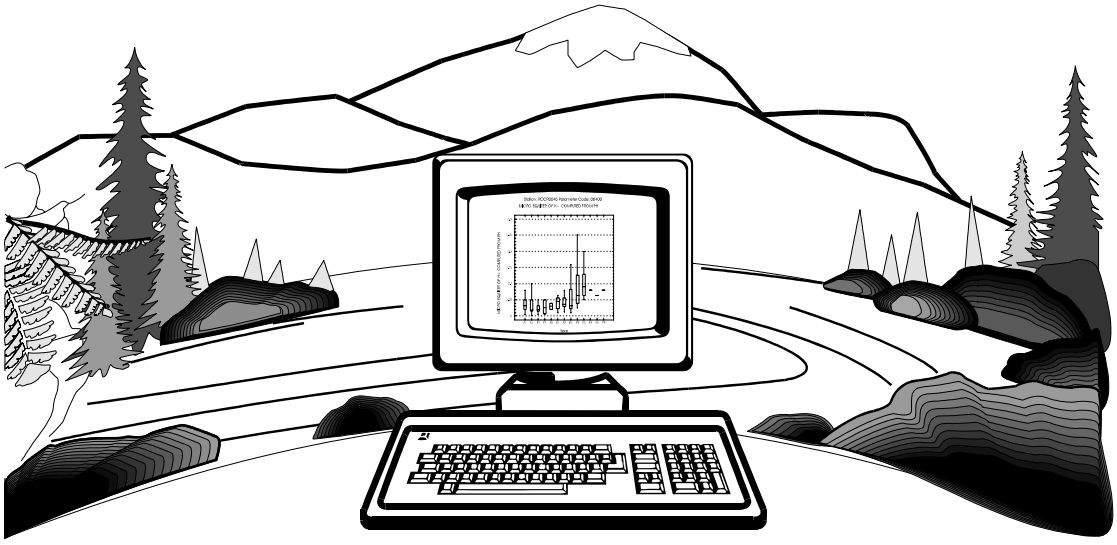
Baseline Water Quality Data

Inventory and Analysis

Tumacacori National Historical Park



Water Resources Division and Servicewide Inventory and Monitoring Program

National Park Service - Department of the Interior
Fort Collins - Denver - Washington

The National Park Service Water Resources Division is responsible for providing water resources management policy and guidelines, planning, technical assistance, training, and operational support to units of the National Park System. Program areas include water rights, water resources planning, regulatory guidance and review, hydrology, water quality, watershed management, watershed studies, and aquatic ecology.

Technical Reports

The National Park Service disseminates the results of biological, physical, and social research through the Natural Resources Technical Report Series. Natural resources inventories and monitoring activities, scientific literature reviews, bibliographies, and proceedings of technical workshops and conferences are also disseminated through this series.

Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the National Park Service.

Copies of this report are available from the following:

Technical Information Center Denver Service Center P.O. Box 25287 Denver, CO 80225-0287	(303) 969-2130
U. S. Department of Commerce National Technical Information Service 5285 Port Royal Road Springfield, VA 22161	(703) 487-4650

BASELINE WATER QUALITY DATA

INVENTORY AND ANALYSIS

TUMACACORI NATIONAL HISTORICAL PARK

National Park Service
Water Resources Division
Fort Collins, CO 80525

Technical Report NPS/NRWRD/NRTR-2001/284

FEBRUARY 2003

United States Department of the Interior
National Park Service
Washington, D.C.

EXECUTIVE SUMMARY

This document presents the results of surface-water-quality data retrievals for Tumacacori National Historical Park (TUMA) from six of the United States Environmental Protection Agency's (EPA) national databases: (1) Storage and Retrieval (STORET) water quality database management system; (2) River Reach File (RF3); (3) Industrial Facilities Discharge (IFD); (4) Drinking Water Supplies (DRINKS); (5) Water Gages (GAGES); and (6) Water Impoundments (DAMS). This document is one product resulting from a cooperative contractual endeavor between the National Park Service's (NPS) Servicewide Inventory and Monitoring Program, the National Park Service's Water Resources Division (WRD), and Horizon Systems Corporation to retrieve, format, and analyze surface water quality data for all units of the National Park System containing significant water resources. The primary goal of the project is to provide descriptive water quality information in a manner and format that is both consistent with the goals of the Servicewide Inventory and Monitoring Program and useable by park resource managers. The document provides: (1) a complete inventory of all retrieved water quality parameter data, water quality stations, and the entities responsible for the data collection; (2) descriptive statistics and appropriate graphical plots of water quality data characterizing period of record, annual, and seasonal central tendencies and trends; (3) a comparison of the park's water quality data to relevant EPA and WRD water quality screening criteria; and (4) an Inventory Data Evaluation and Analysis (IDEA) to determine what Servicewide Inventory and Monitoring Program "Level I" water quality parameters have been measured within the study area. Accompanying the report are disks containing digital copies of all data used in the report, as well as all components of the report (tables, figures, etc.).

The results of the retrievals for the study area from the IFD, DRINKS, GAGES, and DAMS databases located three industrial/municipal dischargers; no drinking water intakes; four active or inactive U.S. Geological Survey (USGS) stream gages; and three water impoundments. The results of the STORET retrieval for the study area yielded 21,960 observations for 784 separate parameters collected by the NPS, USGS, U.S. Forest Service, and Arizona Department of Environmental Quality (ADEQ) at 101 monitoring stations from 1941 through 1999. Approximately 70 percent of the 21,960 observations within the study area were collected by the ADEQ from 1973 through 1999. No monitoring stations were located within the park boundaries. Of the 101 monitoring stations in the study area, six stations were established but contained no data appropriate for statistical analysis.

Most of the monitoring stations represent either one-time or intensive single-year sampling efforts by the collecting agencies. Eight stations within the study area yielded longer-term records consisting of multiple observations for several important water quality parameters (see Station Period of Record Tabulation). The stations yielding the longer-term records within the study area are: (1) SCNGW004.23 (Nogales Wash at the Morley Avenue tunnel opening) (TUMA 0006); (2) SCSCR097.28 (Santa Cruz River at the international boundary) (TUMA 0003); (3) SCSCR087.08 (Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico) (TUMA 0062); (4) Santa Cruz River at Rio Rico (at the Rio Rico Drive Bridge) (TUMA 0064); (5) SCPEN-A (northern end of Pena Blanca Lake) (TUMA 0037); (6) Santa Cruz River at Tubac (TUMA 0094); (7) SCPAT-A (western end of Patagonia Lake) (TUMA 0069); and (8) Patagonia Lake (TUMA 0070)[†].

Screening criteria consisting of published EPA water-quality criteria and instantaneous concentration values selected by the WRD were used to identify potential water quality problems within the study area. While the criteria represent important threshold concentrations of pollutants, it is important to remember that criteria may have been exceeded due to any number of natural or anthropogenic factors, including errors in field, laboratory, and/or recording procedures. The reader is advised to read the Introduction for additional caveats in interpreting the exceeded criteria in this report. The results of the TUMA water quality criteria screen found 24 groups of parameters that exceeded screening criteria at least once within the study area. Dissolved oxygen, pH, chlorine, cyanide, cadmium, copper, lead, mercury, selenium, silver, and zinc exceeded their respective EPA criteria for the protection of freshwater aquatic life. Fluoride, sulfate, nitrate, nitrite, nitrite plus nitrate, arsenic, barium, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc exceeded their respective EPA

[†]Water quality station location descriptions are verbatim from STORET. Any misspellings and abbreviations in STORET are replicated in this document.

drinking water criteria. Fecal-indicator bacteria concentrations (fecal coliform and *E. coli*) and turbidity exceeded the WRD screening limits for freshwater bathing and aquatic life, respectively.

Dissolved oxygen concentrations were measured 524 times at 62 monitoring stations from 1969 through 1999. Of the 519 observations used in the criteria analysis (see Composite Type Screen in the Methodology for explanation), 79 concentrations at ten stations, in Pena Blanca Lake (TUMA 0035, TUMA 0036, TUMA 0037), in Patagonia Lake (TUMA 0068, TUMA 0069), and the Santa Cruz River near or north of Rio Rico (TUMA 0062, TUMA 0065, TUMA 0089, TUMA 0094, TUMA 0100), were less than or equal to the 4 milligrams per liter (mg/L) EPA criterion for the protection of freshwater aquatic life from 1988 through 1999. Approximately 52 percent of these 79 concentrations were reported during depth sampling at three stations in the northern part of Pena Blanca Lake (TUMA 0035, TUMA 0036, TUMA 0037) from 1992 through 1998.

The pH was measured 804 times at 81 monitoring stations from 1969 through 1999. Of the 754 observations used in the criteria analysis (see Composite Type Screen in the Methodology for explanation), 21 observations at eight stations, near the Endless Chain Mine (TUMA 0046, TUMA 0047, TUMA 0048), near the mouth of Alum Canyon (TUMA 0076, TUMA 0079), in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006), the northern part of Pena Blanca Lake (TUMA 0037), and Peck Canyon Creek at the Interstate Route 19 Bridge (TUMA 0075), were outside the pH range of 6.5 to 9.0 standard units (SU) (EPA chronic criteria for freshwater aquatic life) from 1973 through 1998. Nineteen observations were less than pH 6.5 and two observations were greater than pH 9.0. Twelve of the 19 observations less than pH 6.5 were reported at three stations near the Endless Chain Mine (TUMA 0046, TUMA 0047, TUMA 0048) during 1980 and 1981, including the lowest pH of 2.8 SU in a tributary of Harshaw Creek (TUMA 0048) in March 1981. The highest pH of 9.3 SU was reported in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006) in October 1986.

Turbidity was measured 435 times at 39 monitoring stations from 1969 through 1999. Of the 409 observations used in the criteria analysis (see Remark Code and Composite Type Screens in the Methodology for explanation), 60 observations at 22 stations exceeded the WRD screening criterion of 50 Jackson Candle/Formazin/Nephelometric Turbidity Units (JTU/FTU/NTU) from 1976 through 1999. Approximately 57 percent of the observations exceeding the criterion were reported at 13 stations in the Santa Cruz River. The highest concentration of 6,220 NTU was reported in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006) in January 1994.

Fecal coliform concentrations were measured 191 times at 33 monitoring stations from 1971 through 1999. Of the 151 observations used in the criteria analysis (see Remark Code and Composite Type Screens in the Methodology for explanation), 61 observations at ten stations, in Nogales Wash (TUMA 0005, TUMA 0006, TUMA 0026, TUMA 0028), the Santa Cruz River (TUMA 0003, TUMA 0062, TUMA 0064, TUMA 0096), Potrero Creek (TUMA 0052), and Walker Canyon at the Ruby Road (State Route 289) Bridge (TUMA 0020), equaled or exceeded the WRD bathing water screening criterion of 200 Colony Forming Units/Most Probable Number per 100 milliliters (CFU/MPN/100 ml) from 1973 through 1999. Approximately 51 percent of the observations exceeding the criterion were reported at four stations in Nogales Wash (TUMA 0005, TUMA 0006, TUMA 0026, TUMA 0028). The highest value of 310,000 CFU/100 ml was reported in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064) in July 1977. *E. coli* concentrations were measured 27 times at two monitoring stations, in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006) and the Santa Cruz River at the international boundary (TUMA 0003), from 1993 through 1999. Eight concentrations, ranging from 1,029 CFU/100 ml to 85,200 CFU/100 ml at the two stations, exceeded the WRD bathing water screening criterion of 126 CFU/100 ml from 1994 through 1999. Six of the observations exceeding the criterion were reported in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006), including the highest concentration of 85,200 CFU/100 ml in July 1998.

Chlorine concentrations (including free available and total residual) were measured 179 times at 21 monitoring stations from 1971 through 1999. Of the 173 observations used in the criteria analysis (see Composite Type Screen in the Methodology and EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), 63 concentrations at 13 stations exceeded the acute freshwater criterion of

0.019 mg/L from 1995 through 1999. Approximately 84 percent of these 63 observations were reported at seven stations in Nogales Wash (TUMA 0006, TUMA 0007, TUMA 0011, TUMA 0012, TUMA 0013, TUMA 0016, TUMA 0019), including the highest concentration of 2.83 mg/L in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006) in April 1999.

Total cyanide concentrations were measured 28 times at six monitoring stations (TUMA 0003, TUMA 0064, TUMA 0076, TUMA 0077, TUMA 0083, TUMA 0098) from 1976 through 1992. Four concentrations, ranging from 0.03 mg/L to 0.04 mg/L at two stations in the Santa Cruz River, Rio Rico Drive Bridge in Rio Rico (TUMA 0064) and the international boundary (TUMA 0003), exceeded the acute freshwater criterion of 0.022 mg/L during 1977 and 1991. The highest concentration of 0.04 mg/L was reported twice, at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064) and the international boundary (TUMA 0003) in April 1977 and July 1991, respectively.

Fluoride concentrations (including dissolved and total) were measured 315 times at 47 monitoring stations from 1946 through 1999. Of the 310 observations used in the criteria analysis (see Composite Type Screen in the Methodology for explanation), one total concentration of 5.6 mg/L in the Santa Cruz River at the international boundary (TUMA 0003) exceeded the drinking water criterion of 4 mg/L in August 1987.

Total sulfate concentrations were measured 439 times at 61 monitoring stations from 1941 through 1999. Of the 391 observations used in the criteria analysis (see Composite Type Screen in the Methodology for explanation), 24 concentrations at eight stations, in Patagonia Lake (TUMA 0070), Sonoita Creek (TUMA 0067, TUMA 0073, TUMA 0078, TUMA 0081), near the Endless Chain Mine (TUMA 0045, TUMA 0048), and at the mouth of Alum Canyon (TUMA 0079), equaled or exceeded the secondary drinking water criterion of 250 mg/L from 1973 through 1991. Twelve of these 24 concentrations were reported in Patagonia Lake (TUMA 0070) during 1979 and 1980. The highest concentration of 2,216 mg/L was reported at a spring near the Endless Chain Mine Dump (TUMA 0045) in January 1981.

Nitrate concentrations (including dissolved and total as N and dissolved and total as NO_3) were measured 259 times at 48 monitoring stations from 1946 through 1999. Of the 206 observations used in the criteria analysis (see Composite Type Screen in the Methodology for explanation), one total NO_3-NO_3 concentration of 45 mg/L in Nogales Wash in Nogales, Arizona (TUMA 0005) exceeded the drinking water criterion of 44 mg/L NO_3-NO_3 in April 1973.

Nitrite concentrations (including dissolved and total as N and dissolved and total as NO_2) were measured 141 times at 23 monitoring stations from 1973 through 1999. Two total NO_2-N concentrations, 1.2 mg/L in the Santa Cruz River upstream of the Rio Rico Sewage Treatment Plant (TUMA 0058) and 1.1 mg/L in Nogales Wash in Nogales, Arizona (TUMA 0005), exceeded the drinking water criterion of 1 mg/L NO_2-N in April 1973.

Nitrite plus nitrate concentrations (including dissolved and total as N) were measured 312 times at 29 monitoring stations from 1976 through 1999. One dissolved concentration of 10 mg/L in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064) equaled the drinking water criterion of 10 mg/L in April 1976.

Arsenic concentrations (including dissolved, inorganic total, and total) were measured 384 times at 36 monitoring stations from 1973 through 1999. Four total concentrations, ranging from 50 micrograms per liter (µg/L) to 150 µg/L at three stations, in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064), a tributary of Harshaw Creek near Endless Chain Mine (TUMA 0048), and at the mouth of Alum Canyon (TUMA 0076), equaled or exceeded the drinking water criterion of 50 µg/L from 1976 through 1992. The highest concentration of 150 µg/L was reported in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064) in July 1976.

Barium concentrations (including dissolved and total) were measured 366 times at 29 monitoring stations from 1976 through 1999. Two total concentrations of 2,500 µg/L and 2,000 µg/L in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064) exceeded or equaled the drinking water criterion of 2,000 µg/L in July 1976 and July 1977, respectively.

Beryllium concentrations (including dissolved and total) were measured 261 times at 24 monitoring stations from 1980 through 1999. Two total concentrations of 15.4 µg/L and 7.2 µg/L in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006) exceeded the drinking water criterion of 4.0 µg/L in September 1993 and January 1994, respectively.

Cadmium concentrations (including dissolved, suspended, and total) were measured 390 times at 39 monitoring stations from 1973 through 1999. Of the 362 observations used in the criteria analysis (see EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), 28 concentrations at ten stations, in Nogales Wash in Nogales, Arizona (TUMA 0006, TUMA 0028), the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0062, TUMA 0064), near the Endless Chain Mine (TUMA 0045, TUMA 0048), near the confluence of Sonoita Creek and Alum Canyon (TUMA 0076, TUMA 0077), in the Santa Cruz River at the international boundary (TUMA 0003), and Sonoita Creek upstream of the Circle Z Ranch (TUMA 0073), exceeded the acute freshwater criterion of 3.9 µg/L from 1973 through 1998. Twenty-three of these 28 concentrations also equaled or exceeded the drinking water criterion of 5.0 µg/L. The highest concentration of 86 µg/L was reported in a tributary of Harshaw Creek near the Endless Chain Mine (TUMA 0048) in February 1981.

Chromium concentrations (including dissolved, hexavalent, and total) were measured 378 times at 39 monitoring stations from 1971 through 1999. Of the 376 observations used in the criteria analysis (see Composite Type Screen in the Methodology for explanation), two total concentrations, 250 µg/L in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006) and 160 µg/L in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064), exceeded the drinking water criterion of 100 µg/L in July 1998 and July 1976, respectively.

Copper concentrations (including dissolved and total) were measured 377 times at 43 monitoring stations from 1969 through 1999. Of the 372 observations used in the criteria analysis (see Composite Type Screen in the Methodology for explanation), 63 concentrations at 11 stations equaled or exceeded the acute freshwater criterion of 18 µg/L from 1973 through 1999. Six of these 63 concentrations also exceeded the drinking water criterion of 1,300 µg/L during 1973 and 1981. The highest concentration of 13,000 µg/L was reported in a tributary of Harshaw Creek near the Endless Chain Mine (TUMA 0048) in March 1981.

Lead concentrations (including dissolved and total) were measured 396 times at 44 monitoring stations from 1973 through 1999. Of the 380 observations used in the criteria analysis (see EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), 38 concentrations at ten stations, in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006), the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0062, TUMA 0064), near the Endless Chain Mine (TUMA 0046, TUMA 0048), the Santa Cruz River at the international boundary (TUMA 0003), near the confluence of Sonoita Creek and Alum Canyon (TUMA 0076, TUMA 0077), at the mouth of Temporal Gulch (TUMA 0083), and in the Santa Cruz River approximately one mile upstream of Josephine Canyon (TUMA 0085), exceeded the drinking water criterion of 15 µg/L from 1976 through 1999. Twelve of these 38 concentrations also exceeded the acute freshwater criterion of 82 µg/L from 1976 through 1998. The highest concentration of 900 µg/L was reported in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064) in July 1977.

Mercury concentrations (including dissolved and total) were measured 390 times at 39 monitoring stations from 1973 through 1999. Of the 388 observations used in the criteria analysis (see EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), two total concentrations of 3.9 µg/L and 2.6 µg/L in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0064) exceeded the drinking water criterion of 2.0 µg/L and the acute freshwater criterion of 2.4 µg/L in January and July 1976, respectively.

Nickel concentrations (including dissolved and total) were measured 243 times at 22 monitoring stations from 1988 through 1999. Three total concentrations, ranging from 100 µg/L to 130 µg/L in Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006), equaled or exceeded the drinking water criterion of 100 µg/L in July 1998 and August 1999. The highest concentration of 130 µg/L was reported in August 1999.

Selenium concentrations (including dissolved and total) were measured 377 times at 30 monitoring stations from 1976 through 1999. Of the 376 observations used in the criteria analysis (see EPA Water Quality Criteria Analysis for Station in the Interpretive Guide To Water Quality Results for explanation), seven total concentrations, ranging from 22 µg/L to 97 µg/L at four stations, in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0062), Nogales Wash in Nogales, Arizona (TUMA 0006, TUMA 0028), and the Santa Cruz River at the international boundary (TUMA 0003), exceeded the acute freshwater criterion of 20 µg/L in 1987. Two of these seven concentrations also exceeded the drinking water criterion of 50 µg/L. The highest concentration of 97 µg/L was reported in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0062) in May 1987.

Silver concentrations (including dissolved and total) were measured 379 times at 33 monitoring stations from 1973 through 1999. Five total concentrations, ranging from 6 µg/L to 20 µg/L at four stations, in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0062, TUMA 0064), Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006), and at the mouth of Alum Canyon (TUMA 0076), exceeded the acute freshwater criterion of 4.1 µg/L from 1976 through 1992. Three of the five observations exceeding the criterion were reported in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0062, TUMA 0064) during 1976 and 1991, including the highest concentration of 20 µg/L (TUMA 0064) reported twice, in July and August 1976.

Zinc concentrations (including dissolved and total) were measured 368 times at 40 monitoring stations from 1973 through 1999. Twenty-nine concentrations at ten stations, in the Santa Cruz River at the Rio Rico Drive Bridge in Rio Rico (TUMA 0062, TUMA 0064), Nogales Wash at the Morley Avenue tunnel opening in Nogales, Arizona (TUMA 0006), near the Endless Chain Mine (TUMA 0045, TUMA 0046, TUMA 0048), the Santa Cruz River at the international boundary (TUMA 0003), near the confluence of Sonoita Creek and Alum Canyon (TUMA 0076, TUMA 0077), and at the mouth of Temporal Gulch (TUMA 0083), equaled or exceeded the acute freshwater criterion of 120 µg/L from 1976 through 1999. Five of these 29 concentrations also exceeded the drinking water criterion of 5,000 µg/L from 1980 through 1992. The highest concentration of 62,000 µg/L was reported at a spring near the Endless Chain Mine Dump (TUMA 0045) in September 1980.

