5	--	--
235	3	-0.61	--	--	38.4	--	--
247	4	-0.12	--	--	39.4	--	--
254	4	0.40	--	--	40.4	--	--
265	4	0.05	--	--	39.7	--	--
268	4	-0.35	--	38.9	--	--	--
270	3	-0.76	--	--	38.1	--	--
273	4	0.20	--	--	40.0	--	--
274	0	4.62	--	--	--	--	48.8
277	0	-7.47	--	--	24.8	--	--
279	0	-5.63	--	--	--	--	28.5

Lab	Rating	Z-value	0	1	4	6	12
287	3	-0.77	38.1	--	--	--	--
297	1	-1.72	--	--	36.2	--	--
305	0	-2.88	--	--	33.9	--	--
306	0	5.71	--	50.9	--	--	--
307	3	0.96	--	41.5	--	--	--
309	1	-1.97	--	--	35.7	--	--
315	3	-0.61	--	--	38.4	--	--
328	1	1.72	--	--	43.0	--	--
331	0	-2.47	--	--	34.7	--	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

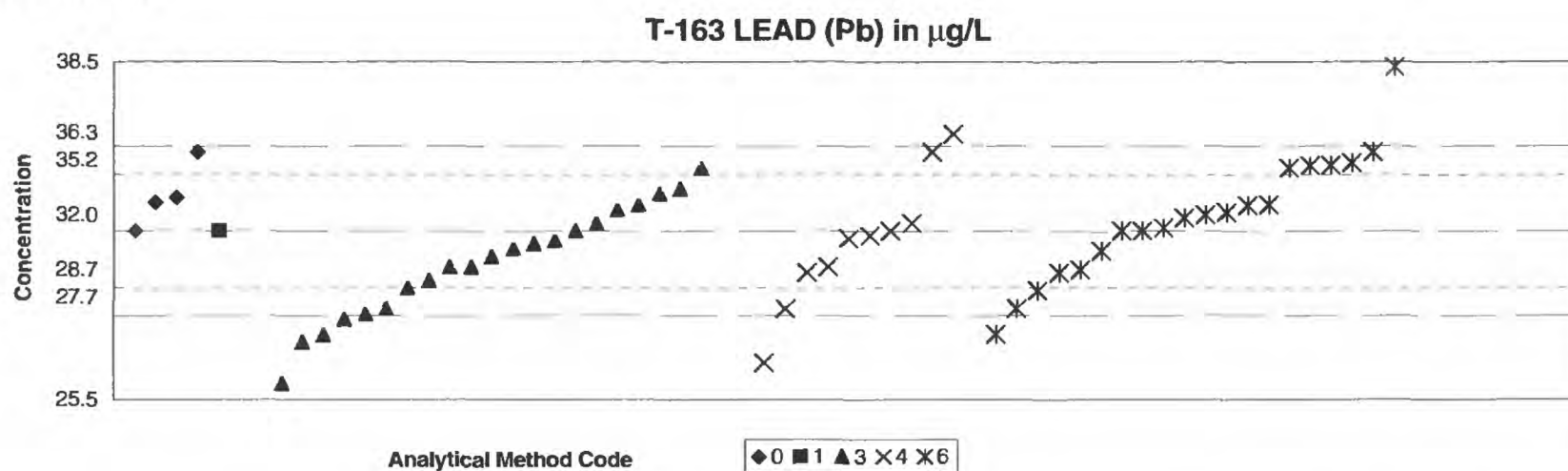


Summary	Methods					Statistics
	0	1	3	4	6	
N =	3	3	12	18	19	MPV = 15.4 $\mu\text{g/L}$
Minimum =	15.4	17.0	11.5	6.00	13.0	F-pseudsigma = 1.26
Maximum =	16.0	22.0	29.0	30.3	16.7	N = 55
Median =			15.1	15.1	15.2	Uh = 15.9
F-pseudsigma =			1.41	2.45	0.945	Lh = 14.2
Method Codes						
0. Other						
1. Atomic absorption: direct, air						
3. Atomic absorption: graphite furnace						
4. Inductively coupled plasma						
6. Inductively coupled plasma/mass spectrometry						

Lab	Rating	Z-value	Methods				
			0	1	3	4	6
1	4	0.24	--	--	15.7	--	--
13	NR	--	--	--	--	<20	--
18	4	0.20	--	--	--	--	15.7
23	3	-0.71	--	--	--	14.5	--
25	0	-4.29	--	--	--	10.0	--
32	3	-0.56	--	--	--	--	14.7
42	4	0.08	--	--	--	--	15.5
45	0	5.24	--	22.0	--	--	--
48	4	-0.32	--	--	--	--	15.0
50	4	-0.40	--	--	--	--	14.9
57	4	0.16	--	--	--	15.6	--
59	3	-0.95	--	--	--	--	14.2
69	NR	--	--	<50	--	--	--
70	4	0.40	--	--	--	--	15.9
76	4	-0.17	--	--	--	--	15.2
81	0	-7.46	--	--	--	6.0	--
86	2	1.51	--	--	--	17.3	--
87	0	-3.97	--	--	--	10.4	--
89	3	-0.71	--	--	14.5	--	--
96	2	-1.03	--	--	14.1	--	--
97	4	0.32	--	--	15.8	--	--
105	4	0.40	--	--	--	--	15.9
107	3	-0.95	--	--	--	--	14.2
113	4	0.08	15.5	--	--	--	--
118	4	0.40	--	--	15.9	--	--
121	2	-1.11	--	--	--	14.0	--
127	2	-1.19	--	--	13.9	--	--
134	4	0.07	--	--	--	15.5	--
138	1	1.67	--	--	--	17.5	--
140	2	1.27	--	17.0	--	--	--
142	4	-0.48	--	--	--	14.8	--
144	0	-2.54	--	--	12.2	--	--
154	4	-0.08	--	--	--	15.3	--
180	NR	--	--	--	--	<15.6	--
190	4	0.32	--	--	15.8	--	--
193	3	0.79	--	--	16.4	--	--
198	3	-0.95	--	--	--	--	14.2
203	NR	--	--	--	--	<30	--
204	3	-0.95	--	--	--	--	14.2
212	3	0.71	--	--	--	--	16.3
215	0	10.79	--	--	29.0	--	--
234	4	0.24	--	--	--	15.7	--
235	4	-0.18	--	--	--	--	15.2
247	4	-0.48	--	--	--	--	14.8
254	NR	--	--	--	--	<15	--
255	2	1.03	--	--	--	--	16.7
256	4	0.48	16.0	--	--	--	--
257	2	1.27	--	17.0	--	--	--
265	4	0.08	--	--	--	--	15.5
270	0	11.82	--	--	--	30.3	--

Lab	Rating	Z-value	Methods				
			0	1	3	4	6
273	0	2.46	--	--	--	18.5	--
277	2	-1.43	--	--	--	13.6	--
297	1	1.98	--	--	--	17.9	--
304	4	0.00	15.4	--	--	--	--
305	3	-0.95	--	--	--	14.2	--
306	0	-3.13	--	--	11.5	--	--
307	2	-1.11	--	--	14.0	--	--
328	1	-1.90	--	--	--	--	13.0
331	2	-1.11	--	--	--	14.0	--
334	4	0.32	--	--	--	--	15.8

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

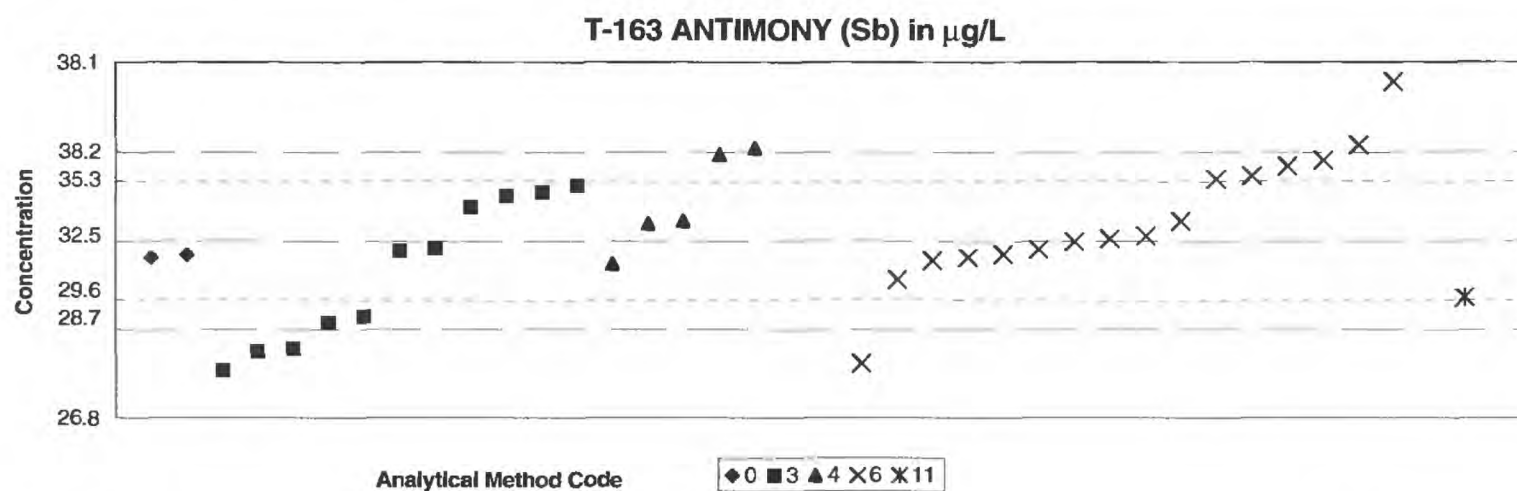


Summary	Methods					Statistics	
	0	1	3	4	6		
N =	4	2	23	11	20	MPV =	32.0 µg/L
Minimum =	32.0	32.0	15.0	19.6	28.0	F-pseudosigma =	2.17
Maximum =	35.0	47.5	48.7	35.7	38.3	N =	60
Median =			31.0	31.7	32.6	Uh =	33.2
F-pseudosigma =			2.71	1.82	2.65	Lh =	30.3
Method Codes: 0. Other 1. Atomic absorption: direct, air 3. Atomic absorption: graphite furnace 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry							

Lab	Rating	Z-value	Methods				
			0	1	3	4	6
1	4	0.32	--	--	--	--	32.7
10	2	-1.38	--	--	29.0	--	--
12	4	0.14	--	--	32.3	--	--
13	3	-0.65	--	--	30.6	--	--
18	2	1.15	--	--	--	--	34.5
23	3	-0.65	--	--	--	30.6	--
25	0	-2.35	--	--	--	26.9	--
32	4	0.05	--	--	--	--	32.1
42	4	0.28	--	--	--	--	32.6
45	3	0.74	--	--	33.6	--	--
48	4	0.46	--	--	--	--	33.0
50	2	-1.06	--	--	--	--	29.7
57	3	-0.74	--	--	--	30.4	--
59	2	1.15	--	--	--	--	34.5
69	4	0.37	--	--	32.8	--	--
81	1	-1.84	--	--	28.0	--	--
86	4	0.00	--	--	32.0	--	--
87	2	1.38	--	--	--	35.0	--
89	0	-2.72	--	--	26.1	--	--
96	3	0.65	--	--	33.4	--	--
97	4	-0.46	--	--	31.0	--	--
105	2	1.11	--	--	--	--	34.4
107	2	1.38	--	--	--	--	35.0
113	4	0.46	--	--	33.0	--	--
118	3	-0.65	--	--	30.6	--	--
121	4	0.00	--	--	--	--	32.0
127	4	-0.18	--	--	31.6	--	--
134	4	0.00	--	--	--	32.0	--
138	4	0.14	--	--	--	32.3	--
140	4	0.00	--	32.0	--	--	--
142	3	-0.74	--	--	--	--	30.4
144	2	1.11	--	--	34.4	--	--
147	4	0.51	33.1	--	--	--	--
154	2	-1.46	--	--	28.8	--	--
180	NR	--	--	--	--	<28.5	--
190	4	-0.32	--	--	31.3	--	--
193	4	-0.23	--	--	31.5	--	--
198	3	-0.69	--	--	--	--	30.5
203	2	-1.01	--	--	29.8	--	--
204	0	2.91	--	--	--	--	38.3
212	2	-1.38	--	--	--	--	29.0
215	0	-7.84	--	--	15.0	--	--
220	1	-1.98	--	--	27.7	--	--
234	4	-0.14	--	--	--	31.7	--
235	4	-0.35	--	--	--	--	31.2
247	4	0.46	--	--	--	--	33.0
255	2	1.20	--	--	--	--	34.6
256	2	1.38	35.0	--	--	--	--
257	0	7.15	--	47.5	--	--	--
265	4	0.00	--	--	--	--	32.0

Lab	Rating	Z-value	Methods				
			0	1	3	4	6
273	0	-5.72	--	--	--	19.6	--
274	0	7.68	--	--	48.7	--	--
277	3	0.60	33.3	--	--	--	--
287	3	-0.85	--	--	30.2	--	--
297	4	-0.09	--	--	--	31.8	--
304	4	0.00	32.0	--	--	--	--
305	1	1.71	--	--	--	35.7	--
307	1	-1.57	--	--	28.6	--	--
328	1	-1.84	--	--	--	--	28.0
331	2	-1.38	--	--	--	29.0	--
334	4	0.23	--	--	--	--	32.5

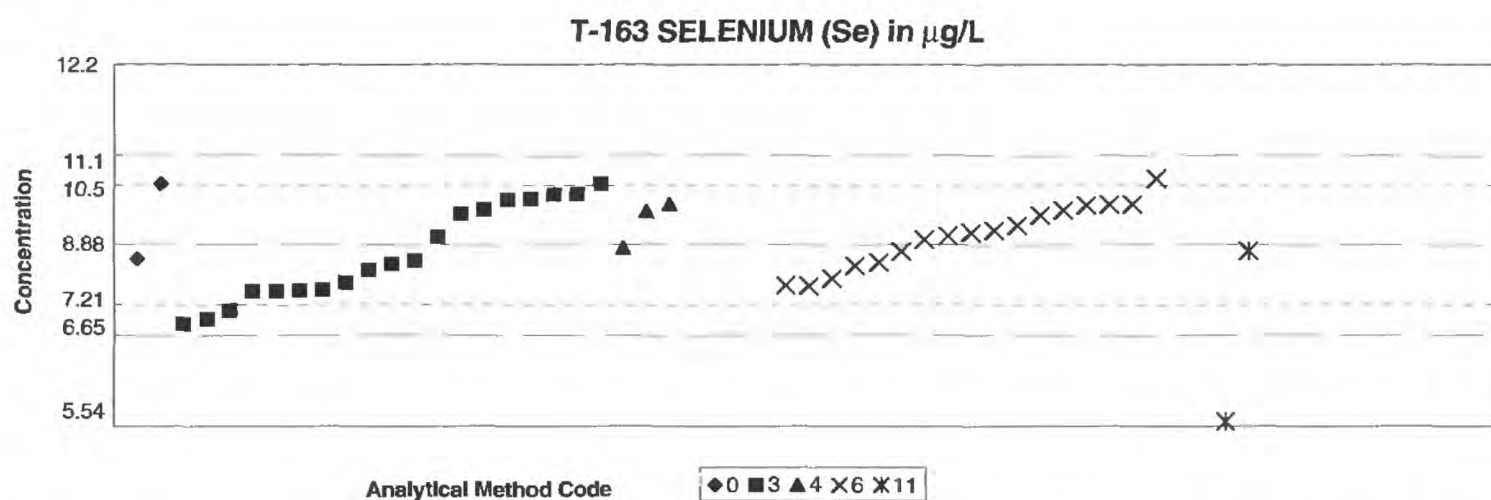
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary		Methods					Statistics	
		0	3	4	6	11	Method Codes	
N =	2	11	5	17	1		MPV = 32.5 µg/L	
Minimum =	31.9	28.3	31.7	28.5	30.6		F-pseudosigma = 1.89	
Maximum =	32.0	34.2	35.4	38.5			N = 36	
Median =		32.1	33.1	32.6			Uh = 34.3	
F-pseudosigma =		3.18	1.63	2.08			Lh = 31.8	
		0. Other 3. Atomic absorption: graphite furnace 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry 11. Atomic absorption: hydride						

Lab	Rating	Z-value	Methods				
			0	3	4	6	11
1	4	-0.16	--	--	--	32.1	--
13	4	-0.19	--	32.1	--	--	--
18	0	2.67	--	--	--	37.5	--
23	1	1.56	--	--	35.4	--	--
25	NR	--	--	--	<60	--	--
32	2	1.08	--	--	--	34.5	--
42	4	-0.29	--	--	--	31.9	--
45	3	0.82	--	34.0	--	--	--
48	2	1.35	--	--	--	35.0	--
50	4	-0.34	--	--	--	31.8	--
57	4	-0.40	--	--	31.7	--	--
59	1	1.61	--	--	--	35.5	--
69	0	-2.20	--	28.3	--	--	--
70	2	1.24	--	--	--	34.8	--
76	4	0.32	--	--	--	33.1	--
81	2	-1.30	--	30.0	--	--	--
89	1	-1.88	--	28.9	--	--	--
96	4	-0.13	--	32.2	--	--	--
105	4	0.08	--	--	--	32.6	--
113	4	-0.29	31.9	--	--	--	--
127	2	-1.40	--	29.8	--	--	--
134	3	0.76	--	33.9	--	--	--
138	4	0.34	--	--	33.1	--	--
142	0	3.20	--	--	--	38.5	--
154	3	0.93	--	34.2	--	--	--
180	NR	--	--	--	<26.6	--	--
193	1	-1.83	--	29.0	--	--	--
196	3	-0.66	--	--	--	31.2	--
204	4	-0.03	--	--	--	32.4	--
212	0	-2.09	--	--	--	28.5	--
234	3	0.56	--	33.5	--	--	--
247	4	-0.24	--	--	--	32.0	--
257	3	-0.96	--	--	--	--	30.6
265	4	0.03	--	--	--	32.5	--
297	2	1.45	--	--	35.2	--	--
304	4	-0.24	32.0	--	--	--	--
326	2	1.03	--	--	--	34.4	--
331	4	0.29	--	--	33.0	--	--

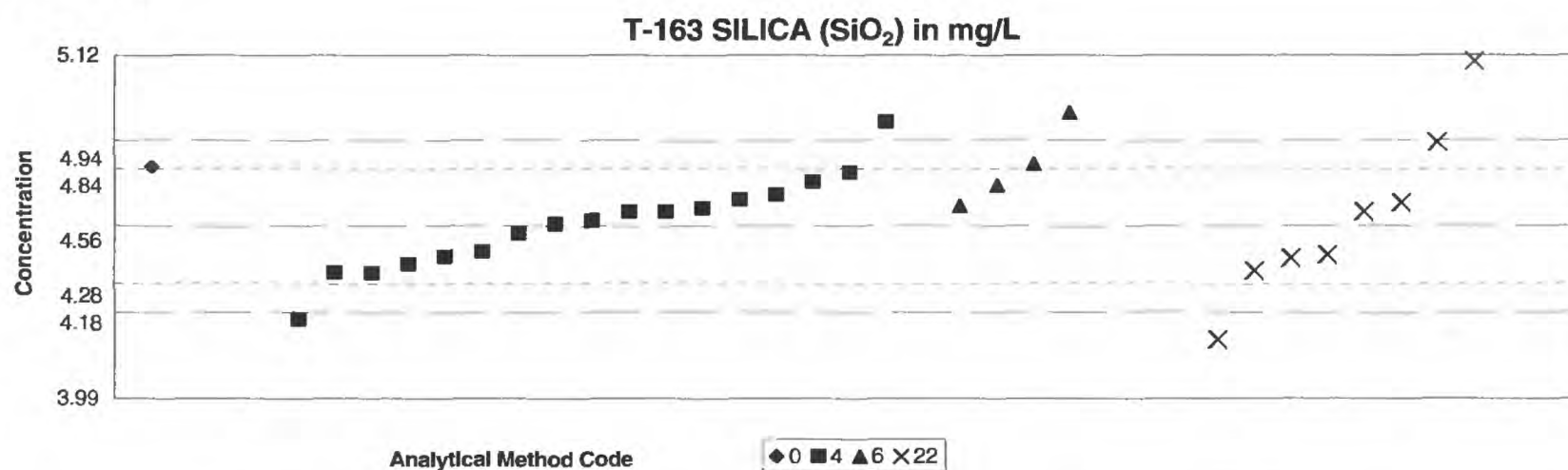
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods					Statistics
	0	3	4	6	11	Method Codes
N =	2	19	4	17	4	0. Other
Minimum =	8.60	7.40	8.80	8.10	0.320	3. Atomic absorption: graphite furnace
Maximum =	10.0	10.0	13.0	10.1	8.74	4. Inductively coupled plasma
Median =		8.50		9.09		6. Inductively coupled plasma/mass spectrometry
F-pseudosigma =		1.19		0.719		11. Atomic absorption: hydride
						MPV = 8.88 µg/L
						F-pseudosigma = 1.11
						N = 46
						Uh = 9.60
						Lh = 8.10

Lab	Rating	Z-value	Methods				
			0	3	4	6	11
t	4	0.19	--	--	--	9.09	--
10	4	0.11	--	9.00	--	--	--
12	2	-1.33	--	7.40	--	--	--
13	3	0.83	--	9.80	--	--	--
t8	4	0.30	--	--	--	9.21	--
23	4	-0.07	--	--	8.80	--	--
25	NR	--	--	--	<11	--	--
42	4	-0.31	--	--	--	8.53	--
48	3	-0.70	--	--	--	8.10	--
50	4	-0.13	--	--	--	8.73	--
57	0	3.71	--	--	13.00	--	--
59	3	0.65	--	--	--	9.60	--
69	3	-0.79	--	8.00	--	--	--
70	4	0.07	--	--	--	8.95	--
81	3	-0.79	--	8.00	--	--	--
86	4	-0.12	--	--	--	--	8.74
87	0	-6.09	--	--	--	--	2.10
89	0	-2.93	--	--	--	--	5.62
96	3	-0.76	--	8.03	--	--	--
105	4	0.47	--	--	--	9.40	--
107	2	1.10	--	--	--	10.10	--
113	4	-0.27	--	8.57	--	--	--
t18	2	-1.10	--	7.65	--	--	--
t27	3	0.75	--	9.71	--	--	--
134	2	1.01	--	10.00	--	--	--
138	3	0.68	--	--	9.63	--	--
142	3	0.68	--	--	--	9.63	--
144	2	-1.24	--	7.50	--	--	--
154	3	0.83	--	9.80	--	--	--
180	NR	--	--	--	<65.2	--	--
190	3	-0.64	--	8.16	--	--	--
193	3	0.74	--	9.70	--	--	--
198	4	0.23	--	--	--	9.13	--
203	4	-0.43	--	8.40	--	--	--
204	3	-0.57	--	--	--	8.24	--
212	3	-0.70	--	--	--	8.10	--
215	4	-0.34	--	8.50	--	--	--
220	3	0.58	--	9.52	--	--	--
234	4	0.51	--	9.44	--	--	--
247	4	-0.36	--	--	--	8.47	--
255	4	0.13	--	--	--	9.02	--
256	2	1.01	10.00	--	--	--	--
257	0	-7.69	--	--	--	--	0.32
265	3	0.56	--	--	--	9.50	--
297	3	0.55	--	--	9.49	--	--
304	4	-0.25	8.60	--	--	--	--
307	3	-0.77	--	8.02	--	--	--
328	3	0.65	--	--	--	9.60	--
331	NR	--	--	--	<40	--	--

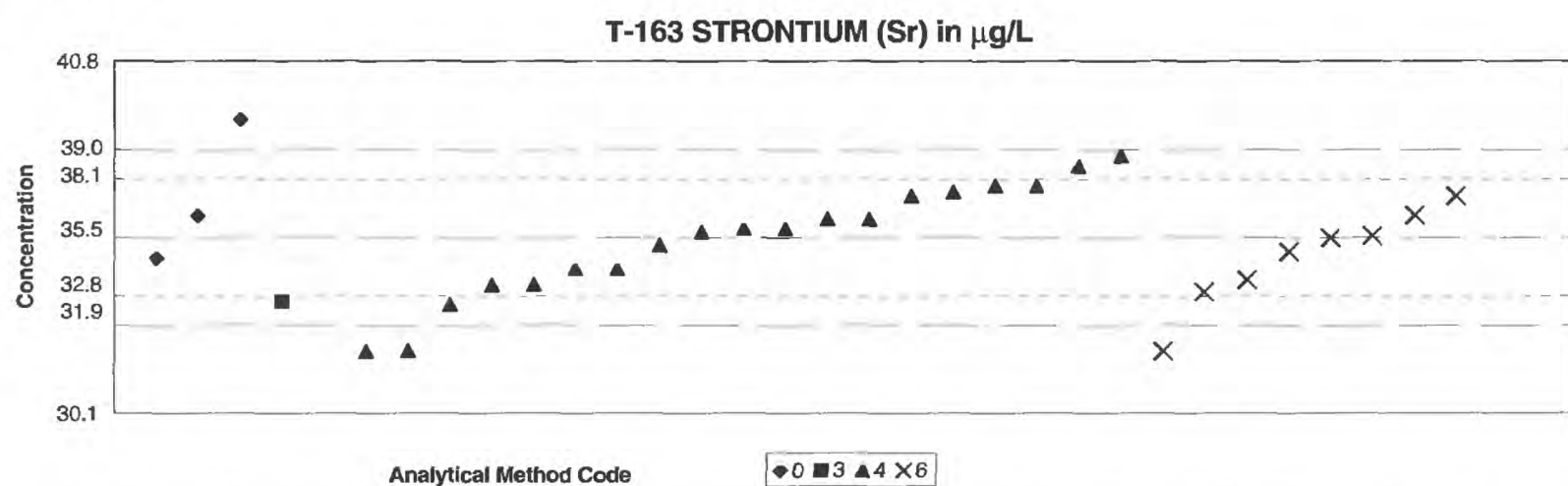
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary					Methods		Statistics	
	0	4	6	22	Method Codes			
N =	1	20	5	11	0. Other		MPV =	4.56 mg/L
Minimum =	4.75	1.88	2.15	2.23	4. Inductively coupled plasma		F-pseudosigma =	0.188
Maximum =		4.90	4.93	5.10	6. Inductively coupled plasma/mass spectrometry		Rating criterion =	0.228
Median =		4.55	4.69	4.45	22. Colorimetric		N =	37
F-pseudosigma =		0.167	0.103	0.445			Uh =	4.65
							Lh =	4.40

Lab	Rating	Z-value	Methods			
			0	4	6	22
1	4	0.41	--	4.65	--	--
13	3	-0.70	--	4.40	--	--
24	3	0.75	--	4.73	--	--
25	0	-11.75	--	1.88	--	--
32	1	1.62	--	--	4.93	--
42	0	-2.98	--	3.88	--	--
50	4	0.26	--	--	4.62	--
57	2	-1.36	--	4.25	--	--
64	3	-0.57	--	4.43	--	--
70	2	1.18	--	--	--	4.83
87	4	-0.48	--	--	--	4.45
89	4	0.18	--	--	--	4.60
97	3	-0.66	--	--	--	4.41
105	4	-0.39	--	4.47	--	--
110	3	0.87	--	--	4.76	--
118	0	-10.22	--	--	--	2.23
121	4	0.04	--	4.57	--	--
127	4	0.35	--	4.64	--	--
134	4	-0.47	--	4.45	--	--
140	4	0.31	--	--	--	4.63
142	2	1.49	--	4.90	--	--
154	4	0.18	--	4.60	--	--
190	0	2.37	--	--	--	5.10
203	4	-0.44	--	--	--	4.46
212	0	-10.57	--	--	2.15	--
234	4	0.22	--	4.61	--	--
235	4	-0.13	--	4.53	--	--
247	1	-1.67	--	--	--	4.18
254	4	0.00	--	4.56	--	--
256	3	0.83	4.75	--	--	--
265	3	0.61	--	4.70	--	--
273	3	-0.70	--	4.40	--	--
274	0	-5.83	--	--	--	3.23
297	0	-3.11	--	--	--	3.85
309	0	-7.37	--	2.88	--	--
328	3	0.57	--	--	4.69	--
331	4	0.18	--	4.60	--	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

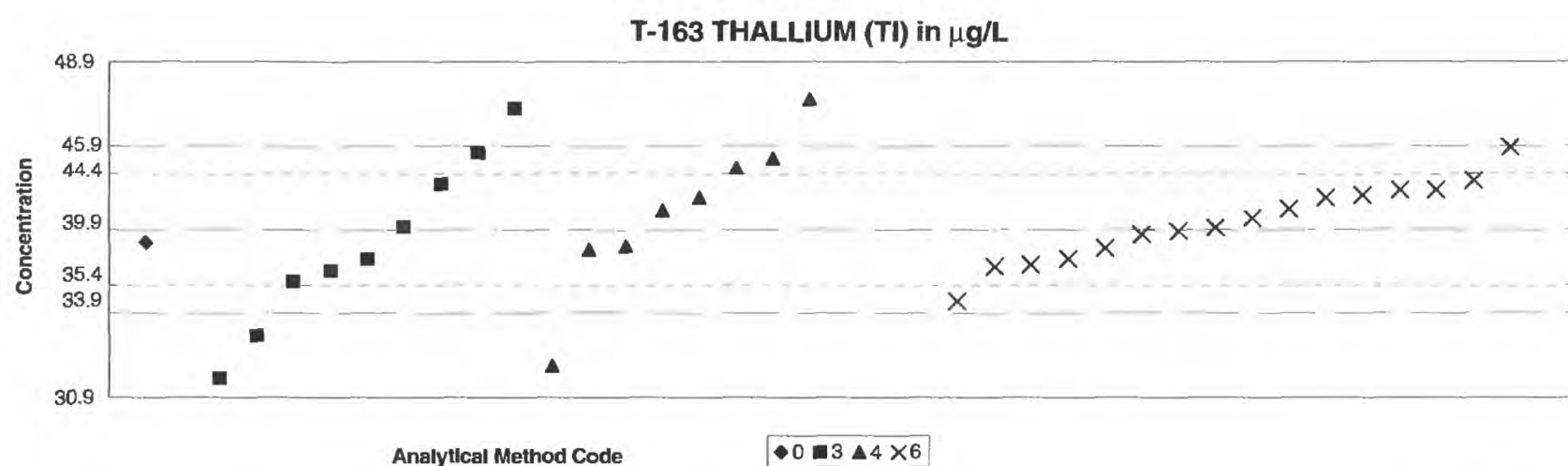


Summary	Methods				Statistics
	0	3	4	6	
N =	3	1	20	8	MPV = 35.5 µg/L
Minimum =	34.8	33.5	24.5	32.0	F-pseudosigma = 1.78
Maximum =	39.0		37.9	36.7	N = 32
Median =			35.7	35.2	Uh = 36.4
F-pseudosigma =			2.04	1.35	Lh = 34.0

Method Codes	
0.	Other
3.	Atomic absorption: graphite furnace
4.	Inductively coupled plasma
6.	Inductively coupled plasma/mass spectrometry

Lab	Rating	Z-value	Methods			
			0	3	4	6
1	3	-0.73	--	--	--	34.2
24	4	0.30	--	--	36.0	--
25	0	-6.16	--	--	24.5	--
32	4	-0.26	--	--	--	35.0
42	4	0.13	--	--	35.7	--
50	4	0.36	--	--	--	36.1
57	3	-0.54	--	--	34.5	--
76	4	-0.02	--	--	--	35.4
81	4	0.30	--	--	36.0	--
86	3	0.70	--	--	36.7	--
97	2	-1.10	--	33.5	--	--
105	3	-0.82	--	--	34.0	--
113	4	-0.37	34.8	--	--	--
121	1	-1.94	--	--	32.0	--
127	3	-0.54	--	--	34.5	--
134	4	-0.15	--	--	35.2	--
138	2	-1.16	--	--	33.4	--
142	3	0.87	--	--	37.0	--
154	4	0.08	--	--	35.6	--
212	3	-0.93	--	--	--	33.8
234	4	0.13	--	--	35.7	--
235	4	0.02	--	--	--	35.5
247	3	0.70	--	--	--	36.7
254	2	1.37	--	--	37.9	--
256	1	1.99	39.0	--	--	--
265	3	-0.82	--	--	34.0	--
270	3	0.76	--	--	36.8	--
273	2	1.20	--	--	37.6	--
304	4	0.36	36.1	--	--	--
309	1	-1.94	--	--	32.0	--
328	1	-1.94	--	--	--	32.0
331	3	0.87	--	--	37.0	--

