UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

REPORT OF THE U.S. GEOLOGICAL SURVEY'S ANALYTICAL EVALUATION PROGRAM--STANDARD REFERENCE WATER SAMPLES M-82 (MAJOR CONSTITUENTS), T-83 (TRACE CONSTITUENTS), N-8 (NUTRIENTS), and P-2 (PRECIPITATION SNOWMELT).

By Victor J. Janzer

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By Victor J. Janzer

ABSTRACT

The U.S. Geological Survey began an interlaboratory testing program of reference water samples in 1962. Principal purposes of the program 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 continuing quality-assurance testing. Participation in this continuing quality-assurance program is mandatory for all domestic laboratories providing water-analysis data for Survey use.

This report presents analytical data submitted by the participating laboratories that analyzed the respective reference samples distributed in October 1982. Relative performance ratings achieved by the laboratories for each determination and statistical evaluation of the data are given in 14 tables.

INTRODUCTION

The U.S. Geological Survey began an interlaboratory testing program of reference water samples in 1962. Principal purposes of the program are to provide a means for participating water laboratories to: (1) Identify analytical problem areas, (2) ascertain the accuracy and precision of the analytical methods for determining the various constituents and physical properties of water and (3) provide reference samples for continuing quality assurance testing. Only 23 laboratories participated in the 1962 effort to determine 6 constituents in a single major-constituent type of Standard Reference Water Sample (SRWS). Now, more than 120 laboratories participate in the program, which currently uses seven SRWS types; major constituents, trace constituents, nutrients, herbicides and insecticides, water and suspended-sediment mixture for trace metals, and precipitation snowmelt.

Participation in this continuing quality-assurance program is mandatory for all laboratories providing water-analysis data for 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 participating laboratories that analyzed the respective reference samples distributed in October 1982. Relative performance ratings achieved by the laboratories for each determination and statistical evaluation of the data are given in 14 tables.

PURPOSE AND PLAN

As a means of providing an independent and objective evaluation of the water-quality data published by the U.S. Geological Survey and other cooperating laboratories, SRWS are prepared and distributed for analysis at regular intervals. This report summarizes the analytical results submitted by 85 laboratories for SRWS M-82 (major constituents), SRWS T-83 (trace constituents), SRWS N-8 (nutrients), and SRWS P-2 (precipitation snowmelt), distributed during October 1982. All samples are not necessarily analyzed by all laboratories nor do all laboratories participate in each round of analyses.

"Instructions for Analysis and Reporting Results" accompanied SRWS at the time of their distribution. Each laboratory was requested to indicate references for the analytical methods used. Furthermore, each participating laboratory was asked to perform at least those determinations that it makes routinely and no restrictions were placed on the choice of methods to be used. This program serves as a quality-control tool to alert participating laboratories to deficiencies in their analytical operations and to provide reference solutions for a continuing program of quality-assurance testing. Non-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 their respective code numbers.

PREPARATION OF SAMPLES

SRWS M-82 (major constituents), SRWS T-83 (trace constituents), and SRWS N-8 (nutrients), were each prepared from untreated natural surface water collected from the same source. Samples were filtered through a 5-µm (micrometer) nominal size prefilter and a 0.45 µm membrane filter into a large polyethylene drum. Thymol, about 1.25 mg/L (milligrams per liter), was added to each batch of approximately 1,200 L (liters) of filtered water used to prepare samples SRWS M-82 and T-83.

No further additions were made to SRWS M-82, but SRWS T-83 was acidified to a pH of about 1.5 with nitric acid and selected trace-element salts were then added. Each sample was mixed overnight with a motor-driven stirrer after which it was again filtered through a 0.45-µm membrane filter and then passed through a flow-through ultraviolet [254 nm (nanometer)] sterilizer and packaged in dry-heat sterilized 1-L Teflon[1/] bottles, under ultraviolet radiation.

Approximately 400-L of untreated surface water were collected and filtered through a 0.45-µm membrane filter to prepare SRWS N-8 (nutrients). Mercuric chloride (50 mg/L) as a preservative and sodium chloride (450 mg/L) were then added. The sample was 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.

[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.

SRWS P-2 (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. Specific conductance of the sample was adjusted to the desired range by addition of tap water. 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) and packaged in sterile 1-L Teflon bottles under ultraviolet radiation.

DETERMINATIONS

Determinations made for each of the SRWS are listed below. An explanation of the abbreviations and symbols for the properties and constituents determined in the SRWS is presented in table 1; the abbreviations and symbols are used in tables 3-14. Additional abbreviations and symbols used in tables 7-14 are explained in table 2.

Standard Reference Water Sample M-82, (major constituents)
(results in milligrams per liter[1/])

Alkalinity (as $CaCO_3$)	Iodide	Potassium
Boron	Magnesium	Silica
Bromide	Nitrate as nitrogen	Sodium
Calcium	Nitrite as nitrogen	Specific
conductance Chloride	pH	Strontium
Dissolved solids	Phosphorus, total	Sulfate
Fluoride	as phosphorus	Vanadium

Determinations

Standard Reference Water Sample T-83 (trace constituents)
(results in micrograms per liter[2/])

Acidity (as $CaCO_3$)	Cobalt	Nickel
Aluminum	Copper	Selenium
Antimony	Iron	Silver
Arsenic	Lead	Strontium
Barium	Lithium	Thallium
Beryllium	Manganese	Zinc
Cadmium	Mercury	
Chromium, total	Molybdenum	

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 Sample N-9 (nutrients)
(results in milligrams per liter)

Ammonia as nitrogen	Organic nitrogen as nitrogen
Nitrate as nitrogen	Orthophosphate as phosphorus
Nitrite as nitrogen	Phosphorous, total as phosphorus

Standard Reference Water Sample P-2 (precipitation snowmelt)
(results in milligrams per liter [3/])

Calcium	Nitrate as nitrogen	Sodium
Chloride	pH	Specific conductance
Fluoride	Potassium	Sulfate
Magnesium		

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

LABORATORY PERFORMANCE AND REPORTED VALUES

To facilitate inter-laboratory performance comparisons, ratings based on the analyses reported for each SRWSs are included as tables 3-6 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 Samples are calculated for each laboratory and are given in the tables of overall laboratory performance (tables 3-6).

Laboratories were requested to identify the method used for each analysis. 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: Cincinatti, 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 analyzed in each SRWS are listed in tables 7, 9, 11 and 13. 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).

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 SRWS 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 and 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 are usually 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, and 14 listing the mean and standard deviation for the constituent determined by each method, and the number of laboratories which used it, follow the analytical-data tables for each SRWS.

PARTICIPATING LABORATORIES

U.S. Geological Survey

ARIZONA, Yuma: 046
COLORADO, Denver: 059
FLORIDA, Ocala: 035
GEORGIA, Doraville: 055
GEORGIA, Doraville: 071
LOUISIANA, Baton Rouge: 065

Cooperator

ALABAMA, Montgomery: Alabama Environmental Health
ALABAMA, University: Geological Survey of Alabama

ALASKA, College: Division of Geological & Geophysical Surveys

CALIFORNIA, Bryte: California Department of Water Resources
CALIFORNIA, Castaic: Department of Water Resources Chemical Laboratory
CALIFORNIA, Davis: Radiobiology Institute
CALIFORNIA, La Mesa: San Diego Water Utilities Laboratory
CALIFORNIA, La Verne: Metropolitan Water District of Southern California
CALIFORNIA, Los Gatos: Santa Clara Valley Water District
CALIFORNIA, Oakland: East Bay Municipal Utility District
CALIFORNIA, Sacramento: U.S. Bureau of Reclamation, Planning Division

COLORADO, Aurora: Core Laboratories Incorporated
COLORADO, Denver: Denver Water Department
COLORADO, Denver: Colorado University, Denver
COLORADO, Golden: Rockwell International

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

GEORGIA, Athens: Soil Testing & Plant Tissue Analysis Laboratory
GEORGIA, Atlanta: Environmental Protection Division

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

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

MASSACHUSETTS, Barnstable: Barnstable County Health Department
MASSACHUSETTS, Wellesley Hills: Research and Materials Division

Cooperator--continued

MINNESOTA, Minneapolis: Analytical Services, Minnesota Department of Health
MINNESOTA, St. Paul: Metropolitan Waste Control Commission

MISSOURI, Columbia: Environmental Trace Substances Research Center
MISSOURI, Jefferson City: Division of Environmental Quality

MONTANA, Butte: Montana Bureau of Mines & Geology

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

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: Soil, Water, and Materials Testing Laboratory

NEW YORK, Buffalo: Erie County Laboratory
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: Rochester Pure Waters District
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
NORTH DAKOTA, Bismarck: Public Health 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

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

PENNSYLVANIA, Harrisburg: Department of Environmental Resources, Bureau of Labs
PENNSYLVANIA, Pittsburgh: Pennsylvania Department of Environmental Resources

PUERTO RICO, Mayaguez: Quality Control Research Institute
PUERTO RICO, San Juan: Department of Natural Resources

SOUTH CAROLINA, Columbia: South Carolina Water Resources Commission

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

Cooperator--continued

TENNESSEE, Chattanooga: Tennessee Valley Authority, Laboratory Branch

VIRGINIA, Culpepper: Environmental Systems Service
VIRGINIA, Richmond: Division of Consolidated Laboratories

WASHINGTON, Redmond: Department of Ecology
WASHINGTON, Richland: Battelle Pacific NW Laboratories
WASHINGTON, Richland: Rockwell Hanford Operation

WEST VIRGINIA, Morgantown: West Virginia Geologic and Economic Survey

WISCONSIN, Milwaukee: Milwaukee Metropolitan Sewerage District

WYOMING, Cheyenne: Department of Environment Quality
WYOMING, Laramie: Wyoming Department of Agriculture

REFERENCES

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.

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.

Table 1. -- Explanation of abbreviations and symbols for properties and constituents determined in Standard Reference Water Samples

ACID (CACO3)	= Acidity, as calcium carbonate
AG	= Silver
AL	= Aluminum
ALK (CACO3)	= Alkalinity, as calcium carbonate
AS	= Arsenic
B	= Boron
BA	= Barium
BE	= Beryllium
BR	= Bromide
CA	= Calcium
CD	= Cadmium
CL	= Chloride
CO	= Cobalt
CR TOT	= Chromium, total (all species)
CU	= Copper
DSRD 180	= Dissolved solids, residue at 180°C
F	= Fluoride
FE	= Iron
HG	= Mercury
I	= Iodide
K	= Potassium
LI	= Lithium
MG	= Magnesium
MN	= Manganese
MO	= Molybdenum
NA	= Sodium
NH3-N	= Ammonia, as nitrogen
NI	= Nickel
NO3-N	= Nitrate, as nitrogen
NO2-N	= Nitrite, as nitrogen
ORG-N	= Organic nitrogen
PB	= Lead
PH	= pH, units
PO4-P	= Orthophosphate, as phosphorus
P, TOTAL	= Phosphorus, total, (all species), as phosphorus
SB	= Antimony
SE	= Selenium
SIO2	= Silica
SO4	= Sulfate
SP. COND.	= Specific conductance [1/]
SR	= Strontium
TL	= Thallium
V	= Vanadium
ZN	= Zinc

[1/] Microsiemens or micromhos per centimeter at 25°C.

Table 2. -- Explanation of Abbreviations and Symbols Used in Computer Printout Sections

ABS - absorption
ACD - acid
ALK - alkalinity
APDC - ammonium pyrrolidine dithiocarbamate
AUTO - automated
AVG - average
BLK - block
CO'METRIC - colorimetric
COND. - conductivity
DC - direct current
DEV - deviation
DIG - digestion
DSRD - dissolved residues
EDTA - ethylene diamine tetraacetic 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
LAB - laboratory
MIBK - methyl isobutyl ketone
N - number of samples or constituents involved in average or mean
ND - not determined
NO - number
PCT - percent
PDCA - pyrrolidine dithiocarbamic acid
PERSULF - persulfate
PHOSPHOMOLYBD - phosphomolybdate
REJECT - values identified as an outlier and not used in statistical analyses
SP. - specific
SPADNS - sodium 2-(parasulfophenylazo)-1,8-dihydroxy-3,6-naphthalene disulfonate
SRWS - standard reference water sample
STD - standard
TOT - total
< - less than

TABLE 3. OVERALL LABORATORY PERFORMANCE SRWS M82

RATING	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

LAB	ALK(CACO3)	B	BR	CA	CL	DSRD 180	F	I	K	MG
001	ND	ND	ND	4	ND	ND	3	ND	4	4
002	1	ND	ND	3	4	4	ND	ND	4	1
003	2	0	ND	0	4	3	4	ND	4	0
004	3	ND	ND	4	4	4	4	ND	4	4
005	2	ND	ND	3	1	ND	4	ND	4	3
006	ND	ND	ND	ND	0	ND	ND	ND	ND	ND
007	4	ND	ND	4	3	4	1	ND	4	2
009	4	ND	ND	4	4	4	4	ND	4	0
010	4	ND	ND	ND	ND	ND	ND	ND	4	ND
011	2	ND	ND	0	3	4	3	ND	4	4
012	2	ND	ND	ND	0	1	1	ND	ND	ND
013	ND	3	ND	1	4	ND	4	ND	4	4
014	0	3	ND	4	4	4	3	ND	4	4
015	4	4	4	4	4	2	3	3	3	3
016	ND	ND	ND	0	3	ND	ND	ND	0	3
017	ND	4	ND	4	ND	ND	ND	ND	4	4
018	0	3	4	3	4	ND	3	ND	3	4
019	0	4	ND	0	3	4	0	ND	0	4
020	1	3	0	4	4	4	4	ND	4	4
021	1	4	ND	4	4	2	3	ND	0	4
022	4	4	ND	4	3	3	3	ND	4	4
024	0	0	ND	0	0	0	3	ND	4	1
025	ND	0	ND	3	4	ND	ND	ND	ND	4
026	4	3	4	4	4	ND	4	ND	4	4
027	1	ND	ND	0	0	4	4	ND	3	ND
028	4	ND	ND	4	4	4	4	ND	2	4
029	2	ND	ND	ND	ND	4	ND	ND	ND	ND
030	4	ND	ND	3	4	ND	3	ND	3	3
031	ND	ND	ND	4	3	ND	0	ND	3	3
032	3	1	ND	0	4	3	3	ND	4	2
034	2	3	ND	4	4	4	4	ND	4	4
035	4	ND	ND	4	4	4	4	ND	2	4
036	4	ND	ND	ND	4	ND	4	ND	ND	ND
037	4	ND	ND	4	3	4	3	ND	3	4
038	4	4	ND	4	4	4	3	ND	3	3
040	4	ND	ND	ND	3	ND	ND	ND	ND	ND
041	ND	ND	ND	3	2	ND	ND	ND	3	4
043	4	ND	ND	3	4	0	4	ND	4	1
044	4	ND	ND	4	3	0	4	ND	4	3
045	4	ND	ND	3	ND	4	ND	ND	4	4
046	4	ND	ND	3	2	3	3	ND	0	4
047	2	ND	ND	3	4	4	4	ND	4	3

TABLE 3. OVERALL LABORATORY PERFORMANCE SRWS M82

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

LAB	ALK(CACO3)	B	BR	CA	CL	DSRD 180	F	I	K	MG
048	ND	ND	ND	ND	LT	ND	4	ND	ND	ND
049	ND	ND	ND	3	ND	ND	ND	ND	0	2
050	3	ND	ND	ND	2	ND	ND	ND	ND	ND
051	4	ND	ND	0	LT	ND	ND	ND	1	4
052	2	ND	ND	4	4	ND	3	ND	4	3
053	2	2	0	0	0	4	4	ND	4	0
054	0	0	ND	4	0	0	ND	ND	2	2
055	4	4	ND	3	4	4	3	2	2	0
056	0	3	ND	0	4	ND	1	ND	2	4
058	0	2	2	4	3	3	4	4	1	3
059	2	4	2	4	4	4	3	4	4	4
060	0	ND	ND	0	4	ND	1	ND	4	0
061	ND	ND	ND	1	2	3	3	ND	0	LT
062	4	ND	ND	4	4	4	3	ND	4	4
063	3	4	4	3	4	ND	3	2	4	4
064	2	ND	ND	2	3	4	ND	ND	1	3
065	3	ND	ND	0	3	4	1	ND	2	0
066	ND	ND	ND	3	ND	3	ND	ND	4	3
067	3	ND	ND	ND	4	4	0	ND	4	4
068	3	4	4	3	4	3	3	ND	4	4
069	3	ND	3	0	4	ND	4	ND	4	0
070	ND	ND	ND	4	4	ND	ND	ND	4	3
071	ND	ND	4	3	3	ND	4	ND	ND	3
072	4	0	ND	4	4	4	4	ND	4	4
074	4	ND	ND	ND	0	ND	ND	ND	ND	ND
075	2	ND	ND	2	3	4	4	ND	4	1
077	4	ND	ND	3	3	4	3	ND	3	2
079	4	ND	ND	4	3	1	3	ND	3	4
080	1	ND	ND	4	0	0	3	ND	ND	0
081	0	3	ND	4	3	3	4	ND	2	4
082	3	ND	ND	4	1	3	1	ND	4	4
083	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
084	ND	ND	ND	3	ND	4	4	ND	ND	4
085	1	4	ND	0	4	1	3	ND	0	2
086	3	ND	ND	4	0	ND	ND	ND	4	4
087	4	4	3	4	2	4	4	ND	4	2
091	3	ND	ND	4	4	4	3	ND	0	0
092	ND	ND	ND	4	4	4	4	ND	ND	4
094	2	ND	ND	3	2	0	ND	ND	3	2
095	4	ND	ND	3	3	3	0	ND	4	1
096	4	2	ND	4	3	3	3	ND	4	3
097	0	ND	ND	4	1	4	3	ND	2	0

TABLE 3. OVERALL LABORATORY PERFORMANCE SRWS M82

RATING			
4 (EXCELLENT)	0.00 TO 0.50	STD. DEV.	
3 (GOOD)	0.51 TO 1.00	STD. DEV.	
2 (SATISFACTORY)	1.01 TO 1.50	STD. DEV.	
1 (QUESTIONABLE)	1.51 TO 2.00	STD. DEV.	
0 (POOR)	> 2.00	STD. DEV.	

ABBREVIATIONS
ND = NOT DETERMINED
LT = LESS-THAN VALUE REPORTED, NOT RATED
N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	NA	NO2-N	NO3-N	P, TOTAL	PH	SIO2	SO4	SP. COND.	SR	V	N	AVG.
001	4	ND	LT	0	4	ND	4	4	ND	ND	9	3.44
002	3	LT	LT	4	3	ND	1	4	ND	ND	11	2.91
003	4	3	4	4	4	ND	0	0	ND	ND	15	2.40
004	4	ND	LT	3	4	3	4	4	4	ND	14	3.79
005	4	ND	ND	ND	4	ND	ND	3	ND	ND	9	3.11
006	ND	ND	4	0	ND	ND	ND	ND	ND	ND	3	1.33
007	4	ND	4	ND	ND	1	4	3	ND	ND	12	3.17
009	4	3	4	4	0	1	4	0	ND	ND	15	2.93
010	3	LT	LT	3	ND	ND	ND	ND	ND	ND	4	3.50
011	4	LT	LT	ND	4	3	3	4	ND	ND	12	3.17
012	ND	3	4	4	3	ND	1	4	ND	ND	10	2.30
013	4	ND	ND	ND	0	4	4	4	0	ND	12	3.00
014	4	ND	ND	4	4	4	4	4	4	ND	15	3.60
015	4	3	4	3	2	3	4	2	4	1	20	3.20
016	4	ND	ND	ND	4	ND	0	3	ND	ND	8	2.13
017	4	ND	ND	3	2	4	ND	0	4	ND	10	3.30
018	4	ND	ND	ND	ND	0	4	4	4	ND	13	3.08
019	4	LT	0	1	3	3	4	3	0	LT	16	2.06
020	4	LT	LT	4	4	0	3	2	3	LT	16	3.00
021	4	3	4	4	3	3	0	3	4	4	18	3.00
022	4	ND	4	3	1	2	4	3	4	3	17	3.35
024	0	LT	0	1	3	3	0	2	ND	ND	15	1.13
025	3	ND	ND	3	0	2	ND	2	4	3	11	2.55
026	4	ND	ND	ND	2	4	4	4	4	ND	14	3.79
027	4	1	LT	4	1	ND	3	4	ND	ND	12	2.42
028	4	3	4	1	3	1	2	4	0	ND	16	3.00
029	ND	1	0	0	4	ND	3	4	ND	ND	8	2.25
030	3	1	0	4	3	ND	3	4	ND	ND	13	2.92
031	4	3	4	ND	4	ND	3	4	ND	ND	11	3.18
032	4	ND	4	3	4	4	4	0	ND	ND	15	2.87
034	4	1	4	4	4	4	3	3	3	ND	17	3.47
035	2	3	4	4	4	4	4	4	3	ND	16	3.63
036	ND	ND	ND	ND	4	ND	ND	1	ND	ND	5	3.40
037	4	LT	LT	1	3	2	3	4	ND	ND	15	3.23
038	4	ND	ND	3	4	4	4	3	4	3	16	3.63
040	ND	1	0	3	4	ND	ND	4	ND	ND	7	2.71
041	3	ND	ND	ND	4	ND	ND	4	ND	ND	7	3.29
043	3	3	4	0	4	0	2	3	ND	ND	15	2.60
044	3	3	4	0	2	4	3	4	ND	ND	15	3.00
045	2	ND	ND	4	2	ND	ND	4	ND	ND	9	3.44
046	0	ND	4	ND	3	4	0	3	ND	ND	13	2.54
047	4	1	0	4	4	0	2	4	ND	ND	15	2.87

TABLE 3. OVERALL LABORATORY PERFORMANCE SRWS M82

RATING	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

LAB	NA	NO2-N	NO3-N	P, TOTAL	PH	SIO2	SO4	SP. COND.	SR	V	N	AVG.
048	ND	LT	LT	4	3	4	3	4	ND	ND	6	3.67
049	2	ND	ND	ND	ND	2	ND	ND	4	ND	6	2.17
050	ND	ND	ND	ND	2	ND	ND	0	ND	ND	4	1.75
051	3	1	LT	0	4	2	1	ND	ND	LT	10	2.00
052	3	3	4	ND	4	4	4	2	ND	ND	13	3.38
053	4	3	4	4	0	ND	4	2	3	4	18	2.44
054	4	ND	4	4	4	3	4	4	ND	ND	14	2.50
055	4	3	4	4	2	4	4	4	4	1	19	3.16
056	0	ND	LT	0	3	4	3	2	ND	ND	13	2.00
058	0	3	4	4	3	0	4	4	4	4	20	2.80
059	4	LT	LT	4	3	3	3	3	4	LT	17	3.47
060	3	LT	4	2	3	ND	3	0	ND	ND	12	2.00
061	0	LT	4	ND	2	ND	4	1	ND	ND	10	2.00
062	4	ND	ND	ND	ND	4	4	ND	ND	ND	10	3.90
063	4	3	4	ND	3	0	4	4	4	3	18	3.33
064	4	ND	ND	ND	3	ND	3	4	ND	ND	10	2.90
065	4	ND	ND	ND	4	2	0	4	ND	ND	12	2.25
066	4	LT	LT	4	3	ND	ND	4	ND	ND	8	3.50
067	ND	LT	LT	ND	4	ND	ND	ND	ND	ND	7	3.29
068	4	LT	LT	4	4	2	4	3	1	LT	16	3.38
069	3	LT	LT	2	3	3	0	3	0	LT	14	2.29
070	4	ND	ND	ND	ND	ND	4	ND	ND	ND	6	3.83
071	4	3	4	ND	ND	4	4	ND	4	3	12	3.58
072	4	ND	4	3	4	ND	4	4	ND	ND	14	3.64
074	ND	ND	ND	ND	ND	ND	2	ND	ND	ND	3	2.00
075	3	LT	0	3	4	ND	4	3	ND	ND	13	2.85
077	3	3	4	4	ND	4	4	4	4	ND	15	3.47
079	4	0	0	4	4	2	3	2	3	ND	16	2.75
080	3	LT	LT	4	0	ND	3	ND	ND	ND	10	1.80
081	4	ND	4	ND	4	4	3	3	3	ND	15	3.20
082	2	LT	LT	4	4	3	1	2	0	ND	14	2.57
083	ND	3	0	0	2	ND	ND	ND	ND	ND	4	1.25
084	0	ND	4	ND	ND	ND	3	4	ND	ND	8	3.25
085	4	ND	4	1	3	ND	4	3	ND	ND	14	2.43
086	4	ND	ND	ND	2	2	4	1	ND	ND	10	2.60
087	0	3	4	3	4	3	0	1	3	ND	18	2.69
091	0	LT	LT	3	3	ND	4	3	ND	ND	12	2.58
092	0	1	LT	3	4	ND	ND	0	ND	ND	10	2.80
094	2	3	4	3	3	ND	1	3	ND	ND	13	2.38
095	2	3	4	ND	4	ND	3	0	ND	ND	13	2.62
096	4	3	4	4	1	3	4	4	ND	ND	16	3.31
097	0	ND	ND	3	3	0	ND	4	ND	ND	12	2.00