The IDEA conducted for TUMA indicates that STORET data exist for all 13 Level I parameter groups in the study area. Overall, approximately 81 percent of the observations for Level I parameter groups were recorded since 1985. For the parameter group Chlorophyll, no observations were recorded since 1976. Data for four groups (Flow, Chlorophyll, Bacteria, and Toxic Elements) were recorded at less than half of the 101 monitoring stations with data. Relative to other parameter groups, data were limited for the group Chlorophyll. Results for 50 of the 126 EPA priority toxic pollutants (consisting of inorganic and organic parameters, metals, and pesticides) were retrieved from STORET.

Surface water resources in the TUMA study area include the Santa Cruz River; Nogales, Potrero, Sonoita, and numerous other intermittent and perennial creeks and washes, including those draining Alum, Guevavi, Josephine, and many other canyons; Patagonia Lake, Pena Blanca Lake, and other impoundments; Rock Corral, Waterfall, and other springs and seeps; some playa lakes; and Cowhead, Hidden, and many other tanks. No monitoring stations were located within the park boundaries. The data inventories and analyses contained in this report indicate that surface waters within the study area appear to have been impacted by natural and human activities. Potential natural sources of contaminants include erosion from flash floods. Potential anthropogenic sources of contaminants include industrial and municipal wastewater discharges; stormwater runoff; mining and quarrying operations; agricultural and ranching activities; recreational use; and atmospheric deposition.

TABLE OF CONTENTS

EXECUTIVE SUMMARY v

TABLE OF CONTENTS xi

I. INTRODUCTION 1
- Goal 1
- Purpose 1
- Objectives 1
- Document Overview 2
- Caveats 2
- Key Personnel 3

II. METHODOLOGY 5
- Delineation of Park Study Area 5
- Data Sources 5
- Data Retrieval and Analysis Procedures 7
- Park Unit Databases 8
- Screening Methodologies and Procedures 9
  - STORET Edit Criteria 9
  - Date Screen 10
  - Station Type Screen 10
  - Phase 0 Parameter Screen 11
  - Phase 1 Parameter Screen 11
  - Media Type Screen 11
  - Remark Code Screen 11
  - Composite Type Screen 13
  - Phase 2 Parameter Screen 14
  - Observations/Period of Record Screen 15
- Statistical Definitions 17

III. INTERPRETIVE GUIDE TO WATER QUALITY RESULTS 19
- Overview 19
- Regional Location Map 19
- Water Quality Monitoring Locations Map(s) 19
- Dischargers, Drinking Intakes, Gages, and Impoundments Map(s) 20
- Industrial Facilities Discharges, Drinking Water Intakes, Water Gages, and Water Impoundments Table 20
- Representative Mean Annual Hydrograph for Seasonal Analysis 20
- Contacts for Agency Codes Retrieved 21
- Quantity of Data Retrieved by Agency Code 21
- Station Period of Record Tabulation 21
- Parameter Period of Record Tabulation 22
- Station/Parameter Period of Record Tabulation 22
- Station-By-Station Results 22
  - Station Inventory for Station 23
  - Parameter Inventory for Station 23
  - EPA Water Quality Criteria Analysis for Station 23
  - Time Series Plots for Station 24
  - Annual Analysis for Station 25
  - Annual Box-and-Whiskers Plots for Station 25

Seasonal Analysis for Station 25
Seasonal Box-and-Whiskers Plots for Station 26
EPA Water Quality Criteria Analysis for Entire Park Study Area 26
NPS Servicewide Inventory and Monitoring Program
"Level I" Water Quality Inventory Data Evaluation and Analysis (IDEA) 26
Water Quality Observations Outside STORET Edit Criteria for Park 28

IV. WATER QUALITY RESULTS 29
Overview 31
Regional Location Map 32
Water Quality Monitoring Locations Map(s) 33
Dischargers, Drinking Intakes, Gages, and Impoundments Map(s) 37
Industrial Facilities Discharges, Drinking Water Intakes, Water Gages,
and Water Impoundments Table 38
Representative Mean Annual Hydrograph for Seasonal Analysis 39
Contacts for Agency Codes Retrieved 40
Quantity of Data Retrieved by Agency Code 41
Station Period of Record Tabulation 42
Parameter Period of Record Tabulation 44
Station/Parameter Period of Record Tabulation 56
Station-By-Station Results 115
TUMA0001 E.Nogales Wash at US/Mexican Border in Tunnel 117
TUMA0002 SCNGW004.80 (Nogales Wash at Interntnl Boundary) 118
TUMA0003 SCSCR097.28 (Santa Cruz R at Interntl Boundary) 120
TUMA0004 Santa Cruz R./US Border/Buena Vista Ranch 212
TUMA0005 Nogales Wash in Nogales 213
TUMA0006 SCNGW004.23 (Nogales Wash at Morley Ave Tunnel) 215
TUMA0007 Nogales Wash at Morley Avenue Bridge 329
TUMA0008 Santa Cruz River North of International Boundary 331
TUMA0009 Santa Cruz River Nr. Nogales, Ariz. 332
TUMA0010 Ephriam Canyn Above Nogales Wash 335
TUMA0011 SCNGW003.8 (Nogales Wash South of Rt 82 Ovrpss) 337
TUMA0012 SCNGW003.4 (Nogales Wash Upstrm Frm SCNGW003.2) 338
TUMA0013 SCNGW003.15 (Nogales Wash Acrss From Public Wks) 339
TUMA0014 Nogales Wwtp City of Nogales Downstream Sediment 342
TUMA0015 Santa Cruz River in Kino Springs 345
TUMA0016 SCNGW002.6 (At East Calle Sonora Road Bridge) 347
TUMA0017 SCSCR094.91 (Santa Cruz R at Kino Springs Brdg) 348
TUMA0018 Santa Cruz R. at Kino Sprs.Bridge Nr US Border 350
TUMA0019 SCNGW001.7 (Nogales Wash at W Produce Row Brdg) 351
TUMA0020 Walker Canyon at Ruby Road Xing 352
TUMA0021 Santa Cruz River at Hwy 82 Crossing Nr Kino Spr 354
TUMA0022 Nogales Wash Near the Niwtp 355
TUMA0023 Santa Cruz R at Az 82 361
TUMA0024 Pena Blanca Spgs S of Lake in Pena Blanca Canyon 363
TUMA0025 D-23-12 35BBD 365
TUMA0026 Nogales Wash Above Potrero Wash 367
TUMA0027 Pena Blanca Cr Abv Pena Blanca L 369
TUMA0028 SCPOT003.78 (Nogales Wash Near Fire Station #B) 371
TUMA0029 Nogales Wash @ Nogales, AZ Firestation B 374
TUMA0030 Potrero Wash Above Nogales Wash 375
TUMA0031 Pena Blanca Lake 377
TUMA0032 SCPOT003.5 (Potrero Creek 0.3 Mi N of Fire St B) 378
TUMA0033 Pena Blanca Lake at Boat Dock 379

TUMA0034 SCPOT003.38 (Potrero Creek N of Fire Station B) 380
TUMA0035 SCPEN-C 383
TUMA0036 SCPEN-B 384
TUMA0037 SCPEN-A 385
TUMA0038 Pena Blanca Lake at Spillway 388
TUMA0039 Pena Blanca Lake (Red Rock Area) 390
TUMA0040 Creek Draining Guevavi Canyon at Ruby Rd Bridge 391
TUMA0041 SCPOT001.9 (Potrero Creek at Old Tucson Rd Brdg) 393
TUMA0042 Santa Cruz R Above Potrero Wash 394
TUMA0043 Nogales Wash South of Ruby Road 396
TUMA0044 SCPOT001.53 (Potrero Creek at Ruby Road) 398
TUMA0045 Spring by Mine Dump Endless Chain Mine 399
TUMA0046 Above Endless Chain Mine in Harshaw Creek 401
TUMA0047 Tributary of Harshaw Creek Above Mines 403
TUMA0048 Endless Chain Mine Tributary of Harshaw Creek 405
TUMA0049 Santa Cruz River at Rio Rico Bridge 407
TUMA0050 SCPOT000.72 (Potrero Creek Upstream of Wwtp) 409
TUMA0051 Sonoita Cr-Patagonia Dam Spillwy 412
TUMA0052 Potrero Wash Above Santa Cruz R 414
TUMA0053 Nogales Wash Behnd Nogales WWTP Facility 416
TUMA0054 SCPOT000.1 (At Intersection With Santa Cruz R) 417
TUMA0055 Santa Cruz R Above Nogales STP 418
TUMA0056 Santa Cruz River Near Nogales WWTP 420
TUMA0057 Santa Cruz R. 100 Ft Upstrm of Sonoita Creek 423
TUMA0058 Santa Cruz R Above Rio Rico STP 424
TUMA0059 Santa Cruz R Below Rio Rico STP 426
TUMA0060 Santa Cruz River Nr Rio Rico, Arizona 428
TUMA0061 Santa Cruz River at Rio Rico North 434
TUMA0062 SCSCR087.08 (Santa Cruz River at Rio Rico) 435
TUMA0063 Santa Cruz R. in Rio Rico at Calabasas Rd.Bridge 442
TUMA0064 Santa Cruz River at Rio Rico, Ariz. 443
TUMA0065 Santa Cruz River at Rio Rico 447
TUMA0066 Agua Fria Cr at Interstate 19 449
TUMA0067 Sonoita Creek Above Santa Cruz R 451
TUMA0068 SCPAT-B 453
TUMA0069 SCPAT-A 455
TUMA0070 Patagonia Lake 457
TUMA0071 Patagonia Lake at Beach (State Parks) 459
TUMA0072 Mesquite Seep at 4WD Rd in Fresno Canyon 460
TUMA0073 Sonoita Cr Above Circle Z Ranch 462
TUMA0074 SCPCK000.23 (Peck Canyon Creek) 464
TUMA0075 Peck Canyon Cr at Interstate 19 467
TUMA0076 SCALG000.07 (Alum Gulch) 469
TUMA0077 SCSON007.64 (Sonoita Creek Near Patagonia) 471
TUMA0078 Sonoita Creek Below Alum Creek 474
TUMA0079 Alum Creek at Mouth 476
TUMA0080 Sonoita Cr Just Above Temporai W 478
TUMA0081 SCSON008.41 (Sonoita Creek Near Patagonia) 480
TUMA0082 Temporai Wash Above Sonoita Cr 483
TUMA0083 SCTMG000.20 (Temporal Gulch Nr Patagonia WWTP) 485
TUMA0084 Santa Cruz River at Santa Gertrudis 487
TUMA0085 "No Info in the Station Header File."-USGS-2 489
TUMA0086 Spring at Head of Trib in Rock Corral Canyon 491
TUMA0087 Santa Cruz R-Santa Gertrudis Rd 493

TUMA0088 SCSCR080.50 (Santa Cruz R at Santa Gertrudis Ln) ... 495
TUMA0089 Santa Cruz River at Santa Gertrudis ... 499
TUMA0090 Santa Cruz River at Santa Gertrudis Lane ... 501
TUMA0091 Santa Cruz River at Tubac ... 507
TUMA0092 Aliso Springs at Head of Aliso Canyon ... 509
TUMA0093 Santa Cruz River at Tubac ... 511
TUMA0094 Santa Cruz River at Tubac, Az. ... 512
TUMA0095 Santa Cruz River at Tubac Bridge ... 521
TUMA0096 SCSCR077.06 (Santa Cruz R at Tubac Bridge) ... 524
TUMA0097 Santa Cruz R-at Tubac Country Cl ... 525
TUMA0098 Santa Cruz River North of Chaves Siding Road ... 527
TUMA0099 Santa Cruz River Downstream of Chaves Siding Rd ... 530
TUMA0100 Santa Cruz River at Chaves Siding Road ... 531
TUMA0101 SCSCR081.34 (Santa Cruz R N of Chaves Siding Rd) ... 533
EPA Water Quality Criteria Analysis for Entire Park Study Area ... 534
NPS Servicewide Inventory and Monitoring Program
"Level I" Water Quality Inventory Data Evaluation and Analysis (IDEA) ... 537
Water Quality Observations Outside STORET Edit Criteria for Park ... 544

V. APPENDICES ... 547
A. Computer Files Transmitted With Park Baseline Water Quality Data Inventory and Analysis ... A-1
B. Water Quality Database File Structures ... B-1
Parameter Data File ... B-1
Water Quality Station Data File ... B-4
Industrial Facilities Discharges File ... B-6
Drinking Water Intakes File ... B-9
Water Gage File ... B-12
Water Impoundment File ... B-14
RF3 Structure File ... B-18
RF3 Trace File ... B-22
Catalog Unit Boundary File ... B-23
Encyclopedia File ... B-24
C. STORET Water Quality Control/Edit Checking ... C-1
D. STORET Administrative Parameters ... D-1
E. STORET Parameters Not Suitable for Statistical Analysis ... E-1
F. National EPA Water Quality Criteria Summary ... F-1
G. Inventory Data Evaluation and Analysis (IDEA) Servicewide Inventory and Monitoring Program "Level I" Parameter Groups ... G-1
H. Literature Cited ... H-1
I. Selected General Water Quality References ... I-1

INTRODUCTION

The National Park Service's (NPS) Organic Act of 1916 states that the mission of the NPS is to promote and regulate the use of national parks, monuments, and other units "... to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." One task embodied by this mission is preserving and protecting water resources and water dependent environments in parks. Ensuring the integrity of park water quality, due to its importance in sustaining natural, aquatic park ecosystems and supporting human consumptive and recreational use, is fundamental to successfully addressing this task. The first step in ensuring the integrity of park water quality is defining historic and extant water quality.

This document represents one product of an ongoing effort by the NPS Water Resources Division (WRD) and the Servicewide Inventory and Monitoring Program to characterize baseline water quality using existing data at park units containing significant natural resources. This effort was initiated in 1993 by the award of a contract to Horizon Systems Corporation to retrieve, format, and analyze surface water quality data from the Environmental Protection Agency's (EPA) Storage and Retrieval (STORET) database system. The scope of work identified in the Request For Proposals outlined several sequential, interrelated project phases, including, but not limited to: (1) determining the water quality retrieval/query area around each park; (2) downloading and assessing the quality of the data from STORET; (3) generating basic water quality summary statistics and graphic plots; (4) reformatting water quality data for compatibility with the park-based Water Quality Data Management System presently under-development; and (5) providing recommendations concerning possible hardware, software, and personnel options for storing combined park databases in a centralized NPS water quality database. This report documents the results of phases one through four of this effort for this park unit.

Goal

The goal of this document is to provide descriptive water quality information in a format usable for park planning purposes (eg. Water Resources Management Plans, Resource Management Plans, and General Management Plans). The report is designed to characterize baseline water quality rather than assess specific water quality problems at a park. This is consistent with the Servicewide Inventory and Monitoring Program's goal of obtaining basic, "Level I", water quality parameters for key waterbodies at each park (National Park Service 1993). Consequently, this report is best used as a reference document to help design new goal-driven water quality monitoring programs rather than as conclusive evidence of previous or existing water quality problems.

Purpose

The purpose of this report is to inventory existing park water quality data; establish baseline water quality at the park; identify potential water quality problems; and establish a park water quality database. This report is intended to enable park resource managers to compare and contrast water quality data collected as part of ongoing inventory and monitoring programs with historical water quality trends. Additionally, this report is intended to foster better designed park-based water quality inventory and monitoring programs in the future. The water quality databases which accompany this report will also lay the groundwork for establishing a NPS water quality database that will allow Regions and Washington Offices to generate regional and national assessments of park water quality.

Objectives

Specific objectives of the study documented in this report are to:

1. Retrieve water quality and related data from the EPA's STORET and other database systems;

2. Develop a complete inventory of all retrieved data;

3. Produce descriptive statistics and appropriate time series and box-and-whiskers plots of water quality data to characterize period of record, annual, and seasonal central tendencies and trends;

4. Compare water quality data with relevant national EPA water quality criteria on a station-by-station and study area basis;

5. Determine the presence and/or absence of the Servicewide Inventory and Monitoring Program's "Level I" water quality parameters within the study area; and

6. Reformat water quality and other related data for use in the park-based Water Quality Data Management System, presently under-development, and other appropriate analytical tools.

Document Overview

This report is comprised of five chapters. The first chapter, this Introduction, provides a brief statement of the study's background; goal, purpose, and objectives; and the key personnel who helped produce the document. This chapter also contains this brief overview of the document's contents and important interpretive caveats to consider when referring to and using this document. The second chapter focuses on the methods, procedures, and databases that were employed to retrieve and analyze water quality data for the park. The third chapter is the user's interpretive guide to chapter four. Chapter three explains how to interpret all the tables and figures presented in chapter four. Chapter four, which likely comprises the majority of the document (unless there isn't much water quality data for the park), contains detailed inventories, descriptive statistics, graphics, and national EPA water quality criteria comparisons characterizing the park unit's water quality data on a station-by-station basis and over the entire study area. This chapter also contains a comparison of park water quality data with the Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameters and a listing of water quality observations that were outside the STORET edit criteria range. Chapter five, the Appendices, contains more specialized materials such as the file names and database structures included on floppy disk(s) with this report; STORET edit criteria; national EPA water quality criteria; Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameters; selected water quality references; and other materials which provide background on the methods, procedures, and databases used or produced by this study.

The water quality and other related data referenced in this report accompany the document on floppy disk. The water quality parameter data file is in DBASE III+[1] format and will be useable in the park-based Water Quality Data Management System presently under-development. The water quality stations, industrial facilities discharges, drinking water intakes, water gages, water impoundments, and River Reach databases are also in DBASE III+ and/or ASCII format for ready-use in Geographic Information Systems (GIS), Computer-Aided Design Systems, or Desktop Mapping Systems.

Caveats

While intended primarily as a reference document, it is important that users peruse the first three chapters and Appendices of this report to better understand and interpret the results presented in chapter four. As a means for identifying potential areas for more intensive study, comparisons of the park's water quality data with relevant national EPA water quality criteria for appropriate designated uses[2] and with the Servicewide Inventory and

[1]The use and/or mention of specific proprietary hardware or software packages is for informational purposes only and is not intended to connote or denote an endorsement.

[2]The Environmental Protection Agency's Quality Criteria for Water 1995 Final Draft (Silver Book) was the primary source of water quality criteria. In the spirit of the other caveats offered in this section, it is important to recognize that water quality criteria are often revised when new or better information become available.

Monitoring Program's "Level I" water quality inventory parameters have been made. Extreme caution must be exercised in interpreting the results of these comparisons. Observations that exceed water quality criteria may have occurred due to any number of natural or anthropogenic factors, as well as other reasons. For example, STORET is a "user-beware" water quality database system. While there is some rudimentary edit (bounds) checking of any data entered in STORET (See Appendix C), users are basically free to enter their own data. Beyond data entry errors, the possibility of inaccurate data entering the system due to inappropriate measurement techniques, sample mistreatment, and other reasons is a serious concern. Consequently, if observations for a particular parameter frequently exceed the EPA water quality criterion over a prolonged time period, the best approach is to examine in detail the data exceeding the criterion. Questions which should be asked regarding the data include: What water source(s) are manifesting the problem? Does the data make sense? Was it collected by a reputable organization following a sound study plan and employing accepted techniques? If the answers to these questions still cause concern, a specific cause and effect water quality investigation focusing on the parameters of concern may be warranted. Similarly, the absence of particular Servicewide Inventory and Monitoring Program "Level I" water quality parameters from the park only means that no entity or organization has collected and entered this data into the EPA's STORET database. Too frequently, data that are collected in and around NPS units never make it into the EPA's national water quality database. These data may exist in published or unpublished reports, file cabinets, or other databases. Before definitively concluding that no baseline data exist for a particular parameter, these alternative resting grounds for data should be investigated. Such a detailed exploration, however, was beyond the scope of this study.

Key Personnel

Many individuals contributed to the design and implementation of this project. The primary contributors and their roles in the project are briefly mentioned below.

National Park Service, Water Resources Division:

Dean Tucker was the Contracting Officer's Technical Representative responsible for designing, coordinating, and implementing all aspects of this effort.

Mike Matz coordinated and managed the team which prepared all components of the report.

Gary Rosenlieb provided administrative oversight and was involved in quality control for all tasks related to this project.

Barry Long and Roy Irwin reviewed technical tasks and provided water quality expertise related to data analysis.

Gary Smillie provided hydrologic expertise in the determination of hydrologic seasons.

Amy Benton, Josh Johnson, Padraigh Gallagher, and Scott Ratchford helped prepare reports and write the Executive Summaries.

Elizabeth Eisenhauer, Scott Ratchford, Valdete Celaj, Sonny Emmert, Nils Babel, Greg Johnson, Karyn Boldys, and Karin Howland provided digital cartographic support, both in determining retrieval/query areas and producing maps and graphics.

Kelli O'Connor, Chris Echohawk, Adam Henson, Ryan Shy, Adriane Petersen, Aria Brissette, Eric Lord, Ronda Burns, Melanie Schnier, and Clint Bassett uploaded water quality data to STORET prior to report preparation.