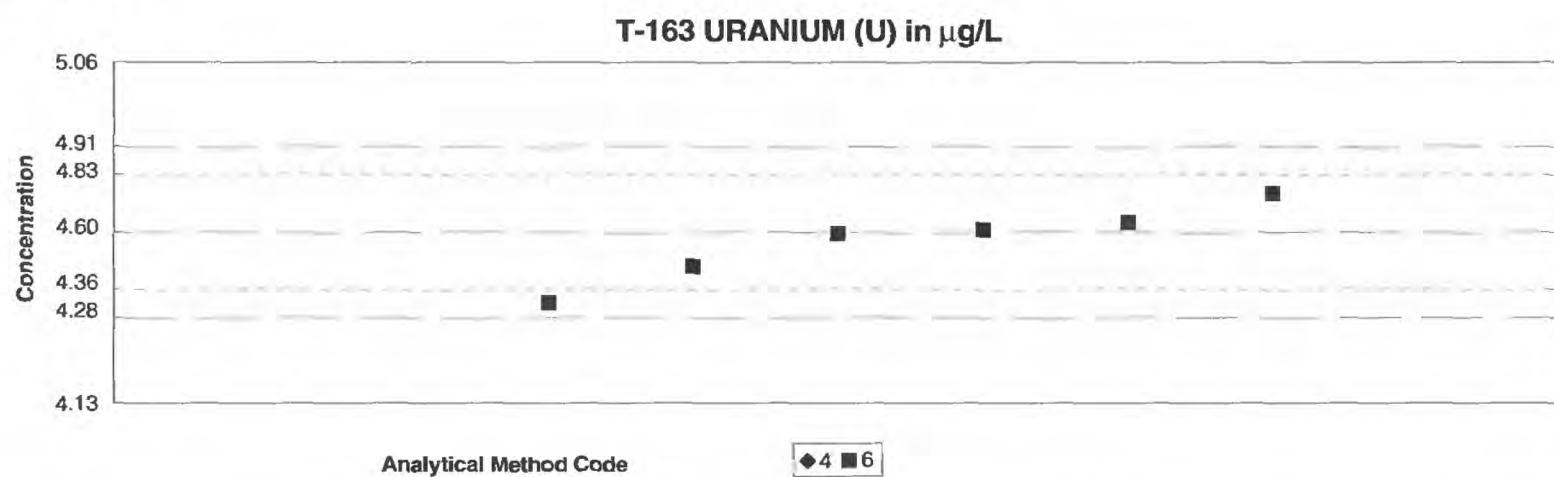
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods				Statistics	
	0	3	4	6	Method Codes	
N =	1	10	8	17	0. Other	MPV = 39.9 $\mu\text{g/L}$
Minimum =	39.2	16.0	32.6	7.6	3. Atomic absorption: graphite furnace	F-pseudosigma = 3.00
Maximum =		48.4	48.9	44.3	4. Inductively coupled plasma	N = 36
Median =		38.0	41.3	40.0	6. Inductively coupled plasma/mass spectrometry	Uh = 42.0
F-pseudosigma =		6.00	3.37	2.52		Lh = 38.0

Lab	RetInq	Z-value	Methods			
			0	3	4	6
1	4	-0.09	--	--	--	39.6
13	3	-0.93	--	37.1	--	--
18	3	0.87	--	--	--	42.5
23	4	-0.37	--	--	38.8	--
25	NR	--	--	--	<7.5	--
32	4	0.03	--	--	--	40.0
42	3	0.57	--	--	--	41.6
48	3	0.70	--	--	--	42.0
50	2	-1.30	--	--	--	36.0
57	3	0.57	--	--	41.6	--
59	2	1.47	--	--	--	44.3
69	3	0.80	--	42.3	--	--
76	4	0.36	--	--	--	41.0
81	2	1.37	--	44.0	--	--
86	0	-2.66	--	31.9	--	--
89	0	2.17	--	46.4	--	--
105	4	-0.03	--	--	--	39.8
113	3	-0.73	--	37.7	--	--
127	3	-0.53	--	38.3	--	--
134	4	0.05	--	40.0	--	--
138	2	1.27	--	--	43.7	--
142	4	0.20	--	--	--	40.5
154	1	-1.90	--	34.2	--	--
180	NR	--	--	--	<37.9	--
198	3	-0.67	--	--	--	37.9
204	0	-10.75	--	--	--	7.6
212	3	0.70	--	--	--	42.0
215	0	-7.96	--	16.0	--	--
234	0	2.33	--	--	46.9	--
235	3	-0.53	--	--	--	38.3
247	3	0.60	--	--	--	41.7
265	3	-0.63	--	--	--	38.0
270	0	-2.43	--	--	32.6	--
297	2	1.10	--	--	43.2	--
304	4	-0.23	39.2	--	--	--
305	4	0.33	--	--	40.9	--
328	4	-0.33	--	--	--	38.9
331	4	-0.30	--	--	39.0	--

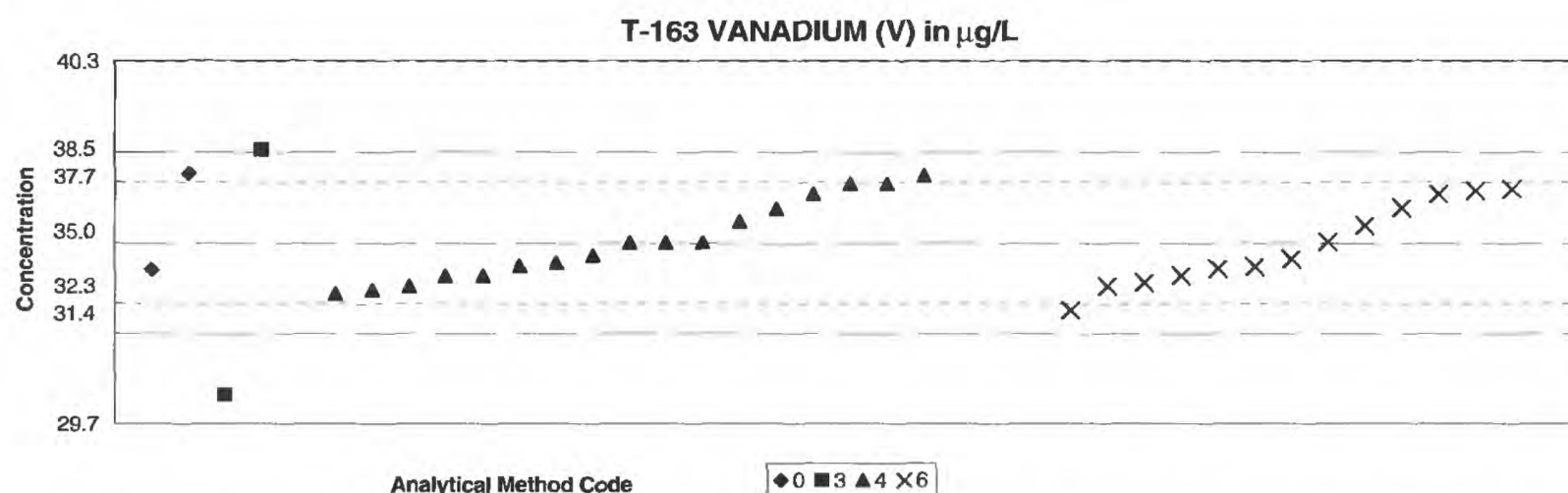
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued



Summary	Methods		Statistics
	4	6	
N =	0	8	MPV = 4.60 µg/L
Minimum =	<100	3.60	F-pseudosigma = 0.156
Maximum =		5.07	Rating criterion = 0.230
Median =		4.60	N = 8
F-pseudosigma =		0.156	Uh = 4.66
			Lh = 4.45

Lab	Rating	Z-value	Methods	
			4	6
1	4	-0.02	--	4.59
32	4	0.02	--	4.60
76	4	0.46	--	4.70
127	NR	--	<100	--
134	0	2.07	--	5.07
142	4	0.11	--	4.62
212	3	-0.85	--	4.40
265	4	-0.41	--	4.50
328	0	-4.33	--	3.60

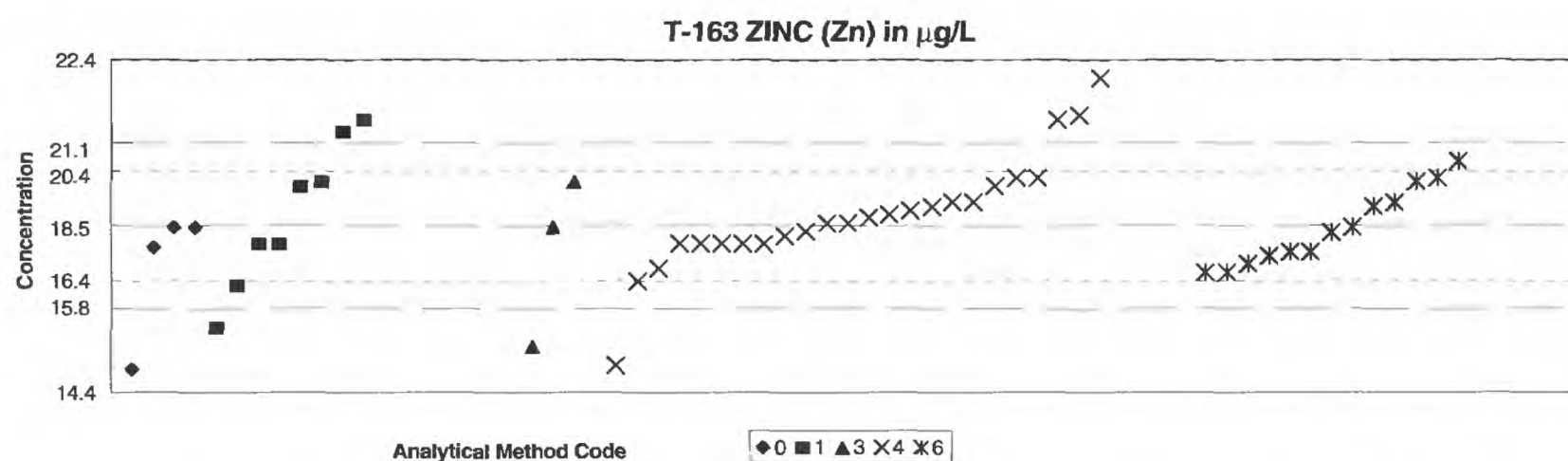
Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents -- Continued



Summary	Methods				Statistics
	0	3	4	6	
N =	2	2	18	13	
Minimum =	34.2	30.5	33.5	33.0	
Maximum =	37.0	37.7	42.0	36.5	
Median =			35.0	34.5	
F-pseudosigma =			1.78	1.48	
Method Codes 0. Other 3. Atomic absorption: graphite furnace 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry MPV = 35.0 $\mu\text{g/L}$ F-pseudosigma = 1.78 N = 35 Uh = 36.4 Lh = 34.0					

Lab	Rating	Z-value	Methods			
			0	3	4	6
1	4	-0.40	--	--	--	34.3
13	NR	--	--	--	<50	--
18	3	0.87	--	--	--	36.5
24	3	-0.56	--	--	34.0	--
25	3	0.79	--	--	36.4	--
32	3	0.57	--	--	--	36.0
42	4	-0.28	--	--	--	34.5
48	4	0.01	--	--	--	35.0
50	3	-0.73	--	--	--	33.7
57	3	-0.84	--	--	33.5	--
70	3	0.79	--	--	--	36.4
76	4	0.28	--	--	--	35.5
81	3	-0.56	--	--	34.0	--
86	3	0.96	--	--	36.7	--
89	1	1.52	--	37.7	--	--
96	NR	--	--	<40	--	--
97	0	-2.52	--	30.5	--	--
105	4	-0.39	--	--	34.3	--
121	2	-1.12	--	--	--	33.0
127	4	-0.33	--	--	34.4	--
134	4	0.00	--	--	35.0	--
138	3	-0.73	--	--	33.7	--
142	3	-0.56	--	--	--	34.0
154	4	-0.22	--	--	34.6	--
180	NR	--	--	--	<5.97	--
198	3	0.85	--	--	--	36.5
212	3	-0.67	--	--	--	33.8
220	3	0.55	--	--	36.0	--
234	4	0.01	--	--	35.0	--
235	3	-0.78	--	--	33.6	--
247	4	-0.44	--	--	--	34.2
256	2	1.13	37.0	--	--	--
265	2	1.13	--	--	37.0	--
297	3	0.96	--	--	36.7	--
304	4	-0.44	34.2	--	--	--
305	4	0.34	--	--	35.6	--
328	0	3.94	--	--	42.0	--
331	4	0.01	--	--	35.0	--

Table 11. Statistical summary of reported data for standard reference samples T-163 (trace constituents) -- Continued

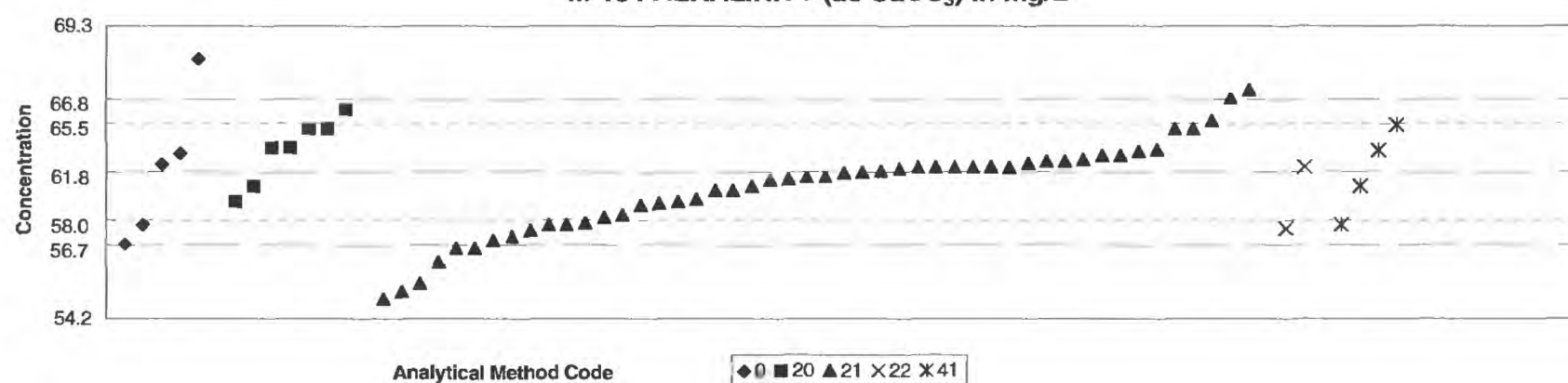


Summary	Methods						Statistics
	0	1	2	3	4	6	
N =	4	12	1	3	28	14	MPV = 18.5 µg/L
Minimum =	15.0	16.0	15.0	15.6	12.0	11.4	F-pseudosigma = 1.33
Maximum =	18.4	55.5		19.5	25.0	20.0	N = 62
Median =		20.1			18.7	18.0	Uh = 19.6
F-pseudosigma =		4.45			1.19	1.11	Lh = 17.8
Method Codes: 0. Other 1. Atomic absorption: direct, air 2. Atomic absorption: direct, nitrous oxide 3. Atomic absorption: graphite furnace 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry							

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
1	4	-0.13	--	--	--	--	--	18.3
10	3	0.79	--	19.5	--	--	--	--
12	3	0.79	--	--	--	19.5	--	--
13	4	0.19	--	--	--	--	18.7	--
18	3	-0.85	--	--	--	--	--	17.3
23	4	0.04	--	--	--	--	18.5	--
24	4	-0.34	--	--	--	--	18.0	--
25	0	4.91	--	--	--	--	25.0	--
32	3	-0.86	--	--	--	--	--	17.3
42	3	-0.71	--	--	--	--	--	17.5
45	4	-0.34	--	18.0	--	--	--	--
48	4	0.41	--	--	--	--	--	19.0
50	3	-0.56	--	--	--	--	--	17.7
57	0	3.93	--	--	--	--	23.7	--
59	3	0.86	--	--	--	--	--	19.6
69	NR	--	--	<50	--	--	--	--
70	2	1.16	--	--	--	--	--	20.0
81	4	0.41	--	--	--	--	19.0	--
86	4	0.34	--	--	--	--	18.9	--
87	3	0.86	--	--	--	--	19.6	--
89	4	-0.04	--	--	--	18.4	--	--
96	2	-1.09	--	17.0	--	--	--	--
105	4	-0.34	--	--	--	--	18.0	--
113	4	-0.04	18.4	--	--	--	--	--
118	1	-1.84	--	16.0	--	--	--	--
121	4	-0.34	--	--	--	--	18.0	--
127	4	0.26	--	--	--	--	18.8	--
134	4	0.13	--	--	--	--	18.6	--
138	4	-0.11	--	--	--	--	18.3	--
140	1	1.91	--	21.0	--	--	--	--
142	4	-0.04	--	--	--	--	--	18.4
144	4	-0.34	--	18.0	--	--	--	--
147	4	-0.04	18.4	--	--	--	--	--
154	0	-2.51	--	--	--	--	15.1	--
180	0	-4.83	--	--	--	--	12.0	--
190	3	0.71	--	19.4	--	--	--	--
193	0	4.91	--	25.0	--	--	--	--
198	4	-0.49	--	--	--	--	--	17.8
203	3	-0.79	--	--	--	--	17.4	--
204	4	-0.49	--	--	--	--	--	17.8
212	4	0.34	--	--	--	--	--	18.9
215	4	-0.34	--	--	--	--	18.0	--
234	3	0.86	--	--	--	--	--	19.6
235	3	0.79	--	--	--	--	--	19.5
247	0	-5.28	--	--	--	--	--	11.4
254	4	0.41	--	--	--	--	19.0	--
255	4	0.04	--	--	--	--	18.5	--
256	0	-2.59	15.0	--	--	--	--	--
257	0	23.64	--	50.0	--	--	--	--
261	0	27.77	--	55.5	--	--	--	--

Lab	Rating	Z-value	Methods					
			0	1	2	3	4	6
265	4	-0.34	--	--	--	--	18.0	--
270	0	3.36	--	--	--	--	22.9	--
273	1	1.99	--	--	--	--	21.1	--
274	0	-2.17	--	--	--	15.6	--	--
277	2	-1.01	--	--	--	--	17.1	--
287	0	-2.59	--	--	15.0	--	--	--
297	4	-0.19	--	--	--	--	18.2	--
304	4	-0.41	17.9	--	--	--	--	--
305	3	0.71	--	--	--	--	19.4	--
306	NR	--	--	<50	--	--	--	--
307	0	3.41	--	23.0	--	--	--	--
324	1	1.69	--	20.7	--	--	--	--
328	0	2.66	--	--	--	--	22.0	--
331	1	1.91	--	--	--	--	21.0	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents)

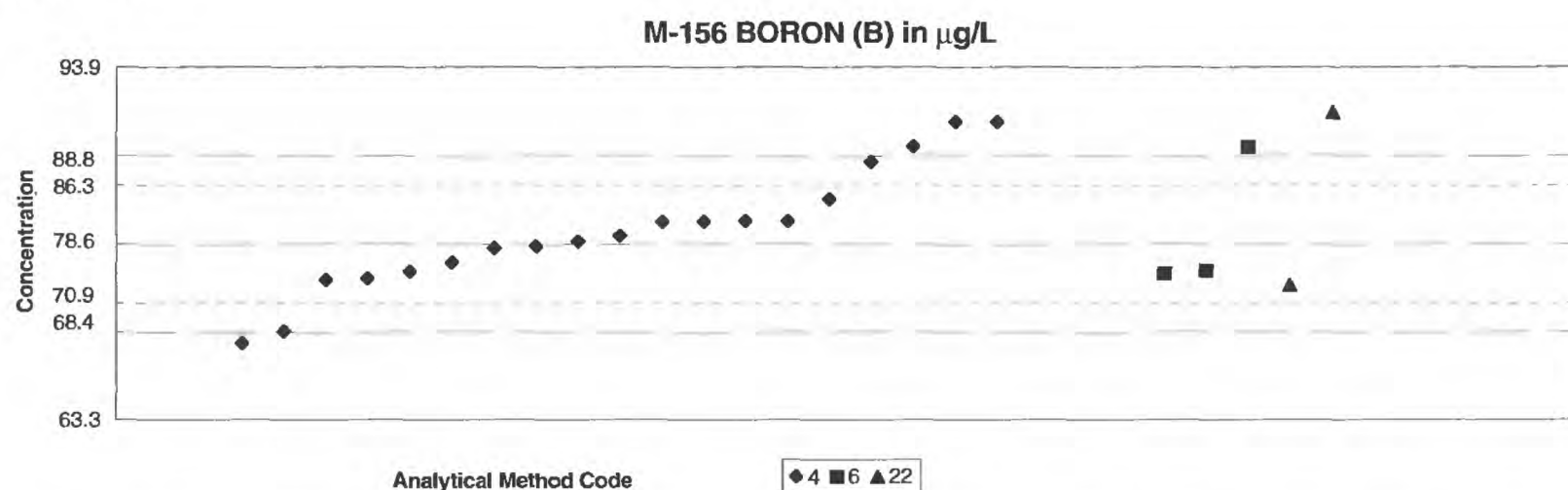
M-154 ALKALINITY (as CaCO₃) in mg/L

Summary	Methods					Statistics	
	0	20	21	22	41	Method Codes	
N =	5	9	49	3	4	0. Other	MPV = 61.8 mg/L
Minimum =	58.0	51.0	55.2	58.8	59.0	20. Titration: colorimetric	F-pseudsigma = 2.5
Maximum =	67.6	72.1	118.0	86.1	64.2	21. Titration: electrometric	Rating criterion = 3.1
Median =	62.1	63.0	61.5			22. Colorimetric	N = 70
F-pseudsigma =	2.7	2.2	2.1			41. Electrometric [pH and specific conductance]	Uh = 62.8
							Lh = 59.4

Lab	Rating	Z-value	Methods				
			0	20	21	22	41
1	4	0.36	--	--	--	--	62.9
10	4	-0.25	--	--	61.0	--	--
12	4	0.14	--	--	62.2	--	--
13	2	-1.15	--	--	58.2	--	--
18	3	-0.96	--	--	--	58.8	--
23	4	-0.31	--	--	60.8	--	--
24	4	0.17	--	--	62.3	--	--
25	2	1.37	--	--	66.0	--	--
38	4	-0.01	--	--	61.7	--	--
42	4	-0.25	--	--	--	--	61.0
45	4	0.21	--	--	62.4	--	--
48	4	0.08	--	--	--	62.0	--
50	3	-0.57	--	--	60.0	--	--
55	4	0.08	--	--	62.0	--	--
57	3	0.73	--	64.0	--	--	--
59	3	-0.99	--	--	58.7	--	--
69	2	-1.28	--	--	57.8	--	--
70	4	-0.31	--	--	60.8	--	--
81	4	-0.02	--	--	61.7	--	--
87	4	-0.51	--	--	60.2	--	--
89	4	0.37	--	--	62.9	--	--
93	4	0.12	62.1	--	--	--	--
96	3	-0.73	--	--	59.5	--	--
97	4	-0.15	--	--	61.3	--	--
105	4	-0.12	--	--	61.4	--	--
107	4	-0.47	--	--	60.3	--	--
109	2	1.24	--	--	65.6	--	--
113	4	0.01	--	--	61.8	--	--
114	4	0.34	--	--	62.8	--	--
118	4	-0.25	--	61.0	--	--	--
127	4	0.27	--	--	62.6	--	--
129	3	0.73	--	64.0	--	--	--
134	4	0.30	62.7	--	--	--	--
138	4	-0.08	--	--	61.5	--	--
142	4	0.08	--	--	62.0	--	--
154	3	0.73	--	--	64.0	--	--
155	3	-0.76	--	--	59.4	--	--
190	3	-0.89	--	--	--	--	59.0
193	4	0.27	--	--	62.6	--	--
203	2	-1.28	--	--	57.8	--	--
204	3	-0.89	--	--	59.0	--	--
212	3	-0.54	--	--	60.1	--	--
213	3	-0.89	--	--	59.0	--	--
215	4	0.40	--	63.0	--	--	--
220	2	-1.51	--	--	57.1	--	--
230	3	-0.86	--	--	59.1	--	--
234	4	0.40	--	63.0	--	--	--
247	1	-1.99	--	--	55.6	--	--
257	4	-0.08	--	--	61.5	--	--
258	4	-0.51	--	60.2	--	--	--

Lab	Rating	Z-value	Methods				
			0	20	21	22	41
259	4	0.08	--	--	62.0	--	--
263	4	0.08	--	--	62.0	--	--
266	4	0.08	--	--	62.0	--	--
267	4	0.17	--	--	62.3	--	--
268	4	0.05	--	--	61.9	--	--
273	1	1.89	67.6	--	--	--	--
274	0	3.35	--	72.1	--	--	--
275	0	-3.48	--	51.0	--	--	--
276	3	0.85	--	--	64.4	--	--
277	0	18.21	--	--	118.0	--	--
287	4	0.08	--	--	62.0	--	--
297	f	-1.87	--	--	56.0	--	--
305	3	0.73	--	--	64.0	--	--
307	2	1.05	--	65.0	--	--	--
309	3	0.79	--	--	--	--	64.2
324	0	-2.12	--	--	55.2	--	--
328	3	-0.89	59.0	--	--	--	--
331	2	-1.22	58.0	--	--	--	--
333	2	-1.09	--	--	58.4	--	--
334	0	7.88	--	--	--	66.1	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

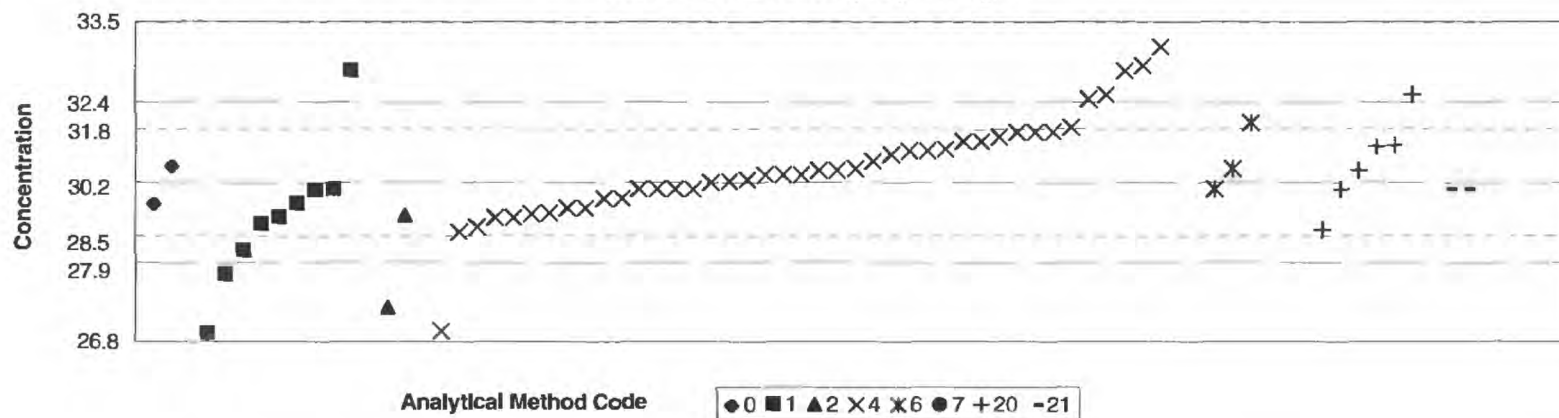


Summary	Methods			Statistics	
	4	6	22	Method Codes	
N =	21	3	2	4. Inductively coupled plasma	MPV = 78.6 µg/L
Minimum =	61.0	76.0	75.0	6. Inductively coupled plasma/mass spectrometry	F-pseudosigma = 5.11
Maximum =	89.2	87.0	90.0	22. Colorimetric	N = 26
Median =	78.8				Uh = 82.5
F-pseudosigma =	3.71				Lh = 75.6

Lab	Rating	Z-value	Methods		
			4	6	22
1	4	-0.46	76.3	--	--
24	4	-0.31	77.0	--	--
25	0	-3.44	61.0	--	--
42	4	-0.45	--	76.3	--
48	4	-0.51	--	76.0	--
50	4	0.39	80.6	--	--
57	0	2.07	89.2	--	--
86	3	0.76	82.5	--	--
105	NR	--	<200	--	--
127	3	-0.61	75.5	--	--
129	3	-0.70	--	--	75.0
134	4	0.38	80.5	--	--
138	2	1.39	85.7	--	--
142	4	0.37	80.5	--	--
180	NR	--	<21.9	--	--
212	4	0.14	79.3	--	--
220	4	-0.07	78.2	--	--
234	1	1.66	87.1	--	--
235	3	-0.59	75.6	--	--
247	4	-0.04	78.4	--	--
255	4	0.39	80.6	--	--
258	0	2.23	--	--	90.0
259	4	0.04	78.8	--	--
265	1	1.64	--	87.0	--
273	0	-3.34	61.5	--	--
309	2	-1.49	71.0	--	--
323	0	2.07	89.2	--	--
328	1	-1.68	70.0	--	--
331	NR	--	<80	--	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

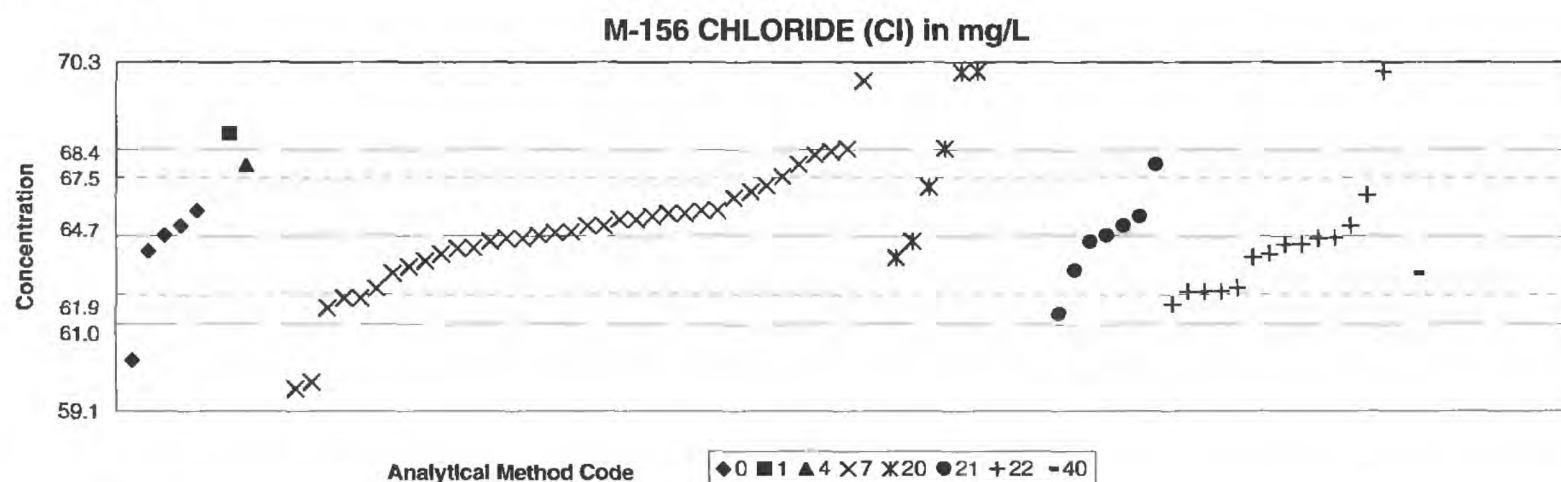
M-156 CALCIUM (Ca) in mg/L



Summary	Methods								Statistics	
	0	1	2	4	6	7	20	21	Method Codes	
N =	2	11	2	44	3	1	9	2	0. Other	MPV = 30.2 mg/L
Minimum =	29.7	23.4	27.5	6.30	30.0	13.2	23.1	30.0	1. Atomic absorption: direct, air	F-pseudosigma = 1.13
Maximum =	30.5	64.0	29.5	35.5	31.4		76.4	30.0	2. Atomic absorption: direct, nitrous oxide	Rating criterion = 1.51
Median =	29.4			30.4			30.4		4. Inductively coupled plasma	N = 74
F-pseudosigma =	1.14		1.00			1.32			6. Inductively coupled plasma/mass spectrometry	Uh = 31.0
									7. Ion chromatography	Lh = 29.5
									20. Titration: colorimetric	
									21. Titration: electrometric	

Lab	Rating	Z-value	Methods							
			0	1	2	4	6	7	20	21
1	4	0.18	--	--	--	30.4	--	--	--	--
10	4	-0.12	--	30.0	--	--	--	--	--	--
12	4	-0.10	--	--	--	30.0	--	--	--	--
13	3	0.69	--	--	--	31.2	--	--	--	--
23	0	30.67	--	--	--	--	--	76.4	--	--
24	4	-0.10	--	--	--	30.0	--	--	--	--
25	3	-0.63	--	--	--	29.2	--	--	--	--
38	4	-0.47	--	--	29.5	--	--	--	--	--
42	4	0.16	--	--	--	30.4	--	--	--	--
45	4	-0.31	--	29.7	--	--	--	--	--	--
48	3	0.83	--	--	--	--	31.4	--	--	--
50	4	0.00	--	--	--	30.2	--	--	--	--
57	4	-0.37	--	--	--	29.6	--	--	--	--
59	4	-0.10	--	--	--	--	30.0	--	--	--
64	4	0.43	--	--	--	30.8	--	--	--	--
69	3	-0.97	--	28.7	--	--	--	--	--	--
70	3	0.69	--	--	--	31.2	--	--	--	--
76	4	0.18	--	--	--	--	30.4	--	--	--
81	4	0.30	--	--	--	30.6	--	--	--	--
86	4	0.10	--	--	--	30.3	--	--	--	--
87	1	-1.76	--	--	27.5	--	--	--	--	--
89	2	-1.30	--	28.2	--	--	--	--	--	--
93	4	0.16	--	--	--	30.4	--	--	--	--
105	1	1.62	--	--	--	32.6	--	--	--	--
109	4	-0.50	--	29.4	--	--	--	--	--	--
113	4	-0.30	29.7	--	--	--	--	--	--	--
121	4	0.03	--	--	--	30.2	--	--	--	--
127	3	0.76	--	--	--	31.3	--	--	--	--
129	4	-0.10	--	30.0	--	--	--	--	--	--
134	4	0.00	--	--	--	30.2	--	--	--	--
138	4	-0.24	--	--	--	29.8	--	--	--	--
140	3	-0.60	--	29.3	--	--	--	--	--	--
142	1	1.56	--	--	--	32.5	--	--	--	--
154	3	0.69	--	--	--	31.2	--	--	--	--
155	4	0.51	--	--	--	--	--	30.9	--	--
180	0	-15.82	--	--	--	6.3	--	--	--	--
190	1	1.56	--	32.5	--	--	--	--	--	--
193	3	-0.70	--	--	--	29.1	--	--	--	--
203	4	-0.45	--	--	--	29.5	--	--	--	--
212	4	0.10	--	--	--	30.3	--	--	--	--
215	1	1.89	--	--	--	33.0	--	--	--	--
220	4	0.38	--	--	--	30.7	--	--	--	--
230	4	0.45	--	--	--	30.8	--	--	--	--
234	4	-0.24	--	--	--	29.8	--	--	--	--
235	4	-0.50	--	--	--	29.4	--	--	--	--
247	4	-0.10	--	--	--	30.0	--	--	--	--
254	3	0.63	--	--	--	31.1	--	--	--	--
255	4	0.10	--	--	--	30.3	--	--	--	--
257	4	0.16	--	--	--	--	--	30.4	--	--
258	0	-4.65	--	--	--	--	--	23.1	--	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