TABLE 4 OVERALL LABORATORY PERFORMANCE SRWS T85

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

LAB	ACID@CACO3AG	AL	AS	BA	BE	CD	CU	CR TOT	CU
001	ND	ND	ND	3	2	ND	ND	ND	ND	ND
002	4	3	ND	ND	0	LT	3	ND	LT	4
003	ND	4	2	ND	2	ND	3	ND	3	0
004	ND	LT	ND	4	4	4	3	ND	3	3
005	ND	4	ND	ND	4	ND	4	ND	2	4
007	ND	ND	ND	ND	ND	ND	4	ND	4	ND
009	ND	4	2	4	4	ND	3	ND	2	4
010	1	4	ND	4	4	ND	ND	ND	4	4
012	ND	ND	ND	ND	ND	ND	0	ND	4	1
013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
014	ND	ND	4	4	3	ND	3	ND	ND	4
015	4	3	2	4	4	3	4	4	4	4
016	ND	LT	ND	ND	ND	ND	LT	ND	LT	LT
017	ND	ND	0	ND	4	ND	1	2	1	2
018	ND	ND	3	2	4	ND	3	0	3	2
019	ND	0	3	4	2	4	1	2	4	4
020	4	LT	4	LT	3	LT	LT	LT	4	4
021	0	4	3	4	0	3	4	3	4	4
022	2	3	ND	4	4	3	4	4	3	0
024	4	4	4	2	0	2	0	ND	4	1
025	ND	ND	0	1	4	4	3	4	4	2
026	ND	ND	4	ND	4	1	ND	ND	ND	4
027	4	ND	ND	ND	ND	ND	3	ND	ND	LT
028	4	ND	3	4	2	ND	3	4	0	0
029	ND	ND	ND	ND	ND	ND	ND	ND	ND	4
030	ND	4	ND	ND	ND	ND	ND	ND	4	4
032	ND	0	4	3	3	1	4	ND	4	2
034	ND	0	3	0	2	ND	1	ND	4	4
036	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
037	ND	LT	4	ND	3	LT	ND	ND	ND	1
038	ND	4	3	3	4	4	3	3	3	3
040	ND	3	ND	ND	ND	ND	3	ND	3	4
041	ND	ND	ND	3	ND	ND	3	ND	ND	2
043	ND	4	ND	4	2	ND	2	ND	3	4
044	4	4	ND	1	3	ND	3	ND	4	4
047	2	4	0	3	3	4	4	4	4	4
048	ND	4	ND	LT	ND	ND	4	ND	LT	3
049	ND	ND	ND	ND	4	4	ND	ND	ND	3
050	ND	4	ND	0	ND	ND	3	ND	4	3
051	3	LT	3	LT	3	ND	4	ND	4	4
053	ND	1	4	0	4	1	0	3	4	3
054	ND	0	0	1	ND	ND	0	ND	0	0

TABLE 4 OVERALL LABORATORY PERFORMANCE SRWS T83

RATING
4 (EXCELLENT) 0.00 TO 0.50 STD. DEV.
3 (GOOD) 0.51 TO 1.00 STD. DEV.
2 (SATISFACTORY) 1.01 TO 1.50 STD. DEV.
1 (QUESTIONABLE) 1.51 TO 2.00 STD. DEV.
0 (POOR) > 2.00 STD. DEV.

ABBREVIATIONS
ND = NOT DETERMINED
LT = LESS-THAN VALUE REPORTED, NOT RATED
N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	ACID@CACO3	AG	AL	AS	BA	BE	CD	CO	CR TOT	CU
055	0	4	3	4	3	1	3	4	3	3
056	ND	1	ND	4	4	ND	3	ND	4	4
058	0	4	4	4	4	4	3	3	3	0
059	4	4	3	4	4	4	4	4	4	4
060	3	ND	ND	ND	ND	ND	0	ND	0	0
062	2	ND	ND	ND	ND	ND	ND	ND	ND	ND
063	ND	ND	2	ND	4	ND	3	0	4	4
064	ND	ND	ND	ND	ND	ND	ND	ND	ND	2
065	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
066	ND	3	4	4	ND	ND	4	ND	4	4
067	ND	3	ND	0	0	ND	ND	ND	4	0
068	1	LT	LT	4	LT	LT	4	4	3	3
069	ND	3	4	LT	3	2	3	4	2	4
070	ND	ND	ND	ND	4	ND	4	ND	4	4
071	ND	ND	ND	ND	4	4	4	4	ND	3
072	3	3	4	ND	4	ND	4	ND	4	4
075	ND	3	4	LT	ND	ND	3	ND	4	4
076	ND	ND	ND	4	ND	ND	ND	ND	ND	4
077	1	2	ND	4	0	ND	4	2	3	0
079	3	3	4	4	1	4	4	1	3	4
080	ND	LT	0	LT	4	4	3	0	4	2
081	ND	ND	ND	2	ND	ND	ND	ND	ND	ND
082	ND	ND	ND	ND	ND	ND	ND	ND	1	2
083	ND	ND	ND	ND	ND	ND	0	ND	2	4
084	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
085	4	ND	ND	ND	ND	ND	ND	ND	ND	ND
086	ND	ND	ND	ND	ND	ND	ND	ND	ND	3
091	ND	LT	0	4	0	ND	3	ND	4	3
092	ND	4	ND	LT	3	0	4	4	3	0
094	4	ND	ND	ND	ND	ND	3	0	4	4
095	ND	3	ND	ND	ND	ND	ND	ND	2	ND
096	ND	3	3	4	4	ND	3	ND	4	3
097	ND	ND	ND	ND	ND	ND	4	ND	0	4

TABLE 4 OVERALL LABORATORY PERFORMANCE SRWS T83

RATING
4 (EXCELLENT) 0.00 TO 0.50 STD. DEV.
3 (GOOD) 0.51 TO 1.00 STD. DEV.
2 (SATISFACTORY) 1.01 TO 1.50 STD. DEV.
1 (QUESTIONABLE) 1.51 TO 2.00 STD. DEV.
0 (POOR) > 2.00 STD. DEV.

ABBREVIATIONS
ND = NOT DETERMINED
LT = LESS-THAN VALUE REPORTED, NOT RATED
N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	FE	HG	LI	MN	MO	NI	PB	SB	SE	SR
001	ND	4	ND	ND	ND	ND	2	ND	1	ND
002	4	ND	ND	4	ND	ND	0	ND	ND	ND
003	4	ND	ND	ND	ND	ND	ND	ND	ND	ND
004	3	LT	3	4	ND	4	ND	ND	4	4
005	3	ND	ND	4	ND	ND	ND	ND	2	ND
007	ND	3	ND	4	ND	ND	ND	ND	ND	ND
009	3	0	ND	3	ND	4	3	ND	2	ND
010	ND	ND	ND	4	ND	ND	4	ND	ND	ND
012	0	ND	ND	1	ND	0	3	ND	ND	ND
013	ND	ND	4	ND	ND	ND	ND	ND	ND	0
014	3	ND	4	4	ND	ND	ND	ND	4	4
015	4	4	2	4	3	4	2	2	3	4
016	ND	4	ND	0	ND	LT	4	ND	ND	ND
017	3	ND	ND	4	0	0	0	ND	ND	0
018	3	ND	1	4	4	3	3	ND	4	4
019	3	LT	4	0	2	0	4	3	4	0
020	LT	LT	2	4	LT	LT	3	LT	LT	4
021	3	4	4	4	2	1	3	3	2	4
022	3	4	ND	4	ND	4	2	ND	4	4
024	3	LT	ND	3	ND	4	0	2	4	ND
025	0	ND	4	3	4	4	2	0	ND	4
026	1	ND	4	4	ND	ND	ND	ND	ND	4
027	LT	ND	ND	3	ND	ND	LT	ND	ND	ND
028	0	ND	4	2	4	0	4	ND	4	ND
029	ND	2	ND	ND	ND	ND	ND	ND	ND	ND
030	3	ND	ND	0	ND	4	ND	ND	ND	ND
032	4	2	ND	3	ND	0	4	ND	4	ND
034	4	2	4	4	2	ND	3	ND	2	3
036	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
037	LT	LT	ND	4	ND	4	4	LT	ND	4
038	3	2	3	4	4	4	4	ND	3	4
040	0	ND	ND	ND	ND	4	3	ND	ND	ND
041	4	ND	ND	3	ND	ND	ND	ND	ND	ND
043	4	2	ND	3	ND	ND	3	ND	4	ND
044	4	2	ND	2	ND	ND	2	ND	2	ND
047	3	2	ND	0	ND	2	2	3	4	ND
048	3	LT	ND	0	ND	ND	2	ND	0	ND
049	4	ND	3	4	ND	ND	ND	ND	ND	3
050	3	4	ND	4	ND	ND	4	ND	ND	ND
051	4	0	ND	4	ND	3	LT	ND	4	ND
053	3	ND	1	4	0	4	2	0	4	3
054	0	2	ND	0	0	0	1	ND	0	ND

TABLE 4 OVERALL LABORATORY PERFORMANCE SRWS T83

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

LAB	FE	HG	LI	MN	MO	NI	PB	SB	SE	SR
055	4	4	3	4	2	4	3	3	4	3
056	3	LT	ND	4	ND	ND	3	ND	4	ND
058	4	4	2	3	4	4	2	0	4	4
059	4	LT	4	3	2	4	3	2	3	4
060	4	ND	ND	4	ND	4	3	ND	ND	ND
062	ND	4	ND	ND	ND	ND	ND	ND	ND	ND
063	4	ND	4	4	4	ND	ND	ND	ND	4
064	3	ND	ND	3	ND	ND	ND	ND	ND	ND
065	1	ND	ND	2	ND	ND	ND	ND	ND	ND
066	4	4	ND	4	ND	4	3	ND	4	ND
067	1	1	ND	ND	ND	ND	ND	ND	ND	ND
068	LT	LT	2	2	LT	3	4	3	4	3
069	3	LT	4	4	LT	4	3	LT	0	3
070	3	ND	ND	4	ND	ND	ND	ND	ND	ND
071	3	ND	3	4	4	ND	4	ND	ND	4
072	4	ND	ND	4	ND	3	4	ND	ND	ND
075	1	3	ND	2	ND	LT	4	ND	3	ND
076	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
077	3	2	ND	1	ND	0	3	ND	0	3
079	3	LT	1	4	3	4	4	ND	4	ND
080	0	LT	ND	4	ND	0	4	LT	LT	ND
081	3	4	4	4	4	ND	4	ND	4	4
082	ND	ND	ND	ND	ND	ND	2	ND	ND	0
083	ND	ND	ND	ND	ND	2	2	ND	ND	ND
084	4	2	ND	4	ND	ND	ND	ND	ND	ND
085	0	ND	ND	2	ND	ND	ND	ND	ND	ND
086	4	ND	ND	3	ND	ND	ND	ND	ND	ND
091	1	LT	ND	2	ND	4	LT	ND	3	ND
092	4	LT	ND	0	ND	3	3	3	0	ND
094	ND	ND	ND	4	ND	4	ND	ND	ND	ND
095	3	ND	ND	4	ND	ND	4	ND	ND	ND
096	4	4	ND	4	ND	0	3	ND	3	ND
097	ND	3	ND	4	ND	ND	4	ND	ND	ND

TABLE 4 OVERALL LABORATORY PERFORMANCE SRWS T83

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

LAB	TL	ZN	N	AVG.
001	ND	ND	5	2.40
002	ND	4	9	2.89
003	ND	1	8	2.38
004	ND	3	13	3.54
005	ND	4	9	3.44
007	ND	0	5	3.00
009	ND	4	14	3.00
010	ND	4	9	3.67
012	ND	1	8	1.25
013	ND	ND	2	2.00
014	ND	3	11	3.64
015	ND	3	21	3.38
016	ND	2	4	2.50
017	ND	0	13	1.31
018	ND	1	16	2.75
019	3	2	20	2.45
020	LT	4	10	3.60
021	3	4	22	3.00
022	ND	4	17	3.29
024	LT	0	16	2.25
025	ND	ND	16	2.69
026	ND	3	9	3.22
027	ND	0	4	2.50
028	0	3	17	2.41
029	ND	4	3	3.33
030	ND	0	7	2.71
032	ND	2	15	2.67
034	ND	4	16	2.63
036	ND	4	1	4.00
037	LT	4	8	3.50
038	ND	3	19	3.37
040	ND	3	8	2.88
041	ND	2	6	2.83
043	ND	2	12	3.08
044	ND	3	13	2.92
047	4	1	19	2.79
048	ND	0	8	2.00
049	ND	3	8	3.50
050	ND	4	10	3.30
051	LT	4	12	3.33
053	1	3	20	2.25
054	ND	0	14	0.29

TABLE 4 OVERALL LABORATORY PERFORMANCE SRWS 183

RATING	4 (EXCELLENT)	0.00	TO 0.50	STD. DEV.	
	3 (GOOD)	0.51	TO 1.00	STD. DEV.	
	2 (SATISFACTORY)	1.01	TO 1.50	STD. DEV.	
	1 (QUESTIONABLE)	1.51	TO 2.00	STD. DEV.	
	0 (POOR)		> 2.00	STD. DEV.	

ABBREVIATIONS

ND = NOT DETERMINED

LT = LESS-THAN VALUE REPORTED, NOT RATED

N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED

AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	TL	ZN	N	AVG.
055	ND	4	21	3.14
056	ND	0	11	3.09
058	1	2	22	2.86
059	4	4	21	3.62
060	ND	3	9	2.33
062	ND	ND	2	3.00
063	ND	2	12	3.25
064	ND	4	4	3.00
065	ND	ND	2	1.50
066	ND	3	13	3.77
067	ND	ND	7	1.29
068	LT	4	14	3.14
069	4	4	17	3.18
070	ND	4	7	3.86
071	ND	4	12	3.75
072	ND	3	12	3.67
075	ND	2	11	3.00
076	ND	ND	2	4.00
077	ND	1	16	1.81
079	ND	3	18	3.17
080	ND	0	12	2.08
081	ND	ND	9	3.67
082	ND	2	5	1.40
083	ND	2	6	2.00
084	ND	ND	3	3.33
085	ND	ND	3	2.00
086	ND	4	4	3.50
091	ND	ND	10	2.40
092	3	0	15	2.27
094	ND	4	8	3.38
095	ND	2	6	3.00
096	ND	3	14	3.21
097	ND	4	7	3.29

TABLE 5 OVERALL LABORATORY PERFORMANCE SRWS N8

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

LAB	NH3-N	NO2-N	NO3-N	ORG-N	P, TOTAL	PO4-P	N	AVG.
001	ND	ND	4	ND	0	2	3	2.00
002	1	4	3	LT	LT	LT	3	2.67
003	3	0	0	ND	LT	LT	3	1.00
004	4	ND	4	LT	4	4	4	4.00
005	ND	4	4	ND	ND	ND	2	4.00
006	ND	ND	4	ND	1	ND	2	2.50
009	4	4	4	2	2	2	6	3.00
010	3	0	4	ND	3	LT	4	2.50
011	1	4	4	ND	ND	4	4	3.25
012	3	4	4	3	3	2	6	3.17
014	4	2	4	4	ND	ND	4	3.50
017	0	ND	ND	ND	0	ND	2	0.00
019	4	2	2	ND	0	4	5	2.40
020	2	4	0	ND	3	LT	4	2.25
021	4	4	4	3	4	4	6	3.83
023	ND	ND	0	ND	4	4	3	2.67
024	4	4	0	0	LT	LT	4	2.00
025	4	4	3	3	3	ND	5	3.40
027	4	2	2	ND	4	3	5	3.00
028	4	4	3	4	4	4	6	3.83
029	0	2	4	2	3	4	6	2.50
030	1	4	4	3	3	4	6	3.17
034	3	0	2	ND	3	4	5	2.40
035	4	4	4	3	4	4	6	3.83
036	4	4	4	0	3	3	6	3.00
040	2	2	4	2	3	ND	5	2.60
043	3	ND	2	4	ND	4	4	3.25
044	4	0	4	3	4	4	6	3.17
047	4	4	4	4	3	4	6	3.83
048	2	2	3	ND	LT	LT	3	2.33
051	0	4	2	4	1	0	6	1.83
052	4	4	4	ND	ND	2	4	3.50
053	4	4	0	ND	3	4	5	3.00
054	4	0	3	4	4	2	6	2.83
055	3	2	2	4	4	4	6	3.17
056	4	0	3	ND	2	2	5	2.20
058	0	0	2	3	3	2	6	1.67
059	4	4	4	1	3	LT	5	3.20
060	4	4	4	2	3	ND	5	3.40
061	0	2	3	ND	ND	0	4	1.25
066	2	2	3	3	3	2	6	2.50

TABLE 5 OVERALL LABORATORY PERFORMANCE SRWS N8

RATING
4 (EXCELLENT) 0.00 TO 0.50 STD. DEV.
3 (GOOD) 0.51 TO 1.00 STD. DEV.
2 (SATISFACTORY) 1.01 TO 1.50 STD. DEV.
1 (QUESTIONABLE) 1.51 TO 2.00 STD. DEV.
0 (POOR) > 2.00 STD. DEV.

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	NO2-N	NO3-N	ORG-N	P, TOTAL	PO4-P	N	AVG.
069	0	0	4	1	3	LT	5	1.60
070	4	2	4	ND	3	3	5	3.20
074	3	ND	ND	3	ND	4	3	3.33
075	LT	4	3	2	0	LT	4	2.25
077	3	4	4	ND	1	2	5	2.80
078	2	2	3	ND	LT	LT	3	2.33
079	4	0	4	3	3	LT	5	2.80
080	4	4	2	3	LT	LT	4	3.25
082	4	4	3	ND	3	2	5	3.20
083	ND	4	3	ND	3	2	4	3.00
085	0	ND	4	1	0	2	5	1.40
086	2	ND	ND	3	ND	ND	2	2.50
091	LT	2	4	LT	0	0	4	1.50
092	0	4	4	0	2	2	6	2.00
094	2	2	2	4	0	0	6	1.67
095	2	4	4	3	ND	3	5	3.20
096	3	4	4	2	3	4	6	3.33
097	0	0	0	ND	3	ND	4	0.75

TABLE 6 OVERALL LABORATORY PERFORMANCE SRWS P2

RATING
4 (EXCELLENT) 0.00 TO 0.50 STD. DEV.
3 (GOOD) 0.51 TO 1.00 STD. DEV.
2 (SATISFACTORY) 1.01 TO 1.50 STD. DEV.
1 (QUESTIONABLE) 1.51 TO 2.00 STD. DEV.
0 (POOR) > 2.00 STD. DEV.

ABBREVIATIONS
ND = NOT DETERMINED
LT = LESS-THAN VALUE REPORTED, NOT RATED
N = NUMBER OF CONSTITUENTS LABORATORY DETERMINED
AVG = AVERAGE LABORATORY PERFORMANCE RATING

LAB	CA	CL	F	K	MG	NA	NO3-N	PH	SO4	SP. COND.	N	AVG.
001	3	3	LT	LT	4	1	LT	3	3	1	7	2.57
002	3	3	ND	4	4	0	4	2	3	4	9	3.00
003	4	4	4	4	0	3	3	3	0	3	10	2.80
004	2	4	4	1	4	3	4	0	4	4	10	3.00
005	4	ND	4	4	4	4	ND	3	3	4	8	3.75
009	3	2	4	4	1	3	2	3	3	4	10	2.90
011	0	4	4	LT	4	LT	4	3	3	4	8	3.25
012	ND	0	4	ND	ND	ND	2	4	0	3	6	2.17
013	4	2	0	0	4	4	ND	ND	4	0	8	2.25
014	2	4	4	4	4	3	0	3	4	3	10	3.10
015	4	4	4	2	4	3	4	2	4	1	10	3.20
016	0	LT	ND	LT	4	0	ND	4	0	3	6	1.83
017	4	ND	ND	0	4	4	0	4	ND	0	7	2.29
018	4	4	1	4	0	4	4	ND	4	4	9	3.22
020	4	4	1	4	4	3	LT	3	4	4	9	3.44
023	ND	ND	1	4	ND	0	LT	3	ND	3	5	2.20
024	2	2	4	4	4	4	1	2	2	3	10	2.80
025	3	3	ND	ND	0	0	2	3	ND	3	7	2.00
027	0	0	1	2	ND	4	LT	3	3	4	8	2.13
028	4	0	4	4	4	3	4	4	0	4	10	3.10
030	4	4	4	4	4	3	2	4	3	4	10	3.60
034	3	0	1	1	1	4	2	3	3	4	10	2.20
035	4	4	4	2	1	4	4	4	4	4	10	3.50
037	4	LT	4	4	1	3	LT	2	4	3	8	3.13
041	4	3	ND	4	4	3	ND	0	ND	4	7	3.14
044	4	2	4	2	4	3	2	4	4	4	10	3.30
045	4	ND	ND	4	4	4	ND	4	ND	4	6	4.00
049	0	ND	ND	0	0	0	ND	ND	ND	ND	4	0.00
051	4	LT	ND	2	4	3	LT	3	LT	ND	5	3.20
052	4	2	4	4	0	0	2	4	1	3	10	2.40
054	4	3	ND	0	1	4	1	4	2	4	9	2.56
055	4	4	4	4	4	3	4	1	3	0	10	3.10
058	0	0	4	0	0	LT	4	4	0	2	9	1.56
059	4	4	4	4	4	4	3	1	4	4	10	3.60
060	0	3	1	4	0	0	3	4	3	0	10	1.80
061	4	LT	4	LT	LT	LT	ND	1	4	0	5	2.60
064	3	4	ND	2	1	4	ND	3	3	3	8	2.88
066	4	ND	ND	1	4	1	4	4	ND	0	7	2.57
067	4	0	LT	LT	4	ND	LT	4	2	ND	5	2.80
068	4	4	4	4	4	4	4	4	4	3	10	3.90
069	0	3	4	4	0	4	LT	4	4	4	9	3.00

TABLE 6 OVERALL LABORATORY PERFORMANCE SRWS P2

RATING	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	

LAB	CA	CL	F	K	MG	NA	NO3-N	PH	SO4	SP. COND.	N	AVG.
070	4	ND	ND	4	4	3	ND	2	0	ND	6	2.83
071	4	4	ND	ND	4	4	4	ND	4	ND	6	4.00
077	4	2	4	4	1	1	2	3	1	3	10	2.50
078	4	4	4	4	4	1	4	3	4	0	10	3.20
079	4	3	4	1	4	1	4	4	LT	4	9	3.22
083	ND	ND	ND	ND	ND	ND	4	1	ND	ND	2	2.50
085	0	2	4	0	0	1	4	3	0	2	10	1.60
094	3	4	ND	4	4	4	2	4	4	4	9	3.67

