

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

REPORT OF THE U.S. GEOLOGICAL SURVEY'S ANALYTICAL EVALUATION
PROGRAM--STANDARD REFERENCE WATER SAMPLES M-86 (MAJOR
CONSTITUENTS), T-87 (TRACE CONSTITUENTS), N-10 and N-11 (NUTRIENTS), P-5
(PRECIPITATION SNOWMELT), AND POL-1 (PRIORITY POLLUTANTS).

By Victor J. Janzer and Kristine A. Latal

Open-File Report 84-128

Denver, Colorado

1984

UNITED STATES DEPARTMENT OF THE INTERIOR

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POL-1 (PRIORITY POLLUTANTS)

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ABSTRACT

The U.S. Geological Survey began an interlaboratory testing program of reference water samples in 1962. Program objectives then and now are to provide a means for participating water laboratories to: (1) Identify analytical problem areas; (2) ascertain the accuracy and precision of common water analyses and analytical methods; and (3) provide reference samples for quality-assurance testing. Participation in this continuing quality-assurance program is mandatory for all domestic laboratories providing water-analysis data for U.S. Geological Survey use.

This report presents analytical data submitted by the laboratories that analyzed the reference samples distributed in October 1983. Relative performance ratings achieved by the laboratories for each determination, statistical evaluation of the data, and a data summary are given in 18 tables.

INTRODUCTION

The U.S. Geological Survey began an interlaboratory testing program of reference water samples in 1962 with a single major-constituent reference sample prepared from distilled water and reagent grade chemicals. Principal objectives of this continuing program are to provide a means for participating water laboratories to: (1) Identify analytical problem areas; (2) ascertain the accuracy and precision of analytical methods for determining various constituents and physical properties of water; and (3) provide reference samples for continuing quality-assurance testing of U.S. Geological Survey and various cooperator and contract laboratories. Only 23 U.S. Geological Survey laboratories participated in the 1962 effort to determine 6 constituents in a single major-constituent Standard Reference Water Sample (SRWS). Today, more than 120 laboratories, both Survey and non-Survey, participate in the program, which currently uses eight SRWS types: (1) Major constituents; (2) trace constituents; (3) nutrients; (4) herbicides; (5) insecticides; (6) water and suspended-sediment mixture for trace metals; (7) precipitation snowmelt; and (8) priority pollutants.

Participation in this continuing quality-assurance program is mandatory for all laboratories providing water-analysis data for U.S. Geological Survey use. Major constituent, trace-constituent, and nutrient SRWS are prepared and distributed to participating laboratories twice each year. One or more of the other SRWS types also may be included. This report presents analytical data submitted by the laboratories that

analyzed the reference samples distributed to them in October 1983. Samples were analyzed during November, and data were requested to be submitted by December 1. Relative performance ratings achieved by the laboratories for each determination, statistical evaluation of the data, and a priority-pollutant SRWS data summary are given in 18 tables.

PURPOSE AND PLAN

This program alerts participating laboratories to deficiencies in their analytical operations, and provides reference solutions for quality assurance testing. Standard Reference Water Samples are prepared and distributed every 6 months for analysis by U.S. Geological Survey and other cooperating laboratories. These analyses provide independent and objective evaluations of water-quality data from these laboratories for publication. Non-U.S. Geological Survey laboratories participating in this study are identified in this report only by a confidential code number. U.S. Geological Survey laboratories participating in this study are identified by location and code number.

This report summarizes the analytical results submitted by 90 laboratories for SRWS M-86 (major constituents), SRWS T-87 (trace constituents), SRWS N-10 and N-11 (nutrients), SRWS P-5 (precipitation snowmelt), and SRWS POL-1 (priority pollutants) distributed during October 1983. Not all samples are necessarily analyzed by all laboratories, nor do all laboratories participate in each round of analyses. Each participating laboratory was asked to perform at least those determinations that it makes routinely. Each laboratory was requested to indicate the analytical methods used for each constituent and those methods are listed in the data tables. Blank spaces appear in the method columns when no method was indicated.

PREPARATION OF SAMPLES

SRWS M-86 (major constituents), SRWS T-87 (trace constituents), and SRWS N-11 (nutrients), were prepared from untreated natural surface water collected from the same source. Samples were filtered through a 10- μm (micrometer) nominal-size prefilter, followed by a 5- μm nominal-size intermediate and a 0.45- μm membrane final filter, into a large polyethylene drum. Thymol [1.25 mg/L (milligrams per liter)], was added to filtered water used to prepare samples SRWS M-86 and T-87.

Some trace constituents were added to SRWS M-86. SRWS T-87 was acidified to a pH of about 1.5 with nitric acid. Each sample was mixed overnight with a motor-driven Teflon^{1/} coated stirrer, after which it was filtered again through a 0.45- μm membrane filter, then passed through a flow-through ultraviolet [254-nm (nanometer)] sterilizer and packaged under ultraviolet radiation, in dry-heat sterilized 1-L (liter) Teflon bottles.

^{1/}The use of the trade name in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

Approximately 400 L of two different untreated surface waters were collected and filtered through a 0.45- μm membrane filter to prepare SRWS N-10 and N-11 (nutrients). Mercuric chloride (50 mg/L) as a preservative and sodium chloride (450 mg/L) were then added. This is equivalent to the U.S. Geological Survey technique for field preservation of nutrient samples, using mercuric chloride-sodium chloride tablets. Each sample was then mixed overnight with a motor-driven stirrer, packaged without sterilization, and stored at 4°C (Celsius). The samples were packed in ice prior to distribution.

SRWS P-5 (precipitation snowmelt) was prepared by melting snow collected in several 200-L polyethylene drums. After melting, the sample was filtered through a 0.45- μm membrane filter. No additions of any kind were made to this sample. After mixing overnight with a motor-driven stirrer, the sample was again filtered through a 0.45- μm filter, sterilized by passage through a flow-through ultraviolet sterilizer (254 nm), then packaged under ultraviolet radiation in sterilized 1-L Teflon bottles.

SRWS POL-1 (priority pollutants) was prepared from the same filtered raw surface water used to prepare SRWS M-86 and T-87. An accurately measured 206-L volume of the filtered raw water was transferred to a Teflon-lined steel drum. Milligram quantities of the selected pollutant standards were weighed and dissolved in acetone, which was then added dropwise into the stirred raw water. A Teflon-coated propeller-type motor-driven stirrer was used to mix the solution during preparation and bottling. After stirring for several hours, a Teflon-diaphragm pump fitted with Teflon and glass tubing was used to transfer the solution into clean, baked, 1-L glass bottles with Teflon-lined caps. Some of the samples were packaged in 1-L Teflon bottles. Neither type bottle was rinsed with the test solution before filling. Samples were then refrigerated at 4°C in the dark, until distributed in iced coolers to the analyzing laboratories.

DETERMINATIONS

Determinations for each of the SRWS and their abbreviations are listed below. These abbreviations and symbols are used in tables 2-18. Additional abbreviations and symbols used in tables 7-18 are explained in table 1.

Standard Reference Water Sample M-86 (major constituents) (results in milligrams per liter^{1/})

ALK(CACO ₃) = Alkalinity (as CaCO ₃)	NO ₂ -N = Nitrite as nitrogen
B = Boron	PH = pH
BR = Bromide	P, TOTAL = Phosphorus, Total as phosphorus
CA = Calcium	K = Potassium
CL = Chloride	SIO ₂ = Silica
DSRD 180 = Dissolved solids	NA = Sodium
F = Fluoride	SP. COND. = Specific conductance
I = Iodide	SR = Strontium
MG = Magnesium	SO ₄ = Sulfate
NO ₃ -N = Nitrate as nitrogen	V = Vanadium

Standard Reference Water Sample T-87 (trace constituents) (results in micrograms per liter^{2/})

ACID@CACO ₃ = Acidity (as CaCO ₃)	PB = Lead
AL = Aluminum	LI = Lithium
SB = Antimony	MN = Manganese
AS = Arsenic	HG = Mercury
BA = Barium	MO = Molybdenum
BE = Beryllium	NI = Nickel
CD = Cadmium	SE = Selenium
CR TOT = Chromium, total	AG = Silver
CO = Cobalt	SR = Strontium
CU = Copper	TL = Thallium
FE = Iron	ZN = Zinc

^{1/} Except specific conductance (microsiemens or micromhos per centimeter at 25°C); pH (units); boron, bromide, iodide, strontium, and vanadium (micrograms per liter).

^{2/} Except acidity (milligrams per liter).

Standard Reference Water Samples N-10 and N-11 (nutrients)
(results in milligrams per liter)

NH3-N	= Ammonia as nitrogen	ORG-N	= Organic nitrogen as nitrogen
NO3-N	= Nitrate as nitrogen	PO4-P	= Orthophosphate as phosphorus
NO2-N	= Nitrite as nitrogen	P,TOTAL	= Phosphorous, total as phosphorus

Standard Reference Water Sample P-5 (precipitation snowmelt)
(results in milligrams per liter ^{3/})

CA	= Calcium	PH	= pH
CL	= Chloride	K	= Potassium
F	= Fluoride	NA	= Sodium
MG	= Magnesium	SP. COND.	= Specific conductance
NH3-N	= Ammonia as nitrogen	SO4	= Sulfate
NO3-N	= Nitrate as nitrogen		

Standard Reference Water Sample POL-1 (priority pollutants)
(results in micrograms per liter)

12 BENZANTH	= 1,2-Benzanthracene	B12 CLETETH	= Bis-(2-chloroethyl) ether
246 CLPHNOL	= 2,4,6-Trichlorophenol	FLUORANTHN	= Fluoranthene
24 CLRPHNOL	= 2,4-Dichlorophenol	FLUORENE	= Fluorene
26 NITTOLUN	= 2,6-Dinitrotouene	HEXCLRBNZ	= Hexachlorobenzene
2 NITPHENOL	= 2-Nitrophenol	NAPHTHALEN	= Naphthalene
4 NITPHENOL	= 4-Nitrophenol	NITDIPHNAM	= N-nitrosodiphenylamine
4 BRDIPHETH	= 4-Bromo-diphenyl ether	PYRENE	= Pyrene
ACENPHTHLN	= Acenaphthylene		

^{3/} Except pH (units) and specific conductance (microsiemens or micromhos per centimeter at 25°C).

STATISTICAL EVALUATION

A statistical evaluation of the data was made to estimate the most probable value (MPV) for each of the constituents determined. Reported values of "less than" were considered as "not determined" and were not used (ignored) in the computation of the means, standard deviations, and so forth.

Outlying values for the remaining data were rejected on the basis of statistical tests as outlined in American Society for Testing and Materials (1982). After rejection of the outliers, the data remaining for each constituent were used to calculate the means, standard deviations, and percent deviation from the mean for each value. Outliers are not recalculated when determining the means and standard deviations for each determination listed by "method". The total range for each constituent included those values rejected as outliers. Confidence limits about the mean also were calculated; these limits define the range within which the true value may be expected to occur with a confidence level of 95 percent.

The mean, standard deviation, and confidence limits about the mean usually are reported to one more significant figure than the reported value. Statistical information is tabulated for each method used by three or more laboratories to determine a specific constituent. Tables 8, 10, 12, 14, and 17, listing the mean and standard deviation for the constituent determined by each method, and the number of laboratories that used it, follow the analytical-data tables for each SRWS.

Overall-laboratory performance-rating tables have not been included in this report for SRWS POL-1 (priority pollutants). SRWS POL-1 was an experimental sample to determine sample stability, variations in recovery as a function of extraction procedures, and so forth. Analytical data for this sample have been listed as reported. A summary of the analytical data reported for POL-1 is given in Table 18.

LABORATORY PERFORMANCE AND REPORTED VALUES

To facilitate inter-laboratory performance comparisons, ratings based on the analyses reported for each SRWS are included as tables 2-6 in this report. Laboratory performance for each constituent is rated on an arbitrary scale of 0 to 4 based on the number of "standard deviations" from the mean as indicated below:

4 (Excellent)	-----0.00 to 0.50 standard deviation
3 (Good)	-----0.51 to 1.00 standard deviation
2 (Satisfactory)	-----1.01 to 1.50 standard deviations
1 (Questionable)	-----1.51 to 2.00 standard deviations
0 (Poor)	-----Greater than 2.00 standard deviations

Averages of the constituent ratings for each Standard Reference Water Sample are given for each laboratory in the tables of overall laboratory performance (tables 2-6).

Laboratories were requested to identify the method used for each determination. The references for these methods are included with the analytical data and are identified in the following listing:

1. American Public Health Association and others, 1980, Standard methods for the examination of water and wastewater [15th ed.]: Washington, D.C., 1134 p.

2. American Society for Testing and Materials, 1982, Annual book of ASTM standards, Part 31: Philadelphia, PA, U.S.A., 1554 p.
3. Kopp, J. F., and McKee, G. F., 1978, Methods for chemical analysis of water and wastes: Cincinnati, Ohio, U.S. Environmental Protection Agency, 460 p.
4. Skougstad, M. W., Fishman, M. J., Friedman, L. C., Erdmann, D. E., and Duncan, S. S., eds., 1979, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 626 p.
5. Fishman, M. J., and Bradford, W. L., eds., 1982, A supplement to methods for the determinations of inorganic substances in water and fluvial sediments: (Supplement to U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1), U.S. Geological Survey Open-File Report 82-272, 136 p.
6. Fishman, M. J., and Pyen, Grace, 1979, Determination of selected anions in water by ion chromatography: U.S. Geological Survey Water-Resources Investigations 79-101, 30 p.

In many instances, virtually the same method is given in several references. In those cases, all references describing that method are listed. If the analytical method used was not included in any of the listed references, analysts were requested to indicate "Other". Method and reference columns are left blank if no method was indicated.

Values reported for all constituents determined in each SRWS are listed in tables 7, 9, 11, 13, 15, and 17. Each value has been rounded off, when necessary, to conform to U.S. Geological Survey policy on reporting analytical data as given by Bishop and others (1978).

PARTICIPATING LABORATORIES

U.S. Geological Survey

COLORADO, Denver: 090
FLORIDA, Ocala: 011
GEORGIA, Doraville: 051

GEORGIA, Doraville: 052
LOUISIANA, Baton Rouge: 033

Cooperator

ALABAMA, University: Geological Survey of Alabama

ALASKA, Fairbanks: Alaska Division of Geological & Geophysical Surveys
ALASKA, Soldotna: Alaska Department of Fish & Game

ARKANSAS, Little Rock: Arkansas Department of Pollution Control & Ecology

CALIFORNIA, Bryte: California Department of Water Resources
CALIFORNIA, Castaic: Department of Water Resources Chemical Laboratory
CALIFORNIA, La Mesa: San Diego Water Utilities Laboratory
CALIFORNIA, Los Gatos: Santa Clara Valley Water District
CALIFORNIA, Oakland: East Bay Municipal Utility District
CALIFORNIA, Palm Desert: California Regional Water Quality Control Board #7

COLORADO, Aurora: Core Laboratories Incorporated
COLORADO, Denver: Colorado Department of Health
COLORADO, Denver: Metropolitan Denver Sewage Disposal District
COLORADO, Golden: Rockwell International
COLORADO, Grand Junction: Cathedral Bluffs Shale Oil Company

FLORIDA, Live Oak: Suwannee River Water Management District
FLORIDA, Palatka: St. John's River Water Management District
FLORIDA, Tallahassee: Tallahassee Water Quality Laboratory
FLORIDA, Tampa: Hillsborough Environmental Protection Commission
FLORIDA, West Palm Beach: South Florida Water Management District

GEORGIA, Albany: Water, Gas & Light Commission
GEORGIA, Athens: Soil Testing & Plant Tissue Analysis Laboratory
GEORGIA, Atlanta: Environmental Protection Division, Department of Natural Resources

ILLINOIS, Champaign: Illinois Environmental Protection Agency
ILLINOIS, Chicago: Illinois Environmental Protection Agency

INDIANA, Indianapolis: Marion County Public Health Laboratory

IOWA, Des Moines: University Hygienic Laboratory - Des Moines Branch

KANSAS, Lawrence: Kansas Geological Survey
KANSAS, Topeka: Kansas Department of Health and Environment

LOUISIANA, Lake Charles: Core Labs, Inc.

MAINE, Augusta: Maine Department of Environmental Protection

Cooperator--continued

MARYLAND, Baltimore: Martel Laboratory Services

MASSACHUSETTS, Barnstable: Barnstable County Health Department
MASSACHUSETTS, Wellesley: Massachusetts Department of Public Works

MICHIGAN, Lansing: Michigan Department of Natural Resources

MINNESOTA, St. Paul: Metropolitan Waste Control Commission

MISSOURI, Columbia: Environmental Trace Substances Research Center
MISSOURI, Jefferson City: Missouri Department of Natural Resources

MONTANA, Butte: Montana Bureau of Mines & Geology

NEVADA, Boulder City: U.S. Bureau of Reclamation, Lower Colorado Regional
Laboratory

NEVADA, Reno: Desert Research Institute
NEVADA, Reno: Nevada State Health Laboratory

NEW HAMPSHIRE, Concord: Water Supply & Pollution Control Commission

NEW JERSEY, Tom's River: Ocean County Health Department
NEW JERSEY, Trenton: New Jersey Department of Health

NEW MEXICO, Albuquerque: New Mexico State Scientific Laboratory
NEW MEXICO, Albuquerque: New Mexico Water Resources Laboratory
NEW MEXICO, Gallup: Bureau of Indian Affairs - Soil, Water & Materials Testing
Laboratory

NEW YORK, Buffalo: Erie County Laboratory - Public Health
NEW YORK, Central Islip: Suffolk County Health Services Department
NEW YORK, Farmingdale: ECO Test Laboratory
NEW YORK, Hempstead: Nassau County Department of Health
NEW YORK, New York: New York City Department of Health Laboratories
NEW YORK, Oakdale: Suffolk County Water Authority
NEW YORK, Rochester: Monroe County Health Laboratory
NEW YORK, Rochester: FEV Wastewater Treatment Facility Laboratory
NEW YORK, Syracuse: University of Syracuse, Department of Civil Engineering
NEW YORK, N. Syracuse: Onondaga County Department of Drainage and Sanitation
NEW YORK, Wantagh: Cedar Creek Wastewater Reclamation Plant
NEW YORK, Westbury: New York Testing Laboratory

NORTH CAROLINA, Charlotte: Mecklenburg County Environmental Health Department

NORTH DAKOTA, Bismarck: North Dakota State Water Commission

OHIO, Columbus: Ohio Environmental Protection Agency Water Quality Laboratory
OHIO, Dayton: The Miami Conservancy District
OHIO, Medina: Medina County Sanitary Engineering Department

OKLAHOMA, Norman: Oklahoma Geological Survey
OKLAHOMA, Oklahoma City: Oklahoma State Department of Agriculture

Cooperator--continued

OREGON, Corvallis: Forestry Sciences Laboratory
OREGON, Sandy: Bureau of Water Works

PUERTO RICO, Puerta de Tierra: Department of Natural Resources

SOUTH DAKOTA, Brookings: South Dakota State University, Water Quality Laboratory
SOUTH DAKOTA, Vermillion: South Dakota Geological Survey

TENNESSEE, Chattanooga: Tennessee Valley Authority, Laboratory Branch

TEXAS, Corpus Christi: Core Laboratories
TEXAS, Tyler: Core Laboratories

VERMONT, Montpelier: Vermont Department of Water Resources Laboratory

VIRGINIA, Culpepper: Environmental Systems Service
VIRGINIA, Richmond: Commonwealth of VA, Department of General Services, Division
of Consolidated Laboratories

WASHINGTON, Richland: Rockwell Hanford Operation

WEST VIRGINIA, Morgantown: West Virginia Geologic and Economic Survey

WISCONSIN, Madison: State Laboratory of Hygiene
WISCONSIN, Milwaukee: Milwaukee Metropolitan Sewerage District
WYOMING, Casper: Core Laboratories
WYOMING, Cheyenne: Department of Environmental Quality, Water Quality Division
WYOMING, Laramie: Wyoming Department of Agriculture

REFERENCES

American Society for Testing and Materials, 1981, Annual book of ASTM standards, Part 41, Philadelphia, Pa., 1390 p.

_____, 1982, Annual book of ASTM standards, Part 31: Philadelphia, Pa., 1554 p.

Bishop, E. E., Eckel, E. B., and others, 1978, Suggestions to Authors of the reports of the, U.S. Geological Survey: Washington, D. C., U.S. Government Printing Office, 6th edition, p. 198.

Table 1.--Explanation of abbreviations and symbols used in computer printout sections

APDC - ammonium pyrrolidine dithiocarbamate
AUTO - automated
AVG - average
BLK - block
CHCL₃ - chloroform
CO'METRIC - colorimetric
DEV - deviation
DIG - digestion
EDTA - ethylenediaminetetraacetic acid
H₂SO₄ - sulfuric acid
IC - inductively coupled
IGNORED - values reported as less than detection level and not used in statistical analyses
INTRVL - interval
K & HG SO₄ - potassium & mercuric sulfate
LT - less than
MIBK - methyl isobutyl ketone
NABH₄ - sodium borohydride
ND - not determined
PCT - percent
PDCA - pyrrolidine dithiocarbamic acid
PERSULF - persulfate
PHOSPHOMOLYBD - phosphomolybdate
REJECT - values identified as an outlier and not used in statistical analyses
SPADNS - sodium 2-(parasulfophenylazo)-1,8-dihydroxy-3,6-naphthalene disulfonate
SRWS - standard reference water sample
STD - standard

TABLE 2 OVERALL LABORATORY PERFORMANCE (MAJOR CONSTITUENTS)

LAB	RATING	ALK(CACU3)B		BR	CA	CL	OSRD 180	F	I	K	MG
		0.00 TO 0.50 STD. DEV.	0.51 TO 1.00 STD. DEV.								
1	ND	4	4	ND	0	3	3	4	ND	2	3
2	4	ND	3	ND	4	4	4	4	ND	4	3
4	4	ND	ND	ND	0	ND	ND	ND	ND	ND	ND
6	4	ND	ND	ND	ND	ND	ND	4	ND	4	0
7	4	1	4	ND	4	2	2	4	ND	3	3
8	4	ND	4	ND	4	2	2	4	ND	4	2
10	4	ND	0	ND	ND	3	3	3	ND	ND	ND
11	0	ND	4	ND	0	4	4	4	ND	4	4
12	4	4	4	ND	4	ND	4	4	ND	4	2
13	ND	ND	4	ND	2	1	1	2	ND	4	1
14	ND	ND	ND	ND	0	3	3	ND	ND	ND	ND
15	4	3	4	ND	2	2	2	4	ND	4	4
16	0	2	4	ND	2	4	4	3	ND	2	3
17	0	ND	0	ND	4	0	0	4	ND	2	ND
18	4	ND	3	ND	ND	ND	ND	ND	ND	ND	0
19	3	ND	1	ND	ND	2	2	ND	ND	4	2
20	3	ND	0	ND	2	ND	ND	ND	ND	3	3
21	0	ND	3	ND	2	2	2	1	ND	2	0
22	4	1	3	ND	4	4	4	4	ND	4	2
23	4	ND	4	ND	4	1	1	ND	ND	4	2
25	4	ND	ND	ND	ND	ND	ND	3	NU	ND	ND
26	4	ND	4	ND	4	2	2	1	ND	3	2
27	1	ND	3	ND	1	3	3	4	ND	2	3
29	2	ND	4	ND	1	ND	ND	3	ND	3	4
30	4	ND	1	ND	ND	ND	ND	4	ND	ND	4
32	4	3	0	ND	4	4	4	4	ND	4	4
33	4	ND	3	ND	3	4	3	3	ND	4	3
34	ND	ND	4	ND	4	4	4	ND	ND	0	2
35	4	ND	4	ND	4	3	3	4	ND	2	0
36	2	1	3	ND	4	3	3	4	ND	4	1
38	2	ND	0	ND	4	2	2	0	ND	2	ND
39	1	ND	3	ND	2	2	2	0	ND	3	0
40	4	3	4	ND	4	3	3	3	0	4	3
41	4	4	4	ND	2	3	3	3	ND	3	4
42	4	2	4	LT	4	3	3	4	ND	4	4
44	4	4	4	ND	4	3	3	4	ND	2	4
45	0	LT	3	1	0	0	0	0	ND	4	3
46	4	ND	2	ND	3	0	0	3	NU	2	3
47	0	ND	4	ND	0	0	0	ND	NU	ND	2
48	4	ND	4	ND	4	4	4	4	NU	1	4
49	2	ND	0	ND	2	2	2	4	ND	2	0
50	2	ND	ND	ND	ND	ND	ND	ND	ND	2	ND

TABLE 2 OVERALL LABORATORY PERFORMANCE
 SRMS M86 (MAJOR CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	ALK(CAC03)B	BR	CA	CL	DSRD 180	F	I	K	MG
051	3	3	4	4	3	4	0	3	0
052	ND	ND	4	ND	ND	ND	ND	ND	4
053	4	ND	ND	2	ND	4	ND	3	ND
054	4	ND	2	4	4	4	ND	2	0
055	4	ND	3	4	ND	3	ND	3	3
056	4	ND	4	2	4	ND	ND	3	3
057	4	3	4	ND	4	0	ND	3	3
058	4	ND	ND	2	ND	4	ND	ND	ND
059	ND	ND	ND	2	ND	2	ND	ND	ND
060	3	4	4	3	0	4	ND	0	3
061	ND	ND	4	4	3	ND	ND	3	4
062	4	ND	2	ND	ND	ND	ND	4	2
063	3	ND	0	0	3	0	ND	2	0
064	3	ND	4	2	4	4	ND	2	4
065	0	ND	1	1	ND	1	ND	3	3
067	0	4	3	2	1	3	ND	3	4
068	1	ND	4	1	4	ND	ND	3	4
069	4	ND	4	4	4	ND	ND	4	4
070	4	ND	4	2	2	4	ND	ND	ND
071	0	ND	4	4	ND	ND	ND	ND	ND
072	4	0	4	4	4	3	ND	3	3
073	ND	ND	4	4	ND	ND	ND	3	4
075	4	ND	0	0	ND	3	ND	ND	ND
076	ND	3	4	2	4	ND	ND	4	3
077	0	ND	4	0	3	3	ND	4	4
079	ND	ND	4	ND	ND	ND	ND	4	3
080	3	ND	ND	ND	ND	ND	ND	ND	ND
081	1	ND	4	4	3	4	ND	ND	4
082	4	ND	3	4	2	4	ND	ND	0
083	4	ND	ND	2	ND	ND	ND	ND	ND
084	4	4	4	4	3	4	ND	3	3
087	4	ND	0	4	3	ND	ND	3	2
088	4	ND	0	4	4	3	ND	0	4
089	3	ND	4	3	3	ND	ND	LT	2
090	4	4	4	3	4	4	0	4	4
091	4	ND	4	0	ND	4	ND	0	3
093	0	4	0	2	ND	0	ND	2	4
094	2	3	3	4	ND	4	ND	4	2
095	4	ND	4	2	3	4	ND	ND	0
096	3	ND	4	3	2	3	ND	2	4
097	ND	ND	ND	0	ND	ND	ND	ND	ND
098	1	ND	3	1	0	4	ND	0	2
099	3	ND	3	2	3	0	ND	4	4
100	ND	ND	ND	3	ND	ND	ND	ND	ND
101	4	ND	3	4	2	4	ND	3	3
103	4	ND	4	3	4	4	ND	4	4
105	ND	ND	0	4	0	3	ND	0	0
107	ND	ND	ND	4	ND	4	ND	0	2

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TABLE 2 OVERALL LABORATORY PERFORMANCE
 SRMS M86 (MAJOR CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	NA	N02-N	N03-N	P, TOTAL	PH	S102	S04	SP. COND.	SR	V	N	AVG.
001	4	ND	ND	ND	3	ND	4	4	ND	ND	10	3.10
002	4	4	4	4	4	3	4	3	ND	ND	15	3.73
004	ND	ND	ND	ND	4	3	0	3	ND	ND	6	2.33
006	4	LT	0	ND	1	4	0	ND	ND	ND	10	2.10
007	3	4	4	4	2	4	4	3	ND	ND	16	3.31
008	3	4	4	4	4	0	0	4	4	3	17	3.18
010	4	4	3	ND	4	ND	2	3	ND	ND	10	3.00
011	4	4	1	4	4	4	4	4	4	ND	16	3.31
012	4	ND	4	ND	1	3	2	3	ND	ND	13	3.31
013	4	0	0	0	4	ND	1	4	ND	ND	11	2.23
014	ND	ND	0	3	ND	ND	ND	ND	ND	ND	4	1.50
015	4	4	4	3	4	4	4	3	4	2	17	3.47
016	4	ND	2	ND	3	4	3	3	4	ND	15	2.87
017	0	LT	3	0	4	4	3	4	1	0	15	1.93
018	ND	4	1	3	4	4	ND	4	ND	ND	9	3.00
019	0	4	4	4	1	4	ND	0	ND	ND	12	2.42
020	2	4	4	4	4	4	ND	4	4	ND	13	3.15
021	0	ND	3	ND	2	ND	0	1	ND	ND	12	1.33
022	3	0	4	4	3	ND	1	4	4	4	16	3.06
023	1	0	3	0	3	ND	4	4	ND	ND	13	2.77
025	ND	4	4	ND	4	4	3	ND	ND	ND	7	3.71
026	1	ND	2	2	1	4	3	3	ND	ND	14	2.57
027	4	LT	0	4	3	4	4	4	0	LT	15	2.67
029	3	LT	4	ND	3	ND	4	2	ND	ND	12	3.08
030	4	0	ND	ND	3	ND	0	3	ND	ND	9	2.56
032	1	4	0	2	3	4	2	2	0	3	19	2.53
033	4	ND	ND	ND	0	ND	4	3	ND	ND	11	3.18
034	1	4	1	4	4	ND	ND	3	ND	ND	11	2.82
035	3	4	3	3	3	3	4	4	ND	ND	15	3.20
036	4	4	4	2	3	4	3	4	ND	1	18	3.28
038	4	ND	4	4	3	ND	0	0	ND	ND	12	2.08
039	3	4	4	1	3	2	3	0	ND	ND	15	2.33
040	4	LT	4	4	4	4	4	1	4	3	19	3.32
041	3	ND	ND	ND	3	4	1	4	4	3	15	3.27
042	4	0	4	4	4	4	3	4	0	4	18	3.33
044	4	ND	4	ND	4	4	4	4	ND	ND	14	3.50
045	1	ND	0	3	4	3	1	ND	0	LT	15	1.73
046	0	4	3	4	4	0	4	3	ND	ND	15	2.60
047	3	4	4	4	2	4	3	4	4	ND	13	2.62
048	2	4	4	2	0	4	1	4	0	ND	16	2.75
049	3	4	4	0	3	0	4	4	ND	ND	15	2.27
050	ND	0	3	ND	4	ND	2	3	ND	ND	7	2.29