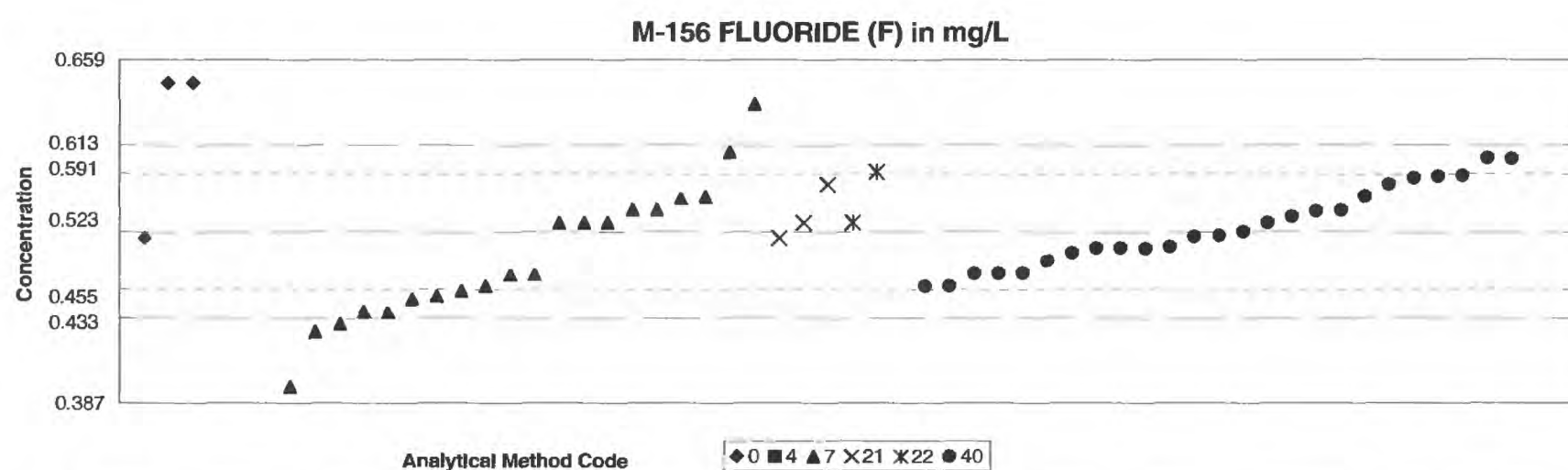


Summary	Methods								Statistics	
	0	1	4	7	20	21	22	40		
N =	6	1	1	39	9	8	14	2	Method Codes	MPV = 64.7 mg/L
Minimum =	60.7	68.0	67.0	47.1	64.0	57.0	62.5	59.0	0. Other	F-pseudosigma = 1.87
Maximum =	71.0			70.6	72.8	67.0	70.0	63.5	1. Atomic absorption: direct, air	Rating criterion= 3.24
Median =	64.9			64.8	70.0	64.6	64.3		4. Inductively coupled plasma	N = 80
F-pseudosigma =	0.956			1.41	3.36	1.67	1.27		7. Ion chromatography	Uh = 66.2
									20. Titration: colorimetric	Lh = 63.7
									21. Titration: electrometric	
									22. Colorimetric	
									40. Ion selective electrode	

Lab	Rating	Z-value	Methods							
			0	1	4	7	20	21	22	40
1	4	-0.13	--	--	--	64.3	--	--	--	--
10	4	-0.19	--	--	--	--	--	--	64.1	--
12	3	-0.68	--	--	--	--	--	--	62.5	--
13	3	-0.53	--	--	--	63.0	--	--	--	--
18	4	-0.09	--	--	--	--	--	--	64.4	--
23	4	0.43	--	--	--	66.1	--	--	--	--
24	3	-0.56	--	--	--	--	--	--	62.9	--
25	4	0.15	--	--	--	65.2	--	--	--	--
42	4	0.37	--	--	--	65.9	--	--	--	--
45	4	-0.03	--	--	--	64.6	--	--	--	--
48	1	1.64	--	--	--	--	--	--	70.0	--
50	3	-0.56	--	--	--	--	--	--	62.9	--
51	3	-0.62	--	--	--	62.7	--	--	--	--
55	4	0.09	--	--	--	--	--	--	65.0	--
57	1	1.64	--	--	--	--	70.0	--	--	--
59	4	0.09	--	--	--	65.0	--	--	--	--
64	4	0.22	--	--	--	65.4	--	--	--	--
69	4	-0.12	--	--	--	64.3	--	--	--	--
70	4	0.25	--	--	--	65.5	--	--	--	--
76	3	0.59	--	--	--	66.6	--	--	--	--
81	4	-0.34	--	--	--	--	--	63.6	--	--
86	3	0.83	--	--	--	67.4	--	--	--	--
87	4	-0.22	--	--	--	--	--	--	64.0	--
89	4	-0.03	--	--	--	64.6	--	--	--	--
93	3	0.87	--	--	--	67.5	--	--	--	--
96	4	-0.09	--	--	--	--	--	--	64.4	--
97	4	0.00	--	--	--	--	--	64.7	--	--
105	3	0.71	--	--	--	67.0	--	--	--	--
107	1	1.55	--	--	--	69.7	--	--	--	--
109	0	-2.38	--	--	--	--	--	57.0	--	--
113	4	0.00	64.7	--	--	--	--	--	--	--
114	4	-0.37	--	--	--	--	--	--	--	63.5
127	4	-0.19	--	--	--	64.1	--	--	--	--
129	2	1.02	--	68.0	--	--	--	--	--	--
131	3	0.80	--	--	--	67.3	--	--	--	--
134	4	0.03	--	--	--	64.8	--	--	--	--
138	3	-0.71	--	--	--	62.4	--	--	--	--
140	4	-0.03	--	--	--	--	--	--	64.6	--
142	4	-0.06	--	--	--	64.5	--	--	--	--
154	4	-0.03	--	--	--	--	--	--	64.6	--
180	0	-5.44	--	--	--	47.1	--	--	--	--
183	2	-1.23	60.7	--	--	--	--	--	--	--
190	4	0.15	--	--	--	65.2	--	--	--	--
204	3	-0.77	--	--	--	--	--	62.2	--	--
208	1	-1.51	--	--	--	59.8	--	--	--	--
212	4	0.19	--	--	--	65.3	--	--	--	--
213	4	-0.22	--	--	--	--	64.0	--	--	--
220	3	-0.52	--	--	--	--	--	--	63.0	--
230	3	0.70	--	--	67.0	--	--	--	--	--
234	4	-0.25	--	--	--	63.9	--	--	--	--

Lab	Rating	Z-value	Methods							
			0	1	4	7	20	21	22	40
247	4	0.25	--	--	--	65.5	--	--	--	--
254	4	0.03	--	--	--	64.8	--	--	--	--
256	4	-0.15	64.2	--	--	--	--	--	--	--
257	3	0.87	--	--	--	--	--	67.5	--	--
258	0	2.50	--	--	--	--	--	72.8	--	--
259	4	0.09	--	--	--	65.0	--	--	--	--
261	1	1.63	--	--	--	--	70.0	--	--	--
263	4	0.09	--	--	--	--	--	65.0	--	--
265	4	-0.31	--	--	--	63.7	--	--	--	--
266	4	-0.06	--	--	--	--	--	64.5	--	--
267	4	0.19	--	--	--	--	--	65.3	--	--
268	4	-0.37	--	--	--	63.5	--	--	--	--
273	4	0.22	--	--	--	65.4	--	--	--	--
274	1	1.88	--	--	--	--	70.8	--	--	--
275	1	-1.76	--	--	--	--	--	--	--	59.0
276	1	1.95	71.0	--	--	--	--	--	--	--
277	4	0.49	--	--	--	66.3	--	--	--	--
279	4	0.48	--	--	--	--	66.3	--	--	--
280	3	0.71	--	--	--	--	--	67.0	--	--
287	3	-0.62	--	--	--	62.7	--	--	--	--
297	4	0.09	65.0	--	--	--	--	--	--	--
304	0	-4.23	--	--	--	51.0	--	--	--	--
306	4	0.25	65.5	--	--	--	--	--	--	--
307	4	-0.06	--	--	--	--	64.5	--	--	--
309	0	2.26	--	--	--	--	72.0	--	--	--
315	1	1.82	--	--	--	70.6	--	--	--	--
323	4	0.40	--	--	--	--	--	--	66.0	--
328	2	-1.45	--	--	--	60.0	--	--	--	--
331	4	0.00	--	--	--	64.7	--	--	--	--
334	3	-0.56	--	--	--	--	--	--	62.9	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

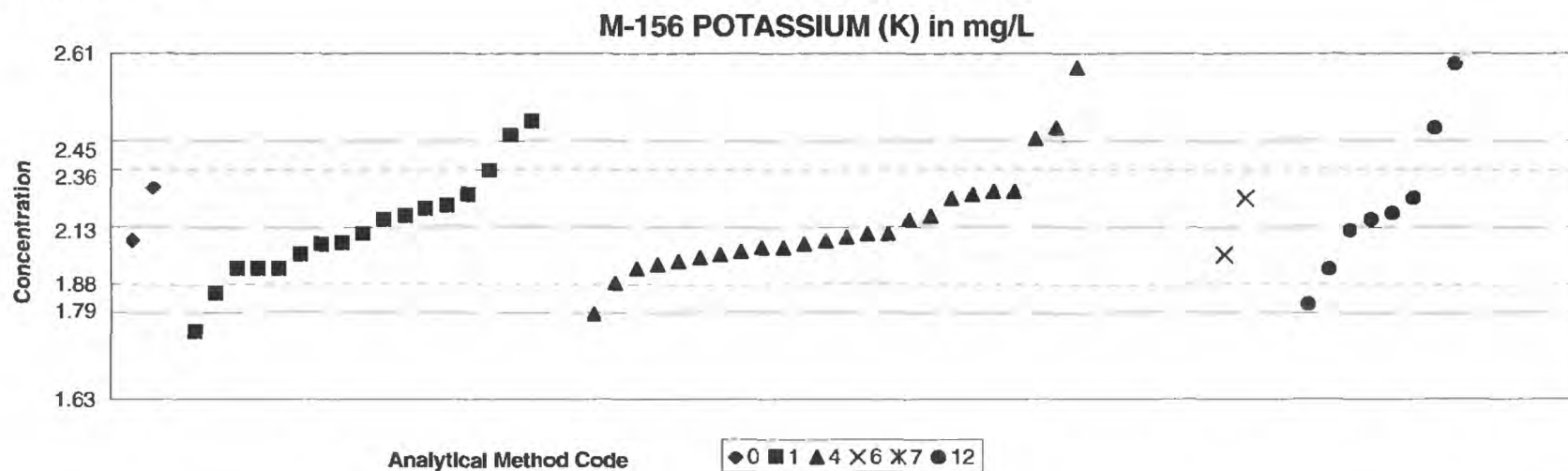


Summary	Methods						Statistics
	0	4	7	21	22	40	
N =	3	1	22	3	3	25	MPV = 0.523 mg/L
Minimum =	0.518	0.730	0.155	0.518	0.530	0.480	F-pseudosigma = 0.045
Maximum =	0.640		0.623	0.560	0.734	0.580	N = 57
Median =			0.485			0.520	Uh = 0.550
F-pseudosigma =			0.059			0.033	Lh = 0.489
Method Codes 0. Other 4. Inductively coupled plasma 7. Ion chromatography 21. Titration; electrometric 22. Colorimetric 40. Ion selective electrode							

Lab	Rating	Z-value	Methods					
			0	4	7	21	22	40
1	4	-0.27	--	--	--	--	--	0.511
10	4	-0.29	--	--	--	--	--	0.510
13	2	-1.39	--	--	0.480	--	--	--
18	4	-0.51	--	--	--	--	--	0.500
23	4	0.38	--	--	0.540	--	--	--
24	4	0.38	--	--	--	--	--	0.540
25	4	0.15	--	--	0.530	--	--	--
42	1	-1.75	--	--	0.444	--	--	--
45	2	-1.13	--	--	0.472	--	--	--
50	4	0.00	--	--	--	--	--	0.523
55	3	0.82	--	--	--	0.560	--	--
57	3	-0.73	--	--	--	--	--	0.490
59	4	0.15	--	--	0.530	--	--	--
69	4	0.15	--	--	0.530	--	--	--
70	2	1.26	--	--	--	--	--	0.580
81	3	-0.75	--	--	0.469	--	--	--
88	2	1.37	--	--	0.585	--	--	--
89	2	1.26	--	--	--	--	--	0.580
93	3	-0.75	--	--	0.489	--	--	--
96	4	-0.09	--	--	--	--	--	0.519
97	4	-0.11	--	--	--	0.518	--	--
105	3	-0.95	--	--	0.480	--	--	--
107	3	0.93	--	--	--	--	--	0.565
109	3	-0.95	--	--	--	--	--	0.460
113	4	-0.11	0.518	--	--	--	--	--
114	3	0.62	--	--	--	--	--	0.560
127	2	-1.04	--	--	0.476	--	--	--
131	1	-1.61	--	--	0.450	--	--	--
134	3	-0.73	--	--	--	--	--	0.490
138	4	0.27	--	--	--	--	--	0.535
140	3	0.95	--	--	--	--	--	0.566
142	3	0.60	--	--	--	--	--	0.550
154	3	0.97	--	--	--	--	--	0.567
180	0	-8.14	--	--	0.155	--	--	--
183	0	2.59	0.640	--	--	--	--	--
190	4	0.35	--	--	--	--	--	0.539
212	4	0.15	--	--	--	0.530	--	--
215	4	-0.07	--	--	--	--	--	0.520
230	0	4.58	--	0.730	--	--	--	--
234	3	0.57	--	--	0.549	--	--	--
247	0	-2.72	--	--	0.400	--	--	--
255	4	-0.38	--	--	--	--	--	0.506
257	4	-0.29	--	--	--	--	--	0.510
258	0	4.67	--	--	--	--	0.734	--
259	4	0.15	--	--	--	--	--	0.530
263	3	-0.73	--	--	--	--	--	0.490
265	2	-1.17	--	--	0.470	--	--	--
266	4	-0.29	--	--	--	--	--	0.510
270	0	-4.71	--	--	0.310	--	--	--
273	0	2.21	--	--	0.623	--	--	--

Lab	Rating	Z-value	Methods					
			0	4	7	21	22	40
274	2	1.04	--	--	--	--	0.570	--
277	2	-1.39	--	--	0.460	--	--	--
287	4	0.38	--	--	0.540	--	--	--
305	3	-0.95	--	--	--	--	--	0.480
323	4	0.15	--	--	--	--	0.530	--
328	0	2.59	0.640	--	--	--	--	--
331	3	0.60	--	--	0.550	--	--	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

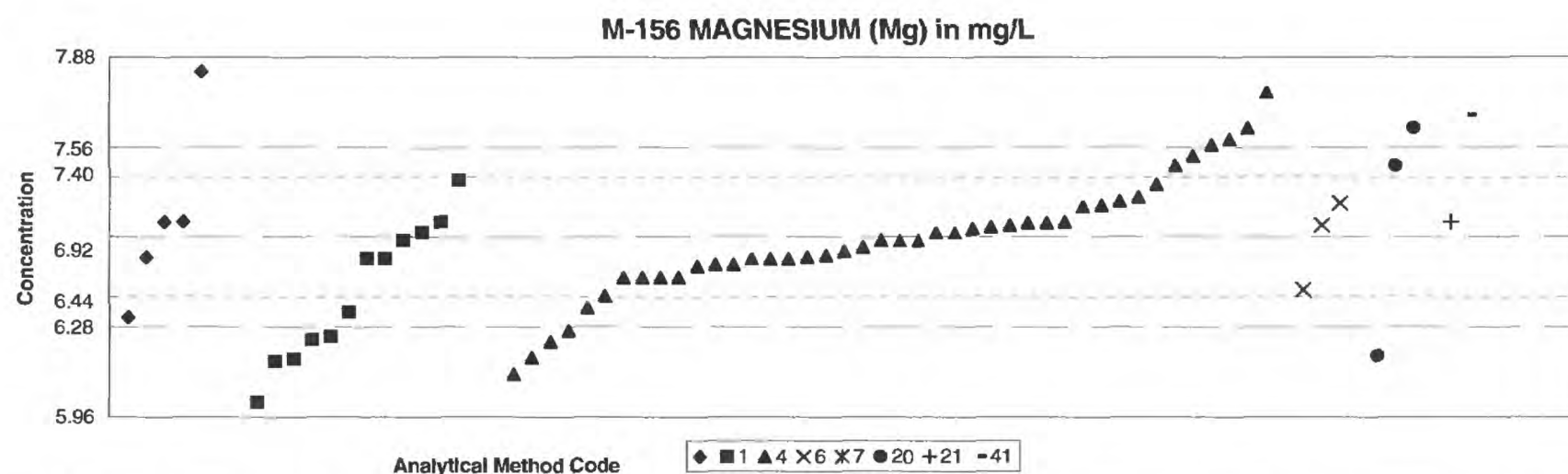


Summary	Methods						Statistics
	0	1	4	6	7	12	
N =	2	19	31	2	1	9	MPV = 2.13 mg/L
Minimum =	2.08	0.31	0.86	2.04	14.66	1.45	F-pseudosigma = 0.163
Maximum =	2.23	2.87	5.00	2.20		2.58	N = 64
Median =		2.10	2.10			2.14	Uh = 2.26
F-pseudosigma =		0.145	0.252			0.148	Lh = 2.04
Method Codes 0. Other 1. Atomic absorption: direct, air 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry 7. Ion chromatography 12. Flame emission							

Lab	Rating	Z-value	Methods					
			0	1	4	6	7	12
1	4	0.28	--	2.17	--	--	--	--
10	4	-0.34	--	2.07	--	--	--	--
13	4	-0.15	--	--	2.10	--	--	--
23	2	-1.36	--	--	--	--	--	1.90
24	3	-0.64	--	--	2.02	--	--	--
25	3	-0.71	--	--	2.01	--	--	--
38	4	0.34	--	2.18	--	--	--	--
42	3	-0.52	--	--	2.04	--	--	--
45	1	-1.87	--	1.82	--	--	--	--
48	3	-0.52	--	--	--	2.04	--	--
50	4	-0.40	--	--	2.06	--	--	--
57	0	6.53	--	--	3.19	--	--	--
59	4	0.46	--	--	--	2.20	--	--
64	4	-0.15	--	2.10	--	--	--	--
69	4	0.09	--	--	--	--	--	2.14
70	4	0.09	--	--	2.14	--	--	--
81	3	0.58	--	--	2.22	--	--	--
86	4	0.15	--	--	2.15	--	--	--
87	3	0.52	--	2.21	--	--	--	--
89	2	-1.20	--	1.93	--	--	--	--
93	4	-0.21	--	--	2.09	--	--	--
105	4	-0.34	--	--	2.07	--	--	--
109	4	0.09	--	2.14	--	--	--	--
113	4	-0.28	2.08	--	--	--	--	--
127	4	0.15	--	2.15	--	--	--	--
129	3	-0.77	--	2.00	--	--	--	--
134	4	-0.31	--	2.07	--	--	--	--
138	3	-0.58	--	--	2.03	--	--	--
140	3	-0.77	--	2.00	--	--	--	--
142	4	-0.28	--	--	2.08	--	--	--
180	0	-7.78	--	--	0.86	--	--	--
190	0	4.57	--	2.87	--	--	--	--
193	3	-0.52	--	2.04	--	--	--	--
203	4	0.21	--	--	--	--	--	2.16
212	2	1.50	--	--	2.37	--	--	--
220	3	0.95	--	2.28	--	--	--	--
230	0	4.26	--	--	2.82	--	--	--
234	2	-1.01	--	--	1.96	--	--	--
235	4	-0.46	--	--	2.05	--	--	--
247	4	-0.40	--	--	2.06	--	--	--
254	3	0.52	--	--	2.21	--	--	--
257	3	-0.77	--	--	--	--	--	2.00
258	0	2.79	--	--	--	--	--	2.58
259	1	-1.56	--	--	1.87	--	--	--
261	0	-11.13	--	0.31	--	--	--	--
265	4	-0.15	--	--	2.10	--	--	--
266	4	0.46	--	--	--	--	--	2.20
268	1	1.81	--	2.42	--	--	--	--
270	0	76.86	--	--	--	--	14.66	--
273	4	0.46	--	--	2.20	--	--	--

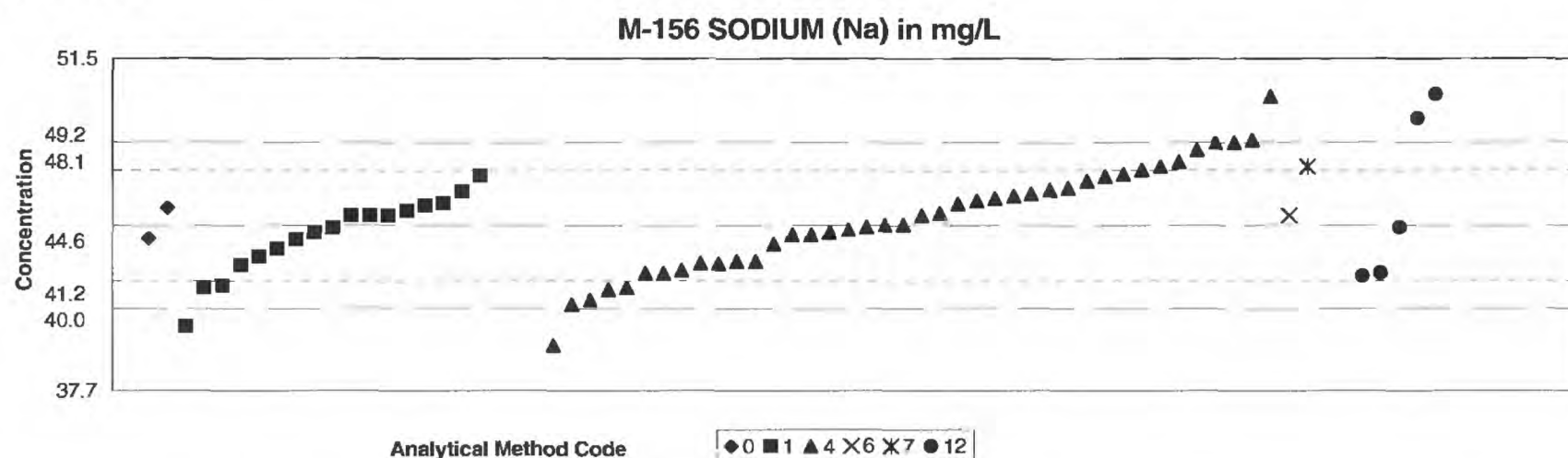
Lab	Rating	Z-value	Methods					
			0	1	4	6	7	12
274	4	-0.09	--	--	--	--	--	2.11
275	1	1.69	--	--	--	--	--	2.40
276	3	-0.77	--	2.00	--	--	--	--
277	0	2.73	--	--	2.57	--	--	--
279	0	-4.14	--	--	--	--	--	1.45
287	3	0.64	2.23	--	--	--	--	--
297	0	6.59	--	--	3.20	--	--	--
305	0	4.02	--	--	2.78	--	--	--
306	1	1.56	--	2.38	--	--	--	--
309	0	17.63	--	--	5.00	--	--	--
315	1	1.69	--	--	2.40	--	--	--
323	3	0.58	--	--	2.22	--	--	--
328	3	-0.77	--	--	2.00	--	--	--
331	0	5.06	--	--	2.95	--	--	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued



Summary	Methods								Statistics
	0	1	4	6	7	20	21	41	
N =	7	13	44	3	1	4	1	1	MPV = 6.92 mg/L F-pseudosigma = 0.319 Rating criterion= 0.346 N = 74 Uh = 7.13 Lh = 6.70
Minimum =	6.49	6.04	1.22	6.64	14.68	6.29	7.00	7.57	
Maximum =	13.46	46.40	7.96	7.10		18.94			
Median =	7.00	6.80	6.90						
F-pseudosigma =	0.701	0.423	0.263						
									Method Codes
									0. Other
									1. Atomic absorption: direct, air
									4. Inductively coupled plasma
									6. Inductively coupled plasma/mass spectrometry
									7. Ion chromatography
									20. Titration: colorimetric
									21. Titration: electrometric
									41. Electrometric (pH and specific conductance)

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

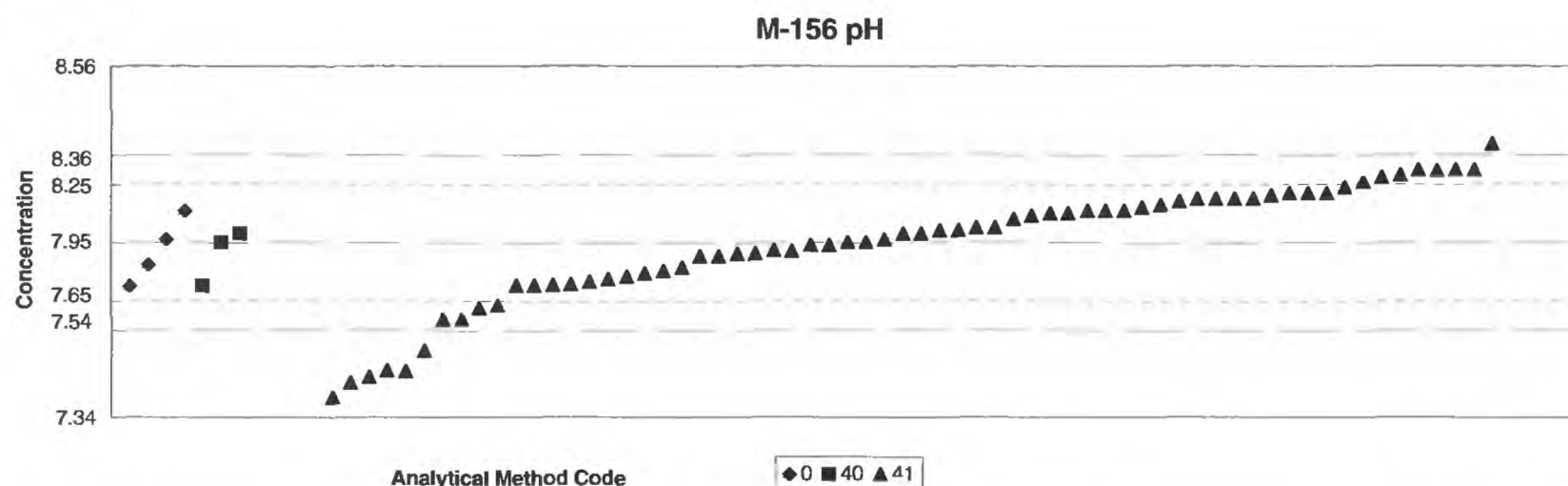


Summary	Methods						Statistics
	0	1	4	6	7	12	
N =	3	19	41	1	1	7	MPV = 44.6 mg/L
Minimum =	34.8	40.4	37.3	45.0	47.0	28.5	F-pseudsigma = 2.30
Maximum =	45.3	56.9	49.9			50.0	N = 72
Median =		45.0	44.6			42.6	Uh = 46.1
F-pseudsigma =		1.48	2.52			5.89	Lh = 43.0
Method Codes 0. Other 1. Atomic absorption: direct, air 4. Inductively coupled plasma 6. Inductively coupled plasma/mass spectrometry 7. Ion chromatography 12. Flame emission							

Lab	Rating	Z-value	Methods					
			0	1	4	6	7	12
1	3	0.62	--	--	46.0	--	--	--
10	4	-0.25	--	44.0	--	--	--	--
12	3	0.57	--	--	45.9	--	--	--
13	3	0.52	--	--	45.8	--	--	--
23	1	-1.83	--	40.4	--	--	--	--
24	4	0.22	--	--	45.1	--	--	--
25	3	-0.70	--	--	43.0	--	--	--
38	3	-0.73	--	42.9	--	--	--	--
42	4	0.00	--	--	44.6	--	--	--
45	2	-1.09	--	42.1	--	--	--	--
48	4	0.17	--	--	--	45.0	--	--
50	3	0.99	--	--	46.9	--	--	--
57	3	-0.65	--	--	43.1	--	--	--
59	4	0.35	--	45.4	--	--	--	--
64	4	0.26	--	45.2	--	--	--	--
69	3	-0.87	--	--	--	--	--	42.6
70	2	1.48	--	--	48.0	--	--	--
81	2	1.13	--	--	47.2	--	--	--
86	3	0.65	--	--	46.1	--	--	--
87	4	-0.44	--	43.6	--	--	--	--
89	3	-0.57	--	43.3	--	--	--	--
93	1	1.52	--	--	48.1	--	--	--
105	3	0.87	--	--	46.6	--	--	--
109	4	-0.13	--	44.3	--	--	--	--
113	4	0.30	45.3	--	--	--	--	--
118	4	0.17	--	45.0	--	--	--	--
121	4	-0.04	--	--	44.5	--	--	--
127	2	-1.44	--	--	41.3	--	--	--
129	4	0.17	--	45.0	--	--	--	--
134	3	0.88	--	46.6	--	--	--	--
138	4	-0.09	--	--	44.4	--	--	--
140	2	-1.13	--	42.0	--	--	--	--
142	0	2.31	--	--	49.9	--	--	--
154	3	-0.87	--	--	42.6	--	--	--
180	0	-2.18	--	--	39.6	--	--	--
190	3	0.61	--	46.0	--	--	--	--
193	4	-0.17	--	--	44.2	--	--	--
203	3	-0.87	--	--	42.6	--	--	--
212	2	1.04	--	--	47.0	--	--	--
215	2	1.48	--	--	48.0	--	--	--
220	4	0.44	--	--	45.6	--	--	--
230	4	0.38	--	--	45.5	--	--	--
234	4	0.00	--	--	44.6	--	--	--
235	2	-1.13	--	--	42.0	--	--	--
247	4	-0.17	--	--	44.2	--	--	--
254	3	0.91	--	--	46.7	--	--	--
256	0	-4.27	34.8	--	--	--	--	--
257	3	-0.91	--	--	--	--	--	42.5
258	0	-4.14	--	--	--	--	--	35.1
259	4	-0.13	--	--	44.3	--	--	--

Lab	Rating	Z-value	Methods					
			0	1	4	6	7	12
261	4	0.17	--	45.0	--	--	--	--
265	4	0.48	--	--	45.7	--	--	--
266	4	-0.04	--	--	--	--	--	44.5
268	4	0.39	--	45.5	--	--	--	--
270	2	1.04	--	--	--	--	47.0	--
273	3	0.78	--	--	46.4	--	--	--
274	0	2.35	--	--	--	--	--	50.0
275	1	1.92	--	--	--	--	--	49.0
276	0	3.44	--	52.5	--	--	--	--
277	2	-1.18	--	--	41.9	--	--	--
279	0	-7.01	--	--	--	--	--	28.5
287	4	-0.25	44.0	--	--	--	--	--
297	3	-0.70	--	--	43.0	--	--	--
305	0	-3.18	--	--	37.3	--	--	--
306	0	5.35	--	56.9	--	--	--	--
307	4	-0.04	--	44.5	--	--	--	--
309	3	-0.83	--	--	42.7	--	--	--
315	3	-0.65	--	--	43.1	--	--	--
323	4	-0.35	--	--	43.8	--	--	--
328	4	0.17	--	--	45.0	--	--	--
331	2	-1.35	--	--	41.5	--	--	--
334	2	1.35	--	--	47.7	--	--	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued



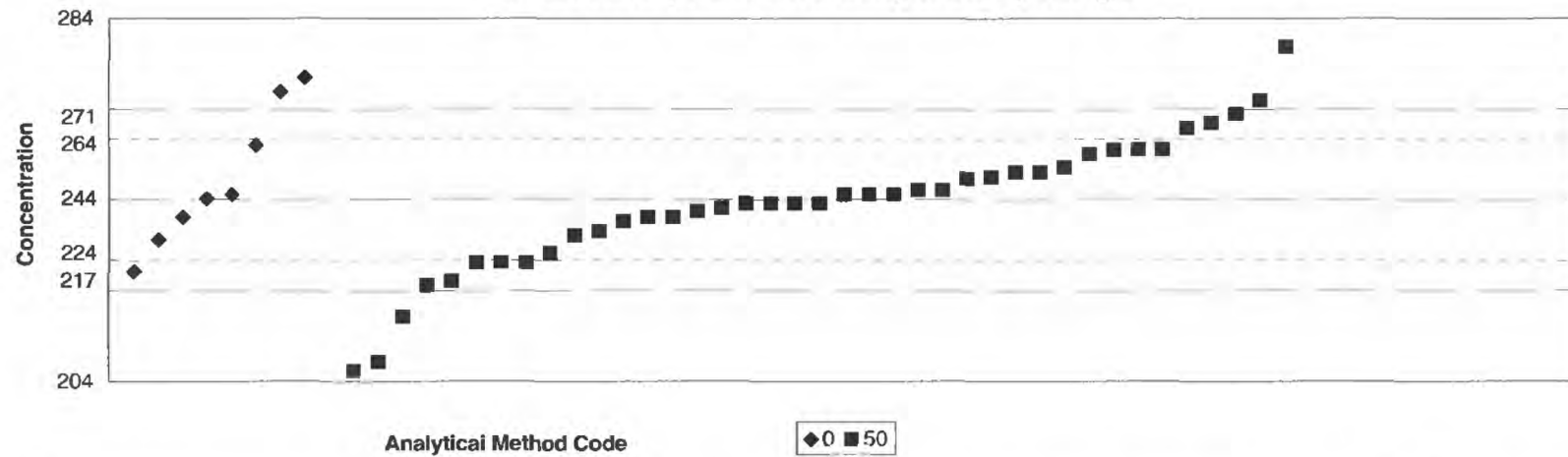
Summary	Methods			Statistics
	0	40	41	
N =	4	3	68	MPV = 7.95
Minimum =	7.80	7.80	2.50	F-pseudosigma = 0.203
Maximum =	8.06	7.98	8.29	Rating criterion = 0.398
Median =			7.96	N = 75
F-pseudosigma =			0.218	Uh = 8.08
				Lh = 7.80

Lab	Rating	Z-value	Methods		
			0	40	41
1	0	-2.68	--	--	6.89
10	4	0.43	--	--	8.12
12	3	-0.68	--	--	7.68
13	4	0.38	--	--	8.10
23	4	0.20	--	--	8.03
24	4	-0.25	--	--	7.85
25	4	-0.08	--	--	7.92
38	4	0.38	--	--	8.10
42	4	-0.10	--	--	7.91
45	3	0.86	--	--	8.29
48	4	0.38	--	--	8.10
50	4	-0.08	--	--	7.92
51	4	0.08	--	--	7.98
57	4	-0.13	--	--	7.90
59	0	-4.65	--	--	6.10
64	3	0.53	--	--	8.16
69	2	-1.18	--	--	7.48
70	4	0.10	--	--	7.99
76	3	0.59	--	--	8.18
81	4	0.28	--	--	8.06
66	4	0.10	--	--	7.99
87	4	0.23	--	--	8.04
89	4	0.25	--	--	8.05
93	4	0.00	--	7.95	--
96	4	-0.33	--	--	7.82
97	4	0.30	--	--	8.07
105	4	0.13	--	--	8.00
109	2	-1.36	--	--	7.41
113	4	-0.20	7.87	--	--
114	4	-0.03	--	--	7.94
118	4	-0.38	--	--	7.80
127	3	0.58	--	--	8.18
129	2	-1.23	--	--	7.46
134	4	-0.37	--	--	7.80
138	4	0.28	--	--	8.06
140	0	-2.29	--	--	7.04
142	2	-1.13	--	--	7.50
154	4	0.35	--	--	8.09
155	4	-0.30	--	--	7.83
180	0	-13.71	--	--	2.50
190	4	-0.23	--	--	7.86
203	4	0.28	--	--	8.08
212	3	0.63	--	--	8.20
213	4	0.00	--	--	7.95
215	4	0.00	--	--	7.95
230	3	0.63	--	--	8.20
234	4	0.33	--	--	8.08
243	4	-0.10	--	--	7.91
247	4	0.40	--	--	8.11
256	4	0.03	7.96	--	--

Lab	Rating	Z-value	Methods		
			0	40	41
257	4	-0.13	--	--	7.90
258	3	-0.68	--	--	7.68
259	4	0.48	--	--	8.14
281	4	0.03	--	--	7.96
263	4	0.25	--	--	8.05
266	4	0.43	--	--	8.12
267	4	0.38	--	--	8.10
268	3	-0.55	--	--	7.73
273	4	0.08	--	7.98	--
274	3	-0.96	--	--	7.57
276	4	-0.03	--	--	7.94
277	4	-0.35	--	--	7.81
279	2	-1.13	--	--	7.50
280	4	0.13	--	--	8.00
287	4	-0.28	--	--	7.84
297	4	0.28	8.06	--	--
305	3	0.63	--	--	8.20
308	4	-0.38	7.80	--	--
307	3	0.63	--	--	8.20
309	4	-0.38	--	--	7.80
323	4	-0.38	--	7.80	--
324	4	-0.38	--	--	7.80
328	3	-0.58	--	--	7.72
331	4	0.08	--	--	7.96
333	4	0.43	--	--	8.12

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

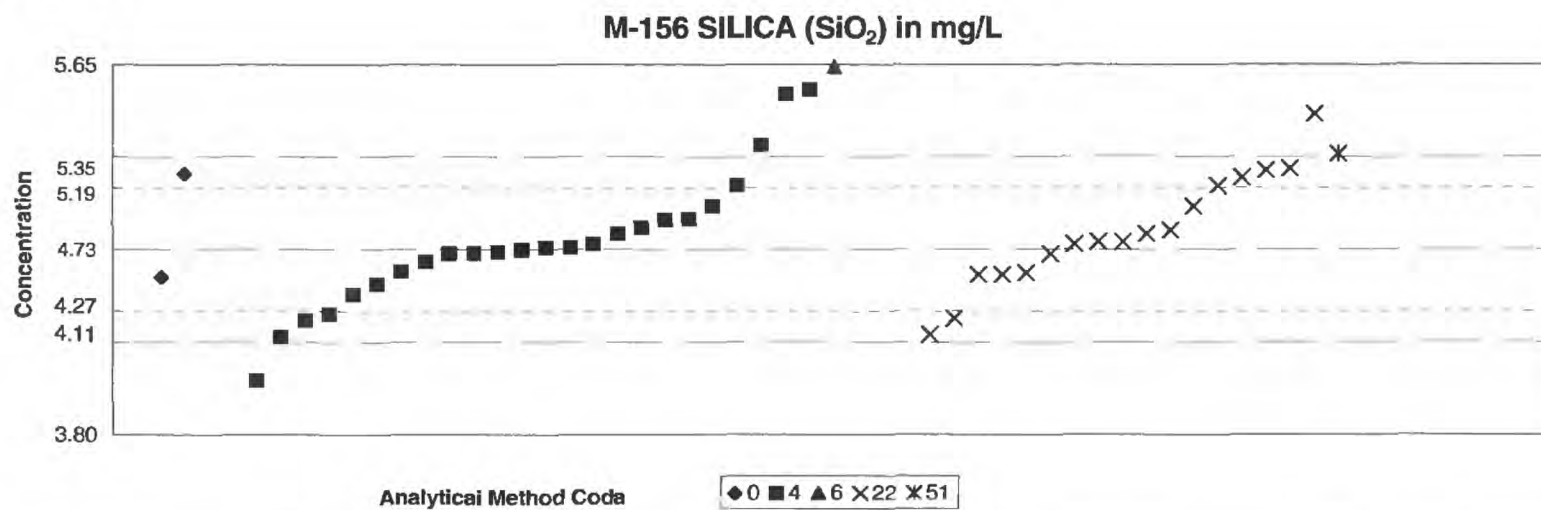
M-156 ROE (Residue on Evaporation) in mg/L



Summary	Methods		Statistics	
	0	50	Method Codes	
N =	8	41	0. Other	MPV = 244 mg/L
Minimum =	228	170	50. Gravimetric	F-pseudsigma = 13
Maximum =	271	772		N = 49
Median =	245	243		Uh = 254
F-pseudsigma =	18	11		Lh = 236

Lab	Rating	Z-value	Methods	
			0	50
1	4	0.07	--	245
10	4	0.00	244	--
12	3	0.82	--	255
13	0	-2.83	--	206
18	1	1.79	268	--
23	1	-1.94	--	218
25	0	-5.52	--	170
45	2	-1.04	--	230
48	3	0.52	--	251
50	3	0.82	--	255
55	4	0.45	--	250
57	2	-1.04	--	230
59	4	-0.07	--	243
69	2	-1.19	228	--
70	1	1.64	--	266
76	4	-0.20	--	241
81	4	0.07	--	245
87	4	-0.15	--	242
89	4	-0.37	--	239
96	4	0.37	--	249
97	4	-0.07	--	243
105	0	39.4	--	772
109	4	-0.07	--	243
113	0	2.01	271	--
114	3	0.82	--	255
118	4	0.15	--	246
127	4	-0.07	--	243
129	3	-0.89	--	232
134	3	0.75	--	254
138	2	-1.34	--	226
140	2	-1.04	--	230
142	2	1.19	--	260
154	4	0.15	--	246
190	4	0.34	--	249
215	4	0.07	--	245
234	2	1.27	--	261
247	0	-2.68	--	208
257	4	0.45	--	250
258	3	-0.60	--	236
259	4	-0.30	--	240
263	3	-0.52	--	237
266	4	-0.30	240	--
273	4	-0.30	--	240
275	3	-0.67	235	--
276	4	0.07	245	--
277	2	-1.42	--	225
324	0	2.53	--	278
328	2	1.42	--	263
331	3	0.89	256	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

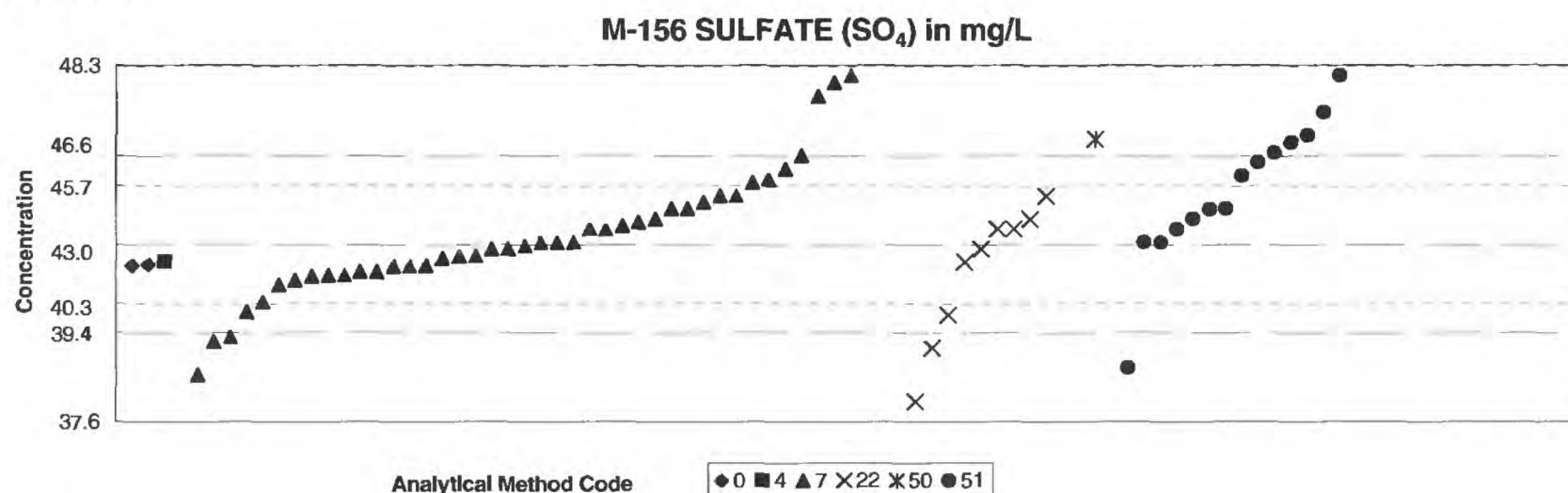


Summary		Methods					Statistics	
		0	4	6	22	51	Method Codes	
N =		3	26	1	20	1	0. Other	
Minimum =		3.78	2.34	5.64	2.30	5.20	4. Inductively coupled plasma	
Maximum =		5.10	5.52		5.40		6. Inductively coupled plasma/mass spectrometry	
Median =			4.72		4.76		22. Colorimetric	
F-pseudsigma =			0.276		0.371		51. Turbidimetric	
							MPV = 4.73 mg/L	
							F-pseudsigma = 0.308	
							N = 51	
							Uh = 4.94	
							Lh = 4.53	

Lab	Rating	Z-value	Methods				
			0	4	6	22	51
1	4	0.46	--	4.87	--	--	--
10	4	-0.42	--	--	--	4.60	--
13	4	-0.10	--	4.70	--	--	--
18	4	0.06	--	--	--	4.75	--
23	3	1.01	--	--	--	5.04	--
24	3	1.01	--	5.04	--	--	--
25	2	-1.43	--	4.29	--	--	--
38	4	0.10	--	--	--	4.76	--
42	0	-2.14	--	4.07	--	--	--
50	4	0.46	--	4.87	--	--	--
57	3	-0.58	--	4.55	--	--	--
59	2	-1.17	--	4.37	--	--	--
64	4	0.00	--	4.73	--	--	--
70	2	1.14	--	--	--	5.06	--
87	4	0.10	--	--	--	4.76	--
89	4	0.23	--	--	--	4.80	--
93	2	-1.14	--	--	--	4.38	--
97	4	-0.45	4.59	--	--	--	--
105	4	-0.06	--	4.71	--	--	--
113	2	1.20	5.10	--	--	--	--
118	0	-7.89	--	--	--	2.30	--
121	4	0.06	--	4.75	--	--	--
127	1	1.66	--	5.24	--	--	--
134	4	-0.09	--	4.70	--	--	--
138	4	0.29	--	--	--	4.82	--
140	4	-0.10	--	--	--	4.70	--
142	0	2.58	--	5.52	--	--	--
164	4	0.23	--	4.80	--	--	--
155	3	0.69	--	--	--	4.94	--
190	0	2.18	--	--	--	5.40	--
193	2	1.27	--	--	--	5.12	--
203	4	-0.39	--	--	--	4.61	--
204	2	1.30	--	--	--	5.13	--
212	0	-7.76	--	2.34	--	--	--
234	4	-0.03	--	4.72	--	--	--
235	4	-0.39	--	4.61	--	--	--
247	4	-0.42	--	--	--	4.60	--
254	3	0.68	--	4.94	--	--	--
256	0	-3.08	3.78	--	--	--	--
259	4	0.32	--	4.83	--	--	--
263	1	1.53	--	--	--	--	5.20
265	3	-0.75	--	4.50	--	--	--
266	2	-1.40	--	--	--	4.30	--
273	2	-1.07	--	4.40	--	--	--
274	0	-4.12	--	--	--	3.46	--
297	0	-5.32	--	--	--	3.09	--
309	0	-5.62	--	3.00	--	--	--
323	4	-0.23	--	4.66	--	--	--
328	0	2.95	--	--	5.64	--	--
331	0	2.50	--	5.50	--	--	--

Lab	Rating	Z-value	Methods				
			0	4	6	22	51
333	4	0.00	--	4.73	--	--	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

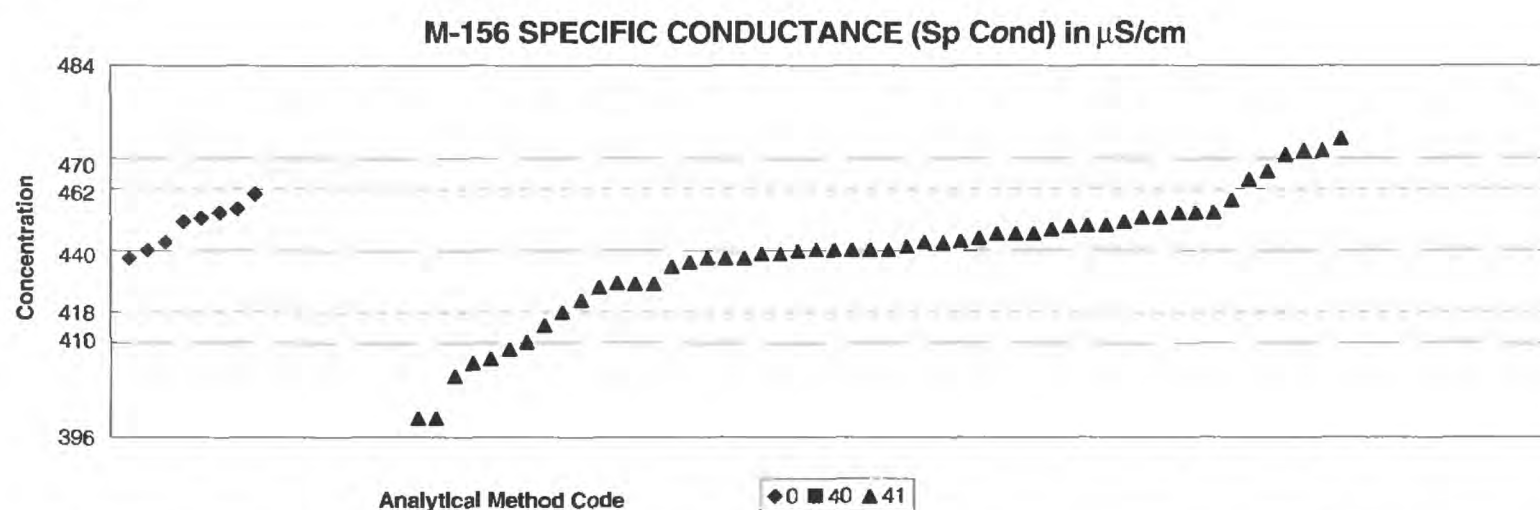


Summary	Methods						Statistics	
	0	4	7	22	50	51	Method Codes	
N =	2	1	43	11	3	18	0. Other	
Minimum =	42.3	42.4	4.0	20.0	33.1	20.5	4. Inductively coupled plasma	
Maximum =	42.3		56.8	44.4	46.1	100.0	7. Ion chromatography	
Median =			42.9	42.4		45.2	22. Colorimetric	
F-pseudosigma =			1.52	3.26		2.59	50. Gravimetric	
							51. Turbidimetric	
							MPV = 43.0 mg/L	
							F-pseudosigma = 1.78	
							Rating criterion = 2.15	
							N = 78	
							Uh = 44.4	
							Lh = 42.0	

Lab	Rating	Z-value	Methods				
			0	4	7	22	50
1	4	-0.33	--	--	42.3	--	--
10	2	1.12	--	--	--	--	45.4
12	4	-0.09	--	--	--	42.8	--
13	4	0.23	--	--	43.5	--	--
18	0	-2.23	--	--	--	38.2	--
23	0	2.05	--	--	47.4	--	--
24	2	-1.02	--	--	--	40.8	--
25	3	0.65	--	--	44.4	--	--
42	3	0.65	--	--	44.4	--	--
45	4	0.00	--	--	43.0	--	--
48	0	3.26	--	--	--	--	50.0
50	4	0.19	--	--	--	43.4	--
51	4	-0.33	--	--	42.3	--	--
55	2	1.49	--	--	--	--	46.2
57	0	-3.26	--	--	--	36.0	--
59	3	-0.53	--	--	41.9	--	--
64	4	0.47	--	--	44.0	--	--
69	4	-0.23	--	--	42.5	--	--
70	0	2.23	--	--	47.8	--	--
76	4	-0.20	--	--	42.6	--	--
81	2	-1.49	--	--	--	39.8	--
86	0	2.33	--	--	48.0	--	--
87	4	0.00	--	--	--	--	43.0
89	3	-0.84	--	--	41.2	--	--
93	3	0.88	--	--	44.9	--	--
96	3	0.93	--	--	--	--	45.0
97	4	-0.28	--	--	--	42.4	--
105	4	-0.42	--	--	42.1	--	--
107	2	1.02	--	--	45.2	--	--
109	0	-2.56	--	--	--	37.5	--
113	4	-0.33	42.3	--	--	--	--
114	2	1.44	--	--	--	46.1	--
127	4	-0.09	--	--	42.8	--	--
129	2	-1.40	--	--	40.0	--	--
131	4	0.33	--	--	43.7	--	--
134	4	-0.47	--	--	42.0	--	--
138	4	0.19	--	--	43.4	--	--
140	2	1.40	--	--	--	--	46.0
142	4	-0.05	--	--	42.9	--	--
154	4	0.33	--	--	--	--	43.7
180	0	-18.13	--	--	4.0	--	--
190	4	0.19	--	--	43.4	--	--
203	4	0.19	--	--	--	43.4	--
204	3	0.65	--	--	--	44.4	--
208	4	-0.47	--	--	42.0	--	--
212	4	-0.33	--	--	42.3	--	--
215	0	26.51	--	--	--	--	100.0
220	1	-1.76	--	--	--	--	39.2
230	4	-0.27	--	42.4	--	--	--
234	3	-0.98	--	--	40.9	--	--

Lab	Rating	Z-value	Methods				
			0	4	7	22	50
247	3	0.84	--	--	44.8	--	--
254	4	-0.09	--	--	42.8	--	--
255	4	0.33	--	--	--	43.7	--
256	4	-0.31	42.3	--	--	--	--
257	2	1.21	--	--	45.6	--	--
258	4	0.19	--	--	--	--	43.4
259	4	0.00	--	--	43.0	--	--
261	0	-10.70	--	--	--	20.0	--
263	4	0.47	--	--	--	--	44.0
265	4	-0.47	--	--	42.0	--	--
266	4	0.47	--	--	--	--	44.0
268	4	-0.19	--	--	42.6	--	--
270	0	6.40	--	--	56.8	--	--
273	4	0.47	--	--	44.0	--	--
274	2	1.25	--	--	--	--	45.7
275	4	0.00	--	--	--	--	43.0
276	0	-10.47	--	--	--	--	20.5
277	4	-0.42	--	--	42.1	--	--
287	2	-1.33	--	--	40.1	--	--
304	4	0.00	--	--	43.0	--	--
307	0	3.72	--	--	--	--	51.0
309	0	2.33	--	--	--	--	48.0
315	4	0.28	--	--	43.6	--	--
323	3	-0.60	--	--	41.7	--	--
324	0	-4.60	--	--	--	33.1	--
328	1	-1.86	--	--	39.0	--	--
331	3	0.56	--	--	44.2	--	--
334	1	1.81	--	--	--	--	46.9

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

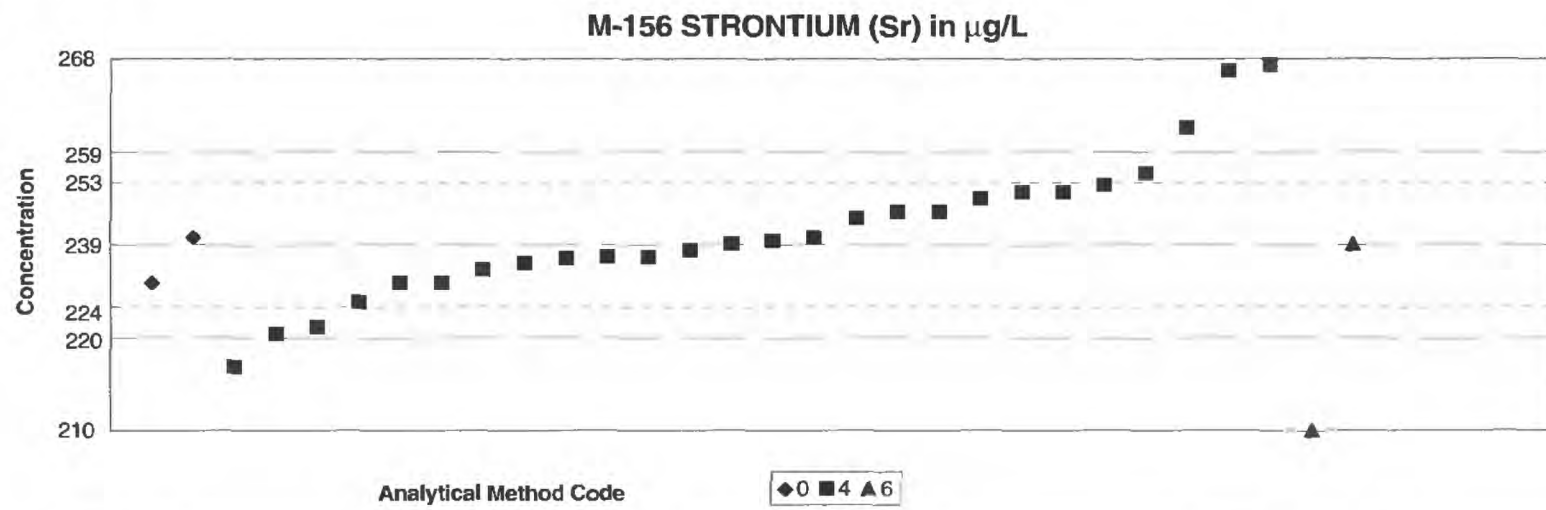


Summary	Methods			Statistics	
	0	40	41	Method Codes	
N =	8	1	61	0. Other	MPV = 440 $\mu\text{S}/\text{cm}$
Minimum =	438	75.0	26.6	40. Ion selective electrode	F-pseudosigma = 14.8
Maximum =	454		2480	41. Electrometric [pH and specific conductance]	Rating criterion = 22.0
Median =	448		440		N = 70
F-pseudosigma =	6.30		15.6		Uh = 448
					Lh = 428

Lab	Rating	Z-value	Methods		
			0	40	41
1	4	0.10	--	--	442
10	4	0.00	--	--	440
12	4	0.27	--	--	448
13	4	-0.09	--	--	438
23	4	-0.36	--	--	432
24	4	0.00	--	--	440
25	2	1.09	--	--	464
42	4	0.41	--	--	449
45	4	0.14	--	--	443
48	4	0.41	--	--	449
50	4	0.09	--	--	442
51	4	-0.36	--	--	432
57	0	-2.27	--	--	390
59	4	-0.05	--	--	439
64	3	0.86	--	--	459
70	3	0.55	--	--	452
81	3	-0.68	--	--	425
86	4	0.27	--	--	446
87	1	-1.82	--	--	400
89	0	-18.79	--	--	27
93	2	-1.08	--	--	416
96	4	0.32	--	--	447
97	4	0.27	--	--	446
105	4	0.18	--	--	444
109	4	-0.05	--	--	439
113	4	-0.09	438	--	--
114	3	-0.55	--	--	428
118	1	-1.82	--	--	400
127	0	-8.95	--	--	243
129	2	-1.23	--	--	413
134	4	-0.01	--	--	440
138	4	0.41	--	--	449
140	2	-1.36	--	--	410
142	4	0.00	--	--	440
154	0	-2.29	--	--	390
155	3	-0.82	--	--	422
180	0	92.73	--	--	2480
190	4	0.36	--	--	448
193	4	-0.18	--	--	436
203	4	0.09	--	--	442
212	4	-0.41	--	--	431
215	4	-0.09	--	--	438
230	0	-2.27	--	--	390
234	4	-0.09	--	--	438
243	4	0.41	449	--	--
247	4	0.23	--	--	445
256	4	0.32	447	--	--
257	2	1.23	--	--	467
258	4	0.00	--	--	440
259	4	0.18	--	--	444

Lab	Rating	Z-value	Methods		
			0	40	41
261	0	-3.27	--	--	368
263	4	0.36	--	--	448
267	4	0.18	--	--	444
268	3	0.77	--	--	457
273	4	0.36	448	--	--
274	4	-0.14	--	--	437
275	4	0.45	450	--	--
276	4	0.00	--	--	440
277	4	-0.36	--	--	432
279	3	-1.00	--	--	418
280	4	0.09	442	--	--
287	2	-1.18	--	--	414
297	2	1.05	--	--	463
306	3	0.61	454	--	--
307	2	1.09	--	--	464
323	0	-16.59	--	75	--
324	0	23.82	--	--	964
328	4	0.00	440	--	--
331	0	-5.14	--	--	327
333	4	0.05	--	--	441

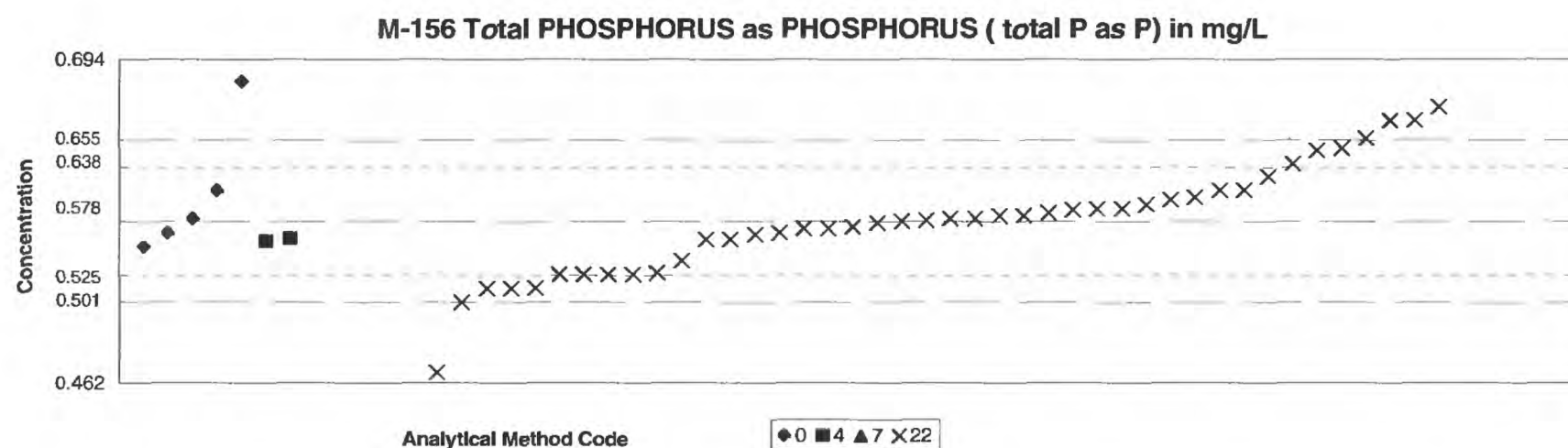
Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued



Summary	Methods			Statistics	
	0	4	6	Method Codes	
N =	2	26	2	0. Other	MPV = 239 µg/L
Minimum =	233	220	210	4. Inductively coupled plasma	F-pseudosigma = 9.64
Maximum =	240	267	239	6. Inductively coupled plasma/mass spectrometry	Rating criterion = 12.0
Median =		239			N = 30
F-pseudosigma =		8.90			Uh = 246
					Lh = 233

Lab	Rating	Z-value	Methods		
			0	4	6
1	4	0.00	--	--	239
24	3	0.67	--	247	--
25	1	-1.59	--	220	--
42	3	0.92	--	250	--
57	4	-0.50	--	233	--
81	4	0.42	--	244	--
86	4	0.42	--	244	--
105	2	-1.17	--	225	--
113	4	-0.50	233	--	--
121	4	0.08	--	240	--
127	4	-0.08	--	238	--
134	4	-0.18	--	237	--
138	2	-1.09	--	226	--
142	3	0.59	--	246	--
154	4	0.00	--	239	--
212	4	-0.50	--	233	--
234	4	-0.25	--	236	--
235	4	-0.33	--	235	--
247	4	-0.17	--	237	--
254	2	1.51	--	257	--
256	4	0.08	240	--	--
259	4	0.04	--	240	--
265	3	-0.75	--	230	--
270	3	0.77	--	248	--
273	0	2.26	--	266	--
309	3	0.67	--	247	--
323	4	-0.17	--	237	--
328	0	-2.43	--	--	210
331	0	2.34	--	267	--
333	4	0.33	--	243	--

Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued

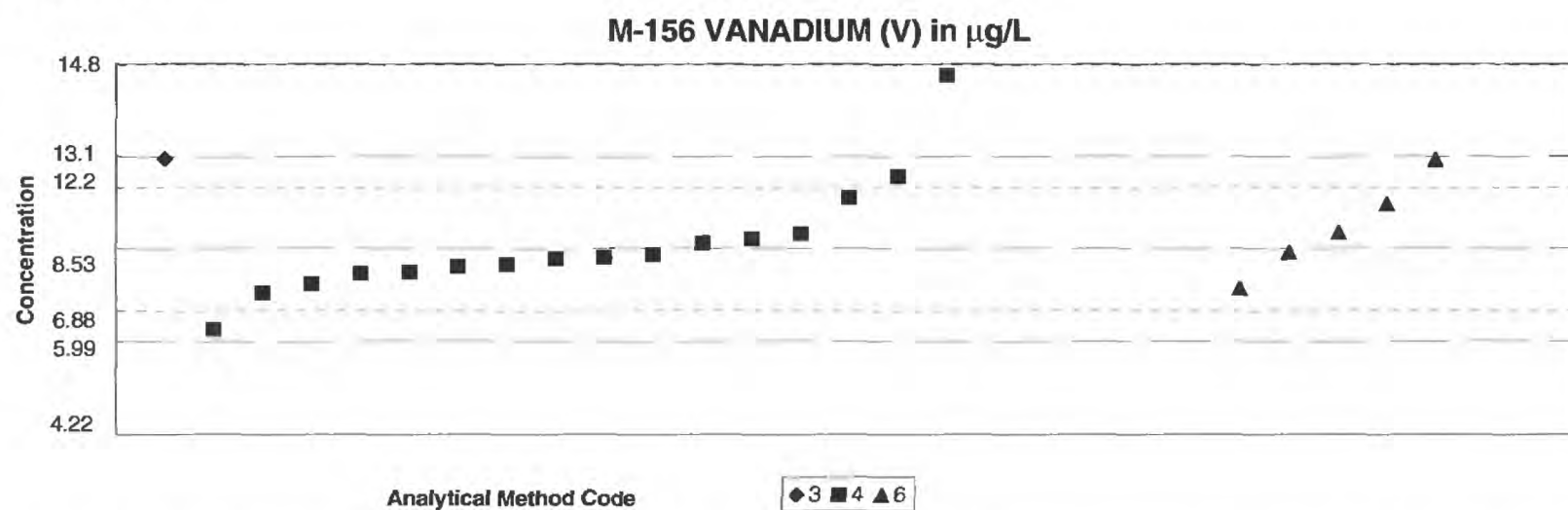


Summary	Methods				Statistics
	0	4	7	22	
N =	5	2	2	46	MPV = 0.578 mg/L
Minimum =	0.560	0.564	0.450	0.200	F-pseudosigma = 0.039
Maximum =	0.678	0.566	4.710	0.700	N = 55
Median =	0.580			0.578	Uh = 0.598
F-pseudosigma =	0.022			0.041	Lh = 0.546
Method Codes					
0. Other					
4. Inductively coupled plasma					
7. Ion chromatography					
22. Colorimetric					