TABLE 7 ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR ALK(CACO3)

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	37	12.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
003	29	11.5			
004	31	5.4		TITRATION, COLORIMETRIC, AUTOMATED	3
005	36	9.9		TITRATION, COLORIMETRIC, MANUAL	1,2
007	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
009	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
010	33	0.7		TITRATION, COLORIMETRIC, MANUAL	1,2
011	36	9.9		TITRATION, COLORIMETRIC, MANUAL	1,2
012	30	8.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
014	38	16.0		TITRATION, ELECTROMETRIC, AUTOMATED	4
015	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
018	38	16.0		TITRATION, COLORIMETRIC, AUTOMATED	3
019	20	39.0	REJECT	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
020	37	12.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
021	28	14.5		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
022	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
024	42	28.2	REJECT	TITRATION, COLORIMETRIC, MANUAL	1,2
026	33	0.7		TITRATION, COLORIMETRIC, MANUAL	1,2
027	28	14.5		OTHER	
028	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
029	30	8.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
030	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
032	35	6.8		OTHER	
034	30	8.4		TITRATION, COLORIMETRIC, MANUAL	1,2
035	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
036	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
037	34	3.8		TITRATION, ELECTROMETRIC, AUTOMATED	4
038	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
040	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
043	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
044	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
045	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
046	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
047	29	11.5		OTHER	
050	31	5.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
051	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
052	36	9.9		TITRATION, COLORIMETRIC, AUTOMATED	3
053	30	8.4		OTHER	
054	69	110.6	REJECT	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
055	32	2.3		TITRATION, COLORIMETRIC, MANUAL	1,2
056	38	16.0			
058	53	61.7	REJECT		
059	36	9.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
060	23	29.8	REJECT		
062	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
063	31	5.4		TITRATION, ELECTROMETRIC, AUTOMATED	4
064	30	8.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
065	31	5.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
067	35	6.8		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4

TABLE 7 ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR ALK(CACO3)

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	37	12.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
003	29	11.5			
004	31	5.4		TITRATION, COLORIMETRIC, AUTOMATED	3
005	36	9.9		TITRATION, COLORIMETRIC, MANUAL	1,2
007	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
009	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
010	33	0.7		TITRATION, COLORIMETRIC, MANUAL	1,2
011	36	9.9		TITRATION, COLORIMETRIC, MANUAL	1,2
012	30	8.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
014	38	16.0		TITRATION, ELECTROMETRIC, AUTOMATED	4
015	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
018	38	16.0		TITRATION, COLORIMETRIC, AUTOMATED	3
019	20	39.0	REJECT	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
020	37	12.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
021	28	14.5		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
022	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
024	42	28.2	REJECT	TITRATION, COLORIMETRIC, MANUAL	1,2
026	33	0.7		TITRATION, COLORIMETRIC, MANUAL	1,2
027	28	14.5		OTHER	
028	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
029	30	8.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
030	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
032	35	6.8		OTHER	
034	30	8.4		TITRATION, COLORIMETRIC, MANUAL	1,2
035	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
036	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
037	34	3.8		TITRATION, ELECTROMETRIC, AUTOMATED	4
038	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
040	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
043	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
044	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
045	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
046	33	0.7		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
047	29	11.5		OTHER	
050	31	5.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
051	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
052	36	9.9		TITRATION, COLORIMETRIC, AUTOMATED	3
053	30	8.4		OTHER ,	
054	69	110.6	REJECT	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
055	32	2.3		TITRATION, COLORIMETRIC, MANUAL	1,2
056	38	16.0			
058	53	61.7	REJECT		
059	36	9.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
060	23	29.8	REJECT		
062	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
063	31	5.4		TITRATION, ELECTROMETRIC, AUTOMATED	4
064	30	8.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
065	31	5.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
067	35	6.8		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR ALK(CACO3)

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
068	31	5.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
069	31	5.4		TITRATION, ELECTROMETRIC, AUTOMATED	4
072	32	2.3		TITRATION, COLORIMETRIC, MANUAL	1,2
074	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
075	36	9.9		TITRATION, COLORIMETRIC, MANUAL	1,2
077	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
079	32	2.3		TITRATION, ELECTROMETRIC, AUTOMATED	4
080	37	12.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
081	44	34.3	REJECT	TITRATION, ELECTROMETRIC, AUTOMATED	4
082	35	6.8		TITRATION, COLORIMETRIC, AUTOMATED	3
085	37	12.9		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
086	31	5.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
087	32	2.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
091	31	5.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
094	30	8.4		TITRATION, COLORIMETRIC, MANUAL	1,2
095	34	3.8		TITRATION, ELECTROMETRIC, AUTOMATED	4
096	32	2.3		TITRATION, COLORIMETRIC, MANUAL	1,2
097	45	37.3	REJECT	TITRATION, COLORIMETRIC, MANUAL	1,2

TOTAL RANGE 20 TO 69 MEAN: 32.8
STANDARD DEVIATION 2.5 95 % CONFIDENCE INTRVL OF MEAN 32.8 + OR - 0.7

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR B

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
003	700	121.5	REJECT		
013	20	65.1		COLORIMETRIC, CARMINE (CARMINIC ACID)	2,4
014	100	74.5		COLORIMETRIC, CURCUMIN	1,2,3,4
015	30	47.7		EMISSION, DC PLASMA	
017	30	47.7		EMISSION, IC PLASMA	
018	10	82.6		EMISSION, IC PLASMA	
019	30	47.7		EMISSION, DC PLASMA	
020	110	91.9		COLORIMETRIC, CURCUMIN	1,2,3,4
021	60	4.7		COLORIMETRIC, CURCUMIN	1,2,3,4
022	30	47.7		EMISSION, IC PLASMA	
024	260	353.7	REJECT	COLORIMETRIC, CURCUMIN	1,2,3,4
025	170	196.6		EMISSION, DC PLASMA	
026	20	65.1		EMISSION, DC PLASMA	
032	150	161.7		COLORIMETRIC, CURCUMIN	1,2,3,4
034	10	82.6		OTHER	
038	30	47.7		EMISSION, IC PLASMA	
053	130	126.8		COLORIMETRIC, CURCUMIN	1,2,3,4
054	210	266.4		COLORIMETRIC, AZOMETHINE, AUTOMATED	5
055	40	30.2		COLORIMETRIC, DIANTHRIMIDE	4
056	100	74.5		OTHER	
058	0	100.0			
059	30	47.7		EMISSION, DC PLASMA	
063	30	47.7		EMISSION, IC PLASMA	
068	30	47.7		EMISSION, IC PLASMA	
072	320	458.4	REJECT	COLORIMETRIC, CARMINE (CARMINIC ACID)	2,4
081	20	65.1		COLORIMETRIC, CARMINE (CARMINIC ACID)	2,4
085	70	22.1		COLORIMETRIC, AZOMETHINE, AUTOMATED	5
087	30	47.7		COLORIMETRIC, CARMINE (CARMINIC ACID)	2,4
096	0	100.0		EMISSION, IC PLASMA	

TOTAL RANGE 0 TO 700 MEAN: 57
STANDARD DEVIATION 56 95 % CONFIDENCE INTRVL OF MEAN 57 + OR - 23

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE 882 REPORT FOR BR

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
015	0.230	2.2		OTHER	
018	0.216	4.0		OTHER	
020	0.440	95.6		COLORIMETRIC, CHLORAMINE-T	1
026	0.240	6.7		OTHER	
053	0.860	282.2	REJECT	OTHER	
058	0.099	56.0			
059	0.120	46.7		COLORIMETRIC, CATALYTIC OXIDATION	2,4
063	0.230	2.2		COLORIMETRIC, CHLORAMINE-T	1
068	0.270	20.0		OTHER	
069	0.310	37.8		COLORIMETRIC, CHLORAMINE-T	1
071	0.190	15.6		OTHER	
087	0.130	42.2		COLORIMETRIC, CATALYTIC OXIDATION	2,4

TOTAL RANGE 0.099 TO 0.860 MEAN: 0.225
STANDARD DEVIATION 0.096 95 % CONFIDENCE INTRVL OF MEAN 0.225 + OR - 0.065

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR CA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	13.6	2.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
002	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003	8.9	35.8	REJECT		
004	13.2	4.8		EMISSION, IC PLASMA	5
005	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	11.0	20.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	16.0	15.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	14.0	0.9		TITRATION, EDTA	1,3
016	22.0	58.6	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	13.8	0.5		EMISSION, IC PLASMA	5
018	15.0	8.1		EMISSION, IC PLASMA	5
019	10.0	27.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	14.0	0.9		EMISSION, IC PLASMA	5
024	8.0	42.3	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025	15.0	8.1		OTHER	
026	14.0	0.9		TITRATION, EDTA	1,3
027	4.9	64.7	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028	13.4	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
031	13.5	2.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032	18.0	29.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037	13.3	4.1		OTHER	
038	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041	15.0	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043	15.0	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	15.0	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	15.0	8.1		EMISSION, IC PLASMA	5
051	10.2	26.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053	38.0	174.0	REJECT	TITRATION, EDTA	1,3
054	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	20.0	44.2	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058	13.8	0.5			
059	14.0	0.9		EMISSION, IC PLASMA	5
060	32.0	130.7	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	16.0	15.4		TITRATION, EDTA	1,3
062	14.0	0.9		EMISSION, IC PLASMA	5
063	15.0	8.1		EMISSION, IC PLASMA	5

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR CA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
064	12.4	10.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
065	11.0	20.7		TITRATION, EDTA	1,3
066	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	15.0	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069	22.8	64.4	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
070	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071	13.0	6.3		EMISSION, IC PLASMA	5
072	14.4	3.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	12.0	13.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	15.0	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
080	14.0	0.9		TITRATION, EDTA	1,3
081	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	14.5	4.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
084	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
085	18.0	29.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
086	14.0	0.9		TITRATION, EDTA	1,3
087	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
091	14.0	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
092	13.5	2.7		TITRATION, EDTA	1,3
094	13.0	6.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
095	15.0	8.1		EMISSION, IC PLASMA	5
096	14.0	0.9		EMISSION, IC PLASMA	5
097	14.0	0.9		TITRATION, EDTA	1,3

TOTAL RANGE 4.9 TO 38.0 MEAN: 13.87
STANDARD DEVIATION 1.35 95 % CONFIDENCE INTRVL OF MEAN 13.87 + OR - 0.33

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR CL

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002		2.5	9.8		TITRATION, MERCURIC NITRATE	1,2,3,4
003		3.1	11.9			
004		2.6	6.2		OTHER	
005		1.5	45.9		TITRATION, SILVER NITRATE	1,2,4
006		5.3	91.3		TITRATION, MERCURIC NITRATE	1,2,3,4
007		2.0	27.8		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
009		2.5	9.8		TITRATION, SILVER NITRATE	1,2,4
011		3.2	15.5		COLORIMETRIC, FERRIC THIOCYANATE, MANUAL	2,4
012		5.0	80.4		TITRATION, SILVER NITRATE	1,2,4
013		2.6	6.2		TITRATION, SILVER NITRATE	1,2,4
014		2.5	9.8		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
015		2.4	13.4		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
016		2.0	27.8		TITRATION, MERCURIC NITRATE	1,2,3,4
018		2.6	6.2		ION-CHROMATOGRAPHY	2,6
019		2.3	17.0		ION-CHROMATOGRAPHY	2,6
020		2.5	9.8		TITRATION, MERCURIC NITRATE	1,2,3,4
021		2.8	1.0		TITRATION, MERCURIC NITRATE	1,2,3,4
022		2.2	20.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
024		4.6	66.0		ION-SELECTIVE ELECTRODE	2
025		2.7	2.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
026		2.4	13.4		TITRATION, SILVER NITRATE	1,2,4
027		6.0	116.5	REJECT	TITRATION, MERCURIC NITRATE	1,2,3,4
028		3.0	8.3		OTHER	
030		3.0	8.3		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
031		2.2	20.6		ION-CHROMATOGRAPHY	2,6
032		2.8	1.0		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
034		2.5	9.8		TITRATION, SILVER NITRATE	1,2,4
035		2.7	2.6		TITRATION, MERCURIC NITRATE	1,2,3,4
036		3.0	8.3		TITRATION, MERCURIC NITRATE	1,2,3,4
037		2.0	27.8		TITRATION, MERCURIC NITRATE	1,2,3,4
038		3.0	8.3		TITRATION, MERCURIC NITRATE	1,2,3,4
040		2.0	27.8		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
041		1.7	38.7		TITRATION, SILVER NITRATE	1,2,4
043		2.7	2.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
044		3.3	19.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
046		4.0	44.4		TITRATION, SILVER NITRATE	1,2,4
047		3.0	8.3		OTHER	
048	<	2.0	***	IGNORED	TITRATION, SILVER NITRATE	1,2,4
050		4.0	44.4		TITRATION, MERCURIC NITRATE	1,2,3,4
051	<	1.0	***	IGNORED	TITRATION, SILVER NITRATE	1,2,4
052		2.6	6.2		OTHER	
053		7.0	152.6	REJECT	TITRATION, MERCURIC NITRATE	1,2,3,4
054		26.0	858.3	REJECT	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
055		2.7	2.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
056		2.6	6.2		TITRATION, MERCURIC NITRATE	1,2,3,4
058		3.3	19.1			
059		2.7	2.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
060		3.0	8.3		TITRATION, SILVER NITRATE	1,2,4
061		3.7	33.5		TITRATION, SILVER NITRATE	1,2,4

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR CL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
062	2.8	1.0		TITRATION, SILVER NITRATE	1,2,4
063	2.8	1.0		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
064	3.3	19.1		TITRATION, MERCURIC NITRATE	1,2,3,4
065	2.1	24.2		TITRATION, SILVER NITRATE	1,2,4
067	2.5	9.8		TITRATION, SILVER NITRATE	1,2,4
068	2.7	2.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
069	3.0	8.3		TITRATION, SILVER NITRATE	1,2,4
070	3.0	8.3		TITRATION, SILVER NITRATE	1,2,4
071	2.3	17.0		ION-CHROMATOGRAPHY	2,6
072	2.7	2.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
074	7.4	167.1	REJECT	COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
075	2.0	27.8		TITRATION, SILVER NITRATE	1,2,4
077	2.2	20.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
079	2.2	20.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
080	1.0	63.9		TITRATION, SILVER NITRATE	1,2,4
081	2.0	27.8		TITRATION, SILVER NITRATE	1,2,4
082	4.2	51.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
085	2.5	9.8		TITRATION, MERCURIC NITRATE	1,2,3,4
086	5.3	91.3		TITRATION, SILVER NITRATE	1,2,4
087	4.0	44.4		COLORIMETRIC, FERRIC THIOCYANATE, MANUAL	2,4
091	3.0	8.3		TITRATION, SILVER NITRATE	1,2,4
092	2.5	9.8		TITRATION, SILVER NITRATE	1,2,4
094	1.8	35.0		TITRATION, MERCURIC NITRATE	1,2,3,4
095	3.3	19.1			
096	2.0	27.8		TITRATION, SILVER NITRATE	1,2,4
097	1.2	56.7		TITRATION, SILVER NITRATE	1,2,4

TOTAL RANGE 1.0 TO 26.0 MEAN: 2.77
STANDARD DEVIATION 0.83 95 % CONFIDENCE INTRVL OF MEAN 2.77 + OR - 0.20

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR OSRO 180

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	87	0.3		RESIDUE, FILTRABLE	1
003	80	8.3			
004	82	6.0		RESIDUE ON EVAPORATION	4
007	84	3.7		RESIDUE, FILTRABLE	1
009	86	1.4		RESIDUE ON EVAPORATION	4
011	91	4.3		RESIDUE, FILTRABLE	1
012	108	23.8		RESIDUE, FILTRABLE	3
014	82	6.0		RESIDUE, FILTRABLE	1
015	104	19.2		RESIDUE ON EVAPORATION	4
019	89	2.0		RESIDUE, FILTRABLE	1
020	90	3.1		RESIDUE, FILTRABLE	1
021	70	19.8		RESIDUE, FILTRABLE	1
022	98	12.3		RESIDUE, FILTRABLE	3
024	57	34.7		RESIDUE, FILTRABLE	3
027	93	6.6		RESIDUE, FILTRABLE	1
028	82	6.0		RESIDUE, FILTRABLE	1
029	83	4.9		RESIDUE ON EVAPORATION	4
032	94	7.7		RESIDUE ON EVAPORATION	4
034	85	2.6		RESIDUE, FILTRABLE	1
035	87	0.3		RESIDUE ON EVAPORATION	4
037	85	2.6		RESIDUE, FILTRABLE	3
038	86	1.4		RESIDUE, FILTRABLE	1
043	117	34.1		RESIDUE, FILTRABLE	1
044	53	39.3		RESIDUE, FILTRABLE	1
045	90	3.1		RESIDUE ON EVAPORATION	2
046	96	10.0		RESIDUE ON EVAPORATION	4
047	92	5.4		RESIDUE, FILTRABLE	1
053	89	2.0		RESIDUE, FILTRABLE	1
054	218	149.8	REJECT	RESIDUE, FILTRABLE	3
055	87	0.3		RESIDUE ON EVAPORATION	4
058	76	12.9			
059	84	3.7		RESIDUE, FILTRABLE	3
061	78	10.6		RESIDUE, FILTRABLE	1
062	84	3.7		RESIDUE ON EVAPORATION	4
064	85	2.6		RESIDUE, FILTRABLE	1
065	83	4.9		RESIDUE ON EVAPORATION	4
066	76	12.9		RESIDUE ON EVAPORATION	4
067	88	0.8		RESIDUE, FILTRABLE	1
068	77	11.8		RESIDUE, FILTRABLE	3
072	90	3.1		RESIDUE ON EVAPORATION	2
075	89	2.0		RESIDUE, FILTRABLE	1
077	85	2.6		RESIDUE ON EVAPORATION	4
079	108	23.8		RESIDUE ON EVAPORATION	2
080	136	55.8	REJECT	RESIDUE ON EVAPORATION	2
081	97	11.2		RESIDUE ON EVAPORATION	4
082	95	8.9		RESIDUE ON EVAPORATION	2
084	87	0.3		RESIDUE, FILTRABLE	1
085	68	22.1		RESIDUE, FILTRABLE	1
087	91	4.3		RESIDUE, FILTRABLE	1
091	86	1.4		RESIDUE, FILTRABLE	1
092	85	2.6		RESIDUE, FILTRABLE	1
094	120	37.5		RESIDUE ON EVAPORATION	2
095	98	12.3		RESIDUE, FILTRABLE	3
096	80	8.3		RESIDUE, FILTRABLE	1
097	88	0.8		RESIDUE ON EVAPORATION	2

TOTAL RANGE 53 TO 218 MEAN: 87.3
STANDARD DEVIATION 11.8 95 % CONFIDENCE INTRVL OF MEAN 87.3 + OR - 3.2

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR F

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	0.5	11.7		ION CHROMATOGRAPHY	2,6
003	0.6	6.0			
004	0.6	6.0		OTHER	
005	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
007	0.7	23.6		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
009	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
011	0.5	11.7		ION SELECTIVE ELECTRODE, AUTOMATED	4
012	0.4	29.3		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
013	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
014	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
015	0.5	11.7		ION CHROMATOGRAPHY	2,6
018	0.5	11.7		ION CHROMATOGRAPHY	2,6
019	0.9	59.0	REJECT	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
020	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
021	0.5	11.7		ION SELECTIVE ELECTRODE, AUTOMATED	4
022	0.5	11.7		COLORIMETRIC, LANTHANUM ALIZARIN "COMPLEXONE", AUTOMATED	1
024	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
026	0.6	6.0		COLORIMETRIC, SPADNS	1,2,3
027	0.6	6.0		COLORIMETRIC, SPADNS	1,2,3
028	0.6	6.0		ION SELECTIVE ELECTRODE, AUTOMATED	4
030	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
031	0.8	41.3		ION CHROMATOGRAPHY	2,6
032	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
034	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
035	0.6	6.0		COLORIMETRIC, ZIRCONIUM ERIOCHROME	4
036	0.6	6.0		ION SELECTIVE ELECTRODE, AUTOMATED	4
037	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
038	0.5	11.7		COLORIMETRIC, LANTHANUM ALIZARIN "COMPLEXONE", AUTOMATED.	1
043	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
044	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
046	0.5	11.7		COLORIMETRIC, ZIRCONIUM ERIOCHROME	4
047	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
048	0.6	6.0		COLORIMETRIC, SPADNS	1,2,3
052	0.5	11.7		ION SELECTIVE ELECTRODE, AUTOMATED	4
053	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
055	0.5	11.7		ION SELECTIVE ELECTRODE, AUTOMATED	4
056	0.7	23.6		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
058	0.6	6.0			
059	0.5	11.7		ION SELECTIVE ELECTRODE, AUTOMATED	4
060	0.7	23.6		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
061	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
062	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
063	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
065	0.4	29.3		COLORIMETRIC, ZIRCONIUM ERIOCHROME	4
067	0.8	41.3		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
068	0.5	11.7		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
069	0.6	6.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
071	0.6	6.0		ION CHROMATOGRAPHY	2,6
072	0.6	6.0		COLORIMETRIC, LANTHANUM ALIZARIN "COMPLEXONE", AUTOMATED	1

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR F

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
075	0.6	6.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
077	0.5	11.7	ION SELECTIVE ELECTRODE, AUTOMATED	4
079	0.5	11.7	ION SELECTIVE ELECTRODE, AUTOMATED	4
080	0.5	11.7	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
081	0.6	6.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
082	0.7	23.6	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
084	0.6	6.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
085	0.5	11.7	COLORIMETRIC, SPADNS	1,2,3
087	0.6	6.0	COLORIMETRIC, SPADNS	1,2,3
091	0.5	11.7	COLORIMETRIC, LANTHANUM ALIZARIN "COMPLEXONE", AUTOMATED	1
092	0.6	6.0	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
095	0.8	41.3	COLORIMETRIC, ZIRCONYL ALIZARIN	1
096	0.5	11.7	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
097	0.5	11.7	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4

TOTAL RANGE 0.4 TO 0.9 MEAN: 0.57
STANDARD DEVIATION 0.08 95 % CONFIDENCE INTRVL OF MEAN 0.57 + OR - 0.02

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR I

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
015	0.044	9.8		
055	0.040	18.0	COLORIMETRIC, CERIC ARSENIOUS OXIDATION, MANUAL	2,4
058	0.049	0.4		
059	0.051	4.5	COLORIMETRIC, CERIC ARSENIOUS OXIDATION, AUTOMATED	4
063	0.060	23.0	COLORIMETRIC, CERIC ARSENIOUS OXIDATION, AUTOMATED	4

TOTAL RANGE 0.040 TO 0.060 MEAN: 0.049
STANDARD DEVIATION 0.008 95 % CONFIDENCE INTRVL OF MEAN 0.049 + OR - 0.009

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR K

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	1.8	4.0			
002	1.7	9.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003	1.9	1.3			
004	1.8	4.0			
005	1.8	4.0			
007	2.0	6.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	2.0	6.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	1.9	1.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	1.9	1.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	1.9	1.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014	1.9	1.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	1.6	14.7		OTHER	
016	1.1	41.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	1.8	4.0		OTHER	
018	2.1	12.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
019	1.1	41.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	1.9	1.3			
021	3.0	60.0			
022	2.0	6.7			
024	2.0	6.7			
026	1.9	1.3		OTHER	
027	1.6	14.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028	1.5	20.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	2.2	17.3			
031	2.1	12.0			
032	1.9	1.3			
034	1.9	1.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	1.5	20.0			
037	2.1	12.0		OTHER	
038	2.2	17.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041	2.1	12.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043	2.0	6.7			
044	2.0	6.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	2.0	6.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	3.6	92.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	1.7	9.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	4.7	150.7	REJECT		
051	1.3	30.7			
052	1.8	4.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053	2.0	6.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
054	2.3	22.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	1.5	20.0		OTHER	
056	1.5	20.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058	1.2	36.0			
059	1.9	1.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
060	1.8	4.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	2.7	44.0		FLAME, EMISSION, PHOTOMETRIC	1,2
062	1.7	9.3		OTHER	
063	1.8	4.0		OTHER	