Jacquie Nolan designed the cover.

Horizon Systems:

Cindy McKay served as Project Manager for Horizon Systems, performed the initial requirements analysis, and was involved in all quality control tasks related to the project.

Alan Cahoon was responsible for automating the procedures which produced the water quality databases and Water Quality Results chapter.

Sue Hanson, P.E., provided technical advice for writing this document.

Dr. Jim Loftis was the data quality analyst for the project.

Armando F. Ballofet, P.E., served as the local technical liaison between Horizon Systems and the NPS.

Other National Park Service:

Several other individuals provided invaluable technical review, comments, administrative support, and/or other assistance, including: Dan Kimball, Bill Jackson, Mark Flora, Gary Williams, John Karish, Brendhan Zubricki, Richard Hammerschlag, Randy Ferrin, Gary Vequist, Mike Martin, Kevin Berghoff, and Dyra Monroe.

METHODOLOGY

This section provides an overview of the procedures and criteria used to retrieve and analyze water quality data for each park unit. Generating baseline water quality data inventories and analyses for all NPS units is a monumental task. To accomplish this undertaking given a very limited budget, the procedures employed to produce each report had to be as generic and automated as possible. Consequently, customization of reports to individual park needs and issues was not feasible. Moreover, such customization was beyond the scope of this effort which was simply intended to produce baseline water quality data inventories for all parks rather than customized issue-driven reports. During the procedure-development stages of the project, specifications for the final product evolved, within the context of the aforementioned resource constraints, to focus on comprehensive water quality baseline data inventories and concise, descriptive statistical examinations of the available water quality data for each park unit. Detailed below are the data sources and final methods and procedures that were used to create the baseline water quality inventories, analyses, databases, and other products for each park unit. A thorough understanding of the limitations of the data sources and procedures described in this chapter and the next (Interpretive Guide to Water Quality Results) is a prerequisite to intelligent use of the results presented in this document.

Delineation of Park Study Area

The first step in retrieving water resources-related data for each park was deciding on a procedure to determine the study area boundary. Since water flows through parks, utilizing the park boundary as a simple query/study area was deemed inadequate. On the other end of the continuum, using the entire watershed as the study area was considered superfluous given: (1) the areal extent of certain park watersheds (eg. the entire Mississippi River); (2) the sheer volume of potentially irrelevant data such a large study area could generate; and (3) the resources required to specify the watershed for each park unit. The approach which was ultimately adopted - a modified hydrologic boundary - reflects a compromise between the park boundary and the entire watershed. Thus the study area employed for each park is an area extending at least three miles upstream and one mile downstream from the park boundary. Although these distances are somewhat arbitrary, this approach is easy to automate and was felt to limit the data retrieved, in most instances, to that of most importance to the park. Extending the query area one mile downstream of the park was intended to capture any data immediately downstream of the park which may reflect the quality of the water in the park. A current (as possible) copy of each park's boundary was obtained in digital format directly from the park or digitized from Regional land status maps, U.S. Geological Survey (USGS) quadrangles, or other sources. Using GIS techniques, the boundary was used to create the three miles upstream, one mile downstream buffer. For a few parks with which WRD water quality specialists were very familiar with potential water quality threats and/or valuable sources of data that may lie just outside the study area, the study area may have been tweaked (enlarged) to cover these areas of concern or interest. Unfortunately, a customized study area was not feasible for all park units. Hence, the three miles upstream, one mile downstream buffer was the primary study area employed for most parks. This study area was transferred to the EPA mainframe computer and used as the basis for all water resources-related data retrievals from the data sources described below.

Data Sources

The EPA maintains many mainframe data systems related to national water resources (U.S. Environmental Protection Agency 1992). Six of these data systems were used for this project:

- STOrage and RETrieval System (STORET) - water quality parameter data, locations of sampling stations, descriptive elements about stations and parameters;
- Industrial Facilities Discharge (IFD) - locations of industrial and municipal point source discharge facilities;

- Drinking Water Supplies (DRINKS) - locations of intake pipes for drinking water supplies;
- Water Gages (GAGES) - locations of USGS and other water gages;
- Water Impoundments (DAMS) - locations of most large water impoundments (greater than 10,000 acre feet at normal pool volume) and many smaller impoundments; and
- River Reach File, Version 3 (RF3) - 1:100,000 scale geographical representation of surface waters (rivers, lakes, etc.) with a unique identifier assigned to each surface water segment and connectivity information useful for routing and navigation.

STORET is the national water quality data repository (U.S. Environmental Protection Agency 1989). Water quality data is entered in STORET by public agencies (federal, state, or local) that collect water samples and/or perform laboratory analysis. As such, STORET is a "user-beware" data system. Although the EPA manages the STORET data system and, since November 1983, has imposed some minimum quality control criteria on the data (See Appendix C), data are generated and input to STORET by the "owner" agencies. Consequently, the EPA does not certify any data within STORET. Currently, there are over 800,000 active and inactive sampling stations and more than 225 million observations covering in excess of 13,000 water quality parameters entered in STORET. The earliest data dates back to the turn of the century. Using the bi-monthly update cycle, user agencies may store results of recent monitoring activities in STORET. Included in STORET is USGS WATSTORE water quality data, which is updated on a monthly basis. Although STORET contains a phenomenal amount of data, it is important to note that data exist in STORET only if the collectors decide to upload their data to the system. Since many agencies and researchers do not upload their data to STORET, the absence of water quality data in the system for a particular area doesn't mean that there has never been any water quality data collected for the area. The data may exist in published or unpublished reports, file cabinets, or in agency-specific databases. Identifying and retrieving these other sources of data were beyond the scope of the present effort. All parameter data and water quality station location data downloaded from STORET within the park's study area are included in DBASE III+ format files on disk(s) accompanying this report (See Appendices A and B).

The data within the IFD database are extracted from the EPA's Permit Compliance System (PCS). IFD contains the facility locations of all industrial and municipal dischargers which require a National Pollutant Discharge Elimination System (NPDES) permit to operate. Over 7,100 municipal, federal, and industrial facilities discharging into the waters of the United States are tracked by PCS and IFD. If any industrial facilities discharges exist within the study area, a file in DBASE III+ format documenting a variety of information about each discharge accompanies this report on disk (See Appendices A and B).

The EPA DRINKS database identifies locations of drinking water supply intakes. This file contains data for 850 supplies which serve more than 25,000 people, and 6,800 supplies which serve between 1,000 and 25,000 people. If any drinking water intakes exist within the study area, a file in DBASE III+ format documenting a variety of information about each intake accompanies this report on disk (See Appendices A and B).

The GAGES data originates primarily with the USGS and copies are maintained on the EPA mainframe computer for ease of integration with other EPA national data systems. Although other agency's water gages, as well as some artificial gages, may appear in GAGES, the vast majority of gages are stream gages belonging to the USGS. The GAGES database contains approximately 36,000 records for both active and inactive gaging stations. If any USGS or other agency stream gages occur within the study area, a file in DBASE III+ format documenting several fields of information about each gage accompanies this report on disk (See Appendices A and B).

The Water Impoundment database was originally compiled by the U.S. Army Corps of Engineers in response to a Congressional inquiry on dam safety hazards (GKY and Associates 1990). The EPA subsequently modified the database for use in water quality investigations. Of the 68,155 dams in the database, 2,125 are considered large (impounding 10,000 acre feet or more at normal pool volume). It is important to note that while the database includes entries for 66,030 smaller dams, estimates place the actual number of dams in the U.S. at several million

(including small farm ponds). If any water impoundments occur within the study area, a file in DBASE III+ format documenting several fields of information about each impoundment accompanies this report on disk (See Appendices A and B).

The RF3 data system is a hydrologic database of surface water features across the U.S. (excluding, at present, Idaho, Oregon and Washington, which currently operate a different system - although this data is expected to be converted to RF3 soon, Alaska and Hawaii). RF3 was created primarily from 1:100,000 scale USGS Digital Line Graph data. RF3 is made up of over 3,000,000 individual "reaches". A reach is generally defined as a portion of surface water between two confluences (U.S. Environmental Protection Agency 1993). The linework underlying RF3 contains over 95,000,000 coordinate points. RF3 is designed to facilitate hydrologic routing, identifying upstream and downstream elements, and specifying the exact location of any point on a stream network. RF3 data exists as a series of traces with associated attributes. The EPA project which is producing RF3 is being conducted in three phases: Compilation, Assessment, and Revision. The Compilation phase is complete except for Idaho, Washington, Oregon, and Alaska. The Assessment phase was completed during the first half of 1994; while the Revision phase was begun in March 1994. One important outcome of the Revision phase is that the reach codes which uniquely identify each surface water feature will change. Consequently, these codes should not be used, at this time, as keys for relating other data to RF3. The RF3 data provided with this document is provisional and should be used only to provide a geographic backdrop for the park's water quality data. RF3 data covering each USGS catalog unit (a geographic area representing a single or multiple drainage basin(s), or some other distinct hydrologic feature (U.S. Geological Survey 1982)) touched by the park's study area is included in ASCII export and DBASE III+ formats on the disk(s) accompanying this report (See Appendices A and B).

For additional information on any of these data systems, contact the EPA Office of Water at (202) 260-7028.

Data Retrieval and Analysis Procedures

The six EPA data systems discussed above reside on the EPA mainframe computer located in Research Triangle Park, N.C. Horizon Systems used a dedicated, leased telephone line with a data transfer rate of 9600 bits per second to download data occurring within the park's study area from all the databases. The bisynchronous communication software and hardware provided error checking during all data transfer procedures.

As described above, the park study/query area boundary was used to select the water quality stations, industrial facilities discharges, drinking water intakes, water gages, water impoundments, and river reaches associated with the park unit. For various reasons, screening criteria (described later in this section) were employed to select appropriate water quality stations, parameters, and observations. Horizon Systems wrote several mainframe programs to automate, to the greatest extent feasible, the STORET data retrieval and storage procedures. Once the data were extracted from the EPA data systems, they were downloaded to a microcomputer for statistical analyses and reformatted into DBASE III+ compatible format.

Specifically, once on the PC, the data were processed to:

(1) Reformat the data into DBASE III+ format and other database structures;
(2) Eliminate questionable data outside the STORET edit criteria ranges (See Appendix C);
(3) Display on a map the location of water quality monitoring stations and other water resources themes;
(4) Determine the frequency of water quality observations by station, parameter, and station/parameter;
(5) Generate descriptive period-of-record water quality statistics in a tabular format;
(6) Generate appropriate descriptive annual and seasonal analyses of the water quality data in a tabular format;
(7) Plot appropriate period of record time series and annual and seasonal box-and-whisker graphs;
(8) Compare the water quality data against relevant EPA national criteria; and

(9) Compare the water quality data against the NPS Servicewide Inventory and Monitoring Program's "Level I" water quality parameters.

Special customized microcomputer programs (primarily written in Clipper and Microsoft Professional BASIC) and procedures were created to address each of these tasks. All reformatted database files are included on disk(s) accompanying this document. The contents of these databases are described briefly below. Complete database structures are included in Appendices A and B. The descriptive water quality tabular statistics (see "Statistical Analyses" below) were computed based upon NPS specifications. Command or batch files were generated to drive STATGRAPHICS 7.0 in order to produce all the time series and box-and-whiskers plots.

Park Unit Databases

Up to seven digital databases in DBASE III+ and other formats have been created for the park by querying the water resources-related data sources described above. The disk(s) containing these databases accompany the report. The contents of each of these databases are discussed briefly below. More detailed documentation of these databases is included in Appendices A and B.

(A) Water Quality Parameter Data: This database includes all the water quality parameter data downloaded from STORET that passed the STORET Edit Criteria, Date, Station Type, and Phase 0 Parameter screens (described below) and is summarized tabularly and graphically in this document. This constitutes the park's baseline water quality data. Since it is already in digital format, more sophisticated analysis of the data is possible than the descriptive statistics and graphics presented here.

(B) Water Quality Station Locations: This database consists of the STORET header information describing each station where water quality data was collected. As the latitude and longitude of the station are included in the database, this file is easily imported into the park's GIS.

(C) Industrial Facility Discharge Locations: This database includes any industrial or municipal point source discharges located within the park's study area. As the latitude and longitude of each discharge facility are included in the database, this file is easily imported into the park's GIS.

(D) Drinking Water Intake Locations: This database includes any drinking water intakes located within the park's study area. As the latitude and longitude of each intake are included in the database, this file is easily imported into the park's GIS.

(E) Water Gage Locations: This database includes water (stream, lake, estuary, well, spring, climate, or other) gages located within the park's study area. Most of the gages will likely be stream gages belonging to the USGS. As the latitude and longitude of each gage are included in the database, this file is easily imported into the park's GIS.

(F) Water Impoundment Locations: This database includes any water impoundments (dams) located within the park's study area. As the latitude and longitude of each impoundment are included in the database, this file is easily imported into the park's GIS.

(G) River Reach Data: This database includes all stream traces (1:100,000 scale) and attributes for reaches falling within any USGS catalog unit that touches the park's study area. The traces are geo-referenced in ASCII format. The attributes are in both ASCII export and DBASE III+ formats. This information is also readily incorporated into the park's GIS.

The absence of any of these seven files from the disk(s) accompanying the report indicates that there was either no data of this type within the park's study area or the data was unavailable. Several other files are included on the disk(s) accompanying this report, including digital copies of all the figures and tables contained in the document and some other items. Refer to Appendices A and B for detailed documentation of these files. Not included on

disk is an Encyclopedia File (for WRD reference) that documents the minimum and maximum values for each water quality parameter and the parks in which those values were recorded. When Baseline Water Quality Data Inventory and Analysis reports have been completed for all parks, this Encyclopedia File will be available upon request from the NPS WRD.

Screening Methodologies and Procedures

Developing automated or semi-automated procedures to produce baseline water quality inventories and analyses for all national park units required constant testing and debugging of procedures. Three parks, Rock Creek Park, Yellowstone National Park, and Indiana Dunes National Lakeshore, were used to pilot test and refine the automated procedures. It became evident, after a preliminary analysis of all the downloaded STORET data, especially for Indiana Dunes National Lakeshore, that the specifications for the graphical analyses could generate hundreds (possibly thousands) of plots, many of which would not necessarily be useful. Also, there were many stations; parameters; and/or observations downloaded that were not part of the study's objectives; not overly useful; or of dubious quality. In order to reduce the number of graphical plots (time series, annual and seasonal box-and-whiskers) to fit within project resources, various screening criteria were investigated. Ultimately, a comprehensive set of screening criteria were developed to reduce the number of graphical plots. After initial counts of the total number of possible time series and annual and seasonal box-and-whiskers plots were generated, these counts were used to decide which screening criteria would be applied to limit the number of these plots produced for the park unit. Additional screening criteria were employed to restrict the tabular descriptive statistics results to only those deemed useful to the park. Table A provides the categories of screening criteria and to which analyses the screens were applied. A "yes" entry in the table means that the screening category eliminated or prevented data from appearing in certain tables and plots contained in the document. Consequently, in understanding how data from STORET was used in this report, it may be helpful to keep in mind the three general types of screening criteria: (1) screens that apply to stations; (2) screens that apply to certain parameters at stations; and/or (3) screens that apply only to particular observations of parameters at stations. A detailed description of each of the screening criteria categories follows this table. *It is important to note that statistics in "Inventory" reports may not be consistent with statistics in "Overview" reports since different categories of screening criteria were applied*. Also, if attempting to replicate the results of the statistical and graphical analyses presented in this document, be sure to follow the same screening methodologies.

STORET Edit Criteria

As mentioned previously, STORET is a "user-beware" data system. As the EPA doesn't certify any data in STORET, public agencies enter and are responsible for the quality of their own data. Only data entered since November 1983 have been subjected to any rudimentary edit/bounds checking. Agencies entering data since this date can elect to override the edit/bounds checking for individual observations. USGS WATSTORE water quality data is entered into STORET without any EPA edit/bounds checking to ensure data integrity between WATSTORE and STORET. Unfortunately, during the course of our pilot tests, erroneous USGS and EPA water quality data values were discovered. In order to eliminate as much "bad" data as possible, all water quality data downloaded from STORET was subjected to automatic edit/bounds checking (STORET Edit Criteria contained in Appendix C) for the 190 most common parameters. Observations falling outside the STORET Edit Criteria were documented (See the Water Quality Observations Outside STORET Edit Criteria for Park section in the Water Quality Results chapter) and then retained or discarded from the database and all tables and plots based on whether the value was judged as being in the realm of possibility. Although the STORET Edit Criteria screen likely removed some "bad" data for these common parameters, the probability of other erroneous data in the database is high. Be sure to consult the Caveat section in the Introduction.

Table A. Categories of Screening Criteria and to Which Output Products They Apply (A "yes" Entry Means the Screening Category Eliminated or Prevented Data From Being Used in the Product):

Screening Category	Data Download	Overview Tables	Inventory Tables	Annual Tables	Seasonal Tables	Standards Tables	Plots (All)
STORET Edit Criteria	yes	yes	yes	yes	yes	yes	yes
Date	yes	yes	yes	yes	yes	yes	yes
Station Type	yes	yes	yes	yes	yes	yes	yes
Phase 0 Parameter	yes	yes	yes	yes	yes	yes	yes
Phase 1 Parameter	no	no	yes	yes	yes	yes	yes
Media Type	no	no	yes	yes	yes	yes	yes
Remark Codes	no	no	yes	yes	yes	yes	yes
Composite Type	no	no	yes	yes	yes	yes	yes
Phase 2 Parameter	no	no	no	no	no	no	yes
Observations/Period of Record	no	no	no	yes	yes	no	yes

Date Screen

Every water quality observation in STORET typically has a sampling date associated with it. Unfortunately, STORET does not prevent users from entering incorrect dates. Consequently, any water quality observation with an incorrect and/or suspect date (eg. a month greater than 12; a day greater than 31; or a sample date later than the STORET retrieval date) were discarded.

Station Type Screen

STORET contains data from a wide variety of stations classified by the type of waterbody in which samples were collected. As this project's purpose was to inventory and analyze surface-water quality, the following surface-water station types were retrieved (clarification provided in parentheses):

Station Types Included In Retrieval
(a) STREAM
(b) CANAL
(c) LAKE
(d) RESERV (Reservoir)
(e) SPRING
(f) FWTLND (Fresh Water Wetland)
(g) SWTLND (Salt Water Wetland)
(h) ESTURY (Estuary)
(i) OCEAN

Ground water and/or other station type data may have been retrieved if the entering agency classified the station type incorrectly. Rectifying this error was beyond the scope and resources of this project.

Phase 0 Parameter Screen

Nearly all water quality parameters associated with each station type listed above were retrieved. The only exception to this was the exclusion of most of the STORET administrative parameters. A complete list of STORET administrative parameters is included in Appendix D. The few administrative parameters that were included in the retrievals are as follows:

Code	STORET Administrative Parameter Description
00027	Code No. for Agency Collecting Sample
00028	Code No. for Agency Analyzing Sample
00063	Sampling Points, Number of In a Cross Section
00111	Ratio of Fecal Coliform to Fecal Streptococci
00115	Sample Treatment Code (1=Raw, 2=Treated)
34772	NPDES Number, Cross Reference
45580	Method of Analysis
74065	Stream Flow Class
74066	Annual Runoff
74067	Soil Classification
74068	Water Quality Designated Use Classification

Phase 1 Parameter Screen

Some of the data retrieved from STORET was not suitable for statistical or graphical analysis. Consequently, this screening criterion eliminated all parameters which were not suitable for statistical or graphical analysis within the context of this project. The full list of these parameters is presented in Appendix E. Examples of parameters excluded from statistical and graphical analysis include the administrative parameters mentioned above, land use acreage, encoded values, dates, latitude/longitude, etc. Excluded parameters do, however, appear in the Parameter Period of Record and Station/Parameter Period of Record (two of the "Overview" Tables), as well as in the water quality parameter file included on disk(s) accompanying this report.

Media Type Screen

Water quality samples can be taken in a variety of aqueous media. Water quality data were retrieved from STORET only if the media were WATER or VERT (vertically integrated). WATER and VERT samples comprise the overwhelming majority of samples in STORET. The media screen eliminated the following water quality sampling media:

Media Screen	Description
BOTTOM	Sampled At the Bottom
DREDGE	Sampled By Dredge
PORE	Pore Sample
CORE	Core Sample

Remark Code Screen

STORET enables the agency collecting water quality samples to provide a qualifying remark for each parameter observation. These remarks provide additional information about the measured or observed value entered into STORET (See Appendix B - Parameter Data File for a complete listing and description of all remark codes). Based on the STORET remark codes, two potential screens were applied to water quality observations based on whether the measured value was used in subsequent analyses: (1) Elimination or (2) Modification/Inclusion.

Elimination:
Non-composite water quality parameters with the remark codes presented in Table B were eliminated from the period of record, annual, and seasonal descriptive statistics and graphics. Not including observations with these remarks was justified by the fact that most of the remarks: (A) indicate either less confidence in the measured value; (B) are remarks for nominal or categorical data that doesn't lend itself to statistical analysis; or, (C) complicate the statistical analysis beyond the scope of this effort. Observations containing these remark codes comprise a very small fraction of the data. Although statistical analyses weren't undertaken on this data, all water quality observations, regardless of remark code, are included on disk(s) accompanying this report. If you re-analyze this data in order to replicate the results presented here, be sure to eliminate all non-composite observations with the remark codes presented in Table B.