TABLE 2 OVERALL LABORATORY PERFORMANCE
 SRWS M86 (MAJOR CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	NA	N02-N	N03-N	P1 TOTAL	PH	SI02	S04	SP. COND.	SR	V	N	AVG.
51	3	0	3	4	3	4	4	3	4	3	20	2.95
52	3	ND	ND	ND	ND	4	ND	ND	0	3	6	3.00
53	0	ND	ND	3	4	ND	ND	2	ND	ND	8	2.75
54	3	4	4	4	3	4	1	3	ND	LT	15	3.07
55	3	ND	2	4	2	ND	4	0	ND	ND	12	2.92
56	4	4	4	4	3	4	4	3	4	ND	16	3.56
57	3	4	4	ND	4	ND	4	4	1	ND	14	3.21
58	ND	LT	4	ND	2	0	4	ND	ND	ND	7	2.86
59	LT	ND	2	ND	ND	ND	0	ND	ND	ND	4	1.50
60	3	ND	4	4	3	ND	3	4	ND	ND	14	3.00
61	4	ND	ND	ND	ND	4	4	ND	ND	ND	8	3.75
62	3	ND	ND	ND	4	4	ND	4	ND	ND	8	3.38
63	0	ND	4	1	3	2	0	0	ND	4	15	1.47
64	4	ND	4	4	4	ND	3	2	ND	ND	12	3.33
65	4	ND	ND	ND	4	4	4	3	ND	ND	12	2.58
67	3	4	3	3	2	3	4	2	4	LT	18	2.67
68	4	0	3	4	4	ND	4	0	ND	ND	13	2.77
69	3	ND	3	ND	3	ND	4	3	ND	ND	11	3.64
70	2	0	0	4	4	2	1	4	ND	ND	13	2.54
71	ND	0	0	2	2	ND	ND	4	ND	ND	7	1.71
72	2	ND	4	3	4	ND	4	3	ND	ND	14	3.21
73	0	4	2	4	4	ND	4	ND	ND	ND	10	3.30
75	0	ND	0	3	0	ND	0	3	ND	ND	11	1.18
76	3	ND	1	2	4	ND	2	3	ND	ND	12	2.92
77	3	4	1	1	0	4	4	0	ND	LT	15	2.33
79	3	ND	ND	0	ND	ND	ND	ND	3	3	7	2.86
80	ND	ND	ND	ND	2	ND	ND	ND	ND	ND	2	2.50
81	ND	4	1	4	2	ND	ND	4	ND	ND	11	3.18
82	ND	0	4	4	4	ND	ND	ND	ND	ND	10	2.90
83	ND	ND	ND	ND	4	ND	ND	3	ND	ND	4	3.25
84	3	ND	3	4	3	4	4	3	4	3	18	3.50
87	4	ND	ND	ND	3	ND	ND	4	ND	ND	9	3.00
88	3	4	4	3	0	ND	4	4	ND	ND	14	2.93
89	1	LT	4	0	4	ND	4	3	ND	ND	11	2.82
90	4	4	4	3	4	4	2	4	4	4	20	3.55
91	4	4	4	4	3	0	2	0	ND	ND	14	2.57
93	0	0	0	ND	4	0	3	1	0	2	17	1.47
94	1	ND	4	ND	4	3	4	3	4	3	15	3.20
95	ND	0	4	3	1	ND	4	0	ND	ND	12	2.42
96	3	4	2	4	3	3	3	3	ND	3	17	3.06
97	ND	4	4	0	ND	ND	ND	ND	ND	ND	4	2.00
98	4	4	0	4	5	4	3	3	1	LT	17	2.35
99	4	ND	0	ND	4	3	2	4	4	LT	15	2.93
100	ND	4	3	3	3	ND	4	4	ND	ND	7	3.43
101	3	4	4	4	4	4	2	3	ND	ND	15	3.33
103	3	0	4	4	3	4	4	0	4	ND	17	3.29
105	0	LT	4	3	0	4	0	ND	ND	3	13	1.62
107	3	4	4	1	4	ND	3	ND	ND	ND	10	2.90

TABLE 3 OVERALL LABORATORY PERFORMANCE

LAB	RATING	SRWS T67 (TRACE CONSTITUENTS)				ABBREVIATIONS				CU	CR TOT	CU	
		4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	0.00 TO 0.50 STD. DEV.	0.51 TO 1.00 STD. DEV.	1.01 TO 1.50 STD. DEV.				1.51 TO 2.00 STD. DEV.
002	ND	4	3	4	4	4	4	4	4	3	4	4	
006	ND	4	3	3	0	4	4	4	4	3	3	3	
007	ND	4	3	2	4	4	4	4	4	3	0	0	
008	4	4	ND	4	0	4	4	4	4	3	2	2	
010	ND	LT	ND	ND	LT	4	4	4	4	ND	4	4	
012	ND	LT	ND	0	4	4	4	4	4	3	4	4	
013	ND	ND	ND	ND	ND	4	4	4	4	ND	4	4	
015	4	LT	LT	4	4	4	4	4	4	LT	LT	LT	
016	ND	ND	ND	3	ND	4	4	4	4	ND	4	4	
017	ND	4	4	ND	3	4	4	4	4	1	4	4	
020	ND	ND	0	0	2	4	4	4	4	LT	4	1	
021	ND	0	ND	0	ND	4	4	4	4	ND	4	4	
022	ND	ND	ND	3	ND	4	4	4	4	3	3	3	
023	ND	LT	LT	3	0	4	4	4	4	ND	LT	LT	
026	ND	LT	ND	4	4	4	4	4	4	LT	LT	LT	
027	4	LT	LT	4	ND	4	4	4	4	3	4	4	
029	ND	LT	ND	3	ND	4	4	4	4	ND	LT	LT	
030	ND	ND	ND	4	4	4	4	4	4	ND	LT	LT	
032	ND	LT	LT	3	4	4	4	4	4	LT	4	1	
033	ND	ND	ND	ND	ND	4	4	4	4	ND	ND	ND	
035	4	4	ND	3	ND	4	4	4	4	3	4	4	
036	3	ND	LT	4	4	4	4	4	4	LT	3	3	
039	0	4	3	3	4	4	4	4	4	3	1	1	
040	ND	LT	LT	4	4	4	4	4	4	LT	3	3	
041	ND	LT	LT	4	4	4	4	4	4	LT	3	3	
042	2	3	3	3	3	4	4	4	4	3	3	3	
045	ND	LT	LT	0	LT	4	4	4	4	LT	LT	LT	
046	4	4	4	3	4	4	4	4	4	1	0	0	
047	ND	4	0	2	1	4	4	4	4	ND	4	4	
048	ND	ND	ND	0	ND	4	4	4	4	3	3	3	
049	ND	4	ND	4	3	4	4	4	4	ND	0	1	
050	ND	ND	ND	ND	ND	4	4	4	4	ND	4	4	
051	ND	LT	LT	3	ND	4	4	4	4	4	2	2	
052	ND	ND	ND	ND	4	4	4	4	4	LT	LT	LT	
054	3	LT	ND	LT	3	4	4	4	4	ND	LT	4	
056	ND	ND	ND	3	4	4	4	4	4	ND	ND	ND	
057	ND	ND	ND	ND	ND	4	4	4	4	ND	ND	ND	
059	ND	LT	ND	ND	LT	4	4	4	4	3	3	3	
060	4	ND	ND	ND	ND	4	4	4	4	ND	ND	ND	
064	ND	LT	LT	LT	LT	4	4	4	4	LT	LT	2	
065	ND	ND	ND	ND	ND	4	4	4	4	ND	ND	ND	
067	3	LT	LT	LT	0	4	4	4	4	LT	LT	LT	

TABLE 3 OVERALL LABORATORY PERFORMANCE
 SRWS 187 (THACE CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

RATING	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	AL	AS	BA	BE	CD	CO	CR TOT	CU
LAB	ACID@CAC03AG	AL	AS	BA	BE	CD	CO	CR TOT	CU				
068	ND	3	ND	ND	LT	4	4	ND	ND	3	ND	4	4
069	ND	ND	ND	ND	ND	4	4	ND	ND	ND	ND	ND	ND
070	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
071	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	2
072	0	LT	ND	LT	ND	LT	ND	LT	ND	LT	ND	LT	LT
073	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
075	2	4	ND	4	ND	1	ND	1	ND	1	ND	1	1
076	ND	4	ND	ND	ND	2	ND	2	ND	2	ND	4	2
077	4	LT	4	LT	ND	LT	ND	LT	ND	LT	ND	LT	LT
079	ND	LT	4	4	LT	4	4	LT	4	LT	4	4	4
080	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	4
081	ND	LT	LT	LT	LT	3	0	LT	4	4	4	4	4
082	ND	4	ND	2	LT	4	LT	4	3	3	LT	3	3
083	ND	LT	ND	4	ND	3	ND	3	ND	ND	ND	3	1
084	ND	ND	ND	4	LT	3	ND	LT	ND	ND	LT	3	3
087	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	3
088	ND	LT	LT	4	LT	4	ND	LT	LT	LT	ND	3	LT
089	ND	ND	ND	3	LT	ND	ND	LT	LT	LT	ND	LT	LT
090	0	LT	3	4	LT	4	4	LT	LT	LT	LT	3	3
094	ND	ND	4	4	ND	ND	ND	ND	ND	ND	2	ND	4
096	ND	LT	LT	LT	ND	LT	LT	LT	LT	LT	LT	LT	LT
097	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	4
098	4	0	LT	0	LT	0	LT	0	LT	0	LT	LT	LT
099	ND	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	3	4
100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3	3
105	0	LT	4	4	LT	3	4	LT	LT	LT	ND	LT	0

TABLE 3 OVERALL LABORATORY PERFORMANCE
 SRWS TR7 (TRACE CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

RATING	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	LI	MN	MO	NI	PB	SB	SE	SR
LAB	0.00 TO 0.50 STD. DEV.	0.51 TO 1.00 STD. DEV.	1.01 TO 1.50 STD. DEV.	1.51 TO 2.00 STD. DEV.	> 2.00 STD. DEV.								
002	2	ND	2	ND	0	ND	2	ND	3	3	ND	0	ND
006	4	ND	LT	ND	4	ND	LT	ND	4	LT	ND	3	ND
007	3	4	2	ND	3	ND	2	ND	3	3	ND	4	ND
008	3	4	2	ND	3	ND	2	ND	3	2	ND	2	4
010	ND	LT	ND	ND	ND	ND	ND	ND	ND	LT	ND	ND	ND
012	3	0	LT	ND	ND	ND	LT	ND	ND	LT	2	2	ND
013	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	ND
015	LT	4	LT	ND	ND	ND	LT	ND	LT	LT	4	4	4
016	3	1	3	ND	2	ND	3	ND	3	3	3	3	4
017	4	ND	3	3	0	3	3	0	0	3	ND	ND	2
020	3	ND	3	3	2	3	3	4	4	1	1	1	4
021	ND	0	ND	ND	ND	ND	ND	ND	4	3	ND	4	ND
022	3	ND	3	ND	ND	ND	3	ND	ND	ND	ND	ND	ND
023	LT	ND	LT	ND	ND	ND	LT	LT	ND	LT	LT	4	4
026	ND	3	ND	ND	ND	ND	ND	ND	ND	LT	ND	3	ND
027	LT	4	LT	ND	LT	ND	LT	LT	LT	3	LT	4	0
029	ND	3	ND	ND	ND	ND	ND	ND	3	LT	LT	ND	ND
030	LT	ND	LT	ND	ND	ND	LT	ND	ND	2	LT	LT	ND
032	3	3	3	3	4	3	3	4	3	LT	LT	4	0
033	0	ND	ND	ND	ND	ND	0	ND	ND	ND	ND	ND	0
035	LT	4	LT	ND	ND	ND	LT	ND	ND	4	ND	3	ND
036	2	4	3	ND	LT	3	3	LT	3	LT	ND	3	ND
039	LT	1	LT	ND	ND	ND	LT	ND	ND	3	4	4	ND
040	LT	3	LT	3	4	3	LT	4	LT	LT	3	3	4
041	3	4	4	3	2	4	4	2	LT	LT	3	3	4
042	LT	4	LT	3	4	3	LT	4	3	LT	3	3	0
045	3	LT	0	LT	1	0	0	1	LT	ND	LT	0	0
046	3	LT	0	ND	ND	0	0	ND	2	LT	LT	ND	ND
047	3	3	3	ND	ND	3	3	ND	3	3	ND	ND	ND
048	ND	2	ND	ND	ND	3	3	ND	4	1	ND	ND	4
049	3	3	LT	ND	ND	3	LT	ND	ND	3	ND	0	ND
050	ND	4	ND	ND	ND	4	ND	ND	4	ND	ND	ND	ND
051	4	3	3	3	4	3	3	4	3	3	4	4	4
052	LT	ND	3	ND	ND	ND	3	ND	ND	ND	ND	4	4
054	LT	ND	LT	ND	ND	ND	3	ND	ND	3	ND	3	ND
056	ND	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND	4
057	ND	ND	ND	1	ND	ND	ND	ND	ND	ND	ND	ND	2
059	0	1	ND	ND	ND	ND	ND	ND	ND	LT	ND	LT	ND
060	0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
064	3	LT	ND	ND	ND	3	ND	ND	LT	LT	LT	LT	ND
065	LT	ND	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
067	3	LT	3	3	LT	3	LT	LT	LT	LT	LT	4	4

TABLE 3 OVERALL LABORATORY PERFORMANCE
 SRMS T87 (TRACE CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

RATING	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	FE	HG	LI	MN	MO	NI	PB	SB	SE	SR
LAB 068	LT	LT	ND	ND	ND	3	LT	ND	ND	ND	3	LT	LT	LT	ND
069	3	ND	ND	ND	ND	LT	LT	ND	ND	ND	LT	ND	ND	ND	ND
070	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
071	LT	ND	ND	ND	ND	3	ND	ND	ND	ND	3	4	ND	ND	ND
072	0	ND	ND	0	ND	LT	0	ND	ND	ND	LT	LT	ND	ND	ND
073	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	ND	ND	ND
075	0	ND	ND	3	ND	3	3	ND	ND	ND	0	4	ND	ND	0
076	LI	ND	ND	3	4	3	3	ND	4	ND	3	ND	ND	ND	ND
077	4	0	ND	LT	ND	LT	LT	ND	ND	ND	LT	ND	LT	ND	ND
079	4	ND	3	3	3	3	3	LT	LT	LT	LT	ND	LT	3	3
080	0	ND	ND	3	ND	3	ND	ND	ND	ND	3	ND	ND	ND	ND
081	3	2	ND	3	ND	0	LT	ND	ND	ND	0	ND	LT	ND	ND
082	3	4	ND	3	ND	3	ND	ND	ND	ND	4	4	ND	ND	ND
083	LT	3	ND	LT	ND	ND	3	ND	ND	ND	ND	3	ND	3	ND
084	3	3	3	LT	ND	3	LT	ND	ND	ND	ND	ND	ND	4	4
087	LT	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	ND	ND
088	LT	LT	ND	3	1	LT	1	ND	1	ND	LT	2	LT	4	ND
089	3	LI	ND	ND	LT	LI	ND	ND	LT	LT	LI	LI	LI	3	ND
090	LT	1	3	0	4	3	0	ND	4	ND	3	3	LT	4	4
094	ND	ND	1	LT	ND	ND	LT	LT	ND	ND	ND	ND	3	4	4
096	LT	2	ND	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	ND
097	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	ND
098	LT	0	LT	LT	LT	LT	LT	LT	LT	LT	LT	0	0	0	2
099	4	LT	0	LT	LT	2	LT	LT	LT	LT	2	LT	4	4	4
100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	ND	ND	ND
105	3	LT	3	0	ND	0	LT	LT	ND	ND	0	4	LT	LT	0

TABLE 3 OVERALL LABORATORY PERFORMANCE
 SRWS 187 (TRACE CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

RATING	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	0.00 TO 0.50 STD. DEV.	0.51 TO 1.00 STD. DEV.	1.01 TO 1.50 STD. DEV.	1.51 TO 2.00 STD. DEV.	> 2.00 STD. DEV.	TL	ZN	AVG.
LAR	TL	ZN											
002	ND	3										14	2.86
006	ND	4										10	3.20
007	ND	4										14	2.93
008	ND	4										15	2.93
010	ND	LT										1	4.00
012	ND	4										6	2.50
013	ND	4										5	2.80
015	ND	LT										6	4.00
016	ND	ND										9	2.78
017	2	0										17	2.12
020	2	3										17	2.41
021	ND	2										10	2.20
022	ND	ND										7	3.00
023	ND	LT										4	2.50
026	ND	ND										4	3.50
027	LT	2										8	3.00
029	ND	ND										5	3.00
030	ND	LT										3	3.33
032	LT	2										13	2.85
033	ND	ND										2	0.00
035	ND	4										10	3.60
036	ND	3										12	3.25
039	2	1										15	2.60
040	LT	3										8	3.50
041	LT	2										10	3.20
042	3	4										18	3.00
045	ND	2										6	1.00
046	ND	2										10	2.30
047	ND	0										13	2.31
048	ND	ND										10	2.70
049	ND	2										11	2.45
050	ND	4										5	4.00
051	ND	4										15	3.47
052	ND	4										5	3.60
054	ND	0										7	2.86
056	ND	4										5	3.60
057	ND	ND										2	1.50
059	ND	LT										3	1.33
060	ND	ND										2	2.00
064	ND	LT										3	2.67
065	ND	ND										1	1.00
067	LT	4										8	2.50

TABLE 3 OVERALL LABORATORY PERFORMANCE
 SRWS T87 (TRACE CONSTITUENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

RATING	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	TL	ZN	0.00 TO 0.50 STD. DEV.	0.51 TO 1.00 STD. DEV.	1.01 TO 1.50 STD. DEV.	1.51 TO 2.00 STD. DEV.	> 2.00 STD. DEV.	N	AVG.
068	LT	4											6	3.33
069	ND	4											2	3.50
070	ND	1											2	2.00
071	ND	4											5	3.40
072	ND	LT											3	0.00
073	ND	4											3	2.67
075	ND	0											13	1.54
076	ND	3											9	1.22
077	LT	LT											4	3.00
079	ND	LT											6	3.50
080	ND	0											6	2.17
081	ND	1											9	2.22
082	4	4											14	3.50
083	ND	3											9	2.89
084	ND	4											9	3.44
087	ND	4											5	3.00
088	LT	4											8	3.13
089	LT	2											4	2.75
090	LT	3											13	2.69
094	ND	3											8	3.13
096	ND	LT											1	2.00
097	ND	4											4	3.75
098	ND	LT											8	0.75
099	ND	4											9	3.11
100	ND	3											4	3.25
105	LT	0											11	1.91

TABLE 4 OVERALL LABORATORY PERFORMANCE

RATING	SRWS N10 (NUTRIENTS)		P, TOTAL		PU4-P	N	AVG.
	0.00 TO 0.50 STD. DEV.	0.51 TO 1.00 STD. DEV.	0.00 TO 0.50 STD. DEV.	0.51 TO 1.00 STD. DEV.			
014	ND	0	ND	0	ND	2	0.50
017	3	2	3	3	3	5	2.80
018	2	3	3	3	4	6	3.00
020	3	ND	3	4	ND	3	3.33
022	3	0	ND	4	0	5	1.40
023	2	4	3	4	ND	5	3.40
025	4	4	ND	ND	4	4	4.00
026	4	4	ND	1	2	5	3.00
027	2	4	4	3	2	5	3.00
029	2	3	3	4	3	5	3.00
030	ND	3	ND	ND	ND	2	1.50
032	4	0	3	4	4	5	3.00
034	3	2	1	4	4	6	2.33
035	4	4	4	4	2	6	3.00
038	2	4	ND	4	4	4	3.50
039	4	4	3	0	3	6	2.83
040	0	4	4	4	0	5	2.40
042	ND	0	ND	3	4	4	2.75
044	3	0	ND	ND	4	3	2.33
046	0	1	ND	4	4	5	1.80
047	4	4	4	4	3	6	1.67
048	4	4	ND	4	4	5	4.00
049	2	3	0	0	0	6	0.83
050	4	1	ND	0	0	5	1.40
051	4	0	2	4	4	6	2.83
053	3	ND	ND	0	3	3	2.00
054	3	LT	ND	3	3	4	2.25
055	1	ND	ND	2	ND	3	2.33
056	4	LT	4	4	4	5	3.80
057	ND	4	ND	ND	ND	2	2.00
058	3	LT	ND	ND	4	3	1.67
060	0	ND	ND	ND	3	3	2.33
063	0	ND	ND	4	2	4	1.75

4 (EXCELLENT) 0.00 TO 0.50 STD. DEV. ABBREVIATIONS
 3 (GOOD) 0.51 TO 1.00 STD. DEV. ND = NOT DETERMINED
 2 (SATISFACTORY) 1.01 TO 1.50 STD. DEV. LT = LESS-THAN VALUE REPORTED, NOT RATED
 1 (QUESTIONABLE) 1.51 TO 2.00 STD. DEV. N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 0 (POOR) > 2.00 STD. DEV. AVG = AVERAGE LABORATORY PERFORMANCE RATING

TABLE 4 OVERALL LABORATORY PERFORMANCE

RATING	SRWS N10 (NUTRIENTS)		P, TOTAL		PO4-P	N	AVG.
	NH3-N	N02-N	N03-N	ORG-N			
4 (EXCELLENT)	0.00 TO 0.50 STD. DEV.	0.00 TO 0.50 STD. DEV.	0.00 TO 0.50 STD. DEV.	0.00 TO 0.50 STD. DEV.			
3 (GOOD)	0.51 TO 1.00 STD. DEV.	0.51 TO 1.00 STD. DEV.	0.51 TO 1.00 STD. DEV.	0.51 TO 1.00 STD. DEV.			
2 (SATISFACTORY)	1.01 TO 1.50 STD. DEV.	1.01 TO 1.50 STD. DEV.	1.01 TO 1.50 STD. DEV.	1.01 TO 1.50 STD. DEV.			
1 (QUESTIONABLE)	1.51 TO 2.00 STD. DEV.	1.51 TO 2.00 STD. DEV.	1.51 TO 2.00 STD. DEV.	1.51 TO 2.00 STD. DEV.			
0 (POOR)	> 2.00 STD. DEV.	> 2.00 STD. DEV.	> 2.00 STD. DEV.	> 2.00 STD. DEV.			
LAB							
067	1	4	4	4	1	4	5
068	4	4	3	4	2	0	6
070	2	1	0	3	4	4	6
071	0	4	0	0	4	3	6
073	2	2	3	ND	4	4	5
076	3	ND	4	ND	3	4	4
077	2	LT	1	2	1	0	5
080	3	4	3	3	0	3	4
081	3	3	4	ND	2	4	5
082	3	3	3	1	2	3	6
084	ND	ND	4	ND	4	4	3
088	ND	3	4	ND	4	2	4
089	3	LT	3	3	4	2	5
090	3	LT	4	1	4	4	5
091	3	3	4	4	4	0	6
095	3	LT	3	ND	0	4	4
096	4	LT	2	ND	0	4	4
097	ND	4	1	3	3	2	5
098	0	LT	3	ND	4	3	4
099	3	ND	3	ND	4	2	4
100	1	4	4	4	4	2	6
101	4	4	3	4	4	3	6
107	4	4	3	ND	0	2	5

TABLE 5 OVERALL LABORATORY PERFORMANCE

RATING	SRMS N11 (NUTRIENTS)		P, TOTAL		PU4-P		N	AVG.
	NH3-N	NO3-N	ORG-N	P, STD. DEV.	NO3-N	PU4-P		
4 (EXCELLENT)	0.00 TO 0.50	0.00 TO 0.50	0.00 TO 0.50	0.00 TO 0.50	0.00 TO 0.50	0.00 TO 0.50		
3 (GOOD)	0.51 TO 1.00	0.51 TO 1.00	0.51 TO 1.00	0.51 TO 1.00	0.51 TO 1.00	0.51 TO 1.00		
2 (SATISFACTORY)	1.01 TO 1.50	1.01 TO 1.50	1.01 TO 1.50	1.01 TO 1.50	1.01 TO 1.50	1.01 TO 1.50		
1 (QUESTIONABLE)	1.51 TO 2.00	1.51 TO 2.00	1.51 TO 2.00	1.51 TO 2.00	1.51 TO 2.00	1.51 TO 2.00		
0 (POOR)	> 2.00	> 2.00	> 2.00	> 2.00	> 2.00	> 2.00		
	NH3-N	NO3-N	ORG-N	P, STD. DEV.	NO3-N	PU4-P		
001	ND	0	ND	ND	0	0	2	0.00
004	3	4	4	4	4	4	6	3.83
006	2	0	ND	ND	2	2	4	1.75
007	4	3	4	4	4	4	6	3.67
008	ND	4	ND	0	4	4	4	2.75
009	4	4	3	3	3	3	6	3.17
011	4	2	3	3	3	3	6	2.83
013	2	0	4	0	4	4	6	2.00
014	ND	0	ND	3	ND	ND	2	1.50
017	3	2	3	2	2	0	5	2.00
018	1	4	2	4	4	4	6	3.00
020	4	3	3	3	ND	ND	5	3.20
022	3	0	ND	2	1	1	5	1.60
023	LT	4	3	3	ND	ND	4	3.00
025	3	4	ND	ND	2	2	4	3.00
026	3	4	ND	4	4	4	5	3.40
027	3	4	1	1	3	3	6	2.50
029	1	4	4	3	4	4	5	3.20
030	ND	0	ND	ND	ND	ND	2	0.00
032	0	0	4	2	4	4	6	2.00
034	0	4	3	4	4	4	6	2.33
035	3	4	4	2	2	2	6	3.00
038	4	4	ND	4	3	3	4	3.75
039	3	4	4	3	4	4	6	3.33
040	3	4	0	3	3	3	5	2.60
042	ND	3	ND	4	4	4	4	2.75
044	0	1	ND	ND	4	4	3	1.67
046	4	3	ND	3	4	4	5	3.20
047	2	4	4	4	4	4	6	3.33
048	4	3	ND	ND	3	3	4	1.50
049	3	0	0	0	0	0	6	1.17
050	3	4	ND	2	1	1	5	2.00
051	1	3	4	3	3	3	6	2.83
053	3	ND	ND	4	4	4	3	3.67
055	ND	4	ND	4	ND	ND	3	3.67
056	3	4	3	4	4	4	6	3.50
057	ND	4	ND	ND	ND	ND	2	4.00
058	4	4	ND	ND	0	4	4	2.75
060	0	4	ND	ND	3	3	3	2.33
063	0	3	ND	4	4	4	4	2.75
067	4	0	4	2	4	4	6	2.83
068	3	1	4	4	0	0	6	2.33

TABLE 5 OVERALL LABORATORY PERFORMANCE
 SRWS N11 (NUTRIENTS)
 ABBREVIATIONS
 ND = NOT DETERMINED
 LT = LESS-THAN VALUE REPORTED, NOT RATED
 N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
 AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	NH3-N	N02-N	N03-N	ORG-N	P1 TOTAL	P04-P	N	AVG.
070	0	3	4	1	2	0	6	1.67
071	0	2	0	1	2	1	6	1.00
075	4	ND	0	ND	3	2	4	2.25
076	3	ND	0	ND	3	4	4	2.50
077	3	3	0	0	0	1	6	1.17
080	LT	3	2	2	0	3	5	2.00
081	4	4	1	ND	4	4	5	3.40
082	4	4	0	4	2	4	6	3.00
084	ND	ND	0	ND	4	4	3	2.67
088	ND	4	4	ND	3	1	4	3.00
089	1	LT	2	3	3	1	5	2.00
090	4	4	4	4	3	4	6	3.83
091	1	4	3	2	4	3	6	2.83
095	3	LT	3	ND	4	3	4	3.25
096	3	3	3	ND	4	4	5	3.40
097	ND	4	3	3	3	0	5	2.60
098	4	3	4	ND	4	3	5	3.60
099	3	ND	4	ND	3	1	4	2.75
100	2	3	4	2	3	3	6	2.83
101	3	4	3	4	3	4	6	3.50
107	3	2	4	ND	0	3	5	2.40

TABLE 6 OVERALL LABORATORY PERFORMANCE
SRWS P5 (PRECIPITATION)

RATING	0.00 TO 0.50 STD. DEV.		0.51 TO 1.00 STD. DEV.		1.01 TO 1.50 STD. DEV.		1.51 TO 2.00 STD. DEV.		> 2.00 STD. DEV.		CA	CL	F	K	MG	NA	NH3-N	NO3-N	PH	SO4	SP. COND.	N	AVG.	
	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)														
002	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.64
006	4	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.22
007	3	3	4	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.73
008	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.60
009	4	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.09
010	LT	ND	LT	ND	LT	LT	ND	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	2.75
011	4	3	4	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.82
017	0	0	LT	3	ND	ND	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.11
018	2	ND	ND	ND	LT	LT	ND	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	3.40
019	3	ND	ND	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.75
020	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.60
021	ND	4	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.50
022	2	2	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.55
023	0	LT	ND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.00
027	4	LT	4	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	2.88
029	2	4	1	ND	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.83
030	LT	ND	LT	ND	LT	LT	ND	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	1.80
032	3	4	ND	4	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.13
034	2	0	ND	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1.90
035	1	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.27
036	3	3	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.56
038	2	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.00
040	4	0	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.25
044	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.36
046	4	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.67
048	4	3	4	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.50
049	2	ND	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.80
050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.80
051	1	4	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.33
052	3	3	LT	ND	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.50
053	ND	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.29
055	3	3	ND	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.25
056	3	3	ND	3	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.44
059	ND	LT	LT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00
060	0	ND	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00
064	LT	3	LT	3	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	LT	3.00
065	2	3	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.44
067	3	0	LT	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.44
068	4	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.75
073	2	ND	ND	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.17
075	2	0	0	ND	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1.22
076	2	4	ND	ND	3	4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.57

TABLE 6 OVERALL LABORATORY PERFORMANCE (PRECIPITATION)

RATING	0.00 TO 0.50 STD. DEV.		0.51 TO 1.00 STD. DEV.		1.01 TO 1.50 STD. DEV.		1.51 TO 2.00 STD. DEV.		> 2.00 STD. DEV.		CA	CL	F	K	MG	NA	NH3-N	NO3-N	PH	SO4	SP. COND.	N	AVG.	
	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)	4 (EXCELLENT)	3 (GOOD)	2 (SATISFACTORY)	1 (QUESTIONABLE)	0 (POOR)														
077	3	3	2	1	4	1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.27
078	0	LT	ND	0	0	LT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.40
079	4	ND	ND	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.00
084	3	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.70
087	2	2	ND	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.71
089	4	0	4	0	4	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1.67
090	2	3	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.33
091	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.18
096	2	3	4	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.78
097	NO	0	ND	ND	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1.50
098	3	LT	LT	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.29
099	4	LT	LT	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.50
102	3	LT	ND	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.63
105	0	LT	LT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.71
107	2	3	ND	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.22