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR K

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
064	2.6	38.7		
065	2.3	22.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066	2.0	6.7		
067	2.0	6.7		
068	1.9	1.3	FLAME, EMISSION, PHOTOMETRIC	1,2
069	1.8	4.0		
070	1.8	4.0		
072	1.9	1.3		
075	2.0	6.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	2.1	12.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	2.1	12.0		
081	1.5	20.0		
082	1.8	4.0		
085	0.8	57.3		
086	1.8	4.0	FLAME, EMISSION, PHOTOMETRIC	1,2
087	1.8	4.0		
091	3.0	60.0		
094	1.6	14.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
095	1.9	1.3	FLAME, EMISSION, PHOTOMETRIC	1,2
096	1.9	1.3	OTHER	
097	1.5	20.0		

TOTAL RANGE 0.8 TO 4.7 MEAN: 1.87
STANDARD DEVIATION 0.37 95 % CONFIDENCE INTRVL OF MEAN 1.87 + OR - 0.09

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR MG

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
002		3.0	15.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003		1.2	66.4	REJECT		
004		3.5	1.9		EMISSION, IC PLASMA	5
005		3.4	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007		4.0	12.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009		5.0	40.1	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011		3.5	1.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013		3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014		3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		3.8	6.5		EMISSION, IC PLASMA	5
016		3.4	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		3.7	3.7		EMISSION, IC PLASMA	5
018		3.6	0.9		EMISSION, IC PLASMA	5
019		3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020		3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022		3.7	3.7		EMISSION, IC PLASMA	5
024		3.0	15.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		3.6	0.9		OTHER	
026		3.6	0.9		TITRATION, EDTA	2
028		3.5	1.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030		3.4	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
031		3.8	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032		4.0	12.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034		3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035		3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037		3.6	0.9		OTHER	
038		3.8	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041		3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043		3.0	15.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044		3.8	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045		3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046		3.5	1.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047		3.4	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049		3.9	9.3		EMISSION, IC PLASMA	5
051		3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052		3.3	7.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053		2.9	18.7		OTHER	
054		3.9	9.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		5.2	45.7	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056		3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058		3.8	6.5			
059		3.6	0.9		EMISSION, IC PLASMA	5
060		8.0	124.1	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	<	0.3	***	IGNORED	TITRATION, EDTA	2
062		3.5	1.9		EMISSION, IC PLASMA	5
063		3.7	3.7		EMISSION, IC PLASMA	5
064		3.4	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR MG

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
065	5.0	40.1	REJECT	OTHER	
066	3.3	7.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	3.5	1.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069	5.6	56.9	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
070	3.8	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071	3.4	4.7			
072	3.5	1.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	3.0	15.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	3.9	9.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	3.5	1.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
080	4.4	23.3		OTHER	
081	3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	3.7	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
084	3.5	1.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
085	4.0	12.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
086	3.6	0.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
087	4.0	12.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
091	2.8	21.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
092	3.7	3.7		OTHER	
094	3.2	10.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
095	3.1	13.1			
096	3.4	4.7		EMISSION, IC PLASMA	5
097	4.7	31.7	REJECT	TITRATION, EDTA	2

TOTAL RANGE 1.2 TO 8.0 MEAN: 3.57
STANDARD DEVIATION 0.29 95 % CONFIDENCE INTRVL OF MEAN 3.57 + OR - 0.07

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE 882 REPORT FOR NA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	6.0	3.2			
002	5.7	8.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003	6.3	1.7			
004	6.5	4.9			
005	6.3	1.7			
007	6.0	3.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	6.4	3.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	6.6	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	5.9	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	6.4	3.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014	6.3	1.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	6.5	4.9		EMISSION, IC PLASMA	5
016	5.9	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	6.5	4.9		EMISSION, IC PLASMA	5
018	6.5	4.9		EMISSION, IC PLASMA	5
019	6.1	1.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	6.1	1.6			
021	6.3	1.7			
022	6.4	3.3			
024	10.0	61.4	REJECT		
025	6.6	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
026	6.5	4.9		EMISSION, IC PLASMA	5
027	6.2	0.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028	6.5	4.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	6.8	9.7			
031	6.2	0.0			
032	6.3	1.7			
034	6.3	1.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	7.2	16.2			
037	6.4	3.3		OTHER	
038	6.1	1.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041	6.6	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043	5.7	8.0			
044	6.7	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	5.4	12.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
046	8.0	29.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	6.5	4.9		FLAME EMISSION, PHOTOMETRIC	1,2
049	7.0	13.0			
051	5.6	9.6			
052	5.8	6.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053	6.0	3.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
054	6.2	0.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	6.0	3.2		OTHER	
056	4.0	35.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058	4.6	25.8			
059	6.5	4.9		EMISSION, IC PLASMA	5
060	6.8	9.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	4.6	25.8		FLAME EMISSION, PHOTOMETRIC	1,2
062	6.4	3.3		EMISSION, IC PLASMA	5

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR NA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
063	6.4	3.3		EMISSION, IC PLASMA	5
064	6.3	1.7			
065	6.0	3.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066	6.2	0.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	6.1	1.6			
069	5.8	6.4			
070	6.4	3.3			
071	6.4	3.3		EMISSION, IC PLASMA	5
072	6.4	3.3			
075	5.8	6.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	6.6	6.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	6.3	1.7			
080	5.6	9.6		FLAME EMISSION, PHOTOMETRIC	1,2
081	6.4	3.3			
082	7.3	17.8			
084	8.2	32.3		FLAME EMISSION, PHOTOMETRIC	1,2
085	6.2	0.0			
086	6.5	4.9		FLAME EMISSION, PHOTOMETRIC	1,2
087	9.0	45.2	REJECT		
091	8.5	37.2			
092	3.8	38.7		OTHER	
094	5.1	17.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
095	5.2	16.1		EMISSION, IC PLASMA	5
096	6.1	1.6		EMISSION, IC PLASMA	5
097	4.4	29.0			

TOTAL RANGE 3.8 TO 10.0 MEAN: 6.20
STANDARD DEVIATION 0.77 95 % CONFIDENCE INTRVL OF MEAN 6.20 + OR - 0.18

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR NO2-N

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
003		0.00	100.0			
009		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
010	<	0.05	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
011	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
012		0.00	100.0		OTHER	
015		0.00	100.0		ION CHROMATOGRAPHY	2,6
019	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
020	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
021		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
024	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
027		0.01	275.1		OTHER	
028		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
029		0.01	275.1		COLORIMETRIC, DIAZOTIZATION	1,3,4
030		0.01	275.1		COLORIMETRIC, DIAZOTIZATION	1,3,4
031		0.00	100.0		ION CHROMATOGRAPHY	2,6
034		0.01	275.1		COLORIMETRIC, DIAZOTIZATION	1,3,4
035		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
037	<	0.01	***	IGNORED	OTHER	
040		0.01	275.1		COLORIMETRIC, DIAZOTIZATION	1,3,4
043		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
044		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
047		0.01	275.1		COLORIMETRIC, DIAZOTIZATION	1,3,4
048	<	0.10	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
051		0.01	275.1		COLORIMETRIC, DIAZOTIZATION	1,3,4
052		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
053		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
055		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
058		0.00	100.0			
059	<	0.00	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
060	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
061	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
063		0.00	100.0		ION CHROMATOGRAPHY	2,6
066	<	0.01	***	IGNORED	OTHER	
067	<	0.10	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
068	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
069	<	0.01	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
071		0.00	100.0		ION CHROMATOGRAPHY	2,6
075	<	0.00	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
077		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
079		0.02	650.2	REJECT	ION CHROMATOGRAPHY	2,6
080	<	0.00	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
082	<	0.00	***	IGNORED	COLORIMETRIC, DIAZOTIZATION	1,3,4
085		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
087		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
091	<	0.02	***	IGNORED	ION CHROMATOGRAPHY	2,6
092		0.01	275.1		COLORIMETRIC, DIAZOTIZATION	1,3,4
094		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	1,3,4
095		0.00	100.0		OTHER	1,3,4
096		0.00	100.0		COLORIMETRIC, DIAZOTIZATION	

TOTAL RANGE 0.00 TO 0.02 MEAN: 0.003
STANDARD DEVIATION 0.004 95 % CONFIDENCE INTRVL OF MEAN 0.003 + OR - 0.002

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR NO3-N

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	<	0.4	***	IGNORED	ION CHROMATOGRAPHY	2,6
002	<	0.1	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
003		0.0	100.0			
004	<	0.0	***	IGNORED	OTHER	
006		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
007		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
009		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
010	<	0.1	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
011	<	0.0	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
012		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
015		0.0	100.0		ION CHROMATOGRAPHY	2,6
019		0.1	485.7		COLORIMETRIC, BRUCINE	1,2,3,4
020	<	0.1	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
021		0.0	100.0		COLORIMETRIC, DEVARDA'S ALLOY REDUCTION, DIAZOTIZATION	1
022		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
024		0.3	657.2	REJECT	COLORIMETRIC, BRUCINE	1,2,3,4
027	<	0.1	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
028		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
029		0.1	485.7		COLORIMETRIC, BRUCINE	1,2,3,4
030		0.1	485.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
031		0.0	100.0		ION CHROMATOGRAPHY	2,6
032		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
034		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
035		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
037	<	0.1	***	IGNORED	COLORIMETRIC, DEVARDA'S ALLOY REDUCTION, DIAZOTIZATION	1
040		0.1	485.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
043		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
044		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
046		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
047		0.1	485.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
048	<	0.1	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
051	<	0.1	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
052		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
053		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
054		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
055		0.0	100.0		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
056	<	0.1	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
058		0.0	100.0			
059	<	0.0	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
060		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
061		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
063		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
066	<	0.1	***	IGNORED	OTHER	
067	<	0.1	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
068	<	0.0	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
069	<	0.0	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
071		0.0	100.0		ION CHROMATOGRAPHY	2,6
072		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
075		0.1	485.7		COLORIMETRIC, BRUCINE	1,2,3,4

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR NO3-N

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
077		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
079		0.2	71.4	REJECT	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
080	<	0.1	***	IGNORED	COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
081		0.0	100.0		OTHER	
082	<	0.0	***	IGNORED	COLORIMETRIC, DEVARDA'S ALLOY REDUCTION, DIAZOTIZATION	1
083		0.1	485.7		COLORIMETRIC, BRUCINE	1,2,3,4
084		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
085		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
087		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
091	<	0.0	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
092	<	0.0	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
094		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
095		0.0	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
096		0.0	100.0		COLORIMETRIC, BRUCINE	1,2,3,4

TOTAL RANGE 0.0 TO 0.4 MEAN: 0.02
STANDARD DEVIATION 0.04 95 % CONFIDENCE INTRVL OF MEAN 0.02 + OR - 0.01

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR P, TOTAL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	2.70	565.5	REJECT	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
002	0.18	11.0		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
003	0.17	4.9			
004	0.20	23.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
006	0.36	122.1	REJECT	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
009	0.18	11.0		OTHER	
010	0.19	17.2		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
012	0.15	7.5		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
014	0.15	7.5		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
015	0.14	13.6		EMISSION, IC PLASMA	
017	0.20	23.4		EMISSION, IC PLASMA	
019	0.22	35.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
020	0.17	4.9		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
021	0.17	4.9		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
022	0.14	13.6		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
024	0.22	35.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
025	0.14	13.6		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
027	0.15	7.5		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
028	0.09	44.5		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
029	0.26	60.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
030	0.15	7.5		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
032	0.20	23.4		OTHER	
034	0.15	7.5		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
035	0.15	7.5		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
037	0.10	38.3		EMISSION, IC PLASMA	
038	0.14	13.6		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
040	0.13	19.8		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
043	1.50	825.3	REJECT	COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
044	0.05	69.2		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
045	0.17	4.9		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
047	0.17	4.9		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
048	0.18	11.0		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
051	0.39	140.6	REJECT	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
053	0.17	4.9		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
054	0.16	1.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
055	0.16	1.3		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
056	0.06	63.0		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
058	0.17	4.9			
059	0.15	7.5		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
060	0.12	26.0		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
066	0.15	7.5		OTHER	
068	0.17	4.9		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
069	0.12	26.0		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
072	0.14	13.6		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
075	0.20	23.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
077	0.16	1.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
079	0.17	4.9		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
080	0.16	1.3		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
082	0.17	4.9		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR P, TOTAL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
083	0.31	91.2	REJECT	OTHER	
085	0.23	41.9		OTHER	
087	0.13	19.8		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
091	0.19	17.2		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
092	0.20	23.4		OTHER	
094	0.19	17.2		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
096	0.16	1.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
097	0.19	17.2		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4

TOTAL RANGE 0.05 TO 2.70 MEAN: 0.162
STANDARD DEVIATION 0.038 95 % CONFIDENCE INTRVL OF MEAN 0.162 + OR - 0.011

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR PH

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	6.9	0.1		
002	6.5	5.7	ELECTROMETRIC	1,2,3,4
003	6.7	2.8		
004	6.9	0.1		
005	7.0	1.6		
009	7.8	13.2	ELECTROMETRIC	1,2,3,4
011	7.0	1.6	ELECTROMETRIC	1,2,3,4
012	7.3	5.9		
013	5.9	14.4		
014	6.8	1.3		
015	7.5	8.8	ELECTROMETRIC	1,2,3,4
016	7.0	1.6		
017	6.3	8.6		
019	6.5	5.7		
020	6.8	1.3		
021	6.6	4.2		
022	6.1	11.5		
024	6.6	4.2		
025	5.8	15.8		
026	6.3	8.6	ELECTROMETRIC	1,2,3,4
027	6.2	10.0	ELECTROMETRIC	1,2,3,4
028	6.6	4.2	ELECTROMETRIC	1,2,3,4
029	6.9	0.1		
030	6.6	4.2		
031	7.1	3.0		
032	6.9	0.1		
034	7.1	3.0		
035	6.8	1.3		
036	6.8	1.3		
037	7.2	4.5	ELECTROMETRIC	1,2,3,4
038	7.1	3.0		
040	6.8	1.3	ELECTROMETRIC	1,2,3,4
041	7.0	1.6	ELECTROMETRIC	1,2,3,4
043	6.7	2.8		
044	6.3	8.6	ELECTROMETRIC	1,2,3,4
045	7.4	7.4		
046	6.6	4.2		
047	6.7	2.8	ELECTROMETRIC	1,2,3,4
048	7.3	5.9		
050	7.4	7.4		
051	6.7	2.8		
052	6.9	0.1	ELECTROMETRIC	1,2,3,4
053	7.8	13.2	ELECTROMETRIC	1,2,3,4
054	7.0	1.6		
055	7.4	7.4	OTHER	
056	7.3	5.9		
058	6.6	4.2		
059	7.3	5.9	ELECTROMETRIC	1,2,3,4
060	7.2	4.5	OTHER	

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE #82 REPORT FOR PH

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
061	7.4	7.4	ELECTROMETRIC	1,2,3,4
063	6.6	4.2		
064	6.5	5.7		
065	6.8	1.3	ELECTROMETRIC	1,2,3,4
066	6.5	5.7		
067	6.8	1.3		
068	6.8	1.3	OTHER	
069	6.6	4.2		
072	7.0	1.6		
075	6.9	0.1		
079	7.0	1.6		
080	7.8	13.2	ELECTROMETRIC	1,2,3,4
081	6.7	2.8		
082	7.1	3.0		
083	6.3	8.6		
085	7.3	5.9		
086	7.4	7.4	ELECTROMETRIC	1,2,3,4
087	7.0	1.6		
091	7.2	4.5		
092	6.8	1.3	ELECTROMETRIC	1,2,3,4
094	6.5	5.7	OTHER	
095	7.0	1.6	OTHER	
096	7.7	11.7	ELECTROMETRIC	1,2,3,4
097	7.3	5.9		

TOTAL RANGE 5.8 TO 7.8 MEAN: 6.89
STANDARD DEVIATION 0.42 95 % CONFIDENCE INTRVL OF MEAN 6.89 + OR - 0.10

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR SIO2

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
004	8.2	4.3		EMISSION, IC PLASMA	5
007	6.9	12.2		COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
009	8.8	11.9		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
011	8.4	6.8		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
013	8.0	1.8		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
014	7.9	0.5		CO'METRIC,AMINO-NAPTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	3
015	8.4	6.8		EMISSION, IC PLASMA	5
017	7.8	0.8		EMISSION, IC PLASMA	5
018	6.6	16.1		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
019	8.4	6.8		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
020	10.0	27.2	REJECT	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
021	8.2	4.3		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
022	7.2	8.4		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
024	8.2	4.3		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
025	7.2	8.4		COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
026	7.9	0.5		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
028	6.9	12.2		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
032	8.0	1.8		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
034	7.6	3.3		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
035	8.0	1.8		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
037	7.0	11.0		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
038	8.1	3.0		EMISSION, IC PLASMA	5
043	5.1	35.1	REJECT	COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
044	7.7	2.1		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
046	7.6	3.3		COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
047	6.4	18.6		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
048	7.8	0.8		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
049	8.6	9.4		EMISSION, IC PLASMA	5
051	7.1	9.7		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
052	7.6	3.3		OTHER	
054	8.2	4.3		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
055	7.8	0.8		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
056	8.1	3.0		COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
058	4.0	49.1	REJECT		
059	8.2	4.3		EMISSION, IC PLASMA	5
062	7.8	0.8		EMISSION, IC PLASMA	5
063	9.1	15.7		EMISSION, IC PLASMA	5
065	8.5	8.1		COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
068	8.7	10.7		EMISSION, IC PLASMA	5
069	8.2	4.3		CO'METRIC,AMINO-NAPTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	3
071	7.9	0.5		EMISSION, IC PLASMA	5
077	7.6	3.3		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
079	7.0	11.0		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	4
081	7.9	0.5		COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	4
082	8.3	5.6		COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	4
086	8.5	8.1		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
087	7.3	7.2		COLORIMETRIC, MOLYBDOSILICIC ACID	1,2,3
096	8.2	4.3		EMISSION, IC PLASMA	5
097	11.0	39.9	REJECT	CO'METRIC,AMINO-NAPTHOL SULFONIC ACID REDUCE-HETEROPOLY BLUE	3

TOTAL RANGE 4.0 TO 11.0 MEAN: 7.86
STANDARD DEVIATION 0.60 95 % CONFIDENCE INTRVL OF MEAN 7.86 + OR - 0.18

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE #82 REPORT FOR SO4

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	29.0	5.4		ION CHROMATOGRAPHY	2,6
002	21.5	21.8		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
003	34.0	23.6			
004	28.0	1.8		OTHER	
007	29.0	5.4		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
009	26.0	5.5		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
011	25.0	9.1		GRAVIMETRIC, BARIUM SULFATE	1,2,3
012	22.0	20.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
013	29.0	5.4		THORIN TITRATION	2,4
014	27.0	1.9		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
015	28.0	1.8		ION CHROMATOGRAPHY	2,6
016	13.0	52.7	REJECT	COLORIMETRIC, CHLORANILATE, AUTOMATED	3
018	29.0	5.4		ION CHROMATOGRAPHY	2,6
019	27.0	1.9		ION CHROMATOGRAPHY	2,6
020	25.0	9.1		GRAVIMETRIC, BARIUM SULFATE	1,2,3
021	20.0	27.3		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
022	29.0	5.4		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
024	20.0	27.3		GRAVIMETRIC, BARIUM SULFATE	1,2,3
026	26.0	5.5		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
027	25.0	9.1		OTHER	
028	24.0	12.8		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
029	30.0	9.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
030	30.0	9.0		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
031	25.0	9.1		ION CHROMATOGRAPHY	2,6
032	26.0	5.5		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
034	30.0	9.0		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
035	29.0	5.4		THORIN TITRATION	2,4
037	29.5	7.2		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
038	29.0	5.4		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
043	24.0	12.8		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
044	25.0	9.1		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
046	36.0	30.9		THORIN TITRATION	2,4
047	31.0	12.7		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
048	29.7	8.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
051	22.2	19.3		GRAVIMETRIC, BARIUM SULFATE	1,2,3
052	28.0	1.8		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
053	26.0	5.5		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
054	28.0	1.8		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
055	28.0	1.8		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
056	30.0	9.0		GRAVIMETRIC, BARIUM SULFATE	1,2,3
058	27.6	0.3			
059	30.0	9.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
060	29.5	7.2		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
061	27.4	0.4		GRAVIMETRIC, BARIUM SULFATE	1,2,3
062	27.0	1.9		GRAVIMETRIC, BARIUM SULFATE	1,2,3
063	29.0	5.4		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
064	29.4	6.9		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
065	2.9	89.5	REJECT	THORIN TITRATION	2,4
068	27.0	1.9		TURBIDIMETRIC, BARIUM SULFATE	1,2,3

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR SO4

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
069	39.0	41.8	REJECT	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
070	27.0	1.9		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
071	28.0	1.8		ION CHROMATOGRAPHY	2,6
072	28.1	2.1		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
074	31.0	12.7		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
075	28.0	1.8		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
077	27.0	1.9		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
079	30.0	9.0		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
080	30.0	9.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
081	25.0	9.1		GRAVIMETRIC, BARIUM SULFATE	1,2,3
082	22.8	17.1		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
084	30.0	9.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
085	28.0	1.8		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
086	28.0	1.8		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
087	20.0	27.3		GRAVIMETRIC, BARIUM SULFATE	1,2,3
091	26.5	3.7		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
094	33.0	20.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
095	30.0	9.0		ION CHROMATOGRAPHY	2,6
096	29.0	5.4		TURBIDIMETRIC, BARIUM SULFATE	1,2,3

TOTAL RANGE 2.9 TO 39.0 MEAN: 27.51
STANDARD DEVIATION 3.12 95 % CONFIDENCE INTRVL OF MEAN 27.51 + OR - 0.77

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR SP. COND.

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	140	0.8		DIRECT READING INSTRUMENT	4
002	140	0.8		DIRECT READING INSTRUMENT	4
003	113	18.7			
004	140	0.8		DIRECT READING INSTRUMENT	4
005	145	4.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
007	144	3.7		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
009	117	15.8		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
011	140	0.8		DIRECT READING INSTRUMENT	4
012	139	0.1		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
013	137	1.4		DIRECT READING INSTRUMENT	4
014	139	0.1		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
015	149	7.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
016	130	6.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
017	1940	296.5	REJECT	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
018	136	2.1		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
019	132	5.0		DIRECT READING INSTRUMENT	4
020	127	8.6		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
021	134	3.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
022	146	5.1		DIRECT READING INSTRUMENT	4
024	152	9.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
025	128	7.9		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
026	137	1.4		DIRECT READING INSTRUMENT	4
027	137	1.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
028	141	1.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
029	143	2.9		OTHER	
030	137	1.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
031	142	2.2		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
032	116	16.5		DIRECT READING INSTRUMENT	4
034	144	3.7		DIRECT READING INSTRUMENT	4
035	137	1.4		DIRECT READING INSTRUMENT	4
036	124	10.7		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
037	138	0.7		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
038	146	5.1		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
040	138	0.7		DIRECT READING INSTRUMENT	4
041	142	2.2		DIRECT READING INSTRUMENT	4
043	144	3.7		DIRECT READING INSTRUMENT	4
044	141	1.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
045	142	2.2		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
046	145	4.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
047	140	0.8		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
048	140	0.8		DIRECT READING INSTRUMENT	4
050	160	15.2		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
052	127	8.6		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
053	148	6.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
054	143	2.9		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
055	138	0.7		DIRECT READING INSTRUMENT	4
056	148	6.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
058	143	2.9			
059	145	4.4		DIRECT READING INSTRUMENT	4

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR SP. COND.