Table B. Non-composite Parameters With the Following Remark Codes Were Eliminated From Statistical and Graphical Analysis:

Remark Code	Description of STORET Remark Code
F	Female Species.
J	Estimated, Not the Result of Analytic Measurement.
M	Presence Verified, But Not Quantified, Below Quantification Limit. For Species, Male. For Oxygen Reduction Potential, Indicates Negative Value.
N	Presumptive Evidence of Presence.
O	Analysis Lost.
V	Analyte Was Detected In Sample and Method Blank.
W	Less Than Lowest Value Reportable Under Remark "T".
Z	Too Many Colonies Were Present to Count (TNTC), Value Represents Filtration Value.

Modification/Inclusion:
Water quality parameter observations with the remark codes presented in Table C were halved prior to inclusion in period of record, annual, and seasonal descriptive statistics and graphics. These remark codes deal with observations that were below the detection limit for the parameter. The common water quality data analysis convention for these remark codes is to use half of the detection limit in statistical analyses (Ward, Loftis, and McBride 1990; Gilbert 1987). Although this is a somewhat defensible treatment of observations below the detection limit, the statistics that may be computed using these halved values may not be defensible. Consequently, any computed statistics in inventory, annual, or seasonal tables that are comprised of 50% or more K, T, and U remark codes are footnoted "Computed with 50% or more of the total observations as values that were half the detection limit." This will provide the user with some caution in using and interpreting these results. Water quality data included on disk(s) accompanying this report that may have these remark codes are stored as the original entry (detection limit). If you re-analyze this data in order to replicate the results presented here, be sure to substitute half the detection limit value in the database whenever these remark codes are encountered.

Table C. The Value of Water Quality Parameters With the Following Remark Codes Were Halved (Half of the Detection Limit Entered In STORET) Prior to Inclusion In Descriptive Statistics and Graphics:	
Remark Code	**Description of STORET Remark Code**
K	Off-scale Low, Actual Value Not Known, But Known to Be Less Than Value Shown.
T	Less Than Detection Criteria.
U	Analyzed For But Not Detected, Value is Detection Limit For Process Used. If Species, Undetermined.

Composite Type Screen

Sometimes data entered in STORET represent something other than a single measurement at one location at one point in time. These samples are typically referred to as composite samples due to the fact that they vary temporally and spatially. Consequently, the observation entered into STORET for composite data is typically a computed value that summarizes the data over time and/or space. Such data complicate statistical and graphical analyses and must be handled separately. Such treatment was beyond the scope of this study; although composite values typically represent only a fraction of STORET observations. The composite type screen eliminates all composite observations from statistical and graphical analyses, except those with a composite type code of "A" that have a one day or less sampling period and those with a composite type code "D". All water quality observations, regardless of composite type code, are included on disk(s) accompanying this report. If you re-analyze this data in order to replicate the results presented here, be sure to exclude all composite observations except those with a code of "A" that have a one day or less sampling period and those with a code of "D". Table D presents a list of possible STORET composite type codes.

Table D. Possible STORET Composite Type Codes

Composite Type Code	STORET Composite Type Description
A	Average
H	Maximum
L	Minimum
N	Number of Observations
#	Number of Observations
S	Standard Deviation
U	Sum of Squares
V	Variance
C	Coefficient of Error
X	Coefficient of Variance
E	Skewness
F	Kurtosis
Z	Number of Obs. That Exceed An Established Limit
%	Precision
$	Accuracy
B	N/A
D	Indicates Replicate Sample

Phase 2 Parameter Screen

Due to budgetary limitations, the number of graphical plots (time series, annual and seasonal box-and-whiskers) produced had to be manageable - typically no more than 100 total plots. After scrutinizing the results of the pilot tests and the Baseline Water Quality Data Inventory and Analysis Reports produced for the first group of parks, the 19 parameters which, typically, were the most frequently measured at nearly all stations were water temperature, stage, discharge, and various meteorological measurements (See Table E). Consequently, most of the graphical plots produced would be of water temperature, stage, discharge, and meteorological conditions. Although these are important parameters, particularly in conjunction with other water quality parameters, it was felt that plotting resources would be better allocated to other water quality parameters. Consequently the STORET parameter codes listed in Table E never generated graphical plots. It is important to note, however, that these parameters are included in all other aspects of the project, including all applicable period of record, annual, and seasonal descriptive statistics tables.

Table E. Frequently Measured STORET Codes That Were Prevented From Generating Plots	
STORET Parameter Code	**STORET Parameter Description**
00003	Sampling Station Location, Vertical (Feet)
00010	Water Temperature (Degrees Centigrade)
00020	Temperature, Air (Degrees Centigrade)
00021	Temperature, Air (Degrees Fahrenheit)
00025	Barometric Pressure (MM of HG)
00032	Cloud Cover (Percent)
00035	Wind Velocity (Miles Per Hour)
00036	Wind Direction in Degrees from Trun N (Clockwise)
00040	Wind Direction (Azimuth)
00045	Precipitation, Total (Inches Per Day)
00046	Precipitation, Total (Inches Per Week)
00052	Humidity, Relative (Percent)
00061	Stream Flow, Instantaneous (CFS)
00065	Stream Stage (Feet)
81903	Depth of Bottom of Water @ Sample Site (Feet)
82553	Rainfall In 1 Day Inclusive Prior to Sample (Inches)
82554	Rainfall In 7 Days Inclusive Prior to Sample (Inches)
82371	Rainfall In 3 Days Inclusive Prior to Sample (Inches)
82372	Rainfall In 14 Days Inclusive Prior to Sample (Inches)
85599	Precipitation, Total/Period-Rain Equivalent (Cm/Sample)

Observations/Period of Record Screen

Despite never plotting water temperature, stage, discharge, and meteorological measurements, the number of plots generated by some parks still exceeded the 100 plot limit. Also, some rationale was needed to plot only those parameters with sufficient data density to make a meaningful statistical graphic. For example, time series plots comprised of only a few observations or annual or seasonal box-and-whiskers plots with limited observations and/or data in only one or two years or seasons are not very informative. Consequently, a number of plotting criteria were developed to limit the number of time series and box-and-whiskers plots to, at most, 100 informative graphics by using each parameter's number of observations and period of record. Similar, albeit less stringent criteria, were used for including results of annual and seasonal analyses in descriptive statistics tables. Consequently, there are more summaries of annual and seasonal results in tables than in graphics. Whenever an entry in an annual or seasonal table generated a plot, this entry was footnoted to notify the reader of the presence of the graphic. Due to differing quantities of data at parks, different screening criteria were employed. The same

criteria for appearance in seasonal and annual tables were used for all parks. Table F presents the least stringent plot screens.

Table F. Least Stringent Plot Screening Criteria Used to Limit the Number of Plots Generated

Time Series: To generate a time series plot, a station/parameter combination must have a period of record of at least 2 years and a total of at least 8 observations. Annual Analysis: To generate an annual box-and-whiskers plot, a station/parameter combination must have at least 9 observations in each of at least 4 years. The years do not have to be consecutive. Seasonal Analysis: To generate a seasonal box-and-whiskers plot, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years. The years do not have to be consecutive.

The exact three plot screens used varied by park unit and are documented in the Overview section of the Water Quality Results chapter. If your park's plotting criteria deviated from these least stringent criteria, it is because too many plots would have been generated using these criteria.

The criteria used for appearance of station/parameter combinations in annual and seasonal analysis tables are presented in Table G. These tabular criteria, which are actually the least stringent plotting criteria, were constant from park to park.

Table G. Criteria Used for Generating Entries in Annual and Seasonal Analysis Tables

Annual Analysis: For an entry to appear in an annual table, a station/parameter combination must have at least 9 observations in each of at least 4 years. The years do not have to be consecutive. Seasonal Analysis: For an entry to appear in a seasonal table, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years. The years do not have to be consecutive.

Statistical Definitions

Since this report is intended only to characterize historical and/or existing water quality at the park rather than address specific water quality problems, only simple descriptive statistics are presented. Inferential and non-parametric statistical analysis to examine relationships and trends were beyond the scope of the study. The complete water quality dataset is provided on disk accompanying this report to afford the opportunity for more detailed exploratory data analysis. The descriptive statistics are included in the inventory, annual, and seasonal tables. Table H provides a brief definition of each descriptive statistic provided for each parameter at a station.

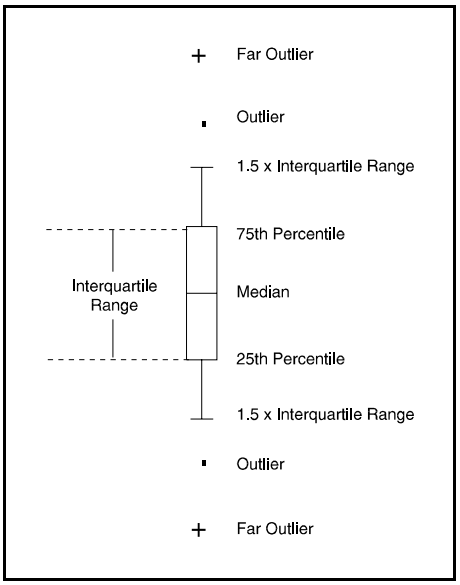
Table H. Definition of Descriptive Statistics Contained in Inventory, Annual, and Seasonal Tables

Observations:	The number of samples collected.
Median:	The median is the 50th percentile or the value in a dataset sorted in ascending order that exceeds 50% of all observations, yet is also exceeded by the remaining 50% of all observations.
Mean:	The sum of all observations collected divided by the number of observations.
Maximum:	The maximum value observed.
Minimum:	The minimum value observed.
Variance:	This is a measure of variability or dispersion of the observations; or, in other words, describes how many observations are close (or far), from the mean. It is calculated as the weighted average of the squared deviations from the mean.
Standard Deviation:	The positive square root of the variance.
10th Percentile:	The value in a dataset sorted in ascending order that exceeds 10% of all observations, yet is itself exceeded by the remaining 90% of all observations.
25th Percentile:	The value in a dataset sorted in ascending order that exceeds 25% of all observations, yet is itself exceeded by the remaining 75% of all observations. The 25th percentile is also known as the first quartile.
75th Percentile:	The value in a dataset sorted in ascending order that exceeds 75% of all observations, yet is itself exceeded by the remaining 25% of all observations. The 75th percentile is also known as the third quartile.
90th Percentile:	The value in a dataset sorted in ascending order that exceeds 90% of all observations, yet is itself exceeded by the remaining 10% of all observations.

As with the tabular descriptive statistics, the scope of the project limited the generation of exploratory graphics to time series plots and annual and seasonal box-and-whiskers plots. Plots were only generated, however, provided the parameter met or exceeded the relevant plotting criteria specified in the previous section.

Time series plots display the parameter concentration on the Y-axis and the date on the X-axis. This provides the user with a visual feeling for not only the parameter's concentration and variability over time, but also the density of data in different time periods. The time series plots provide a visual representation of the data in the basic station inventory. Due to software limitations, a line connects each measured value in sequence regardless of the time period between samples. Readers are cautioned not to assume that the concentration of the parameter between any two data points can be represented by a straight line. It is likely that the concentration varied between any two observations, particularly if the observations are separated by a significant time period.

The annual and seasonal box-and-whisker plots provide a graphical overview of the measured data and give the user a better understanding of the data's distribution and possible outliers. In essence, the box-and-whisker plots provide a visual representation of the data contained in the annual and/or seasonal tables. The interpretation of the boxes is provided in the figure to the right. Each box encompasses the middle 50 percent of measured values (from the 75th to 25th percentiles). The difference between the 75th and 25th percentiles is also known as the interquartile range. The horizontal line inside each box is the median or 50th percentile. The lines which extend out from each end of the box are the whiskers. The whiskers extend out from first quartile (25th percentile) and third quartile (75th percentile) to the smallest data point within 1.5 interquartile ranges from the first and third quartiles. Observations that extend beyond the whiskers are known as outliers. Far outliers are observations whose values lie more than three interquartile ranges below the first quartile or above the third quartile. These are designated with plus signs.



INTERPRETIVE GUIDE

TO WATER QUALITY RESULTS

This interpretive guide discusses each of the products presented in the next chapter - Water Quality Results. This chapter highlights how each of the tables and figures were prepared and how they can be used. Each subheading in this chapter corresponds to a particular product in the subsequent Water Quality Results chapter.

Overview

The Overview provides a brief one-page summary of the results of the various database retrievals for both the study area and the park. The study area results include the park results since the study area encompasses the park and all lands and waters within at least 3 miles upstream and 1 mile downstream of the park. Thus, the GIS estimated acreage of the study area should always be greater than the park acreage. The park acreage was computed from the digital boundary that was obtained for the park. More than likely this acreage will differ, perhaps significantly, from the "official" published acreage for the park due to the spatial and temporal accuracy of the digital boundary, treatment of inholdings, and other concerns. The number of STORET stations is the number of locations within the study area and park where an agency monitored (or intended to monitor) water quality. The number of stations with no data reveals the number of stations created in STORET for which water quality data were never entered. The number of stations with no statistical analysis reports the number of stations in the study area and park that contain data not amenable to normal parametric statistics. The number of longer term stations indicates the number of stations in the study area and park with at least 6 parameters having periods-of-record extending 2 years with an average of at least 1 observation per year over the period-of-record. The date of STORET retrieval is the calendar date when Horizon Systems downloaded all the data from STORET. Thus, the report documents all data entered in STORET prior to the retrieval date. Keep in mind that an agency can upload archival data at any time. Consequently, a retrieval date only guarantees that as of that date, this report contains all the data that had been entered into STORET. The period of record is the earliest date for which water quality data exist in STORET for the study area and park up to the date when the most recent data were entered prior to the retrieval date. The number of parameters measured is the number of unique water quality parameters measured within the study area and park and entered in STORET. The number of water quality observations is the sum of the total number of observations across all parameters within the study area and park. The number of industrial/municipal facilities discharges, drinking water intakes, water gages, and water impoundments are the number of each of these entities found within the study area and park. The number of time series, annual, and seasonal plots are the number of these different types of graphics produced by station/parameter combinations within the study area and park using the plotting criteria described in the previous chapter. The hydrologic seasons, described below, are the seasons used for the seasonal water quality data analysis. The time series, annual, and seasonal criteria are the plot and tabular screening criteria described in the previous chapter.

Regional Location Map

The Regional Location Map provides a small scale, general representation of the park and study area location within the United States. Digital, reproducible copies of this graphic are included on the disk(s) accompanying this report.

Water Quality Monitoring Locations Map(s)

The Water Quality Monitoring Locations Map(s) usually provides a larger scale representation of the park and study area than the Regional Location Map. This map indicates the locations within the study area where water quality has been monitored and the data entered into STORET. The water quality monitoring stations are labelled sequentially with the rightmost significant digits. The station names were assigned in numerically ascending order by latitude (for parks with a greater north-south extent than east-west) or longitude (for parks with a greater east-

west extent than north-south). Thus, this map serves as a visual index to the water quality data contained in the report. Since the 1:100,000 scale hydrography (from the River Reach File Ver. 3.0 or other sources) is displayed on the map, users can refer to the map to locate the station number on the reach in which they are interested and then find the appropriate section in the report that documents the water quality at that station. If the scale allows, USGS catalog units are also displayed on the map to provide an approximation of drainage basins. More than one Water Quality Monitoring Location map may be presented if the scale requires breaking the area into multiple maps for legibility. If multiple maps are necessary, an index map showing the geographic extent of each sub-map or panel will be present. Digital, reproducible copies of this graphic are included on the disk(s) accompanying this report. The digital, geo-referenced data files documented in Appendices A and B will allow the park to create water quality monitoring stations as a coverage in their GIS.

Dischargers, Drinking Intakes, Gages, and Impoundments Map(s)

The Dischargers, Drinking Intakes, Gages, and Impoundments Map(s) displays the same information as the Water Quality Monitoring Location Map(s) except the water quality stations are replaced by industrial/municipal facilities discharges, drinking water intakes, active and inactive gage locations, and water impoundments. This map also serves as a visual index allowing the user to determine the identification code of each discharger, drinking intake, gage, or impoundment. This number can then be used to obtain additional information about the entity on the following page of the report or to refer to the more detailed database files accompanying the report on disk. These more detailed database files are geo-referenced (See Appendices A and B), thus allowing the park to create these coverages in their GIS. More than one Dischargers, Drinking Intakes, Gages, and Impoundments map may be presented if the scale requires breaking the area into multiple maps for legibility. If multiple maps are necessary, an index map showing the geographic extent of each sub-map or panel will be present. Digital, reproducible copies of this graphic are also included on the disk(s) accompanying this report.

Industrial Facilities Discharges, Drinking Water Intakes, Water Gages, and Water Impoundments Table

This table provides some additional information about each of the discharges, drinking intakes, water gages, and water impoundments displayed on the previous map(s). This information generally includes the site identification number; the station or facility name; an address or some other indication of location; and some other pertinent information. More detailed information about each of these entities is contained in the database files on disk accompanying the report (See Appendices A and B).

Representative Mean Annual Hydrograph for Seasonal Analysis

One component of the water quality data analysis contained in the document is a seasonal analysis of the data (where adequate data exist). In order to undertake this analysis, some representation of the park's seasons was required. Seasons can be based on many factors (eg. hydrologic, climatic, recreational use, etc.). Since project resources did not allow us to contact every park and discuss with resource management staff what appropriate seasons may be for the park, WRD staff elected to adopt primarily a hydrologic/climatic definition of the seasons which uses a process of hydrograph separation to glean seasons from stream discharge patterns. The procedure employed to make these determinations was as follows:

(1) Find the nearest USGS Hydro-Climatic Data Network (HCDN) station (U.S. Geological Survey 1992) to the park that is most representative of streamflow conditions at the park. The HCDN is basically a subset of USGS streamflow stations, including only those stations that are unaffected by artificial diversions, storage, or other disruptions of the natural channel. All HCDN stations generally have at least a 20 year period of record. Consequently, discharge patterns at these stations should reflect only hydrologic and climatic influences. For the most part, selected HCDN sites were typically within 15-20 miles of the park. In some parks where WRD staff were aware of the existence of a stream gage located within the park that would be more representative of park waters even though it wasn't an HCDN site, this gage was selected.

(2) Retrieve the daily discharge values for the selected station from the USGS Daily Values File and generate a mean annual hydrograph and a box-and-whiskers plot of daily flows by month.

(3) Interpret the plots based on our knowledge of the hydrologic regime at these parks and assign seasons.

This approach, used for the majority of parks, assumes that most water quality data at the park will be found in streams and that the discharge pattern of the selected stream is representative of the seasons for all park waterbodies. Although this assumption may be weak for certain parks, project resources did not allow a more thorough investigation. For parks where there wasn't any stream gage (HCDN or otherwise) deemed representative of park waters, precipitation records from a nearby meteorological station were obtained from the National Climatic Data Center. Plotting daily average precipitation and box-and-whiskers of monthly precipitation sums allowed WRD hydrologists to make a rough approximation of climatic seasons for use in analyzing the water quality data.

Again, it is important to note the many ways of defining "seasons" and thus the limitations of the seasonal analysis contained in this document. For certain parks it may be more useful to perform a seasonal analysis with seasons defined by recreational use patterns or some other natural or anthropogenic factor. This option is available to the park since all the water quality data analyzed in this document is contained on disk(s) accompanying this report. Digital, reproducible copies of this seasonal analysis graphic are also included on the disk(s) accompanying this report.

Contacts for Agency Codes Retrieved

This table provides a list of the organizations who have entered data into STORET. A contact name at the organization and a phone number are also supplied. The agency code in the first column is the key for identifying which stations belong to that agency. This code will appear in the first line of each station's inventory. Although the agencies listed in this table are potential partners for future water quality monitoring or management endeavors, don't be surprised if the name of the contact and/or the telephone number is out of date. This information is entered when an agency first creates a station. The agency may not update this information when the initial contact moves on or the telephone number changes. Nonetheless, it is likely that the contact or someone else at the agency may be able to provide you with project reports or other information relative to the agency's data. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Quantity of Data Retrieved by Agency Code

This table displays the period-of-record; numbers of water quality stations, longer-term stations, and stations without data; total number of water quality observations; and the number of unique water quality parameters measured by each agency within the study area and park boundary. Using this table, a park can quickly determine which agencies collect the most data in and around the park and whether they have monitored recently. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Station Period of Record Tabulation

The Station Period of Record Tabulation provides a quick overview of the names of all the stations within the study area where water quality has been monitored and data entered into STORET. It also furnishes the total number of observations taken at each station and the frequency of observations between certain dates: (1) 01/01/85 until the most recent date data were measured; (2) 01/01/75 - 12/31/84; and (3) prior to 01/01/75. The station identification number, the four character park abbreviation code followed by a four digit number, provides the means to jump from a particular station in the table to the statistical and graphical analyses for this station contained in the Station-By-Station Results section. The Station Period of Record Tabulation reveals which water

quality stations were situated within the park as defined by the park's GIS boundary. The Station Period of Record Tabulation also footnotes longer-term water quality stations. Longer-term stations are those that have at least 6 parameters with an average of one or more observations per year for those parameters during a period of record extending at least two years. Note that although a station may not be flagged as longer-term, it can still harbor much important data (albeit for only a few parameters or over a very long term with just a few observations). A digital copy of this table accompanies this report on disk (See Appendices A and B).