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR ALK(CAC03)

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	150	0.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
004	148	1.8	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
006	151	0.2	TITRATION, COLORIMETRIC, MANUAL	1,2
007	150	0.4	TITRATION, COLORIMETRIC, MANUAL	1,2
008	150	0.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
010	152	0.9	TITRATION, COLORIMETRIC, MANUAL	1,2
011	188	24.6	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
012	152	0.9	OTHER	
015	152	0.9	TITRATION, ELECTROMETRIC, AUTOMATED	4
016	189	25.4	TITRATION, ELECTROMETRIC, AUTOMATED	4
017	164	8.6	TITRATION, COLORIMETRIC, MANUAL	1,2
018	150	0.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
019	156	3.5	TITRATION, ELECTROMETRIC, AUTOMATED	4
021	164	6.8	TITRATION, COLORIMETRIC, MANUAL	1,2
022	150	0.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
023	151	0.2	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
025	152	0.9	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
026	150	0.4	TITRATION, ELECTROMETRIC, AUTOMATED	3
027	150	7.1	TITRATION, COLORIMETRIC, MANUAL	1,2
029	158	4.9	TITRATION, ELECTROMETRIC, AUTOMATED	4
030	151	0.2	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
032	152	0.9	TITRATION, ELECTROMETRIC, AUTOMATED	4
033	150	0.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
035	152	0.9	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
036	144	4.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
038	143	5.1	TITRATION, ELECTROMETRIC, MANUAL	1,2
039	140	7.1	TITRATION, COLORIMETRIC, MANUAL	1,2
040	152	0.9	TITRATION, ELECTROMETRIC, AUTOMATED	4
041	152	0.9	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
042	148	1.8	TITRATION, COLORIMETRIC, MANUAL	1,2,3,4
044	150	0.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
045	138	8.4	TITRATION, COLORIMETRIC, AUTOMATED	3
046	152	0.9	TITRATION, ELECTROMETRIC, AUTOMATED	4
047	177	17.5	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
048	150	0.4	TITRATION, COLORIMETRIC, AUTOMATED	3
049	158	4.9	TITRATION, ELECTROMETRIC, AUTOMATED	3
050	145	3.8	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
051	154	2.2	OTHER	
053	152	0.9	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
054	153	1.5	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
055	153	1.5	TITRATION, COLORIMETRIC, MANUAL	1,2
056	152	0.9	TITRATION, ELECTROMETRIC, AUTOMATED	4
057	149	1.1	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
058	152	0.9	OTHER	
060	154	2.2	TITRATION, COLORIMETRIC, MANUAL	1,2
062	152	0.9	TITRATION, COLORIMETRIC, MANUAL	1,2
063	146	3.1	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
064	154	2.2	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
065	314	108.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR ALK(CAC03)

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	REJECT	METHODS	REFERENCES
067	170	12.8	REJECT	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
068	140	7.1		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
069	153	1.5		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
070	151	0.2		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
071	138	8.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
072	150	0.4		TITRATION, COLORIMETRIC, MANUAL	1,2
075	152	0.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
077	220	46.0	REJECT	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
080	146	3.1			
081	160	6.2		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
082	150	0.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
083	150	0.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
084	151	0.2		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
087	150	0.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
088	150	0.4		TITRATION, COLORIMETRIC, MANUAL	1,2
089	155	2.9		TITRATION, ELECTROMETRIC, AUTOMATED	4
090	148	1.8		TITRATION, ELECTROMETRIC, AUTOMATED	4
091	152	0.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
093	167	10.8		TITRATION, ELECTROMETRIC, AUTOMATED	4
094	143	5.1		TITRATION, ELECTROMETRIC, AUTOMATED	4
095	150	0.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
096	155	2.9		TITRATION, COLORIMETRIC, MANUAL	1,2
098	142	5.8		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
099	155	2.9		TITRATION, COLORIMETRIC, MANUAL	1,2
101	152	0.9		TITRATION, ELECTROMETRIC, AUTOMATED	4
103	148	1.8		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4

TOTAL RANGE 138 TO 314 MEAN 150.7
 STANDARD DEVIATION 5.4 95 % CONFIDENCE INTRVL OF MEAN 150.7 + OR - 1.3

TABLE 7-- STANDARD REFERENCE SAMPLE M86 REPORT FOR B

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
007	100	58.3	EMISSION, IC PLASMA	
012	260	8.3	COLORIMETRIC, CURCUMIN	1,2,3,4
015	200	16.7	EMISSION, IC PLASMA	
016	140	41.7	COLORIMETRIC, CARMINE (CARMINIC ACID)	2,4
020	200	16.7	EMISSION, IC PLASMA	
022	360	50.0	COLORIMETRIC, CURCUMIN	1,2,3,4
032	280	16.7	COLORIMETRIC, CARMINE (CARMINIC ACID)	2,4
036	200	16.7	EMISSION, IC PLASMA	
040	200	16.7	EMISSION, IC PLASMA	
041	220	8.3	EMISSION, IC PLASMA	
042	350	45.8	EMISSION, IC PLASMA	
044	250	4.2	COLORIMETRIC, CURCUMIN	1,2,3,4
045	100	***	COLORIMETRIC, AZOMETHINE, AUTOMATED	5
051	220	8.3	IGNORED	
056	200	16.7	COLORIMETRIC, DIANTHRIMIDE	4
057	290	20.8	COLORIMETRIC, CURCUMIN	1,2,3,4
060	240	0.0	COLORIMETRIC, CURCUMIN	1,2,3,4
067	440	83.3	COLORIMETRIC, AZOMETHINE, AUTOMATED	5
072	400	66.7	COLORIMETRIC, CURCUMIN	1,2,3,4
076	200	16.7	EMISSION, IC PLASMA	
084	230	4.2	EMISSION, IC PLASMA	
090	210	12.5	EMISSION, DC PLASMA	
093	240	0.0	OTHER	
094	190	20.8	EMISSION, IC PLASMA	
096	200	16.7	COLORIMETRIC, CURCUMIN	1,2,3,4
098	200	16.7	COLORIMETRIC, CURCUMIN	1,2,3,4
099	260	8.3	COLORIMETRIC, CURCUMIN	1,2,3,4
103	200	16.7	COLORIMETRIC, CARMINE (CARMINIC ACID)	2,4

TOTAL RANGE 100 TO 440 MEAN: 240
 STANDARD DEVIATION 75 95 % CONFIDENCE INTRVL OF MEAN 240 + OR - 30

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR BR

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
029	400	37.5	OTHER	
032	810	178.4	COLORIMETRIC, CHLORAMINE-T	1
036	260	10.6	ION CHROMATOGRAPHY	
040	40	86.2	TITRIMETRIC, REDOX	2,4
042	100	***	IGNORED	1
045	790	171.6	COLORIMETRIC, CHLORAMINE-T	
051	480	65.0	OTHER	
065	0	100.0	OTHER	
067	240	17.5	COLORIMETRIC, CATALYTIC OXIDATION	
084	50	82.8	OTHER	
090	130	55.3	OTHER	
093	0	100.0	ION CHROMATOGRAPHY	2,4

TOTAL RANGE 0 TO 810 MEAN: 291
 STANDARD DEVIATION 298 '95 % CONFIDENCE INTRVL OF MEAN 291 + OR - 200

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR CA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	69	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
002	67	5.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	50	29.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	68	3.7	EMISSION, IC PLASMA	5
008	73	3.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	214	203.1	TITRATION, EDTA	1,3
011	72	2.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	73	3.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	70	0.9	TITRATION, EDTA	1,3
016	72	2.0	EMISSION, IC PLASMA	5
017	100	41.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
018	65	6.0	TITRATION, EDTA	1,3
019	59	16.4	TITRATION, EDTA	1,3
020	86	21.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021	67	5.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	76	7.6	TITRATION, EDTA	1,3
023	73	3.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
026	71	0.5	TITRATION, EDTA	1,3
027	75	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	81	14.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032	50	29.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
033	67	5.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	71	0.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	76	7.6	EMISSION, IC PLASMA	5
038	6	91.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
039	64	9.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	70	0.9	TITRATION, EDTA	1,3
041	74	4.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
042	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044	73	3.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	75	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	61	13.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	73	3.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	69	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	36	49.0	TITRATION, EDTA	1,3
051	74	4.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	72	2.0	EMISSION, IC PLASMA	5
054	80	13.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	67	5.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	71	0.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
057	72	2.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
060	72	2.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	68	3.7	EMISSION, IC PLASMA	5
062	78	10.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
063	55	22.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
064	73	3.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR CA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
065	82	16.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	77	9.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069	72	2.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
070	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	69	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	3	95.8	REJECT	5
076	71	0.5	EMISSION, IC PLASMA	1,2,3,4
077	74	4.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	73	3.4	EMISSION, IC PLASMA	5
081	72	2.0	TITRATION, EDTA	1,3
082	77	9.0	TITRATION, EDTA	1,3
084	73	3.4	EMISSION, IC PLASMA	5
087	100	41.6	REJECT	5
088	55	22.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	70	0.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
090	71	0.5	EMISSION, IC PLASMA	1,2,3,4
091	68	3.7	ATOMIC ABSORPTION, DIRECT, AIR	5
093	91	28.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
094	77	9.0	EMISSION, IC PLASMA	5
095	74	4.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	69	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	64	9.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	65	8.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
101	65	8.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
103	72	2.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	45	36.3	REJECT OTHER	1,2,3,4

TOTAL RANGE 3 TO 214 MEAN: 70.6
 STANDARD DEVIATION 6.8 95 % CONFIDENCE INTRVL OF MEAN 70.6 + OR - 1.6

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR CL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	REJECT	METHODS	REFERENCES
001	30	33.1	REJECT	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
002	44	1.9		TITRATION, SILVER NITRATE	1,2,4
004	50	11.5		TITRATION, SILVER NITRATE	1,2,4
007	45	0.4		TITRATION, SILVER NITRATE	1,2,4
008	44	1.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
011	111	147.5	REJECT	TITRATION, MERCURIC NITRATE	1,2,3,4
012	45	0.4		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
013	47	4.8		TITRATION, SILVER NITRATE	1,2,4
014	147	227.8	REJECT	TITRATION, MERCURIC NITRATE	1,2,3,4
015	43	4.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
016	47	4.8		TITRATION, SILVER NITRATE	1,2,4
017	45	0.4		TITRATION, SILVER NITRATE	1,2,4
020	43	4.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
021	47	4.8		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
022	44	1.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
023	44	1.9		TITRATION, MERCURIC NITRATE	1,2,3,4
026	44	1.9		TITRATION, SILVER NITRATE	1,2,4
027	48	7.0		TITRATION, MERCURIC NITRATE	1,2,4
029	42	6.3		TITRATION, MERCURIC NITRATE	1,2,3,4
032	44	1.9		TITRATION, SILVER NITRATE	1,2,4
033	46	2.6		TITRATION, SILVER NITRATE	1,2,4
034	44	1.9		TITRATION, MERCURIC NITRATE	1,2,3,4
035	45	0.4		TITRATION, MERCURIC NITRATE	1,2,3,4
036	45	0.4		ION CHROMATOGRAPHY	2,6
038	45	0.4		TITRATION, MERCURIC NITRATE	1,2,3,4
039	43	4.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
040	44	1.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
041	47	4.8		TITRATION, MERCURIC NITRATE	1,2,3,4
042	44	1.9		TITRATION, MERCURIC NITRATE	1,2,3,4
044	46	2.6		TITRATION, SILVER NITRATE	1,2,3,4
045	62	38.3	REJECT	TITRATION, SILVER NITRATE	1,2,4
046	46	2.6		OTHER	
047	50	11.5		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
048	44	1.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
049	43	4.1		ION SELECTIVE ELECTRODE	2
051	44	1.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
053	47	4.8		TITRATION, SILVER NITRATE	1,2,4
054	45	0.4		TITRATION, SILVER NITRATE	1,2,4
055	44	1.9		TITRATION, SILVER NITRATE	1,2,4
056	43	4.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
058	43	4.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
059	43	4.1		TITRATION, SILVER NITRATE	1,2,4
060	46	2.6		ION SELECTIVE ELECTRODE	2
061	44	1.9		TITRATION, SILVER NITRATE	1,2,4
063	75	67.3	REJECT	ION CHROMATOGRAPHY	1,2,4
064	43	4.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
065	48	7.0		ION CHROMATOGRAPHY	2,6
067	43	4.1		TITRATION, MERCURIC NITRATE	1,2,3,4
068	42	6.3		TITRATION, MERCURIC NITRATE	1,2,3,4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR CL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
069	45	0.4	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
070	43	4.1	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
071	44	1.9	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
072	44	1.9	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
073	45	0.4	TITRATION, SILVER NITRATE	1,2,4
075	25	44.2	TITRATION, SILVER NITRATE	1,2,4
076	43	4.1	ION SELECTIVE ELECTRODE	2
077	54	20.4	TITRATION, SILVER NITRATE	1,2,4
081	44	1.9	TITRATION, SILVER NITRATE	1,2,4
082	44	1.9	TITRATION, SILVER NITRATE	1,2,4
083	43	4.1	TITRATION, SILVER NITRATE	1,2,4
084	44	1.9	TITRATION, MERCURIC NITRATE	1,2,3,4
087	44	1.9	ION CHROMATOGRAPHY	2,6
088	44	1.9	TITRATION, MERCURIC NITRATE	1,2,3,4
089	46	2.6	TITRATION, SILVER NITRATE	1,2,4
090	46	2.6	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
091	38	15.3	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
093	47	4.8	ION CHROMATOGRAPHY	2,6
094	44	1.9	ION CHROMATOGRAPHY	2,6
095	47	4.8	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
096	46	2.6	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
097	23	48.7	TITRATION, SILVER NITRATE	1,2,4
098	48	7.0	TITRATION, MERCURIC NITRATE	1,2,3,4
099	43	4.1	TITRATION, SILVER NITRATE	1,2,4
100	46	2.6	TITRATION, SILVER NITRATE	1,2,4
101	45	0.4	TITRATION, MERCURIC NITRATE	1,2,3,4
103	46	2.6	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
105	45	0.4	TITRATION, SILVER NITRATE	1,2,4
107	45	0.4	TITRATION, MERCURIC NITRATE	1,2,3,4
			COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4

TOTAL RANGE 23 TO 147 MEAN: 44.8
 STANDARD DEVIATION 1.7 95% CONFIDENCE INTRVL OF MEAN 44.8 + OR - 0.4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR DSRD 180

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	594	2.2	RESIDUE, FILTRABLE	1,3
002	587	1.0	RESIDUE UN EVAPORATION	2,4
007	603	3.8	RESIDUE, FILTRABLE	1,3
008	602	3.6	RESIDUE ON EVAPORATION	2,4
010	569	2.1	RESIDUE, FILTRABLE	1,3
011	579	0.4	RESIDUE ON EVAPORATION	2,4
013	551	5.2	RESIDUE, FILTRABLE	1,3
014	569	2.1	RESIDUE, FILTRABLE	1,3
015	561	3.5	RESIDUE ON EVAPORATION	2,4
016	580	0.2	RESIDUE ON EVAPORATION	2,4
017	447	23.1	RESIDUE ON EVAPORATION	2,4
019	558	4.0	OTHER	
021	564	2.9	RESIDUE, FILTRABLE	1,3
022	578	0.5	RESIDUE ON EVAPORATION	2,4
023	590	1.5	RESIDUE, FILTRABLE	1,3
026	600	3.3	RESIDUE ON EVAPORATION	2,4
027	570	1.9	RESIDUE, FILTRABLE	1,3
032	586	0.8	RESIDUE, FILTRABLE	1,3
033	589	1.4	RESIDUE ON EVAPORATION	2,4
034	584	0.5	RESIDUE ON EVAPORATION	2,4
035	566	2.6	RESIDUE, FILTRABLE	1,3
036	590	1.5	RESIDUE, FILTRABLE	1,3
038	598	2.9	RESIDUE, FILTRABLE	1,3
039	600	3.3	RESIDUE, FILTRABLE	1,3
040	594	2.2	RESIDUE, FILTRABLE	1,3
041	570	1.9	RESIDUE UN EVAPORATION	2,4
042	570	1.9	RESIDUE, FILTRABLE	1,3
044	570	1.9	RESIDUE, FILTRABLE	2,4
045	620	6.7	RESIDUE ON EVAPORATION	
046	494	15.0	REJECT	
047	624	7.4	RESIDUE, FILTRABLE	1,3
048	584	0.5	RESIDUE ON EVAPORATION	2,4
049	562	3.3	RESIDUE, FILTRABLE	1,3
051	596	2.6	RESIDUE ON EVAPORATION	2,4
054	584	0.5	RESIDUE, FILTRABLE	1,3
056	575	1.1	RESIDUE, FILTRABLE	1,3
057	576	0.9	RESIDUE, FILTRABLE	1,3
060	544	6.4	RESIDUE, FILTRABLE	1,3
061	590	1.5	RESIDUE UN EVAPORATION	2,4
063	568	2.3	RESIDUE, FILTRABLE	1,3
064	588	1.2	RESIDUE, FILTRABLE	1,3
067	613	5.5	RESIDUE UN EVAPORATION	2,4
068	584	0.5	RESIDUE UN EVAPORATION	2,4
069	576	0.9	RESIDUE, FILTRABLE	2,4
070	600	3.3	RESIDUE, FILTRABLE	1,3
072	588	1.2	RESIDUE UN EVAPORATION	2,4
075	276	52.5	REJECT	
076	582	0.2	RESIDUE, FILTRABLE	1,3
077	590	1.5	RESIDUE, FILTRABLE	2,4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR DSRD 180

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
081	570	1.9	RESIDUE ON EVAPORATION	2,4
082	563	3.1	RESIDUE, FILTRABLE	1,3
084	596	2.6	RESIDUE ON EVAPORATION	2,4
087	570	1.9	RESIDUE ON EVAPORATION	2,4
088	580	0.2	RESIDUE, FILTRABLE	1,3
089	568	2.3	RESIDUE ON EVAPORATION	2,4
090	584	0.5	RESIDUE ON EVAPORATION	2,4
095	592	1.9	RESIDUE ON EVAPORATION	2,4
096	564	2.9	RESIDUE, FILTRABLE	1,3
098	546	6.0	RESIDUE, FILTRABLE	1,3
099	590	1.5	RESIDUE, FILTRABLE	1,3
101	560	3.6		
103	586	0.8	RESIDUE, FILTRABLE	1,3
105	58	90.0	REJECT RESIDUE, FILTRABLE	1,3

TOTAL RANGE 58 TO 624 MEAN 581.1
 STANDARD DEVIATION 16.7 95 % CONFIDENCE INTRVL OF MEAN 581.1 + OR - 4.3

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR F

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
002	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
006	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
007	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
008	2.0	0.5	ION SELECTIVE ELECTRODE, AUTOMATED	4
010	1.8	9.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
011	2.0	0.5	COLORIMETRIC, ZIRCONIUM ERIODROME	4
012	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
013	1.7	14.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
015	2.0	0.5	ION SELECTIVE ELECTRODE, AUTOMATED	4
016	1.8	9.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
017	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
021	2.4	20.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
022	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
025	2.1	5.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
026	1.6	19.6	COLORIMETRIC, LANTHANUM ALIZARIN "COMPLEXONE", AUTOMATED	1
027	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
029	2.2	10.5	ION SELECTIVE ELECTRODE, AUTOMATED	4
030	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
032	2.0	0.5	COLORIMETRIC, CEROUS ALIZARIN "COMPLEXONE", AUTOMATED	3
033	2.1	5.5	COLORIMETRIC, ZIRCONIUM ERIODROME	4
035	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
036	1.9	4.5	ION CHROMATOGRAPHY	1,2,3,4
038	2.6	30.6	COLORIMETRIC, SPADNS	2,6
039	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3
040	2.1	5.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
041	2.2	10.5	OTHER	4
042	2.0	0.5	ION SELECTIVE ELECTRODE, AUTOMATED	1,2,3,4
044	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	4
045	2.6	30.6	OTHER	1,2,3,4
046	1.8	9.6	ION SELECTIVE ELECTRODE, AUTOMATED	4
048	58.0	814.1	REJECT	4
049	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
051	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
053	2.0	0.5	ION SELECTIVE ELECTRODE, AUTOMATED	4
054	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
055	1.8	9.6	COLORIMETRIC, SPADNS	1,2,3
057	1.4	29.7	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
058	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
059	1.7	14.6	ION SELECTIVE ELECTRODE, AUTOMATED	4
060	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	4
063	3.6	80.9	ION CHROMATOGRAPHY	1,2,3,4
064	2.0	0.5	ION SELECTIVE ELECTRODE, AUTOMATED	2,6
065	2.4	20.6	ION CHROMATOGRAPHY	4
067	1.8	9.6	ION SELECTIVE ELECTRODE, MANUAL	2,6
070	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
072	2.1	5.5	COLORIMETRIC, LANTHANUM ALIZARIN "COMPLEXONE", AUTOMATED	1
075	1.8	9.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
077	2.1	5.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR F

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
081	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
082	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
084	2.0	0.5	ION CHROMATOGRAPHY	2,6
088	1.8	9.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
090	1.9	4.5	ION SELECTIVE ELECTRODE, AUTOMATED	4
091	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
093	2.9	45.7	ION CHROMATOGRAPHY	2,6
094	2.0	0.5		
095	2.0	0.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
096	2.2	10.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
098	2.0	0.5	COLORIMETRIC, SPADNS	1,2,3
099	2.6	30.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
101	2.0	0.5		
103	2.0	0.5	COLORIMETRIC, SPADNS	1,2,3
105	1.8	9.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
107	1.9	4.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4

TOTAL RANGE 1.4 TO 58.0 MEAN 1.99
 STANDARD DEVIATION 0.21 95 % CONFIDENCE INTRVL OF MEAN 1.99 + OR - 0.05

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR 1

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
040	20		COLORIMETRIC, CERIC ARSENIOUS OXIDATION, MANUAL	2,4
051	100		TITRIMETRIC, PHENYL ARSINE OXIDE	3
090	13		COLORIMETRIC, CERIC ARSENIOUS OXIDATION, AUTOMATED	4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR K

CODE	REPORTED	PCT. DEV. FROM MEAN	METHODS	REFERENCES
	VALUE			
001	5.5	16.5	FLAME, EMISSION, PHOTOMETRIC	1,2
002	4.7	0.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	4.9	3.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	4.4	6.8	PLASMA, INDUCTIVELY COUPLED	
008	4.5	4.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	4.5	4.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012	4.5	4.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	5.0	5.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	5.0	5.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
016	5.4	14.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	5.4	14.3	FLAME, EMISSION, PHOTOMETRIC	1,2
019	4.8	1.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	4.3	9.0	ATOMIC ABSORPTION, DIRECT, AIR	
021	4.0	15.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	4.6	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
023	4.9	3.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
026	4.4	6.8	FLAME, EMISSION, PHOTOMETRIC	1,2
027	5.4	14.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029	4.2	11.1	OTHER	
032	4.5	4.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
033	4.6	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	2.5	47.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	5.5	16.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	4.7	0.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038	4.1	13.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
039	4.4	6.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	4.9	3.8	FLAME, EMISSION, PHOTOMETRIC	1,2
041	5.2	10.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
042	5.0	5.9	FLAME, EMISSION, PHOTOMETRIC	1,2
044	5.4	14.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	4.9	3.8	ATOMIC ABSORPTION, DIRECT, AIR	
046	4.0	15.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	4.4	6.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	5.6	18.6	FLAME, EMISSION, PHOTOMETRIC	1,2
050	5.6	18.6	ATOMIC ABSORPTION, DIRECT, AIR	
051	4.3	9.0	FLAME, EMISSION, PHOTOMETRIC	1,2,3,4
053	5.3	12.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2
054	5.5	16.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	5.1	8.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	4.3	9.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
057	4.2	11.1	FLAME, EMISSION, PHOTOMETRIC	1,2
060	3.5	25.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	5.1	8.0	OTHER	
062	4.6	2.6	PLASMA, INDUCTIVELY COUPLED	
063	4.0	15.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
064	4.0	15.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
065	4.4	6.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	4.2	11.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	4.2	11.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

REJECT

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR K

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
069	4.5	4.7	FLAME, EMISSION, PHOTOMETRIC	1,2
072	4.2	11.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	4.2	11.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	4.7	0.5	PLASMA, INDUCTIVELY COUPLED	
077	4.7	0.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	5.0	5.9	OTHER	
084	4.4	6.8	OTHER	
087	5.2	10.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
088	7.8	65.2	FLAME, EMISSION, PHOTOMETRIC	1,2
089	5.0	***	REJECT FLAME, EMISSION, PHOTOMETRIC	1,2
090	4.6	2.6	IGNORED	
091	7.4	56.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
093	5.6	18.6	REJECT FLAME, EMISSION, PHOTOMETRIC	1,2
094	4.6	2.6	FLAME, EMISSION, PHOTOMETRIC	1,2,3,4
096	4.0	15.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	6.5	37.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	4.5	4.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
101	4.4	6.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
103	4.9	3.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	3.4	28.0	OTHER	
107	6.4	35.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 2.5 10 7.8 MEAN 4.72 ± OR - 0.15
 STANDARD DEVIATION 0.59 95 % CONFIDENCE INTRVL OF MEAN

TABLE 7 - -

STANDARD REFERENCE SAMPLE M86 REPORT FOR MG

CODE	REPORTED		PCT. DEV. FROM MEAN	METHODS	REFERENCES
	VALUE				
001	29	3.4		TITRATION, EDTA	2
002	27	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	21	25.1	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	27	3.7		EMISSION, IC PLASMA	5
008	30	7.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012	26	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	27	3.7		TITRATION, EDTA	2
015	28	0.2		EMISSION, IC PLASMA	5
016	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
018	22	21.6	REJECT	TITRATION, EDTA	2
019	30	7.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021	25	10.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	30	7.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
023	30	7.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
026	30	7.0		TITRATION, EDTA	2
027	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
033	27	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	26	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	31	10.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	29	3.4		EMISSION, IC PLASMA	5
039	24	14.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	29	3.4		EMISSION, IC PLASMA	5
041	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
042	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	27	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	30	7.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	13	53.6	REJECT	TITRATION, EDTA	2
051	25	10.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	28	0.2		EMISSION, IC PLASMA	5
054	52	85.4	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	27	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
057	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
060	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	28	0.2		EMISSION, IC PLASMA	5
062	30	7.0		EMISSION, IC PLASMA	5
063	24	14.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
064	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
065	29	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	28	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

421

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR MG

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
069	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	27	3.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	29	3.4	EMISSION, IC PLASMA	5
077	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	29	3.4	EMISSION, IC PLASMA	5
081	28	0.2	CALCULATION FROM CA PLUS MG	
082	23	18.0	TITRATION, EDTA	2
084	29	3.4	EMISSION, IC PLASMA	5
087	30	7.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
088	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	26	7.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
090	28	0.2	EMISSION, IC PLASMA	5
091	27	3.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
093	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
094	30	7.0	EMISSION, IC PLASMA	5
095	17	39.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	26	7.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
101	27	3.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
103	28	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	13	53.6	OTHER	1,2,3,4
107	26	7.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 13 TO 10.5 52 MEAN 28.0
 STANDARD DEVIATION 1.5 95 % CONFIDENCE INTRVL OF MEAN 28.0 + OR - 0.4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR NA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	76	1.3	FLAME EMISSION, PHOTOMETRIC	1,2
002	77	0.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	77	0.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	75	2.6	PLASMA, INDUCTIVELY COUPLED	5
008	79	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	76	1.3	FLAME EMISSION, PHOTOMETRIC	1,2
011	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	76	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	78	1.3	PLASMA, INDUCTIVELY COUPLED	5
016	77	0.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	110	42.9	FLAME EMISSION, PHOTOMETRIC	1,2
019	69	10.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	81	5.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021	68	11.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	80	3.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
023	82	6.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
026	83	7.8	PLASMA, INDUCTIVELY COUPLED	5
027	76	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029	74	3.9	OTHER	1,2,3,4
030	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032	82	6.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
033	77	0.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	83	7.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	74	3.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	76	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
039	74	3.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	77	0.0	FLAME EMISSION, PHOTOMETRIC	1,2
041	75	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
042	78	1.3	FLAME EMISSION, PHOTOMETRIC	1,2
044	71	7.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	77	0.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	54	29.9	REJECT	1,2,3,4
047	75	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	73	5.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	80	3.9	FLAME EMISSION, PHOTOMETRIC	1,2
051	80	3.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	74	3.9	PLASMA, INDUCTIVELY COUPLED	5
053	99	28.6	FLAME EMISSION, PHOTOMETRIC	1,2
054	79	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	80	3.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
057	79	2.6	FLAME EMISSION, PHOTOMETRIC	1,2
059	10	***	IGNORED	1,2,3,4
060	79	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	76	1.3	PLASMA, INDUCTIVELY COUPLED	5
062	79	2.6	PLASMA, INDUCTIVELY COUPLED	5
063	43	44.1	REJECT	1,2,3,4

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TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR NA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
064	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
065	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	75	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069	80	3.9	FLAME EMISSION, PHOTOMETRIC	1,2
070	81	5.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	73	5.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	70	9.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	68	11.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	75	2.6	PLASMA, INDUCTIVELY COUPLED	5
077	79	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	80	3.9	PLASMA, INDUCTIVELY COUPLED	5
084	80	3.9	PLASMA, INDUCTIVELY COUPLED	5
087	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
088	75	2.6	FLAME EMISSION, PHOTOMETRIC	1,2
089	72	6.5	FLAME EMISSION, PHOTOMETRIC	1,2
090	78	1.3	PLASMA, INDUCTIVELY COUPLED	5
091	77	0.0	FLAME EMISSION, PHOTOMETRIC	1,2
093	142	84.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
094	82	6.5	REJECT PLASMA, INDUCTIVELY COUPLED	5
096	79	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	77	0.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	78	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
101	74	3.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
103	75	2.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	41	46.7	OTHER	1,2,3,4
107	80	3.9	REJECT ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 41 70 142 MEAN: 77.0
 STANDARD DEVIATION 3.3 3.3 95 % CONFIDENCE INTVL OF MEAN 77.0 + OR - 0.6