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
060	20	85.6	REJECT	DIRECT READING INSTRUMENT	4
061	156	12.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
063	135	2.8		DIRECT READING INSTRUMENT	4
064	140	0.8		DIRECT READING INSTRUMENT	4
065	143	2.9		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
066	136	2.1		DIRECT READING INSTRUMENT	4
068	134	3.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
069	134	3.5		DIRECT READING INSTRUMENT	4
072	141	1.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
075	130	6.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
077	140	0.8		DIRECT READING INSTRUMENT	4
079	126	9.3		DIRECT READING INSTRUMENT	4
081	146	5.1		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
082	148	6.5		DIRECT READING INSTRUMENT	4
084	137	1.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
085	144	3.7		DIRECT READING INSTRUMENT	4
086	125	10.0		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
087	153	10.1		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
091	130	6.4		DIRECT READING INSTRUMENT	4
092	98	29.5	REJECT	DIRECT READING INSTRUMENT	4
094	132	5.0		DIRECT READING INSTRUMENT	4
095	161	15.9		OTHER	"
096	139	0.1		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
097	140	0.8		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4

TOTAL RANGE 20 TO 1940 MEAN: 138.9
STANDARD DEVIATION 9.0 95 % CONFIDENCE INTRVL OF MEAN 138.9 + OR - 2.1

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR SR

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
004	110	3.7			
013	40	65.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
014	110	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
015	120	5.0		EMISSION, IC PLASMA	5
017	120	5.0		EMISSION, IC PLASMA	5
018	120	5.0		EMISSION, IC PLASMA	5
019	70	38.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
020	100	12.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
021	110	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
022	120	5.0		EMISSION, IC PLASMA	5
025	120	5.0		EMISSION, IC PLASMA	5
026	120	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
028	0	100.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
034	130	13.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
035	100	12.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
038	120	5.0		EMISSION, IC PLASMA	5
049	120	5.0		EMISSION, IC PLASMA	5
053	130	13.8		OTHER	
055	110	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
058	120	5.0		EMISSION, IC PLASMA	5
059	120	5.0		EMISSION, IC PLASMA	5
063	120	5.0		EMISSION, IC PLASMA	5
068	140	22.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
069	80	30.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
071	120	5.0		EMISSION, IC PLASMA	5
077	110	3.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
079	100	12.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
081	100	12.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
082	160	40.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
087	100	12.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4

TOTAL RANGE 0 TO 160 MEAN: 114
STANDARD DEVIATION 17 95 % CONFIDENCE INTRVL OF MEAN 114 + OR - 7

TABLE 7. ANALYTICAL DATA STANDARD REFERENCE SAMPLE M82 REPORT FOR V

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
015		30	191.3		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,3
019	<	20	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
020	<	100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,3
021		10	2.9		ATOMIC ABSORPTION, FLAMELESS	3
022		3	70.9		EMISSION, IC PLASMA	5
025		4	61.2		EMISSION, IC PLASMA	5
038		4	61.2		EMISSION, IC PLASMA	5
051	<	400	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,3
053		5	51.5		ATOMIC ABSORPTION, FLAMELESS	3
055		33	220.4		COLORIMETRIC, CATALYTIC OXIDATION	4
058		9	12.6		COLORIMETRIC, CATALYTIC OXIDATION	4
059	<	6	***	IGNORED	EMISSION, IC PLASMA	5
063		2	80.6		EMISSION, IC PLASMA	5
068	<	100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,3
069	<	2	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
071		3	70.9		EMISSION, IC PLASMA	5

TOTAL RANGE 2. TO 33 MEAN: 10.3
STANDARD DEVIATION 11.5 95 % CONFIDENCE INTRVL OF MEAN 10.3 + OR - 8.2

TABLE 8. STATISTICS BY METHOD FOR SAMPLE: M82

DETERMINATION: ALK(CACO3)

METHOD	MEAN	STD DEV	N
TITRATION, COLORIMETRIC, AUTOMATED	35.0	2.9	4
TITRATION, COLORIMETRIC, MANUAL	33.0	2.3	10
TITRATION, ELECTROMETRIC, AUTOMATED	32.8	2.1	10
TITRATION, ELECTROMETRIC, MANUAL	32.6	2.3	30
OTHER	30.5	3.1	4
****** OVER ALL ******	32.8	2.5	60

DETERMINATION: B

METHOD	MEAN	STD DEV	N
COLORIMETRIC, CARMINE (CARMINIC ACID)	23	6	3
COLORIMETRIC, CURCUMIN	110	34	5
EMISSION, DC PLASMA	56	64	5
EMISSION, IC PLASMA	23	13	7
****** OVER ALL ******	57	56	26

DETERMINATION: BR

METHOD	MEAN	STD DEV	N
COLORIMETRIC, CHLORAMINE-T	0.327	0.106	3
OTHER	0.229	0.030	5
****** OVER ALL ******	0.225	0.096	11

DETERMINATION: CA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	13.79	1.51	43
EMISSION, IC PLASMA	14.18	0.73	11
TITRATION, EDTA	13.81	1.36	8
****** OVER ALL ******	13.87	1.35	65

DETERMINATION: CL

METHOD	MEAN	STD DEV	N
COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	2.66	0.52	18
ION-CHROMATOGRAPHY	2.35	0.17	4
TITRATION, MERCURIC NITRATE	2.86	0.90	14
TITRATION, SILVER NITRATE	2.67	1.06	23
OTHER	2.80	0.23	4
****** OVER ALL ******	2.77	0.83	69

TABLE 8. STATISTICS BY METHOD FOR SAMPLE: M82

DETERMINATION: DSRD 180

METHOD	MEAN	STD DEV	N
RESIDUE, FILTRABLE	85.1	11.1	25
RESIDUE, FILTRABLE	86.7	16.8	7
RESIDUE ON EVAPORATION	98.5	12.8	6
RESIDUE ON EVAPORATION	88.0	7.6	13
****** OVER ALL ******	87.3	11.8	53

DETERMINATION: F

METHOD	MEAN	STD DEV	N
COLORIMETRIC, LANTHANUM ALIZARIN "COMPLEXONE", AUTOMATED	0.52	0.05	4
COLORIMETRIC, ZIRCONIUM ERIOCHROME	0.50	0.10	3
COLORIMETRIC, SPADNS	0.58	0.04	5
ION CHROMATOGRAPHY	0.58	0.13	5
ION SELECTIVE ELECTRODE, AUTOMATED	0.52	0.04	9
ION SELECTIVE ELECTRODE, MANUAL	0.57	0.08	32
****** OVER ALL ******	0.57	0.08	62

DETERMINATION: I

METHOD	MEAN	STD DEV	N
****** OVER ALL ******	0.049	0.008	5

DETERMINATION: K

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	1.85	0.30	28
FLAME, EMISSION, PHOTOMETRIC	2.07	0.42	4
OTHER	1.79	0.19	8
****** OVER ALL ******	1.87	0.37	68

DETERMINATION: MG

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	3.55	0.28	46
EMISSION, IC PLASMA	3.64	0.15	10
OTHER	3.64	0.53	5
****** OVER ALL ******	3.57	0.29	65

TABLE 8. STATISTICS BY METHOD FOR SAMPLE: M82

DETERMINATION: NA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	6.15	0.67	28
EMISSION, IC PLASMA	6.30	0.41	10
FLAME EMISSION, PHOTOMETRIC	6.28	1.33	5
OTHER	5.40	1.40	3
****** OVER ALL ******	6.20	0.77	72

DETERMINATION: NO2-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, DIAZOTIZATION	0.003	0.005	21
ION CHROMATOGRAPHY	0.000	0.000	4
OTHER	0.003	0.006	3
****** OVER ALL ******	0.003	0.004	30

DETERMINATION: NO3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BRUCINE	0.03	0.05	12
COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	0.01	0.04	21
ION CHROMATOGRAPHY	0.00	0.00	3
****** OVER ALL ******	0.02	0.04	41

DETERMINATION: P, TOTAL

METHOD	MEAN	STD DEV	N
COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	0.156	0.028	10
COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	0.160	0.041	32
EMISSION, IC PLASMA	0.147	0.050	3
OTHER	0.192	0.029	5
****** OVER ALL ******	0.162	0.038	52

DETERMINATION: PH

METHOD	MEAN	STD DEV	N
ELECTROMETRIC	7.04	0.52	21
OTHER	6.98	0.35	5
****** OVER ALL ******	6.89	0.42	73

TABLE 8. STATISTICS BY METHOD FOR SAMPLE: M82

DETERMINATION: SIO2

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	7.33	0.70	6
COLORIMETRIC, MOLYBDOSILICIC ACID	7.95	0.54	11
COLORIMETRIC, SODIUM SULFITE REDUCTION TO MOLYBDATE BLUE	7.70	0.59	6
COLORIMETRIC,ASCORBIC ACID REDUCTION TO MOLYBDATE BLUE,AUTO.	7.67	0.62	8
EMISSION, IC PLASMA	8.27	0.40	11
****** OVER ALL ******	7.86	0.60	45

DETERMINATION: SO4

METHOD	MEAN	STD DEV	N
COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	27.31	2.33	16
GRAVIMETRIC, BARIUM SULFATE	24.62	3.38	9
ION CHROMATOGRAPHY	28.00	1.63	7
THORIN TITRATION	31.33	4.04	3
TURBIDIMETRIC, BARIUM SULFATE	27.89	3.02	26
****** OVER ALL ******	27.51	3.12	65

DETERMINATION: SP. COND.

METHOD	MEAN	STD DEV	N
DIRECT READING INSTRUMENT	137.8	6.7	27
WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	139.6	9.1	39
****** OVER ALL ******	138.9	9.0	70

DETERMINATION: SR

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	109	22	15
EMISSION, IC PLASMA	120	0	11
****** OVER ALL ******	114	17	28

DETERMINATION: V

METHOD	MEAN	STD DEV	N
EMISSION, IC PLASMA	3.2	0.8	5
****** OVER ALL ******	10.3	11.5	10

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR ACID@CACO3

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	1459.0	1.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
010	1600.0	8.2		TITRATION, COLORIMETRIC, MANUAL	1,2,3
015	1500.0	1.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
020	1484.0	0.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
021	3200.0	116.4	REJECT	TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
022	1400.0	5.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
024	1500.0	1.4		TITRATION, COLORIMETRIC, MANUAL	1,2,3
027	1450.0	2.0			
028	1456.0	1.6		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
044	1500.0	1.4		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
047	1400.0	5.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
051	1414.0	4.4		TITRATION, COLORIMETRIC, MANUAL	1,2,3
055	1300.0	12.1		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
058	738.0	50.1	REJECT		
059	1502.0	1.6		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
060	1533.0	3.6			
062	1400.0	5.3		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
068	1600.0	8.2		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
072	1520.0	2.8		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
077	1600.0	8.2		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
079	1442.0	2.5		TITRATION, ELECTROMETRIC, MANUAL	1,2,3,4
085	1500.0	1.4		TITRATION, COLORIMETRIC, MANUAL	1,2,3
094	1500.0	1.4			

TOTAL RANGE 738.0 TO 3200.0 MEAN: 1479.05
STANDARD DEVIATION 73.96 95 % CONFIDENCE INTRVL OF MEAN 1479.05 + OR - 33.67

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR AG

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002		3	28.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
003		2	14.3			
004	<	2	***	IGNORED	OTHER	
005		2	14.3			
009		2	14.3		ATOMIC ABSORPTION, FLAMELESS	3
010		2	14.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
015		3	28.6			
016	<	20	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
019		5	114.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
020	<	10	***	IGNORED		
021		2	14.3			
022		3	28.6			
024		2	14.3			
030		2	14.3			
032		0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
034		0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
037	<	10	***	IGNORED	OTHER	
038		2	14.3		ATOMIC ABSORPTION, FLAMELESS	3
040		3	28.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
043		2	14.3			
044		2	14.3		ATOMIC ABSORPTION, FLAMELESS	3
047		2	14.3		ATOMIC ABSORPTION, FLAMELESS	3
048		2	14.3		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,2,4
050		2	14.3			
051	<	13	***	IGNORED		
053		4	71.4		ATOMIC ABSORPTION, FLAMELESS	3
054		0	100.0			
055		2	14.3			
056		4	71.4			
058		2	14.3		ATOMIC ABSORPTION, FLAMELESS	3
059		2	14.3		ATOMIC ABSORPTION, FLAMELESS	3
066		3	28.6			
067		3	28.6		OTHER	
068	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
069		3	28.6			
072		3	28.6			
075		3	28.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3
077		1	57.1			
079		3	28.6			
080	<	5	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
091	<	5	***	IGNORED		
092		2	14.3		ATOMIC ABSORPTION, FLAMELESS	3
095		3	28.6		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,2,4
096		3	28.6		ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 0 TO 5 MEAN: 2.3
STANDARD DEVIATION 1.0 95 % CONFIDENCE INTRVL OF MEAN 2.3 + OR - 0.4

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR AL

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
003	50	55.6			
009	50	55.6		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
014	100	11.2		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
015	170	51.0		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
017	900	699.4	REJECT	EMISSION, IC PLASMA	
018	160	42.1		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
019	80	28.9		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
020	100	11.2		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
021	80	28.9		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
024	80	28.9		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
025	230	104.3		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
026	100	11.2		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
028	160	42.1		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
032	100	11.2		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
034	150	33.2		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
037	90	20.1		EMISSION, DC PLASMA	
038	80	28.9		EMISSION, IC PLASMA	
047	850	655.0	REJECT	ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
051	160	42.1		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
053	100	11.2		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
054	0	100.0			
055	150	33.2		ATOMIC ABSORPTION,CHELATION EXTRACTION,NITROUS OXIDE,MANUAL	2,4
058	100	11.2		ATOMIC ABSORPTION,CHELATION EXTRACTION,AIR-ACETYLENE,MANUAL	1
059	80	28.9		EMISSION, DC PLASMA	
063	50	55.6		EMISSION, IC PLASMA	
066	90	20.1		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
068	< 100	***	IGNORED	ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
069	110	2.3		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
072	100	11.2		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
075	140	24.4		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3
079	90	20.1		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
080	240	113.2		ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	1,2,3,4
091	230	104.3			
096	70	37.8		ATOMIC ABSORPTION,DIRECT,FLAMELESS	3

TOTAL RANGE 0 TO 900 MEAN: 113
STANDARD DEVIATION 55 95 % CONFIDENCE INTRVL OF MEAN 113 + OR - 20

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR AS

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		2	46.5		ATOMIC ABSORPTION, FLAMELESS	3
004		3	19.7		OTHER	
009		3	19.7		ATOMIC ABSORPTION, FLAMELESS	3
010		4	7.1		ATOMIC ABSORPTION, FLAMELESS	3
014		4	7.1		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
015		4	7.1		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
018		6	60.6		ATOMIC ABSORPTION, FLAMELESS	3
019		3	19.7		ATOMIC ABSORPTION, FLAMELESS	3
020	<	5	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
021		3	19.7		ATOMIC ABSORPTION, FLAMELESS	3
022		3	19.7		ATOMIC ABSORPTION, HYDRIDE,(NABH4),AUTOMATED	4
024		1	73.2		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
025		8	114.2		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
028		3	19.7		ATOMIC ABSORPTION, FLAMELESS	3
032		5	33.9		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
034		57	426.0	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
038		5	33.9		ATOMIC ABSORPTION, FLAMELESS	3
041		2	46.5		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
043		4	7.1		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
044		0	100.0		ATOMIC ABSORPTION, FLAMELESS	3
047		2	46.5		ATOMIC ABSORPTION, FLAMELESS	3
048	<	25	***	IGNORED	SPECTROPHOTOMETRIC,SILVER DIETHYL DITHIOCARBAMATE	2,3,4
050		10	167.7		ATOMIC ABSORPTION, FLAMELESS	3
051	<	1	***	IGNORED	ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
053		10	167.7		ATOMIC ABSORPTION, FLAMELESS	3
054		0	100.0		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
055		3	19.7		ATOMIC ABSORPTION, HYDRIDE,(ZINC),MANUAL	1,2,3,4
056		4	7.1		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
058		3	19.7		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
059		3	19.7		ATOMIC ABSORPTION, HYDRIDE,(NABH4),AUTOMATED	4
066		3	19.7		ATOMIC ABSORPTION, FLAMELESS	3
067		33	783.5	REJECT	ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
068		3	19.7		ATOMIC ABSORPTION, FLAMELESS	3
069	<	1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
075	<	5	***	IGNORED	ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
076		3	19.7		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
077		4	7.1		ATOMIC ABSORPTION, FLAMELESS	3
079		3	19.7		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
080	<	5	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
081		7	87.4		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1
091		3	19.7			
092	<	1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
096		3	19.7		ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	1

TOTAL RANGE 0 TO 57 MEAN: 3.7
STANDARD DEVIATION 2.3 95 % CONFIDENCE INTRVL OF MEAN 3.7 + OR - 0.8

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR BA

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		140	23.5		ATOMIC ABSORPTION, FLAMELESS	3
002		1890	932.7	REJECT	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
003		230	25.7			
004		170	7.1		EMISSION, IC PLASMA	5
005		170	7.1		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
009		170	7.1		ATOMIC ABSORPTION, FLAMELESS	3
010		180	1.7		EMISSION, IC PLASMA	5
014		160	12.6		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
015		170	7.1		ATOMIC ABSORPTION, FLAMELESS	3
017		170	7.1		EMISSION, IC PLASMA	5
018		180	1.7		EMISSION, IC PLASMA	5
019		230	25.7		ATOMIC ABSORPTION, FLAMELESS	3
020		200	9.3		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
021		110	39.9		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
022		180	1.7		EMISSION, IC PLASMA	5
024		280	53.0		ATOMIC ABSORPTION, FLAMELESS	3
025		170	7.1		OTHER	
026		180	1.7		ATOMIC ABSORPTION, FLAMELESS	3
028		140	23.5		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
032		200	9.3		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
034		230	25.7		ATOMIC ABSORPTION, FLAMELESS	3
037		200	9.3		EMISSION, DC PLASMA	2
038		170	7.1		EMISSION, IC PLASMA	5
043		220	20.2		ATOMIC ABSORPTION, FLAMELESS	3
044		210	14.7		ATOMIC ABSORPTION, FLAMELESS	3
047		210	14.7		ATOMIC ABSORPTION, FLAMELESS	3
049		180	1.7		EMISSION, IC PLASMA	5
051		200	9.3		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
053		180	1.7		ATOMIC ABSORPTION, FLAMELESS	3
055		200	9.3		ATOMIC ABSORPTION, FLAMELESS	3
056		170	7.1		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
058		170	7.1		OTHER	
059		180	1.7		EMISSION, IC PLASMA	5
063		180	1.7		EMISSION, IC PLASMA	5
067		310	69.4	REJECT	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
068	<	100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
069		150	18.0		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
070		180	1.7		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
071		190	3.8		EMISSION, IC PLASMA	5
072		190	3.8		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
077		250	36.6		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
079		130	29.0		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
080		170	7.1		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
091		110	39.9			
092		200	9.3		ATOMIC ABSORPTION, FLAMELESS	3
096		170	7.1		EMISSION, IC PLASMA	5

TOTAL RANGE 110 TO 1890 MEAN: 183
STANDARD DEVIATION 33 95 % CONFIDENCE INTRVL OF MEAN 183 + OR - 10

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR BE

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
004		4	17.5		EMISSION, IC PLASMA	5
015		7	44.3		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
019		5	3.1		ATOMIC ABSORPTION, FLAMELESS	3
020	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
021		7	44.3		ATOMIC ABSORPTION, FLAMELESS	3
022		3	38.1		EMISSION, IC PLASMA	5
024		8	64.9		ATOMIC ABSORPTION, FLAMELESS	3
025		5	3.1		EMISSION, IC PLASMA	5
026		10	106.2		EMISSION, IC PLASMA	5
032		0	100.0		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
037	<	10	***	IGNORED	OTHER	
038		4	17.5		EMISSION, IC PLASMA	5
047		5	3.1		ATOMIC ABSORPTION, FLAMELESS	3
049		4	17.5		EMISSION, IC PLASMA	5
053		9	85.6		ATOMIC ABSORPTION, FLAMELESS	3
055		0	100.0		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
058		4	17.5		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
059		5	3.1		EMISSION, IC PLASMA	5
068	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
069		2	58.8		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
071		5	3.1		EMISSION, IC PLASMA	5
079		4	17.5		ATOMIC ABSORPTION, FLAMELESS	3
080		6	23.7		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3,4
092		17	250.5	REJECT	ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 0 TO 17 MEAN: 4.9
STANDARD DEVIATION 2.6 95 % CONFIDENCE INTRVL OF MEAN 4.9 + OR - 1.2

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR CD

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002		5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003		7	20.6			
004		5	13.9		EMISSION, IC PLASMA	5
005		6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
007		6	3.4		ATOMIC ABSORPTION, EXTRACTION,(APDC/MIBK)	1,4
009		5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012		10	72.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014		5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		6	3.4		EMISSION, IC PLASMA	5
016	<	10	***	IGNORED	ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	2
017		8	37.8		EMISSION, IC PLASMA	5
018		5	13.9		ATOMIC ABSORPTION, FLAMELESS	3
019		8	37.8		ATOMIC ABSORPTION, FLAMELESS	3
020	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
022		6	3.4		EMISSION, IC PLASMA	5
024		10	72.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		7	20.6		ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	2
027		7	20.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028		5	13.9		ATOMIC ABSORPTION, FLAMELESS	3
032		6	3.4		ATOMIC ABSORPTION, EXTRACTION,(APDC/MIBK)	1,4
034		8	37.8		ATOMIC ABSORPTION, FLAMELESS	3
038		5	13.9		ATOMIC ABSORPTION, FLAMELESS	3
040		5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041		7	20.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043		4	31.1		ATOMIC ABSORPTION, FLAMELESS	3
044		5	13.9		ATOMIC ABSORPTION, FLAMELESS	3
047		6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
048		6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
050		5	13.9		ATOMIC ABSORPTION, FLAMELESS	3
051		6	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053		2	65.5		ATOMIC ABSORPTION, FLAMELESS	3
054		0	100.0	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
055		5	13.9		ATOMIC ABSORPTION, EXTRACTION,(APDC/MIBK)	1,4
056		5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058		5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
059		6	3.4		ATOMIC ABSORPTION, EXTRACTION,(APDC/MIBK)	1,4
060		2	65.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
063		7	20.6		EMISSION, IC PLASMA	5
066		6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
068		6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
069		5	13.9		ATOMIC ABSORPTION, FLAMELESS	3
070		6	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071		6	3.4		EMISSION, IC PLASMA	5
072		6	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075		5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077		6	3.4		ATOMIC ABSORPTION, EXTRACTION,(APDC/MIBK)	1,4
079		6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
080		5	13.9		ATOMIC ABSORPTION, EXTRACTION,(APDC/MIBK)	1,4

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR CD

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
083	190000	549.0	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
091	5	13.9			
092	6	3.4		ATOMIC ABSORPTION, FLAMELESS	3
094	5	13.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	5	13.9		ATOMIC ABSORPTION, FLAMELESS	3
097	6	3.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0 TO 190000 MEAN: 5.8
STANDARD DEVIATION 1.4 95 % CONFIDENCE INTRVL OF MEAN 5.8 + OR - 0.4