Parameter Period of Record Tabulation

The Parameter Period of Record Tabulation provides a complete listing of every water quality parameter ever measured in the study area and entered into STORET. This table is a summation of all the water quality observations for each parameter across all stations in the study area. Like the Station Period of Record Tabulation, the total number of observations for each parameter and the frequency of observations between: (1) 01/01/85 until the most recent date data were measured; (2) 01/01/75 - 12/31/84; and (3) prior to 01/01/75 are provided. This table is handy for quickly assessing whether particular parameters have been measured in the study area. The Parameter Period of Record Tabulation also shows how many in-park (and total) water quality stations contained data for each parameter. Some administrative parameters and parameters not suitable for statistical analysis within the context of this project (as discussed in the Screening Methodologies and Procedures section of the Methodology chapter) are listed in the Parameter Period of Record Tabulation, but not in the Station-By-Station Results section. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Station/Parameter Period of Record Tabulation

The Station/Parameter Period of Record Tabulation combines the information found in the Station Period of Record Tabulation and the Parameter Period of Record Tabulation. This table provides a listing of all the stations where a particular water quality parameter was measured in the study area and the data entered into STORET. The table provides the start and end dates of the period of record of each parameter at each station; the number of years of measurement (computed from the start and end dates); whether the station/parameter combination occurred within the park boundary; the total number of observations for each parameter at each station, and whether a time series (T), annual (A), and/or seasonal (S) plot was generated for the station/parameter combination in the Station-By-Station Results section. This table is very useful when you need to determine at which locations within the study area (or park) particular parameters were monitored and how much data was collected there. Some administrative parameters and parameters not suitable for statistical analysis within the context of this project (as discussed in the Screening Methodologies and Procedures section of the Methodology chapter) are listed in the Station/Parameter Period of Record Tabulation, but not in the Station-By-Station Results section. A digital copy of this table accompanies this report on disk (See Appendices A and B).

Station-By-Station Results

Probably the most voluminous portion of the document is the Station-By-Station Results. Here the results of the water quality analyses for each station are presented in sequence. The results include the station inventory; parameter inventory; EPA water quality criteria analysis; and, as applicable, time series graphics and annual and seasonal tables and box-and-whiskers graphics. Each of these products are discussed below.

Station Inventory for Station

Each station's data commences with its Station Inventory. The Station Inventory provides the descriptive attributes about each water quality monitoring station contained in STORET. This includes a variety of locational information such as a verbal description, the Federal Information Processing codes for county and state, latitude and longitude, and other items; the station type (stream, spring, estuary, etc.); monitoring agency; creation date; indices to the River Reach File; whether the station lies within the park boundary; and several other attributes. This water quality station location data is also contained on disk(s) accompanying the report (See Appendices A and B).

Parameter Inventory for Station

Following the descriptive attributes about a station is the Parameter Inventory for the station. The Parameter Inventory provides a complete inventory and descriptive summary of all the water quality parameter data for the station. This table furnishes the parameter STORET code and name; the period of record for this parameter at this station; and the descriptive statistics defined in the Statistical Definitions in the previous chapter. Three different footnotes can appear on a parameter's descriptive statistics. Two asterisks (**) in the 10th, 25th, 75th, or 90th percentile columns indicates that there was insufficient data to compute these statistics for this parameter. Percentiles were not computed unless the parameter had at least 9 observations. Two number signs (##) next to the number of observations indicates that more than 50 percent of the observations entered into the computations as values that were taken to be half the detection limit. Caution should be employed in interpreting and using statistical results when more than half the values are set to half the detection limit. The letter "p" following a numeric STORET parameter code in the Parameter Inventory indicates that a time series plot was produced for this parameter at this station. Digital, reproducible copies of the Parameter Inventory tables are contained on the disk(s) accompanying this report.

Two downloaded parameter groups, pH and bacteriological, received special treatment whenever descriptive statistics were computed in the Parameter Inventory (as well as subsequent annual and seasonal tables). Whenever pH appears in a descriptive statistics table, the entry is increased to 3 entries: (1) the original pH entry; (2) pH computed from conversion to and from μeq/l H^+; and (3) μeq/l H^+. The reason for these conversions is that pH is actually the negative logarithm of the hydrogen ion concentration. To be technically correct in computing descriptive statistics, pH values must be converted to μeq/l H^+ (Kunkle and Wilson 1984). Once the descriptive statistics are computed using the pH values expressed as μeq/l H^+, the results can be converted back to pH. The three pH entries in the descriptive statistics table will all have the same STORET code.

Whenever a bacteriological parameter appears in a descriptive statistics table, the entry is increased to 3 entries: (1) the original bacteriological entry; (2) an entry computed using the log of each measured value; and (3) an entry that simply reports the geometric mean. The reason for converting to logs and displaying the geometric mean is convention. Bacteriological water quality standards typically reference the geometric mean rather than the arithmetic. The three bacteriological entries in the descriptive statistics tables will all have the same STORET code.

EPA Water Quality Criteria Analysis for Station

The EPA Water Quality Criteria Analysis table follows the Parameter Inventory. This table presents a comparison between the station's STORET water quality data and applicable national water quality criteria for freshwater and marine aquatic organisms; drinking water; and other concerns. Comparison against applicable State water quality criteria was not feasible given project resources. Appendix F provides the relevant national EPA water quality criteria values. In most cases, the EPA water quality criteria values are single sample concentrations that can be directly compared to single sample STORET entries. There are, however, two notable exceptions to this single sample/single value comparison: ammonia and fecal-indicator bacteria. For these two parameters, criteria are either derived from or depend on the results of other chemical characteristics of the water or require a time series statistical treatment of multiple samples to determine whether the criterion has been exceeded. The EPA ammonia criterion is pH and temperature dependent. To calculate the criterion for each ammonia sample value was beyond

the scope of this project. Consequently, ammonia criteria were not included in Appendix F or the EPA Water Quality Criteria Analyses. Un-ionized ammonia criteria can be determined from formula table values included in the EPA Silver Book (Environmental Protection Agency 1995).

For the purposes of this project, fecal-indicator bacteria data were flagged as exceeding criteria when their concentrations exceeded 200, 1000, 126, and 33 (fresh)/35 (salt) colony forming units or most probable number for single samples of fecal coliform, total coliform, E. coli, and enterococci, respectively. These values represent only approximations of the criteria for primary contact recreation waters where criteria are typically expressed in terms of a geometric mean computed with no less than 5 samples during a given month. When a fecal-indicator bacterial observation exceeds a criterion in the EPA Water Quality Criteria Analysis section, the reader should refer to the corresponding geometric mean calculations in the preceding Parameter Inventory. Long-term geometric means that exceed the respective water quality criteria for multiple samples are more indicative of chronic bacteriological problems than single sample values.

Water quality observations carrying non-detection or below-detection limit remark codes (K, T, and U) required special treatment in the EPA Water Quality Criteria Analysis. As with the statistics in the Parameter Inventory, half the detection limit was the value used in the EPA Water Quality Criteria Analysis. For certain observations, however, half the detection limit may exceed a water quality criterion. For those observations it would be inappropriate to classify them as exceeding a criterion since the actual value wasn't known. Thus, it was decided that any below detection limit or non-detect observations that exceed a water quality criterion using half the detection value would be excluded from the EPA Water Quality Criteria Analysis. If non-detect or below detection limit values are excluded from the EPA Water Quality Criteria Analysis for a particular parameter, the total observations for that parameter will be footnoted with an ampersand (&). This will also explain the difference between the total observations in the Parameter Inventory and the EPA Water Quality Criteria Analysis. Non-detect or below detection limit values are included in the EPA Water Quality Criteria Analysis, however, if half the detection limit doesn't exceed the parameter's criterion.

The EPA Water Quality Criteria Analysis for each station lists the parameter; the standard type and value; the total number of observations for the parameter at this station; the number of observations that exceeded the standard value; and the proportion of observations that exceeded the standard value. Water quality observations are considered as having exceeded a criterion regardless of whether the criterion represents a maximum acceptable value or a minimum acceptable value. The table also breaks down the water quality criteria analysis on a seasonal basis to allow the reader to discern whether parameter observations tend to exceed criteria during only certain seasons or year round. Although the EPA Water Quality Criteria Analysis table is a good starting point for assessing potential water quality problems at the station, the reader is strongly encouraged to read the caveat section in the Introduction concerning drawing conclusions about water quality problems from this table. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

Time Series Plots for Station

Following the EPA Water Quality Criteria analysis will be any Time Series Plots for each parameter that met the time series plot screening criterion selected for the park unit. If a time series plot is generated for a particular parameter at a station, a "p" will appear next to the STORET parameter code in the Parameter Inventory. If no time series plots are present for the particular station, the data did not meet the time series screening criterion listed in the Overview section of the Water Quality Results chapter. The x-axis on these plots is the period of record, listing only the 2-digit calendar year for clarity (i.e. 1983 is presented as 83). The y-axis is the concentration of the selected parameter in its measurement units. In general, the units for a given parameter are given either on the y-axis or in the parameter description in the subtitle of the graph. Subtitle and/or y-axis parameter descriptions may be truncated on the plots so as to not exceed the maximum number of plotting characters. Y-axis values less than zero are sometimes shown for better representation of the entire plot. The station identification code, parameter description, and parameter STORET code are presented in the main title. The footnote provides a descriptive location name. Observations on the plot are represented as squares. Lines are drawn connecting each successive observation. As mentioned previously in the Statistical Definitions section of the Methodology chapter, the interconnecting line is drawn only for ease of reading and provides no indication of what the actual parameter

values were between the two observed measurements. Digital, reproducible copies of all time series plots accompany the report on disk (See Appendices A and B).

For time series plots of pH, the original pH values are plotted. For time series plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of a time series plot for bacteriological parameters is log-linear.

Annual Analysis for Station

If more than 9 observations exist in each of at least 4 years for a particular parameter at a station, an Annual Analysis table will be generated. Entries will be made in the table for each parameter having more than 9 observations in each of at least 4 years. The Annual Analysis presents the same descriptive statistics as the Parameter Inventory table, except that it provides the statistics by year, rather than the entire period of record. Although some of the years may not contain 9 observations, these years still have an entry in the table. A parameter needs only to have 9 observations in any 4 years of its period of record to qualify for the Annual Analysis table. Like the Parameter Inventory, percentiles with fewer than 9 observations are not computed and entries computed with greater than 50 percent of the data values set to half the detection limit are flagged. Entries in the Annual Analysis table that also meet the annual analysis box-and-whisker plot screening criterion will be flagged with a "p" next to the STORET code. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

Annual Box-and-Whiskers Plots for Station

Entries in the Annual Analysis table that meet the annual box-and-whisker plot screening criterion will generate Annual Box-and-Whiskers Plots. The interpretation of box-and-whiskers plots is explained in the Statistical Definitions section of the Methodology chapter. A box is generated for each year of the period of record, even if less than 9 observations were recorded in the year. The axis labeling and plot titling is the same as for the time series plots. Digital, reproducible copies of these graphics accompany the report on disk (See Appendices A and B).

For annual box-and-whiskers plots of pH, μeq/l H^+ are plotted. For annual box-and-whiskers plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of an annual box-and-whiskers plot for bacteriological parameters is log-linear.

Seasonal Analysis for Station

As explained above, a park's hydrologic seasons for seasonal water quality analysis were determined using a process of hydrograph separation and other techniques. If a parameter has more than 9 observations in each of 2 seasons with a period of record of at least 6 years and observations in at least 3 of the 6 years, a Seasonal Analysis table will be generated for the station. The Seasonal Analysis presents the same descriptive statistics as the Parameter Inventory table, except that it provides the statistics by season, rather than the entire period of record. Although certain parameters for a season at a station may not contain 9 observations, these parameters can still have an entry in the table. A parameter needs only to have 9 observations in each of 2 seasons with a period of record of at least 6 years and observations in at least 3 of the 6 years to qualify for the Seasonal Analysis table. Consequently, some of the parameters could have fewer than 9 observations in a particular season but still generate a table entry. Like the Parameter Inventory and Annual Analysis, percentiles with fewer than 9 observations are not computed and entries computed with greater than 50 percent of the data values set to half the detection limit are flagged. Entries in the Seasonal Analysis table that also meet the seasonal analysis box-and-whisker plot screening criterion will be flagged with a "p" next to the STORET code. Digital, reproducible copies of these tables accompany the report on disk (See Appendices A and B).

Seasonal Box-and-Whiskers Plots for Station

Entries in the Seasonal Analysis table that meet the seasonal box-and-whisker plot screening criterion will generate Seasonal Box-and-Whiskers Plots. The interpretation of box-and-whiskers plots is explained in the Statistical Definitions section of the Methodology chapter. A box is generated for each season of the period of record, even if less than 9 observations were recorded in the season. On the x-axis, the seasons are labeled 1 through the number of seasons defined for the park through hydrograph separation. The actual calendar dates that correspond to these numerically labeled seasons exist in the Overview section and the Seasonal Analysis tables in the Water Quality Results chapter. The axis labeling and plot titling are the same as for the time series and annual box-and-whiskers plots. Digital, reproducible copies of these graphics accompany the report on disk (See Appendices A and B).

For seasonal box-and-whiskers plots of pH, μeq/l H^+ are plotted. For seasonal box-and-whiskers plots of bacteriological data, the log of the measured value is plotted. Hence, the y-axis of a seasonal box-and-whiskers plot for bacteriological parameters is log-linear.

EPA Water Quality Criteria Analysis for Entire Park Study Area

This table essentially summarizes all the individual station-by-station EPA water quality criteria analyses in the study area. (Refer to the EPA Water Quality Criteria Analysis for Station section above for more detailed information on the treatment of special cases in the EPA Water Quality Criteria Analysis for Entire Park Study Area.) This table presents a comparison between the study area's STORET water quality data and applicable national water quality criteria for freshwater and marine aquatic organisms; drinking water; and other concerns. Comparison against applicable State water quality criteria was not feasible given project resources. Appendix F provides the relevant national EPA water quality criteria values. The EPA Water Quality Criteria Analysis for the Entire Park Study Area lists the parameter; the standard type and value; the total number of observations for the parameter at this station; the number of observations that exceeded the standard value; and the proportion of observations that exceeded the standard value. Water quality observations are considered as having exceeded a criterion regardless of whether the criterion represents a maximum acceptable value or a minimum acceptable value. The table also breaks down the water quality criteria analysis on a seasonal basis to allow the reader to discern whether parameter observations tend to exceed criteria during only certain seasons or year round. Although the EPA Water Quality Criteria Analysis for the Entire Park Study Area is a good starting point for assessing potential water quality problems at the park, the reader is strongly encouraged to read the caveat section in the Introduction before drawing conclusions about water quality problems from this table. A digital, reproducible copy of this table accompanies the report on disk (See Appendices A and B).

NPS Servicewide Inventory and Monitoring Program
Level I Water Quality Inventory Data Evaluation and Analysis (IDEA)

One of the objectives of this Baseline Water Quality Data Inventory and Analysis project is to perform an IDEA - an Inventory Data Evaluation and Analysis - to determine the presence and/or absence of Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups in the park's study area. The Strategic Plan for Conducting Baseline Natural Resource Inventories in the National Park Service (National Park Service 1993) identified the basic water quality parameters displayed in Table I as the parameters that all parks must have for "key" waterbodies (determined on the basis of size, uniqueness, threats, etc.) within park boundaries. Since these parameters can be measured in different ways and with different units, there are multiple STORET codes associated with each parameter; hence the concept of parameter groups. The Strategic Plan distinguishes between those parameter groups required for all parks and parameter groups required only on a case-by-case basis.

The IDEA basically compares the parameters listed in the Parameter Period of Record Tabulation and Station/Parameter Period of Record Tabulation with the "Level I" Servicewide Inventory and Monitoring water quality parameter groups, listed in Table I and in Appendix G, and notes, not only the presence or absence of each parameter group, but the total number of observations for each parameter present in the group; the number of

observations between certain time periods; and the total number of stations within the study area at which the parameter was measured. The total number of different (unique) stations measuring parameters for the group is in parentheses on each parameter group's summary line.

The first page of the IDEA lists the missing Servicewide Inventory and Monitoring Program "Level I" groups. If a parameter group appears on this list, no data for any of the parameters defining the group (See Appendix G) was retrieved for it within the study area. So-called non-priority parameter groups may appear in the missing list. Non-priority parameters are park-specific parameters (case-by-case) which may not be applicable to your park. Consequently, if you believe a particular parameter, not included in IDEA (See Appendix G), to be important for your park, you will have to consult the Parameter and Station/Parameter Period of Record Tabulations to determine the presence or absence of this parameter for the park. Although considered a "Level I" parameter, biological data, obtained through rapid bioassessment or other means, is not considered in this report which deals specifically with surface water chemistry. Following the Missing Level I Group list is the Present Level I Group list which displays the summary results for each Servicewide Inventory and Monitoring "Level I" water quality parameter group that was found.

Table I. Basic "Level I" Water Quality Parameters Identified as Required and Optional By the Servicewide Inventory and Monitoring Program for "Key" Park Waterbodies

Required Parameter Groups:
(1) Alkalinity
(2) pH
(3) Conductivity
(4) Dissolved Oxygen
(5) Rapid Bioassessment Baseline (EPA/State protocols, involving fish and macroinvertebrates)
(6) Temperature
(7) Flow

Case-By-Case Parameters Groups:
(8) Toxic Elements
(9) Clarity/Turbidity
(10) Nitrate/Nitrogen
(11) Phosphate/Phosphorus
(12) Chlorophyll
(13) Sulfates
(14) Bacteria

The last page of the IDEA summarizes the information from the Missing and Present Level I Group lists. This page provides information on the temporal and spatial distributions of the data. Included in this table are the total number of observations for each parameter group; the number of observations since January 1, 1985; the percent of the total observations since January 1, 1985; the number of stations measuring each parameter group; the percent of the total number of stations with data measuring the parameter group; the number of observations per station with data; the period-of-record for this parameter group; and the average number of observations per year of the period-of-record.

In interpreting the results of the IDEA, the reader should first consult the Missing Level I Group list. For the parameter groups listed, there was no baseline water quality data within the study area entered in STORET. Consequently, these parameter groups could be a higher priority for data collection. It is important, however, to realize that data within these parameter groups may have been already collected but not entered into STORET. The resources for this project did not enable us to pursue thorough literature and file cabinet reviews to dredge up

every last iota of data. If data exists for certain Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups in a park's file cabinet, it is the park's responsibility to factor that data into their IDEA. Consequently, the listing of a parameter group on the Missing "Level I" Group list is not a WRD endorsement to launch a study to collect these data. The IDEA is intended to simply note that no data exist for these parameter groups in STORET for the park. It is the park's responsibility to ascertain whether such data has already been collected by the park or other entities before embarking on a new study. In fact, in the future the WRD will require that any park study plan proposing to collect baseline water quality data show that they have consulted their Baseline Water Quality Data Inventory and Analysis report and searched in other locations (file cabinets, published literature, etc.) for the data they propose to collect. A similar interpretation springs from the Present "Level I" Group list. Insufficient data density in certain time periods for particular parameter groups is not necessarily cause for launching a new inventory and/or monitoring program. The park should still consult with other potential sources of data. Again, the IDEA is designed to provide only a quick check on data in STORET for the Servicewide Inventory and Monitoring Program "Level I" water quality parameter groups.

Water Quality Observations Outside STORET Edit Criteria for Park

STORET data entered after November 1983 were subjected to rudimentary edit/bounds checking for 190 common parameters (See the STORET Edit Criteria in Appendix C). None of the data entered into STORET prior to that time has been subjected to edit/bounds checking. Moreover, to maintain exact comparability with USGS WATSTORE data, WATSTORE data entered into STORET has never been subjected to the EPA edit/bounds checking. During the pilot test phase of this project, obviously incorrect data was identified from both USGS and other agency data in STORET. As a consequence, all data downloaded from STORET was filtered through the STORET edit criteria to identify parameter observation values that fall outside any edit criterion ranges. This section documents the station name, parameter, date, time, parameter value, agency, and STORET station name of every observation that fell outside the range of an edit criterion. Not all data falling outside an edit criterion are necessarily incorrect. Such data may represent unique or special conditions. Consequently, every observation falling outside a STORET edit criterion was scrutinized to determine, in our best professional judgement, whether the value was in the realm of possibility or obviously incorrect. Water quality observations that appeared to be obviously incorrect are marked with an "X" in the Disposition column of this table. These values were not retrieved or included in any of the inventory tables or graphs. Water quality values outside a STORET edit criterion but within the realm of possibility were retained and included in inventory tables and graphs. The Water Quality Observations Outside STORET Edit Criteria for Park table documents all values that were outside an edit criterion range. This documentation is also necessitated by the fact that agencies can override the STORET edit criteria for individual observations. Although the edit criteria eliminate some potentially "bad" data from the report, the probability of other incorrect data, for both the 190 parameters that are edit/bound checked and all the other STORET parameters that aren't error checked, is high. Readers should consult the Caveat section in the Introduction for guidelines on the use and interpretation of STORET data. The responsibility for correcting these observations rests with the collecting agency.

WATER QUALITY RESULTS

OVERVIEW FOR TUMA

Study Area Boundary Description

The study area includes the park and all areas within at least 3 miles upstream of the park unit boundary and at least 1 mile downstream.