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR NO2-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
006	< 0.01	***	COLORIMETRIC, DIAZOTIZATION	1,3,4
007	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
008	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
010	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
011	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
013	0.02	82.6	COLORIMETRIC, DIAZOTIZATION	1,3,4
017	< 0.05	***	ION CHROMATOGRAPHY	2,6
018	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
019	0.01	8.7	OTHER	1,3,4
020	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
022	0.03	173.9	COLORIMETRIC, DIAZOTIZATION	1,3,4
023	0.02	82.6	COLORIMETRIC, DIAZOTIZATION	1,3,4
025	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
027	< 0.01	***	COLORIMETRIC, DIAZOTIZATION	1,3,4
029	< 0.02	***	ION CHROMATOGRAPHY	2,6
030	0.06	447.8	COLORIMETRIC, DIAZOTIZATION	1,3,4
032	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
034	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
035	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
036	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
039	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
040	0.20	***	COLORIMETRIC, DIAZOTIZATION	1,3,4
042	0.12	995.7	COLORIMETRIC, DIAZOTIZATION	2,6
045	< 0.01	***	ION CHROMATOGRAPHY	1,3,4
046	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
047	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
048	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
049	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
050	0.00	100.0	COLORIMETRIC, DIAZOTIZATION	1,3,4
051	0.02	82.6	COLORIMETRIC, DIAZOTIZATION	1,3,4
054	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
056	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
057	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
058	< 0.01	***	COLORIMETRIC, DIAZOTIZATION	1,3,4
067	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
068	0.02	82.6	COLORIMETRIC, DIAZOTIZATION	1,3,4
070	0.03	173.9	COLORIMETRIC, DIAZOTIZATION	1,3,4
071	0.05	356.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
073	0.01	8.7	OTHER	1,3,4
077	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
081	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
082	0.02	82.6	COLORIMETRIC, DIAZOTIZATION	1,3,4
088	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
089	< 0.01	***	COLORIMETRIC, DIAZOTIZATION	1,3,4
090	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
091	0.01	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
093	0.00	100.0	ION CHROMATOGRAPHY	2,6
095	0.05	356.5	COLORIMETRIC, DIAZOTIZATION	1,3,4

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TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR NU24N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
		FROM	TO		
096	0.01	8.7	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
097	0.01	8.7	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
098	0.01	8.7	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
100	0.01	8.7	8.7	ION CHROMATOGRAPHY	2,6
101	0.01	8.7	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
103	0.02	82.6	82.6	COLORIMETRIC, DIAZOTIZATION	1,3,4
105	< 0.01	***	***	IGNORED	1,3,4
107	0.01	8.7	8.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
TOTAL RANGE		0.00	0.12	MEAN ± 95 % CONFIDENCE	0.011
STANDARD DEVIATION		0.004	0.12	INTRVL OF MEAN	0.011 ± DR ± 0.001

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR NO3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	3.78	4.9	COLORIMETRIC, BRUCINE	1,2,3,4
006	10.50	164.2	ION SPECIFIC ELECTRUDE	1,2,3,4
007	4.07	2.4	COLORIMETRIC, BRUCINE	1,2,3,4
008	4.09	2.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
010	3.71	6.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
011	4.69	18.0	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
012	4.03	1.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
013	7.88	98.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
014	0.13	96.7	OTHER	1,2,3,4
015	4.03	1.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
016	4.51	13.5	OTHER	1,2,3,4
017	4.32	8.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
018	4.61	16.0	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
019	4.03	1.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
020	3.80	4.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
021	3.62	8.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
022	3.89	2.1	COLORIMETRIC, BRUCINE	1,2,3,4
023	4.31	8.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
025	4.00	0.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
026	3.49	12.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
027	4.78	20.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
029	4.07	2.4	ION CHROMATOGRAPHY	2,6
032	2.78	30.1	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
034	4.58	15.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
035	4.20	5.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
036	4.12	3.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
038	4.00	0.6	COLORIMETRIC, BRUCINE	1,2,3,4
039	4.10	3.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
040	4.04	1.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
042	3.80	4.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
044	3.96	0.4	SPECTROPHOTOMETRIC	1,2,3,4
045	7.17	80.4	REJECT	
046	4.20	5.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
047	4.09	2.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
048	3.97	0.1	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
049	4.11	3.4	COLORIMETRIC, BRUCINE	1,2,3,4
050	4.20	5.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
051	4.30	8.2	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
054	4.01	0.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
055	3.53	11.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
056	3.98	0.1	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
057	3.86	2.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
058	4.10	3.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
059	3.58	9.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
060	3.85	3.1	COLORIMETRIC, BRUCINE	1,2,3,4
063	4.15	4.4	COLORIMETRIC, BRUCINE	1,2,3,4
067	3.61	9.2	COLORIMETRIC, BRUCINE	1,2,3,4
068	3.70	6.9	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
069	4.35	9.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4

TABLE 7 --

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	STANDARD REFERENCE SAMPLE M86		REPORT FOR N03-N		REFERENCES
				MEAN	95 % CONFIDENCE	INTRVL OF MEAN	OR -	
070	3.01	24.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	3.975	3.975 + OR -	0.095	1,2,3,4	
071	2.04	48.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
072	4.04	1.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
073	3.50	11.9	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION				3	
075	5.50	36.4	OTHER					
076	3.20	19.5	OTHER					
077	4.60	15.7	COLORIMETRIC, BRUCINE				1,2,3,4	
081	3.37	15.2	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION				3	
082	4.00	0.6	COLORIMETRIC, BRUCINE				1,2,3,4	
084	4.27	7.4	ION CHROMATOGRAPHY				2,6	
088	4.10	3.2	COLORIMETRIC, BRUCINE				1,2,3,4	
089	4.12	3.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
090	4.00	0.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
091	4.06	2.1	ION CHROMATOGRAPHY				2,6	
093	18.01	353.1	REJECT					
094	4.12	3.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
095	4.15	4.4	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
096	4.37	9.9	COLORIMETRIC, BRUCINE				1,2,3,4	
097	4.02	1.1	COLORIMETRIC, BRUCINE				1,2,3,4	
098	3.10	22.0	COLORIMETRIC, BRUCINE				1,2,3,4	
099	3.00	24.5	COLORIMETRIC, BRUCINE				1,2,3,4	
100	4.34	9.2	COLORIMETRIC, BRUCINE				1,2,3,4	
101	3.86	2.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
103	4.04	1.6	COLORIMETRIC, BRUCINE				1,2,3,4	
105	4.00	0.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	
107	4.00	0.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION				1,2,3,4	

TOTAL RANGE 0.13 10 18.01
 STANDARD DEVIATION 0.392

MEAN 3.975
 95 % CONFIDENCE INTRVL OF MEAN 3.975 + OR - 0.095

TABLE 7 --

CODE	REPORTED		PCT. DEV. FROM MEAN	METHODS	REFERENCES
	VALUE	STANDARD REFERENCE SAMPLE M86			
002	0.51		2.6	OTHER	
007	0.50		0.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
008	0.50		0.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
011	0.48		3.4	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
013	0.35		29.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
014	0.44		11.5	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
015	0.46		7.5	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
017	0.68		36.8	OTHER	
018	0.54		8.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
019	0.48		3.4	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
020	0.52		4.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
022	0.50		0.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
023	0.98		97.1	COLORIMETRIC, BLK DIG, H2S04, K&HG 304, PHOSPHOMOLYBD DATE	4
026	0.42		15.5	OTHER	
027	0.52		4.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
032	0.57		14.7	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
034	0.48		3.4	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
035	0.46		7.5	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
036	0.42		15.5	COLORIMETRIC, BLK DIG, H2S04, K&HG 304, PHOSPHOMOLYBD DATE	4
038	0.48		3.4	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
039	0.39		21.5	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
040	0.50		0.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
042	0.51		2.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
045	0.45		9.5	OTHER	
046	0.48		3.4	COLORIMETRIC, BLK DIG, H2S04, K&HG 304, PHOSPHOMOLYBD DATE	4
047	0.50		0.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
048	0.40		19.5	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
049	3.10		523.6	OTHER	
051	0.50		0.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
053	0.56		12.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
054	0.47		5.5	PERSULFATE OXIDATION	
055	0.49		1.4	COLORIMETRIC, BLK DIG, H2S04, K&HG 304, PHOSPHOMOLYBD DATE	4
056	0.49		1.4	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
060	0.47		5.5	OTHER	
063	0.61		22.7	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
064	0.48		3.4	OTHER	
067	0.55		10.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
068	0.51		2.6	COLORIMETRIC, BLK DIG, H2S04, K&HG 304, PHOSPHOMOLYBD DATE	4
070	0.47		5.5	COLORIMETRIC, BLK DIG, H2S04, K&HG 304, PHOSPHOMOLYBD DATE	4
071	0.43		13.5	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
072	0.46		7.5	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
073	0.49		1.4	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
075	0.55		10.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
076	0.59		18.7	EMISSION, IC PLASMA	
077	0.61		22.7	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
079	0.78		56.9	EMISSION, IC PLASMA	
081	0.50		0.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
082	0.52		4.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
084	0.51		2.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4

STANDARD REFERENCE SAMPLE M86 REPORT FOR P, TOTAL

REPORTED
VALUEPCT. DEV.
FROM MEAN

METHODS

REFERENCES

REJECT

REJECT

REJECT

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR P, TOTAL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
088	0.55	10.6	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
089	0.29	41.7	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
090	0.56	12.6	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
091	0.49	1.4	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
095	0.45	9.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
096	0.50	0.6	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
097	0.66	32.8	COLORIMETRIC, BLK DIG, H2S04, K&HG 804, PHOSPHOMOLYBDATE	4
098	0.52	4.6	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
100	0.46	7.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
101	0.49	1.4	COLORIMETRIC, BLK DIG, H2S04, K&HG 804, PHOSPHOMOLYBDATE	4
103	0.50	0.6	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
105	0.46	7.5	OTHER	
107	0.60	20.7	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4

TOTAL RANGE 0.29 TO 3.10 MEAN 0.497
 STANDARD DEVIATION 0.066 95 % CONFIDENCE INTVL OF MEAN 0.497 ± OR - 0.017

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR PH

CODE	REPORTED	PCT. DEV. FROM MEAN	METHODS	REFERENCES
	VALUE			
001	8.3	2.1	ELECTROMETRIC	1,2,3,4
002	8.2	0.9	ELECTROMETRIC	1,2,3,4
004	8.2	0.9	ELECTROMETRIC	1,2,3,4
006	7.8	4.0	ELECTROMETRIC	1,2,3,4
007	8.4	3.3	ELECTROMETRIC	1,2,3,4
008	8.1	0.4	ELECTROMETRIC	1,2,3,4
010	8.2	0.9	ELECTROMETRIC	1,2,3,4
011	8.2	0.9	ELECTROMETRIC	1,2,3,4
012	7.8	4.0	ELECTROMETRIC	1,2,3,4
013	8.2	0.9	ELECTROMETRIC	1,2,3,4
015	8.2	0.9	ELECTROMETRIC	1,2,3,4
016	8.3	0.9	ELECTROMETRIC	1,2,3,4
017	8.2	2.1	ELECTROMETRIC	1,2,3,4
018	8.1	0.9	ELECTROMETRIC	1,2,3,4
019	8.1	0.4	ELECTROMETRIC	1,2,3,4
020	7.8	4.0	ELECTROMETRIC	1,2,3,4
021	8.1	0.4	ELECTROMETRIC	1,2,3,4
022	7.9	2.8	ELECTROMETRIC	1,2,3,4
023	8.3	2.1	ELECTROMETRIC	1,2,3,4
025	8.2	2.1	ELECTROMETRIC	1,2,3,4
026	8.2	0.9	OTHER	1,2,3,4
027	7.6	4.0	ELECTROMETRIC	1,2,3,4
029	8.0	1.6	ELECTROMETRIC	1,2,3,4
030	8.3	2.1	ELECTROMETRIC	1,2,3,4
032	8.3	2.1	ELECTROMETRIC	1,2,3,4
033	8.0	1.6	ELECTROMETRIC	1,2,3,4
034	7.6	6.5	OTHER	1,2,3,4
035	8.2	0.9	ELECTROMETRIC	1,2,3,4
036	8.0	1.6	ELECTROMETRIC	1,2,3,4
038	8.0	1.6	ELECTROMETRIC	1,2,3,4
039	8.0	1.6	ELECTROMETRIC	1,2,3,4
040	8.3	2.1	ELECTROMETRIC	1,2,3,4
041	8.2	0.9	ELECTROMETRIC	1,2,3,4
042	8.3	2.1	ELECTROMETRIC	1,2,3,4
044	8.2	0.9	ELECTROMETRIC	1,2,3,4
045	8.1	0.4	ELECTROMETRIC	1,2,3,4
046	8.1	0.4	ELECTROMETRIC	1,2,3,4
047	8.2	0.9	ELECTROMETRIC	1,2,3,4
049	7.9	2.8	ELECTROMETRIC	1,2,3,4
050	7.6	6.5	ELECTROMETRIC	1,2,3,4
051	8.3	2.1	ELECTROMETRIC	1,2,3,4
053	8.1	0.4	ELECTROMETRIC	1,2,3,4
054	8.1	1.6	ELECTROMETRIC	1,2,3,4
055	8.2	0.9	ELECTROMETRIC	1,2,3,4
056	8.3	2.1	ELECTROMETRIC	1,2,3,4
057	7.9	2.8	ELECTROMETRIC	1,2,3,4
058	8.1	0.4	ELECTROMETRIC	1,2,3,4
060	7.9	2.8	ELECTROMETRIC	1,2,3,4

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR PH

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
062	8.2	0.9	ELECTROMETRIC	1,2,3,4
063	8.3	2.1	ELECTROMETRIC	1,2,3,4
064	8.2	0.9	ELECTROMETRIC	1,2,3,4
065	8.2	0.9	ELECTROMETRIC	1,2,3,4
067	8.4	3.3	ELECTROMETRIC	1,2,3,4
068	8.2	0.9	ELECTROMETRIC	1,2,3,4
069	8.3	2.1	ELECTROMETRIC	1,2,3,4
070	8.2	0.9	ELECTROMETRIC	1,2,3,4
071	7.9	2.8	ELECTROMETRIC	1,2,3,4
072	8.2	0.9	ELECTROMETRIC	1,2,3,4
073	8.1	0.4	ELECTROMETRIC	1,2,3,4
075	7.7	5.3	ELECTROMETRIC	1,2,3,4
076	8.2	0.9	ELECTROMETRIC	1,2,3,4
077	7.7	5.3	ELECTROMETRIC	1,2,3,4
080	8.4	3.3	ELECTROMETRIC	1,2,3,4
081	8.4	3.3	ELECTROMETRIC	1,2,3,4
082	8.1	0.4	ELECTROMETRIC	1,2,3,4
083	8.2	0.9	ELECTROMETRIC	1,2,3,4
084	8.3	2.1	ELECTROMETRIC	1,2,3,4
087	8.0	5.6	ELECTROMETRIC	1,2,3,4
088	8.6	5.6	ELECTROMETRIC	1,2,3,4
089	8.1	0.4	ELECTROMETRIC	1,2,3,4
090	8.1	0.4	ELECTROMETRIC	1,2,3,4
091	8.3	2.1	ELECTROMETRIC	1,2,3,4
093	8.1	0.4	ELECTROMETRIC	1,2,3,4
094	8.2	0.9	ELECTROMETRIC	1,2,3,4
095	7.8	4.0	ELECTROMETRIC	1,2,3,4
096	8.0	1.6	ELECTROMETRIC	1,2,3,4
098	8.0	1.6	ELECTROMETRIC	1,2,3,4
099	8.1	0.4	ELECTROMETRIC	1,2,3,4
100	8.0	1.6	ELECTROMETRIC	1,2,3,4
101	8.3	2.1	ELECTROMETRIC	1,2,3,4
103	8.3	2.1	ELECTROMETRIC	1,2,3,4
105	8.6	5.8	ELECTROMETRIC	1,2,3,4
107	8.1	0.4	ELECTROMETRIC	1,2,3,4

TOTAL RANGE 7.6 TO 8.6 MEAN: 8.13
 STANDARD DEVIATION 0.20 95 % CONFIDENCE INTVL OF MEAN 0.13 ± OR - 0.04

TABLE 7-- STANDARD REFERENCE SAMPLE MAR6 REPORT FOR S102

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	14.5	14.9	COLORIMETRIC, MOLYBDOUSILICIC ACID	1,2,3
004	14.0	11.0	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
006	13.14	6.2	COLORIMETRIC, MOLYBDOUSILICIC ACID	1,2,3
007	13.0	3.0	EMISSION, IC PLASMA	5
008	7.3	42.1	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
011	13.0	3.0	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
012	14.0	11.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
015	12.0	4.9	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
016	13.0	3.0	COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
017	13.3	5.4	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
018	13.2	4.6	COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE, AUTO.	4
019	11.9	5.7	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
020	13.1	3.8	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
025	13.2	4.6	COLORIMETRIC, MOLYBDOUSILICIC ACID	1,2,3
026	13.0	3.0	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
027	13.0	3.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
032	13.5	7.0	CO ² METRIC, AMINO-NAPHTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	3
035	14.0	11.0	CO ² METRIC, AMINO-NAPHTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	3
036	12.5	0.9	EMISSION, IC PLASMA	5
039	10.0	20.7	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
040	12.6	0.1	EMISSION, IC PLASMA	5
041	13.7	8.6	EMISSION, IC PLASMA	5
042	13.0	3.0	COLORIMETRIC, MOLYBDOUSILICIC ACID	5
044	13.0	3.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
045	14.0	11.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
046	5.8	54.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
047	12.9	2.2	COLORIMETRIC, MOLYBDOUSILICIC ACID	1,2,3
048	13.6	7.8	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
049	5.9	53.2	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
051	13.0	3.0	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
052	13.0	3.0	EMISSION, IC PLASMA	5
054	12.8	1.4	MOLYBDOUSILICATE	3
056	13.0	3.0	CO ² METRIC, AMINO-NAPHTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	3
058	5.5	56.4	OTHER	3
061	13.0	3.0	EMISSION, IC PLASMA	5
062	13.2	4.6	EMISSION, IC PLASMA	5
063	16.0	26.8	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	5
065	13.0	3.0	COLORIMETRIC, MOLYBDOUSILICIC ACID	4
067	14.0	11.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
070	10.0	20.7	COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	4
077	13.1	3.6	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
084	13.6	7.8	EMISSION, IC PLASMA	5
090	13.0	3.0	COLORIMETRIC, MOLYBDOUSILICIC ACID	5
091	17.8	41.1	CO ² METRIC, AMINO-NAPHTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	1,2,3
093	7.0	44.5	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	3
094	14.6	15.7	EMISSION, IC PLASMA	4
096	13.9	10.2	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
098	13.7	8.6	COLORIMETRIC, MOLYBDOUSILICIC ACID	4
099	13.9	10.2	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
101	13.0	3.0	COLORIMETRIC, MOLYBDOUSILICIC ACID	4
103	12.8	1.4	COLORIMETRIC, MOLYBDOUSILICIC ACID	1,2,3
105	13.8	9.4	OTHER	1,2,3

TOTAL RANGE 5.5

STANDARD DEVIATION 2.37

TO 17.8

MEAN 12.62

95 x CONFIDENCE INTRVL OF MEAN 12.62 + OR -

0.66

56

12.62 + OR -

0.66

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR 504

CODE	REPORTED		PCT. DEV. FROM MEAN	METHODS	REFERENCES
	VALUE				
001	225		1.4	GRAVIMETRIC, BARIUM SULFATE	1,2,3
002	216		2.7	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
004	186		16.2	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
006	192		13.5	GRAVIMETRIC, BARIUM SULFATE	1,2,3
007	224		0.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
008	100		54.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
010	235		5.9	GRAVIMETRIC, BARIUM SULFATE	1,2,3
011	220		0.9	THORIN TITRATION	2,4
012	207		6.7	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
013	241		8.6	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
015	217		2.2	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
016	230		3.6	GRAVIMETRIC, BARIUM SULFATE	1,2,3
017	211		4.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
021	420		89.2	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
022	200		9.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
023	225		1.4	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
025	214		3.6	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
026	230		3.6	ION CHROMATOGRAPHY	2,6
027	220		0.9	GRAVIMETRIC, BARIUM SULFATE	1,2,3
029	216		2.7	ION CHROMATOGRAPHY	2,6
030	250		12.6	GRAVIMETRIC, BARIUM SULFATE	1,2,3
032	237		6.8	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
033	220		0.9	THORIN TITRATION	2,4
035	220		0.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
036	214		3.6	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
038	120		45.9	TURBIDIMETRIC	2,4
039	210		5.4	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
040	217		2.2	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
041	244		9.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
042	212		4.5	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
044	220		0.9	THORIN TITRATION	2,4
045	242		9.0	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
046	220		0.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
047	230		3.6	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,2,3
048	201		9.4	TURBIDIMETRIC, BARIUM SULFATE	1,3,4
049	221		0.4	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
050	205		7.6	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
051	220		0.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
054	241		8.6	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
055	224		0.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
056	218		1.8	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
057	225		1.4	GRAVIMETRIC, BARIUM SULFATE	1,2,3
058	220		0.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
059	137		38.3	OTHER	1,2,3
060	230		3.6	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
061	220		0.9	GRAVIMETRIC, BARIUM SULFATE	1,2,3
063	270		21.7	ION CHROMATOGRAPHY	2,6
064	210		5.4	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
065	224		0.9	ION CHROMATOGRAPHY	2,6

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR 304

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
067	222	0.0	GRAVIMETRIC, BARIUM SULFATE	1,2,3
068	226	1.8	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
069	219	1.3	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
070	243	9.5	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
072	223	0.5	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
073	217	2.2	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
075	166	25.2	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
076	206	7.2	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
077	226	1.8	GRAVIMETRIC, BARIUM SULFATE	1,2,3
084	224	0.9	ION CHROMATOGRAPHY	2,6
088	220	0.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
089	224	0.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
090	235	5.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
091	239	7.7	ION CHROMATOGRAPHY	2,6
093	230	3.6	ION CHROMATOGRAPHY	2,6
094	222	0.0	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
095	220	0.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
096	210	5.4	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
098	230	3.6	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
099	237	6.8	GRAVIMETRIC, BARIUM SULFATE	1,2,3
100	220	0.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
101	209	5.8	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
103	220	0.9	GRAVIMETRIC, BARIUM SULFATE	1,2,3
105	256	15.3	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
107	210	5.4	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4

TOTAL RANGE 100 10 420 MEAN: 221.9
 STANDARD DEVIATION 12.7 95 % CONFIDENCE INTVL OF MEAN 221.9 + OR - 3.1

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR SP. COND.

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	866	0.8	DIRECT READING INSTRUMENT	4
002	883	2.8	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
004	885	3.0	DIRECT READING INSTRUMENT	4
007	892	3.8	DIRECT READING INSTRUMENT	4
008	840	2.2	DIRECT READING INSTRUMENT	4
010	814	5.2	DIRECT READING INSTRUMENT	4
011	860	0.1	OTHER	4
012	816	5.0	DIRECT READING INSTRUMENT	4
013	872	1.5	DIRECT READING INSTRUMENT	4
015	884	2.9	DIRECT READING INSTRUMENT	4
016	902	2.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
017	846	5.0	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
018	839	1.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
019	1140	2.3	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
020	878	32.7	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
021	765	2.2	DIRECT READING INSTRUMENT	4
022	857	10.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
023	873	0.2	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
026	887	1.6	OTHER	1,2,3,4
027	850	3.3	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
029	811	1.0	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
030	900	5.6	DIRECT READING INSTRUMENT	1,2,3,4
032	916	4.8	DIRECT READING INSTRUMENT	4
033	895	6.6	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	4
034	830	4.2	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
035	871	3.4	DIRECT READING INSTRUMENT	4
036	850	1.4	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
038	720	1.0	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
039	752	16.2	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
040	784	12.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
041	879	8.7	DIRECT READING INSTRUMENT	4
042	866	2.3	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	4
044	866	0.8	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
046	905	0.8	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
047	856	2.7	DIRECT READING INSTRUMENT	1,2,3,4
048	860	5.4	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
049	875	0.3	DIRECT READING INSTRUMENT	4
050	820	0.1	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	4
051	903	1.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
053	800	4.5	DIRECT READING INSTRUMENT	4
054	900	5.1	DIRECT READING INSTRUMENT	4
055	750	6.9	DIRECT READING INSTRUMENT	4
056	889	4.8	DIRECT READING INSTRUMENT	4
057	876	12.7	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
060	839	3.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
062	875	2.0	DIRECT READING INSTRUMENT	4
063	88	2.3	DIRECT READING INSTRUMENT	4
064	923	1.9	OTHER	4
065	900	89.8	DIRECT READING INSTRUMENT	4
		7.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
		4.8	DIRECT READING INSTRUMENT	4

TABLE 7 --

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	STANDARD REFERENCE SAMPLE M86		REPORT FOR SP. COND.		REFERENCES
				MEAN	INTRVL OF MEAN	MEAN	INTRVL OF MEAN	
067	920	7.1	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
068	742	13.6	DIRECT READING INSTRUMENT	859.0	859.0	859.0	859.0	4
069	892	3.8	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
070	877	2.1	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
071	845	1.6	DIRECT READING INSTRUMENT	859.0	859.0	859.0	859.0	4
072	883	2.8	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
075	900	4.8	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
076	897	4.4	OTHER	859.0	859.0	859.0	859.0	1,2,3,4
077	1100	28.1	DIRECT READING INSTRUMENT	859.0	859.0	859.0	859.0	4
081	867	0.9	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
083	895	4.2	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
084	885	3.0	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
087	875	1.9	DIRECT READING INSTRUMENT	859.0	859.0	859.0	859.0	4
088	840	2.2	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
089	895	4.2	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
090	837	2.6	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
091	657	23.5	DIRECT READING INSTRUMENT	859.0	859.0	859.0	859.0	4
093	952	10.8	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
094	885	3.0	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
095	750	12.7	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
096	823	4.2	DIRECT READING INSTRUMENT	859.0	859.0	859.0	859.0	4
098	900	4.8	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
099	860	0.1	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
100	869	1.2	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
101	899	4.7	DIRECT READING INSTRUMENT	859.0	859.0	859.0	859.0	4
103	763	11.2	WHEAISTONE BRIDGE-TYPE CONDUCTIVITY METER	859.0	859.0	859.0	859.0	1,2,3,4
TOTAL RANGE				88	TO	1140	MEAN	859.0
STANDARD DEVIATION				47.8			95 % CONFIDENCE INTRVL OF MEAN	859.0 + OR - 11.3

TABLE 7 --

STANDARD REFERENCE SAMPLE M86 REPORT FOR SR

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
008	780	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
011	770	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
015	760	0.9	EMISSION, IC PLASMA	5
016	780	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
017	560	25.6	EMISSION, IC PLASMA	5
020	760	0.9		
027	1200	59.4	REJECT	
032	1980	162.9	REJECT	
040	790	4.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
041	800	6.2	EMISSION, IC PLASMA	5
042	2300	205.4	REJECT	
045	500	33.6	ATOMIC ABSORPTION, DIRECT	5
048	3590	376.8	REJECT	
051	780	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
052	170	77.4	REJECT	
056	770	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
057	930	23.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
067	770	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
079	840	11.6	EMISSION, IC PLASMA	5
084	770	2.3	EMISSION, IC PLASMA	5
090	760	0.9	OTHER	5
093	400	46.9	REJECT	
094	760	0.9	EMISSION, IC PLASMA	5
098	590	21.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
099	800	6.2	OTHER	5
103	790	4.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4

TOTAL RANGE 170 TO 3590 MEAN: 753
 STANDARD DEVIATION 97 95 % CONFIDENCE INTVL OF MEAN 753 + OR - 45

TABLE 7 --

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	STANDARD REFERENCE SAMPLE M86		REFERENCES	
				MEAN	95 % CONFIDENCE INTRVL OF MEAN		
008	12	33.5	ATOMIC ABSORPTION, FLAMELESS	18.1	18.1 + OR -	3	
015	4	77.8	EMISSION, IC PLASMA			5	
017	50	177.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE			1,3	
022	18	0.3	ATOMIC ABSORPTION, FLAMELESS			3	
027	100	***	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE			1,3	
032	30	66.2	ATOMIC ABSORPTION, FLAMELESS			3	
036	40	121.6	EMISSION, IC PLASMA			5	
040	10	44.6	ATOMIC ABSORPTION, FLAMELESS			5	
041	12	33.5	EMISSION, IC PLASMA			3	
042	20	10.8	ATOMIC ABSORPTION, FLAMELESS			5	
045	50	***	IGNORED			3	
051	11	39.1	EMISSION, IC PLASMA			5	
052	12	33.5	EMISSION, IC PLASMA			5	
054	50	***	IGNORED			3	
063	14	22.4	ATOMIC ABSORPTION, FLAMELESS			3	
067	10	***	ATOMIC ABSORPTION, FLAMELESS			3	
077	400	***	IGNORED			1,3	
079	10	44.6	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE			1,3	
084	10	44.6	EMISSION, IC PLASMA			5	
090	13	28.0	COLORIMETRIC, CATALYTIC OXIDATION			5	
093	31	71.7	ATOMIC ABSORPTION, FLAMELESS			4	
094	9	50.1	EMISSION, IC PLASMA			3	
096	10	44.6	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE			1,3	
098	200	***	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE			1,3	
099	100	***	IGNORED			1,3	
105	27	49.6	IGNORED			1,3	
TOTAL RANGE				4	10	50	
STANDARD DEVIATION				4	12.1	50	
				MEAN	18.1	95 % CONFIDENCE INTRVL OF MEAN	18.1 + OR -
							5.8

TABLE 8 --

STATISTICS BY METHOD FOR SAMPLE# M86

DETERMINATION: ALK(CAC03)	
METHOD	
TITRATION, COLORIMETRIC, AUTOMATED	MEAN 150.0
TITRATION, COLORIMETRIC, MANUAL	STD DEV 0.0
TITRATION, ELECTROMETRIC, AUTOMATED	N 3
TITRATION, ELECTROMETRIC, MANUAL	MEAN 152.1
OTHER	STD DEV 6.6
***** OVER ALL *****	N 15
	MEAN 153.6
	STD DEV 5.7
	N 13
	MEAN 149.2
	STD DEV 4.3
	N 33
	MEAN 152.7
	STD DEV 1.2
	N 3
	MEAN 150.7
	STD DEV 5.4
	N 69
DETERMINATION: B	
METHOD	
COLORIMETRIC, CARMININE (CARMINIC ACID)	MEAN 207
COLORIMETRIC, CURCUMIN	STD DEV 7.0
EMISSION, IC PLASMA	N 3
***** OVER ALL *****	MEAN 264
	STD DEV 84
	N 9
	MEAN 193
	STD DEV 37
	N 9
	MEAN 240
	STD DEV 75
	N 27
DETERMINATION: BR	
METHOD	
OTHER	MEAN 212
***** OVER ALL *****	STD DEV 215
	N 5
	MEAN 291
	STD DEV 298
	N 11
DETERMINATION: CA	
METHOD	
ATOMIC ABSORPTION, DIRECT, AIR	MEAN 69.6
EMISSION, IC PLASMA	STD DEV 7.3
TITRATION, EDTA	N 50
***** OVER ALL *****	MEAN 72.5
	STD DEV 3.4
	N 11
	MEAN 72.0
	STD DEV 4.0
	N 7
	MEAN 70.6
	STD DEV 6.8
	N 70
DETERMINATION: CL	
METHOD	
COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	MEAN 44.5
ION CHROMATOGRAPHY	STD DEV 1.7
ION SELECTIVE ELECTRODE	N 24
TITRATION, MERCURIC NITRATE	MEAN 46.0
TITRATION, SILVER NITRATE	STD DEV 1.6
***** OVER ALL *****	N 4
	MEAN 44.0
	STD DEV 1.7
	N 3
	MEAN 44.2
	STD DEV 1.5
	N 13
	MEAN 45.4
	STD DEV 1.6
	N 23
	MEAN 44.8
	STD DEV 1.7
	N 69

TABLE 8 --

STATISTICS BY METHOD FOR SAMPLE: M86

DETERMINATION: DSRD 180

METHOD	MEAN	STD DEV	N
RESIDUE, FILTRABLE	577.6	16.0	31
RESIDUE ON EVAPORATION	585.6	14.5	25
***** OVER ALL *****	581.1	16.7	59

DETERMINATION: F

METHOD	MEAN	STD DEV	N
COLORIMETRIC, SPADNS	2.12	0.32	4
ION CHROMATOGRAPHY	2.10	0.26	3
ION SELECTIVE ELECTRODE, AUTOMATED	1.95	0.14	10
ION SELECTIVE ELECTRODE, MANUAL	1.96	0.19	36
***** OVER ALL *****	1.99	0.21	62

DETERMINATION: I

DETERMINATION: K

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	4.70	0.62	45
FLAME, EMISSION, PHOTOMETRIC	4.94	0.50	10
OTHER	4.42	0.69	5
PLASMA, INDUCTIVELY COUPLED	4.57	0.15	3
***** OVER ALL *****	4.72	0.59	66

DETERMINATION: MG

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	27.8	1.6	48
EMISSION, IC PLASMA	28.7	0.9	12
TITRATION, EDTA	28.7	1.5	3
***** OVER ALL *****	28.0	1.5	66

TABLE 8 --

STATISTICS BY METHOD FOR SAMPLE: M86

DETERMINATION: NA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	76.7	3.5	45
PLASMA, INDUCTIVELY COUPLED	78.2	3.0	11
FLAME EMISSION, PHOTOMETRIC	77.0	2.4	10
***** OVER ALL *****	77.0	3.3	69

DETERMINATION: NU2-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, DIAZOTIZATION	0.011	0.004	38
***** OVER ALL *****	0.011	0.004	42

DETERMINATION: NU3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BRUCINE	3.943	0.407	17
COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	4.020	0.377	40
COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3.717	0.411	4
ION CHROMATOGRAPHY	3.972	0.336	4
***** OVER ALL *****	3.975	0.392	68

DETERMINATION: P, TOTAL

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BLK DIG, H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	0.503	0.075	7
COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	0.495	0.063	43
OTHER	0.503	0.091	6
***** OVER ALL *****	0.497	0.066	59

DETERMINATION: PH

METHOD	MEAN	STD DEV	N
ELECTROMETRIC	8.13	0.19	78
***** OVER ALL *****	8.13	0.20	84

TABLE 8 --

STATISTICS BY METHOD FOR SAMPLE: M86

DETERMINATION: S102

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	11.78	3.67	11
COLORIMETRIC, MOLYBDOSILICIC ACID	13.25	0.51	10
COLORIMETRIC, AMINO-NAPHTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	14.57	2.19	4
COLORIMETRIC, ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE, AUTO.	12.02	1.97	12
EMISSION, IC PLASMA	13.24	0.64	9
***** OVER ALL *****	12.62	2.37	52

DETERMINATION: S04

METHOD	MEAN	STD DEV	N
COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	217.5	8.8	20
GRAVIMETRIC, BARIUM SULFATE	225.2	13.7	12
ION CHROMATOGRAPHY	227.2	7.8	6
THORIN TITRATION	220.0	0.0	3
TURBIDIMETRIC, BARIUM SULFATE	222.2	15.2	26
***** OVER ALL *****	221.9	12.7	68

DETERMINATION: SP. COND.