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR CU

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
015		5	10.3		OTHER	
017		8	43.6		EMISSION, IC PLASMA	5
018		11	97.4		ATOMIC ABSORPTION, FLAMELESS	3
019		8	43.6		ATOMIC ABSORPTION, FLAMELESS	3
020	<	50	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		4	28.2		ATOMIC ABSORPTION, FLAMELESS	3
022		5	10.3		EMISSION, IC PLASMA	5
025		6	7.7		EMISSION, IC PLASMA	5
028		5	10.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038		4	28.2		EMISSION, IC PLASMA	5
047		5	10.3		ATOMIC ABSORPTION, FLAMELESS	3
053		7	25.6		ATOMIC ABSORPTION, FLAMELESS	3
055		5	10.3		ATOMIC ABSORPTION, EXTRACTION (PDCA/CHCL3)	1,3
058		4	28.2		ATOMIC ABSORPTION, FLAMELESS	3
059		6	7.7		ATOMIC ABSORPTION, EXTRACTION (PDCA/CHCL3)	1,3
063		1	82.1		EMISSION, IC PLASMA	5
068		6	7.7		ATOMIC ABSORPTION, FLAMELESS	3
069		5	10.3		ATOMIC ABSORPTION, FLAMELESS	3
071		5	10.3		EMISSION, IC PLASMA	5
077		3	46.2		ATOMIC ABSORPTION, EXTRACTION (PDCA/CHCL3)	1,3
079		9	61.5		ATOMIC ABSORPTION, FLAMELESS	3
080		40	617.9	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
092		5	10.3		ATOMIC ABSORPTION, FLAMELESS	3
094		35	528.2	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 1 TO 40 MEAN: 5.6
STANDARD DEVIATION 2.2 95 % CONFIDENCE INTRVL OF MEAN 5.6 + OR - 1.0

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR CR TOT

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003		7	23.0			
004		11	21.0		OTHER	
005		5	45.0		ATOMIC ABSORPTION, FLAMELESS	3
007		10	10.0		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,3,4
009		14	53.9		ATOMIC ABSORPTION, FLAMELESS	3
010		9	1.0		ATOMIC ABSORPTION, FLAMELESS	3
012		9	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		8	12.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
016	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		2	78.0		EMISSION, IC PLASMA	
018		7	23.0		ATOMIC ABSORPTION, FLAMELESS	3
019		8	12.0		EMISSION, IC PLASMA	
020		10	10.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		8	12.0		ATOMIC ABSORPTION, FLAMELESS	3
022		11	21.0		EMISSION, IC PLASMA	
024		10	10.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		9	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028		20	119.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030		8	12.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032		10	10.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034		8	12.0		ATOMIC ABSORPTION, FLAMELESS	3
038		7	23.0		ATOMIC ABSORPTION, FLAMELESS	3
040		11	21.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043		7	23.0		ATOMIC ABSORPTION, FLAMELESS	3
044		9	1.0		ATOMIC ABSORPTION, FLAMELESS	3
047		8	12.0		ATOMIC ABSORPTION, FLAMELESS	3
048	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
050		10	10.0		ATOMIC ABSORPTION, FLAMELESS	3
051		9	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053		8	12.0		ATOMIC ABSORPTION, FLAMELESS	3
054		0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		7	23.0		ATOMIC ABSORPTION, FLAMELESS	3
056		9	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058		7	23.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
059		10	10.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
060		20	119.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
063		8	12.0		EMISSION, IC PLASMA	
066		9	1.0		ATOMIC ABSORPTION, FLAMELESS	3
067		8	12.0		ATOMIC ABSORPTION, FLAMELESS	3
068		6	34.0		ATOMIC ABSORPTION, FLAMELESS	3
069		4	56.0		ATOMIC ABSORPTION, FLAMELESS	3
070		10	10.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
072		8	12.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075		8	12.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077		7	23.0		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,3,4
079		6	34.0		ATOMIC ABSORPTION, FLAMELESS	3
080		9	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082		16	75.9		ATOMIC ABSORPTION, FLAMELESS	3

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR CR TOT

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
083	5	45.0	ATOMIC ABSORPTION, FLAMELESS	3
091	10	10.0		
092	11	21.0	ATOMIC ABSORPTION, FLAMELESS	3
094	10	10.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
095	14	53.9	EMISSION, IC PLASMA	
096	10	10.0	ATOMIC ABSORPTION, FLAMELESS	3
097	17	86.9	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0 TO 20 MEAN: 9.1
STANDARD DEVIATION 3.6 95 % CONFIDENCE INTRVL OF MEAN 9.1 + OR - 1.0

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR CU

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002		43	2.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003		18	57.2			
004		37	11.9		OTHER	
005		45	7.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009		43	2.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010		43	2.3		ATOMIC ABSORPTION, FLAMELESS	3
012		30	28.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014		45	7.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		45	7.1		OTHER	
016	<	20	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		50	19.0		EMISSION, IC PLASMA	5
018		32	23.8		ATOMIC ABSORPTION, FLAMELESS	3
019		39	7.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020		40	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		42	0.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022		60	42.8		EMISSION, IC PLASMA	5
024		30	28.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		50	19.0		OTHER	
026		45	7.1		OTHER	
027	<	100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028		60	42.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
029		39	7.2		OTHER	
030		40	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032		50	19.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034		44	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037		30	28.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038		37	11.9		ATOMIC ABSORPTION, FLAMELESS	3
040		42	0.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041		53	26.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043		41	2.4		ATOMIC ABSORPTION, FLAMELESS	3
044		42	0.0		ATOMIC ABSORPTION, FLAMELESS	3
047		43	2.3		ATOMIC ABSORPTION, FLAMELESS	3
048		36	14.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049		38	9.6		EMISSION, IC PLASMA	5
050		37	11.9		ATOMIC ABSORPTION, FLAMELESS	3
051		41	2.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053		47	11.9		ATOMIC ABSORPTION, FLAMELESS	3
054		0	100.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		46	9.5		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
056		43	2.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058		4	90.5	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
059		44	4.7		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
060		20	52.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
063		44	4.7		EMISSION, IC PLASMA	5
064		50	19.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066		45	7.1		ATOMIC ABSORPTION, FLAMELESS	3
067		60	42.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068		48	14.2		ATOMIC ABSORPTION, EXTRACTION (PDCA/CHCL3)	2,3
069		45	7.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR CU

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
070	40	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071	46	9.5		EMISSION, IC PLASMA	5
072	40	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	40	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
076	40	4.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	7	83.3	REJECT	ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
079	40	4.8		ATOMIC ABSORPTION, FLAMELESS	3
080	50	19.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
082	34	19.1		ATOMIC ABSORPTION, FLAMELESS	3
083	44	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
086	48	14.2		ATOMIC ABSORPTION, FLAMELESS	3
091	35	16.7			
092	3	92.9	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
094	39	7.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096	37	11.9		EMISSION, IC PLASMA	5
097	44	4.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0 TO 60 MEAN: 42.0
STANDARD DEVIATION 7.8 95 % CONFIDENCE INTRVL OF MEAN 42.0 + OR - 2.0

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR FE

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003		30	3.0			
004		40	29.3		OTHER	
005		40	29.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009		20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012		70	126.2	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014		20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		20	35.4		EMISSION, IC PLASMA	5
018		40	29.3		ATOMIC ABSORPTION, FLAMELESS	3
019		40	29.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020	<	50	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022		40	29.3		EMISSION, IC PLASMA	5
024		20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		80	158.5	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
026		50	61.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027	<	100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028		110	255.5	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030		40	29.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037	<	10	***	IGNORED	OTHER	
038		20	35.4		ATOMIC ABSORPTION, FLAMELESS	3
040		240	675.6	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043		30	3.0		ATOMIC ABSORPTION, FLAMELESS	3
044		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047		40	29.3		ATOMIC ABSORPTION, FLAMELESS	3
048		20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049		30	3.0		EMISSION, IC PLASMA	5
050		20	35.4		ATOMIC ABSORPTION, FLAMELESS	3
051		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053		20	35.4		EMISSION, IC PLASMA	5
054		0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056		40	29.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058		30	3.0		OTHER	
059		30	3.0		EMISSION, IC PLASMA	5
060		30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
063		30	3.0		EMISSION, IC PLASMA	5
064		40	29.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
065		50	61.6		OTHER	
066		30	3.0		ATOMIC ABSORPTION, FLAMELESS	3
067		10	67.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	<	50	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069		20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
070		20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071		20	35.4		EMISSION, IC PLASMA	5

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR FE

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
072	30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	50	61.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	40	29.3		OTHER	
079	40	29.3		ATOMIC ABSORPTION, FLAMELESS	3
080	160	417.1	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
081	20	35.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
084	30	3.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
085	60	93.9		OTHER	
086	30	3.0		ATOMIC ABSORPTION, FLAMELESS	3
091	50	61.6			
092	30	3.0		ATOMIC ABSORPTION, FLAMELESS	3
095	40	29.3		OTHER	
096	30	3.0		EMISSION, IC PLASMA	5

TOTAL RANGE 0 TO 240 MEAN: 31
STANDARD DEVIATION 11 95 % CONFIDENCE INTRVL OF MEAN 31 + OR - 3

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR HG

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
004	<	0.1	***	IGNORED	OTHER	
007		0.3	72.3		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
009		1.2	589.4	REJECT	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
015		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
016		0.2	14.9		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
019	<	1.0	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
020	<	0.3	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
021		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
022		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
024	<	1.0	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
029		0.0	100.0		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
032		0.4	129.8		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
034		0.0	100.0		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
037	<	0.0	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
038		0.0	100.0		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
043		0.4	129.8		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
044		0.0	100.0		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
047		0.4	129.8		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
048	<	0.1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
050		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
051		0.6	244.7		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
054		0.0	100.0		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
055		0.2	14.9		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
056	<	0.2	***	IGNORED	OTHER	
058		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
059	<	0.1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
062		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
066		0.2	14.9		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
067		0.5	187.2		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
068	<	0.2	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
069	<	0.7	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
075		0.3	72.3		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
077		0.0	100.0		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	3,4
079	<	0.2	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
080	<	0.5	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
081		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
084		0.0	100.0		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
091	<	1.0	***	IGNORED		
092	<	0.1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
096		0.1	42.6		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4
097		0.3	72.3		ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	1,2,3,4

TOTAL RANGE 0.0 TO 1.2 MEAN: 0.17
STANDARD DEVIATION 0.17 95 % CONFIDENCE INTRVL OF MEAN 0.17 + OR - 0.07

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR LI

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
004	40	15.0	OTHER	
013	50	6.2	EMISSION, FLAME	1
014	50	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
015	60	27.4	OTHER	
018	30	36.3	EMISSION, IC PLASMA	5
019	50	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
020	60	27.4	EMISSION, FLAME	1
021	50	6.2	EMISSION, FLAME	1
025	50	6.2	OTHER	
026	50	6.2	OTHER	
028	50	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
034	50	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
038	40	15.0	EMISSION, IC PLASMA	5
049	40	15.0	EMISSION, IC PLASMA	5
053	30	36.3	OTHER	
055	40	15.0	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
058	60	27.4	OTHER	
059	50	6.2	EMISSION, IC PLASMA	5
063	50	6.2	EMISSION, IC PLASMA	5
068	60	27.4	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
069	50	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
071	40	15.0		
079	30	36.3	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
081	50	6.2	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4

TOTAL RANGE 30 TO 60 MEAN: 47
STANDARD DEVIATION 9 95 % CONFIDENCE INTRVL OF MEAN 47 + OR - 4

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR MN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
004	270	2.6		OTHER	
005	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
007	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	290	4.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
010	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
012	240	13.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	280	1.0		ATOMIC ABSORPTION, FLAMELESS	3
016	210	24.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	270	2.6		EMISSION, IC PLASMA	5
018	270	2.6		EMISSION, IC PLASMA	5
019	340	22.6		ATOMIC ABSORPTION, FLAMELESS	3
020	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022	280	1.0		EMISSION, IC PLASMA	5
024	300	8.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025	290	4.6		ATOMIC ABSORPTION, FLAMELESS	3
026	280	1.0		ATOMIC ABSORPTION, FLAMELESS	3
027	300	8.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028	250	9.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	350	26.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032	260	6.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
041	260	6.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043	260	6.2		ATOMIC ABSORPTION, FLAMELESS	3
044	250	9.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047	330	19.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
048	330	19.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	280	1.0		EMISSION, IC PLASMA	5
050	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
051	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053	270	2.6		ATOMIC ABSORPTION, FLAMELESS	3
054	0	100.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
056	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058	260	6.2		ATOMIC ABSORPTION, FLAMELESS	3
059	260	6.2		EMISSION, IC PLASMA	5
060	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
063	280	1.0		EMISSION, IC PLASMA	5
064	290	4.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
065	310	11.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066	280	1.0		ATOMIC ABSORPTION, FLAMELESS	3
068	250	9.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
070	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071	270	2.6		EMISSION, IC PLASMA	5

TABLE 9; ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR MN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
07c	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	250	9.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077	320	15.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
080	270	2.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
081	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
084	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
085	250	9.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
086	300	8.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
091	250	9.8			
09c	430	55.1	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
094	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
095	280	1.0		ATOMIC ABSORPTION, FLAMELESS	3
096	270	2.6		EMISSION, IC PLASMA	5
097	280	1.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0 TO 430 MEAN: 277
STANDARD DEVIATION 23 95 % CONFIDENCE INTRVL OF MEAN 277 + OR - 6

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR MO

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
015	9	20.0			
017	200	677.8	REJECT	EMISSION, IC PLASMA	5
018	12	6.7		ATOMIC ABSORPTION, FLAMELESS	3
019	8	28.9		ATOMIC ABSORPTION, FLAMELESS	3
020	< 100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3
021	15	33.3		ATOMIC ABSORPTION, FLAMELESS	3
025	11	2.2		ATOMIC ABSORPTION, FLAMELESS	3
028	12	6.7		ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3
034	15	33.3		ATOMIC ABSORPTION, FLAMELESS	3
038	10	11.1		EMISSION, IC PLASMA	5
053	18	60.0		ATOMIC ABSORPTION, FLAMELESS	3
054	0	100.0	REJECT	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3
055	7	37.8		ATOMIC ABS,EXTRACTION,8 HYDROXYQUINOLINE/MIBK,NITROUS OXIDE	4
058	10	11.1		EMISSION, IC PLASMA	5
059	8	28.9		ATOMIC ABS,EXTRACTION,8 HYDROXYQUINOLINE/MIBK,NITROUS OXIDE	4
063	12	6.7		EMISSION, IC PLASMA	5
068	< 100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	1,2,3
069	< 1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
071	10	11.1		EMISSION, IC PLASMA	5
079	13	15.6		ATOMIC ABSORPTION, FLAMELESS	3
081	10	11.1		ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 0 TO 200 MEAN: 11.3
STANDARD DEVIATION 2.9 95 % CONFIDENCE INTRVL OF MEAN 11.3 + OR - 1.6

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR NI

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFEREN
004		10	5.6		OTHER	
009		9	15.0		ATOMIC ABSORPTION, FLAMELESS	3
012		44	315.3	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		9	15.0		ATOMIC ABSORPTION, FLAMELESS	3
016	<	20	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		67	532.4	REJECT	OTHER	
018		7	33.9		ATOMIC ABSORPTION, FLAMELESS	3
019		120	52.7	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
020	<	50	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		20	88.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
022		10	5.6		OTHER	
024		10	5.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		10	5.6		OTHER	
028		40	277.6	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030		10	5.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
032		0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037		10	5.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
038		10	5.6		OTHER	
040		12	13.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
047		5	52.8		ATOMIC ABSORPTION, FLAMELESS	3
051		15	41.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053		11	3.8		ATOMIC ABSORPTION, FLAMELESS	3
054		0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		9	15.0		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
058		9	15.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
059		9	15.0		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
060		12	13.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066		10	5.6		ATOMIC ABSORPTION, FLAMELESS	3
068		8	24.5		ATOMIC ABSORPTION, FLAMELESS	3
069		11	3.8		ATOMIC ABSORPTION, FLAMELESS	3
072		13	22.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075	<	100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
077		21	98.2		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
079		9	15.0		ATOMIC ABSORPTION, FLAMELESS	3
080		22	107.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
083		17	60.5		ATOMIC ABSORPTION, FLAMELESS	3
091		12	13.3			
092		8	24.5		ATOMIC ABSORPTION, FLAMELESS	3
094		11	3.8		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
096		110	938.3	REJECT	ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 0 TO 120 MEAN: 10.6
STANDARD DEVIATION 4.8 95 % CONFIDENCE INTRVL OF MEAN 10.6 + OR - 1.7

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR PB

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		8	55.5		ATOMIC ABSORPTION, FLAMELESS	3
002		46	155.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009		24	33.5		ATOMIC ABSORPTION, FLAMELESS	3
010		18	0.1		ATOMIC ABSORPTION, FLAMELESS	3
012		25	39.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		8	55.5		EMISSION, IC PLASMA	5
016		20	11.2		ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	2
017		97	439.5	REJECT	EMISSION, IC PLASMA	5
018		10	44.4		ATOMIC ABSORPTION, FLAMELESS	3
019		22	22.4		ATOMIC ABSORPTION, FLAMELESS	3
020		10	44.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
021		12	33.3		ATOMIC ABSORPTION, FLAMELESS	3
022		30	66.9		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
024		45	150.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		30	66.9		OTHER	
027	<	80	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028		18	0.1		ATOMIC ABSORPTION, FLAMELESS	3
032		16	11.0		ATOMIC ABSORPTION, FLAMELESS	3
034		12	33.3		ATOMIC ABSORPTION, FLAMELESS	3
037		17	5.4		ANODIC STRIPPING VOLTAMMETRY, DIFFERENTIAL PULSE	2
038		20	11.2		ATOMIC ABSORPTION, FLAMELESS	3
040		27	50.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
043		9	49.9		ATOMIC ABSORPTION, FLAMELESS	3
044		5	72.2		ATOMIC ABSORPTION, FLAMELESS	3
047		5	72.2		ATOMIC ABSORPTION, FLAMELESS	3
048		32	78.0		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
050		17	5.4		ATOMIC ABSORPTION, FLAMELESS	3
051	<	30	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
053		32	78.0		ATOMIC ABSORPTION, FLAMELESS	3
054		0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		26	44.6		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
056		27	50.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058		8	55.5		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
059		13	27.7		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
060		10	44.4		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066		23	27.9		ATOMIC ABSORPTION, FLAMELESS	3
068		20	11.2		ATOMIC ABSORPTION, FLAMELESS	3
069		11	38.8		ATOMIC ABSORPTION, FLAMELESS	3
071		20	11.2		EMISSION, IC PLASMA	5
072		20	11.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
075		15	16.6		ATOMIC ABSORPTION, FLAMELESS	3
077		24	33.5		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
079		19	5.7		ATOMIC ABSORPTION, FLAMELESS	3
080		21	16.8		ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	1,4
081		16	11.0		ATOMIC ABSORPTION, FLAMELESS	3
082		7	61.1		ATOMIC ABSORPTION, FLAMELESS	3
083		7	61.1		ATOMIC ABSORPTION, FLAMELESS	3
091	<	50	***	IGNORED		
092		11	38.8		ATOMIC ABSORPTION, FLAMELESS	3

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR PB

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
095	15	16.6	ATOMIC ABSORPTION, EXTRACTION (PDCA/CHCL3)	2,3
096	13	27.7	ATOMIC ABSORPTION, FLAMELESS	3
097	19	5.7	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0 TO 97 MEAN: 18.0
STANDARD DEVIATION 9.6 95 % CONFIDENCE INTRVL OF MEAN 18.0 + OR - 2.8

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR SB

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
015		1	40.0		ATOMIC ABSORPTION, FLAMELESS	3
019		2	20.0		ATOMIC ABSORPTION, FLAMELESS	3
020	<	10	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
021		2	20.0		ATOMIC ABSORPTION, FLAMELESS	3
024		1	40.0		ATOMIC ABSORPTION, HYDRIDE	2,4
025		7	320.0	REJECT	OTHER	
037	<	100	***	IGNORED	OTHER	
047		2	20.0		ATOMIC ABSORPTION, FLAMELESS	3
053		5	200.0	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
055		2	20.0		ATOMIC ABSORPTION, HYDRIDE	2,4
058		10	500.0	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
059		1	40.0		ATOMIC ABSORPTION, HYDRIDE	2,4
068		2	20.0		ATOMIC ABSORPTION, HYDRIDE	2,4
069	<	1	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
080	<	5	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
092		2	20.0		ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 1 TO 10 MEAN: 1.7
STANDARD DEVIATION 0.5 95 % CONFIDENCE INTRVL OF MEAN 1.7 + OR - 0.4

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR SE

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	2	58.5		ATOMIC ABSORPTION, FLAMELESS	3
004	5	3.7		OTHER	
005	3	37.8		ATOMIC ABSORPTION, FLAMELESS	3
009	3	37.8		ATOMIC ABSORPTION, FLAMELESS	3
014	5	3.7		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
015	6	24.4		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
018	4	17.1		ATOMIC ABSORPTION, FLAMELESS	3
019	4	17.1		ATOMIC ABSORPTION, FLAMELESS	3
020	< 10	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
021	3	37.8		ATOMIC ABSORPTION, FLAMELESS	3
022	5	3.7		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
024	4	17.1		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
028	5	3.7		ATOMIC ABSORPTION, FLAMELESS	3
032	5	3.7		ATOMIC ABSORPTION, FLAMELESS	3
034	3	37.8		ATOMIC ABSORPTION, FLAMELESS	3
038	6	24.4		ATOMIC ABSORPTION, FLAMELESS	3
043	5	3.7		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
044	7	45.1		ATOMIC ABSORPTION, FLAMELESS	3
047	5	3.7		ATOMIC ABSORPTION, FLAMELESS	3
048	20	314.6	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
051	5	3.7		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
053	4	17.1		ATOMIC ABSORPTION, FLAMELESS	3
054	0	100.0		ATOMIC ABSORPTION, FLAMELESS	3
055	4	17.1		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
056	4	17.1		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
058	5	3.7		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
059	6	24.4		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
066	5	3.7		ATOMIC ABSORPTION, FLAMELESS	3
068	5	3.7		ATOMIC ABSORPTION, FLAMELESS	3
069	9	86.6		ATOMIC ABSORPTION, FLAMELESS	3
075	6	24.4		ATOMIC ABSORPTION, HYDRIDE	1,2,3,4
077	10	107.3		ATOMIC ABSORPTION, FLAMELESS	3
079	5	3.7		ATOMIC ABSORPTION, FLAMELESS	3
080	< 3	***	IGNORED	ATOMIC ABSORPTION, FLAMELESS	3
081	4	17.1		OTHER	
091	6	24.4			
092	14	190.2	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
096	6	24.4		ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 0 TO 20 MEAN: 4.8
STANDARD DEVIATION 1.8 95 % CONFIDENCE INTRVL OF MEAN 4.8 + OR - 0.6

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE 183 REPORT FOR SR

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
004	110	5.3		OTHER	
013	50	57.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
014	110	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
015	120	3.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
017	180	55.0		EMISSION, IC PLASMA	5
018	110	5.3		EMISSION, IC PLASMA	5
019	40	65.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
020	110	5.3		OTHER	
021	120	3.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
022	120	3.3		EMISSION, IC PLASMA	5
025	120	3.3		EMISSION, IC PLASMA	5
026	120	3.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
034	140	20.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
037	120	3.3		OTHER	
038	120	3.3		EMISSION, IC PLASMA	5
049	130	11.9		EMISSION, IC PLASMA	5
053	100	13.9		OTHER	
055	140	20.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
058	120	3.3		EMISSION, IC PLASMA	5
059	120	3.3		EMISSION, IC PLASMA	5
063	120	3.3		EMISSION, IC PLASMA	5
068	140	20.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
069	90	22.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
071	120	3.3		EMISSION, IC PLASMA	5
077	140	20.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
081	110	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,4
082	240	106.6	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,4