	Study Area	Park
GIS Estimated Acreage:	269337	47
# STORET Stations:	101	0
# Stations With No Data:	0	0
# Stations With No Stat. Analysis:	6	0
# Longer Term Stations:	8	0
Date of STORET Retrieval:	05/31/01	05/31/01
Period of Record:	10/10/41-12/28/99	No Data in Park
# Parameters Measured:	784	0
# Water Quality Observations:	21960	0
# Industrial/Municipal Facilities:	3	0
# Drinking Water Intakes:	0	0
# Water Gages:	4	0
# Water Impoundments:	3	0
# Total Plots:	187	0
# Time Series:	104	0
# Annual:	0	0
# Seasonal:	83	0

Hydrologic Definition of Seasons:

1. July 5 - October 10
2. October 11 - December 7
3. December 8 - April 30
4. May 1 - July 4

Time Series Plot Criteria:

To be included in the time series plots, a station/parameter combination must have at least 10 years and at least 40 observations.

Annual Analysis Criteria:

To be included in the annual box-and-whisker plots, a station/parameter combination must have at least 9 observations in each of at least 4 years.

To be included in the annual analysis tables, a station/parameter combination must have at least 9 observations in each of at least 4 years.

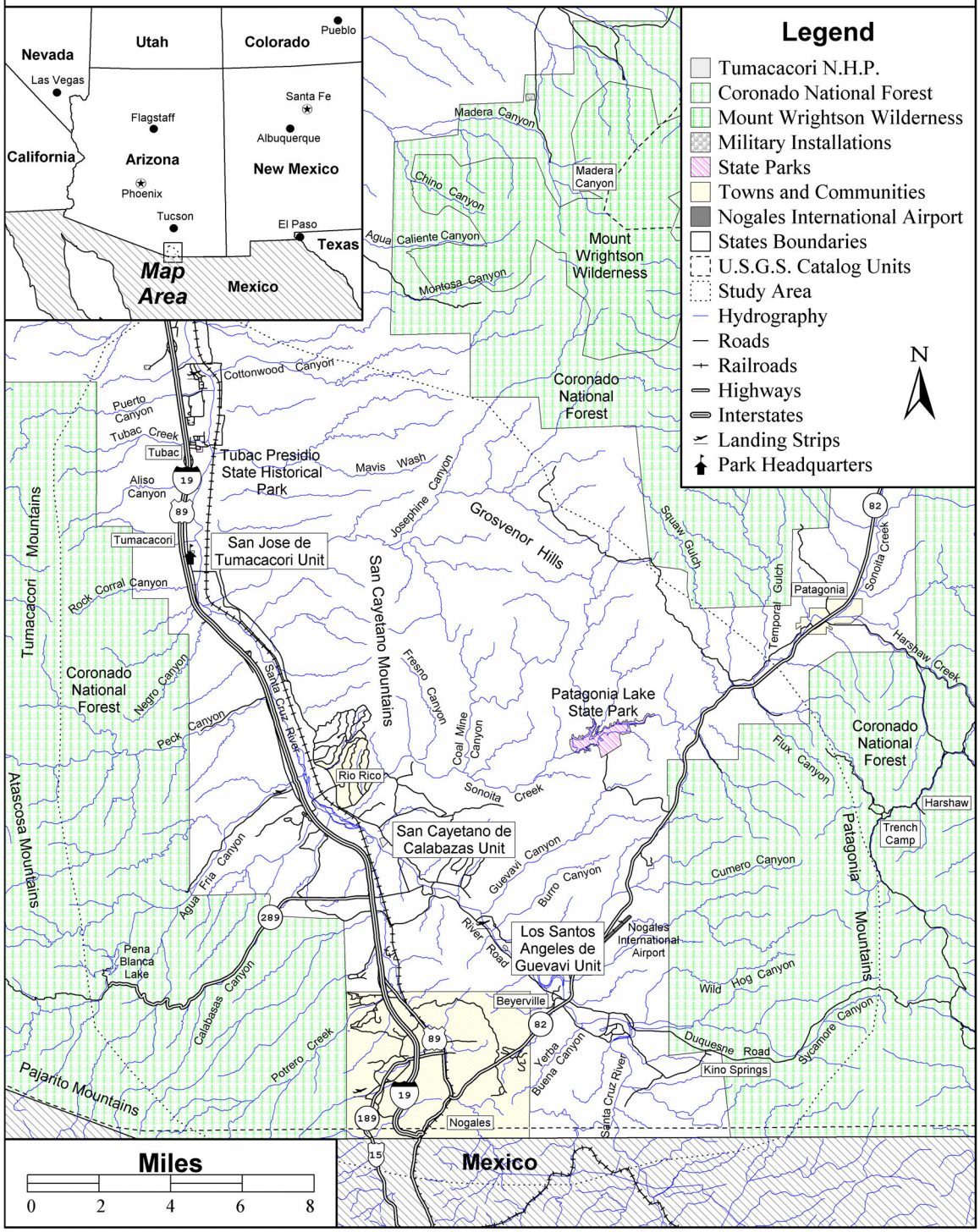
Seasonal Analysis Criteria:

To be included in the seasonal box-and-whisker plots, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 12 years and observations in at least 4 of the 12 years.

To be included in the seasonal analysis tables, a station/parameter combination must have at least 9 observations in each of 2 seasons and a period of record of at least 6 years and observations in at least 3 of the 6 years.

Tumacacori National Historical Park

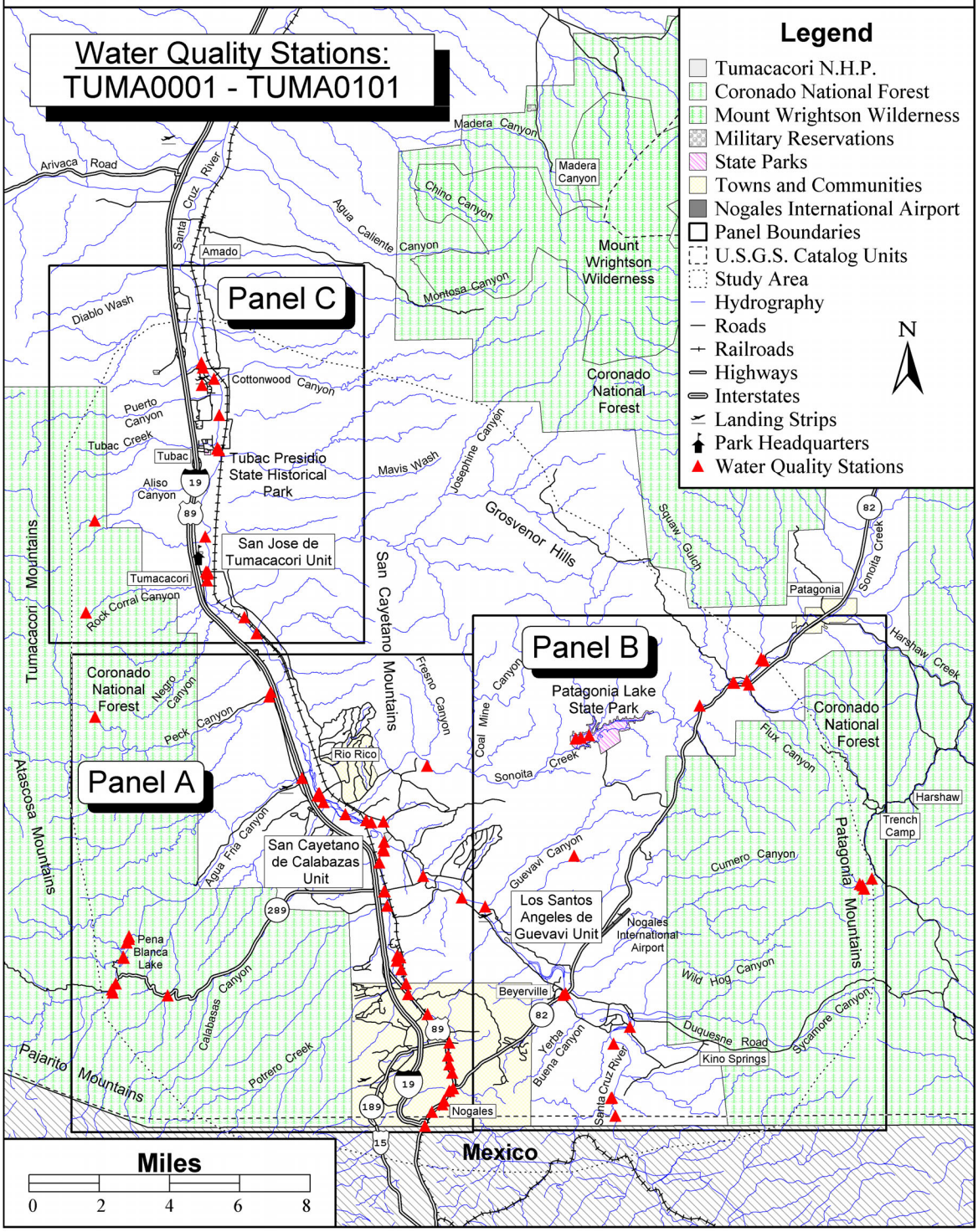
Regional Location Map



Tumacacori National Historical Park

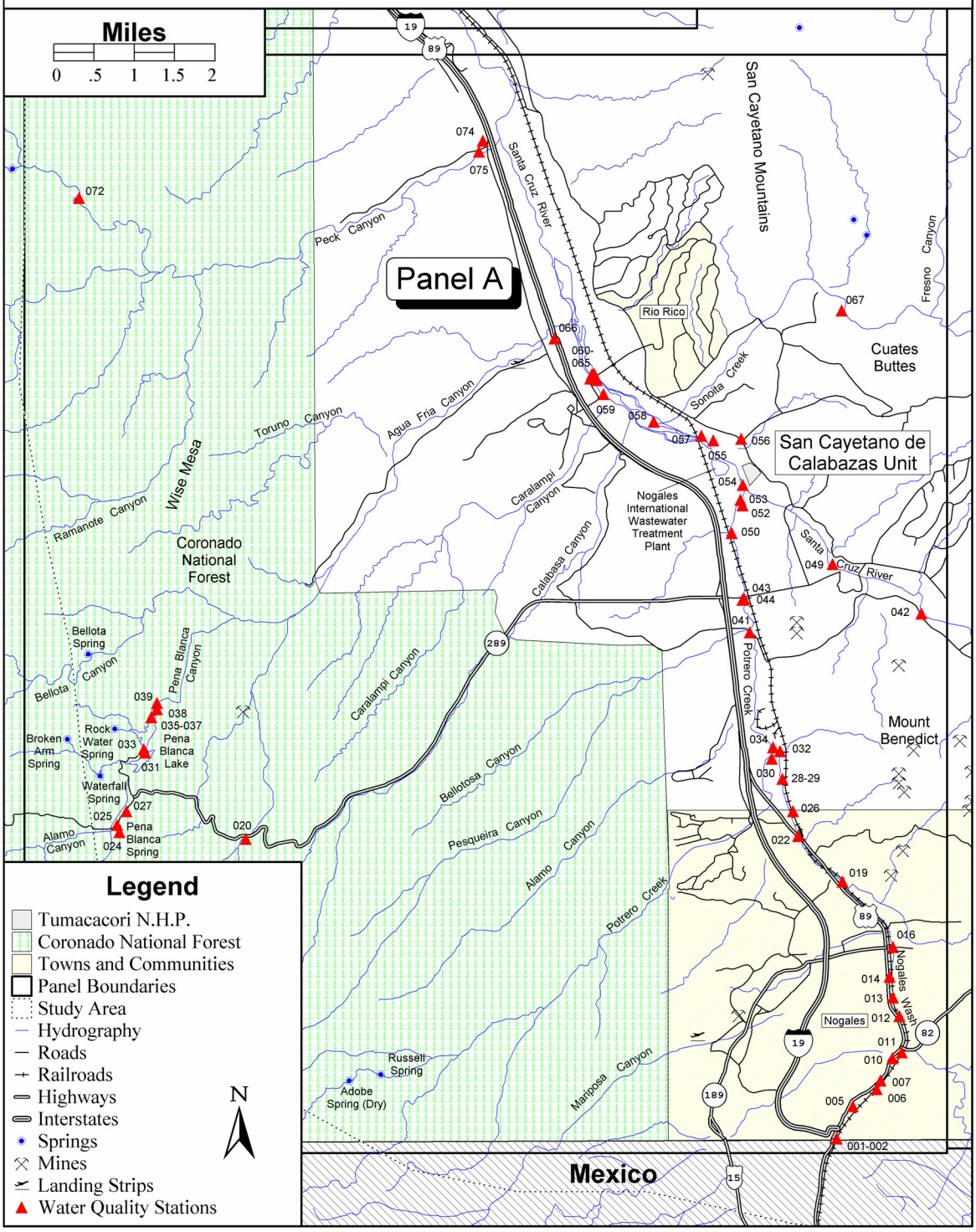
Water Quality Monitoring Locations

Graphic Panel Index



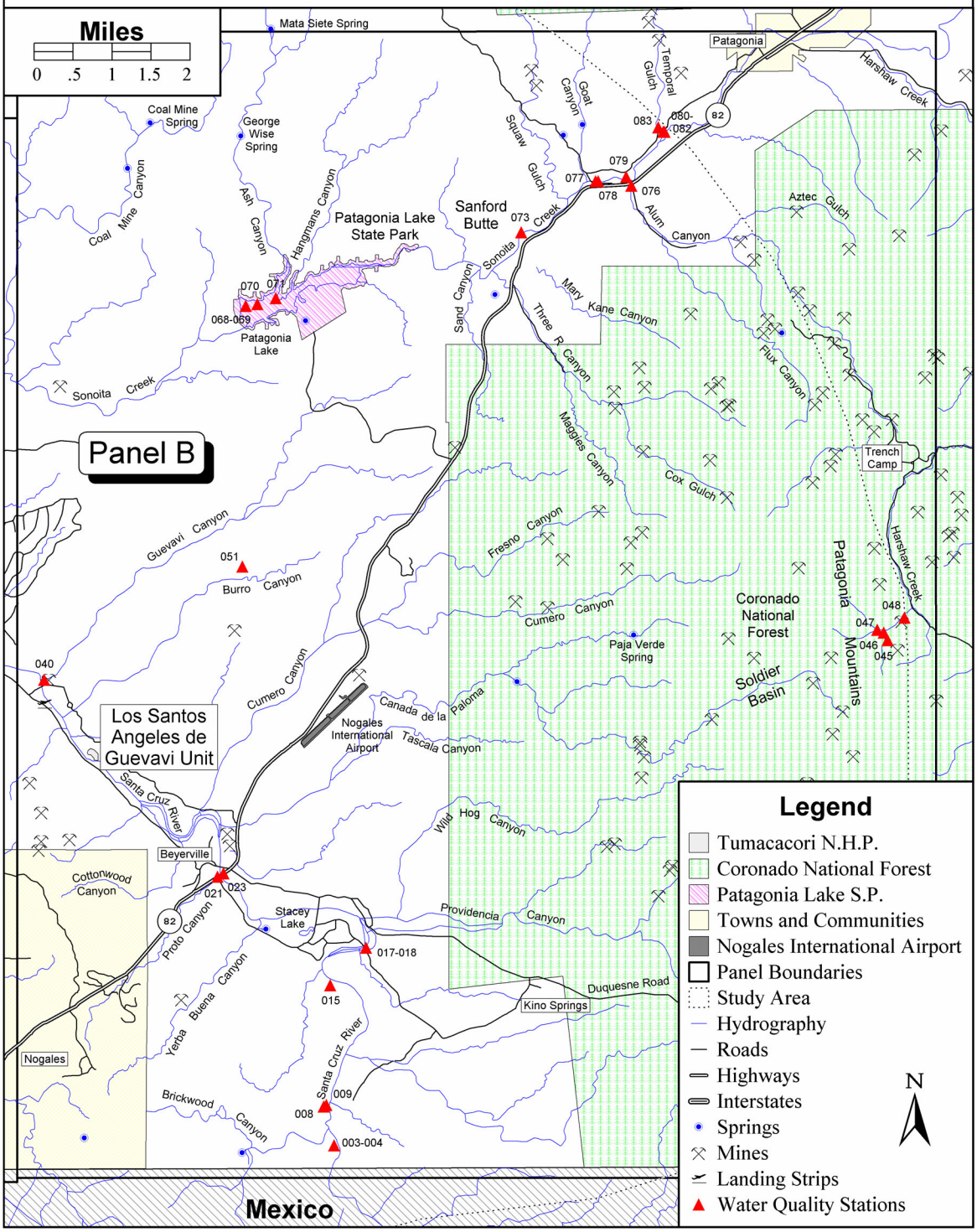
Tumacacori National Historical Park

Water Quality Monitoring Locations



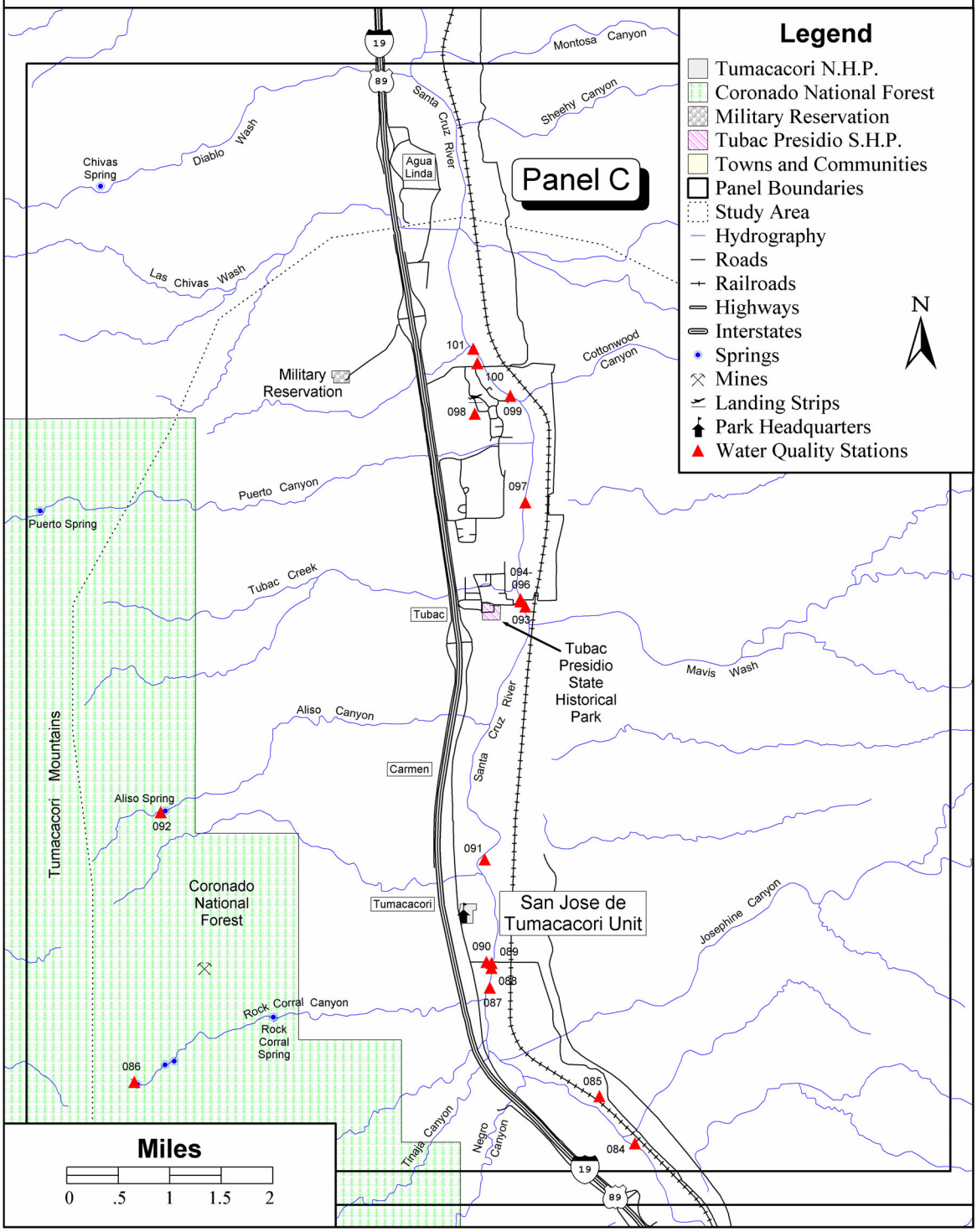
Tumacacori National Historical Park

Water Quality Monitoring Locations



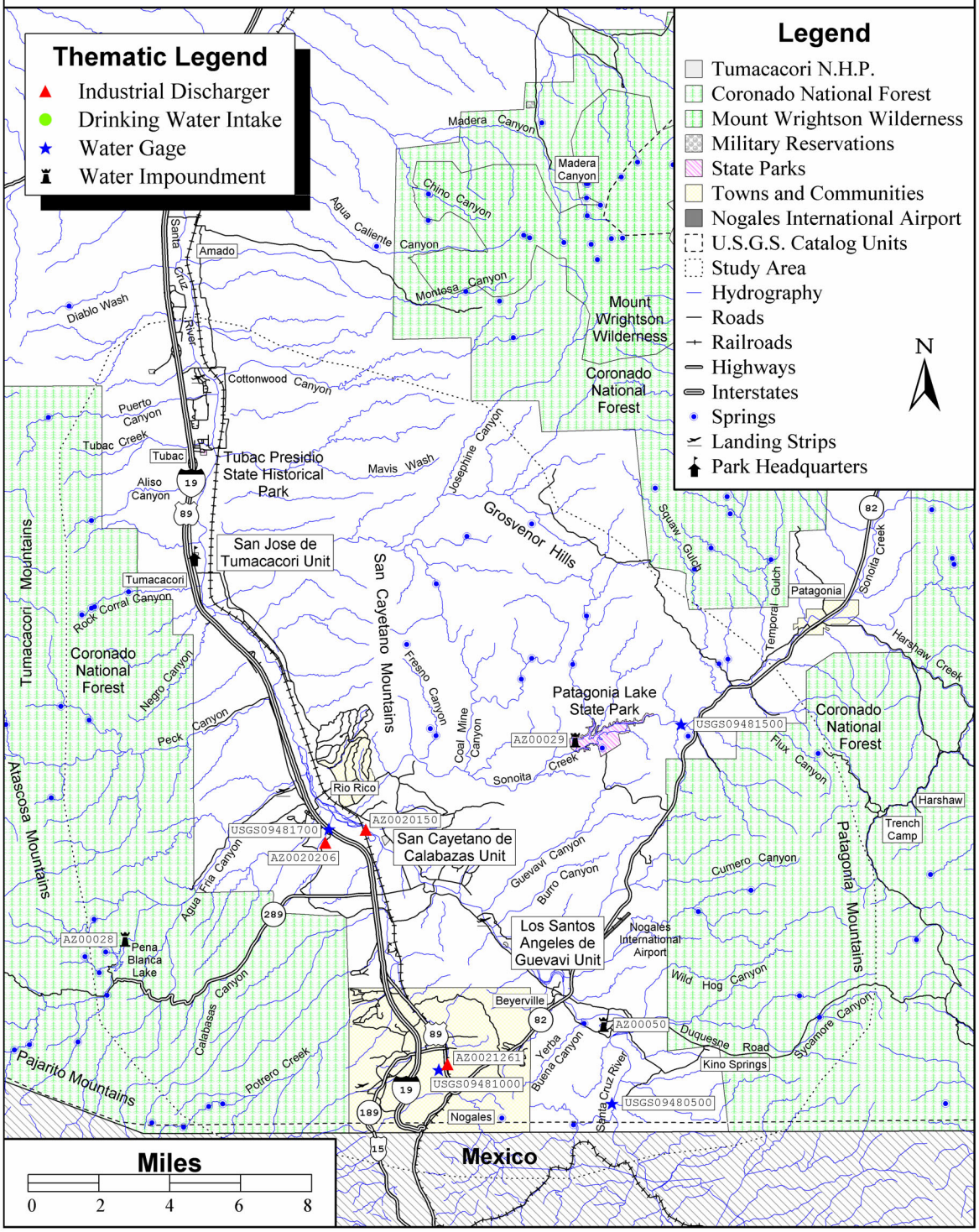
Tumacacori National Historical Park

Water Quality Monitoring Locations



Tumacacori National Historical Park

Dischargers, Drinking Intakes, Water Gages, & Water Impoundments



Industrial Facility Discharges, Drinking Water Intakes, Water Gages, and Water Impoundments Within the TUMA Study Area