Lab	Rating	Z-value	Methods			
			0	4	7	22
12	4	-0.34	--	--	--	0.565
13	0	-2.80	--	--	--	0.470
18	4	-0.47	0.560	--	--	--
23	0	2.13	--	--	--	0.660
25	3	-0.99	--	--	--	0.540
38	2	-1.25	--	--	--	0.530
42	4	-0.36	--	0.564	--	--
45	4	-0.03	--	--	--	0.577
48	1	1.87	--	--	--	0.650
50	4	0.10	--	--	--	0.582
51	4	-0.23	--	--	--	0.569
55	4	-0.13	--	--	--	0.573
57	2	-1.50	--	--	--	0.520
64	0	-3.32	--	--	--	0.450
70	0	3.16	--	--	--	0.700
81	2	-1.25	--	--	--	0.530
86	4	-0.31	--	0.566	--	--
87	4	0.21	--	--	--	0.586
89	4	-0.13	--	--	--	0.573
97	2	-1.25	--	--	--	0.530
105	3	-0.73	--	--	--	0.550
113	4	-0.10	--	--	--	0.574
118	3	0.83	--	--	--	0.610
127	4	0.10	--	--	--	0.582
129	4	0.31	--	--	--	0.590
131	0	-3.32	--	--	0.450	--
134	4	0.39	--	--	--	0.593
138	4	0.23	--	--	--	0.587
140	3	0.57	--	--	--	0.600
142	1	1.53	--	--	--	0.637
154	2	1.30	--	--	--	0.628
155	4	0.02	--	--	--	0.579
180	0	-9.81	--	--	--	0.200
183	4	0.05	0.580	--	--	--
190	4	-0.34	--	--	--	0.565
203	3	-0.99	--	--	--	0.540
212	0	-3.84	--	--	--	0.430
213	3	-0.99	--	--	--	0.540
215	4	0.05	--	--	--	0.580
220	4	0.44	--	--	--	0.595
234	1	1.87	--	--	--	0.650
247	3	-0.96	--	--	--	0.541
257	4	0.05	--	--	--	0.580
259	3	-0.99	--	--	--	0.540
267	3	0.57	--	--	--	0.600
270	0	107.19	--	--	4.710	--
273	4	-0.21	--	--	--	0.570
274	2	1.35	--	--	--	0.630
297	2	1.06	--	--	--	0.619
305	4	0.23	--	--	--	0.587

Lab	Rating	Z-value	Methods			
			0	4	7	22
306	0	2.59	0.678	--	--	--
307	4	0.00	--	--	--	0.578
323	4	0.16	--	--	--	0.584
328	3	0.57	0.600	--	--	--
331	4	-0.21	0.570	--	--	--

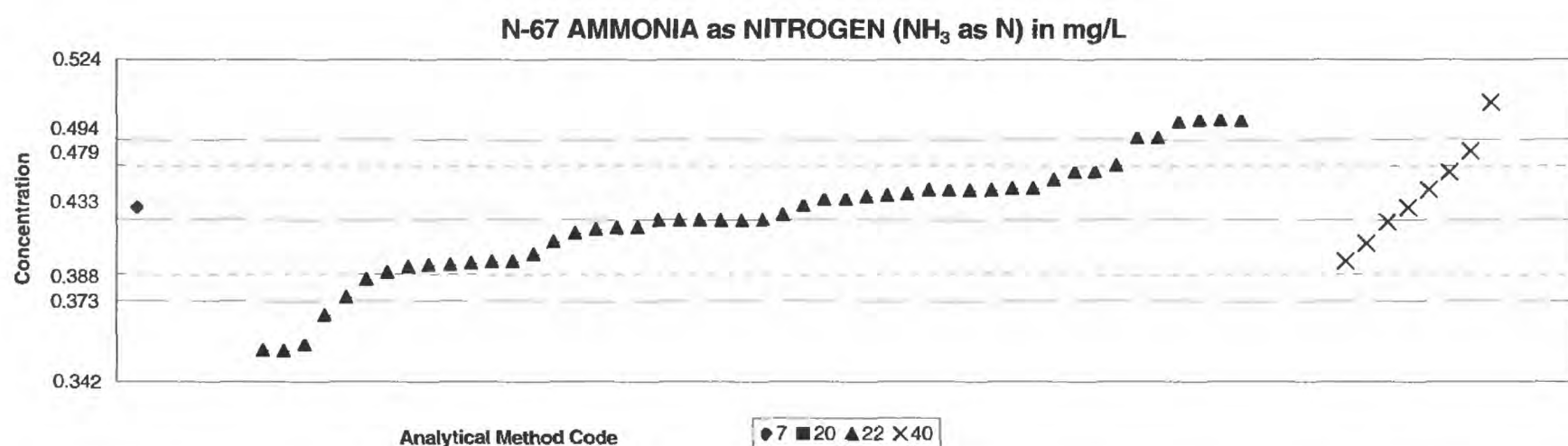
Table 12. Statistical summary of reported data for standard reference samples M-156 (major constituents) -- Continued



Summary	Methods			Statistics
	3	4	6	
N =	1	18	5	MPV = 9.53 $\mu\text{g/L}$
Minimum =	12.10	7.21	8.37	F-pseudosigma = 1.77
Maximum =		29.00	12.08	N = 24
Median =		9.29	9.97	Uh = 11.30
F-pseudosigma =		1.61	1.04	Lh = 8.92

Lab	Rating	Z-value	Methods		
			3	4	6
1	2	1.44	--	--	12.08
13	NR	--	--	<50	--
25	NR	--	--	<0.01	--
42	3	0.72	--	--	10.80
48	4	-0.07	--	--	9.40
57	4	-0.40	--	8.83	--
81	4	-0.30	--	9.00	--
86	2	1.17	--	11.60	--
89	2	1.45	12.10	--	--
105	NR	--	--	<20.0	--
127	3	-0.73	--	8.24	--
134	4	-0.27	--	9.06	--
138	4	-0.11	--	9.34	--
142	3	-0.66	--	--	8.37
154	4	0.15	--	9.80	--
180	0	7.34	--	22.50	--
212	4	-0.41	--	8.80	--
215	0	11.01	--	29.00	--
234	4	0.07	--	9.66	--
235	2	-1.31	--	7.21	--
247	4	0.25	--	--	9.97
265	3	-0.58	--	8.50	--
297	4	0.23	--	9.94	--
305	4	-0.18	--	9.21	--
323	4	-0.17	--	9.23	--
328	0	2.81	--	14.50	--
331	3	0.83	--	11.00	--

Table 13. Statistical summary of reported data for standard reference samples N-67 (nutrient constituents)



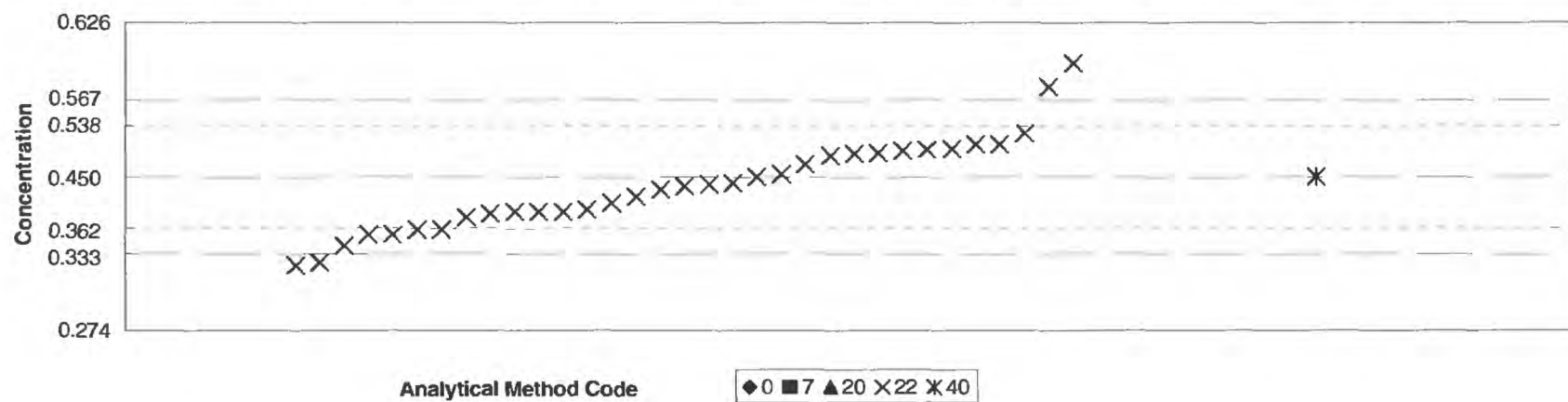
Summary	Methods				Statistics
	7	20	22	40	
N =	1	0	54	8	MPV = 0.433 mg/L
Minimum =	0.440	<1.00	0.040	0.410	F-pseudosigma = 0.030
Maximum =			5.310	0.500	N = 63
Median =			0.433	0.445	Uh = 0.451
F-pseudosigma =			0.032	0.030	Lh = 0.410
	Method Codes				
	7. Ion chromatography				
	20. Titration: colorimetric				
	22. Colorimetric				
	40. Ion selective electrode				

Lab	Rating	Z-value	Methods			
			7	20	22	40
1	4	-0.01	--	--	0.433	--
5	3	-0.80	--	--	0.409	--
12	0	4.89	--	--	0.582	--
13	1	1.54	--	--	0.480	--
18	0	-4.75	--	--	0.289	--
21	4	-0.01	--	--	0.433	--
23	3	0.55	--	--	0.450	--
25	2	-1.42	--	--	0.390	--
31	4	-0.01	--	--	0.433	--
38	4	0.45	--	--	0.447	--
46	3	0.75	--	--	0.456	--
46	0	-2.41	--	--	0.360	--
51	3	0.55	--	--	--	0.450
59	4	-0.14	--	--	0.429	--
64	1	1.87	--	--	0.490	--
70	0	-12.32	--	--	0.059	--
72	0	-2.41	--	--	0.360	--
81	4	-0.40	--	--	0.421	--
83	3	-0.87	--	--	0.407	--
86	0	-2.31	--	--	0.383	--
87	3	-0.77	--	--	0.410	--
88	0	-10.90	--	--	0.102	--
89	4	-0.01	--	--	0.433	--
90	3	-0.77	--	--	0.410	--
93	3	0.88	--	--	0.460	--
96	4	-0.01	--	--	0.433	--
97	1	1.83	--	--	0.489	--
106	3	0.88	--	--	0.460	--
110	4	0.44	--	--	0.447	--
113	3	0.55	--	--	0.450	--
114	4	0.22	--	--	--	0.440
118	0	-12.94	--	--	0.040	--
127	4	0.38	--	--	0.445	--
129	3	-0.83	--	--	0.408	--
134	4	0.25	--	--	0.441	--
138	3	0.58	--	--	0.451	--
140	0	5.16	--	--	0.590	--
142	3	0.58	--	--	0.451	--
151	3	-0.77	--	--	--	0.410
164	3	0.55	--	--	0.450	--
155	4	0.00	--	--	0.433	--
180	3	-0.96	--	--	0.404	--
190	4	0.09	--	--	0.436	--
193	2	-1.10	--	--	0.400	--
203	3	0.55	--	--	0.450	--
212	4	-0.24	--	--	0.426	--
213	NR	--	--	<1.0	--	--
215	1	1.87	--	--	0.490	--
224	1	1.54	--	--	0.480	--
234	4	-0.04	--	--	--	0.432

Lab	Rating	Z-value	Methods			
			7	20	22	40
243	4	-0.17	--	--	0.428	--
247	1	-1.75	--	--	0.380	--
287	0	2.19	--	--	--	0.500
297	2	1.01	--	--	0.464	--
305	3	0.88	--	--	--	0.460
306	2	1.27	--	--	--	0.472
307	4	-0.44	--	--	--	0.420
313	3	-0.83	--	--	0.408	--
316	4	-0.14	--	--	0.429	--
318	4	0.38	--	--	0.445	--
320	3	-0.64	--	--	0.414	--
321	0	160.46	--	--	5.310	--
323	4	0.48	--	--	0.448	--
328	NR	--	--	--	<.05	--
333	4	0.22	0.440	--	--	--

Table 13. Statistical summary of reported data for standard reference samples N-67 (nutrient constituents) -- Continued

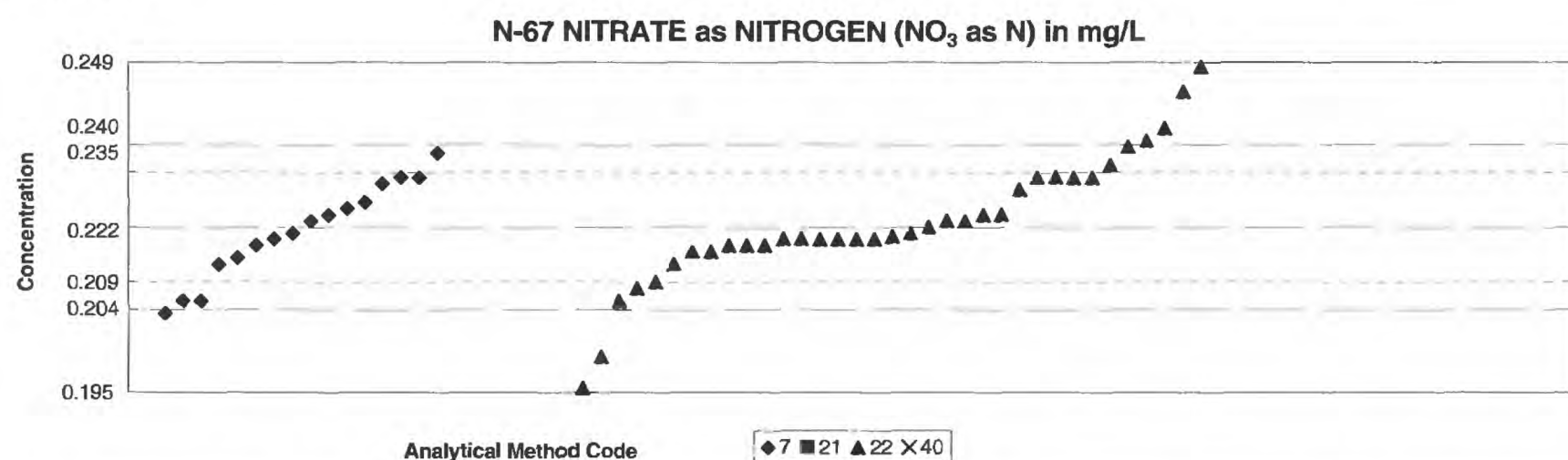
N-67 AMMONIA + ORGANIC NITROGEN as NITROGEN (NH₃ + Organic N as N) in mg/L



Summary	Methods					Statistics	
	0	7	20	22	40	Method Codes	
N =	1	1	0	41	2	0. Other	MPV = 0.450 mg/L
Minimum =	0.032	0.780	<1.00	0.060	0.450	7. Ion chromatography	F-pseudosigma = 0.059
Maximum =				1.187	0.648	20. Titration: colorimetric	N = 45
Median =				0.443		22. Colorimetric	Uh = 0.487
F-pseudosigma =				0.059		40. Ion selective electrode	Lh = 0.408

Lab	Rating	Z-value	Methods				
			0	7	20	22	40
1	4	0.02	--	--	--	0.451	--
5	0	4.95	--	--	--	0.740	--
12	0	5.29	--	--	--	0.760	--
18	0	2.22	--	--	--	0.580	--
21	3	0.63	--	--	--	0.487	--
23	1	-1.72	--	--	--	0.349	--
25	0	5.64	--	0.780	--	--	--
31	3	0.63	--	--	--	0.487	--
38	2	-1.02	--	--	--	0.390	--
46	3	0.55	--	--	--	0.482	--
48	3	0.85	--	--	--	0.500	--
51	4	0.00	--	--	--	--	0.450
59	4	-0.12	--	--	--	0.443	--
70	3	-0.79	--	--	--	0.404	--
72	2	-1.13	--	--	--	0.384	--
81	3	-0.51	--	--	--	0.420	--
87	3	-0.68	--	--	--	0.410	--
89	4	0.46	--	--	--	0.477	--
90	3	-0.72	--	--	--	0.408	--
96	3	-0.63	--	--	--	0.413	--
97	2	-1.02	--	--	--	0.390	--
105	NR	--	--	--	--	<1.00	--
113	NR	--	--	--	--	<0.5	--
118	0	-6.66	--	--	--	0.060	--
127	4	0.05	--	--	--	0.453	--
129	0	12.58	--	--	--	1.187	--
134	4	0.41	--	--	--	0.474	--
138	3	0.53	--	--	--	0.481	--
140	0	3.93	--	--	--	0.680	--
142	2	-1.13	--	--	--	0.384	--
154	3	0.51	--	--	--	0.480	--
155	4	-0.25	--	--	--	0.435	--
180	4	-0.15	--	--	--	0.441	--
193	3	-0.68	--	--	--	0.410	--
203	0	-3.24	--	--	--	0.260	--
212	4	0.46	--	--	--	0.477	--
213	NR	--	--	--	<1.0	--	--
215	0	4.27	--	--	--	0.700	--
224	1	1.76	--	--	--	0.553	--
247	1	-1.67	--	--	--	0.352	--
297	4	-0.38	--	--	--	0.428	--
305	NR	--	--	--	<1.0	--	--
306	0	3.38	--	--	--	--	0.648
313	2	-1.35	--	--	--	0.371	--
316	4	-0.19	--	--	--	0.439	--
318	4	0.26	--	--	--	0.465	--
320	0	3.67	--	--	--	0.665	--
323	3	-0.68	--	--	--	0.410	--
328	0	-7.14	0.032	--	--	--	--

Table 13. Statistical summary of reported data for standard reference samples N-67 (nutrient constituents) -- Continued

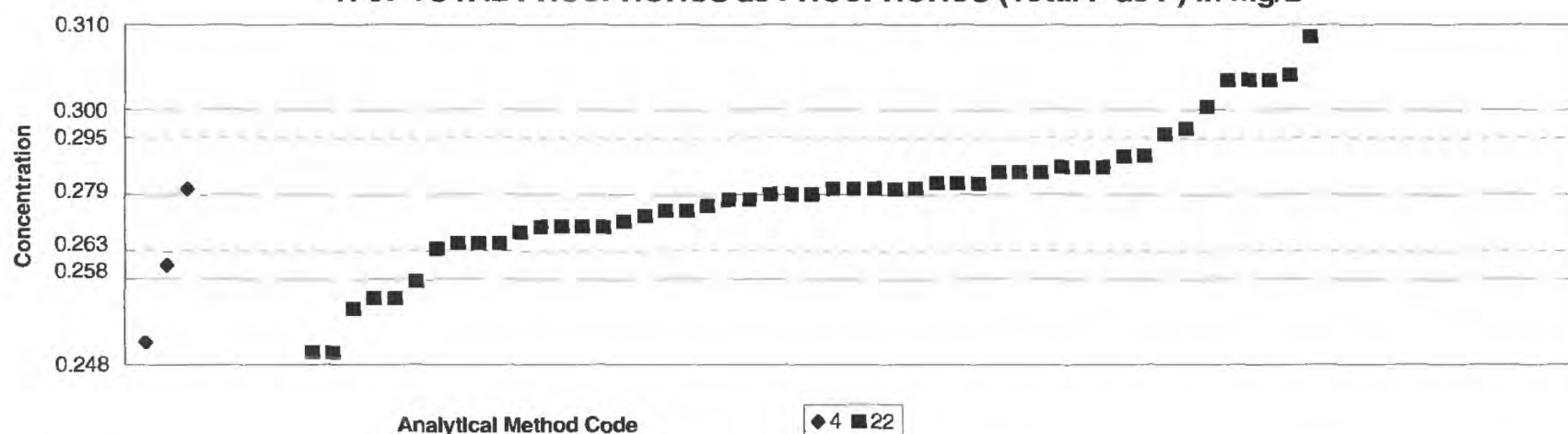


Summary	Methods				Statistics
	7	21	22	40	
N =	19	1	44	1	MPV = 0.222 mg/L
Minimum =	0.190	0.450	0.030	0.270	F-pseudosigma = 0.009
Maximum =	0.640		1.700		Rating criterion = 0.011
Median =	0.223		0.221		N = 65
F-pseudosigma =	0.010		0.010		Uh = 0.230
					Lh = 0.218
				7. Ion chromatography	
				21. Titration: electrometric	
				22. Colorimetric	
				40. Ion selective electrode	

Methods							Methods						
Lab	Rating	Z-value	7	21	22	40	Lab	Rating	Z-value	7	21	22	40
1	2	-1.08	--	--	0.210	--	234	3	-0.54	0.216	--	--	--
5	4	-0.27	--	--	0.219	--	243	3	0.72	--	--	0.230	--
12	4	-0.18	--	--	0.220	--	247	0	-2.88	0.190	--	--	--
13	4	-0.09	0.221	--	--	--	287	0	37.66	0.640	--	--	--
18	0	-2.34	--	--	0.196	--	297	1	1.98	--	--	0.244	--
21	4	-0.36	--	--	0.218	--	305	0	4.32	--	--	--	0.270
23	4	-0.45	0.217	--	--	--	306	3	-0.54	--	--	0.216	--
25	4	0.36	0.226	--	--	--	307	3	0.90	--	--	0.232	--
31	4	-0.36	--	--	0.218	--	313	3	-0.81	--	--	0.213	--
38	4	0.00	--	--	0.222	--	316	4	-0.14	--	--	0.220	--
42	4	-0.27	0.219	--	--	--	318	2	1.17	--	--	0.235	--
45	3	0.72	0.230	--	--	--	320	3	-0.90	--	--	0.212	--
46	1	-1.89	--	--	0.201	--	321	2	-1.08	0.210	--	--	--
48	0	20.54	--	0.450	--	--	323	3	0.54	--	--	0.228	--
51	0	3.42	0.260	--	--	--	328	NR	--	--	--	<.05	--
59	4	-0.18	--	--	0.220	--	333	2	1.08	0.234	--	--	--
64	4	-0.18	--	--	0.220	--							
69	4	-0.18	0.220	--	--	--							
70	4	-0.27	--	--	0.219	--							
72	0	13.33	--	--	0.370	--							
81	2	1.44	--	--	0.236	--							
83	4	-0.18	--	--	0.220	--							
86	0	-2.79	--	--	0.191	--							
87	0	2.52	--	--	0.250	--							
88	0	-10.54	--	--	0.105	--							
89	4	0.09	--	--	0.223	--							
90	4	-0.18	--	--	0.220	--							
93	4	0.09	0.223	--	--	--							
96	4	0.18	--	--	0.224	--							
97	3	0.72	--	--	0.230	--							
105	3	0.72	--	--	0.230	--							
113	4	0.18	--	--	0.224	--							
118	0	-17.30	--	--	0.030	--							
127	0	2.97	--	--	0.255	--							
129	4	0.18	0.224	--	--	--							
134	3	0.72	--	--	0.230	--							
138	4	-0.09	--	--	0.221	--							
140	4	0.09	--	--	0.223	--							
142	0	2.70	--	--	0.252	--							
154	4	-0.18	--	--	0.220	--							
155	0	-4.31	--	--	0.174	--							
180	4	0.27	0.225	--	--	--							
190	4	-0.27	--	--	0.219	--							
193	3	0.72	0.230	--	--	--							
203	2	-1.08	0.210	--	--	--							
209	2	-1.26	0.208	--	--	--							
212	2	1.26	--	--	0.236	--							
215	0	133.15	--	--	1.700	--							
220	0	2.34	--	--	0.248	--							
224	3	0.63	0.229	--	--	--							

Table 13. Statistical summary of reported data for standard reference samples N-67 (nutrient constituents) -- Continued

N-67 TOTAL PHOSPHORUS as PHOSPHORUS (Total P as P) in mg/L

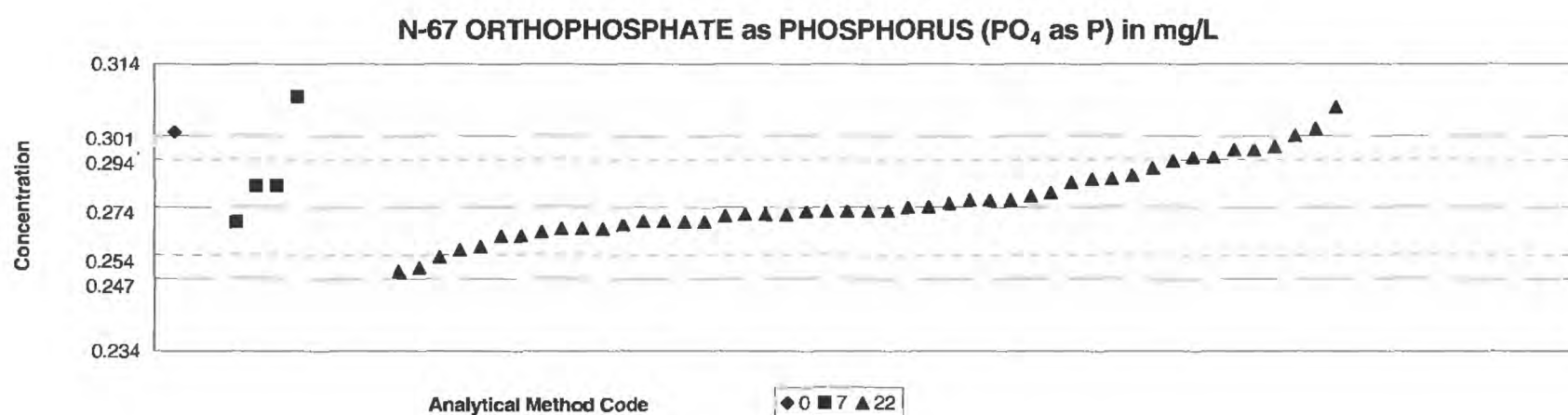


Summary	Methods		Statistics
	4	22	
N =	3	58	MPV = 0.279 mg/L
Minimum =	0.252	0.030	F-pseudosigma = 0.010
Maximum =	0.280	0.870	Rating criterion = 0.014
Median =		0.279	N = 61
F-pseudosigma =		0.010	Uh = 0.284
			Lh = 0.270

Lab	Rating	Z-value	Methods	
			4	22
1	4	0.00	--	0.279
5	2	-1.36	--	0.260
12	4	-0.43	--	0.273
13	4	0.07	--	0.280
18	4	-0.43	--	0.273
21	4	-0.22	--	0.276
23	0	-3.08	--	0.236
25	0	-2.08	--	0.250
31	4	-0.22	--	0.276
38	2	-1.15	--	0.263
42	1	-1.94	0.252	--
45	0	-2.08	--	0.250
46	4	-0.36	--	0.274
48	2	1.51	--	0.300
51	4	-0.50	--	0.272
59	3	-0.72	--	0.269
70	0	-5.38	--	0.204
72	0	-7.46	--	0.175
81	3	0.79	--	0.290
83	4	0.07	0.280	--
86	3	-0.93	0.266	--
87	4	-0.14	--	0.277
89	3	-0.65	--	0.270
93	0	3.30	--	0.325
96	4	0.07	--	0.280
97	2	1.51	--	0.300
105	3	-0.65	--	0.270
113	4	-0.07	--	0.278
114	2	-1.36	--	0.260
118	0	-17.85	--	0.030
127	3	0.86	--	0.291
129	4	0.36	--	0.284
134	4	0.29	--	0.283
138	4	0.14	--	0.281
140	4	0.07	--	0.280
142	4	0.00	--	0.279
154	2	1.15	--	0.295
155	4	0.08	--	0.280
180	4	-0.43	--	0.273
183	4	-0.29	--	0.275
190	4	-0.43	--	0.273
193	2	-1.51	--	0.258
203	4	0.36	--	0.284
212	0	-3.87	--	0.225
213	3	-0.65	--	0.270
215	0	42.37	--	0.870
224	2	1.51	--	0.300
234	4	0.36	--	0.284
243	4	0.07	--	0.280
247	4	0.50	--	0.286

Lab	Rating	Z-value	Methods	
			4	22
297	4	0.14	--	0.281
305	4	-0.07	--	0.278
306	0	2.08	--	0.308
307	4	0.29	--	0.283
313	4	0.50	--	0.286
316	0	2.85	--	0.319
318	4	0.14	--	0.281
320	4	0.29	--	0.283
321	1	1.58	--	0.301
323	4	0.00	--	0.279
328	0	3.66	--	0.330

Table 13. Statistical summary of reported data for standard reference samples N-67 (nutrient constituents) -- Continued

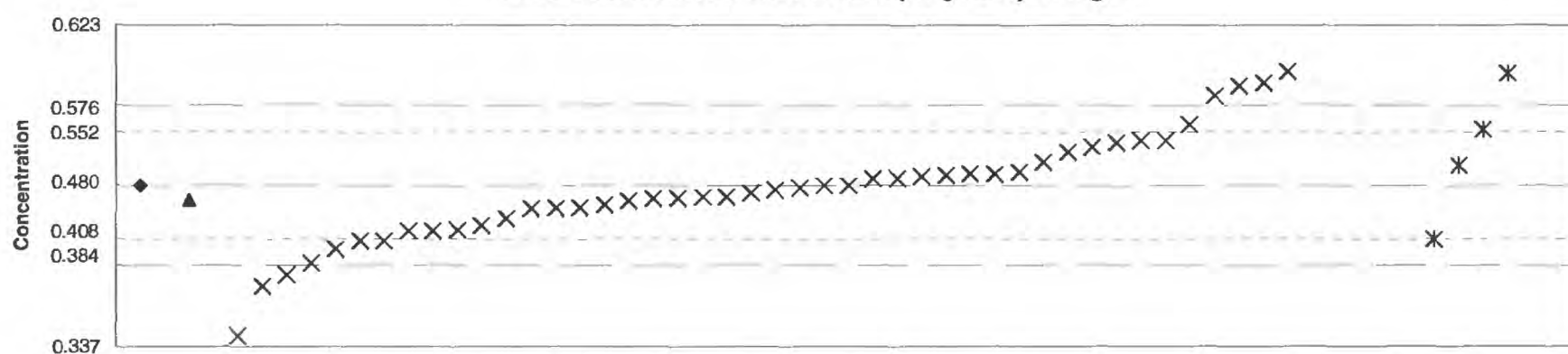


Summary	Methods			Statistics
	0	7	22	
N =	2	6	53	MPV = 0.274 mg/L
Minimum =	0.295	0.224	0.030	F-pseudosigma = 0.013
Maximum =	1.010	2.990	0.810	Rating criterion = 0.014
Median =		0.280	0.273	N = 61
F-pseudosigma =		0.026	0.011	Uh = 0.287
				Lh = 0.269

Lab	Rating	Z-value	Methods		
			0	7	22
1	4	0.00	--	--	0.274
5	0	-3.21	--	--	0.230
12	4	0.15	--	--	0.276
13	0	-3.65	--	0.224	--
18	4	0.15	--	--	0.276
21	4	-0.07	--	--	0.273
23	3	-0.80	--	--	0.263
25	3	-0.51	--	--	0.267
31	4	-0.07	--	--	0.273
38	3	-0.88	--	--	0.262
42	0	2.26	--	0.305	--
45	4	0.44	--	0.280	--
46	0	2.04	--	--	0.302
48	2	1.17	--	--	0.290
51	4	-0.29	--	--	0.270
59	3	-0.58	--	--	0.266
64	4	0.29	--	--	0.278
70	4	-0.44	--	--	0.268
72	0	4.38	--	--	0.334
81	2	1.02	--	--	0.288
83	4	0.00	--	--	0.274
87	4	-0.44	--	--	0.268
88	0	4.74	--	--	0.339
89	4	-0.29	--	--	0.270
93	0	-3.21	--	--	0.230
96	4	-0.44	--	--	0.268
97	4	0.07	--	--	0.275
105	2	1.17	--	--	0.290
113	4	-0.29	--	--	0.270
118	0	-17.81	--	--	0.030
127	3	0.95	--	--	0.267
129	3	0.58	--	--	0.282
134	3	0.66	--	--	0.283
138	4	-0.15	--	--	0.272
140	4	-0.29	--	--	0.270
142	4	-0.07	--	--	0.273
154	1	1.53	0.295	--	--
155	4	-0.18	--	--	0.272
180	3	0.58	--	--	0.282
183	3	-0.58	--	--	0.266
190	4	-0.07	--	--	0.273
203	2	-1.24	--	--	0.257
212	4	-0.36	--	--	0.269
213	2	-1.02	--	--	0.280
215	0	39.12	--	--	0.810
220	3	0.80	--	--	0.285
224	2	1.24	--	--	0.291
234	4	0.44	--	0.280	--
247	4	-0.29	--	0.270	--
287	0	198.25	--	2.990	--