TOTAL RANGE 40 TO 240 MEAN: 116
STANDARD DEVIATION 27 95 % CONFIDENCE INTRVL OF MEAN 116 + OR - 11

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR TL

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
019		4	28.0		ATOMIC ABSORPTION, FLAMELESS	3
020	<	100	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,3
021		4	28.0		ATOMIC ABSORPTION, FLAMELESS	3
024	<	10	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,3
028		10	220.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,3
037	<	100	***	IGNORED	OTHER	
047		3	4.0		ATOMIC ABSORPTION, FLAMELESS	3
051	<	60	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,3
053		5	60.0		ATOMIC ABSORPTION, FLAMELESS	3
058		1	68.0		ATOMIC ABSORPTION, FLAMELESS	3
059		3	4.0		ATOMIC ABSORPTION, FLAMELESS	3
068	<	50	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,3
069		3	4.0		ATOMIC ABSORPTION, FLAMELESS	3
092		2	36.0		ATOMIC ABSORPTION, FLAMELESS	3

TOTAL RANGE 1 TO 10 MEAN: 3.1
STANDARD DEVIATION 1.2 95 % CONFIDENCE INTRVL OF MEAN 3.1 + OR - 1.0

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR ZN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	124	2.6		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
003	105	13.2			
004	130	7.5		OTHER	
005	120	0.8		ATOMIC ABS-DIRECT	
007	100	17.3		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
009	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
010	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
012	106	12.3		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
014	130	7.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
015	130	7.5		EMISSION, IC PLASMA	5
016	110	9.0		ANODIC STRIPPING VOLTAMMETRY,DIFFERENTIAL PULSE	
017	222	83.6	REJECT	EMISSION, IC PLASMA	5
018	140	15.8		EMISSION, IC PLASMA	5
019	110	9.0		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
020	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
021	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
022	120	0.8		EMISSION, IC PLASMA	5
024	100	17.3		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
026	130	7.5		OTHER	
027	200	65.4	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
028	130	7.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
029	120	0.8		OTHER	
030	100	17.3		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
032	110	9.0		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
034	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
036	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
037	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
038	130	7.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
040	130	7.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
041	110	9.0		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
043	110	9.0		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
044	130	7.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
047	140	15.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
048	81	33.0	REJECT	ANODIC STRIPPING VOLTAMMETRY,DIFFERENTIAL PULSE	
049	130	7.5		EMISSION, IC PLASMA	5
050	119	1.6		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
051	124	2.6		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
053	130	7.5		OTHER	
054	0	100.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
055	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
056	10	91.7	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
058	110	9.0		OTHER	
059	120	0.8		EMISSION, IC PLASMA	5
060	130	7.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
063	132	9.2		EMISSION, IC PLASMA	5
064	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
066	130	7.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
068	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
069	121	0.1		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4

TABLE 9, ANALYTICAL DATA STANDARD REFERENCE SAMPLE T83 REPORT FOR ZN

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
070	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
071	120	0.8		EMISSION, IC PLASMA	5
072	113	6.5		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
075	110	9.0		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
077	140	15.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
079	112	7.4		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
080	240	98.5	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
082	134	10.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
083	110	9.0		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
086	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
092	65	46.2	REJECT	ATOMIC ABSORPTION, FLAMELESS	3
094	119	1.6		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
095	133	10.0		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4
096	130	7.5		EMISSION, IC PLASMA	5
097	120	0.8		ATOMIC ABSORPTION, DIRECT, AIR	2,3,4

TOTAL RANGE 0 TO 240 MEAN: 120.9
STANDARD DEVIATION 9.9 95 % CONFIDENCE INTRVL OF MEAN 120.9 + OR - 2.6

TABLE 10, STATISTICS BY METHOD FOR SAMPLE: T83

DETERMINATION: ACID@CACO3

METHOD	MEAN	STD DEV	N
TITRATION, COLORIMETRIC, MANUAL	1503.50	76.04	4
TITRATION, ELECTROMETRIC, MANUAL	1468.79	80.38	14
****** OVER ALL ******	1479.05	73.96	21

DETERMINATION: AG

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	2.3	1.8	7
ATOMIC ABSORPTION, FLAMELESS	2.3	0.7	9
****** OVER ALL ******	2.3	1.0	36

DETERMINATION: AL

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION,DIRECT,FLAMELESS	116	46	13
ATOMIC ABSORPTION,DIRECT,NITROUS OXIDE,MANUAL	128	56	9
****** OVER ALL ******	113	55	31

DETERMINATION: AS

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	4.1	2.8	15
ATOMIC ABSORPTION, HYDRIDE,(NABH4),MANUAL	3.6	2.1	14
****** OVER ALL ******	3.7	2.3	34

DETERMINATION: BA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	173	35	14
ATOMIC ABSORPTION, FLAMELESS	202	35	13
EMISSION, IC PLASMA	177	6	11
****** OVER ALL ******	183	33	43

DETERMINATION: BE

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, NITROUS OXIDE	3.2	3.0	6
ATOMIC ABSORPTION, FLAMELESS	6.3	2.0	6
EMISSION, IC PLASMA	5.0	2.1	8
****** OVER ALL ******	4.9	2.6	20

TABLE 10, STATISTICS BY METHOD FOR SAMPLE: T83

DETERMINATION: CD

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	5.9	1.9	17
ATOMIC ABSORPTION, EXTRACTION,(APDC/MIBK)	5.7	0.5	6
ATOMIC ABSORPTION, FLAMELESS	5.5	1.3	19
EMISSION, IC PLASMA	6.3	1.0	6
****** OVER ALL ******	5.8	1.4	51

DETERMINATION: CO

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, EXTRACTION (PDCA/MIBK)	4.7	1.5	3
ATOMIC ABSORPTION, FLAMELESS	6.4	2.3	10
EMISSION, IC PLASMA	4.8	2.3	6
****** OVER ALL ******	5.6	2.2	21

DETERMINATION: CR TOT

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	10.1	4.4	21
ATOMIC ABSORPTION, FLAMELESS	8.3	2.8	22
EMISSION, IC PLASMA	8.6	4.4	5
****** OVER ALL ******	9.1	3.6	53

DETERMINATION: CU

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	42.2	8.2	31
ATOMIC ABSORPTION, FLAMELESS	40.8	5.0	12
EMISSION, IC PLASMA	45.8	8.5	6
OTHER	43.2	5.2	5
****** OVER ALL ******	42.0	7.8	59

DETERMINATION: FE

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	29	11	28
ATOMIC ABSORPTION, FLAMELESS	31	8	9
EMISSION, IC PLASMA	28	7	8
OTHER	43	10	6
****** OVER ALL ******	31	11	53

TABLE 10, STATISTICS BY METHOD FOR SAMPLE: T83

DETERMINATION: HG

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, AUTOMATED	0.13	0.15	6
ATOMIC ABSORPTION, FLAMELESS, COLD VAPOR, MANUAL	0.19	0.18	21
****** OVER ALL ******	0.17	0.17	27

DETERMINATION: LI

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	48	8	9
EMISSION, FLAME	53	6	3
EMISSION, IC PLASMA	42	8	5
OTHER	48	12	6
****** OVER ALL ******	47	9	24

DETERMINATION: MN

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	278	25	43
ATOMIC ABSORPTION, FLAMELESS	282	24	9
EMISSION, IC PLASMA	273	7	8
****** OVER ALL ******	277	23	62

DETERMINATION: MO

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	12.8	3.2	8
EMISSION, IC PLASMA	10.5	1.0	4
****** OVER ALL ******	11.3	2.9	16

DETERMINATION: NI

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	11.1	6.3	13
ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	13.0	6.9	3
ATOMIC ABSORPTION, FLAMELESS	9.5	3.0	11
OTHER	10.0	0.0	4
****** OVER ALL ******	10.6	4.8	32

TABLE 10, STATISTICS BY METHOD FOR SAMPLE: T83

DETERMINATION: PB

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	23.5	14.1	11
ATOMIC ABSORPTION, EXTRACTION (APDC/MIBK)	20.7	8.8	6
ATOMIC ABSORPTION, FLAMELESS	14.8	6.7	25
****** OVER ALL ******	18.0	9.6	48

DETERMINATION: SB

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	1.8	0.4	5
ATOMIC ABSORPTION, HYDRIDE	1.5	0.6	4
****** OVER ALL ******	1.7	0.5	9

DETERMINATION: SE

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	4.7	2.3	20
ATOMIC ABSORPTION, HYDRIDE	5.0	0.8	11
****** OVER ALL ******	4.8	1.8	34

DETERMINATION: SR

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	110	34	12
EMISSION, IC PLASMA	126	20	10
OTHER	110	8	4
****** OVER ALL ******	116	27	26

DETERMINATION: TL

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, FLAMELESS	3.1	1.2	8
****** OVER ALL ******	3.1	1.2	8

DETERMINATION: ZN

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	119.9	10.0	41
EMISSION, IC PLASMA	127.8	7.2	8
OTHER	124.0	8.9	5
****** OVER ALL ******	120.9	9.9	57

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR NH3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	0.04	78.7		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
003	0.12	36.1			
004	0.23	22.4		ION SELECTIVE ELECTRODE	1,2,3,4
009	0.16	14.8		ION SELECTIVE ELECTRODE	1,2,3,4
010	0.25	33.1		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
011	0.03	84.0		OTHER	
012	0.26	38.4		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
014	0.18	4.2		ION SELECTIVE ELECTRODE	1,2,3,4
017	30.00	868.3	REJECT	OTHER	
019	0.16	14.8		ION SELECTIVE ELECTRODE	1,2,3,4
020	0.31	65.0		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
021	0.17	9.5		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
024	0.19	1.1		ION SELECTIVE ELECTRODE	1,2,3,4
025	0.17	9.5		ION SELECTIVE ELECTRODE	1,2,3,4
027	0.19	1.1		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
028	0.20	6.5		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
029	0.00	100.0		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
030	0.32	70.3		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
034	0.14	25.5		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
035	0.15	20.2		COLORIMETRIC, INDOPHENOL, AUTOMATED	4
036	0.17	9.5		COLORIMETRIC, PHENATE, MANUAL	1
040	0.28	49.0		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
043	0.13	30.8		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
044	0.17	9.5		COLORIMETRIC, INDOPHENOL, AUTOMATED	4
047	0.16	14.8		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
048	0.30	59.7		DISTILLATION-NESSLERIZATION, I-1520, USGS TWRI BK5 CH A1	
051	0.88	368.4	REJECT	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
052	0.15	20.2		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
053	0.17	9.5		ION SELECTIVE ELECTRODE	1,2,3,4
054	0.16	14.8		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
055	0.13	30.8		COLORIMETRIC, INDOPHENOL, AUTOMATED	4
056	0.23	22.4		ION SELECTIVE ELECTRODE	1,2,3,4
058	0.01	94.7			
059	0.22	17.1		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
060	0.15	20.2		OTHER	
061	0.36	91.6		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
066	0.30	59.7		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
069	0.36	91.6		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
070	0.17	9.5		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
074	0.14	25.5		OTHER	
075	< 0.20	***	IGNORED	OTHER	
077	0.11	41.4		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
078	0.30	59.7		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
079	0.16	14.8		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
080	0.15	20.2		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
082	0.17	9.5		COLORIMETRIC, PHENATE, AUTOMATED	1,2,3
085	0.68	261.9	REJECT	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
086	0.28	49.0		COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4
091	< 1.00	***	IGNORED		

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR NH3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
092	0.77	309.9	REJECT	OTHER	
094	0.28	49.0		OTHER	
095	0.10	46.8		ION SELECTIVE ELECTRODE	1,2,3,4
096	0.25	33.1		ION SELECTIVE ELECTRODE	1,2,3,4
097	0.56	198.1	REJECT	COLORIMETRIC, DISTILLATION, NESSLERIZATION	1,4

TOTAL RANGE 0.00 TO 30.00 MEAN: 0.188
STANDARD DEVIATION 0.084 95 % CONFIDENCE INTRVL OF MEAN 0.188 + OR - 0.025

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR NO2-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
003	0.18	258.3	REJECT		
005	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
009	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
010	0.07	39.3		COLORIMETRIC, DIAZOTIZATION	1,3,4
011	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
012	0.05	0.5		OTHER	
014	0.06	19.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
019	0.04	20.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
020	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
021	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
024	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
025	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
027	0.06	19.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
028	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
029	0.06	19.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
030	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
034	0.02	60.2	REJECT	COLORIMETRIC, DIAZOTIZATION	1,3,4
035	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
036	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
040	0.06	19.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
044	0.08	59.2	REJECT	COLORIMETRIC, DIAZOTIZATION	1,3,4
047	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
048	0.04	20.4		DIAZOTIZATION, I-1540, USGS TWRI BK5 CH A1	
051	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
052	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
053	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
054	0.47	835.5	REJECT	ION CHROMATOGRAPHY	2,6
055	0.06	19.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
056	0.11	119.0	REJECT	COLORIMETRIC, DIAZOTIZATION	1,3,4
058	0.00	100.0	REJECT		
059	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
060	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
061	0.04	20.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
066	0.06	19.4		OTHER	
069	0.50	895.3	REJECT	COLORIMETRIC, DIAZOTIZATION	1,3,4
070	0.06	19.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
075	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
077	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
078	0.04	20.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
079	0.03	40.3		COLORIMETRIC, DIAZOTIZATION	1,3,4
080	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
082	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
083	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
091	0.04	20.4			
092	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4
094	0.04	20.4		COLORIMETRIC, DIAZOTIZATION	1,3,4
095	0.05	0.5		OTHER	
096	0.05	0.5		COLORIMETRIC, DIAZOTIZATION	1,3,4

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR NO2-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
097	0.10	99.1	REJECT	COLORIMETRIC, DIAZOTIZATION	1,5,4

TOTAL RANGE 0.00 TO 0.50 MEAN: 0.050
STANDARD DEVIATION 0.007 95 % CONFIDENCE INTRVL OF MEAN 0.050 + OR - 0.002

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR NO3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	0.40	2.2		ION CHROMATOGRAPHY	2,6
002	0.37	9.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
003	0.70	71.2	REJECT		
004	0.43	5.2		OTHER	
005	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
006	0.40	2.2		COLORIMETRIC, BRUCINE	1,2,3,4
009	0.40	2.2		COLORIMETRIC, BRUCINE	1,2,3,4
010	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
011	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
012	0.41	0.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
014	0.40	2.2		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
019	0.50	22.3		COLORIMETRIC, BRUCINE	1,2,3,4
020	0.20	51.1		COLORIMETRIC, BRUCINE	1,2,3,4
021	0.41	0.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
023	0.22	46.2		COLORIMETRIC, BRUCINE	1,2,3,4
024	13.00	79.4	REJECT	COLORIMETRIC, BRUCINE	1,2,3,4
025	0.36	12.0		COLORIMETRIC, BRUCINE	1,2,3,4
027	0.50	22.3		COLORIMETRIC, BRUCINE	1,2,3,4
028	0.45	10.1		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
029	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
030	0.42	2.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
034	0.50	22.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
035	0.44	7.6		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
036	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
040	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
043	0.32	21.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
044	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
047	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
048	0.34	16.8		CADMIUM REDUCTION-DIAZOTIZATION,AUTO, I-2545, USGS TWRI BK5	
051	0.50	22.3		COLORIMETRIC, BRUCINE	1,2,3,4
052	0.40	2.2		ION CHROMATOGRAPHY	2,6
053	0.20	51.1		COLORIMETRIC, DEVARDA'S ALLOY REDUCTION, DIAZOTIZATION	1
054	0.47	14.9			
055	0.51	24.7		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
056	0.36	12.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
058	0.51	24.7			
059	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
060	0.41	0.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
061	0.46	12.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
066	0.45	10.1		OTHER	
069	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
070	0.38	7.1		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
075	0.45	10.1		COLORIMETRIC, BRUCINE	1,2,3,4
077	0.38	7.1		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
078	0.34	16.8		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
079	0.40	2.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
080	0.50	22.3		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
082	0.37	9.5		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
083	0.35	14.4		COLORIMETRIC, BRUCINE	1,2,3,4

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR NO3-N

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
085	0.43	5.2	COLORIMETRIC, BRUCINE	1,2,3,4
091	0.44	7.6		
092	0.40	2.2	COLORIMETRIC, BRUCINE	1,2,3,4
094	0.50	22.3	COLORIMETRIC, BRUCINE	1,2,3,4
095	0.40	2.2	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
096	0.40	2.2	COLORIMETRIC, BRUCINE	1,2,3,4
097	0.60	46.7	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4

TOTAL RANGE 0.20 TO 13.00 MEAN: 0.409
STANDARD DEVIATION 0.072 95 % CONFIDENCE INTRVL OF MEAN 0.409 + OR - 0.020

ABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR ORG-N

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
002	<	0.01	***	IGNORED	COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
004	<	0.10	***	IGNORED	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
009		0.00	100.0		DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
012		0.13	60.8		OTHER	
014		0.34	2.5		COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
021		0.18	45.7		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
024		66.00	802.8	REJECT	DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
025		0.15	60.8		OTHER	
028		0.40	20.6		COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	3
029		0.03	91.0		COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
030		0.10	69.8		COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	3
035		0.14	57.8		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
036		2.40	623.7	REJECT	DIGESTION, DISTILLATION, TITRATION	2,3,4
040		0.70	111.1		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
043		0.30	9.5		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
044		0.16	51.8		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
047		0.24	27.6		COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	3
051		0.25	24.6		COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
054		0.30	9.5		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
055		0.30	9.5		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
058		0.17	48.7			
059		0.73	120.1		COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	3,4
060		0.05	84.9		OTHER	
066		0.16	51.8		OTHER	
069		0.76	129.2		COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
074		0.08	75.9			
075		0.60	80.9		DIGESTION, DISTILLATION, TITRATION	2,3,4
079		0.50	50.8		COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	3
080		0.19	42.7		COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	3
085		0.75	126.2		DIGESTION, DISTILLATION, TITRATION	2,3,4
086		0.14	57.8		COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	2,3,4
091	<	1.00	***	IGNORED		
092		0.98	195.5		OTHER	
094		0.29	12.5		DIGESTION, DISTILLATION, TITRATION	2,3,4
095		0.48	44.7		DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3
096		0.70	111.1		DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	1,2,3

TOTAL RANGE 0.00 TO 66.00 MEAN: 0.332
STANDARD DEVIATION 0.261 95 % CONFIDENCE INTRVL OF MEAN 0.332 + OR - 0.096

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR P, TOTAL

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		0.13	229.2		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
002	<	0.01	***	IGNORED	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
003	<	0.01	***	IGNORED		
004		0.03	24.0		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
006		0.09	127.9		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
009		0.00	100.0		OTHER	
010		0.07	77.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
012		0.02	49.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
017		7.80	653.3	REJECT	EMISSION, IC PLASMA	
019		0.26	558.4	REJECT	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
020		0.01	74.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
021		0.03	24.0		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
023		0.05	26.6		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
024	<	0.01	***	IGNORED	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
025		0.02	49.4		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
027		0.04	1.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMDLYBD	1,2,3,4
028		0.04	1.3		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
029		0.02	49.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHDSPHOMDLYBD	1,2,3,4
030		0.01	74.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
034		0.01	74.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHDMOLYBD	1,2,3,4
035		0.05	26.6		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
036		0.07	77.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
040		0.02	49.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
044		0.04	1.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
047		0.01	74.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
048	<	0.10	***	IGNORED	PHOSPHOMOLYBDATE,AUTO, I-2600, USGS TWRI BK5 CH A1	
051		0.09	127.9		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
053		0.01	74.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
054		0.04	1.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
055		0.04	1.3		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
056		0.00	100.0		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
058		0.01	74.7			
059		0.02	49.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
060		0.07	77.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
066		0.02	49.4		OTHER	
069		0.07	77.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
070		0.07	77.3		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
075		0.20	406.5	REJECT	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
077		0.10	153.2		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
078	<	0.10	***	IGNORED	COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
079		0.02	49.4		COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
080	<	0.02	***	IGNORED	COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	4
082		0.01	74.7		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHDMOLYBD	1,2,3,4
083		0.06	51.9		OTHER	
085		0.18	355.8	REJECT	OTHER	
091		1.00	432.5	REJECT		
092		0.00	100.0		OTHER	
094		0.11	178.6		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
096		0.02	49.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4
097		0.02	49.4		COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	1,2,3,4

TOTAL RANGE 0.00 TO 7.80 MEAN: 0.039
STANDARD DEVIATION 0.033 95 % CONFIDENCE INTRVL OF MEAN 0.039 + OR - 0.011

TABLE 11 ANALYTICAL DATA. STANDARD REFERENCE SAMPLE N8 REPORT FOR PO4-P

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		0.04	128.6		ION CHROMATOGRAPHY	2,6
002	<	0.01	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
003	<	0.01	***	IGNORED		
004		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
009		0.00	100.0		OTHER	
010	<	0.05	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
011		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
012		0.00	100.0		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
019		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
020	<	0.01	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
021		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
023		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
024	<	0.03	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
027		0.03	71.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
028		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
029		0.02	14.3		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
030		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
034		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
035		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
036		0.03	71.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
043		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
044		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
047		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
048	<	0.10	***	IGNORED	PHOSPHOMOLYBDATE,AUTO, I-2601, USGS TWRI BK5 CH A1	
051		0.06	242.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
052		0.00	100.0		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
053		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
054		0.04	128.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
055		0.02	14.3		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
056		0.00	100.0		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
058		0.00	100.0			
059	<	0.01	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
061		0.12	585.8	REJECT	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
066		0.00	100.0		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
069	<	0.04	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
070		0.03	71.4		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
074		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
075	<	0.20	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
077		0.04	128.6		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
078	<	0.10	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
079	<	0.04	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
080	<	0.01	***	IGNORED	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
082		0.00	100.0		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	3,4
083		0.04	128.6		OTHER	
085		0.04	128.6		OTHER	
091		0.06	242.9			
092		0.00	100.0		OTHER	
094		0.10	471.5	REJECT	COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	1,2,3,4
096		0.01	42.9		COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBUATE, MANUAL	1,2,3,4

TOTAL RANGE 0.00 TO 0.12 MEAN: 0.017
STANDARD DEVIATION 0.017 95 % CONFIDENCE INTRVL OF MEAN 0.017 + OR - 0.006

TABLE 12 STATISTICS BY METHOD FOR SAMPLE: N8

DETERMINATION: NH3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, DISTILLATION, NESSLERIZATION	0.217	0.137	9
COLORIMETRIC, INDOPHENOL, AUTOMATED	0.150	0.020	3
COLORIMETRIC, PHENATE, AUTOMATED	0.199	0.060	17
ION SELECTIVE ELECTRODE	0.184	0.044	10
OTHER	0.150	0.102	4
****** OVER ALL ******	0.188	0.084	47

DETERMINATION: NO2-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, DIAZOTIZATION	0.051	0.007	37
OTHER	0.053	0.006	3
****** OVER ALL ******	0.050	0.007	42

DETERMINATION: NO3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BRUCINE	0.401	0.096	14
COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	0.412	0.054	28
COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	0.427	0.064	3
****** OVER ALL ******	0.409	0.072	54

DETERMINATION: ORG-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BLOCK DIGESTION, SALICYLATE HYPOCHLORITE	0.351	0.234	8
COLORIMETRIC, DIGESTION, DISTILLATION, NESSLERIZATION	0.304	0.280	5
COLORIMETRIC, DIGESTION, DISTILLATION, PHENATE	0.286	0.162	5
DIGESTION, DISTILLATION, ION SELECTIVE ELECTRODE	0.393	0.358	3
DIGESTION, DISTILLATION, TITRATION	0.547	0.235	3
OTHER	0.290	0.368	5
****** OVER ALL ******	0.332	0.261	31