METHOD	MEAN	STD DEV	N
DIRECT READING INSTRUMENT	852.9	47.7	27
WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	861.0	49.9	40
OTHER	879.8	15.9	4
***** OVER ALL *****	859.0	47.8	71

DETERMINATION: SR

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	773	86	9
EMISSION, IC PLASMA	755	83	8
***** OVER ALL *****	753	97	20

DETERMINATION: V

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	19.3	8.4	7
EMISSION, IC PLASMA	13.5	11.0	8
***** OVER ALL *****	18.1	12.1	19

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR ACID@CAC03

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
008	412	2.0	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
015	400	0.9	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
027	403	0.2	TITRATION, COLORIMETRIC, MANUAL	1,2,3
035	410	1.6	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
036	390	3.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
039	370	8.4	TITRATION, COLORIMETRIC, MANUAL	1,2,3
042	428	6.0	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
046	396	1.9	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
054	393	2.7	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
060	412	2.0	TITRATION, COLORIMETRIC, MANUAL	1,2,3
067	418	3.5	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
072	476	17.9	REJECT	1,2,3,4
075	382	5.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
077	398	1.4	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
087	434	7.5	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
090	8	98.0	REJECT	1,2,3,4
098	410	1.6	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
105	236	41.5	REJECT	1,2,3,4

TOTAL RANGE 8 TO 476 MEANS 403.7
 STANDARD DEVIATION 16.8 95 % CONFIDENCE INTRVL OF MEAN 403.7 ± OR ± 9.3

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR AG

CODE	REPORTED VALUE	Pct. DEV. FROM MEAN	METHODS	REFERENCES
002	1	60.0	ATOMIC ABSORPTION, FLAMELESS	3
006	2	20.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
007	0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
008	1	60.0	ATOMIC ABSORPTION, FLAMELESS	3
010	<	***	IGNORED	3
012	<	***	IGNORED	1,2,3
015	<	***	IGNORED	1,2,3
017	2	20.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
021	9	260.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
023	5	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
026	<	***	IGNORED	1,2,3
027	<	***	IGNORED	1,2,4
029	<	***	IGNORED	1,2,3
030	<	***	IGNORED	3
032	<	***	IGNORED	1,2,3
035	1	60.0	ATOMIC ABSORPTION, FLAMELESS	3
039	1	60.0	ATOMIC ABSORPTION, FLAMELESS	3
040	<	***	ATOMIC ABSORPTION, FLAMELESS	3
041	<	***	ATOMIC ABSORPTION, FLAMELESS	3
042	<	***	IGNORED	3
045	0	100.0	PLASMA, INDUCTIVELY COUPLED	3
047	<	***	ATOMIC ABSORPTION, FLAMELESS	3
049	3	20.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
051	2	20.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
054	<	***	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,2,4
059	<	***	ATOMIC ABSORPTION, FLAMELESS	3
064	<	***	ATOMIC ABSORPTION, FLAMELESS	1,2,3
067	<	***	ATOMIC ABSORPTION, DIRECT, AIR	3
068	<	***	ATOMIC ABSORPTION, FLAMELESS	1,2,3
072	<	***	ATOMIC ABSORPTION, DIRECT, AIR	3
075	<	20.0	ATOMIC ABSORPTION, FLAMELESS	1,2,3
077	<	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
079	<	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
081	<	***	IGNORED	3
082	<	***	OTHER	3
083	1	60.0	ATOMIC ABSORPTION, FLAMELESS	3
088	<	***	ATOMIC ABSORPTION, FLAMELESS	3
090	<	***	ATOMIC ABSORPTION, FLAMELESS	3
096	<	***	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,2,4
098	20	300.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
099	<	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
105	<	***	ATOMIC ABSORPTION, DIRECT, AIR	3

TOTAL RANGE 0 TO 10 MEAN: 2.5
 STANDARD DEVIATION 3.1 95 % CONFIDENCE INTERVAL OF MEAN 2.5 + OR - 1.8

TABLE 9 --

STANDARD REFERENCE SAMPLE T67 REPORT FOR AL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	10	87.3	ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
006	5	93.7	ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
007	0	100.0	ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
015	<	***	PLASMA, INDUCTIVELY COUPLED	
017	40	49.2	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
020	310	293.7		
023	<	***	IGNORED	
027	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
032	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
036	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
039	<	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
040	<	87.3	ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
041	<	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
042	<	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
045	<	87.3	ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
046	<	***	IGNORED	
047	60	23.8	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
051	320	306.3	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
064	<	***	IGNORED ATOMIC ABSORPTION, CHELATION EXTRACTION, NITROUS OXIDE, MANUAL	2,4
067	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
068	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, FLAMELESS	1,2,3,4
072	<	74.6	ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
076	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
077	80	1.6	PLASMA, INDUCTIVELY COUPLED	
079	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
081	<	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
088	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
090	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, FLAMELESS	3
096	<	***	IGNORED PLASMA, DIRECT CURRENT	
098	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
099	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	1,2,3,4
105	80	1.6	PLASMA, DIRECT CURRENT	

TOTAL RANGE 0 TO 320 MEAN: 78.8
 STANDARD DEVIATION 113.9 95 % CONFIDENCE INTRVL OF MEAN 78.8 + OR - 72.4

TABLE 9 -- STANDARD REFERENCE SAMPLE T67 REPORT FOR AS

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	5	6.3	ATOMIC ABSORPTION, FLAMELESS	3
006	2	57.5	ATOMIC ABSORPTION, HYDRIDE, (NABH4), MANUAL	1
007	0	100.0	SPECTROPHOTOMETRIC, SILVER DIETHYL DITHIOCARBAMATE	2,3,4
008	4	14.9	ATOMIC ABSORPTION, FLAMELESS	3
012	16	240.2	ATOMIC ABSORPTION, FLAMELESS	3
015	3	36.2	OTHER	
016	1	78.7	ATOMIC ABSORPTION, FLAMELESS	3
020	16	240.2	ATOMIC ABSORPTION, FLAMELESS	3
021	17	261.5	ATOMIC ABSORPTION, FLAMELESS	3
022	2	57.5	ATOMIC ABSORPTION, FLAMELESS	3
023	2	57.5	ATOMIC ABSORPTION, FLAMELESS	3
026	<	***	IGNORED	
027	3	36.2	ATOMIC ABSORPTION, FLAMELESS	3
029	2	57.5	ATOMIC ABSORPTION, FLAMELESS	3
030	<	***	IGNORED	
032	9	91.4	ATOMIC ABSORPTION, FLAMELESS	3
035	2	57.5	ATOMIC ABSORPTION, HYDRIDE, (NABH4), MANUAL	1
036	3	36.2	ATOMIC ABSORPTION, FLAMELESS	3
039	1	78.7	ATOMIC ABSORPTION, FLAMELESS	3
040	6	27.6	ATOMIC ABSORPTION, FLAMELESS	3
041	<	***	IGNORED	
042	2	57.5	ATOMIC ABSORPTION, FLAMELESS	3
045	40	750.6	REJECT	
046	2	57.5	ATOMIC ABSORPTION, FLAMELESS	3
047	10	112.6	ATOMIC ABSORPTION, HYDRIDE, (NABH4), MANUAL	1
048	15	219.0	ATOMIC ABSORPTION, FLAMELESS	3
049	7	48.9	ATOMIC ABSORPTION, HYDRIDE, (ZINC), MANUAL	1,2,3,4
051	2	57.5	ATOMIC ABSORPTION, HYDRIDE, (NABH4), AUTOMATED	4
054	<	***	IGNORED	
056	2	57.5	SPECTROPHOTOMETRIC, SILVER DIETHYL DITHIOCARBAMATE	2,3,4
059	<	***	IGNORED	
064	<	***	IGNORED	
067	<	***	IGNORED	
068	2	57.5	ATOMIC ABSORPTION, FLAMELESS	3
076	3	36.2	ATOMIC ABSORPTION, FLAMELESS	3
077	3	36.2	ATOMIC ABSORPTION, HYDRIDE, (NABH4), MANUAL	1
079	<	***	IGNORED	
081	<	***	IGNORED	
082	10	112.6	ATOMIC ABSORPTION, FLAMELESS	3
083	3	36.2	ATOMIC ABSORPTION, FLAMELESS	3
084	3	36.2	ATOMIC ABSORPTION, FLAMELESS	3
088	3	36.2	ATOMIC ABSORPTION, FLAMELESS	3
089	2	57.5	ATOMIC ABSORPTION, HYDRIDE, (NABH4), MANUAL	1
090	2	57.5	ATOMIC ABSORPTION, HYDRIDE, (NABH4), AUTOMATED	4
094	4	14.9	ATOMIC ABSORPTION, FLAMELESS	3
096	<	***	IGNORED	
098	<	***	IGNORED	
099	2	57.5	ATOMIC ABSORPTION, FLAMELESS	3
105	3	36.2	ATOMIC ABSORPTION, HYDRIDE, (NABH4), MANUAL	1

TOTAL RANGE 0 TO 40 MEAN: 4.7
STANDARD DEVIATION 4.6 95 % CONFIDENCE INTRVL OF MEAN 4.7 + OR - 1.5

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR BA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHOD	REFERENCES
002	62	22.8	ATOMIC ABSORPTION, FLAMELESS	3
006	230	186.3	ATOMIC ABSORPTION, FLAMELESS	3
007	66	17.9	PLASMA, INDUCTIVELY COUPLED	5
008	1200	393.6	REJECT	1,2,3,4
010	<	***	IGNORED	1,2,3,4
012	100	24.5	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
015	60	25.3	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
017	54	32.8	PLASMA, INDUCTIVELY COUPLED	5
020	62	22.8	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
021	29	63.9	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
023	193	140.2	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
026	85	5.8	ATOMIC ABSORPTION, FLAMELESS	3
030	80	0.4	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
032	64	20.3	ATOMIC ABSORPTION, FLAMELESS	3
036	60	25.3	PLASMA, INDUCTIVELY COUPLED	5
039	60	25.3	ATOMIC ABSORPTION, FLAMELESS	5
040	55	31.5	ATOMIC ABSORPTION, FLAMELESS	5
041	60	25.3	PLASMA, INDUCTIVELY COUPLED	5
042	50	37.8	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
045	<	***	IGNORED	1,2,3,4
046	70	12.9	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
047	172	114.1	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
049	49	39.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
052	68	15.4	PLASMA, INDUCTIVELY COUPLED	5
054	44	45.2	ATOMIC ABSORPTION, FLAMELESS	3
056	70	12.9	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
059	<	***	IGNORED	1,2,3,4
064	<	***	IGNORED	1,2,3,4
067	200	148.9	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
072	<	***	IGNORED	1,2,3,4
075	60	25.3	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
077	<	***	IGNORED	1,2,3,4
079	60	25.3	PLASMA, INDUCTIVELY COUPLED	5
081	53	34.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
082	51	36.5	ATOMIC ABSORPTION, FLAMELESS	3
083	50	37.8	ATOMIC ABSORPTION, FLAMELESS	3
084	54	32.8	PLASMA, INDUCTIVELY COUPLED	5
088	80	0.4	PLASMA, DIRECT CURRENT	2
090	59	26.6	PLASMA, INDUCTIVELY COUPLED	5
094	62	22.8	GRAVIMETRIC, SULFATE	4
096	<	***	IGNORED	1,2,3,4
098	200	148.9	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
099	<	***	IGNORED	1,2,3,4
105	40	50.2	PLASMA, DIRECT CURRENT	2

TOTAL RANGE 29 TO 1200 MEAN: 80.3
 STANDARD DEVIATION 51.5 95 % CONFIDENCE INTRVL OF MEAN 80.3 + OR - 17.6

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR BE

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
015	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	5
017	1	100.0	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
020	<	***	IGNORED	3
022	0	100.0	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
027	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	3
032	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	5
036	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	3
039	1	100.0	ATOMIC ABSORPTION, FLAMELESS	5
040	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	5
041	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	5
042	0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
051	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
052	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	5
067	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
068	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
079	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	5
081	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
082	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
084	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	5
088	<	***	IGNORED COLORIMETRIC, ALUMINUM	1
089	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
090	<	***	IGNORED PLASMA; INDUCTIVELY COUPLED	5
098	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
099	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
105	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 0 TO 1 MEAN: 0.5
 STANDARD DEVIATION 0.6 95 % CONFIDENCE INTRVL OF MEAN 0.5 + OR - 0.9

TABLE 9 -- STANDARD REFERENCE SAMPLE T87 REPORT FOR CD

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
006	1.0	3.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	0.1	89.6	ATOMIC ABSORPTION, FLAMELESS	3
008	0.0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
010	< 0.3	***	IGNORED	3
012	< 1.0	***	IGNORED	3
013	4.0	314.9	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
015	< 3.0	***	ATOMIC ABSORPTION, DIRECT, AIR	5
017	5.0	418.7	PLASMA, INDUCTIVELY COUPLED	1,2,3,4
020	1.0	3.7	ATOMIC ABSORPTION, DIRECT, AIR	3
021	0.2	79.3	ATOMIC ABSORPTION, FLAMELESS	3
023	0.1	89.6	ATOMIC ABSORPTION, FLAMELESS	3
026	< 2.0	***	ATOMIC ABSORPTION, EXTRACTION, (APDC/MIBK)	1,4
027	0.0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
029	0.1	89.6	ATOMIC ABSORPTION, FLAMELESS	3
030	1.0	3.7	ATOMIC ABSORPTION, FLAMELESS	3
032	< 1.0	***	IGNORED	3
035	2.0	107.5	ATOMIC ABSORPTION, FLAMELESS	1,4
036	0.7	27.4	ATOMIC ABSORPTION, FLAMELESS	3
039	1.0	3.7	ATOMIC ABSORPTION, FLAMELESS	3
040	< 0.1	***	IGNORED	3
041	< 5.0	***	IGNORED	3
042	0.1	89.6	PLASMA, INDUCTIVELY COUPLED	5
045	< 10.0	***	ATOMIC ABSORPTION, FLAMELESS	3
046	< 0.2	***	IGNORED	3
047	3.0	211.2	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
048	0.3	68.9	ATOMIC ABSORPTION, DIRECT, AIR	3
049	1.0	3.7	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
051	1.0	3.7	ATOMIC ABSORPTION, DIRECT, AIR	1,4
052	< 1.0	***	ATOMIC ABSORPTION, EXTRACTION, (APDC/MIBK)	3
054	0.7	27.4	ATOMIC ABSORPTION, FLAMELESS	3
059	< 10.0	***	IGNORED	1,2,3,4
064	< 0.2	***	IGNORED	3
067	20.0	974.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	0.4	58.5	ATOMIC ABSORPTION, FLAMELESS	3
072	< 10.0	***	IGNORED	1,2,3,4
075	3.0	211.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	2.2	128.2	PLASMA, INDUCTIVELY COUPLED	5
077	< 10.0	***	IGNORED	1,2,3,4
079	< 10.0	***	IGNORED	1,4
081	< 1.0	***	ATOMIC ABSORPTION, EXTRACTION, (APDC/MIBK)	3
082	1.0	3.7	ATOMIC ABSORPTION, FLAMELESS	3
083	< 2.0	79.3	PLASMA, INDUCTIVELY COUPLED	5
084	< 1.0	***	IGNORED	3
088	< 1.0	***	IGNORED	3
089	< 0.1	***	IGNORED	3
090	< 1.0	***	ATOMIC ABSORPTION, FLAMELESS	1,4
096	< 10.0	***	ATOMIC ABSORPTION, EXTRACTION, (APDC/MIBK)	1,2,3,4
098	20.0	974.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR CD

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
099	< 10.0	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	< 1.0	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
TOTAL RANGE	0.0	20.0	MEAN ± 0.96	
STANDARD DEVIATION	1.08	95 % CONFIDENCE	INTRVL OF MEAN 0.96 ± OR -	0.45

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR CO

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
006	< 10	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
008	0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
015	< 5	***	IGNORED PLASMA, INDUCTIVELY COUPLED	5
017	13	160.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	< 1	***	IGNORED	3
022	0	100.0	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
027	< 20	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	3
032	< 1	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	5
040	< 10	***	IGNORED PLASMA, INDUCTIVELY COUPLED	5
041	< 5	***	IGNORED PLASMA, INDUCTIVELY COUPLED	5
042	3	40.0	ATOMIC ABSORPTION, FLAMELESS	3
046	< 5	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	5	0.0	ATOMIC ABSORPTION, FLAMELESS	3
051	3	40.0	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
052	< 3	***	IGNORED PLASMA, INDUCTIVELY COUPLED	5
067	< 10	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	< 10	***	IGNORED PLASMA, INDUCTIVELY COUPLED	5
081	40	700.0	REJECT ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	< 1	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
090	< 1	***	IGNORED ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
094	11	120.0	PLASMA, INDUCTIVELY COUPLED	5
096	< 50	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	< 10	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	< 10	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0 TO 40 MEAN: 5.0
 STANDARD DEVIATION 5.1 95 % CONFIDENCE INTRVL OF MEAN 5.0 + OR - 4.7

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR CR T01

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
006	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
008	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
012	10	54.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	7	8.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	5	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
017	24	270.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	5	22.9		
022	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
023	30	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
026	5	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
027	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
030	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
032	5	22.9	ATOMIC ABSORPTION, FLAMELESS	3
035	2	69.2	ATOMIC ABSORPTION, FLAMELESS	3
036	<	***	IGNORED	
039	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
040	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
041	<	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
042	3	53.7	ATOMIC ABSORPTION, FLAMELESS	3
045	<	***	IGNORED	
046	20	208.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	3	53.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
049	22	239.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
050	7	8.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
051	7	8.0	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,3,4
054	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
059	11	69.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
064	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
067	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS	3
071	5	22.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	20	208.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	4	38.3	PLASMA, INDUCTIVELY COUPLED	
077	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	<	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
080	2	69.2		
081	8	23.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
083	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
084	<	***	IGNORED PLASMA, INDUCTIVELY COUPLED	
087	13	100.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
088	1	84.6	ATOMIC ABSORPTION, FLAMELESS	3
089	<	***	IGNORED OTHER	
090	<	***	IGNORED ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,3,4

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR CR TOT

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
096	<	50	*** IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
097	3	53.7	ATOMIC ABSORPTION, FLAMELESS	3
098	<	20	*** IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	10	54.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
100	1	84.6		
105	<	1	*** IGNORED ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE	1	TO	24	MEAN:	6.5
STANDARD DEVIATION	6.8	95 % CONFIDENCE INTRVL OF MEAN	6.5 + OR -	2.5	

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR CU

CODE	REPORTED VALUE	PC1. DEV. FROM MEAN	METHODS	REFERENCES
002	7	21.2	ATOMIC ABSORPTION, FLAMELESS	3
006	6	32.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	20	125.0	PLASMA, INDUCTIVELY COUPLED	5
008	4	55.0	ATOMIC ABSORPTION, FLAMELESS	3
010	11	23.8	ATOMIC ABSORPTION, FLAMELESS	3
012	10	12.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	10	12.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	<	***	IGNORED	5
017	8	10.0	PLASMA, INDUCTIVELY COUPLED	1,2,3,4
020	1	88.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021	9	1.3	ATOMIC ABSORPTION, DIRECT, AIR	3
022	6	32.5	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
023	<	***	IGNORED	1,2,3,4
026	9	1.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3
027	<	***	IGNORED	1,2,3,4
029	5	43.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	<	***	IGNORED	1,2,3,4
032	17	91.3	ATOMIC ABSORPTION, DIRECT, AIR	3
035	10	12.5	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
036	6	32.5	ATOMIC ABSORPTION, DIRECT, AIR	3
039	1	88.7	ATOMIC ABSORPTION, FLAMELESS	3
040	6	32.5	ATOMIC ABSORPTION, FLAMELESS	3
041	6	32.5	PLASMA, INDUCTIVELY COUPLED	5
042	<	***	IGNORED	1,2,3,4
045	<	***	IGNORED	1,2,3,4
046	20	125.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	11	23.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	6	32.5	ATOMIC ABSORPTION, EXTRACTION (POCA/CHCL3)	2,3
049	18	102.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
050	7	21.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
051	4	55.0	ATOMIC ABSORPTION, DIRECT, AIR	1,4
052	<	***	IGNORED	5
054	10	12.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
059	<	***	IGNORED	1,2,3,4
064	3	66.2	ATOMIC ABSORPTION, FLAMELESS	3
067	<	***	IGNORED	1,2,3,4
068	7	21.2	ATOMIC ABSORPTION, DIRECT, AIR	3
070	5	43.7	ATOMIC ABSORPTION, FLAMELESS	3
071	14	57.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	<	***	IGNORED	1,2,3,4
073	10	12.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	17	91.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	15	68.8	ATOMIC ABSORPTION, DIRECT, AIR	5
077	<	***	IGNORED	1,2,3,4
079	9	1.3	PLASMA, INDUCTIVELY COUPLED	5
080	8	10.0	PLASMA, INDUCTIVELY COUPLED	5
081	9	1.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	5	43.7	ATOMIC ABSORPTION, FLAMELESS	3
083	1	88.7	ATOMIC ABSORPTION, FLAMELESS	3

TABLE 9 --

STANDARD REFERENCE SAMPLE T67 REPORT FOR CU

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
084	12	35.0	PLASMA, INDUCTIVELY COUPLED	5
087	13	46.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
088	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
090	6	32.5	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
094	8	10.0	PLASMA, INDUCTIVELY COUPLED	5
096	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
097	8	10.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	10	12.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
100	12	35.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	120	250.0	REJECT ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 1 TO 120 MEANS 8.9
 STANDARD DEVIATION 4.7 95 % CONFIDENCE INTRVL OF MEAN 0.9 + OR - 1.4

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR FE

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
006	14	35.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	10	54.0	PLASMA, INDUCTIVELY COUPLED	5
008	10	54.0	OTHER	
012	10	54.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	10	***	PLASMA, INDUCTIVELY COUPLED	5
016	10	54.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	30	38.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	10	54.0	OTHER	
022	6	72.4	ATOMIC ABSORPTION, FLAMELESS	3
023	50	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027	10	***	IGNORED	1,2,3,4
030	50	***	IGNORED	1,2,3,4
032	3	86.2	ATOMIC ABSORPTION, FLAMELESS	3
035	20	8.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	10	***	PLASMA, INDUCTIVELY COUPLED	5
039	50	130.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	10	***	IGNORED	5
041	10	***	PLASMA, INDUCTIVELY COUPLED	5
042	10	54.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	20	***	IGNORED	5
046	40	84.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	40	84.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	10	54.0	OTHER	
051	10	54.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	12	44.8	PLASMA, INDUCTIVELY COUPLED	5
054	200	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
059	60	***	IGNORED	1,2,3,4
060	70	222.1	OTHER	
064	100	360.1	REJECT	1,2,3,4
065	40	84.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	50	***	IGNORED	1,2,3,4
068	6	72.4	ATOMIC ABSORPTION, FLAMELESS	3
069	20	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071	40	84.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	30	***	IGNORED	5
075	880	949.1	REJECT	1,2,3,4
076	170	682.2	REJECT	1,2,3,4
077	50	***	IGNORED	5
079	20	8.0	PLASMA, INDUCTIVELY COUPLED	1,2,3,4
080	20	8.0	OTHER	5
081	80	268.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	5	77.0	ATOMIC ABSORPTION, FLAMELESS	3
083	2	90.8	OTHER	
084	10	***	PLASMA, INDUCTIVELY COUPLED	5
087	40	84.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
088	30	***	IGNORED	1,2,3,4
089	10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
090	4	81.6	PLASMA, INDUCTIVELY COUPLED	5

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR FE

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
096	< 30	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	< 20	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	< 10	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	30	38.0	OTHER	
TOTAL RANGE		0 TO 880	MEAN: 21.7	
STANDARD DEVIATION		20.3	95 % CONFIDENCE INTRVL OF MEAN	21.7 ± OR - 1.6

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR HG

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.4	42.1	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
007	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
008	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	3,4
010	<	***	IGNORED	1,2,3,4
012	1.0	255.3	REJECT	1,2,3,4
015	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	3,4
016	0.1	64.5	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
021	0.9	219.7	REJECT	1,2,3,4
026	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
027	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
029	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
032	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
035	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
036	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
039	0.1	64.5	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	3,4
040	0.5	***	IGNORED	1,2,3,4
041	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	3,4
042	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
045	<	***	IGNORED	1,2,3,4
046	<	***	IGNORED	1,2,3,4
047	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
048	0.4	42.1	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
049	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
050	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
051	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	3,4
054	0.1	***	IGNORED	1,2,3,4
059	0.5	77.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
064	0.2	***	IGNORED	1,2,3,4
067	<	***	IGNORED	1,2,3,4
068	<	***	IGNORED	1,2,3,4
077	0.6	113.2	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
081	0.4	42.1	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
082	0.3	6.6	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
083	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
084	0.2	28.9	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
088	<	***	IGNORED	1,2,3,4
089	<	***	IGNORED	3,4
090	0.1	64.5	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
096	0.4	42.1	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
098	0.7	148.7	REJECT	1,2,3,4
099	<	***	IGNORED OTHER	1,2,3,4
105	<	***	IGNORED ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4

TOTAL RANGE 0.1 TO 1.0 MEAN: 0.28
 STANDARD DEVIATION 0.12 TO 0.12 95% CONFIDENCE INTRVL OF MEAN 0.28 + OR - 0.05

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR LI

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
016	20	22.6	OTHER	
017	20	22.6	EMISSION, FLAME	1
020	20	22.6		
032	30	16.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
036	20	22.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
040	30	16.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
041	20	22.6	PLASMA, INDUCTIVELY COUPLED	5
042	20	22.6	EMISSION, FLAME	1
045	50	***	IGNORED	
051	20	22.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
052	21	18.7		
056	20	22.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
057	40	54.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
065	40	54.8	EMISSION, FLAME	1
067	30	16.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
079	30	16.1	PLASMA, INDUCTIVELY COUPLED	5
084	20	22.6	PLASMA, INDUCTIVELY COUPLED	5
090	30	16.1	PLASMA, INDUCTIVELY COUPLED	5
094	40	54.8	PLASMA, INDUCTIVELY COUPLED	5
098	10	***	IGNORED	
099	100	287.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
105	20	22.6	REJECT EMISSION, FLAME	1
			ATOMIC ABSORPTION, DIRECT, AIR	1,2,4