Lab	Rating	Z-value	Methods		
			0	7	22
297	4	-0.15	--	--	0.272
305	3	0.51	--	--	0.281
306	4	0.15	--	--	0.276
307	1	1.61	--	--	0.296
313	2	1.02	--	--	0.288
316	4	-0.09	--	--	0.273
318	2	1.46	--	--	0.294
320	2	-1.31	--	--	0.256
321	4	-0.15	--	--	0.272
323	4	0.22	--	--	0.277
328	0	53.72	1.010	--	--

Table 14. Statistical summary of reported data for standard reference samples N-68 (nutrient constituents)

N-68 AMMONIA as NITROGEN (NH₃ as N) in mg/L

Analytical Method Code

◆ 0 ■ 20 ▲ 21 X 22 * 40

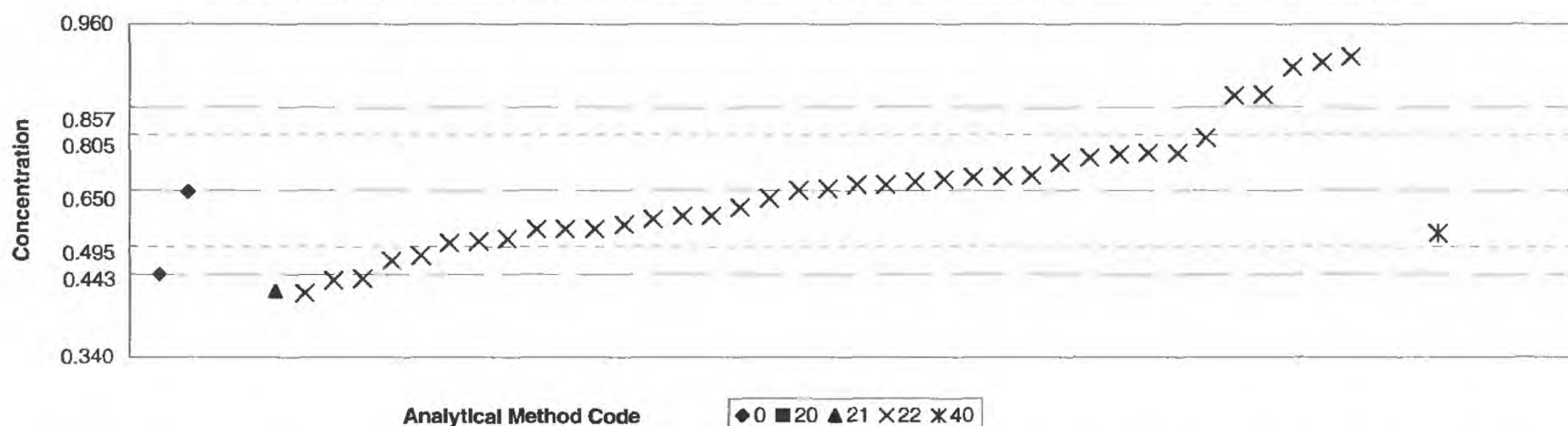
Summary	Methods					Statistics	
	0	20	21	22	40	Method Codes	
N =	1	0	1	50	4	0. Other	
Minimum =	0.480	0.000	0.467	0.040	0.432	20. Titration: colorimetric	
Maximum =				4.730	0.580	21. Titration: electrometric	
Median =				0.479		22. Colorimetric	
F-pseudosigma =				0.050		40. Ion selective electrode	
						MPV =	0.480 mg/L
						F-pseudosigma =	0.048
						N =	56
						Uh =	0.519
						Lh =	0.455

Lab	Rating	Z-value	Methods				
			0	20	21	22	40
1	4	-0.29	--	--	--	0.466	--
5	0	20.22	--	--	--	1.447	--
12	2	-1.19	--	--	--	0.423	--
13	3	0.84	--	--	--	0.520	--
18	0	-2.80	--	--	--	0.346	--
23	3	-0.84	--	--	--	0.440	--
25	2	-1.46	--	--	--	0.410	--
38	0	3.95	--	--	--	0.669	--
46	2	1.13	--	--	--	0.534	--
48	2	-1.05	--	--	--	0.430	--
59	4	-0.23	--	--	--	0.469	--
64	4	-0.42	--	--	--	0.480	--
70	0	88.89	--	--	--	4.730	--
72	1	-1.67	--	--	--	0.400	--
81	4	-0.44	--	--	--	0.459	--
83	3	-0.86	--	--	--	0.439	--
84	2	1.05	--	--	--	--	0.530
86	3	-0.75	--	--	--	0.444	--
87	1	1.67	--	--	--	0.560	--
88	0	-9.20	--	--	--	0.040	--
89	4	-0.27	--	--	0.467	--	--
90	3	-0.86	--	--	--	0.439	--
93	3	0.84	--	--	--	0.520	--
96	4	-0.15	--	--	--	0.473	--
97	4	0.19	--	--	--	0.489	--
105	4	-0.21	--	--	--	0.470	--
107	0	3.70	--	--	--	0.657	--
113	4	0.17	--	--	--	0.488	--
118	4	-0.21	--	--	--	0.470	--
127	4	-0.25	--	--	--	0.468	--
129	4	0.00	--	--	--	0.480	--
134	0	2.13	--	--	--	0.582	--
138	4	0.25	--	--	--	0.492	--
140	0	3.56	--	--	--	0.650	--
142	1	1.92	--	--	--	0.572	--
164	4	-0.42	--	--	--	0.460	--
155	4	0.22	--	--	--	0.490	--
180	4	-0.36	--	--	--	0.463	--
190	4	0.13	--	--	--	0.486	--
193	1	-1.88	--	--	--	0.390	--
203	4	0.21	--	--	--	0.490	--
204	4	0.00	--	--	--	0.480	--
212	1	1.86	--	--	--	0.569	--
213	NR	--	--	<1.0	--	--	--
215	2	-1.05	--	--	--	0.430	--
224	3	0.63	--	--	--	0.510	--
234	3	-1.00	--	--	--	--	0.432
243	4	-0.04	--	--	--	0.478	--
247	4	0.44	--	--	--	0.501	--
287	0	2.09	--	--	--	--	0.580

Lab	Rating	Z-value	0	20	21	22	40
297	3	0.71	--	--	--	0.514	--
306	4	0.38	--	--	--	--	0.498
313	4	-0.08	--	--	--	0.476	--
314	4	0.00	0.480	--	--	--	--
316	4	0.13	--	--	--	0.486	--
320	3	0.79	--	--	--	0.518	--
328	3	-0.63	--	--	--	0.450	--

**Table 14. Statistical summary of reported data for standard reference samples N-68 (nutrient constituents)--
Continued**

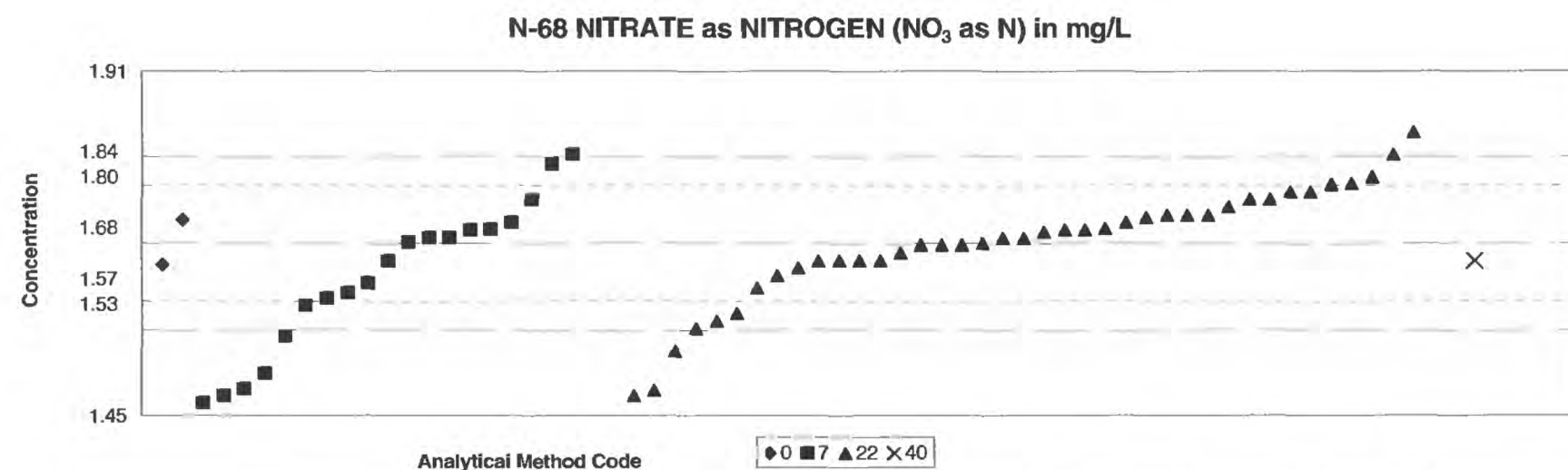
N-68 AMMONIA + ORGANIC NITROGEN as NITROGEN (NH₃ + Organic N as N) in mg/L



Summary	Methods					Statistics
	0	20	21	22	40	
N =	2	1	1	38	1	MPV = 0.650 mg/L
Minimum =	0.495	1.200	0.464	0.460	0.570	F-pseudosigma = 0.103
Maximum =	0.647			2.436		N = 43
Median =				0.657		Uh = 0.714
F-pseudosigma =				0.102		Lh = 0.574
Method Codes						
0. Other						
20. Titration: colorimetric						
21. Titration: electrometric						
22. Colorimetric						
40. Ion selective electrode						

Lab	Rating	Z-value	Methods				
			0	20	21	22	40
1	4	-0.15	--	--	--	0.635	--
5	4	0.19	--	--	--	0.670	--
12	3	0.68	--	--	--	0.720	--
18	1	1.74	--	--	--	0.830	--
23	4	0.10	--	--	--	0.660	--
25	0	2.42	--	--	--	0.900	--
38	3	-0.68	--	--	--	0.580	--
46	4	-0.30	--	--	--	0.619	--
48	3	-0.68	--	--	--	0.580	--
59	4	0.24	--	--	--	0.675	--
70	3	-0.91	--	--	--	0.556	--
72	3	-0.51	--	--	--	0.597	--
81	1	-1.80	--	--	0.464	--	--
87	3	0.58	--	--	--	0.710	--
89	3	0.65	--	--	--	0.717	--
90	1	-1.59	--	--	--	0.486	--
96	4	-0.44	--	--	--	0.604	--
97	3	-0.87	--	--	--	0.560	--
105	NR	--	--	--	--	<1.00	--
118	4	0.10	--	--	--	0.660	--
127	3	0.94	--	--	--	0.747	--
129	1	1.71	--	--	--	0.827	--
134	4	0.15	--	--	--	0.666	--
138	4	0.03	--	--	--	0.653	--
140	0	2.32	--	--	--	0.890	--
142	4	0.27	--	--	--	0.678	--
154	4	0.00	--	--	--	0.650	--
155	4	-0.44	--	--	--	0.604	--
180	4	0.25	--	--	--	0.676	--
193	0	2.22	--	--	--	0.880	--
203	3	0.68	--	--	--	0.720	--
204	3	-0.70	--	--	--	0.578	--
212	3	-0.60	--	--	--	0.588	--
213	0	5.32	--	1.200	--	--	--
215	1	-1.84	--	--	--	0.460	--
224	3	-0.94	--	--	--	0.553	--
247	1	-1.61	--	--	--	0.483	--
297	2	-1.25	--	--	--	0.521	--
305	NR	--	--	<1.0	--	--	--
306	3	-0.77	--	--	--	--	0.570
313	4	0.50	--	--	--	0.702	--
314	4	-0.03	0.647	--	--	--	--
316	2	-1.17	--	--	--	0.529	--
320	0	17.27	--	--	--	2.436	--
328	2	-1.50	0.495	--	--	--	--

Table 14. Statistical summary of reported data for standard reference samples N-68 (nutrient constituents) -- Continued

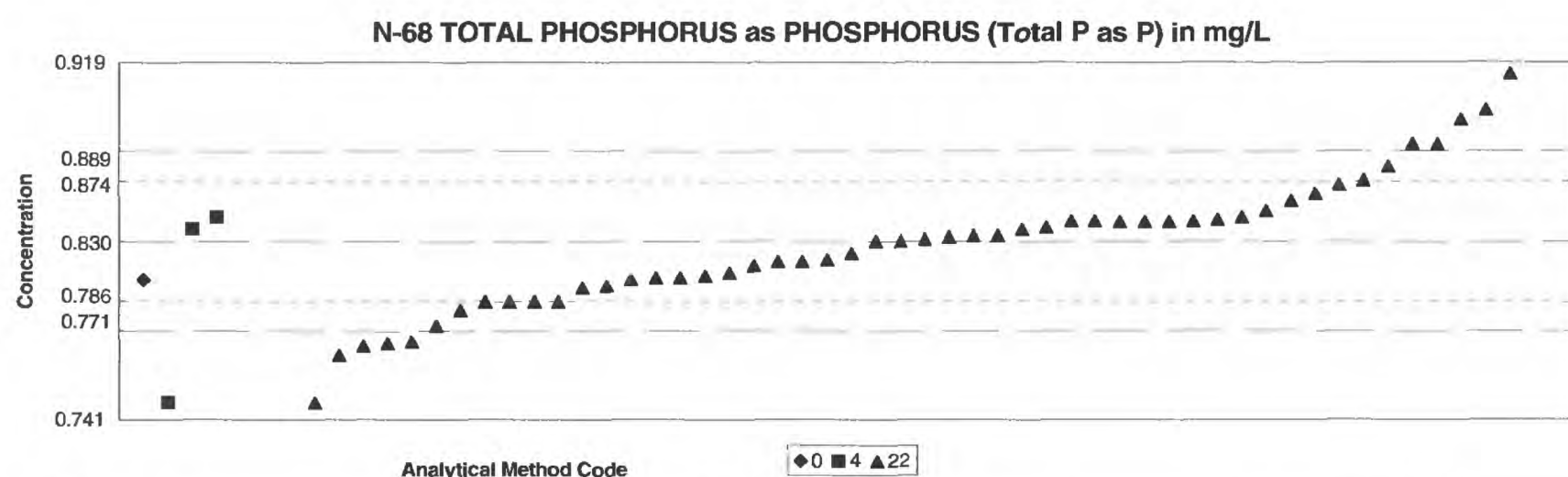


Summary	Methods				Statistics
	0	7	22	40	
N =	2	19	42	2	MPV = 1.68 mg/L
Minimum =	1.65	1.47	0.22	0.79	F-pseudosigma = 0.08
Maximum =	1.71	1.80	1.99	1.66	Rating criterion = 0.08
Median =		1.66	1.69		N = 65
F-pseudosigma =		0.09	0.06		Uh = t.72
					Lh = t.62

Lab	Rating	Z-value	Methods			
			0	7	22	40
1	3	-0.70	--	--	1.62	--
5	4	-0.15	--	--	1.67	--
12	4	0.44	--	--	1.72	--
13	3	-0.86	--	1.61	--	--
18	4	-0.03	--	--	1.68	--
23	3	0.80	--	--	1.75	--
25	3	-0.98	--	1.60	--	--
26	0	-2.53	--	1.47	--	--
38	4	0.23	--	--	1.70	--
42	4	0.02	--	1.68	--	--
45	4	0.21	--	1.70	--	--
46	4	-0.27	--	--	1.66	--
48	2	1.40	--	--	1.80	--
59	4	0.33	--	--	1.71	--
64	4	0.09	--	--	1.69	--
69	4	0.21	--	1.70	--	--
70	2	-1.22	--	--	1.58	--
72	1	1.75	--	--	1.83	--
81	4	-0.27	--	--	1.66	--
83	4	-0.03	--	--	1.68	--
84	3	0.68	--	1.74	--	--
86	1	-1.69	--	--	1.54	--
87	4	-0.51	--	--	1.64	--
88	0	-16.87	--	--	0.26	--
89	3	0.80	--	--	1.75	--
90	4	0.17	--	--	1.70	--
93	0	-2.05	--	1.51	--	--
96	4	-0.27	--	--	1.66	--
97	3	0.92	--	--	1.76	--
105	4	-0.03	--	--	1.68	--
107	2	-1.34	--	--	1.57	--
113	4	-0.34	1.65	--	--	--
118	4	0.44	--	--	1.72	--
127	2	-1.48	--	1.56	--	--
129	3	-0.78	--	1.62	--	--
134	4	0.41	--	--	1.72	--
138	4	-0.27	--	--	1.66	--
140	3	0.93	--	--	1.76	--
142	2	-1.10	--	--	1.59	--
154	4	0.44	--	--	1.72	--
155	0	-2.32	--	--	1.49	--
180	4	0.33	--	1.71	--	--
190	0	3.65	--	--	1.99	--
193	4	-0.27	--	1.66	--	--
203	0	-2.41	--	1.48	--	--
204	3	0.56	--	--	1.73	--
208	4	0.09	--	1.69	--	--
209	4	0.09	--	1.69	--	--
212	4	-0.39	--	--	1.65	--
215	0	-17.38	--	--	0.22	--

Lab	Rating	Z-value	0	7	22	40
220	4	0.09	--	--	1.69	--
224	2	1.24	--	1.79	--	--
234	3	-0.63	--	1.63	--	--
243	3	0.68	--	--	1.74	--
247	0	-2.29	--	1.49	--	--
287	2	1.40	--	1.80	--	--
291	0	-10.61	--	--	--	0.79
297	2	1.04	--	--	1.77	--
305	4	-0.27	--	--	--	1.66
306	0	-2.41	--	--	1.48	--
313	4	0.21	--	--	1.70	--
314	4	0.36	1.71	--	--	--
316	4	0.00	--	--	1.68	--
320	4	0.21	--	--	1.70	--
328	3	0.68	--	--	1.74	--

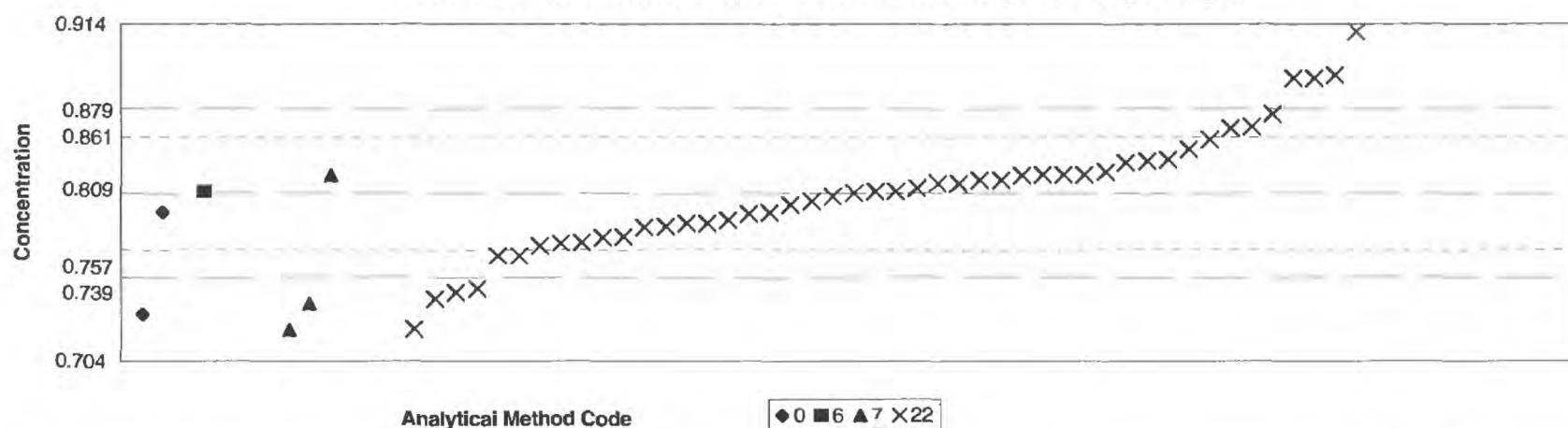
Table 14. Statistical summary of reported data for standard reference samples N-68 (nutrient constituents)--Continued



Summary			Methods		Statistics	
			0	4	22	
N =	1	3	53			
Minimum =	0.811	0.750	0.290			MPV = 0.830 mg/L
Maximum =		0.842	0.913			F-pseudosigma = 0.030
Median =			0.830			Rating criterion = 0.042
F-pseudosigma =			0.030			N = 57
						Uh = 0.840
						Lh = 0.800

			Methods					
Lab	Rating	Z-value	0	4	22	Lab	Rating	Z-value
1	4	0.17	--	--	0.837	305	4	0.05
5	4	0.00	--	--	0.830	306	0	-2.31
12	4	0.14	--	--	0.836	313	3	0.67
13	3	-0.72	--	--	0.800	314	4	-0.46
18	4	-0.46	--	--	0.811	316	0	2.00
23	2	1.45	--	--	0.890	320	2	-1.25
25	2	-1.20	--	--	0.780	328	3	-0.72
38	2	-1.01	--	--	0.788			
42	1	-1.93	--	0.750	--			
45	4	0.24	--	--	0.840			
46	4	-0.43	--	--	0.812			
48	4	0.24	--	--	0.840			
59	4	0.00	--	--	0.830			
70	3	0.89	--	--	0.867			
72	2	-1.37	--	--	0.773			
81	4	-0.43	--	--	0.812			
83	4	0.14	--	0.836	--			
88	4	0.29	--	0.842	--			
87	4	0.36	--	--	0.845			
89	4	-0.24	--	--	0.820			
93	3	0.58	--	--	0.854			
96	3	-0.82	--	--	0.796			
97	3	-0.72	--	--	0.800			
105	1	-1.93	--	--	0.750			
107	4	-0.22	--	--	0.821			
113	3	-0.53	--	--	0.808			
114	4	0.24	--	--	0.840			
118	4	0.48	--	--	0.850			
127	4	0.24	--	--	0.840			
129	1	1.57	--	--	0.895			
134	4	0.02	--	--	0.831			
138	4	0.29	--	--	0.842			
140	4	0.24	--	--	0.840			
142	4	-0.14	--	--	0.824			
154	2	1.16	--	--	0.878			
155	4	-0.38	--	--	0.814			
180	3	-0.55	--	--	0.807			
183	4	0.07	--	--	0.833			
190	4	-0.41	--	--	0.813			
193	2	-1.23	--	--	0.779			
203	3	0.72	--	--	0.860			
204	4	0.07	--	--	0.833			
212	0	-4.39	--	--	0.648			
213	4	0.24	--	--	0.840			
215	0	-13.01	--	--	0.290			
224	4	-0.24	--	--	0.820			
234	4	0.27	--	--	0.841			
243	3	-0.72	--	--	0.800			
247	4	-0.29	--	--	0.818			
297	2	1.16	--	--	0.878			

Table 14. Statistical summary of reported data for standard reference samples N-68 (nutrient constituents)--Continued

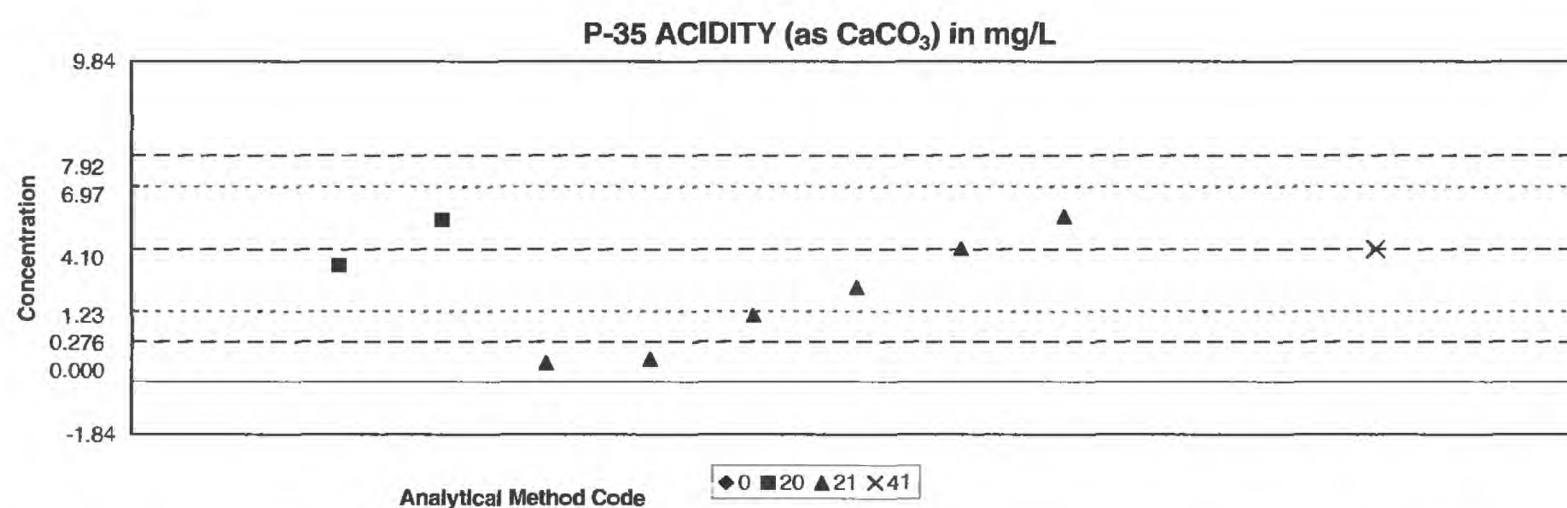
N-68 ORTHOPHOSPHATE as PHOSPHORUS (PO₄ as P) in mg/L

Summary		Methods				Statistics	
		0	6	7	22	Method Codes	
N =	3	1	8	47			MPV = 0.809 mg/L
Minimum =	0.733	0.810	0.210	0.280	0. Other		F-pseudosigma = 0.035
Maximum =	2.450		4.620	0.909	6. Inductively coupled plasma/mass spectrometry		Rating criterion = 0.040
Median =			0.732	0.810	7. Ion chromatography		N = 59
F-pseudosigma =			0.176	0.030	22. Colorimetric		Uh = 0.825
							Lh = 0.778

		Methods			
Lab	Rating	Z-value	0	6	7 22
1	4	0.02	--	--	0.810
5	1	-1.63	--	--	0.743
12	4	-0.17	--	--	0.802
13	0	-14.81	--	--	0.210
18	4	0.27	--	--	0.820
23	4	0.02	--	--	0.810
25	3	-0.77	--	--	0.778
26	0	-4.18	--	--	0.640
38	3	-0.52	--	--	0.788
42	0	-2.10	--	--	0.724
45	4	0.02	--	0.810	--
46	4	0.20	--	--	0.817
46	4	0.47	--	--	0.828
59	3	-0.69	--	--	0.781
64	3	0.99	--	--	0.849
70	3	-0.67	--	--	0.762
72	0	2.47	--	--	0.909
81	4	0.15	--	--	0.815
83	4	0.32	--	--	0.822
87	3	0.82	--	--	0.842
88	4	-0.42	--	--	0.792
89	4	0.27	--	--	0.820
93	4	0.27	--	--	0.620
96	3	-0.96	--	--	0.770
97	4	-0.05	--	--	0.807
105	4	0.27	--	--	0.820
107	4	0.49	--	--	0.829
113	4	0.15	--	--	0.815
118	4	-0.47	--	--	0.790
127	3	0.67	--	--	0.836
129	2	1.21	--	--	0.858
134	4	0.00	--	--	0.809
138	3	-0.82	--	--	0.776
140	2	1.01	--	--	0.850
142	3	0.52	--	--	0.630
154	1	-1.88	0.733	--	--
155	3	-0.52	--	--	0.788
180	0	4.62	--	--	0.996
183	3	-0.96	--	--	0.770
190	4	0.07	--	--	0.812
203	2	-1.48	--	--	0.749
204	1	1.80	--	--	0.882
208	0	-2.69	--	--	0.700
212	4	-0.30	--	--	0.797
213	4	-0.47	--	--	0.790
215	0	-13.08	--	--	0.280
220	1	1.76	--	--	0.880
224	4	-0.32	--	--	0.796
234	1	-1.71	--	--	0.740
247	4	0.27	--	--	0.820

Lab	Rating	Z-value	0	6	7	22
287	0	94.2	--	--	4.620	--
297	4	-0.12	--	--	--	0.804
305	4	0.20	--	--	--	0.817
306	0	-2.10	--	--	--	0.724
313	1	1.76	--	--	--	0.880
314	4	-0.30	0.797	--	--	--
316	3	-0.77	--	--	--	0.778
320	1	-1.53	--	--	--	0.747
328	0	40.6	2.450	--	--	--

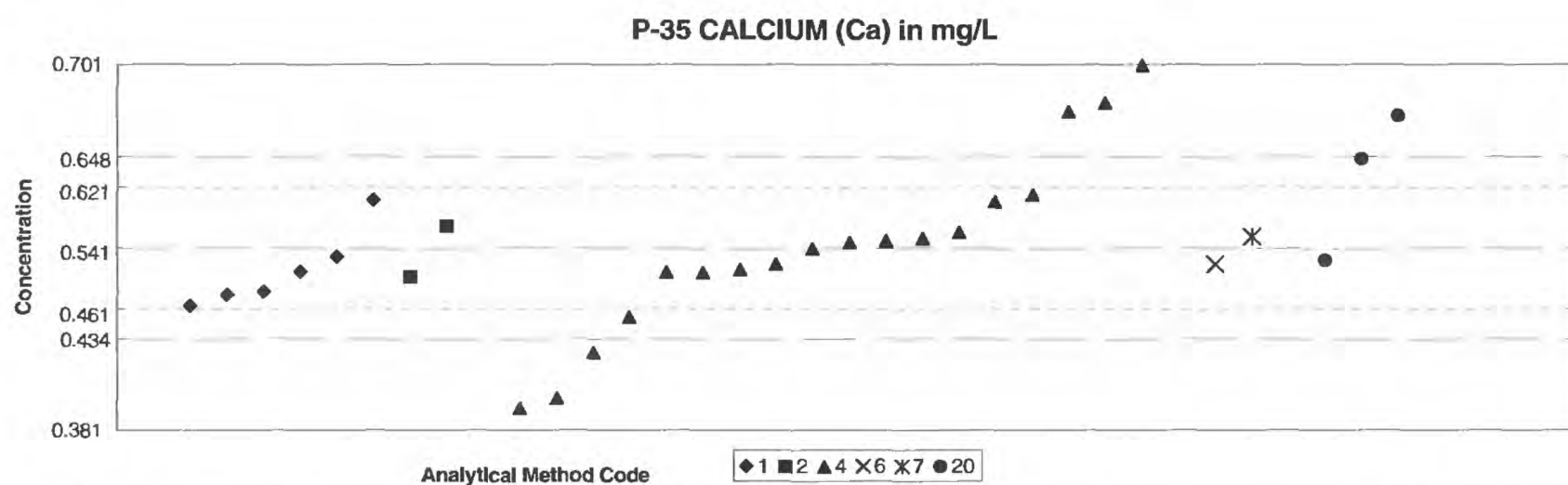
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)



Summary	Methods				Statistics	
	0	20	21	41	Method Codes	
N =	1	2	7	1	0. Other	MPV = 4.10 mg/L
Minimum =	18.86	3.60	0.58	4.10	20. Titration: colorimetric	F-pseudosigma = 1.91
Maximum =		5.00	26.00		21. Titration: electrometric	N = 11
Median =			2.90		41. Electrometric [pH and specific conductance]	Uh = 5.05
F-pseudosigma =			2.39			Lh = 2.48

Lab	Rating	Z-value	Methods			
			0	20	21	41
25	NR	--	--	--	<8	--
38	1	-1.77	--	--	0.71	--
81	2	-1.07	--	--	2.05	--
89	3	-0.63	--	--	2.90	--
105	0	11.45	--	--	26.00	--
215	4	0.47	--	5.00	--	--
220	3	0.53	--	--	5.11	--
247	4	0.00	--	--	--	4.10
273	0	7.72	18.86	--	--	--
274	4	0.01	--	--	4.11	--
328	4	-0.26	--	3.60	--	--
333	1	-1.84	--	--	0.58	--