DETERMINATION: P, TOTAL

METHOD	MEAN	STD DEV	N
COLORIMETRIC,BLK DIG,H2SO4, K&HG SO4, PHOSPHOMOLYBDATE	0.030	0.010	5
COLORIMETRIC, H2SO4/PERSULF DIG. ASCORBIC ACID PHOSPHOMOLYBD	0.045	0.035	29
OTHER	0.020	0.028	4
****** OVER ALL ******	0.039	0.033	39

TABLE 12 STATISTICS BY METHOD FOR SAMPLE: N8

DETERMINATION: PO4-P

METHOD	MEAN	STD DEV	N
COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, AUTOMATED	0.014	0.011	12
COLORIMETRIC, ASCORBIC ACID PHOSPHOMOLYBDATE, MANUAL	0.016	0.017	16
OTHER	0.022	0.020	5
****** OVER ALL ******	0.017	0.017	36

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE #2 REPORT FOR CA

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	1.6	16.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
002	2.1	10.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003	1.9	0.2			
004	1.5	21.2		OTHER	
005	1.8	5.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009	1.7	10.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	4.0	110.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014	2.4	26.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015	1.9	0.2		OTHER	
016	22.0	55.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017	1.8	5.5		EMISSION, IC PLASMA	5
018	1.9	0.2		EMISSION, IC PLASMA	5
020	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
024	2.4	26.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025	2.1	10.3		OTHER	
027	0.9	52.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028	1.9	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034	2.1	10.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037	1.9	0.2		OTHER	
041	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044	1.9	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045	1.8	5.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049	2.9	52.3		EMISSION, IC PLASMA	5
051	1.8	5.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052	1.8	5.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
054	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055	1.8	5.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058	1.0	47.5			
059	1.8	5.5		EMISSION, IC PLASMA	5
060	4.9	157.3	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	2.0	5.0		TITRATION, EDTA	1,3
064	1.6	16.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066	1.9	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067	1.8	5.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068	1.8	5.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069	2.9	52.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
070	1.9	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071	1.8	5.5		EMISSION, IC PLASMA	5
077	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078	1.9	0.2		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079	2.0	5.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
085	4.0	110.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
094	1.7	10.7		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0.9 TO 22.0 MEAN: 1.90
STANDARD DEVIATION 0.35 95 % CONFIDENCE INTRVL OF MEAN 1.90 + OR - 0.11

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE P2 REPORT FOR CL

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		0.3	51.5		ION-CHROMATOGRAPHY	2,6
002		1.0	61.8		TITRATION, MERCURIC NITRATE	1,2,3,4
003		0.8	29.4			
004		0.6	2.9		OTHER	
009		0.0	100.0		TITRATION, SILVER NITRATE	1,2,4
011		0.6	2.9		COLORIMETRIC, FERRIC THIOCYANATE, MANUAL	2,4
012		7.0	52.4	REJECT	TITRATION, SILVER NITRATE	1,2,4
013		0.0	100.0		TITRATION, SILVER NITRATE	1,2,4
014		0.6	2.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
015		0.5	19.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
016	<	1.0	***	IGNORED	TITRATION, MERCURIC NITRATE	1,2,3,4
018		0.5	19.1		ION-CHROMATOGRAPHY	2,6
020		0.6	2.9		TITRATION, MERCURIC NITRATE	1,2,3,4
024		1.2	94.1		ION-SELECTIVE ELECTRODE	2
025		1.1	77.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
027		3.8	514.7	REJECT	TITRATION, MERCURIC NITRATE	1,2,3,4
028		2.0	223.5		OTHER	
030		0.8	29.4		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
034		2.5	304.4	REJECT	TITRATION, SILVER NITRATE	1,2,4
035		0.8	29.4		TITRATION, MERCURIC NITRATE	1,2,3,4
037	<	1.0	***	IGNORED	TITRATION, MERCURIC NITRATE	1,2,3,4
041		1.0	61.8		TITRATION, SILVER NITRATE	1,2,4
044		0.0	100.0		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
051	<	1.0	***	IGNORED	TITRATION, SILVER NITRATE	1,2,4
052		0.0	100.0		OTHER	
054		1.0	61.8		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
055		0.6	2.9		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
058		1.8	191.2			
059		0.6	2.9		ION-CHROMATOGRAPHY	2,6
060		0.2	67.6		TITRATION, SILVER NITRATE	1,2,4
061	<	0.4	***	IGNORED	TITRATION, SILVER NITRATE	1,2,4
064		0.5	19.1		TITRATION, MERCURIC NITRATE	1,2,3,4
067		10.0	517.6	REJECT	TITRATION, SILVER NITRATE	1,2,4
068		0.5	19.1		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
069		1.1	77.9		TITRATION, SILVER NITRATE	1,2,4
071		0.6	2.9		ION-CHROMATOGRAPHY	2,6
077		0.0	100.0		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
078		0.5	19.1		ION-CHROMATOGRAPHY	2,6
079		0.2	67.6		COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	1,3,4
085		0.0	100.0		TITRATION, MERCURIC NITRATE	1,2,3,4
094		0.4	35.3		TITRATION, MERCURIC NITRATE	1,2,3,4

TOTAL RANGE 0.0 TO 10.0 MEAN: 0.62
STANDARD DEVIATION 0.48 95 % CONFIDENCE INTRVL OF MEAN 0.62 + OR - 0.17

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE P2 REPORT FOR F

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	<	0.2	***	IGNORED	ION CHROMATOGRAPHY	2,6
003		0.1	13.5			
004		0.1	13.5			
005		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
009		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
011		0.1	13.5		ION SELECTIVE ELECTRODE, AUTOMATED	4
012		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
013		0.0	100.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
014		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
015		0.1	13.5		COLORIMETRIC, SPADNS	1,2,3
018		0.2	73.0		ION CHROMATOGRAPHY	2,6
020		0.2	73.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
023		0.2	73.0		ION SELECTIVE ELECTRODE, AUTOMATED	4
024		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
027		0.2	73.0		COLORIMETRIC, SPADNS	1,2,3
028		0.1	13.5		ION SELECTIVE ELECTRODE, AUTOMATED	4
030		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
034		0.2	73.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
035		0.1	13.5		COLORIMETRIC, ZIRCONIUM ERIOCHROME	4
037		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
044		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
052		0.1	13.5		ION SELECTIVE ELECTRODE, AUTOMATED	4
055		0.1	13.5		ION SELECTIVE ELECTRODE, AUTOMATED	4
058		0.1	13.5			
059		0.1	13.5		ION SELECTIVE ELECTRODE, AUTOMATED	4
060		0.2	73.0		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
061		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
067	<	0.2	***	IGNORED	ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
068		0.1	13.5		COLORIMETRIC, SPADNS	1,2,3
069		0.1	13.5		ION SELECTIVE ELECTRODE, MANUAL	1,2,3,4
077		0.1	13.5		ION SELECTIVE ELECTRODE, AUTOMATED	4
078		0.1	13.5		ION CHROMATOGRAPHY	2,6
079		0.1	13.5		ION SELECTIVE ELECTRODE, AUTOMATED	4
085		0.1	13.5		COLORIMETRIC, SPADNS	1,2,3

TOTAL RANGE 0.0 TO 0.2 MEAN: 0.12
STANDARD DEVIATION 0.04 95 % CONFIDENCE INTRVL OF MEAN 0.12 + OR - 0.02

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE #2 REPORT FOR K

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	<	0.5	***	IGNORED		
002		0.2	9.1			
003		0.2	9.1			
004		0.3	63.6			
005		0.2	9.1			
009		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	<	0.5	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013		0.5	172.7	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		0.1	45.5		FLAME, EMISSION, PHOTOMETRIC	1,2
016	<	0.1	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		0.5	172.7	REJECT	OTHER	
018		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020		0.2	9.1			
023		0.2	9.1		FLAME, EMISSION, PHOTOMETRIC	1,2
024		0.2	9.1			
027		0.1	45.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030		0.2	9.1			
034		0.3	63.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035		0.1	45.5			
037		0.2	9.1		OTHER	
041		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044		0.1	45.5		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049		2.1	45.5	REJECT	OTHER	
051		0.1	45.5			
052		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
054		0.0	100.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		0.2	9.1		OTHER	
058		0.8	336.4	REJECT		
059		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
060		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	<	0.4	***	IGNORED	FLAME, EMISSION, PHOTOMETRIC	1,2
064		0.1	45.5			
066		0.3	63.6			
067	<	0.1	***	IGNORED		
068		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069		0.2	9.1			
070		0.2	9.1			
077		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078		0.2	9.1			
079		0.3	63.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
085		0.0	100.0			
094		0.2	9.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0.0 TO 2.1 MEAN: 0.18
STANDARD DEVIATION 0.07 95 % CONFIDENCE INTRVL OF MEAN 0.18 + OR - 0.02

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE #2 REPORT FOR MG

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
002		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003		0.1	68.4	REJECT		
004		0.3	5.3		OTHER	
005		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
009		0.4	26.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		0.3	5.3		TITRATION, EDTA	2
016		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		0.3	5.3		EMISSION, IC PLASMA	5
018		27.0	426.3	REJECT	EMISSION, IC PLASMA	5
020		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
024		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
025		0.2	36.8		OTHER	
028		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
034		0.4	26.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035		0.4	26.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
037		0.4	26.3		OTHER	
041		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049		0.9	184.2	REJECT	EMISSION, IC PLASMA	5
051		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
052		0.0	100.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
054		0.4	26.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
058		0.7	121.1	REJECT		
059		0.3	5.3		EMISSION, IC PLASMA	5
060		0.7	121.1	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	<	0.3	***	IGNORED	TITRATION, EDTA	2
064		0.4	26.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
066		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
067		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
069		0.5	57.9	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
070		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
071		0.3	5.3		EMISSION, IC PLASMA	5
077		0.4	26.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
079		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
085		1.0	215.8	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
094		0.3	5.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0.0 TO 27.0 MEAN: 0.32
STANDARD DEVIATION 0.04 95 % CONFIDENCE INTRVL OF MEAN 0.32 + OR - 0.02

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE P2 REPORT FOR NA

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		0.5	22.8			
002		0.1	84.6	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
003		0.7	8.1			
004		0.7	8.1			
005		0.6	7.3			
009		0.7	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
011	<	0.5	***	IGNORED	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
013		0.6	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
014		0.7	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
015		0.7	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
016		0.2	69.1	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
017		0.6	7.3		EMISSION, IC PLASMA	5
018		0.6	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
020		0.7	8.1			
023		0.4	38.2		FLAME EMISSION, PHOTOMETRIC	1,2
024		0.6	7.3			
025		0.9	39.0		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
027		0.6	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
028		0.7	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
030		0.7	8.1			
034		0.6	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
035		0.6	7.3		OTHER	
037		0.7	8.1		OTHER	
041		0.7	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
044		0.7	8.1		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
045		0.6	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
049		1.6	147.2	REJECT	EMISSION, IC PLASMA	5
051		0.7	8.1			
052		0.0	100.0	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
054		0.6	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
055		0.7	8.1		OTHER	
058	<	0.0	***	IGNORED		
059		0.6	7.3		EMISSION, IC PLASMA	5
060		1.6	147.2	REJECT	ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
061	<	2.3	***	IGNORED	FLAME EMISSION, PHOTOMETRIC	1,2
064		0.6	7.3			
066		0.8	23.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
068		0.6	7.3			
069		0.6	7.3			
070		0.7	8.1			
071		0.6	7.3		EMISSION, IC PLASMA	5
077		0.8	23.6		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4
078		0.5	22.8			
079		0.8	23.6			
085		0.5	22.8			
094		0.6	7.3		ATOMIC ABSORPTION, DIRECT, AIR	1,2,3,4

TOTAL RANGE 0.0 TO 1.6 MEAN: 0.65
STANDARD DEVIATION 0.10 95 % CONFIDENCE INTRVL OF MEAN 0.65 + OR - 0.03

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE P2 REPORT FOR NO3-N

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	<	0.40	***	IGNORED	ION CHROMATOGRAPHY	2,6
002		0.04	13.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
003		0.02	56.9			
004		0.05	7.6			
009		0.00	100.0		COLORIMETRIC, BRUCINE	1,2,3,4
011		0.03	35.4		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
012		0.00	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
014		0.13	179.9		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
015		0.05	7.6		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
017		600.00	583.7	REJECT	OTHER	
018		0.05	7.6		ION CHROMATOGRAPHY	2,6
020	<	0.10	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
023	<	0.20	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
024		0.12	158.3		COLORIMETRIC, BRUCINE	1,2,3,4
025		0.10	115.3		COLORIMETRIC, BRUCINE	1,2,3,4
027	<	0.10	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
028		0.06	29.2		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
030		0.10	115.3			
034		0.00	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
035		0.04	13.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
037	<	0.05	***	IGNORED	COLORIMETRIC, DEVARDA'S ALLOY REDUCTION, DIAZOTIZATION	1
044		0.00	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
051	<	0.10	***	IGNORED	COLORIMETRIC, BRUCINE	1,2,3,4
052		0.00	100.0		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
054		0.12	158.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
055		0.04	13.9		COLORIMETRIC, HYDRAZINE REDUCTION, DIAZOTIZATION	3
058		0.05	7.6			
059		0.02	56.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
060		0.02	56.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
066		0.05	7.6		OTHER	
067	<	0.10	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
068		0.05	7.6		ION CHROMATOGRAPHY	2,6
069	<	0.10	***	IGNORED	COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
071		0.05	7.6		ION CHROMATOGRAPHY	2,6
077		0.10	115.3		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
078		0.04	13.9		ION CHROMATOGRAPHY	2,6
079		0.04	13.9		COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	1,2,3,4
083		0.04	13.9		COLORIMETRIC, BRUCINE	1,2,3,4
085		0.03	35.4		COLORIMETRIC, BRUCINE	1,2,3,4
094		0.00	100.0		COLORIMETRIC, BRUCINE	1,2,3,4

TOTAL RANGE 0.00 TO 600.00 MEAN: 0.046
STANDARD DEVIATION 0.038 95 % CONFIDENCE INTRVL OF MEAN 0.046 + OR - 0.014

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE P2 REPORT FOR PH

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN	METHODS	REFERENCES
001	7.0	4.8		
002	7.1	6.3	ELECTROMETRIC	1,2,3,4
003	6.4	4.2		
004	7.7	15.2		
005	7.0	4.8		
009	6.9	3.3	ELECTROMETRIC	1,2,3,4
011	7.0	4.8	ELECTROMETRIC	1,2,3,4
012	6.5	2.7		
014	7.0	4.8		
015	7.2	7.7	ELECTROMETRIC	1,2,3,4
016	6.8	1.8		
017	6.8	1.8		
020	6.3	5.7		
023	7.0	4.8	ELECTROMETRIC	1,2,3,4
024	6.1	8.7		
025	6.3	5.7		
027	6.3	5.7	ELECTROMETRIC	1,2,3,4
028	6.7	0.3	ELECTROMETRIC	1,2,3,4
030	6.6	1.2		
034	7.0	4.8	ELECTROMETRIC	1,2,3,4
035	6.6	1.2		
037	6.2	7.2	ELECTROMETRIC	1,2,3,4
041	5.6	16.2	ELECTROMETRIC	1,2,3,4
044	6.6	1.2	ELECTROMETRIC	1,2,3,4
045	6.8	1.8		
051	6.9	3.3		
052	6.7	0.3	ELECTROMETRIC	1,2,3,4
054	6.5	2.7		
055	7.4	10.7		
058	6.8	1.8		
059	6.0	10.2	ELECTROMETRIC	1,2,3,4
060	6.6	1.2	OTHER	
061	7.3	9.2	ELECTROMETRIC	1,2,3,4
064	6.4	4.2		
066	6.7	0.3		
067	6.5	2.7		
068	6.6	1.2	ELECTROMETRIC	1,2,3,4
069	6.6	1.2		
070	6.2	7.2		
077	6.9	3.3	ELECTROMETRIC	1,2,3,4
078	6.9	3.3		
079	6.7	0.3		
083	6.0	10.2		
085	6.9	3.3		
094	6.6	1.2	OTHER	

TOTAL RANGE 5.6 TO 7.7 MEAN: 6.68
STANDARD DEVIATION 0.40 95 % CONFIDENCE INTRVL OF MEAN 6.68 + OR - 0.12

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE P2 REPORT FOR SO4

CODE		REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001		2.0	40.9		ION CHROMATOGRAPHY	2,6
002		4.3	27.1		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
005		18.0	432.1	REJECT		
004		2.7	20.2		OTHER	
005		2.3	32.0		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
009		2.3	32.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
011		2.4	29.1		GRAVIMETRIC, BARIUM SULFATE	1,2,3
012		8.0	136.5		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
013		2.6	23.1		THORIN TITRATION	2,4
014		2.5	26.1		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
015		2.8	17.2		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
016		33.0	875.5	REJECT	COLORIMETRIC, CHLORANILATE, AUTOMATED	3
018		2.9	14.3		ION CHROMATOGRAPHY	2,6
020		4.0	18.2		GRAVIMETRIC, BARIUM SULFATE	1,2,3
024		1.2	64.5		GRAVIMETRIC, BARIUM SULFATE	1,2,3
027		4.7	38.9		OTHER	
028		11.0	225.2	REJECT	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
030		2.4	29.1		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
034		2.0	40.9		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
035		3.8	12.3		THORIN TITRATION	2,4
037		2.6	23.1		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
044		2.7	20.2		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
051	<	1.0	***	IGNORED	GRAVIMETRIC, BARIUM SULFATE	1,2,3
052		0.0	100.0		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
054		6.0	77.4		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
055		4.5	33.0		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
058		7.1	109.9			
059		3.0	11.3		ION CHROMATOGRAPHY	2,6
060		4.5	33.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
061		3.8	12.3		GRAVIMETRIC, BARIUM SULFATE	1,2,3
064		4.5	33.0		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
067		5.6	65.5		GRAVIMETRIC, BARIUM SULFATE	1,2,3
068		2.7	20.2		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
069		3.0	11.3		TURBIDIMETRIC, BARIUM SULFATE	1,2,3
070		7.0	106.9		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
071		3.0	11.3		ION CHROMATOGRAPHY	2,6
077		0.0	100.0		COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
078		2.9	14.3		ION CHROMATOGRAPHY	2,6
079	<	8.0	***	IGNORED	COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	1,3,4
085		10.0	195.6	REJECT	TURBIDIMETRIC, BARIUM SULFATE	1,2,3
094		2.6	23.1		TURBIDIMETRIC, BARIUM SULFATE	1,2,3

TOTAL RANGE 0.0 TO 33.0 MEAN: 3.38
STANDARD DEVIATION 1.78 95 % CONFIDENCE INTRVL OF MEAN 3.38 + OR - 0.61

TABLE 13 ANALYTICAL DATA STANDARD REFERENCE SAMPLE P2 REPORT FOR SP. COND.

CODE	REPORTED VALUE	PCT. DEV. FROM MEAN		METHODS	REFERENCES
001	22	18.5		DIRECT READING INSTRUMENT	4
002	19	2.3		DIRECT READING INSTRUMENT	4
003	17	8.4			
004	19	2.3		DIRECT READING INSTRUMENT	4
005	18	3.0		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
009	19	2.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
011	19	2.3		DIRECT READING INSTRUMENT	4
012	20	7.7		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
013	28	50.8	REJECT	DIRECT READING INSTRUMENT	4
014	17	8.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
015	22	18.5		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
016	17	8.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
017	180	869.6	REJECT		
018	19	2.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
020	19	2.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
023	17	8.4		DIRECT READING INSTRUMENT	4
024	20	7.7		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
025	17	8.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
027	18	3.0		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
028	19	2.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
030	18	3.0		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
034	19	2.3		DIRECT READING INSTRUMENT	4
035	19	2.3		DIRECT READING INSTRUMENT	4
037	20	7.7		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
041	19	2.3		DIRECT READING INSTRUMENT	4
044	19	2.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
045	19	2.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
052	17	8.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
054	19	2.3		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
055	15	19.2		DIRECT READING INSTRUMENT	4
058	21	13.1			
059	19	2.3		DIRECT READING INSTRUMENT	4
060	161	767.3	REJECT	DIRECT READING INSTRUMENT	4
061	29	56.2	REJECT	WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
064	20	7.7		DIRECT READING INSTRUMENT	4
066	14	24.6		DIRECT READING INSTRUMENT	4
068	17	8.4		WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	1,2,3,4
069	18	3.0		DIRECT READING INSTRUMENT	4
077	20	7.7		DIRECT READING INSTRUMENT	4
078	15	19.2		DIRECT READING INSTRUMENT	4
079	18	3.0		DIRECT READING INSTRUMENT	4
085	21	13.1		DIRECT READING INSTRUMENT	4
094	19	2.3		DIRECT READING INSTRUMENT	4

TOTAL RANGE 14 TO 180 MEAN: 18.6
STANDARD DEVIATION 1.7 95 % CONFIDENCE INTRVL OF MEAN 18.6 + OR - 0.6

TABLE 14 STATISTICS BY METHOD FOR SAMPLE: P2

DETERMINATION: CA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	1.92	0.32	30
EMISSION, IC PLASMA	2.04	0.48	5
OTHER	1.85	0.25	4
****** OVER ALL ******	1.90	0.35	42

DETERMINATION: CL

METHOD	MEAN	STD DEV	N
COLORIMETRIC, FERRIC THIOCYANATE, AUTOMATED	0.53	0.38	10
ION-CHROMATOGRAPHY	0.50	0.12	5
TITRATION, MERCURIC NITRATE	0.55	0.34	6
TITRATION, SILVER NITRATE	0.46	0.55	5
OTHER	0.87	1.03	3
****** OVER ALL ******	0.62	0.48	33

DETERMINATION: F

METHOD	MEAN	STD DEV	N
COLORIMETRIC, SPADNS	0.12	0.05	4
ION SELECTIVE ELECTRODE, AUTOMATED	0.11	0.04	8
ION SELECTIVE ELECTRODE, MANUAL	0.11	0.05	14
****** OVER ALL ******	0.12	0.04	32

DETERMINATION: K

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	0.19	0.07	17
****** OVER ALL ******	0.18	0.07	36

DETERMINATION: MG

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	0.32	0.04	29
EMISSION, IC PLASMA	0.30	0.00	3
OTHER	0.30	0.10	3
****** OVER ALL ******	0.32	0.04	36

TABLE 14 STATISTICS BY METHOD FOR SAMPLE: P2

DETERMINATION: NA

METHOD	MEAN	STD DEV	N
ATOMIC ABSORPTION, DIRECT, AIR	0.68	0.09	16
EMISSION, IC PLASMA	0.60	0.00	3
OTHER	0.67	0.06	3
****** OVER ALL ******	0.65	0.10	38

DETERMINATION: NO3-N

METHOD	MEAN	STD DEV	N
COLORIMETRIC, BRUCINE	0.048	0.051	6
COLORIMETRIC, CADMIUM REDUCTION, DIAZOTIZATION	0.037	0.037	14
ION CHROMATOGRAPHY	0.047	0.005	4
****** OVER ALL ******	0.046	0.038	31

DETERMINATION: PH

METHOD	MEAN	STD DEV	N
ELECTROMETRIC	6.69	0.47	16
****** OVER ALL ******	6.68	0.40	45

DETERMINATION: SO4

METHOD	MEAN	STD DEV	N
COLORIMETRIC, METHYL THYMOL BLUE, AUTOMATED	2.61	2.30	8
GRAVIMETRIC, BARIUM SULFATE	3.40	1.67	5
ION CHROMATOGRAPHY	2.76	0.43	5
TURBIDIMETRIC, BARIUM SULFATE	3.82	1.74	12
****** OVER ALL ******	3.38	1.78	35

DETERMINATION: SP. COND.

METHOD	MEAN	STD DEV	N
DIRECT READING INSTRUMENT	18.4	2.1	18
WHEATSTONE BRIDGE-TYPE CONDUCTIVITY METER	18.6	1.3	19
****** OVER ALL ******	18.6	1.7	39