TOTAL RANGE 20 TU 100 MEAN: 25.8
 STANDARD DEVIATION 7.6 95 % CONFIDENCE INTRVL OF MEAN 25.6 + OR - 3.7

TABLE 9 -- STANDARD REFERENCE SAMPLE T87 REPORT FOR MN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
006	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	0	100.0	PLASMA, INDUCTIVELY COUPLED	5
008	0	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	< 10	***	PLASMA, INDUCTIVELY COUPLED	5
016	10	83.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	10	83.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	1	81.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	1	81.6	ATOMIC ABSORPTION, FLAMELESS	3
023	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032	2	63.2	ATOMIC ABSORPTION, EXTRACTION (PDCA/CHCL3)	2,3
035	10	83.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	< 10	***	PLASMA, INDUCTIVELY COUPLED	5
039	10	83.8	ATOMIC ABSORPTION, FLAMELESS	3
040	< 10	***	IGNORED	5
041	< 10	***	IGNORED	5
042	5	8.1	IGNORED	5
045	< 20	***	IGNORED	1,2,3,4
046	30	451.5	REJECT	1,2,3,4
047	50	819.1	REJECT	1,2,3,4
048	1	81.6	ATOMIC ABSORPTION, FLAMELESS	3
049	10	83.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
051	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	1	81.6	ATOMIC ABSORPTION, EXTRACTION (PDCA/CHCL3)	2,3
054	1	81.6	ATOMIC ABSORPTION, FLAMELESS	3
064	< 40	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	10	83.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	1	81.6	ATOMIC ABSORPTION, FLAMELESS	3
069	< 20	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	130	289.7	REJECT	5
076	10	83.8	PLASMA, INDUCTIVELY COUPLED	1,2,3,4
077	10	83.8	ATOMIC ABSORPTION, DIRECT, AIR	5
079	< 10	***	IGNORED	1,2,3,4
080	10	83.8	PLASMA, INDUCTIVELY COUPLED	5
081	10	83.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	1	81.6	ATOMIC ABSORPTION, FLAMELESS	3
083	1	81.6	PLASMA, INDUCTIVELY COUPLED	5
084	< 10	***	PLASMA, INDUCTIVELY COUPLED	5
088	< 20	***	IGNORED	1,2,3,4
090	1	81.6	PLASMA, INDUCTIVELY COUPLED	5
094	20	267.6	PLASMA, INDUCTIVELY COUPLED	5
096	< 10	***	IGNORED	1,2,3,4
098	< 10	***	IGNORED	1,2,3,4
099	< 10	***	IGNORED	1,2,3,4
105	< 10	***	IGNORED	1,2,3,4

TOTAL RANGE 0 TO 130 MEAN: 5.4
 STANDARD DEVIATION 5.4 95 % CONFIDENCE INTRVL OF MEAN 5.4 + OR - 2.2

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR MO

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
016	9	20.7	ATOMIC ABSORPTION, FLAMELESS	3
017	21	181.7	REJECT	1,2,3
020	9	20.7	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3
027	<	***	IGNORED	1,2,3
032	<	6.1	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	3
036	<	***	ATOMIC ABSORPTION, FLAMELESS	5
040	7	6.1	PLASMA, INDUCTIVELY COUPLED	3
041	6	19.5	ATOMIC ABSORPTION, FLAMELESS	5
042	8	7.3	PLASMA, INDUCTIVELY COUPLED	3
045	10	34.1	ATOMIC ABSORPTION, FLAMELESS	3
051	7	6.1	ATOMIC ABS, EXTRACTION; 8 HYDROXYQUINOLINE/MIBK, NITROUS OXIDE	4
067	<	***	IGNORED	1,2,3
076	7	6.1	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	5
079	<	***	PLASMA, INDUCTIVELY COUPLED	5
088	5	32.9	IGNORED	3
089	<	***	ATOMIC ABSORPTION, FLAMELESS	1,2,3
090	7	6.1	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
096	<	***	ATOMIC ABS, EXTRACTION; 8 HYDROXYQUINOLINE/MIBK, NITROUS OXIDE	1,2,3
098	<	***	IGNORED	1,2,3
099	<	***	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3

TOTAL RANGE 5 TO 21 MEAN: 7.5
 STANDARD DEVIATION 1.4 95 % CONFIDENCE INTRVL OF MEAN 7.5 + OR - 1.0

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR NI

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	1	88.7	ATOMIC ABSORPTION, FLAMELESS	3
006	10	12.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	4	54.9	ATOMIC ABSORPTION, FLAMELESS	3
015	< 10	***	OTHER	
017	28	215.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	5	43.7		
021	6	9.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
023	40	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029	2	77.5	ATOMIC ABSORPTION, FLAMELESS	3
032	2	77.5	ATOMIC ABSORPTION, FLAMELESS	3
036	3	66.2	ATOMIC ABSORPTION, FLAMELESS	3
040	5	***	ATOMIC ABSORPTION, FLAMELESS	3
041	< 5	***	PLASMA, INDUCTIVELY COUPLED	3
042	3	66.2	ATOMIC ABSORPTION, FLAMELESS	3
045	< 20	***	IGNORED	
046	20	125.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	15	69.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	10	12.7	ATOMIC ABSORPTION, FLAMELESS	3
050	7	21.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
051	3	66.2	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
064	< 20	***	ATOMIC ABSORPTION, FLAMELESS	3
067	< 50	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	2	77.5	ATOMIC ABSORPTION, FLAMELESS	3
069	< 20	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071	2	77.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	< 100	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	366	23.9	REJECT	1,2,3,4
076	4	54.9	PLASMA, INDUCTIVELY COUPLED	1,2,3,4
077	< 40	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	< 10	***	OTHER	
080	15	69.0		
081	62	598.6	REJECT	1,2,3,4
082	6	32.4	ATOMIC ABSORPTION, FLAMELESS	3
087	10	12.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
088	< 50	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
090	3	66.2	ATOMIC ABSORPTION, EXTRACTION (APOC/MIBK)	1,4
096	< 40	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	< 20	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	20	125.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	30	238.0	OTHER	1,2,3,4

TOTAL RANGE 1 TO 8.3
 STANDARD DEVIATION 366
 95 % CONFIDENCE INTRVL OF MEAN 8.9 + OR - 3.5
 MEAN: 8.9

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR PB

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	1	76.7	ATOMIC ABSORPTION, FLAMELESS	3
006	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	1	76.7	ATOMIC ABSORPTION, FLAMELESS	3
008	< 0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
010	< 5	***	ATOMIC ABSORPTION, FLAMELESS	3
012	< 10	***	ATOMIC ABSORPTION, FLAMELESS	3
013	< 9	110.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	< 10	***	PLASMA, INDUCTIVELY COUPLED	5
016	1	76.7	ATOMIC ABSORPTION, FLAMELESS	3
017	2	53.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	11	156.7	ATOMIC ABSORPTION, DIRECT, AIR	3
021	1	76.7	ATOMIC ABSORPTION, FLAMELESS	3
023	< 2	***	ATOMIC ABSORPTION, FLAMELESS	3
026	< 20	***	ATOMIC ABSORPTION, FLAMELESS	3
027	2	53.3	ATOMIC ABSORPTION, FLAMELESS	3
029	< 3	***	ATOMIC ABSORPTION, FLAMELESS	3
030	10	133.3	ATOMIC ABSORPTION, FLAMELESS	3
032	< 1	***	ATOMIC ABSORPTION, FLAMELESS	3
035	5	16.7	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
036	< 10	***	ATOMIC ABSORPTION, FLAMELESS	3
039	1	76.7	ATOMIC ABSORPTION, FLAMELESS	3
040	< 5	***	ATOMIC ABSORPTION, FLAMELESS	3
041	< 10	***	ATOMIC ABSORPTION, FLAMELESS	3
042	2	53.3	ATOMIC ABSORPTION, FLAMELESS	3
045	< 20	***	ATOMIC ABSORPTION, FLAMELESS	3
046	< 5	***	ATOMIC ABSORPTION, FLAMELESS	3
047	2	53.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	12	180.0	ATOMIC ABSORPTION, FLAMELESS	3
049	2	53.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
051	2	53.3	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
054	7	63.3	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
059	< 10	***	ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	2
064	< 3	***	ATOMIC ABSORPTION, FLAMELESS	3
067	< 10	***	ATOMIC ABSORPTION, FLAMELESS	3
068	< 1	***	ATOMIC ABSORPTION, FLAMELESS	3
071	3	30.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072	< 30	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	30	600.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	6	40.0	ATOMIC ABSORPTION, FLAMELESS	1,2,3,4
077	< 50	***	PLASMA, INDUCTIVELY COUPLED	5
079	< 30	***	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
081	< 10	***	ATOMIC ABSORPTION, FLAMELESS	3
082	3	30.0	ATOMIC ABSORPTION, FLAMELESS	3
088	1	76.7	ATOMIC ABSORPTION, FLAMELESS	3
089	9	110.0	ATOMIC ABSORPTION, FLAMELESS	3
090	< 10	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	< 1	76.7	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
097	< 50	***	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
	3	30.0	ATOMIC ABSORPTION, FLAMELESS	3

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR PB

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
098	13	203.3	ATOMIC ABSORPTION, FLAMELESS	3
099	< 20	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
100	6	40.0		
105	4	6.7	ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	2

TOTAL RANGE 0 TO 30 MEAN: 4.3
 STANDARD DEVIATION 3.9 95 % CONFIDENCE INTRVL OF MEAN 4.3 ± OR - 1.5

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR SB

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
020	10	100.0	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR
027	< 100	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS
029	< 4	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS
032	< 1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS
039	< 1	80.0	IGNORED	ATOMIC ABSORPTION, FLAMELESS
040	< 5	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS
041	< 15	***	IGNORED	PLASMA, INDUCTIVELY COUPLED
042	< 5	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS
051	< 1	***	IGNORED	ATOMIC ABSORPTION, HYDRIDE
068	< 3	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS
075	167	240.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR
082	< 4	20.0	REJECT	ATOMIC ABSORPTION, FLAMELESS
088	< 5	***	IGNORED	ATOMIC ABSORPTION, HYDRIDE
089	< 100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR
090	< 1	***	IGNORED	ATOMIC ABSORPTION, HYDRIDE
105	< 1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS

TOTAL RANGE 1 TO 167 MEAN: 5.0
 STANDARD DEVIATION 4.6 95 % CONFIDENCE INTRVL OF MEAN: 5.0 + OR - 11.4

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR SE

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	11.0	198.4	ATOMIC ABSORPTION, FLAMELESS	3
006	1.0	72.9	ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
007	3.5	5.1	ATOMIC ABSORPTION, FLAMELESS	3
008	0.0	100.0	ATOMIC ABSORPTION, FLAMELESS	3
012	8.0	117.0	ATOMIC ABSORPTION, FLAMELESS	3
015	2.0	45.7	OTHER	
016	1.0	72.9	ATOMIC ABSORPTION, FLAMELESS	3
020	9.8	165.9		
021	5.0	35.6	ATOMIC ABSORPTION, FLAMELESS	3
023	2.0	***	ATOMIC ABSORPTION, FLAMELESS	3
026	<	1.9	IGNORED	
027	<	2.0	IGNORED	
030	<	1.0	ATOMIC ABSORPTION, FLAMELESS	3
032	2.0	45.7	ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
035	1.0	72.9	ATOMIC ABSORPTION, FLAMELESS	3
036	1.0	72.9	ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
039	2.0	45.7	ATOMIC ABSORPTION, FLAMELESS	3
040	6.0	62.8	ATOMIC ABSORPTION, FLAMELESS	3
041	6.0	62.8	ATOMIC ABSORPTION, FLAMELESS	3
042	1.0	72.9	ATOMIC ABSORPTION, FLAMELESS	3
045	<	10.0	IGNORED	
046	<	2.0	IGNORED	
049	12.0	225.5	ATOMIC ABSORPTION, FLAMELESS	3
051	2.0	45.7	OTHER	1,2,3,4
054	1.0	72.9	ATOMIC ABSORPTION, FLAMELESS	3
059	<	10.0	IGNORED	
064	<	5.0	IGNORED	
067	<	10.0	IGNORED	
068	<	2.0	IGNORED	
077	<	1.0	IGNORED	
079	<	50.0	IGNORED	
081	<	3.0	OTHER	1,2,3,4
083	1.0	72.9	ATOMIC ABSORPTION, FLAMELESS	3
084	2.0	45.7	ATOMIC ABSORPTION, FLAMELESS	3
088	3.0	18.6	ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
089	0.7	81.0	ATOMIC ABSORPTION, FLAMELESS	3
090	2.0	45.7	ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
094	6.0	62.8	ATOMIC ABSORPTION, HYDRIDE	3
096	<	19.0	IGNORED	
098	11.0	198.4	ATOMIC ABSORPTION, FLAMELESS	3
099	2.0	45.7	ATOMIC ABSORPTION, FLAMELESS	3
105	<	1.0	IGNORED	

TOTAL RANGE 0.0 TO 12.0 MEAN: 3.69
 STANDARD DEVIATION 3.53 95% CONFIDENCE INTERVAL OF MEAN 3.69 + OR - 1.34

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR SR

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
008	780	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
015	770	2.3	EMISSION, IC PLASMA	5
016	750	0.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
017	580	22.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
020	760	1.0		
023	760	1.0		
027	1000	32.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
032	2040	171.1	REJECT	1,2,4
040	790	5.0	EMISSION, IC PLASMA	5
041	790	5.0	EMISSION, IC PLASMA	5
042	2300	205.6	REJECT	
045	500	33.6	ATOMIC ABSORPTION, DIRECT	
048	800	6.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
051	770	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
052	770	2.3	EMISSION, IC PLASMA	5
056	790	5.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
057	930	23.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
067	770	2.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
075	270	64.1	REJECT	
079	820	9.0	EMISSION, IC PLASMA	5
084	760	1.0	EMISSION, IC PLASMA	5
090	760	1.0	EMISSION, IC PLASMA	5
094	810	7.6	EMISSION, IC PLASMA	5
098	580	22.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
099	800	6.3	OTHER	
105	470	37.6	OTHER	

TOTAL RANGE 270 TO 2300 MEAN: 752.6
 STANDARD DEVIATION 119.6 95 % CONFIDENCE INTRVL OF MEAN 752.6 + OR - 51.7

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR TL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
017	30	87.5	ATOMIC ABSORPTION, DIRECT, AIR	1,3
020	31	93.8		
027	< 100	***	IGNORED	1,3
032	< 1	***	IGNORED	3
039	< 1	93.8	ATOMIC ABSORPTION, FLAMELESS	3
040	< 1	***	IGNORED	3
041	< 30	***	IGNORED	3
042	< 8	50.0	PLASMA, INDUCTIVELY COUPLED	
067	< 100	***	ATOMIC ABSORPTION, FLAMELESS	3
068	< 1	***	IGNORED	1,3
077	< 99	***	ATOMIC ABSORPTION, DIRECT, AIR	3
082	< 10	37.5	IGNORED	1,3
088	< 5	***	ATOMIC ABSORPTION, FLAMELESS	3
089	< 10	***	IGNORED	1,3
090	< 1	***	ATOMIC ABSORPTION, DIRECT, AIR	3
105	< 1	***	IGNORED	3

TOTAL RANGE 1 TO 31 MEAN: 16.0
 STANDARD DEVIATION 13.7 95 % CONFIDENCE INTVL OF MEAN 16.0 + OR - 17.0

TABLE 9 --

STANDARD REFERENCE SAMPLE T87 REPORT FOR ZN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	7	39.0	ATOMIC ABSORPTION, FLAMELESS	3
006	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
007	10	12.9	PLASMA, INDUCTIVELY COUPLED	5
008	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
010	<	***	IGNORED	2,3,4
012	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
013	13	13.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
015	<	***	IGNORED	5
017	28	144.0	PLASMA, INDUCTIVELY COUPLED	2,3,4
020	8	30.3	ATOMIC ABSORPTION, DIRECT, AIR	
021	4	65.1	ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	
023	<	***	IGNORED	2,3,4
027	20	74.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
030	<	***	IGNORED	2,3,4
032	20	74.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
035	12	4.6	ATOMIC ABSORPTION, DIRECT, AIR	5
036	6	47.7	PLASMA, INDUCTIVELY COUPLED	3
039	1	91.3	ATOMIC ABSORPTION, FLAMELESS	5
040	7	39.0	PLASMA, INDUCTIVELY COUPLED	5
041	5	56.4	PLASMA, INDUCTIVELY COUPLED	5
042	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
045	20	74.3	ATOMIC ABSORPTION, DIRECT, AIR	
046	20	74.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
047	27	135.2	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
049	20	74.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
050	11	4.2	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
051	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
052	9	21.6	PLASMA, INDUCTIVELY COUPLED	5
054	220	816.8	ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	
056	9	21.6	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
059	<	***	IGNORED	
064	<	***	IGNORED	2,3,4
067	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
068	12	4.6	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
069	9	21.6	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
070	0	100.0	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
071	14	22.0	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
072	10	***	IGNORED	2,3,4
073	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
075	63	488.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
076	6	47.7	PLASMA, INDUCTIVELY COUPLED	5
077	<	***	IGNORED	2,3,4
079	<	***	IGNORED	5
080	41	257.2	PLASMA, INDUCTIVELY COUPLED	
081	21	83.0	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
082	9	21.6	EMISSION-PLASMA ICP	
083	6	47.7	ATOMIC ABSORPTION, FLAMELESS	3
084	12	4.6	PLASMA, INDUCTIVELY COUPLED	5
087	11	4.2	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4

TABLE 9 --

STANDARD REFERENCE SAMPLE 187 REPORT FOR ZN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
088	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
089	20	74.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
090	8	30.3	PLASMA, INDUCTIVELY COUPLED	5
094	8	30.3	PLASMA, INDUCTIVELY COUPLED	5
096	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
097	14	22.0	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
098	<	***	IGNORED ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
099	10	12.9	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
100	8	30.3	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
105	150	206.9	REJECT ATOMIC ABSORPTION, DIRECT, AIR	2,3,4

TOTAL RANGE 0 TO 220 MEAN: 11.5
 STANDARD DEVIATION 6.1 95 % CONFIDENCE INTRVL OF MEAN 11.5 + OR - 1.9

TABLE 10 --

STATISTICS BY METHOD FOR SAMPLE: T87

DETERMINATION: ACID@CACO3

METHOD	MEAN	STD DEV	N
TITRATION, COLORIMETRIC, MANUAL	395.0	22.1	3
TITRATION, ELECTROMETRIC, MANUAL	405.9	15.6	12
***** OVER ALL *****	403.7	16.8	15

DETERMINATION: AG

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	4.3	3.6	7
ATOMIC ABSORPTION, FLAMELESS	0.7	0.5	7
***** OVER ALL *****	2.5	3.1	14

DETERMINATION: AL

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, FLAMELESS	9.2	6.6	6
ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE, MANUAL	140.0	156.2	3
***** OVER ALL *****	49.6	130.6	12

DETERMINATION: AS

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	5.1	4.9	23
ATOMIC ABSORPTION, HYDRIDE, (NABH4), MANUAL	3.3	3.0	7
***** OVER ALL *****	4.7	4.6	37

DETERMINATION: BA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	98.6	63.3	14
ATOMIC ABSORPTION, FLAMELESS	80.8	61.6	8
PLASMA, INDUCTIVELY COUPLED	60.2	4.5	9
***** OVER ALL *****	58.7	75.7	35

DETERMINATION: BE

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	0.3	0.6	3
***** OVER ALL *****	0.5	0.6	4

TABLE 10 --
STATISTICS BY METHOD FOR SAMPLE: T87

METHOD	MEAN	STD DEV	N
DETERMINATION: CU			
ATOMIC ABSORPTION, DIRECT, AIR	2.40	1.34	5
ATOMIC ABSORPTION, FLAMELESS	0.37	0.34	16
***** OVER ALL *****	0.96	1.08	25
DETERMINATION: CO			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	2.0	2.4	4
***** OVER ALL *****	5.0	5.1	7
DETERMINATION: CR T/UT			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	12.3	6.9	13
ATOMIC ABSORPTION, FLAMELESS	1.7	1.3	13
***** OVER ALL *****	6.5	6.8	31
DETERMINATION: CU			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	11.1	3.8	18
ATOMIC ABSORPTION, FLAMELESS	6.1	4.2	13
PLASMA, INDUCTIVELY COUPLED	11.7	5.2	6
***** OVER ALL *****	8.9	4.7	45
DETERMINATION: FE			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	22.3	31.1	15
ATOMIC ABSORPTION, FLAMELESS	3.5	2.6	4
PLASMA, INDUCTIVELY COUPLED	6.0	8.9	5
OTHER	16.7	11.5	3
***** OVER ALL *****	15.3	23.6	30

TABLE 10 --

STATISTICS BY METHOD FOR SAMPLE: T87

DETERMINATION: HG			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	0.22	0.10	6
ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	0.30	0.12	20
***** OVER ALL *****	0.28	0.12	27
DETERMINATION: LI			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	26.3	7.4	8
EMISSION, FLAME	26.7	11.5	3
PLASMA, INDUCTIVELY COUPLED	28.0	8.4	5
***** OVER ALL *****	25.8	7.6	19
DETERMINATION: MN			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	22.0	40.8	10
ATOMIC ABSORPTION, FLAMELESS	0.8	0.5	4
PLASMA, INDUCTIVELY COUPLED	1.8	4.0	6
***** OVER ALL *****	10.3	27.5	24
DETERMINATION: MO			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	7.2	1.5	5
***** OVER ALL *****	7.5	1.4	11
DETERMINATION: NI			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	13.3	8.1	9
ATOMIC ABSORPTION, FLAMELESS	3.7	2.8	9
***** OVER ALL *****	8.9	8.3	24
DETERMINATION: PB			
METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	3.6	3.0	5
ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	3.8	2.8	4
ATOMIC ABSORPTION, FLAMELESS	4.0	4.5	15
***** OVER ALL *****	4.3	3.9	28

TABLE 11--
 STANDARD REFERENCE SAMPLE N10 REPORT FOR NH3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	1.30	9.1	ION SELECTIVE ELECTRODE	1,2,3,4
004	1.08	9.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
006	0.01	***	IGNORED	1,2,3,4
007	1.24	4.1	ION SELECTIVE ELECTRODE	1,2,3,4
009	1.44	20.9	ION SELECTIVE ELECTRODE	1,2,3
011	1.14	4.3	COLORIMETRIC, PHENATE, AUTOMATED	4
013	1.21	1.6	COLORIMETRIC, INDOPHENOL, AUTOMATED	
017	1.01	15.2	OTHER	
018	1.53	28.4	COLORIMETRIC, PHENATE, MANUAL	1
020	1.40	17.5	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
022	0.95	20.3	ION SELECTIVE ELECTRODE	1,2,3,4
023	1.51	26.7	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
025	1.16	2.6	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
026	1.08	9.3	ION SELECTIVE ELECTRODE	1,2,3,4
027	0.40	24.5	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
029	0.85	28.7	OTHER	
032	1.09	8.5	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
034	1.40	17.5	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
035	1.30	9.1	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
038	0.90	24.5	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
039	1.10	7.7	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
040	1.71	43.5	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
044	1.44	20.9	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
046	2.25	88.9	REJECT	
047	1.21	1.6	ION SELECTIVE ELECTRODE	1,4
048	1.10	7.7	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
049	1.55	30.1	ION SELECTIVE ELECTRODE	1,2,3,4
050	1.14	4.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
051	1.20	0.7	ION SELECTIVE ELECTRODE	1,2,3,4
053	1.00	16.1	COLORIMETRIC, PHENATE, MANUAL	1,2,3
054	1.41	18.4	COLORIMETRIC, INDOPHENOL, AUTOMATED	1,2,3,4
055	0.81	32.0	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
056	1.30	9.1	COLORIMETRIC, PHENATE, MANUAL	1,2,3,4
058	1.00	16.1	COLORIMETRIC, PHENATE, MANUAL	1,2,3,4
060	1.76	47.7	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1
063	125.00	392.3	REJECT	
067	1.58	32.6	OTHER	4
068	1.10	7.7	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
070	1.45	21.7	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
071	3.22	170.3	REJECT	1,2,3
073	0.92	22.8	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
076	1.04	12.7	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
077	0.85	28.7	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
080	1.00	16.1	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
081	1.02	14.4	DISTILLATION-TITRIMETRIC	1,2,3
082	1.40	17.5	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
089	1.41	18.4	OTHER	1,2,3
090	1.00	16.1	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
091	1.05	11.9	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3

TABLE 11--

STANDARD REFERENCE SAMPLE N10 REPORT FOR NH3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
095	1.00	16.1	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
096	1.14	4.3	ION SELECTIVE ELECTRODE	1,2,3,4
098	0.59	50.5	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
099	1.40	17.5	ION SELECTIVE ELECTRODE	1,2,3,4
100	1.60	34.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
101	1.08	9.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
107	1.10	7.7	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3

TOTAL RANGE 0.59 TO 125.00 MEAN: 1.191
 STANDARD DEVIATION 0.249 95 % CONFIDENCE INTRVL OF MEAN 1.191 + OR - 0.069

TABLE 11-- STANDARD REFERENCE SAMPLE N10 REPORT FOR NO2-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	< 0.010	***	IGNORED	
002	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
004	0.007	11.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
006	< 0.010	***	IGNORED	
007	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
008	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
009	0.000	100.0	COLORIMETRIC, DIAZOTIZATION	1,3,4
011	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
013	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
017	< 0.050	***	IGNORED	
018	0.004	49.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
022	0.020	152.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
023	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
025	0.006	24.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
026	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
027	< 0.010	***	IGNORED	
029	< 0.020	***	IGNORED	
030	< 0.030	279.1	REJECT	
032	< 0.010	***	IGNORED	
034	0.002	74.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
035	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
039	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
040	< 0.200	***	IGNORED	
042	0.068	759.2	REJECT	
046	0.016	102.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
047	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
048	0.006	24.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
049	0.005	36.8	COLORIMETRIC, DIAZOTIZATION	1,3,4
050	0.000	100.0	COLORIMETRIC, DIAZOTIZATION	1,3,4
051	0.020	152.7	IUN CHROMATOGRAPHY	2,6
054	< 0.020	***	IGNORED	
056	< 0.010	***	IGNORED	
057	< 0.006	24.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
058	0.010	***	IGNORED	
067	< 0.010	***	IGNORED	
068	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
070	0.000	100.0	COLORIMETRIC, DIAZOTIZATION	1,3,4
071	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
073	0.003	62.1	COLORIMETRIC, DIAZOTIZATION	1,3,4
077	< 0.010	***	IGNORED	
080	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
081	0.005	36.8	COLORIMETRIC, DIAZOTIZATION	1,3,4
082	0.005	36.8	COLORIMETRIC, DIAZOTIZATION	1,3,4
088	0.005	36.8	COLORIMETRIC, DIAZOTIZATION	1,3,4
089	< 0.010	***	IGNORED	
090	< 0.020	***	IGNORED	
091	0.004	49.5	OTHER	1,3,4
095	< 0.050	***	IGNORED	
096	< 0.010	***	IGNORED	

TABLE 11--

STANDARD REFERENCE SAMPLE N10 REPORT FOR NU2-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
097	0.007	11.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
098	< 0.002	+++	IGNORED COLORIMETRIC, DIAZOTIZATION	1,3,4
100	0.010	26.4	ION CHROMATOGRAPHY	2,6
101	0.006	24.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
107	0.010	26.4	COLORIMETRIC, DIAZOTIZATION	1,3,4
TOTAL RANGE 0.000 TO 0.068 MEAN: 0.008				
STANDARD DEVIATION 0.005 95 X CONFIDENCE INTRVL OF MEAN 0.008 + OR - 0.002				

TABLE 11--

STANDARD REFERENCE SAMPLE NO 0 REPORT FOR NO3-N

CODE	REPORTED VALUE	PCT. DEV.		METHODS	REFERENCES
		FROM	MEAN		
001	8.33	236.1	REJECT	COLORIMETRIC, BRUCINE	1,2,3,4
002	2.40	3.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
004	2.43	1.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
006	13.40	440.7	REJECT	ION SPECIFIC ELECTRODE	1,2,3,4
007	2.54	2.5		COLORIMETRIC, BRUCINE	1,2,3,4
008	2.49	0.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
009	2.44	1.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
011	2.75	11.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
013	4.79	93.3	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
014	2.73	10.2		OTHER	1,2,3,4
017	2.65	6.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
018	2.55	2.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
022	1.73	30.2	REJECT	COLORIMETRIC, BRUCINE	1,2,3,4
023	2.45	1.1		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
025	2.45	1.1		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
026	2.43	1.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
027	2.54	2.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
029	2.60	4.9		ION CHROMATOGRAPHY	2,6
030	2.40	3.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
032	2.07	16.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
034	1.78	28.2	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
035	1.20	51.6	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
038	2.50	0.9		COLORIMETRIC, BRUCINE	1,2,3,4
039	2.60	4.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
040	2.52	1.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
042	2.45	1.1		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
044	1.46	41.1	REJECT	SPECTROPHOTOMETRIC	1,2,3,4
046	3.03	22.3	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
047	2.40	3.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
048	2.44	1.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
049	4.82	94.5	REJECT	COLORIMETRIC, BRUCINE	1,2,3,4
050	2.33	6.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
051	2.60	4.9		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
054	2.08	16.1		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
055	2.47	0.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
056	2.40	3.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
057	5.60	126.0	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
058	2.50	0.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
060	2.42	2.4		COLORIMETRIC, BRUCINE	1,2,3,4
063	2.70	8.9		COLORIMETRIC, BRUCINE	1,2,3,4
067	2.48	0.1		COLORIMETRIC, BRUCINE	1,2,3,4
068	2.40	3.2		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
070	2.78	12.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
071	1.10	55.6	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
073	2.40	3.2		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
076	2.45	1.1		OTHER	1,2,3,4
077	2.71	9.4		COLORIMETRIC, BRUCINE	1,2,3,4
080	2.35	5.2		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
081	2.42	2.4		COLORIMETRIC, BRUCINE	1,2,3,4

TABLE 11 -- STANDARD REFERENCE SAMPLE N10 REPORT FOR N03-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
082	2.40	3.2	COLORIMETRIC, BRUCINE	1,2,3,4
084	2.49	0.5	ION CHROMATOGRAPHY	2,6
088	2.50	0.9	COLORIMETRIC, BRUCINE	1,2,3,4
089	2.56	3.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
090	2.50	0.9	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
091	2.53	2.1	ION CHROMATOGRAPHY	2,6
095	2.40	3.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
096	2.66	7.3	COLORIMETRIC, BRUCINE	1,2,3,4
097	2.21	10.8	COLORIMETRIC, BRUCINE	1,2,3,4
098	2.60	4.9	COLORIMETRIC, BRUCINE	1,2,3,4
099	2.40	3.2	COLORIMETRIC, BRUCINE	1,2,3,4
100	2.54	2.5	COLORIMETRIC, HRUCINE	1,2,3,4
101	2.36	4.8	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
107	2.40	3.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4