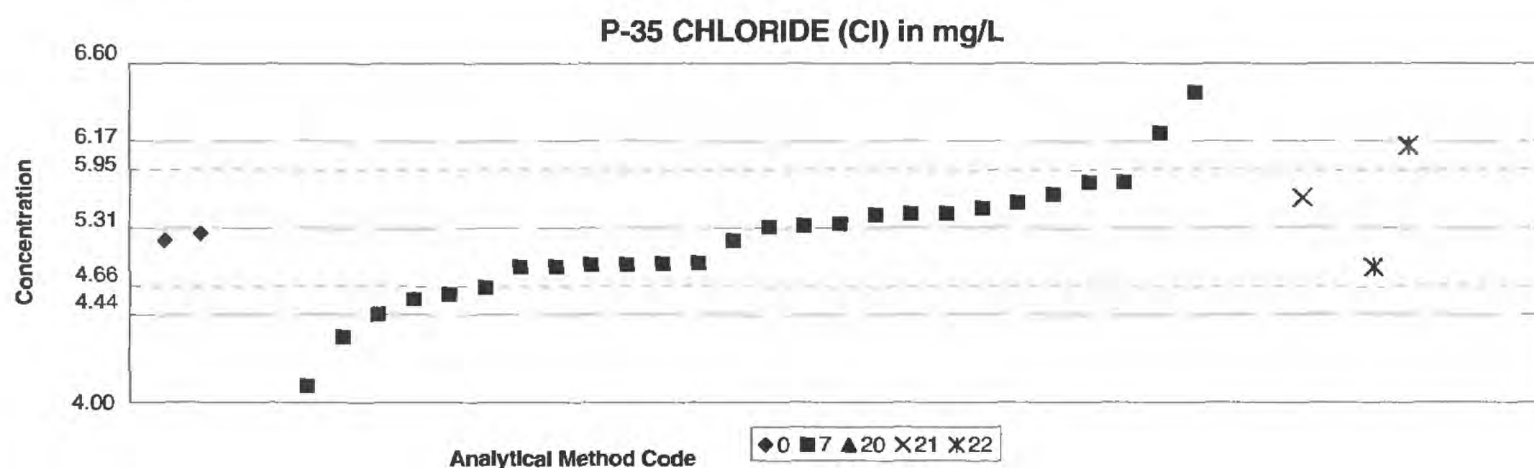
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)--Continued



Summary	Methods						Statistics	
	1	2	4	6	7	20	Method Codes	
N =	7	2	20	1	2	5	1. Atomic absorption: direct, air	
Minimum =	0.380	0.516	0.241	0.527	0.551	0.530	2. Atomic absorption: direct, nitrous oxide	
Maximum =	0.583	0.560	3.100		13.000	2.400	4. Inductively coupled plasma	
Median =	0.502		0.544			0.656	6. Inductively coupled plasma/mass spectrometry	
F-pseudosigma =	0.023		0.063			0.127	7. Ion chromatography	
							20. Titration: colorimetric	
							MPV =	0.541 mg/L
							F-pseudosigma =	0.053
							N =	37
							Uh =	0.588
							Lh =	0.516

Lab	Rating	Z-value	Methods					
			1	2	4	6	7	20
1	4	0.00	--	--	0.541	--	--	--
2	4	0.19	--	--	--	--	0.551	--
23	0	34.83	--	--	--	--	--	2.400
25	0	-5.62	--	--	0.241	--	--	--
38	4	0.36	--	0.560	--	--	--	--
45	0	-3.02	0.380	--	--	--	--	--
48	4	-0.26	--	--	--	0.527	--	--
64	4	-0.39	0.520	--	--	--	--	--
81	4	0.26	--	--	0.555	--	--	--
86	1	-1.72	--	--	0.449	--	--	--
89	3	-0.73	0.502	--	--	--	--	--
93	0	2.23	--	--	0.660	--	--	--
105	0	2.38	--	--	0.668	--	--	--
110	4	-0.36	--	--	0.522	--	--	--
134	4	-0.26	--	--	0.527	--	--	--
138	4	0.09	--	--	0.546	--	--	--
140	4	-0.15	0.533	--	--	--	--	--
155	0	2.16	--	--	--	--	--	0.656
180	3	0.77	--	--	0.582	--	--	--
190	3	-0.77	0.500	--	--	--	--	--
193	4	-0.47	--	0.516	--	--	--	--
203	0	-2.64	--	--	0.400	--	--	--
215	0	47.95	--	--	3.100	--	--	--
220	0	-2.47	--	--	0.409	--	--	--
247	4	0.11	--	--	0.547	--	--	--
255	3	0.88	--	--	0.588	--	--	--
265	4	-0.39	--	--	0.520	--	--	--
268	3	0.79	0.583	--	--	--	--	--
270	0	233.43	--	--	--	--	13.000	--
273	4	-0.39	--	--	0.520	--	--	--
274	0	4.67	--	--	--	--	--	0.790
279	4	-0.21	--	--	--	--	--	0.530
287	2	1.46	--	--	--	--	--	0.619
315	2	-1.14	--	--	0.480	--	--	--
321	3	-0.96	0.490	--	--	--	--	--
328	0	2.98	--	--	0.700	--	--	--
333	4	0.17	--	--	0.550	--	--	--

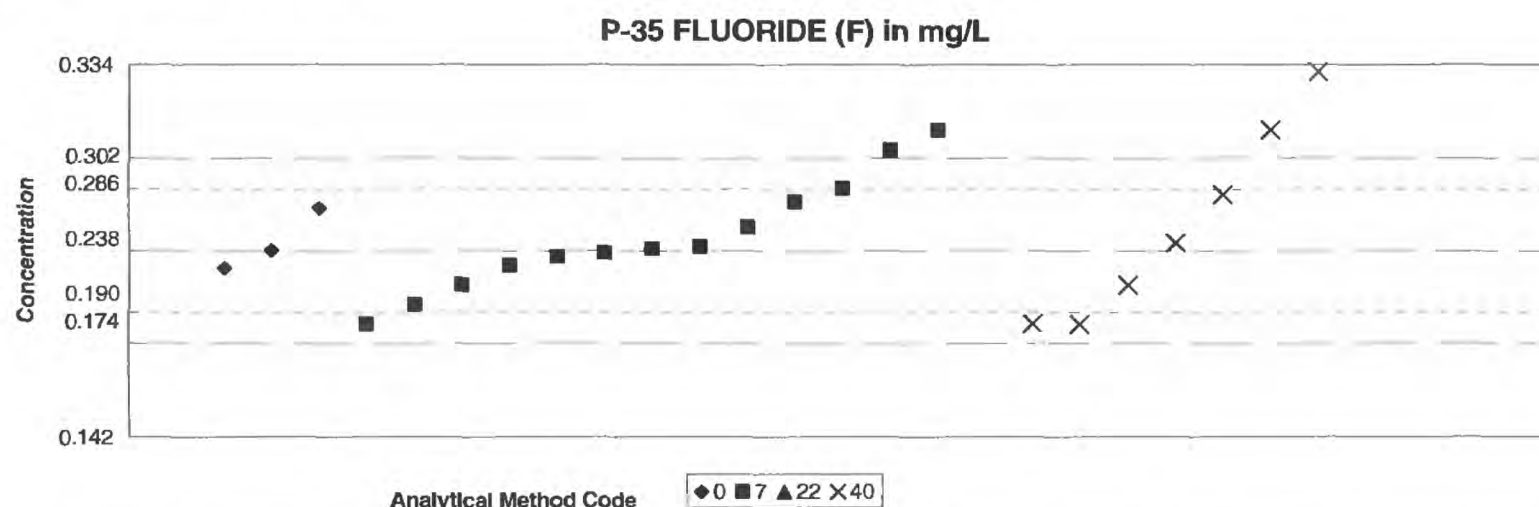
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)--Continued



Summary	Methods					Statistics
	0	7	20	21	22	
N =	4	26	2	1	3	MPV = 5.31 mg/L
Minimum =	5.20	4.12	8.10	5.52	2.40	F-pseudosigma = 0.43
Maximum =	10.12	6.30	24.41		5.90	N = 36
Median =		5.25				Uh = 5.58
F-pseudosigma =		0.33				Lh = 5.00
Method Codes						
0. Other						
7. Ion chromatography						
20. Titration: colorimetric						
21. Titration: electrometric						
22. Colorimetric						

Lab	Rating	Z-value	Methods				
			0	7	20	21	22
1	3	0.74	--	5.63	--	--	--
2	1	-1.51	--	4.65	--	--	--
23	4	0.03	--	5.32	--	--	--
25	4	-0.01	--	5.30	--	--	--
45	3	-0.66	--	5.02	--	--	--
48	3	-0.71	--	--	--	--	5.00
59	0	-2.74	--	4.12	--	--	--
64	4	0.22	--	5.40	--	--	--
81	4	0.50	--	--	--	5.52	--
86	4	0.01	--	5.31	--	--	--
89	4	0.22	--	5.40	--	--	--
93	3	0.75	--	5.63	--	--	--
105	3	-0.71	--	5.00	--	--	--
110	3	-0.63	--	5.03	--	--	--
113	4	-0.24	5.20	--	--	--	--
134	4	0.20	--	5.39	--	--	--
138	3	-0.64	--	5.03	--	--	--
140	2	1.38	--	--	--	--	5.90
180	4	0.41	--	5.48	--	--	--
183	0	11.15	10.12	--	--	--	--
190	4	-0.13	5.25	--	--	--	--
208	4	-0.24	--	5.20	--	--	--
220	0	-6.73	--	--	--	--	2.40
247	2	-1.26	--	4.76	--	--	--
256	0	2.84	6.53	--	--	--	--
265	2	-1.05	--	4.85	--	--	--
268	1	-1.91	--	4.48	--	--	--
273	3	-0.71	--	5.00	--	--	--
274	0	44.24	--	--	24.41	--	--
279	0	6.47	--	--	8.10	--	--
287	3	-0.66	--	5.02	--	--	--
301	0	2.30	--	6.30	--	--	--
315	4	0.31	--	5.44	--	--	--
321	2	-1.17	--	4.80	--	--	--
328	1	1.61	--	6.00	--	--	--
333	3	0.54	--	5.54	--	--	--

Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)—Continued

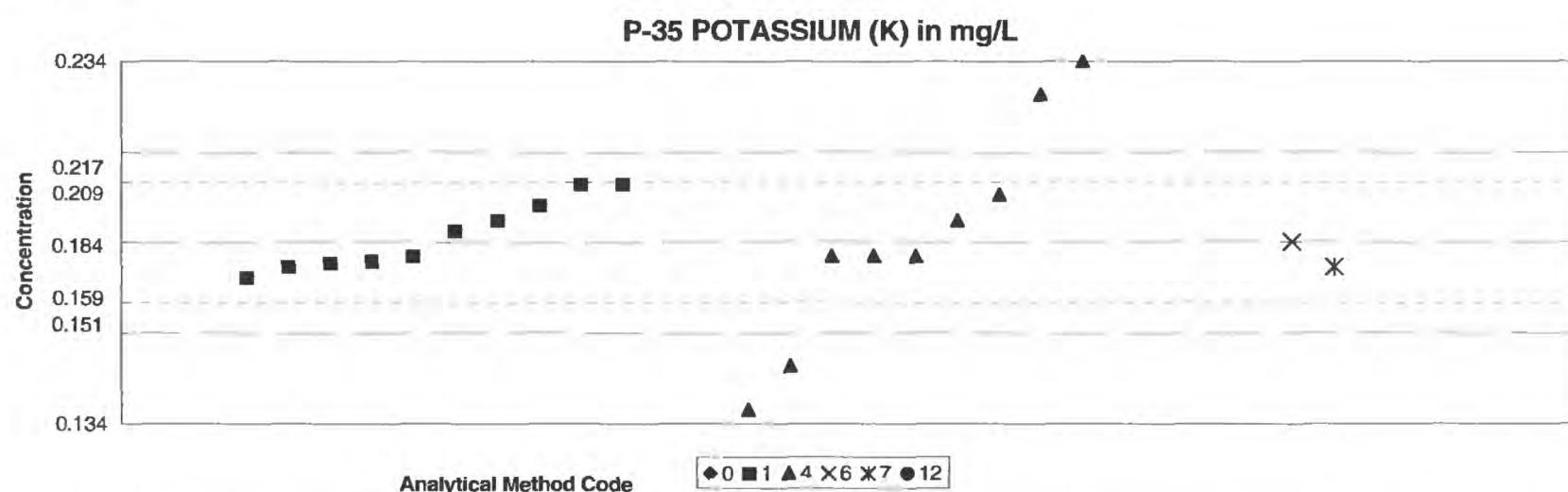


Summary	Methods				Statistics
	0	7	22	40	
N =	4	13	t	7	MPV = 0.238 mg/L
Minimum =	0.140	0.200	0.070	0.200	F-pseudosigma = 0.032
Maximum =	0.260	0.300		0.330	N = 25
Median =		0.239		0.242	Uh = 0.263
F-pseudosigma =		0.024		0.054	Lh = 0.220

Method Codes	
0.	Other
7.	Ion chromatography
22.	Colorimetric
40.	Ion selective electrode

Lab	Reting	Z-value	Methods			
			0	7	22	40
1	4	0.13	--	--	--	0.242
2	4	0.03	--	0.239	--	--
23	4	0.06	--	0.240	--	--
25	4	0.38	--	0.250	--	--
45	3	-0.88	--	0.210	--	--
59	4	-0.25	--	0.230	--	--
81	4	-0.09	--	0.235	--	--
86	3	1.00	--	0.270	--	--
89	2	-1.19	--	--	--	0.200
93	4	-0.03	--	0.237	--	--
105	3	-0.56	--	0.220	--	--
113	4	-0.28	0.229	--	--	--
134	3	-0.56	--	--	--	0.220
138	2	-1.19	--	--	--	0.200
140	3	0.91	--	--	--	0.267
180	3	0.78	--	0.263	--	--
183	3	0.69	0.260	--	--	--
190	4	0.00	0.238	--	--	--
215	1	1.95	--	--	--	0.300
247	2	-1.19	--	0.200	--	--
255	NR	--	--	--	--	<0.4
256	0	-3.07	0.140	--	--	--
273	1	1.63	--	0.290	--	--
274	0	-5.27	--	--	0.070	--
287	1	1.95	--	0.300	--	--
328	0	2.89	--	--	--	0.330

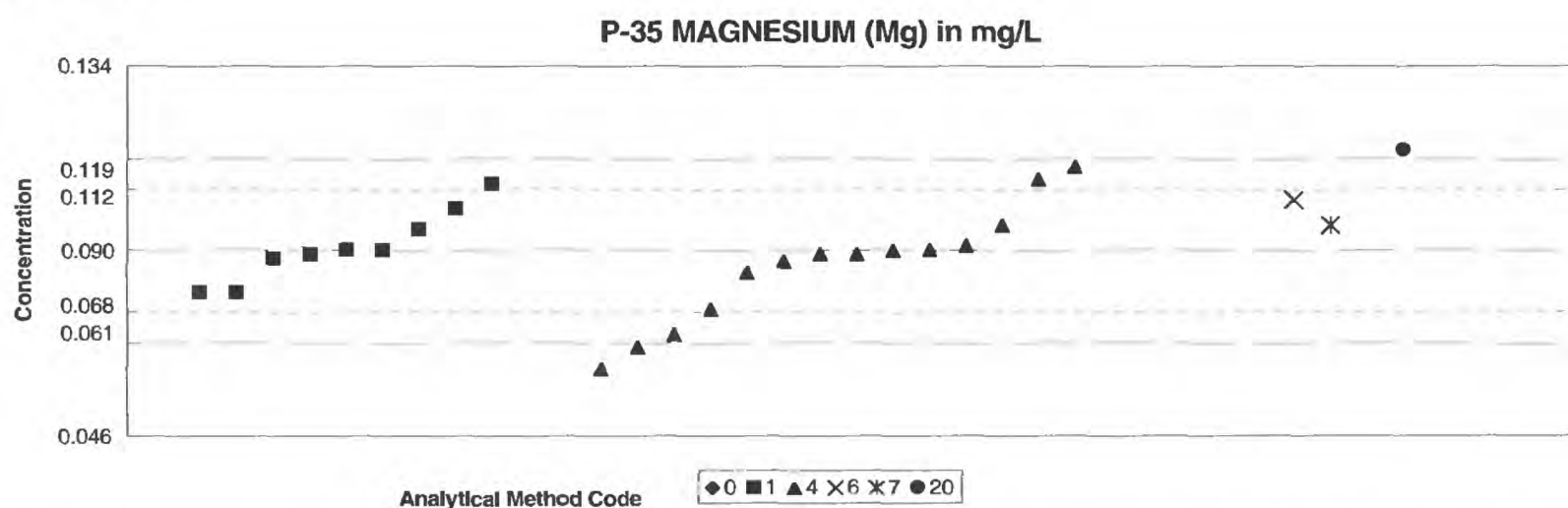
**Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)--
Continued**



Summary	Methods						Statistics
	0	1	4	6	7	12	
N =	0	11	11	1	2	2	MPV = 0.184 mg/L
Minimum =	0.000	0.174	0.108	0.184	0.177	0.100	F-pseudosigma = 0.017
Maximum =		0.242	0.250		14.660	1.210	N = 27
Median =		0.187	0.180				Uh = 0.200
F-pseudosigma =		0.014	0.034				Lh = 0.178
Method Codes							
0. Other							
1. Atomic absorption: direct, air							
4. Inductively coupled plasma							
6. Inductively coupled plasma/mass spectrometry							
7. Ion chromatography							
12. Flame emission							

Lab	Rating	Z-value	Methods					
			0	1	4	6	7	12
1	4	-0.42	--	0.177	--	--	--	--
2	4	-0.42	--	--	--	--	0.177	--
23	NR	--	--	--	--	--	--	<0.2
25	0	2.46	--	--	0.225	--	--	--
38	4	0.36	--	0.190	--	--	--	--
45	NR	--	<1	--	--	--	--	--
48	4	0.00	--	--	--	0.184	--	--
64	4	-0.24	--	0.180	--	--	--	--
81	0	-2.76	--	--	0.138	--	--	--
89	3	0.96	--	0.200	--	--	--	--
93	4	-0.24	--	--	0.180	--	--	--
105	NR	--	--	--	<1.00	--	--	--
110	4	-0.32	--	0.179	--	--	--	--
134	3	0.60	--	0.194	--	--	--	--
138	3	0.78	--	--	0.197	--	--	--
140	4	0.18	--	0.187	--	--	--	--
180	NR	--	--	--	<0.69	--	--	--
190	3	0.96	--	0.200	--	--	--	--
193	3	-0.60	--	0.174	--	--	--	--
203	4	-0.24	--	--	0.180	--	--	--
220	0	-4.56	--	--	0.108	--	--	--
247	0	3.00	--	--	0.234	--	--	--
256	NR	--	<0.02	--	--	--	--	--
265	4	0.36	--	--	0.190	--	--	--
268	0	3.48	--	0.242	--	--	--	--
270	0	867.92	--	--	--	14.660	--	--
273	0	-2.04	--	--	0.150	--	--	--
274	0	-5.04	--	--	--	--	--	0.100
279	0	61.51	--	--	--	--	--	1.210
287	4	-0.36	--	0.178	--	--	--	--
315	0	3.96	--	--	0.250	--	--	--
328	NR	--	--	--	<2.0	--	--	--
333	4	-0.24	--	--	0.180	--	--	--

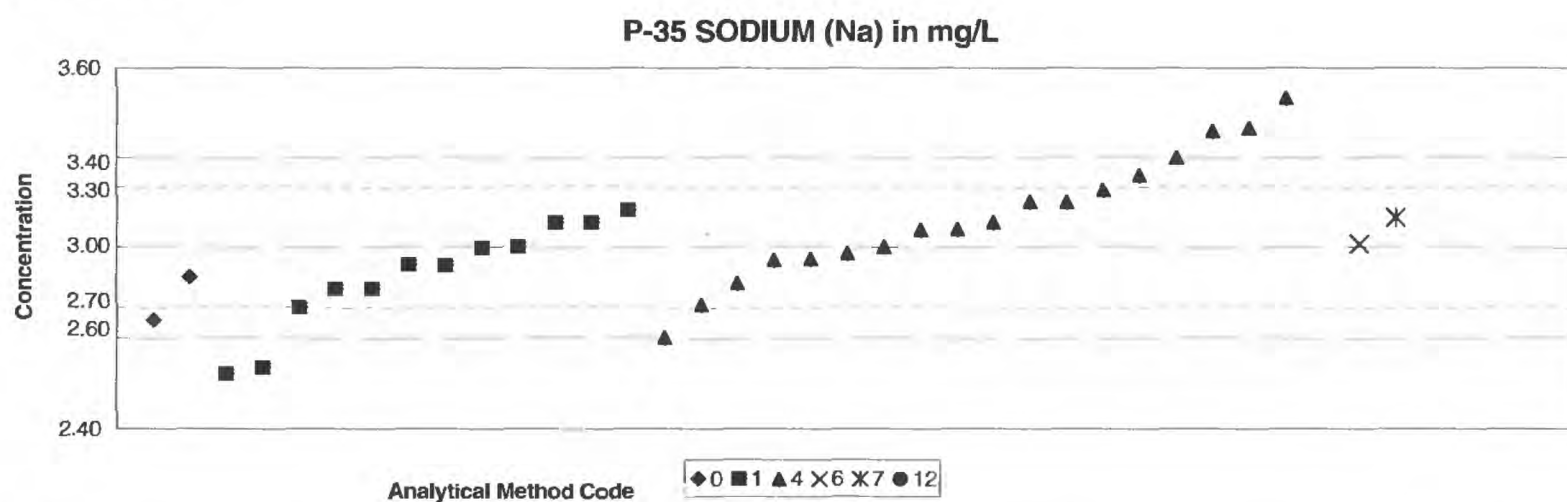
**Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)--
Continued**



Summary	Methods						Statistics	
	0	1	4	6	7	20	Method Codes	
N =	0	9	18	1	2	3	0. Other	
Minimum =	0.000	0.080	0.019	0.102	0.096	0.114	1. Atomic absorption: direct, air	
Maximum =		0.106	0.890		0.250	1.140	4. Inductively coupled plasma	
Median =		0.090	0.090				6. Inductively coupled plasma/mass spectrometry	
F-pseudosigma =		0.005	0.023				7. Ion chromatography	
							20. Titration: colorimetric	
							MPV = 0.090 mg/L	
							F-pseudosigma = 0.015	
							N = 33	
							Uh = 0.107	
							Lh = 0.087	

Lab	Rating	Z-value	Methods					
			0	1	4	6	7	20
1	4	-0.07	--	--	0.089	--	--	--
2	4	0.41	--	--	--	--	0.096	--
23	NR	--	--	<0.2	--	--	--	--
25	0	-4.86	--	--	0.019	--	--	--
38	2	1.10	--	0.106	--	--	--	--
45	NR	--	<1	--	--	--	--	--
48	3	0.82	--	--	--	0.102	--	--
64	3	-0.68	--	0.080	--	--	--	--
81	1	-1.57	--	--	0.067	--	--	--
86	1	-1.92	--	--	0.062	--	--	--
89	4	0.00	--	0.090	--	--	--	--
93	4	0.00	--	--	0.090	--	--	--
105	4	0.41	--	--	0.096	--	--	--
110	4	-0.07	--	--	0.089	--	--	--
134	4	-0.18	--	--	0.087	--	--	--
138	4	-0.38	--	--	0.084	--	--	--
140	4	-0.07	--	0.089	--	--	--	--
155	1	1.84	--	--	--	--	--	0.114
180	2	1.16	--	--	0.107	--	--	--
190	3	-0.68	--	0.080	--	--	--	--
193	4	0.00	--	0.090	--	--	--	--
203	NR	--	--	--	<0.20	--	--	--
215	0	7.53	--	--	0.200	--	--	--
220	3	-0.96	--	--	0.076	--	--	--
247	NR	--	--	--	<0.2	--	--	--
255	4	0.07	--	--	0.091	--	--	--
265	0	54.78	--	--	0.890	--	--	--
268	4	0.34	--	0.095	--	--	--	--
270	0	10.96	--	--	--	--	0.250	--
273	2	1.37	--	--	0.110	--	--	--
274	0	26.02	--	--	--	--	--	0.470
279	0	71.90	--	--	--	--	--	1.140
287	4	-0.14	--	0.088	--	--	--	--
315	2	-1.37	--	--	0.070	--	--	--
321	3	0.68	--	0.100	--	--	--	--
328	0	7.53	--	--	0.200	--	--	--
333	4	0.00	--	--	0.090	--	--	--

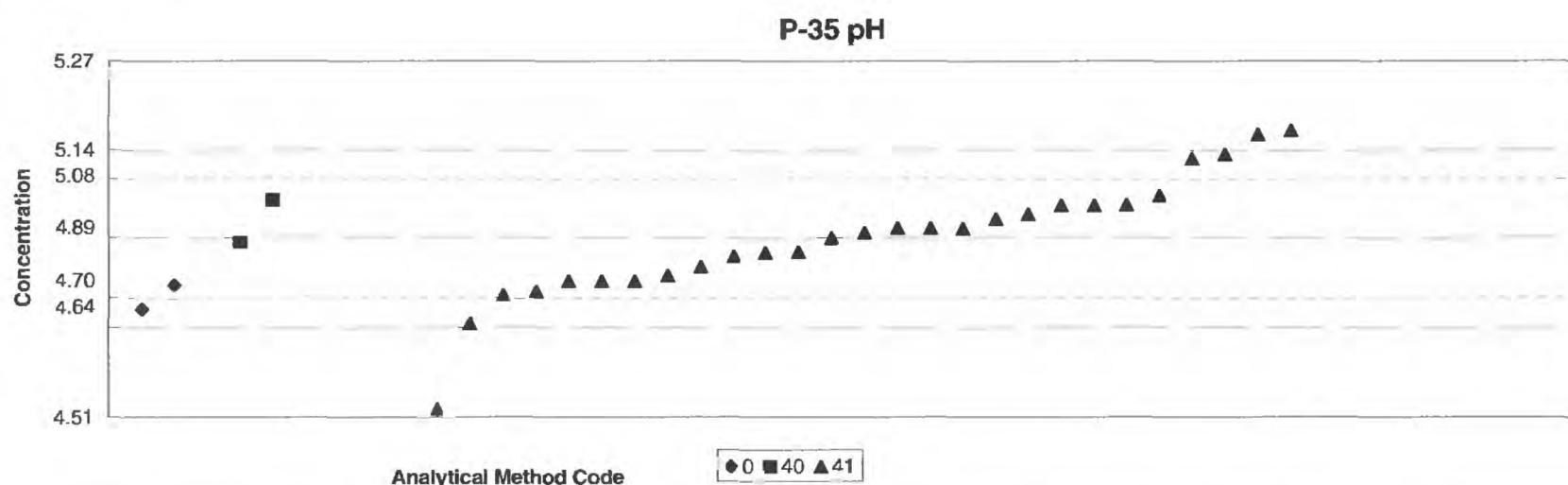
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)
-- Continued



Summary	Methods						Statistics	
	0	1	4	6	7	12	Method Codes	
N =	2	12	19	1	1	2	0. Other	MPV = 3.00 mg/L
Minimum =	2.76	2.58	2.70	3.01	3.10	1.45	1. Atomic absorption; direct, air	F-pseudosigma = 0.20
Maximum =	2.90	3.12	3.61			7.50	4. Inductively coupled plasma	N = 37
Median =		2.94	3.08				6. Inductively coupled plasma/mass spectrometry	Uh = 3.15
F-pseudosigma =		0.16	0.22				7. Ion chromatography	Lh = 2.88
							12. Flame emission	

Lab	Rating	Z-value	Methods					
			0	1	4	6	7	12
1	4	0.28	--	--	3.06	--	--	--
2	4	0.48	--	--	--	--	3.10	--
23	4	0.00	--	3.00	--	--	--	--
25	3	-0.60	--	--	2.88	--	--	--
38	3	-0.70	--	2.86	--	--	--	--
45	0	-2.10	--	2.58	--	--	--	--
48	4	0.05	--	--	--	3.01	--	--
64	4	-0.30	--	2.94	--	--	--	--
81	1	1.95	--	--	3.39	--	--	--
86	4	-0.10	--	--	2.98	--	--	--
89	4	-0.30	--	2.94	--	--	--	--
93	2	1.20	--	--	3.24	--	--	--
105	3	0.95	--	--	3.19	--	--	--
110	4	-0.02	--	3.00	--	--	--	--
113	4	-0.50	2.90	--	--	--	--	--
134	4	0.40	--	3.08	--	--	--	--
138	4	0.30	--	--	3.06	--	--	--
140	3	-0.70	--	2.86	--	--	--	--
180	4	0.40	--	--	3.08	--	--	--
190	4	0.40	--	3.08	--	--	--	--
193	4	-0.20	--	--	2.96	--	--	--
203	3	-0.95	--	--	2.81	--	--	--
215	2	1.50	--	--	3.30	--	--	--
220	4	-0.20	--	--	2.96	--	--	--
247	3	0.75	--	--	3.15	--	--	--
256	2	-1.20	2.76	--	--	--	--	--
265	4	0.00	--	--	3.00	--	--	--
268	1	-2.00	--	2.60	--	--	--	--
270	0	3.05	--	--	3.61	--	--	--
273	2	-1.50	--	--	2.70	--	--	--
274	0	22.48	--	--	--	--	7.50	--
279	0	-7.74	--	--	--	--	1.45	--
287	3	0.60	--	3.12	--	--	--	--
315	1	2.00	--	--	3.40	--	--	--
321	3	-1.00	--	2.80	--	--	--	--
328	0	2.50	--	--	3.50	--	--	--
333	3	0.75	--	--	3.15	--	--	--

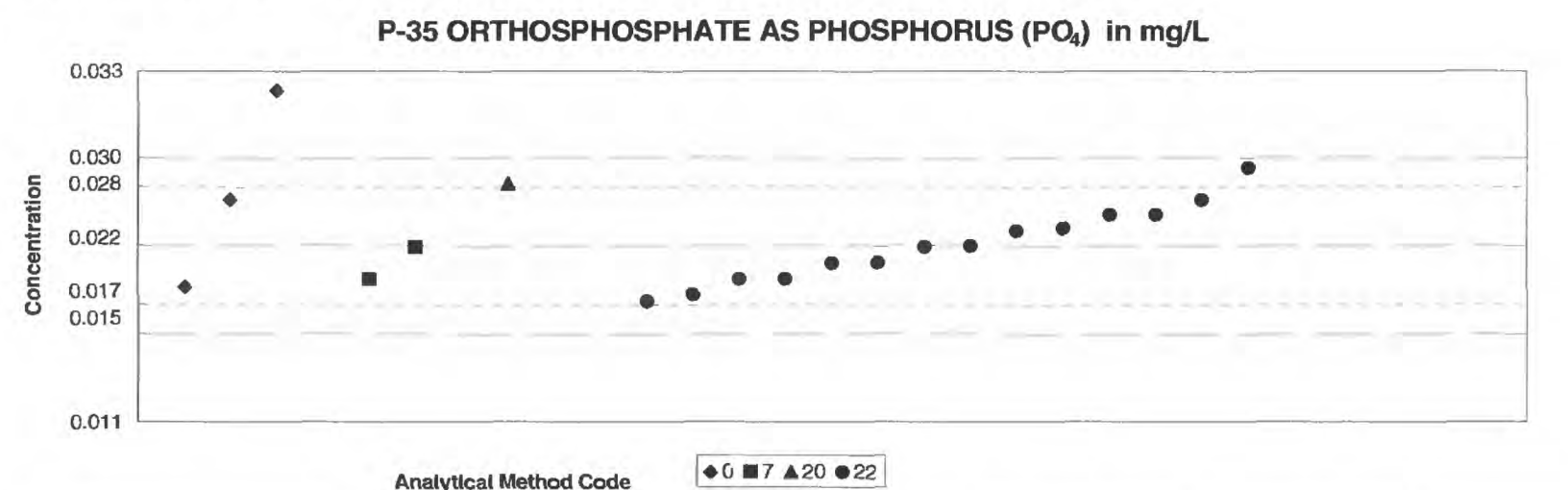
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents) -- Continued



Summary	Methods			Statistics
	0	40	41	
N =	3	2	34	MPV = 4.89
Minimum =	4.74	4.88	3.66	F-pseudosigma = 0.13
Maximum =	5.27	4.97	7.01	Rating criterion = 0.24
Median =			4.90	N = 39
F-pseudosigma =			0.12	Uh = 4.97
				Lh = 4.80

Lab	Rating	Z-value	Methods		
			0	40	41
1	0	8.11	--	--	6.87
2	3	0.91	--	--	5.11
23	4	-0.12	--	--	4.86
25	3	0.94	--	--	5.12
38	4	0.04	--	--	4.90
45	4	0.29	--	--	4.96
48	4	-0.37	--	--	4.80
59	3	-0.74	--	--	4.71
64	4	0.29	--	--	4.96
81	3	0.70	--	--	5.06
86	4	0.16	--	--	4.93
89	4	0.20	--	--	4.94
93	4	-0.04	--	4.88	--
105	4	-0.37	--	--	4.80
107	4	-0.45	--	--	4.78
110	4	0.29	--	--	4.96
113	4	-0.41	4.79	--	--
134	4	-0.13	--	--	4.86
138	0	-2.04	--	--	4.39
140	0	8.67	--	--	7.01
155	4	-0.33	--	--	4.81
180	4	-0.37	--	--	4.80
190	3	-0.61	4.74	--	--
203	4	-0.16	--	--	4.85
204	4	0.08	--	--	4.91
215	1	1.96	--	--	5.37
243	4	-0.25	--	--	4.83
247	4	0.37	--	--	4.98
256	1	1.55	5.27	--	--
268	4	-0.49	--	--	4.77
273	4	0.33	--	4.97	--
274	1	-1.72	--	--	4.47
277	2	-1.47	--	--	4.53
279	0	-5.03	--	--	3.66
287	0	-3.72	--	--	3.98
301	4	0.08	--	--	4.91
321	4	0.08	--	--	4.91
328	3	0.74	--	--	5.07
333	4	0.00	--	--	4.89