Industrial Facility Discharges

Site ID	Station/Facility Name	Address	City	Facility Receiving Water Name
AZ0020150	NOGALES, CITY OF	1018 NORTH GRAND AVENUE	NOGALES	SANTA CRUZ RIVER
AZ0020206	CITIZENS UTILITIES	.....	NOGALES	SANTA CRUZ RIVER
AZ0021261	NOGALES SERVICE CENTER		NOGALES /C/	NOGALES WASH TO POTRERO CRK TR

Drinking Water Intakes

Site ID	Station/Facility Name	City	Population Served	Avg. Daily Production (Gal./Day)

No drinking water intakes available for this study area.

Water Gages

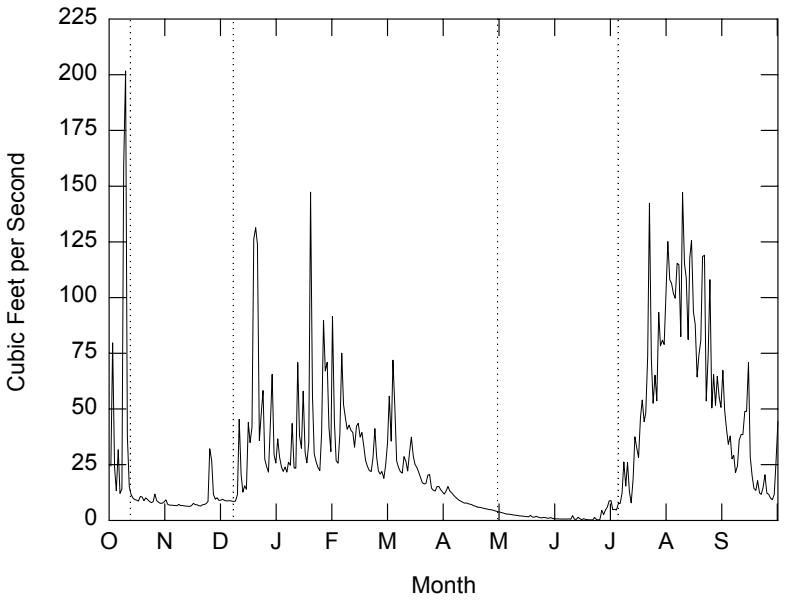
Site ID	Station Name	Site Type	Drainage Area (Square Miles)	Begin Year	End Year
USGS09480500	SANTA CRUZ RIVER NR. NOGALES, ARIZ.	Stream	533.00	1913	2003
USGS09481000	NOGALES WASH AT NOGALES ARIZ		37.00	1932	1934
USGS09481500	SONOITA CREEK NEAR PATAGONIA, ARIZ.		209.00	1930	1983
USGS09481700	CALABASAS CANYON NEA	Stream	10.30	1963	1977

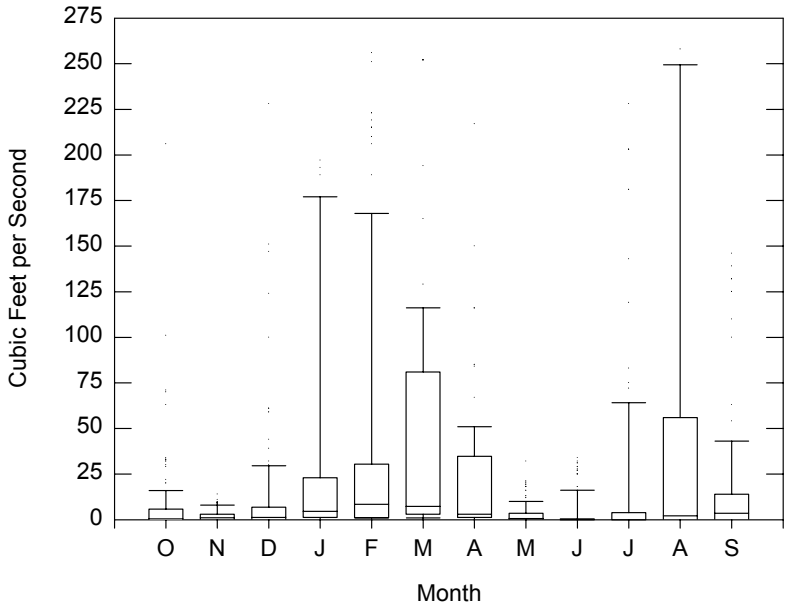
Water Impoundments

Site ID	Impoundment Name	Owner	Primary Purpose	Type of Dam	Downstream Hazard	Year Completed
AZ00028	PENA BLANCA	ARIZ. GAME & FISH COMM.	Rec.	Rockfill	Significant	1896
AZ00029	LAKE PATAGONIA	AZ STATE PARKS	Rec.	Earth	High	1968
AZ00050	KINO SPRINGS	CIT CORPORATION	Rec.	Earth	Low	1965

REPRESENTATIVE MEAN ANNUAL HYDROGRAPH FOR SEASONAL ANALYSIS

TUMACACORI NATIONAL HISTORICAL PARK
Santa Cruz River near Nogales, AZ
09480500, 84 year record





Representative mean annual hydrograph (top) and distribution of daily flows by month (bottom) for hydrologic season determination. Box and whiskers represent a five number summary; bottom whisker cap is 10th percentile, bottom of box is 25th percentile, internal line is median, top of box is 75th percentile, and top whisker is 90th percentile. Hydrologic seasons for Tumacacori National Historical Park are: July 5 to Oct. 10, Oct. 11 to Dec. 7, Dec. 8 to Apr. 30, and May 1 to July 4.

CONTACTS FOR AGENCY CODES RETRIEVED FOR TUMA

AGENCY	PRIMARY CONTACT NAME	ORGANIZATION	PHONE NUMBER(S)	
112WRD	BRIGGS, JOHN	US GEOLOGICAL SURVEY	(703)648-5624	
113FORS3	SPANN, CHIC	US FOREST SERVICE	(505)842-3255	
11NPSWRD	TUCKER, DEAN	NATIONAL PARK SERVICE	(970)225-3516	(970)225-3518
21ARIZ	RANDALL, KRIS	ARIZONA DEPT ENV QUALITY	(602)207-4510	
21AZG&F	HOOD, WAYNE	ARIZONA DEPT ENV QUALITY	(602)207-4416	

QUANTITY OF DATA RETRIEVED FOR TUMA BY AGENCY CODE

WITHIN THE ENTIRE STUDY AREA (S.A.) AND JUST WITHIN THE PARK

Agency	Organization	Period of Record		Water Quality Stations		Longer Term[1] Stations		No Data Stations		Water Quality Observations		Water Quality Parameters	
		Study Area	Park Only	S.A.	Park	S.A.	Park	S.A.	Park	S.A.	Park	S.A.	Park
112WRD	US GEOLOGICAL SURVEY	10/10/41-11/14/97	No Data in Park	9	0	2	0	0	0	4564	0	594	0
113FORS3	US FOREST SERVICE	10/17/69-02/20/80	No Data in Park	2	0	0	0	0	0	425	0	41	0
11NPSWRD	NATIONAL PARK SERVICE	03/07/80-12/28/99	No Data in Park	16	0	0	0	0	0	1601	0	48	0
21ARIZ	ARIZONA DEPT ENV QUALITY	04/04/73-11/29/99	No Data in Park	72	0	5	0	0	0	15006	0	267	0
21AZG&F	ARIZONA DEPT ENV QUALITY	10/21/75-09/27/80	No Data in Park	2	0	1	0	0	0	364	0	27	0
Totals		10/10/41-12/28/99	No Data in Park	101	0	8	0	0	0	21960	0	784	0

[1]Station With At Least 6 Parameters Having An Average of 1 Or More Observations Per Year During a Period of Record Extending At Least 2 Years.

Station Period of Record Tabulation
From 10/10/41 To 12/28/99

Station Ident.	Location Description	In Park	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75
TUMA0001	E.NOGALES WASH AT US/MEXICAN BORDER IN TUNNEL	No	3	3	0	0
TUMA0002	SCNGW004.80 (NOGALES WASH AT INTERNTNL BOUNDARY)	No	100	100	0	0
TUMA0003[1]	SCSCR097.28 (SANTA CRUZ R AT INTERNTL BOUNDARY)	No	3018	3018	0	0
TUMA0004	SANTA CRUZ R./US BORDER/BUENA VISTA RANCH	No	34	34	0	0
TUMA0005	NOGALES WASH IN NOGALES	No	68	0	0	68
TUMA0006[1]	SCNGW004.23 (NOGALES WASH AT MORLEY AVE TUNNEL)	No	4371	4371	0	0
TUMA0007	NOGALES WASH AT MORLEY AVENUE BRIDGE	No	337	337	0	0
TUMA0008	SANTA CRUZ RIVER NORTH OF INTERNATIONAL BOUNDARY	No	19	19	0	0
TUMA0009	SANTA CRUZ RIVER NR. NOGALES, ARIZ.	No	203	0	63	140
TUMA0010	EPHRIAM CANYN ABOVE NOGALES WASH	No	39	0	0	39
TUMA0011	SCNGW003.8 (NOGALES WASH SOUTH OF RT 82 OVRPSS)	No	2	2	0	0
TUMA0012	SCNGW003.4 (NOGALES WASH UPSTRM FRM SCNGW003.2)	No	2	2	0	0
TUMA0013	SCNGW003.15 (NOGALES WASH ACRSS FROM PUBLIC WKS)	No	66	66	0	0
TUMA0014	NOGALES WWTP CITY OF NOGALES DOWNSTREAM SEDIMENT	No	125	0	125	0
TUMA0015	SANTA CRUZ RIVER IN KINO SPRINGS	No	68	0	0	68
TUMA0016	SCNGW002.6 (AT EAST CALLE SONORA ROAD BRIDGE)	No	2	2	0	0
TUMA0017	SCSCR094.91 (SANTA CRUZ R AT KINO SPRINGS BRDG)	No	108	108	0	0
TUMA0018	SANTA CRUZ R. AT KINO SPRS.BRIDGE NR US BORDER	No	3	3	0	0
TUMA0019	SCNGW001.7 (NOGALES WASH AT W PRODUCE ROW BRDG)	No	2	2	0	0
TUMA0020	WALKER CANYON AT RUBY ROAD XING	No	64	0	0	64
TUMA0021	SANTA CRUZ RIVER AT HWY 82 CROSSING NR KINO SPR	No	17	0	17	0
TUMA0022	NOGALES WASH NEAR THE NIWTP	No	242	242	0	0
TUMA0023	SANTA CRUZ R AT AZ 82	No	64	0	0	64
TUMA0024	PENA BLANCA SPGS S OF LAKE IN PENA BLANCA CANYON	No	10	0	10	0
TUMA0025	D-23-12 35BBD	No	86	21	32	33
TUMA0026	NOGALES WASH ABOVE POTRERO WASH	No	40	0	0	40
TUMA0027	PENA BLANCA CR ABV PENA BLANCA L	No	65	0	0	65
TUMA0028	SCPOT003.78 (NOGALES WASH NEAR FIRE STATION #B)	No	620	620	0	0
TUMA0029	NOGALES WASH @ NOGALES, AZ FIRESTATION B	No	14	14	0	0
TUMA0030	POTRERO WASH ABOVE NOGALES WASH	No	64	0	0	64
TUMA0031	PENA BLANCA LAKE	No	9	0	9	0
TUMA0032	SCPOT003.5 (POTRERO CREEK 0.3 MI N OF FIRE ST B)	No	1	1	0	0
TUMA0033	PENA BLANCA LAKE AT BOAT DOCK	No	259	0	141	118
TUMA0034	SCPOT003.38 (POTRERO CREEK N OF FIRE STATION B)	No	64	64	0	0
TUMA0035	SCPEN-C	No	25	25	0	0
TUMA0036	SCPEN-B	No	69	69	0	0
TUMA0037[1]	SCPEN-A	No	759	759	0	0
TUMA0038	PENA BLANCA LAKE AT SPILLWAY	No	36	0	0	36
TUMA0039	PENA BLANCA LAKE (RED ROCK AREA)	No	166	0	166	0
TUMA0040	CREEK DRAINING GUEVAVI CANYON AT RUBY RD BRIDGE	No	96	96	0	0
TUMA0041	SCPOT001.9 (POTRERO CREEK AT OLD TUCSON RD BRDG)	No	2	2	0	0
TUMA0042	SANTA CRUZ R ABOVE POTRERO WASH	No	75	0	0	75
TUMA0043	NOGALES WASH SOUTH OF RUBY ROAD	No	23	23	0	0
TUMA0044	SCPOT001.53 (POTRERO CREEK AT RUBY ROAD)	No	3	3	0	0
TUMA0045	SPRING BY MINE DUMP ENDLESS CHAIN MINE	No	59	0	59	0
TUMA0046	ABOVE ENDLESS CHAIN MINE IN HARSHAW CREEK	No	90	0	90	0
TUMA0047	TRIBUTARY OF HARSHAW CREEK ABOVE MINES	No	57	0	57	0
TUMA0048	ENDLESS CHAIN MINE TRIBUTARY OF HARSHAW CREEK	No	117	0	117	0
TUMA0049	SANTA CRUZ RIVER AT RIO RICO BRIDGE	No	23	23	0	0
TUMA0050	SCPOT000.72 (POTRERO CREEK UPSTREAM OF WWTP)	No	66	66	0	0
TUMA0051	SONOITA CR-PATAGONIA DAM SPILLWY	No	18	0	0	18
TUMA0052	POTRERO WASH ABOVE SANTA CRUZ R	No	88	0	0	88
TUMA0053	NOGALES WASH BEHND NOGALES WWTP FACILITY	No	16	0	16	0
TUMA0054	SCPOT000.1 (AT INTERSECTION WITH SANTA CRUZ R)	No	2	2	0	0
TUMA0055	SANTA CRUZ R ABOVE NOGALES STP	No	49	0	30	19
TUMA0056	SANTA CRUZ RIVER NEAR NOGALES WWTP	No	159	159	0	0
TUMA0057	SANTA CRUZ R. 100 FT UPSTRM OF SONOITA CREEK	No	15	15	0	0
TUMA0058	SANTA CRUZ R ABOVE RIO RICO STP	No	45	0	0	45
TUMA0059	SANTA CRUZ R BELOW RIO RICO STP	No	60	0	17	43
TUMA0060	SANTA CRUZ RIVER NR RIO RICO, ARIZONA	No	242	242	0	0
TUMA0061	SANTA CRUZ RIVER AT RIO RICO NORTH	No	4	4	0	0
TUMA0062[1]	SCSCR087.08 (SANTA CRUZ RIVER AT RIO RICO)	No	2411	2411	0	0
TUMA0063	SANTA CRUZ R. IN RIO RICO AT CALABASAS RD.BRIDGE	No	41	41	0	0
TUMA0064[1]	SANTA CRUZ RIVER AT RIO RICO, ARIZ.	No	1469	0	1469	0
TUMA0065	SANTA CRUZ RIVER AT RIO RICO	No	331	331	0	0
TUMA0066	AGUA FRIA CR AT INTERSTATE 19	No	42	0	0	42
TUMA0067	SONOITA CREEK ABOVE SANTA CRUZ R	No	20	0	0	20
TUMA0068	SCPAT-B	No	80	80	0	0
TUMA0069[1]	SCPAT-A	No	620	620	0	0
TUMA0070[1]	PATAGONIA LAKE	No	355	0	355	0
TUMA0071	PATAGONIA LAKE AT BEACH (STATE PARKS)	No	25	25	0	0

Station Period of Record Tabulation
From 10/10/41 To 12/28/99

Station Ident.	Location Description	In Park	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75
TUMA0072	MESQUITE SEEP AT 4WD RD IN FRESNO CANYON	No	11	0	11	0
TUMA0073	SONOITA CR ABOVE CIRCLE Z RANCH	No	57	0	0	57
TUMA0074	SCPCK000.23 (PECK CANYON CREEK)	No	52	52	0	0
TUMA0075	PECK CANYON CR AT INTERSTATE 19	No	60	0	0	60
TUMA0076	SCALG000.07 (ALUM GULCH)	No	43	43	0	0
TUMA0077	SCSON007.64 (SONOITA CREEK NEAR PATAGONIA)	No	60	60	0	0
TUMA0078	SONOITA CREEK BELOW ALUM CREEK	No	18	0	0	18
TUMA0079	ALUM CREEK AT MOUTH	No	68	0	0	68
TUMA0080	SONOITA CR JUST ABOVE TEMPORAI W	No	41	0	0	41
TUMA0081	SCSON008.41 (SONOITA CREEK NEAR PATAGONIA)	No	153	153	0	0
TUMA0082	TEMPORAI WASH ABOVE SONOITA CR	No	58	0	0	58
TUMA0083	SCTMG000.20 (TEMPORAL GULCH NR PATAGONIA WWTP)	No	43	43	0	0
TUMA0084	SANTA CRUZ RIVER AT SANTA GERTRUDIS	No	23	23	0	0
TUMA0085	"NO INFO IN THE STATION HEADER FILE."-USGS-2	No	41	0	41	0
TUMA0086	SPRING AT HEAD OF TRIB IN ROCK CORRAL CANYON	No	11	0	11	0
TUMA0087	SANTA CRUZ R-SANTA GERTRUDIS RD	No	70	0	0	70
TUMA0088	SCSCR080.50 (SANTA CRUZ R AT SANTA GERTRUDIS LN)	No	80	80	0	0
TUMA0089	SANTA CRUZ RIVER AT SANTA GERTRUDIS	No	331	331	0	0
TUMA0090	SANTA CRUZ RIVER AT SANTA GERTRUDIS LANE	No	243	243	0	0
TUMA0091	SANTA CRUZ RIVER AT TUBAC	No	23	23	0	0
TUMA0092	ALISO SPRINGS AT HEAD OF ALISO CANYON	No	10	0	10	0
TUMA0093	SANTA CRUZ RIVER AT TUBAC	No	17	0	17	0
TUMA0094[1]	SANTA CRUZ RIVER AT TUBAC, AZ.	No	1879	1879	0	0
TUMA0095	SANTA CRUZ RIVER AT TUBAC BRIDGE	No	54	54	0	0
TUMA0096	SCSCR077.06 (SANTA CRUZ R AT TUBAC BRIDGE)	No	12	12	0	0
TUMA0097	SANTA CRUZ R-AT TUBAC COUNTRY CL	No	52	0	0	52
TUMA0098	SANTA CRUZ RIVER NORTH OF CHAVES SIDING ROAD	No	145	145	0	0
TUMA0099	SANTA CRUZ RIVER DOWNSTREAM OF CHAVES SIDING RD	No	19	19	0	0
TUMA0100	SANTA CRUZ RIVER AT CHAVES SIDING ROAD	No	330	330	0	0
TUMA0101	SCSCR081.34 (SANTA CRUZ R N OF CHAVES SIDING RD)	No	9	9	0	0

[1]Longer Term Station With At Least 6 Parameters Having An Average of 1 Or More Observations Per Year During a Period of Record Extending At Least 2 Years.