TOTAL RANGE 1.10 TO 13.40 MEAN 2.478
 STANDARD DEVIATION 0.141 95 % CONFIDENCE INTVL OF MEAN 2.478 + OR - 0.039

TABLE 11-- STANDARD REFERENCE SAMPLE N10 REPORT FOR ORG-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.06	95.5	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
004	2.06	53.5	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
007	1.96	46.0	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
009	1.10	18.1	COLORIMETRIC	
011	0.60	55.3	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
013	2.29	70.6	OTHER	
017	0.55	59.0	DIGESTION, DISTILLATION, TITRATION	2,3,4
018	0.51	62.0	COLORIMETRIC	
020	0.56	58.3	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
023	1.80	34.1	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
027	1.40	4.3	DIGESTION, DISTILLATION, TITRATION	2,3,4
029	2.00	49.0	DIGESTION, DISTILLATION, TITRATION	2,3,4
032	0.60	55.5	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
034	3.06	127.9	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	2,3,4
035	1.10	16.1	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
039	0.65	51.6	COLORIMETRIC	
040	1.70	26.6	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	4
047	1.24	7.6	COLORIMETRIC, DIGESTION, DISTILLATION, INDOPHENOL	4
049	7.42	452.7	COLORIMETRIC, DIGESTION, DISTILLATION, INDOPHENOL	1,2,3
051	2.40	78.8	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	3,4
056	1.40	4.3	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	2,3,4
067	1.12	16.6	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
068	1.70	26.6	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
070	0.63	53.1	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
071	3.56	165.2	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
077	0.06	95.5	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
080	0.65	51.6	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
082	0.00	100.0	DIGESTION, DISTILLATION, TITRATION	2,3,4
089	0.90	33.0	COLORIMETRIC, DIGESTION, DISTILLATION, INDOPHENOL	4
090	2.80	108.6	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
091	1.60	19.2	OTHER	
097	1.81	34.8	DIGESTION, DISTILLATION, TITRATION	2,3,4
100	0.95	29.2	COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	3
101	1.48	10.2	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4

TOTAL RANGE 0.00 TO 7.42 MEAN: 1.342
 STANDARD DEVIATION 0.870 95 % CONFIDENCE INTERVAL OF MEAN 1.342 + OR - 0.308

TABLE 11-- STANDARD REFERENCE SAMPLE N10 REPORT FOR P, TOTAL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	1.60	11.8	OTHER	
004	1.60	11.8	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
007	1.40	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
008	1.23	14.1	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
009	1.46	2.0	COLORIMETRIC, BLK DIG, H2S04, K&H S04, PHOSPHOMOLYBDATE	4
011	1.38	3.6	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
013	1.26	12.0	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
014	0.70	51.1	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
017	1.52	6.2	OTHER	
018	1.58	10.4	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
020	1.50	4.8	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
022	1.38	3.6	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
023	1.45	1.3	COLORIMETRIC, BLK DIG, H2S04, K&H S04, PHOSPHOMOLYBDATE	4
026	1.20	16.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
027	1.30	9.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
029	1.40	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
032	1.50	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
034	1.50	4.8	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
035	1.41	1.5	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
038	1.40	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
039	1.43	0.1	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
040	1.10	23.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
042	1.40	0.6	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
046	1.51	5.5	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
047	1.43	0.1	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
048	1.46	2.0	COLORIMETRIC, BLK DIG, H2S04, K&H S04, PHOSPHOMOLYBDATE	4
049	1.46	2.0	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
050	11.60	710.2	OTHER	
051	1.06	26.0	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
054	1.40	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
055	1.85	29.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
063	1.57	9.7	PERSULFATE OXIDATION	
067	1.21	15.5	COLORIMETRIC, BLK DIG, H2S04, K&H S04, PHOSPHOMOLYBDATE	4
068	1.50	4.8	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
070	1.40	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
071	1.14	20.4	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
073	1.60	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
076	1.49	11.8	COLORIMETRIC, BLK DIG, H2S04, K&H S04, PHOSPHOMOLYBDATE	4
077	1.39	4.1	COLORIMETRIC, BLK DIG, H2S04, K&H S04, PHOSPHOMOLYBDATE	4
080	1.40	2.9	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
081	1.34	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
082	19.0	6.4	EMISSION, IC PLASMA	
084	1.59	11.1	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
088	1.59	11.1	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
089	1.39	2.2	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
090	1.40	2.9	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
091	1.49	4.1	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
	1.50	4.6	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
	1.50	4.6	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
	1.45	1.3	COLORIMETRIC, H2S04/PERSULF DIG.	1,2,3,4
			REJECT	
			REJECT	

TABLE 11 -- STANDARD REFERENCE SAMPLE NO 0 REPORT FOR P, TOTAL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
095	1.80	25.7	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
096	2.50	74.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
097	1.58	10.4	COLORIMETRIC, BLK DIG, H2S04, K&HG 504, PHOSPHOMOLYBDATE	4
098	1.49	4.1	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
099	1.44	0.6	OTHER	
100	1.40	2.2	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
101	1.42	0.8	COLORIMETRIC, BLK DIG, H2S04, K&HG 504, PHOSPHOMOLYBDATE	4
107	2.40	67.6	COLORIMETRIC, H2S04/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
TOTAL RANGE 0.70 TO 11.60 MEAN: 1.432				
STANDARD DEVIATION 0.152 95 % CONFIDENCE INTVL OF MEAN 1.432 + OR - 0.042				

TABLE 11--

STANDARD REFERENCE SAMPLE N10 REPORT FOR P04-P

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	1.11	10.9	OTHER	
002	1.10	9.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
004	1.03	2.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
006	1.22	21.8	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
007	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
008	1.00	0.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
009	0.94	6.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
011	1.00	0.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
013	0.92	8.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
017	1.06	5.9	OTHER	
018	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
022	0.57	43.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
025	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	3,4
026	1.10	9.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
027	1.10	9.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
029	0.96	4.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	3,4
032	1.00	0.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
034	0.99	0.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
035	1.10	1.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
038	1.02	1.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	3,4
039	0.96	4.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
040	0.81	19.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	3,4
042	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
044	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	1,2,3,4
046	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
047	0.95	5.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
048	1.03	2.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
049	3.50	249.6	OTHER	
050	0.84	16.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
051	1.00	0.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
053	1.05	4.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
054	0.95	5.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
056	0.99	1.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
058	0.99	1.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
060	0.94	6.1	OTHER	
063	0.90	10.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
067	0.97	3.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
068	0.10	90.0	REJECT	
070	0.99	1.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
071	0.93	7.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
073	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
076	0.99	1.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
077	1.93	92.8	REJECT	
080	0.93	7.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
081	1.00	0.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
082	0.95	5.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
084	1.01	0.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
088	1.10	9.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
089	0.92	8.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4

TABLE 11-- STANDARD REFERENCE SAMPLE N10 REPORT FOR P04-P

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
090	1.00	0.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
091	1.20	19.8	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
095	1.02	1.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
096	0.98	2.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
097	1.10	9.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
098	1.05	4.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
099	1.09	8.9	OTHER	
100	0.89	11.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
101	0.93	7.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
107	1.10	9.9	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4

TOTAL RANGE 0.10 TO 3.50 MEAN: 1.001
 STANDARD DEVIATION 0.077 95 % CONFIDENCE INTVL OF MEAN 1.001 + OR - 0.021

TABLE 12
STATISTICS BY METHOD FOR SAMPLE: N10

DETERMINATION: NH3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, DISTILLATION, Nesslerization	1.143	0.376	10
COLORIMETRIC, INDOPHENOL, AUTOMATED	1.200	0.336	5
COLORIMETRIC, PHENATE, AUTOMATED	1.224	0.192	18
COLORIMETRIC, PHENATE, MANUAL	1.313	0.278	3
ION SELECTIVE ELECTRODE	1.207	0.181	10
OTHER	1.017	0.148	4
***** OVER ALL *****	1.191	0.249	52

DETERMINATION: NO2-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, DIAZOTIZATION	0.008	0.004	31
***** OVER ALL *****	0.008	0.005	35

DETERMINATION: NO3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BRUCINE	2.504	0.137	14
COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	2.459	0.151	28
COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	2.455	0.097	4
ION CHROMATOGRAPHY	2.540	0.056	3
***** OVER ALL *****	2.478	0.141	52

DETERMINATION: ORG-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	1.699	0.968	11
COLORIMETRIC, DIGESTION, DISTILLATION, INDOPHENOL	1.280	0.401	3
COLORIMETRIC, DIGESTION, DISTILLATION, Nesslerization	1.410	1.242	4
DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	0.873	0.979	3
DIGESTION, DISTILLATION, TITRATION	1.152	0.852	5
COLORIMETRIC	0.753	0.308	3
***** OVER ALL *****	1.342	0.870	33

DETERMINATION: P, TOTAL

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BLK DIG, H2SO4, KMg SO4, PHOSPHOMOLYBDATE	1.455	0.119	8
COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1.419	0.163	39
OTHER	1.520	0.080	3
***** OVER ALL *****	1.432	0.152	52

DETERMINATION: PO4-P

METHOD	MEAN	STD DEV	N
COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	0.983	0.049	25
COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1.011	0.096	24
OTHER	1.047	0.074	4
***** OVER ALL *****	1.001	0.077	55

TABLE 13--
STANDARD REFERENCE SAMPLE N11 REPORT FOR NH3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
004	0.11	31.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
006	0.07	56.3	ION SELECTIVE ELECTRODE	1,2,3,4
007	0.17	6.1	ION SELECTIVE ELECTRODE	1,2,3,4
009	0.13	18.9	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
011	0.15	6.4	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
013	0.25	56.0	OTHER	
017	0.09	43.8	OTHER	
018	0.29	81.0	COLORIMETRIC, PHENATE, MANUAL	1
020	0.13	18.9	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
022	0.12	25.1	ION SELECTIVE ELECTRODE	1,2,3,4
023	0.05	***	COLORIMETRIC, PHENATE) AUTOMATED	1,2,3
025	0.10	37.6	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
026	0.22	37.3	ION SELECTIVE ELECTRODE	1,2,3,4
027	0.20	24.8	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
029	0.05	68.8	OTHER	
032	0.36	124.7	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
034	0.79	393.1	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
035	0.12	25.1	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
038	0.15	6.4	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
039	0.11	31.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
040	0.10	37.6	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
044	0.34	112.2	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
046	0.19	18.6	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
047	0.24	49.8	ION SELECTIVE ELECTRODE	1,2,3,4
048	0.19	18.6	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
049	0.11	31.3	ION SELECTIVE ELECTRODE	1,2,3,4
050	0.12	25.1	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
051	0.05	68.8	ION SELECTIVE ELECTRODE	1,2,3,4
053	0.10	37.6	ION SELECTIVE ELECTRODE	1,2,3,4
056	0.11	31.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
058	0.13	18.9	COLORIMETRIC, PHENATE, AUTOMATED	1
060	0.42	162.1	COLORIMETRIC, PHENATE, MANUAL	1
063	0.42	162.1	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
067	0.18	12.3	OTHER	
068	0.20	24.8	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
070	0.48	199.6	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
071	0.77	380.6	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
075	0.16	0.1	ION SELECTIVE ELECTRODE	1,2,3,4
076	0.11	31.3	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
077	0.09	43.8	COLORIMETRIC, DISTILLATION, Nesslerization	1,4
080	0.05	***	IGNORED	
081	0.15	6.4	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
082	0.14	12.6	OTHER	
089	0.27	68.5	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
090	0.13	18.9	OTHER	
091	0.27	68.5	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
095	0.11	31.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
096	0.12	25.1	ION SELECTIVE ELECTRODE	1,2,3,4
098	0.14	12.6	COLORIMETRIC, DISTILLATION, Nesslerization	1,4

TABLE 13--1

STANDARD REFERENCE SAMPLE N11 REPORT FOR NH3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
099	0.20	24.6	ION SELECTIVE ELECTRODE	1,2,3,4
100	0.26	62.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
101	0.11	31.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
107	0.23	43.6	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
TOTAL RANGE	0.05	TO 141.00	MEAN ± 0.160	
STANDARD DEVIATION	0.072	95 % CONFIDENCE	INTRVL OF MEAN ± 0.160 ± OR ± 0.021	

TABLE 13 - STANDARD REFERENCE SAMPLE N11 REPORT FOR NO2-N

CODE	REPORTED VALUES	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	0.010	44.4	IGNORED	1,3,4
004	0.014	3.3	COLORIMETRIC, DIAZOTIZATION	1,3,4
006	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
007	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
008	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
009	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
011	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
013	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
017	0.050	44.4	IGNORED	1,3,4
018	0.013	4.1	COLORIMETRIC, DIAZOTIZATION	1,3,4
020	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
022	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
023	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
025	0.016	18.0	COLORIMETRIC, DIAZOTIZATION	1,3,4
026	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
027	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
029	0.020	44.4	IGNORED	1,3,4
030	0.060	342.6	ION CHROMATOGRAPHY	2,6
032	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
034	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
035	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
039	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
040	0.200	44.4	IGNORED	1,3,4
042	0.155	43.5	ION CHROMATOGRAPHY	2,6
046	0.009	33.6	COLORIMETRIC, DIAZOTIZATION	1,3,4
047	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
048	0.015	10.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
049	0.013	4.1	COLORIMETRIC, DIAZOTIZATION	1,3,4
050	0.000	100.0	COLORIMETRIC, DIAZOTIZATION	1,3,4
051	0.010	26.2	ION CHROMATOGRAPHY	2,6
055	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
056	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
057	0.014	3.3	COLORIMETRIC, DIAZOTIZATION	1,3,4
058	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
067	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
068	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
070	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
071	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
077	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
080	0.016	18.0	COLORIMETRIC, DIAZOTIZATION	1,3,4
081	0.014	3.3	COLORIMETRIC, DIAZOTIZATION	1,3,4
082	0.015	10.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
088	0.013	4.1	COLORIMETRIC, DIAZOTIZATION	1,3,4
089	0.010	44.4	IGNORED	1,3,4
090	0.015	10.7	COLORIMETRIC, DIAZOTIZATION	1,3,4
091	0.014	3.3	OTHER	1,3,4
095	0.050	44.4	IGNORED	1,3,4
096	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
097	0.015	10.7	COLORIMETRIC, DIAZOTIZATION	1,3,4

TABLE 13--

STANDARD REFERENCE SAMPLE N11 REPORT FOR N02-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
098	0.010	26.2	COLORIMETRIC, DIAZOTIZATION	1,3,4
100	0.010	26.2	ION CHROMATOGRAPHY	2,6
101	0.014	3.3	COLORIMETRIC, DIAZOTIZATION	1,3,4
107	0.020	47.5	COLORIMETRIC, DIAZOTIZATION	1,3,4
TOTAL RANGE 0.000 TO 0.155 MEAN: 0.014				
STANDARD DEVIATION 0.005 95 % CONFIDENCE INTVL OF MEAN 0.012 ± OR ± 0.001				

TABLE 13-- STANDARD REFERENCE SAMPLE N11 REPORT FOR NO3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	REJECT	METHODS	REFERENCES
001	10.75	171.3	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
004	3.97	0.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
006	17.20	334.1	REJECT	ION SPECIFIC ELECTRODE	1,2,3,4
007	4.20	6.0		COLORIMETRIC, BRUCINE	1,2,3,4
008	3.94	0.6		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
009	3.97	0.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
011	4.35	9.8		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
013	7.78	96.4	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
014	0.10	97.5	REJECT	OTHER	1,2,3,4
017	4.26	8.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
018	4.14	4.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
020	3.70	6.6		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
022	3.31	16.5		COLORIMETRIC, BRUCINE	1,2,3,4
023	4.09	3.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
025	3.95	0.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
026	4.03	1.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
027	3.98	0.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
029	4.00	1.0		ION CHROMATOGRAPHY	2,6
030	2.50	36.9	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
032	2.92	26.3	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
034	2.53	36.1	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
035	4.00	1.0		COLORIMETRIC, BRUCINE	1,2,3,4
036	4.00	1.0		COLORIMETRIC, BRUCINE	1,2,3,4
039	4.10	3.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
040	4.04	2.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
042	3.74	5.6		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
044	3.54	10.7		SPECTROPHOTOMETRIC	1,2,3,4
046	4.16	5.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
047	3.93	0.8		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
048	4.15	4.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
049	5.90	48.9	REJECT	COLORIMETRIC, BRUCINE	1,2,3,4
050	4.00	1.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
051	4.20	6.0		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
055	4.01	1.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
056	3.90	1.6		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
057	3.95	0.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
058	4.10	3.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
060	3.91	1.3		COLORIMETRIC, BRUCINE	1,2,3,4
063	3.80	4.1		COLORIMETRIC, BRUCINE	1,2,3,4
067	4.60	16.1		COLORIMETRIC, BRUCINE	1,2,3,4
068	3.50	11.7		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
070	3.95	0.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
071	1.83	53.8	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
075	55.00	288.2	REJECT	OTHER	1,2,3,4
076	3.29	17.0		OTHER	1,2,3,4
077	4.60	16.1		COLORIMETRIC, BRUCINE	1,2,3,4
080	3.68	7.1		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
081	3.51	11.4		COLORIMETRIC, BRUCINE	1,2,3,4
082	3.30	16.7		COLORIMETRIC, BRUCINE	1,2,3,4

TABLE 13 -- STANDARD REFERENCE SAMPLE N11 REPORT FOR N03-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REJECT	MEANS:			REFERENCES
					T0	95 % CONFIDENCE INTVL OF MEAN	0.079	
084	15.20	283.6	ION CHROMATOGRAPHY		3.962	3.962 + OR -	2,6	
088	4.10	3.5	COLORIMETRIC, BRUCINE		3.962	3.962 + OR -	1,2,3,4	
089	4.28	8.0	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION		3.962	3.962 + OR -	1,2,3,4	
090	4.00	1.0	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION		3.962	3.962 + OR -	1,2,3,4	
091	4.12	4.0	ION CHROMATOGRAPHY		3.962	3.962 + OR -	2,6	
095	4.20	6.0	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION		3.962	3.962 + OR -	1,2,3,4	
096	3.70	6.6	COLORIMETRIC, BRUCINE		3.962	3.962 + OR -	1,2,3,4	
097	4.17	5.3	COLORIMETRIC, BRUCINE		3.962	3.962 + OR -	1,2,3,4	
098	3.87	2.3	COLORIMETRIC, BRUCINE		3.962	3.962 + OR -	1,2,3,4	
099	4.10	3.5	COLORIMETRIC, BRUCINE		3.962	3.962 + OR -	1,2,3,4	
100	3.85	2.8	COLORIMETRIC, BRUCINE		3.962	3.962 + OR -	1,2,3,4	
101	3.78	4.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION		3.962	3.962 + OR -	1,2,3,4	
107	4.00	1.0	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION		3.962	3.962 + OR -	1,2,3,4	

TOTAL RANGE 0.10 TO 55.00 MEANS: 3.962
 STANDARD DEVIATION 0.279 95 % CONFIDENCE INTVL OF MEAN 3.962 + OR - 0.079

TABLE 13 - - STANDARD REFERENCE SAMPLE N11 REPORT FOR ORG-N

CODE	REPORTED VALUE	Pct. DEV. FROM MEAN	METHODS	REFERENCES
004	0.69	11.8	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
007	0.73	6.7	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
009	0.40	48.9	COLORIMETRIC	
011	0.48	38.6	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
013	0.76	2.8	OTHER	
017	0.28	64.2	DIGESTION, DISTILLATION, TITRATION	2,3,4
018	0.18	77.0	COLORIMETRIC	
020	0.41	47.6	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
023	0.40	48.9	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
027	1.70	117.3	DIGESTION, DISTILLATION, TITRATION	2,3,4
029	1.00	27.8	DIGESTION, DISTILLATION, TITRATION	2,3,4
032	0.63	19.5	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
034	1.20	53.4	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
035	1.00	27.8	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
039	0.54	31.0	COLORIMETRIC	
040	5.43	594.2	COLORIMETRIC, DIGESTION, DISTILLATION, INDOPHENOL	4
047	0.63	19.5	COLORIMETRIC, DIGESTION, DISTILLATION, INDOPHENOL	4
049	1.92	145.5	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
051	0.60	23.3	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
056	1.10	40.6	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
067	0.80	2.3	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
068	0.75	4.1	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
070	0.00	100.0	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
071	1.64	109.7	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
077	2.00	155.7	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
080	0.25	66.0	OTHER	
082	0.66	15.6	DIGESTION, DISTILLATION, TITRATION	2,3,4
089	0.50	36.1	COLORIMETRIC, DIGESTION, DISTILLATION, INDOPHENOL	4
090	1.02	30.4	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
091	1.50	91.8	OTHER	
097	0.35	55.3	DIGESTION, DISTILLATION, TITRATION	2,3,4
100	0.26	66.8	COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	3
101	0.65	16.9	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4

TOTAL RANGE 0.00 TO 5.43 MEAN: 0.782
 STANDARD DEVIATION 0.510 95 % CONFIDENCE INTVL OF MEAN 0.782 + OR - 0.183

TABLE 13-1 - STANDARD REFERENCE SAMPLE N11 REPORT FOR P1 TOTAL

CODE	REPORTED		PCT. DEV. FROM MEAN	METHODS	REFERENCES
	VALUE				
004	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
007	0.54		5.3	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
008	0.67		30.6	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
009	0.45		12.3	COLORIMETRIC, BLK DIG, H2S04, K&HG 904, PHOSPHOMOLYBDATE	4
011	0.46		10.3	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
013	0.36		29.8	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
014	0.46		10.3	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
017	0.60		17.0	OTHER	
018	0.54		5.3	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
020	0.47		6.4	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
022	0.44		14.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
023	0.47		6.4	COLORIMETRIC, BLK DIG, H2S04, K&HG 904, PHOSPHOMOLYBDATE	4
026	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
027	0.63		22.8	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
029	0.55		7.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
032	0.60		17.0	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
034	0.49		4.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
035	0.44		14.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
036	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
039	0.48		6.4	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
040	0.46		10.3	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
042	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
046	0.48		6.4	COLORIMETRIC, BLK DIG, H2S04, K&HG 904, PHOSPHOMOLYBDATE	4
047	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
049	6.40		147.7	OTHER	
050	0.43		16.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
051	0.47		8.4	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
053	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
055	0.49		4.5	COLORIMETRIC, BLK DIG, H2S04, K&HG 904, PHOSPHOMOLYBDATE	4
056	0.51		0.6	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
063	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
067	0.59		15.0	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
068	0.53		3.3	COLORIMETRIC, BLK DIG, H2S04, K&HG 904, PHOSPHOMOLYBDATE	4
070	0.45		12.3	COLORIMETRIC, BLK DIG, H2S04, K&HG 904, PHOSPHOMOLYBDATE	4
071	0.44		14.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
075	0.57		11.1	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
076	0.57		11.1	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
077	0.25		51.3	EMISSION, IC PLASMA	
080	1.64		219.7	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
081	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
082	0.59		15.0	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
084	0.50		2.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
088	0.56		9.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
089	0.56		9.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
090	0.56		9.2	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
091	0.53		3.3	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
095	0.49		4.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
096	0.49		4.5	COLORIMETRIC, H2S04/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
097	0.56		9.2	COLORIMETRIC, BLK DIG, H2S04, K&HG 904, PHOSPHOMOLYBDATE	4

REJECT

REJECT

TABLE 13--1

STANDARD REFERENCE SAMPLE N11		REPORT FOR P, TOTAL		
CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
098	0.51	0.6	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBDO	1,2,3,4
099	0.56	9.2	OTHER	
100	0.47	8.4	COLORIMETRIC, H2SO4/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBDO	1,2,3,4
101	0.48	6.4	COLORIMETRIC, BLK DIG, H2SO4, KSHG 504, PHOSPHOMOLYBDATE	4
107	0.66	28.7	COLORIMETRIC, H2SO4/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYBDO	1,2,3,4
TOTAL RANGE		0.25 TO	6.40	MEAN: 0.513
STANDARD DEVIATION		0.061	95 % CONFIDENCE INTRVL OF MEAN	0.513 ± OR ± 0.017

TABLE 13 -- STANDARD REFERENCE SAMPLE N11 REPORT FOR P04-P

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	REJECT	METHODS	REFERENCES
001	0.83	70.4	REJECT	OTHER	1,2,3,4
004	0.50	2.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
006	0.44	9.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
007	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
008	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
009	0.45	7.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
011	0.45	7.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
013	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
017	0.60	23.2		OTHER	3,4
018	0.49	0.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
022	0.40	17.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
025	0.54	10.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
026	0.50	2.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
027	0.52	6.8		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
029	0.49	0.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
032	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
034	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
035	0.43	11.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
038	0.51	4.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
039	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	3,4
040	0.46	5.5		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
042	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
044	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
046	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
047	0.48	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
048	0.53	8.8		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
049	1.70	249.1	REJECT	OTHER	3,4
050	0.40	17.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
051	0.51	4.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
053	0.49	0.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
056	0.47	3.5		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
058	0.58	19.1		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
060	0.52	6.8		OTHER	3,4
063	0.50	2.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
067	0.50	2.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
068	0.05	69.7	REJECT	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
070	0.14	71.3	REJECT	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
071	0.42	13.8		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
075	0.54	10.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
076	0.49	0.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
077	0.41	15.8		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
080	0.45	7.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
081	0.49	0.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
082	0.46	1.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
084	0.47	3.5		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
088	0.56	15.0		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
089	0.41	15.8		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
090	0.47	3.5		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
091	0.51	4.7		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4

TABLE 13 -- STANDARD REFERENCE SAMPLE N11 REPORT FOR P04-P

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
095	0.46	5.5	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
096	0.48	1.4	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
097	0.58	19.1	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
098	0.51	4.7	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
099	0.56	15.0	OTHER	
100	0.45	7.6	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
101	0.47	3.5	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
107	0.52	6.8	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
TOTAL RANGE	0.05	10	MEAN ± 0.487	
STANDARD DEVIATION	0.044	1.70	95 % CONFIDENCE INTVL OF MEAN	0.487 ± OR - 0.012

TABLE 14. --

STATISTICS BY METHOD FOR SAMPLE: N11

DETERMINATION: NH3-N		DETERMINATION: NO2-N		DETERMINATION: NO3-N		DETERMINATION: ORG-N		DETERMINATION: P, TOTAL		DETERMINATION: PU4-P	
METHOD	MEAN	STD DEV	N	METHOD	MEAN	STD DEV	N	METHOD	MEAN	STD DEV	N
COLORIMETRIC, DISTILLATION, Nesslerization	0.209	0.103	7	COLORIMETRIC, DIAZOTIZATION	0.014	0.005	41	COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	0.695	0.425	11
COLORIMETRIC, INDOPHENOL, AUTOMATED	0.120	0.022	4	***** OVER ALL *****	0.014	0.005	45	COLORIMETRIC, DIGESTION, DISTILLATION, Nesslerization	1.146	0.529	5
COLORIMETRIC, PHENATE, AUTOMATED	0.164	0.062	17					DIGESTION, DISTILLATION, TITRATION	0.798	0.579	5
ION SELECTIVE ELECTRODE	0.142	0.061	11					COLORIMETRIC	0.373	0.161	3
OTHER	0.132	0.075	5					***** OVER ALL *****	0.782	0.510	32
***** OVER ALL *****	0.160	0.072	46					DETERMINATION: P, TOTAL			
								METHOD	MEAN	STD DEV	N
								COLORIMETRIC, ALK DIG, H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	0.489	0.038	8
								COLORIMETRIC, H2SO4/PERSULF DIG, ASCORBIC ACID PHOSPHOMOLYB	0.513	0.063	40
								***** OVER ALL *****	0.513	0.061	51
								DETERMINATION: PU4-P			
								METHOD	MEAN	STD DEV	N
								COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	0.479	0.039	23
								COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	0.487	0.042	26
								OTHER	0.560	0.040	3
								***** OVER ALL *****	0.487	0.044	53

TABLE 15. — STANDARD REFERENCE SAMPLE P5 REPORT FOR CA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.26	10.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	0.27	6.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	0.24	17.1	EMISSION, IC PLASMA	5
008	0.40	38.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	0.30	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	< 10.00	***	TITRATION, EDTA	1,3
011	0.30	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	0.00	100.0	TITRATION, EDTA	1,3
018	0.40	38.1	TITRATION, EDTA	1,3
019	0.35	20.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	0.40	38.1	TITRATION, EDTA	1,3
023	0.50	72.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027	0.27	6.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029	0.37	27.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	< 1.00	***	IGNORED	1,2,3,4
032	0.23	20.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	0.21	27.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	0.16	44.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	0.23	20.6	EMISSION, IC PLASMA	5
038	0.20	30.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	0.29	0.2	EMISSION, IC PLASMA	5
044	0.40	38.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	0.30	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	0.30	3.6	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	0.40	38.1	TITRATION, EDTA	1,3
051	0.17	41.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	0.24	17.1	EMISSION, IC PLASMA	5
055	0.35	20.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	0.33	14.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
060	3.00	936.1	REJECT	1,2,3,4
064	< 1.00	***	IGNORED	1,2,3,4
065	0.20	30.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	0.25	13.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	0.29	0.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	0.20	30.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	0.20	30.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	0.18	37.6	EMISSION, IC PLASMA	5
077	0.35	20.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078	1.00	245.4	REJECT	1,2,3,4
079	0.28	3.3	EMISSION, IC PLASMA	5
084	0.25	13.7	EMISSION, IC PLASMA	5
087	0.37	27.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	0.26	10.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
090	0.21	27.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
091	0.26	10.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	0.40	38.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	0.24	17.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	0.28	3.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
102	0.25	13.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	14.00	735.2	REJECT	1,2,3,4
107	0.40	38.1	OTHER ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0.00 TO 14.00 MEAN: 0.290
 STANDARD DEVIATION 0.079 95 % CONFIDENCE INTRVL OF MEAN 0.290 + OR - 0.024