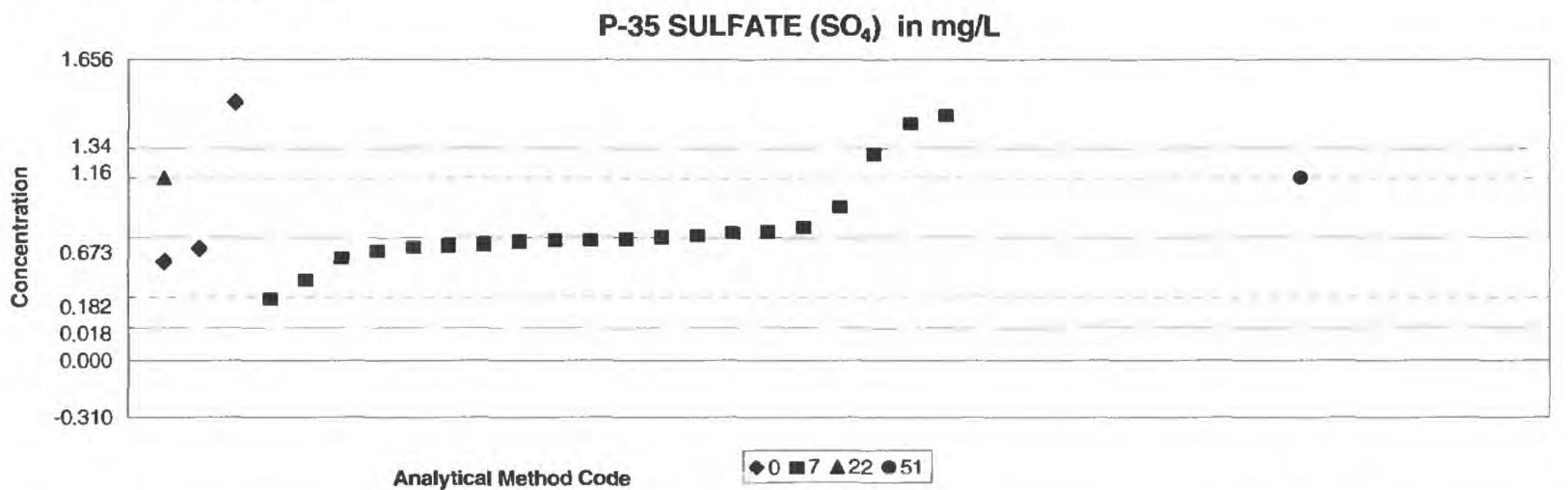
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)--Continued



Summary					Methods		Statistics	
		0	7	20	22	Method Codes		
N =		3	2	1	19	0. Other	MPV =	0.022 mg/L
Minimum =		0.020	0.020	0.026	0.007	7. Ion chromatography	F-pseudosigma =	0.004
Maximum =		0.032	0.022		22.2	20. Titration: colorimetric	N =	25
Median =					0.022	22. Colorimetric	Uh =	0.025
F-pseudosigma =					0.003		Lh =	0.020

Lab	Rating	Z-value	Methods			
			0	7	20	22
23	3	-0.57	--	--	--	0.020
25	0	-4.07	--	--	--	0.007
38	4	-0.30	--	--	--	0.021
45	NR	--	--	<0.1	--	--
48	3	0.51	--	--	--	0.024
64	3	0.78	--	--	--	0.025
81	4	-0.03	--	0.022	--	--
89	3	-0.94	--	--	--	0.019
93	0	5984	--	--	--	22
105	3	-0.84	--	--	--	0.019
113	3	0.78	0.025	--	--	--
134	4	-0.03	--	--	--	0.022
138	4	0.00	--	--	--	0.022
140	0	-3.26	--	--	--	0.010
155	4	0.30	--	--	--	0.023
180	4	0.24	--	--	--	0.023
183	3	-0.70	0.020	--	--	--
190	4	-0.30	--	--	--	0.021
203	2	1.32	--	--	--	0.027
215	3	-0.57	--	--	--	0.020
220	3	0.51	--	--	--	0.024
247	3	-0.57	--	0.020	--	--
258	0	2.67	0.032	--	--	--
273	0	3.48	--	--	--	0.035
274	0	6.45	--	--	--	0.046
321	2	1.05	--	--	0.026	--
328	NR	--	<0.02	--	--	--

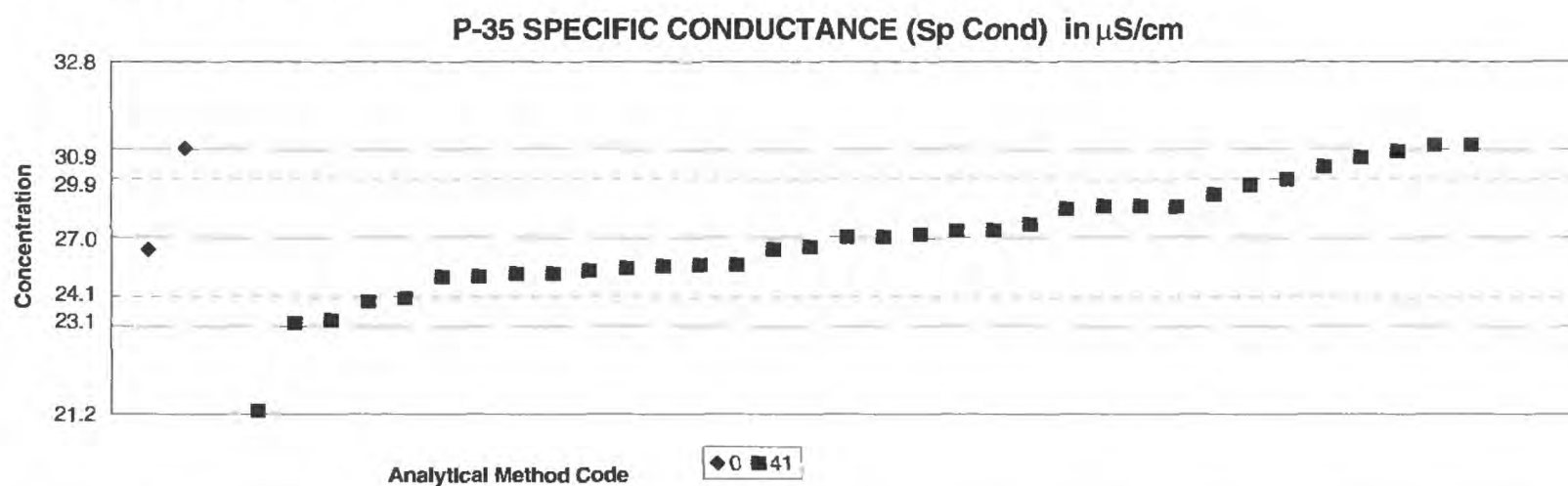
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)--Continued



Summary	Methods				Statistics	
	0	7	22	51	Method Codes	
N =	3	21	0	3	0. Other	MPV = 0.673 mg/L
Minimum =	0.540	0.340	0.000	1.000	7. Ion chromatography	F-pseudosigma = 0.328
Maximum =	1.420	1.770		1.909	22. Colorimetric	N = 27
Median =		0.661			51. Turbidimetric	Uh = 1.065
F-pseudosigma =		0.077				Lh = 0.623

Lab	Rating	Z-value	Methods			
			0	7	22	51
1	4	-0.04	--	0.661	--	--
2	4	0.09	--	0.702	--	--
23	0	2.07	--	1.350	--	--
25	NR	--	--	<5.0	--	--
45	4	0.02	--	0.680	--	--
48	NR	--	--	--	--	<1.0
59	3	-0.71	--	0.440	--	--
64	4	-0.16	--	0.620	--	--
81	NR	--	--	--	<5	--
86	2	1.39	--	1.130	--	--
89	NR	--	--	<1.0	--	--
93	4	-0.04	--	0.659	--	--
105	NR	--	--	<1.00	--	--
110	4	-0.14	--	0.626	--	--
113	4	-0.41	0.540	--	--	--
134	4	0.08	--	0.700	--	--
138	4	0.00	--	0.673	--	--
140	3	1.00	--	--	--	1.00
180	4	-0.05	--	0.655	--	--
190	4	-0.19	0.610	--	--	--
203	NR	--	--	--	<2.5	--
208	NR	--	--	<2.0	--	--
220	0	3.77	--	--	--	1.909
247	NR	--	--	<1.0	--	--
255	NR	--	--	--	<15	--
256	0	2.28	1.420	--	--	--
265	4	-0.34	--	0.560	--	--
268	4	-0.12	--	0.633	--	--
270	2	-1.02	--	0.340	--	--
273	4	-0.22	--	0.600	--	--
274	0	3.62	--	--	--	1.860
287	0	3.35	--	1.770	--	--
315	4	0.17	--	0.730	--	--
321	4	0.51	--	0.840	--	--
328	1	1.91	--	1.300	--	--
333	4	-0.07	--	0.650	--	--

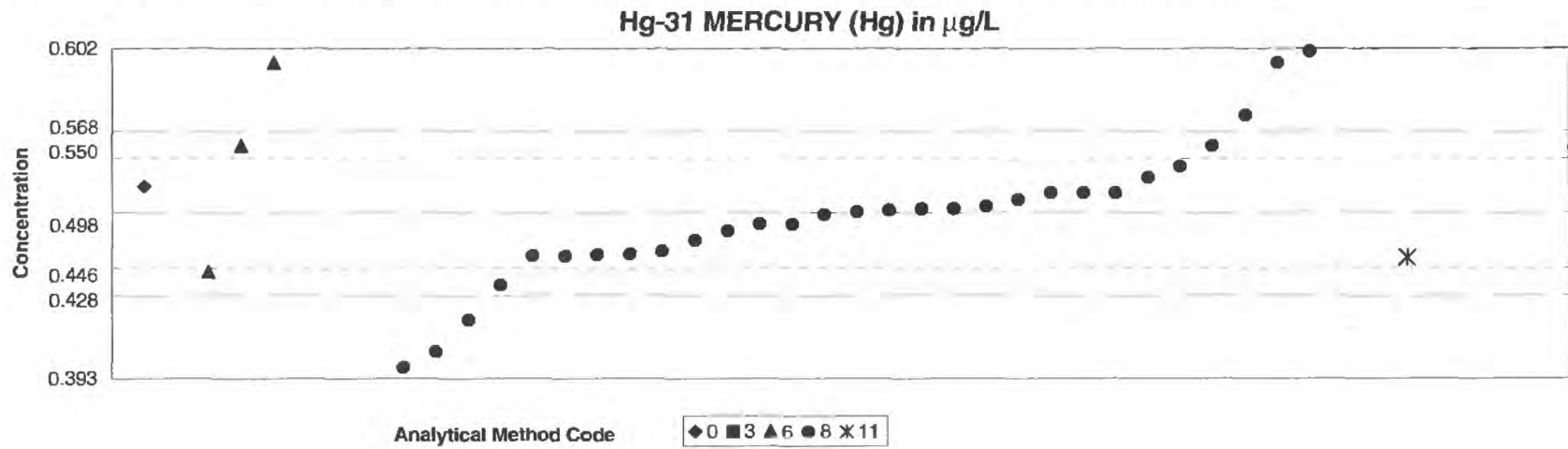
Table 15. Statistical summary of reported data for standard reference samples P-35 (low ionic strength constituents)--Continued



Summary	Methods		Statistics
	0	41	
N =	2	36	MPV = 27.0 $\mu\text{S}/\text{cm}$
Minimum =	26.6	15.3	F-pseudosigma = 1.9
Maximum =	29.9	442	N = 38
Median =		27.0	Uh = 28.4
F-pseudosigma =		1.8	Lh = 25.8

Lab	Reting	Z-value	Methods	
			0	41
1	3	-0.67	--	25.7
2	2	1.50	29.9	--
23	4	0.10	--	27.2
25	1	1.56	--	30.0
45	3	-0.67	--	25.7
48	2	-1.40	--	24.3
59	4	-0.16	--	26.7
64	2	1.19	--	29.3
81	3	-0.57	--	25.9
86	3	0.88	--	28.7
89	0	215	--	442
93	0	-2.95	--	21.3
105	3	-0.62	--	25.8
107	3	0.52	--	28.0
110	4	-0.49	--	26.1
113	4	-0.21	26.6	--
134	4	0.13	--	27.3
138	3	0.52	--	28.0
140	2	1.45	--	29.8
155	3	-0.62	--	25.8
180	4	0.00	--	27.0
190	4	-0.47	--	26.1
193	4	0.00	--	27.0
203	3	0.52	--	28.0
204	3	-0.52	--	26.0
215	2	-1.09	--	24.9
243	4	0.47	--	27.9
247	4	0.21	--	27.4
268	3	0.73	--	28.4
273	2	1.35	--	29.6
274	4	0.05	--	27.1
277	2	-1.04	--	25.0
279	4	-0.21	--	26.6
287	4	-0.47	--	26.1
301	0	-6.07	--	15.3
321	2	-1.45	--	24.2
328	1	1.56	--	30.0
333	3	0.99	--	28.9

Table 16. Statistical summary of reported data for standard reference samples Hg-31 (mercury)



Summary	Methods					Statistics	
	0	3	6	8	11	Method Codes	
N =	1	1	3	33	1	0. Other	MPV = 0.498 µg/L
Minimum =	0.514	44.000	0.460	0.000	0.469	3. Atomic absorption: graphite furnace	F-pseudosigma = 0.035
Maximum =			0.593	0.620		6. Inductively coupled plasma/mass spectrometry	N = 39
Median =				0.496		8. Atomic absorption: cold vapor	Uh = 0.517
F-pseudosigma =				0.030		11. Atomic absorption: hydride	Lh = 0.470

Lab	Rsting	Z-value	Methods				
			0	3	6	8	11
1	4	0.03	--	--	--	0.499	--
10	4	0.06	--	--	--	0.500	--
12	0	-6.26	--	--	--	0.280	--
13	1	-1.95	--	--	--	0.430	--
18	0	2.73	--	--	0.593	--	--
45	4	0.34	--	--	--	0.510	--
48	0	-2.81	--	--	--	0.400	--
50	3	-0.77	--	--	--	0.471	--
55	4	0.06	--	--	--	0.500	--
59	3	-0.80	--	--	--	0.470	--
69	NR	--	--	--	--	<0.50	--
81	4	-0.34	--	--	--	0.486	--
87	0	-14.28	--	--	--	0.000	--
89	4	-0.23	--	--	--	0.490	--
96	0	2.73	--	--	--	0.593	--
97	3	-0.52	--	--	--	0.480	--
105	3	0.83	--	--	--	0.527	--
107	2	1.21	--	--	0.540	--	--
118	0	-3.10	--	--	--	0.390	--
127	4	-0.06	--	--	--	0.496	--
134	4	0.11	--	--	--	0.502	--
138	3	-0.77	--	--	--	0.471	--
142	3	-0.80	--	--	--	0.470	--
144	3	0.63	--	--	--	0.520	--
147	2	-1.32	--	--	--	0.452	--
196	3	-0.72	--	--	--	0.473	--
203	4	0.34	--	--	--	0.510	--
212	2	1.21	--	--	--	0.540	--
213	0	2.93	--	--	--	0.600	--
215	1	1.78	--	--	--	0.560	--
220	0	-2.53	--	--	--	0.410	--
234	4	0.23	--	--	--	0.506	--
247	4	-0.23	--	--	--	0.490	--
265	2	-1.09	--	--	0.460	--	--
277	4	0.34	--	--	--	0.510	--
298	4	0.46	0.514	--	--	--	--
304	4	0.00	--	--	--	0.498	--
307	3	-0.83	--	--	--	--	0.469
321	0	1248.60	--	44.000	--	--	--
328	0	3.50	--	--	--	0.620	--

Table 17. Most probable values for constituents and properties in standard reference samples distributed in October 2000

[MPV, most probable value; µg/L, microgram per liter; n, number of samples; mg/L, milligram per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius.]

T-163					
Analyte =	Silver	Aluminum	Arsenic	Boron	Barium
MPV =	16.9 µg/L	16.8 µg/L	25.3 µg/L	10.6 µg/L	7.40 µg/L
n =	54	32	55	16	44
F-pseudosigma =	1.47	1.67	1.71	2.39	0.537
Analyte =	Beryllium	Calcium	Cadmium	Cobalt	Chromium
MPV =	22.0 µg/L	6.30 mg/L	6.59 µg/L	12.0 µg/L	40.1 µg/L
n =	42	64	60	37	58
F-pseudosigma =	1.04	0.259	0.419	0.371	2.15
Analyte =	Copper	Iron	Potassium	Lithium	Magnesium
MPV =	35.8 µg/L	60.0 µg/L	1.02 mg/L	1.60 µg/L	1.23 mg/L
n =	63	61	53	13	59
F-pseudosigma =	1.74	5.93	0.137	0.993	0.074
Analyte =	Manganese	Molybdenum	Sodium	Nickel	Lead
MPV =	15.8 µg/L	12.6 µg/L	39.6 mg/L	15.4 µg/L	32.0 µg/L
n =	57	28	59	55	60
F-pseudosigma =	1.11	0.926	1.89	1.26	2.17
Analyte =	Antimony	Selenium	Silica	Strontium	Thallium
MPV =	32.5 µg/L	8.88 µg/L	4.56 mg/L	35.5 µg/L	39.9 µg/L
n =	36	46	37	32	36
F-pseudosigma =	1.89	1.11	0.188	1.78	3.00
Analyte =	Uranium	Vanadium	Zinc		
MPV =	4.60 µg/L	35.0 µg/L	18.5 µg/L		
n =	8	35.0	62.0		
F-pseudosigma =	0.156	1.80	1.30		
M-156					
Analyte =	Alkalinity	Boron	Calcium	Chloride	Residue on Evaporation
MPV =	61.8 mg/L	78.6 µg/L	30.2 mg/L	64.7 mg/L	244 mg/L
n =	70	26	74	80	49
F-pseudosigma =	2.52	5.11	1.13	1.87	13.4
Analyte =	Fluoride	Potassium	Magnesium	Sodium	Phosphorus
MPV =	0.523 mg/L	2.13 mg/L	6.92 mg/L	44.6 mg/L	0.578 mg/L
n =	57	64	74	72	55
F-pseudosigma =	0.045	0.163	0.32	2.30	0.039
Analyte =	pH	Silica	Sulfate	Specific conductance	Strontium
MPV =	7.95	4.73 mg/L	43.0 mg/L	440 mS/cm	239 µg/L
n =	75	51	78	70	30
F-pseudosigma =	0.203	0.308	1.78	14.8	9.64
Analyte =	Vanadium				
MPV =	9.53 mg/L				
n =	24				
F-pseudosigma =	1.77				
N-67					
Analyte =	Ammonia as N	Ammonia + Organic N as N	Nitrate as N	Total Phosphorus	Orthophosphate as P
MPV =	0.433 mg/L	0.450 mg/L	0.222 mg/L	0.279 mg/L	0.274 mg/L
n =	63	45	65	61	61
F-pseudosigma =	0.030	0.059	0.009	0.010	0.013
N-68					
Analyte =	Ammonia as N	Ammonia + Organic N as N	Nitrate as N	Total Phosphorus	Orthophosphate as P
MPV =	0.480 mg/L	0.650 mg/L	1.68 mg/L	0.830 mg/L	0.809 mg/L
n =	56	43	65	57	59
F-pseudosigma =	0.048	0.103	0.076	0.030	0.035

Table 17. Most probable values for constituents and properties in standard reference samples distributed in October 2000 -- continued

[MPV, most probable value; µg/L, microgram per liter; n, number of samples; mg/L, milligram per liter; µS/cm, microsiemens per centimeter at 25 degrees Celsius.]

P-35

Analyte =	Acidity	Calcium	Chloride	Fluoride	Potassium
MPV =	4.10 mg/L	0.541 mg/L	5.31 mg/L	0.238 mg/L	0.184 mg/L
n =	11	37	36	25	27
F-pseudosigma =	1.91	0.053	0.432	0.032	0.017

Analyte =	Magnesium	Sodium	pH	Orthophosphate	Sulfate
MPV =	0.090 mg/L	3.00 mg/L	4.89	0.022 mg/L	0.673 mg/L
n =	33	37	39	25	27
F-pseudosigma =	0.015	0.200	0.126	0.004	0.328

Analyte =	Specific conductance
MPV =	27 µS/cm
n =	38
F-pseudosigma =	1.93

Hg-31

Analyte =	Mercury
MPV =	0.498 mg/L
n =	39
F-pseudosigma =	0.035

Table 18. Laboratory performance in percent acceptable analyses and names of unacceptable analytes

Laboratory Number	Number Analytes Reported of 66	Percent Acceptable	Unacceptable Analytes T-163	Unacceptable Analytes M-156	Unacceptable Analytes N-67	Unacceptable Analytes N-68	Unacceptable Analytes P-35	Unacceptable Analytes Hg-31
1	63	97%		pH			pH	
2	9	89%					Chloride	
5	10	60%			Ammonia Orthophosphate	Ammonia Orthophosphate		
10	22	95%	Manganese					
12	33	79%	Silver Arsenic Cadmium Chromium		Ammonia Ammonia			Mercury
13	46	81%	Barium Copper	Residue on Evaporation Phosphorus	Ammonia Orthophosphate	Orthophosphate		Mercury
18	36	72%	Copper Antimony	Residue on Evaporation Sulfate	Ammonia Ammonia Nitrate	Ammonia Ammonia + Organic N		Mercury
21	6	100%						
23	54	79%	Barium Antimony	Calcium Residue on Evaporation Sodium Phosphorus Sulfate	Ammonia Phosphorus		Calcium Sulfate	
24	27	100%						
25	63	55%	Arsenic Barium Calcium Cobalt Chromium Copper Lithium Magnesium Manganese Nickel Lead Silica Strontium Zinc	Boron Residue on Evaporation Strontium	Ammonia Phosphorus	Ammonia + Organic N	Calcium Potassium Magnesium Orthophosphate Specific conductance	
26	2	0%				Nitrate Orthophosphate		
31	5	100%						
32	26	96%	Silica					
38	25	88%		Magnesium		Ammonia	Acidity	
42	48	85%	Silica	Fluoride Silica	Phosphorus Orthophosphate	Phosphorus Orthophosphate		
45	41	76%	Iron Potassium Magnesium Nickel	Potassium Magnesium	Phosphorus		Calcium Sodium	
46	10	80%			Nitrate Orthophosphate			
48	57	86%	Aluminum Iron	Chloride Phosphorus Sulfate	Ammonia Nitrate			Mercury
50	41	100%						
51	10	90%			Nitrate			
55	7	100%						

Table 18. Laboratory performance in percent acceptable analyses and names of unacceptable analytes -- Continued

Laboratory Number	Number Analytes Reported of 66	Percent Acceptable	Unacceptable Analytes T-163	Unacceptable Analytes M-156	Unacceptable Analytes N-67	Unacceptable Analytes N-68	Unacceptable Analytes P-35	Unacceptable Analytes Hg-31
57	43	72%	Aluminum Chromium Potassium Molybdenum Sodium Selenium Zinc	Boron Chloride Potassium Sulfate Specific conductance				
59	47	89%	Silver Sodium Antimony	pH			Chloride	
64	30	90%	Iron	Phosphorus	Ammonia			
69	32	88%	Calcium Antimony	Magnesium				
70	43	81%	Beryllium Iron	Residue on Evaporation Phosphorus Sulfate	Ammonia Phosphorus	Ammonia		
72	10	30%			Ammonia Nitrate Phosphorus Orthophosphate	Ammonia Nitrate Orthophosphate		
76	18	100%						
81	60	78%	Silver Barium Beryllium Cobalt Chromium Iron Molybdenum Nickel Lead			Ammonia + Organic N	Potassium Magnesium Sodium	
83	8	100%						
84	2	100%						
86	47	79%	Arsenic Cadmium Cobalt Thallium	Sulfate	Ammonia Nitrate	Nitrate	Calcium Magnesium	
87	41	68%	Barium Calcium Cadmium Potassium Molybdenum Nickel Selenium	Calcium Magnesium Specific conductance	Nitrate	Ammonia		Mercury
88	6	17%			Ammonia Nitrate Orthophosphate	Ammonia Nitrate		
89	59	77%	Aluminum Calcium Cobalt Chromium Manganese Lead Antimony Selenium Thallium Vanadium	Magnesium Specific conductance			Specific conductance	
90	6	83%				Ammonia + Organic N		
93	29	76%		Sodium	Phosphorus Orthophosphate	Nitrate	Calcium Orthophosphate Specific conductance	
96	34	97%						Mercury

Table 18. Laboratory performance in percent acceptable analyses and names of unacceptable analytes -- Continued

Laboratory Number	Number Analytes Reported of 66	Percent Acceptable	Unacceptable Analytes T-163	Unacceptable Analytes M-156	Unacceptable Analytes N-67	Unacceptable Analytes N-68	Unacceptable Analytes P-35	Unacceptable Analytes Hg-31
97	33	85%	Beryllium Cadmium Molybdenum Vanadium		Ammonia			
105	65	91%		Calcium Residue on Evaporation		Phosphorus	Acidity Calcium	
107	27	85%	Calcium Cooper	Chloride		Ammonia		
109	19	84%	Magnesium	Chloride Sulfate				
110	14	100%						
113	51	98%		Residue on Evaporation				
114	10	100%						
118	30	53%	Arsenic Cadmium Copper Iron Silica Zinc	Silica Specific	Ammonia Ammonia Nitrate Phosphorus Orthophosphate			Mercury
121	22	77%	Cobalt Chromium Copper Molybdenum Strontium					
127	55	86%	Silver Copper Magnesium Molybdenum	Silica Specific conductance	Nitrate			
129	22	86%			Ammonia	Ammonia + Organic N Phosphorus		
131	4	50%		Fluoride Phosphorus				
134	65	97%	Uranium			Ammonia		
138	62	97%	Nickel				pH	
140	47	74%	Silver Barium Calcium Chromium Zinc	pH	Ammonia Ammonia	Ammonia Ammonia + Organic N	pH Orthophosphate	
142	54	80%	Calcium Magnesium Sodium Antimony	Calcium Sodium Phosphorus Silica	Nitrate	Ammonia		
144	11	64%	Arsenic Beryllium Copper Nickel					
147	8	100%						
151	1	100%						
154	47	83%	Cadmium Magnesium Sodium Thallium Zinc	Specific conductance	Orthophosphate	Orthophosphate		
155	22	77%		Magnesium	Nitrate	Nitrate	Calcium Magnesium	

Table 18. Laboratory performance in percent acceptable analyses and names of unacceptable analytes -- Continued

Laboratory Number	Number Analytes Reported of 66	Percent Acceptable	Unacceptable Analytes T-163	Unacceptable Analytes M-156	Unacceptable Analytes N-67	Unacceptable Analytes N-68	Unacceptable Analytes P-35	Unacceptable Analytes Hg-31
180	55	47%	Boron Barium Calcium Copper Potassium Magnesium Sodium Phosphorus pH Sulfate Specific conductance Vanadium	Calcium Chloride Fluoride Potassium Magnesium Sodium Phosphorus pH Sulfate Specific conductance Vanadium		Orthophosphate		
183	10	80%		Fluoride			Chloride	
190	45	87%	Silver Silica	Calcium Potassium Silica		Nitrate		
193	36	89%	Antimony Zinc			Ammonia Ammonia + Organic N		
198	24	88%	Calcium Copper Sodium					
203	47	86%	Barium Manganese	Magnesium	Ammonia	Nitrate	Calcium	
204	31	87%	Silver Lead Thallium			Orthophosphate		
208	6	60%		Chloride		Orthophosphate		
209	2	100%						
212	54	81%	Aluminum Iron Molybdenum Antimony Silica	Phosphorus Silica	Phosphorus	Ammonia Phosphorus		
213	13	80%				Ammonia + Organic N		Mercury
215	46	41%	Arsenic Calcium Copper Iron Magnesium Manganese Nickel Lead Thallium	Calcium Magnesium Sulfate Vanadium	Ammonia Ammonia Nitrate Phosphorus Orthophosphate	Ammonia + Organic N Nitrate Phosphorus Orthophosphate	Calcium Fluoride Magnesium pH	Mercury
220	36	75%	Lead	Sulfate	Nitrate	Orthophosphate	Calcium Chloride Potassium Sulfate	Mercury
224	10	80%			Ammonia Ammonia			
230	10	60%		Fluoride Potassium Magnesium Specific conductance				
234	51	92%	Thallium	Boron Phosphorus Magnesium		Orthophosphate		
235	31	97%						
243	10	100%						
247	65	76%	Arsenic Boron Beryllium Manganese Silica Zinc	Alkalinity Residue on Evaporation Fluoride	Ammonia Ammonia Nitrate	Ammonia + Organic N Nitrate	Potassium	
254	21	95%	Cobalt					
255	23	100%						

Table 18. Laboratory performance in percent acceptable analyses and names of unacceptable analytes -- Continued

Laboratory Number	Number Analytes Reported of 66	Percent Acceptable	Unacceptable Analytes T-163	Unacceptable Analytes M-156	Unacceptable Analytes N-67	Unacceptable Analytes N-68	Unacceptable Analytes P-35	Unacceptable Analytes Hg-31
256	33	53%	Silver Aluminum Arsenic Beryllium Cobalt Strontium Zinc	Magnesium Sodium Silica			Chloride Fluoride pH Orthophosphate Sulfate	
257	22	75%	Arsenic Cadmium Lead Selenium Zinc					
258	12	42%		Boron Calcium Chloride Fluoride Potassium Magnesium Sodium				
259	15	93%		Potassium				
261	12	17%	Calcium Iron Magnesium Zinc	Calcium Chloride Potassium Magnesium Sulfate Specific conductance				
263	10	90%		Silica				
265	46	96%		Boron			Magnesium	
266	11	100%						
267	7	100%						
268	21	71%	Calcium	Calcium Potassium			Chloride Potassium Sodium	
270	29	31%	Silver Calcium Cobalt Chromium Copper Iron Lithium Nickel Thallium Zinc	Calcium Fluoride Potassium Magnesium Phosphorus Sulfate			Calcium Potassium Magnesium Sodium	
273	46	70%	Boron Copper Lithium Nickel Lead Zinc	Alkalinity Boron Fluoride Strontium			Acidity Fluoride Potassium Orthophosphate	
274	34	35%	Calcium Copper Magnesium Manganese Sodium Lead Silica Zinc	Alkalinity Chloride Magnesium Sodium Silica			Calcium Chloride Fluoride Potassium Magnesium Sodium pH Orthophosphate Sulfate	
275	9	44%		Alkalinity Chloride Potassium Magnesium Sodium				
276	8	63%		Chloride Sodium Sulfate				
277	28	75%	Silver Copper Potassium Manganese Sodium	Alkalinity Potassium				

Table 18. Laboratory performance in percent acceptable analyses and names of unacceptable analytes -- Continued

Laboratory Number	Number Analytes Reported of 66	Percent Acceptable	Unacceptable Analytes T-163	Unacceptable Analytes M-156	Unacceptable Analytes N-67	Unacceptable Analytes N-68	Unacceptable Analytes P-35	Unacceptable Analytes Hg-31
279	18	33%	Potassium Magnesium Sodium	Calcium Potassium Magnesium Sodium			Chloride Potassium Magnesium Sodium pH	
280	5	80%		Magnesium				
287	35	69%	Aluminum Manganese Zinc		Ammonia Nitrate Orthophosphate	Ammonia Orthophosphate	Fluoride pH Sulfate	
291	1	0%				Nitrate		
297	44	74%	Calcium Potassium Sodium Nickel Silica	Alkalinity Calcium Potassium Magnesium Silica	Nitrate			
298	1	100%						
301	3	33%					Chloride Specific conductance	
304	20	95%		Chloride				
305	37	80%	Arsenic Potassium Sodium Lead	Potassium Sodium	Nitrate			
306	23	45%	Copper Potassium Sodium Nickel	Potassium Sodium Phosphorus	Ammonia Phosphorus	Nitrate Phosphorus Orthophosphate		
307	24	58%	Silver Arsenic Cadmium Copper Iron Manganese Lead Zinc	Sulfate	Orthophosphate			
309	19	42%	Barium Calcium Potassium Sodium Silica Strontium	Calcium Chloride Potassium Silica Sulfate				
313	10	90%				Orthophosphate		
314	5	100%						
315	18	67%	Iron Manganese	Chloride Potassium			Potassium Sodium	
316	10	80%			Phosphorus	Phosphorus		
318	5	100%						
320	10	70%			Ammonia	Ammonia + Organic N Orthophosphate		
321	13	77%			Ammonia Phosphorus			Mercury
323	19	89%		Boron Specific conductance				
324	11	9%	Aluminum Calcium Iron Manganese Zinc	Alkalinity Calcium Residue on Evaporation Sulfate Specific conductance				

Table 18. Laboratory performance in percent acceptable analyses and names of unacceptable analytes -- Continued

Laboratory Number	Number Analytes Reported of 66	Percent Acceptable	Unacceptable Analytes T-163	Unacceptable Analytes M-156	Unacceptable Analytes N-67	Unacceptable Analytes N-68	Unacceptable Analytes P-35	Unacceptable Analytes Hg-31
328	66	48%	Boron Calcium Cobalt Chromium Potassium Manganese Sodium Nickel Lead Strontium Uranium Vanadium Zinc	Boron Fluoride Silica Sulfate Strontium Vanadium	Ammonia Phosphorus Orthophosphate	Orthophosphate	Calcium Chloride Fluoride Magnesium Sodium Sulfate Specific conductance	Mercury
331	43	62%	Silver Aluminum Arsenic Calcium Potassium Magnesium Molybdenum Sodium Zinc	Calcium Potassium Magnesium Silica Specific conductance Strontium				
333	16	94%					Acidity	
334	13	69%	Arsenic Iron	Alkalinity Sulfate				