TABLE 15.--

STANDARD REFERENCE SAMPLE P5 REPORT FOR CL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.16	50.6	TITRATION, SILVER NITRATE	1,2,4
006	0.99	205.7	ION SELECTIVE ELECTRODE	2
007	0.00	100.0	TITRATION, SILVER NITRATE	1,2,4
008	0.00	100.0	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
009	0.10	69.1	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
011	0.50	54.4	TITRATION, MERCURIC NITRATE	1,2,3,4
017	1.50	363.1	TITRATION, SILVER NITRATE	1,2,4
020	0.70	116.1	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
022	0.75	131.6	TITRATION, MERCURIC NITRATE	1,2,3,4
023	1.00	***	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
027	1.00	***	TITRATION, SILVER NITRATE	1,2,4
029	0.40	23.5	TITRATION, MERCURIC NITRATE	1,2,3,4
032	0.28	13.5	TITRATION, SILVER NITRATE	1,2,4
034	2.19	576.2	TITRATION, MERCURIC NITRATE	1,2,3,4
035	0.00	100.0	TITRATION, MERCURIC NITRATE	1,2,3,4
036	0.10	69.1	ION CHROMATOGRAPHY	2,6
038	1.00	208.8	TITRATION, MERCURIC NITRATE	1,2,3,4
040	2.79	761.5	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
044	0.00	100.0	TITRATION, SILVER NITRATE	1,2,4
046	0.40	***	OTHER	
048	0.53	63.6	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
051	0.17	47.5	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
052	0.13	59.9	ION CHROMATOGRAPHY	2,6
053	0.48	48.2	TITRATION, SILVER NITRATE	1,2,4
055	0.50	54.4	TITRATION, SILVER NITRATE	1,2,4
056	0.10	69.1	ION CHROMATOGRAPHY	2,6
059	0.01	***	TITRATION, SILVER NITRATE	1,2,4
064	0.10	69.1	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
065	0.10	69.1	ION CHROMATOGRAPHY	2,6
067	1.01	211.9	TITRATION, MERCURIC NITRATE	1,2,3,4
068	1.00	***	TITRATION, MERCURIC NITRATE	1,2,3,4
075	45.00	794.5	REJECT	1,2,4
076	0.46	42.0	ION SELECTIVE ELECTRODE	2
077	0.00	100.0	TITRATION, SILVER NITRATE	1,2,4
078	2.00	***	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
084	0.11	66.0	ION CHROMATOGRAPHY	2,6
087	0.70	116.1	TITRATION, MERCURIC NITRATE	1,2,3,4
089	4.00	135.1	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
090	0.11	66.0	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
091	0.06	81.5	ION CHROMATOGRAPHY	2,6
096	0.00	100.0	TITRATION, SILVER NITRATE	1,2,4
097	6.52	913.2	REJECT	1,2,3,4
098	2.00	***	TITRATION, MERCURIC NITRATE	1,2,3,4
099	1.00	***	TITRATION, SILVER NITRATE	1,2,4
102	0.20	***	TITRATION, SILVER NITRATE	1,2,4
105	0.10	***	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
107	0.50	54.4	TITRATION, MERCURIC NITRATE	1,2,3,4
107	0.50	54.4	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4

TOTAL RANGE 0.00 TO 45.00 MEAN: 0.324
 STANDARD DEVIATION 0.324 95 % CONFIDENCE INTERVAL OF MEAN 0.324 + OR - 0.119

TABLE 15. --

STANDARD REFERENCE SAMPLE P5 REPORT FOR K

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.04	24.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	0.03	43.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	0.31	486.5	PLASMA, INDUCTIVELY COUPLED	1,2,3,4
008	0.00	100.0	REJECT	
009	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	0.10	89.2	FLAME, EMISSION, PHOTOMETRIC	1,2
019	0.07	32.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	0.08	51.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
023	0.20	278.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027	0.02	***	IGNORED	
032	0.03	43.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	0.01	81.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	0.01	81.1	FLAME, EMISSION, PHOTOMETRIC	1,2,3,4
036	0.03	43.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038	0.05	5.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	5.00	***	IGNORED	
044	1.17	113.5	FLAME, EMISSION, PHOTOMETRIC	1,2
046	0.06	13.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	0.01	81.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	0.20	278.4	FLAME, EMISSION, PHOTOMETRIC	1,2
051	0.04	24.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053	0.04	24.3	FLAME, EMISSION, PHOTOMETRIC	1,2
055	0.03	43.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	0.02	62.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
064	1.00	***	IGNORED	
065	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	0.11	108.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	0.03	43.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	0.02	62.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	0.08	51.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078	0.50	***	IGNORED	
079	1.10	981.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
084	0.16	202.7	OTHER	
087	0.04	24.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	5.00	***	IGNORED	
090	0.07	32.4	FLAME, EMISSION, PHOTOMETRIC	1,2
091	0.03	43.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	0.10	89.2	FLAME, EMISSION, PHOTOMETRIC	1,2
098	0.04	24.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	0.05	5.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
102	0.03	43.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	1.50	737.8	OTHER	
107	0.04	24.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0.00 TO 1.50 MEAN: 0.053
 STANDARD DEVIATION 0.051 95 % CONFIDENCE INTERVAL OF MEAN 0.053 + OR - 0.017

STANDARD REFERENCE SAMPLE P5 REPORT FOR MG

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	0.13	300.6	EMISSION, IC PLASMA	5
008	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	1.00	***	TITRATION, EDTA	2
011	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
018	0.50	***	TITRATION, EDTA	2
019	0.04	23.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	0.05	54.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
023	0.10	208.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027	0.02	***	IGNORED	1,2,3,4
029	0.05	54.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	1.00	***	IGNORED	1,2,3,4
032	0.01	69.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	0.01	69.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	0.02	38.3	EMISSION, IC PLASMA	5
040	0.03	7.5	EMISSION, IC PLASMA	5
044	0.12	270.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	0.10	***	IGNORED	1,2,3,4
048	0.10	208.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	0.00	100.0	TITRATION, EDTA	2
051	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	0.01	***	IGNORED	5
055	0.03	7.5	EMISSION, IC PLASMA	5
056	0.03	7.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
064	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
065	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	0.01	69.2	EMISSION, IC PLASMA	5
077	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078	0.10	208.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	0.02	38.3	EMISSION, IC PLASMA	5
084	0.16	393.3	EMISSION, IC PLASMA	5
087	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	0.01	***	IGNORED	5
090	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
091	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	0.04	23.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
102	0.02	38.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	2.00	66.7	OTHER	1,2,3,4
107	0.03	7.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0.00 TU 2.00 MEAN: 0.032
STANDARD DEVIATION 0.034 95 % CONFIDENCE INTVL OF MEAN 0.032 + OR - 0.011

STANDARD REFERENCE SAMPLE P5 REPORT FOR F

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.01	63.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
006	0.09	228.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
007	0.02	27.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
008	0.00	100.0	ION SELECTIVE ELECTRODE, AUTOMATED	4
009	0.00	100.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
010	0.10	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
011	0.04	46.0	COLORIMETRIC, ZIRCONIUM ERIOCHROME	4
017	0.10	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
021	0.02	27.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
022	0.07	155.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
027	0.04	46.0	ION SELECTIVE ELECTRODE, AUTOMATED	4
029	0.07	155.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
030	0.20	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
035	0.04	46.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
036	0.01	***	ION CHROMATOGRAPHY	2,6
038	0.02	27.0	COLORIMETRIC, SPADNS	1,2,3
040	0.05	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
044	0.00	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
046	0.10	100.0	ION SELECTIVE ELECTRODE, AUTOMATED	4
048	0.02	27.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
049	0.05	82.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
051	0.01	***	ION SELECTIVE ELECTRODE, AUTOMATED	4
052	0.01	***	ION CHROMATOGRAPHY	2,6
053	0.05	82.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
059	0.10	***	ION SELECTIVE ELECTRODE, AUTOMATED	4
060	0.02	27.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
064	0.10	***	ION SELECTIVE ELECTRODE, AUTOMATED	4
065	0.00	100.0	ION CHROMATOGRAPHY	2,6
067	0.10	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
075	0.13	374.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
077	0.00	100.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
084	0.01	63.5	ION CHROMATOGRAPHY	2,6
089	0.02	27.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
090	0.06	***	ION SELECTIVE ELECTRODE, AUTOMATED	4
091	0.01	63.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
096	0.03	9.5	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
098	0.02	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
099	0.02	***	COLORIMETRIC, SPADNS	1,2,3
105	0.10	***	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4

TOTAL RANGE 0.00 TO 0.13 MEAN: 0.027
 STANDARD DEVIATION 0.025 95 % CONFIDENCE INTVL OF MEAN 0.027 + OR - 0.011

CODE	REPORTED VALUE	PCT. OF V. FROM MEAN	METHODS	REFERENCES
002	0.12	17.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
006	0.14	3.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	0.14	3.5	PLASMA, INDUCTIVELY COUPLED	5
008	0.20	37.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	0.10	31.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	5.00	***	IGNORED FLAME EMISSION, PHOTOMETRIC	1,2
011	0.00	100.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	0.20	37.8	FLAME EMISSION, PHOTOMETRIC	1,2
019	0.10	31.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	0.17	17.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
023	1.00	589.1	REJECT	1,2,3,4
027	0.14	3.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	0.10	31.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032	0.12	17.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	0.28	92.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	0.17	17.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
036	0.14	3.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038	0.12	17.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
040	5.00	***	IGNORED FLAME EMISSION, PHOTOMETRIC	1,2
044	0.23	58.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	0.10	31.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	0.01	93.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	0.20	37.8	FLAME EMISSION, PHOTOMETRIC	1,2,3,4
051	0.13	10.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2
052	0.20	***	IGNORED PLASMA, INDUCTIVELY COUPLED	5
053	0.25	72.3	FLAME EMISSION, PHOTOMETRIC	1,2
055	0.11	24.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	0.11	24.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
060	0.10	31.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
064	1.00	***	IGNORED	1,2,3,4
065	0.10	31.1	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	0.21	44.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	0.16	10.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
073	0.15	3.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	0.95	554.6	REJECT	1,2,3,4
076	0.05	65.5	PLASMA, INDUCTIVELY COUPLED	5
077	0.26	79.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078	1.00	***	IGNORED	1,2,3,4
079	0.14	3.5	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
084	0.11	24.2	PLASMA, INDUCTIVELY COUPLED	5
087	0.18	24.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
089	5.00	***	IGNORED FLAME EMISSION, PHOTOMETRIC	1,2
090	0.15	10.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
091	0.15	3.4	FLAME EMISSION, PHOTOMETRIC	1,2
096	0.20	37.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
098	0.20	37.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
099	0.20	37.8	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
102	0.13	10.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
105	4.80	207.6	OTHER	1,2,3,4
107	0.10	31.1	REJECT	1,2,3,4

TOTAL RANGE 0.00 10 4.00 MEAN: 0.145
 STANDARD DEVIATION 0.060 95 X CONFIDENCE INTERVAL OF MEAN 0.145 ± 0.019

STANDARD REFERENCE SAMPLE P5 REPORT FOR NH3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.00	100.0	ION SELECTIVE ELECTRODE	1,2,3,4
006	0.01	54.1	ION SELECTIVE ELECTRODE	1,2,3,4
007	0.00	100.0	ION SELECTIVE ELECTRODE	1,2,3,4
009	0.00	100.0	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
010	0.02	8.2	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
011	0.01	54.1	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
017	0.05	129.5	OTHER	
018	0.00	100.0	COLORIMETRIC, PHENATE, MANUAL	1
019	0.02	8.2	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
020	0.02	8.2	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
022	0.00	100.0	ION SELECTIVE ELECTRODE	1,2,3,4
023	0.05	100.0	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
027	0.14	542.6	REJECT	1,4
034	0.06	175.4	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
035	0.02	8.2	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
038	0.02	8.2	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
040	0.01	54.1	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
044	0.02	8.2	COLORIMETRIC, DISTILLATION, AUTOMATED	1,4
046	0.01	8.2	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
048	0.01	54.1	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,2,3
049	0.03	37.7	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3,4
050	0.00	100.0	ION SELECTIVE ELECTRODE	1,2,3,4
051	0.01	44.4	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
053	0.03	37.7	COLORIMETRIC, INDOPHENOL, AUTOMATED	4
060	0.08	267.2	ION SELECTIVE ELECTRODE	1,2,3,4
064	0.02	44.4	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
067	0.07	221.3	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
068	0.07	221.3	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
075	0.02	8.2	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
077	0.03	37.7	ION SELECTIVE ELECTRODE	1,2,3,4
089	0.05	44.4	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
090	0.05	44.4	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
091	0.00	100.0	OTHER	
096	0.10	54.1	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
097	0.01	54.1	ION SELECTIVE ELECTRODE	1,2,3,4
098	0.10	54.1	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
099	0.10	54.1	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
102	0.10	54.1	ION SELECTIVE ELECTRODE	1,2,3,4
105	0.01	54.1	COLORIMETRIC, PHENATE, MANUAL	1
107	0.10	54.1	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
107	0.01	54.1	COLORIMETRIC, PHENATE, AUTOMATED	1,2,3

TOTAL RANGE 0.00 TO 0.14 MEAN: 0.022
 STANDARD DEVIATION 0.023 95 X CONFIDENCE INTVL OF MEAN 0.022 + OR - 0.009

STANDARD REFERENCE SAMPLE P5 REPORT FOR N03-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.08	4.3	COLORIMETRIC, BRUCINE	1,2,3,4
006	0.05	40.2	ION SPECIFIC ELECTRODE	1,2,3,4
007	0.09	7.7	COLORIMETRIC, BRUCINE	1,2,3,4
008	0.06	28.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
009	0.08	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
010	0.02	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
011	0.10	76.1	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
017	0.06	19.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
018	0.08	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
019	0.08	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
020	0.06	28.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
021	0.13	55.6	COLORIMETRIC, BRUCINE	1,2,3,4
022	0.06	28.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
023	0.12	43.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
027	0.06	28.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
030	0.24	187.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
032	0.09	7.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
034	0.09	7.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
035	0.08	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
036	0.08	4.3	ION CHROMATOGRAPHY	2,6
038	0.09	7.7	COLORIMETRIC, BRUCINE	1,2,3,4
040	0.09	7.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
044	0.07	16.2	SPECTROPHOTOMETRIC	1,2,3,4
046	0.10	19.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
048	0.08	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
049	0.53	534.2	COLORIMETRIC, BRUCINE	1,2,3,4
050	0.08	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
051	0.05	40.2	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
052	0.08	4.3	ION CHROMATOGRAPHY	2,6
055	0.10	19.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
056	0.08	4.3	ION CHROMATOGRAPHY	2,6
059	0.04	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
060	0.08	4.3	COLORIMETRIC, BRUCINE	1,2,3,4
067	0.09	7.7	COLORIMETRIC, BRUCINE	1,2,3,4
068	0.10	19.7	COLORIMETRIC, BRUCINE	1,2,3,4
073	0.07	16.2	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
075	0.10	19.7	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
077	0.08	4.3	ION SPECIFIC ELECTRODE	3
084	0.07	4.3	COLORIMETRIC, BRUCINE	1,2,3,4
089	0.12	16.2	ION CHROMATOGRAPHY	1,2,3,4
090	0.07	43.6	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	2,6
091	0.10	16.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
091	0.10	19.7	ION CHROMATOGRAPHY	2,6
098	0.08	4.3	COLORIMETRIC, BRUCINE	1,2,3,4
099	0.10	4.3	COLORIMETRIC, BRUCINE	1,2,3,4
102	0.08	4.3	ION CHROMATOGRAPHY	1,2,3,4
105	0.08	4.3	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
107	0.10	19.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4

TOTAL RANGE 0.02 TO 0.53 MEANS 0.084
 STANDARD DEVIATION 0.017 95 % CONFIDENCE INTVL OF MEAN 0.084 + OR - 0.005

TABLE 15. -- STANDARD REFERENCE SAMPLE P5 REPORT FOR PH

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	5.91	1.4	ELECTROMETRIC	1,2,3,4
006	7.69	31.9	ELECTROMETRIC	1,2,3,4
007	6.21	6.5	ELECTROMETRIC	1,2,3,4
008	5.50	5.6	ELECTROMETRIC	1,2,3,4
009	5.10	12.5	ELECTROMETRIC	1,2,3,4
010	6.00	2.9	ELECTROMETRIC	1,2,3,4
011	6.20	6.4	ELECTROMETRIC	1,2,3,4
017	6.00	2.9	ELECTROMETRIC	1,2,3,4
018	5.63	3.4	ELECTROMETRIC	1,2,3,4
019	5.60	3.9	ELECTROMETRIC	1,2,3,4
020	6.40	9.8	ELECTROMETRIC	1,2,3,4
021	5.06	13.2	ELECTROMETRIC	1,2,3,4
022	5.97	2.4	ELECTROMETRIC	1,2,3,4
023	5.60	3.9	ELECTROMETRIC	1,2,3,4
027	5.77	1.0	ELECTROMETRIC	1,2,3,4
029	6.00	2.9	ELECTROMETRIC	1,2,3,4
030	6.60	13.2	ELECTROMETRIC	1,2,3,4
032	4.23	27.4	ELECTROMETRIC	1,2,3,4
034	5.76	1.2	ELECTROMETRIC	1,2,3,4
035	6.00	2.9	ELECTROMETRIC	1,2,3,4
036	5.82	0.1	ELECTROMETRIC	1,2,3,4
038	5.30	9.1	ELECTROMETRIC	1,2,3,4
040	6.05	3.8	ELECTROMETRIC	1,2,3,4
044	6.23	6.9	ELECTROMETRIC	1,2,3,4
046	5.75	1.3	ELECTROMETRIC	1,2,3,4
048	8.09	38.8	ELECTROMETRIC	1,2,3,4
049	6.42	10.1	ELECTROMETRIC	1,2,3,4
050	5.95	2.1	ELECTROMETRIC	1,2,3,4
051	6.10	4.7	ELECTROMETRIC	1,2,3,4
053	6.10	4.7	ELECTROMETRIC	1,2,3,4
055	5.30	9.1	ELECTROMETRIC	1,2,3,4
056	5.45	6.5	ELECTROMETRIC	1,2,3,4
060	6.38	9.5	ELECTROMETRIC	1,2,3,4
065	6.00	2.9	ELECTROMETRIC	1,2,3,4
067	5.30	9.1	ELECTROMETRIC	1,2,3,4
068	6.47	11.0	ELECTROMETRIC	1,2,3,4
073	5.37	7.9	ELECTROMETRIC	1,2,3,4
075	2.10	64.0	ELECTROMETRIC	1,2,3,4
076	7.10	21.8	ELECTROMETRIC	1,2,3,4
077	4.85	16.8	ELECTROMETRIC	1,2,3,4
078	5.30	9.1	ELECTROMETRIC	1,2,3,4
084	5.77	1.0	ELECTROMETRIC	1,2,3,4
087	6.90	18.4	ELECTROMETRIC	1,2,3,4
089	5.20	10.8	ELECTROMETRIC	1,2,3,4
090	6.50	11.5	ELECTROMETRIC	1,2,3,4
091	6.47	11.0	ELECTROMETRIC	1,2,3,4
096	4.49	23.0	ELECTROMETRIC	1,2,3,4
098	5.20	10.8	ELECTROMETRIC	1,2,3,4
099	5.25	9.9	ELECTROMETRIC	1,2,3,4
102	5.71	2.0	ELECTROMETRIC	1,2,3,4
105	5.77	1.0	ELECTROMETRIC	1,2,3,4
107	5.70	2.2	ELECTROMETRIC	1,2,3,4

REJECT

REJECT

TOTAL RANGE 2.10 10 8.09 95 % CONFIDENCE MEAN: 5.829 INTRVL OF MEAN 5.829 + OR - 0.178
STANDARD DEVIATION 0.627

STANDARD REFERENCE SAMPLE P5 REPORT FOR 904

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	0.39	29.8	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
006	0.10	***	GRAVIMETRIC, BARIUM SULFATE	1,2,3
007	0.00	100.0	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
008	0.00	100.0	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
009	0.70	25.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
010	5.00	***	GRAVIMETRIC, BARIUM SULFATE	1,2,3
011	0.80	43.9	THORIN TITRATION	2,4
017	0.00	100.0	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
022	3.11	459.4	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
023	1.00	***	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
027	1.00	79.9	GRAVIMETRIC, BARIUM SULFATE	1,2,3
030	11.40	950.6	GRAVIMETRIC, BARIUM SULFATE	1,2,3
032	0.05	***	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
034	0.10	82.0	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
035	0.00	100.0	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
036	0.50	10.1	ION CHROMATOGRAPHY	2,6
038	1.00	79.9	TURBIDIMETRIC	
040	0.76	36.7	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
044	0.96	72.7	THORIN TITRATION	2,4
048	2.00	***	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
049	5.18	831.8	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
050	13.00	238.4	REJECT	1,2,3
051	0.36	35.2	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
052	0.41	26.2	ION CHROMATOGRAPHY	2,6
056	0.36	35.2	ION CHROMATOGRAPHY	2,6
059	0.75	34.9	OTHER	
064	1.00	***	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
065	0.10	82.0	ION CHROMATOGRAPHY	2,6
067	1.00	***	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
068	1.25	124.9	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
075	1.03	85.3	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
076	0.40	28.0	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
077	9.90	680.8	REJECT	1,2,3
078	1.50	169.8	GRAVIMETRIC, BARIUM SULFATE	1,2,3
084	0.37	33.4	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
089	1.00	***	ION CHROMATOGRAPHY	2,6
090	0.40	28.0	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
091	1.07	92.5	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
096	0.00	100.0	ION CHROMATOGRAPHY	2,6
098	2.00	***	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
099	1.00	***	GRAVIMETRIC, BARIUM SULFATE	1,2,3
102	0.50	***	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
105	1.00	***	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
107	0.80	43.9	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4

TOTAL RANGE 0.00 TO 13.00 MEAN: 0.556
 STANDARD DEVIATION 0.430 95 % CONFIDENCE INTVL OF MEAN 0.556 + OR - 0.170

STANDARD REFERENCE SAMPLE P5 REPORT FOR 9P. COND.

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
002	3.00	29.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
007	3.60	15.8	DIRECT READING INSTRUMENT	4
008	4.00	6.5	DIRECT READING INSTRUMENT	4
009	4.00	6.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
010	3.30	22.9	DIRECT READING INSTRUMENT	4
011	5.00	16.9	OTHER	4
017	7.00	63.6	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
018	4.20	1.8	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
019	4.90	14.6	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
020	6.00	40.3	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
021	4.00	6.5	OTHER	4
022	4.00	6.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
023	3.50	18.2	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
027	3.37	21.2	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
029	3.27	23.6	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
030	4.00	6.5	DIRECT READING INSTRUMENT	4
032	3.40	20.5	DIRECT READING INSTRUMENT	4
034	8.38	95.9	DIRECT READING INSTRUMENT	4
035	5.00	16.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
036	2.70	36.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
038	3.70	13.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
040	3.00	29.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
044	4.00	6.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
046	4.50	5.2	DIRECT READING INSTRUMENT	4
048	4.00	6.5	OTHER	4
049	48.00	22.1	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
050	5.60	30.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
051	4.00	6.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
053	3.00	29.9	DIRECT READING INSTRUMENT	4
055	5.00	16.9	DIRECT READING INSTRUMENT	4
056	3.70	13.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
060	29.00	578.0	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
064	1.00	***	REJECT	4
065	6.40	49.6	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
067	4.30	0.5	DIRECT READING INSTRUMENT	4
068	1.00	***	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
075	8.00	87.0	DIRECT READING INSTRUMENT	4
076	4.10	4.2	OTHER	4
078	0.00	100.0	DIRECT READING INSTRUMENT	4
078	3.70	13.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
084	4.30	0.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
087	5.00	16.9	DIRECT READING INSTRUMENT	4
089	23.00	437.7	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
090	4.00	6.5	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
091	3.00	29.9	DIRECT READING INSTRUMENT	4
096	4.49	5.0	DIRECT READING INSTRUMENT	4
098	5.00	16.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
099	5.60	30.9	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
102	3.48	18.6	DIRECT READING INSTRUMENT	4
105	4.00	6.5	OTHER	4

TOTAL RANGE 0.00 TO 48.00 MEAN: 4.278
 STANDARD DEVIATION 1.402 95 % CONFIDENCE INTVL OF MEAN 4.278 + OR - 0.421

TABLE 16--
STATISTICS BY METHOD FOR SAMPLE: PS

DETERMINATION: CA

METHOD
ATOMIC ABSORPTION, DIRECT, AIR
EMISSION, IC PLASMA
TITRATION, EDTA
***** OVER ALL *****

MEAN	STD DEV	N
0.289	0.079	34
0.244	0.036	7
0.400	0.000	3
0.290	0.079	44

DETERMINATION: CL

METHOD
COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED
ION CHROMATOGRAPHY
TITRATION, MERCURIC NITRATE
TITRATION, SILVER NITRATE
***** OVER ALL *****

MEAN	STD DEV	N
0.276	0.260	8
0.100	0.023	6
0.623	0.358	7
0.177	0.218	8
0.324	0.324	31

DETERMINATION: F

METHOD
ION SELECTIVE ELECTRODE, MANUAL
***** OVER ALL *****

MEAN	STD DEV	N
0.029	0.026	16
0.027	0.025	23

DETERMINATION: K

METHOD
ATOMIC ABSORPTION, DIRECT, AIR
FLAME, EMISSION, PHOTOMETRIC
***** OVER ALL *****

MEAN	STD DEV	N
0.045	0.042	29
0.076	0.077	5
0.053	0.051	35

DETERMINATION: MG

METHOD
ATOMIC ABSORPTION, DIRECT, AIR
EMISSION, IC PLASMA
***** OVER ALL *****

MEAN	STD DEV	N
0.032	0.031	31
0.042	0.050	5
0.032	0.034	37

STATISTICS BY METHOD FOR SAMPLE: P5

DETERMINATION: NA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	0.143	0.060	33
PLASMA, INDUCTIVELY COUPLED	0.110	0.042	4
FLAME EMISSION, PHOTOMETRIC	0.200	0.041	4
***** OVER ALL *****	0.145	0.060	41

DETERMINATION: NH3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, DISTILLATION, Nesslerization	0.045	0.029	6
COLORIMETRIC, INDOPHENOL, AUTOMATED	0.013	0.006	3
COLORIMETRIC, PHENATE, AUTOMATED	0.017	0.022	9
ION SELECTIVE ELECTRODE	0.013	0.014	7
***** OVER ALL *****	0.022	0.023	26

DETERMINATION: NO3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BRUCINE	0.061	0.010	8
COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	0.030	0.083	22
COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	0.073	0.025	3
ION CHROMATOGRAPHY	0.082	0.011	5
***** OVER ALL *****	0.084	0.017	42

DETERMINATION: PH

METHOD	MEAN	STD DEV	N
ELECTROMETRIC	5.844	0.623	49
***** OVER ALL *****	5.829	0.627	50

DETERMINATION: SO4

METHOD	MEAN	STD DEV	N
COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	0.452	0.653	5
ION CHROMATOGRAPHY	0.468	0.324	6
TURBIDIMETRIC, BARIUM SULFATE	0.494	0.530	11
***** OVER ALL *****	0.556	0.430	27

DETERMINATION: SP. CONDU.

METHOD	MEAN	STD DEV	N
DIRECT READING INSTRUMENT	4.070	1.820	15
WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	4.398	1.240	26
OTHER	4.367	0.551	3
***** OVER ALL *****	4.276	1.402	45

TABLE 17--

STANDARD REFERENCE SAMPLE POL1 REPORT FOR 12HENZANTH

CODE	REPORTED VALUE
040	78.5
042	65.0
068	59.5
089	10.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR 246CLPHNOL

CODE	REPORTED VALUE
027	< 10.0
035	0.3
039	9.8
068	5.3
089	< 25.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR 24CLPHNOL

CODE	REPORTED VALUE
027	36.0
035	0.2
039	81.4
042	31.0
068	85.0
089	47.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR 26N11TOLUN

CODE	REPORTED VALUE
042	0.2
068	118.4
089	< 10.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR 2N11PHENDL

CODE	REPORTED VALUE
027	< 10.0
039	1.6
042	5.0
068	< 9.8
089	< 25.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR 4R0DIPETH

CODE	REPORTED VALUE
042	10.0
068	21.1
089	< 25.0

TABLE 17 --

STANDARD REFERENCE SAMPLE POL1 REPORT FOR ANITPHENOL

CODE	REPORTED VALUE
027	< 10.0
039	36.7
068	16.9
089	< 10.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR ACENPHTHLN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN
040	33.4	
042	94.0	
068	18.8	
089	< 25.0	

STANDARD REFERENCE SAMPLE POL1 REPORT FOR BISCLFETH

CODE	REPORTED VALUE
042	58.0
068	46.9
089	15.0

TABLE 17-1

STANDARD REFERENCE SAMPLE POL1 REPORT FOR FLUORANTH

CODE	REPORTED VALUE
040	63.5
042	43.0
068	38.2
089	14.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR FLUORENE

CODE	REPORTED VALUE
040	28.0
042	29.0
068	36.8
089	19.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR HEXCLIRENZ

CODE	REPORTED VALUE
042	25.0
068	16.8
089	10.0

TABLE 17 --

STANDARD REFERENCE SAMPLE POL1 REPORT FOR NAPHTHALEN

CODE	REPORTED VALUE
040	46.13
042	0.5
068	0.4
089	< 10.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR NITROPHNAM

CODE	REPORTED VALUE
068	103.9
089	16.0

STANDARD REFERENCE SAMPLE POL1 REPORT FOR PTRENE

CODE	REPORTED VALUE
040	76.7
042	37.0
068	40.2
089	14.0

Table 18.--Summary of Analytical Results for Priority Pollutants in Standard Reference Water Sample POL-1
(Concentrations in micrograms per liter)

Compound	Concentration Added	Mean Found	Concentration Found - Range	Reported Analyses	"Recovery" Fraction Mean Found/Added
Acenaphthylene	50.1	35.4	18.8 - 54.0	4	0.71
Benz [a] anthracene	69.7	48.3	10.0 - 78.5	4	.69
Bis (2 chloroethyl) ether	67.0	40.0	15.0 - 58.0	3	.60
4-Bromodiphenyl ether	55.9	15.6	10.0 - 21.1	3	.28
2,4-Dichlorophenol	63.8	46.8	0.2 - 85.0	6	.73
2,6-Dinitrotoluene	55.8	59.8	0.2 - 118.4	3	1.07
Fluoranthene	55.0	39.7	14.0 - 63.5	4	.72
Fluorene	56.8	28.2	19.0 - 36.8	4	.50
Hexachlorobenzene	52.9	21.9	16.8 - 25.0	3	.41
Naphthalene	57.5	23.4	0.5 - 46.3	4	.41
2-Nitrophenol	57.8	3.3	1.6 - 5.0	5	.06
4-Nitrophenol	71.6	26.8	16.9 - 36.7	4	.37
n-Nitrosodiphenylamine	57.9	60.0	16.0 - 103.9	2	1.04
Pyrene	63.7	42.0	14.0 - 76.7	4	.66
2,4,6-trichlorophenol	57.1	5.0	0.3 - 9.8	5	.09