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
00004	STREAM WIDTH (FEET)	272	272	0	0	22	0
00008	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE	3	1	2	0	2	0
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	701	496	66	139	82	0
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	11	5	0	6	2	0
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	362	345	14	3	40	0
00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	11	5	0	6	2	0
00025	BAROMETRIC PRESSURE (MM OF HG)	29	29	0	0	4	0
00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	45	39	4	2	7	0
00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	48	39	7	2	8	0
00055	VELOCITY, STREAM FT/SEC	3	3	0	0	2	0
00060	FLOW, STREAM, MEAN DAILY CFS	22	0	0	22	1	0
00061	FLOW, STREAM, INSTANTANEOUS CFS	368	296	36	36	46	0
00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION	30	30	0	0	4	0
00064	DEPTH OF STREAM, MEAN (FT)	246	246	0	0	21	0
00065	STAGE, STREAM (FEET)	29	29	0	0	3	0
00070	TURBIDITY, (JACKSON CANDLE UNITS)	44	0	40	4	4	0
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	7	0	7	0	3	0
00078	TRANSPARENCY, SECCHI DISC (METERS)	9	7	2	0	3	0
00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	77	77	0	0	4	0
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	455	448	7	0	34	0
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	310	249	54	7	41	0
00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)	26	26	0	0	1	0
00300	OXYGEN, DISSOLVED MG/L	524	437	43	44	62	0
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	351	287	22	42	49	0
00310	BOD, 5 DAY, 20 DEG C MG/L	120	78	15	27	25	0
00340	COD, .25N K2CR2O7 MG/L	2	0	2	0	1	0
00400	PH (STANDARD UNITS)	159	37	111	11	29	0
00403	PH, LAB, STANDARD UNITS SU	343	266	14	63	57	0
00405	CARBON DIOXIDE (MG/L AS CO2)	31	0	25	6	4	0
00406	PH, FIELD, STANDARD UNITS SU	302	302	0	0	22	0
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	375	238	61	76	60	0
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	179	162	11	6	21	0
00440	BICARBONATE ION (MG/L AS HCO3)	268	235	28	5	25	0
00445	CARBONATE ION (MG/L AS CO3)	207	174	28	5	23	0
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	30	30	0	0	4	0
00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	30	30	0	0	4	0
00500	RESIDUE, TOTAL (MG/L)	11	0	11	0	4	0
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	27	27	0	0	3	0
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	15	0	15	0	1	0
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	320	243	17	60	53	0
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	21	0	0	21	16	0
00572	BIOMASS, PERIPHYTON (GRAMS PER SQUARE METER)	2	1	1	0	2	0
00573	BIOMASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	2	1	1	0	2	0
00600	NITROGEN, TOTAL (MG/L AS N)	23	0	23	0	1	0
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	2	0	2	0	1	0
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	29	29	0	0	4	0
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	291	263	28	0	34	0
00612	AMMONIA, UNIONZED (MG/L AS N)	31	9	22	0	14	0
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	31	29	2	0	5	0
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	16	2	8	6	11	0
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	3	0	2	1	2	0
00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	25	3	22	0	8	0
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	14	1	10	3	5	0
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	33	29	4	0	5	0
00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)	2	0	2	0	1	0
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	310	255	29	26	46	0
00626	NITROGEN,ORG. KJEL.,BOT. DEPOS. (MG/KG-N DRY WGT)	3	0	3	0	1	0
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	259	235	24	0	23	0
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	53	30	23	0	7	0
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	157	78	20	59	33	0
00655	PHOSPHATE, POLY (MG/L AS PO4)	3	0	0	3	1	0
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	69	0	66	3	4	0
00665	PHOSPHORUS, TOTAL (MG/L AS P)	316	274	42	0	38	0
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	34	29	5	0	5	0
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	59	31	28	0	13	0
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	23	0	23	0	1	0
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	27	27	0	0	4	0
00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	27	27	0	0	4	0
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	28	6	22	0	6	0
00721	CYANIDE IN BOTTOM DEPOSITS (MG/KG AS CN DRY WGT)	3	0	3	0	1	0
00900	HARDNESS, TOTAL (MG/L AS CACO3)	341	172	93	76	52	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	33	0	28	5	4	0
00910	CALCIUM (MG/L AS CACO3)	6	0	0	6	1	0
00915	CALCIUM, DISSOLVED (MG/L AS CA)	129	30	29	70	33	0
00916	CALCIUM, TOTAL (MG/L AS CA)	265	235	30	0	27	0
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	129	30	29	70	33	0
00927	MAGNESIUM, TOTAL (MG/L AS MG)	264	234	30	0	27	0
00929	SODIUM, TOTAL (MG/L AS NA)	265	235	30	0	27	0
00930	SODIUM, DISSOLVED (MG/L AS NA)	127	30	29	68	33	0
00931	SODIUM ADSORPTION RATIO	32	0	29	3	4	0
00932	SODIUM, PERCENT	31	0	28	3	3	0
00933	SODIUM,PLUS POTASSIUM (MG/L)	4	0	2	2	2	0
00935	POTASSIUM, DISSOLVED (MG/L AS K)	61	30	28	3	8	0
00937	POTASSIUM, TOTAL MG/L AS K)	252	237	15	0	21	0
00940	CHLORIDE,TOTAL IN WATER MG/L	397	261	60	76	60	0
00945	SULFATE, TOTAL (MG/L AS SO4)	439	264	101	74	61	0
00950	FLUORIDE, DISSOLVED (MG/L AS F)	73	30	28	15	21	0
00951	FLUORIDE, TOTAL (MG/L AS F)	242	227	14	1	26	0
00955	SILICA, DISSOLVED (MG/L AS SI02)	59	30	29	0	8	0
00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	5	0	0	5	5	0
01000	ARSENIC, DISSOLVED (UG/L AS AS)	104	102	2	0	16	0
01002	ARSENIC, TOTAL (UG/L AS AS)	275	239	36	0	25	0
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	10	6	4	0	8	0
01005	BARIUM, DISSOLVED (UG/L AS BA)	104	102	2	0	16	0
01007	BARIUM, TOTAL (UG/L AS BA)	262	235	27	0	23	0
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	84	82	2	0	15	0
01012	BERYLLIUM, TOTAL (UG/L AS BE)	177	177	0	0	18	0
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	1	0	1	0	1	0
01020	BORON, DISSOLVED (UG/L AS B)	95	71	24	0	13	0
01022	BORON, TOTAL (UG/L AS B)	234	208	26	0	18	0
01025	CADMIUM, DISSOLVED (UG/L AS CD)	101	98	3	0	17	0
01026	CADMIUM, SUSPENDED (UG/L AS CD)	2	0	2	0	1	0
01027	CADMIUM, TOTAL (UG/L AS CD)	287	243	36	8	33	0
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	4	0	4	0	2	0
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	4	0	4	0	2	0
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	102	102	0	0	14	0
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	4	0	2	2	3	0
01034	CHROMIUM, TOTAL (UG/L AS CR)	272	243	22	7	32	0
01035	COBALT, DISSOLVED (UG/L AS CO)	6	4	2	0	6	0
01040	COPPER, DISSOLVED (UG/L AS CU)	104	102	2	0	16	0
01042	COPPER, TOTAL (UG/L AS CU)	273	216	36	21	37	0
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	4	0	4	0	2	0
01045	IRON, TOTAL (UG/L AS FE)	266	208	36	22	38	0
01046	IRON, DISSOLVED (UG/L AS FE)	124	98	26	0	17	0
01049	LEAD, DISSOLVED (UG/L AS PB)	104	102	2	0	16	0
01051	LEAD, TOTAL (UG/L AS PB)	292	243	36	13	38	0
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	4	0	4	0	2	0
01055	MANGANESE, TOTAL (UG/L AS MN)	251	210	36	5	25	0
01056	MANGANESE, DISSOLVED (UG/L AS MN)	132	102	30	0	21	0
01057	THALLIUM, DISSOLVED (UG/L AS TL)	78	78	0	0	9	0
01059	THALLIUM, TOTAL (UG/L AS TL)	160	160	0	0	18	0
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	6	4	2	0	6	0
01065	NICKEL, DISSOLVED (UG/L AS NI)	82	82	0	0	13	0
01067	NICKEL, TOTAL (UG/L AS NI)	161	161	0	0	18	0
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	1	0	1	0	1	0
01075	SILVER, DISSOLVED (UG/L AS AG)	102	102	0	0	14	0
01077	SILVER, TOTAL (UG/L AS AG)	277	240	33	4	29	0
01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	3	0	3	0	2	0
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	46	44	2	0	8	0
01082	STRONTIUM, TOTAL (UG/L AS SR)	89	89	0	0	11	0
01085	VANADIUM, DISSOLVED (UG/L AS V)	6	0	6	0	6	0
01090	ZINC, DISSOLVED (UG/L AS ZN)	104	102	2	0	16	0
01092	ZINC, TOTAL (UG/L AS ZN)	264	216	36	12	34	0
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	4	0	4	0	2	0
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	79	79	0	0	10	0
01097	ANTIMONY, TOTAL (UG/L AS SB)	154	154	0	0	15	0
01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	1	0	1	0	1	0
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	5	4	1	0	5	0
01130	LITHIUM, DISSOLVED (UG/L AS LI)	2	0	2	0	2	0
01145	SELENIUM, DISSOLVED (UG/L AS SE)	102	101	1	0	15	0
01147	SELENIUM, TOTAL (UG/L AS SE)	275	241	34	0	25	0
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	10	6	4	0	8	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
01300	OIL-GREASE (SEVERITY)	25	25	0	0	1	0
01305	DETERGENT SUDS (SEVERITY)	25	25	0	0	1	0
01320	GARBAGE, FLOATING (SEVERITY)	25	25	0	0	1	0
01325	ALGAE, FLOATING MATS (SEVERITY)	25	25	0	0	1	0
01330	ODOR, ATMOSPHERIC (SEVERITY)	25	25	0	0	1	0
01340	FISH, DEAD (SEVERITY)	25	25	0	0	1	0
01345	DEBRIS, FLOATING (SEVERITY)	25	25	0	0	1	0
01350	TURBIDITY (SEVERITY)	25	25	0	0	1	0
04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	4	4	0	0	4	0
04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	4	4	0	0	4	0
04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	4	4	0	0	4	0
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	4	4	0	0	4	0
04037	PROMETON, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	4	4	0	0	4	0
04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	4	4	0	0	4	0
04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	4	4	0	0	4	0
04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	4	4	0	0	4	0
22703	URANIUM, NATURAL, DISSOLVED	4	4	0	0	4	0
30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	4	4	0	0	4	0
31501	COLIFORM,TOT,MEMBRANE FILTER,IMMED.M-ENDO MED,35C	4	0	0	4	1	0
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	5	5	0	0	1	0
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	98	85	11	2	9	0
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	5	5	0	0	1	0
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	71	0	30	41	25	0
31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	17	0	17	0	1	0
31648	E. COLI - MTEC-MF N0/100ML	27	27	0	0	2	0
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	137	136	1	0	12	0
32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	5	5	0	0	5	0
32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	5	5	0	0	5	0
32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	4	4	0	0	4	0
32104	BROMOFORM,WHOLE WATER,UG/L	5	5	0	0	5	0
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	5	5	0	0	5	0
32106	CHLOROFORM,WHOLE WATER,UG/L	5	5	0	0	5	0
32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	9	9	0	0	3	0
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	8	8	0	0	3	0
32226	CHLOROPHYLL B, PERIPHYTON, SPECTRO, MG/M2	1	0	1	0	1	0
32228	CHLOROPHYLL A, PERIPHYTON, SPECTRO, MG/M2	1	0	1	0	1	0
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	23	0	23	0	1	0
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	5	5	0	0	5	0
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	5	5	0	0	5	0
34203	ACENAPHTHYLENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34208	ACENAPHTHENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34213	ACROLEIN DRY WGTBOTUG/KG	1	0	1	0	1	0
34215	ACRYLONITRILE TOTWUG/L	4	4	0	0	4	0
34218	ACRYLONITRILE DRY WGTBOTUG/KG	1	0	1	0	1	0
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	1	0	1	0	1	0
34237	BENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	1	0	1	0	1	0
34250	BENZO-A-PYRENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34253	A-BHC-ALPHA DISSUG/L	4	4	0	0	4	0
34257	B-BHC-BETA DRY WGTBOTUG/KG	1	0	1	0	1	0
34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	1	0	1	0	1	0
34276	BIS (2-CHLOROETHYL) ETHER DRY WGTBOTUG/KG	1	0	1	0	1	0
34281	BIS (2-CHLOROETHOXY) METHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34286	BIS (2-CHLOROISOPROPYL) ETHER DRY WGTBOTUG/KG	1	0	1	0	1	0
34290	BROMOFORM DRY WGTBOTUG/KG	1	0	1	0	1	0
34295	N-BUTYL BENZYL PHTHALATE,SEDIMENTS,DRY WGT,UG/KG	1	0	1	0	1	0
34299	CARBON TETRACHLORIDE DRY WGTBOTUG/KG	1	0	1	0	1	0
34301	CHLOROBENZENE TOTWUG/L	5	5	0	0	5	0
34304	CHLOROBENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34309	CHLORODIBROMOMETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34311	CHLOROETHANE TOTWUG/L	4	4	0	0	4	0
34314	CHLOROETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34318	CHLOROFORM DRY WGTBOTUG/KG	1	0	1	0	1	0
34323	CHRYSENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34330	DICHLOROBROMOMETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34339	DIETHYL PHTHALATE DRY WGTBOTUG/KG	1	0	1	0	1	0
34344	DIMETHYL PHTHALATE DRY WGTBOTUG/KG	1	0	1	0	1	0
34349	1,2-DIPHENYLHYDRAZINE DRY WGTBOTUG/KG	1	0	1	0	1	0
34354	ENDOSULFAN SULFATE DRY WGTBOTUG/KG	1	0	1	0	1	0
34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	1	0	1	0	1	0
34364	ENDOSULFAN, ALPHA DRY WGTBOTUG/KG	1	0	1	0	1	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
34371	ETHYLBENZENE TOTWUG/L	5	5	0	0	5	0
34374	ETHYLBENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34379	FLUORANTHENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34384	FLUORENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34389	HEXACHLOROCYCLOPENTADIENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34396	HEXACHLOROETHANE TOTWUG/L	4	4	0	0	4	0
34399	HEXACHLOROETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34411	ISOPHORONE DRY WGTBOTUG/KG	1	0	1	0	1	0
34413	METHYL BROMIDE TOTWUG/L	5	5	0	0	5	0
34416	METHYL BROMIDE DRY WGTBOTUG/KG	1	0	1	0	1	0
34418	METHYL CHLORIDE TOTWUG/L	4	4	0	0	4	0
34421	METHYL CHLORIDE DRY WGTBOTUG/KG	1	0	1	0	1	0
34423	METHYLENE CHLORIDE TOTWUG/L	4	4	0	0	4	0
34426	METHYLENE CHLORIDE DRY WGTBOTUG/KG	1	0	1	0	1	0
34431	N-NITROSODI-N-PROPYLAMINE DRY WGTBOTUG/KG	1	0	1	0	1	0
34436	N-NITROSODIPHENYLAMINE DRY WGTBOTUG/KG	1	0	1	0	1	0
34441	N-NITROSODIMETHYLAMINE DRY WGTBOTUG/KG	1	0	1	0	1	0
34445	NAPHTHALENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34450	NITROBENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34455	PARACHLOROMETA CRESOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34464	PHENANTHRENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34472	PYRENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34475	TETRACHLOROETHYLENE TOTWUG/L	4	4	0	0	4	0
34478	TETRACHLOROETHYLENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34480	THALLIUM DRY WGTBOTMG/KG	1	0	1	0	1	0
34483	TOLUENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34488	TRICHLOROFLUOROMETHANE TOTWUG/L	5	5	0	0	5	0
34491	TRICHLOROFLUOROMETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34495	VINYL CHLORIDE DRY WGTBOTUG/KG	1	0	1	0	1	0
34496	1,1-DICHLOROETHANE TOTWUG/L	5	5	0	0	5	0
34499	1,1-DICHLOROETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34501	1,1-DICHLOROETHYLENE TOTWUG/L	5	5	0	0	5	0
34504	1,1-DICHLOROETHYLENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	5	5	0	0	5	0
34509	1,1,1-TRICHLOROETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34511	1,1,2-TRICHLOROETHANE TOTWUG/L	5	5	0	0	5	0
34514	1,1,2-TRICHLOROETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	5	5	0	0	5	0
34519	1,1,2,2-TETRACHLOROETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	1	0	1	0	1	0
34529	BENZO(A)ANTHRACENE1,2-BENZANTHRACENDRY WGTBOTUG/KG	1	0	1	0	1	0
34531	1,2-DICHLOROETHANE TOTWUG/L	1	1	0	0	1	0
34534	1,2-DICHLOROETHANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34536	1,2-DICHLOROBENZENE TOTWUG/L	5	5	0	0	5	0
34539	1,2-DICHLOROBENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34541	1,2-DICHLOROPROPANE TOTWUG/L	5	5	0	0	5	0
34544	1,2-DICHLOROPROPANE DRY WGTBOTUG/KG	1	0	1	0	1	0
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	5	5	0	0	5	0
34549	TRANS-1,2-DICHLOROETHENE, IN SED. DRY WT. UG/KG	1	0	1	0	1	0
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	5	5	0	0	5	0
34554	1,2,4-TRICHLOROBENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34559	1,2,5,6-DIBENZANTHRACENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34564	1,3-DICHLOROPROPENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34566	1,3-DICHLOROBENZENE TOTWUG/L	5	5	0	0	5	0
34569	1,3-DICHLOROBENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34571	1,4-DICHLOROBENZENE TOTWUG/L	5	5	0	0	5	0
34574	1,4-DICHLOROBENZENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34579	2-CHLOROETHYL VINYL ETHER DRY WGTBOTUG/KG	1	0	1	0	1	0
34584	2-CHLORONAPHTHALENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34589	2-CHLOROPHENOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34594	2-NITROPHENOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34599	DI-N-OCTYL PHTHALATE DRY WGTBOTUG/KG	1	0	1	0	1	0
34604	2,4-DICHLOROPHENOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34609	2,4-DIMETHYLPHENOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34619	2,4-DINITROPHENOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34624	2,4,6-TRICHLOROPHENOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34629	2,6-DINITROTOLUENE DRY WGTBOTUG/KG	1	0	1	0	1	0
34634	3,3'-DICHLOROBENZIDINE DRY WGTBOTUG/KG	1	0	1	0	1	0
34639	4-BROMOPHENYL PHENYL ETHER DRY WGTBOTUG/KG	1	0	1	0	1	0
34644	4-CHLOROPHENYL PHENYL ETHER DRY WGTBOTUG/KG	1	0	1	0	1	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
34649	4-NITROPHENOL DRY WGTBOTUG/KG	1	0	1	0	1	0
34653	P,P'-DDE DISSUG/L	4	4	0	0	4	0
34660	DNOC (4,6-DINITRO-ORTHO-CRESOL) DRY WGTBOTUG/KG	1	0	1	0	1	0
34668	DICHLORODIFUOROMETHANE TOTWUG/L	5	5	0	0	5	0
34695	PHENOL(C6H5OH)-SINGLE COMPOUND DRY WGTTUG/KG	1	0	1	0	1	0
34696	NAPHTHALENE TOTWUG/L	5	5	0	0	5	0
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	4	4	0	0	4	0
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	4	4	0	0	4	0
34790	SURFACTANTS, AS CTAS, WATER MG/L	2	2	0	0	2	0
34795	ANTIMONY,SED,BOT,	2	2	0	0	2	0
34800	ARSENIC,SED,BOT,WET SIEVE,	2	2	0	0	2	0
34805	BARIUM,SED,BOT,	2	2	0	0	2	0
34810	BERYLLIUM,SED,BOT,WET SIEVE,	2	2	0	0	2	0
34816	BISMUTH,SED,BOT,WET SIEVE,	2	2	0	0	2	0
34825	CADMIUM,SED,BOT,	2	2	0	0	2	0
34830	CALCIUM,SED,BOT,	2	2	0	0	2	0
34835	CERIUM,SED,BOT,	2	2	0	0	2	0
34840	CHROMIUM,SED,BOT,	2	2	0	0	2	0
34845	COBALT,SED,BOT,	2	2	0	0	2	0
34850	COPPER,SED,BOT,	2	2	0	0	2	0
34855	EUROPIUM,SED,BOT,	2	2	0	0	2	0
34860	GALLIUM,SED,BOT,	2	2	0	0	2	0
34870	GOLD,SED,BOT,	2	2	0	0	2	0
34875	HOLMIUM,SED,BOT,	2	2	0	0	2	0
34880	IRON,SED,BOT,	2	2	0	0	2	0
34885	LANTHANUM,SED,BOT,	2	2	0	0	2	0
34890	LEAD,SED,BOT,	2	2	0	0	2	0
34895	LITHIUM,SED,BOT,	2	2	0	0	2	0
34900	MAGNESIUM,SED,BOT,	2	2	0	0	2	0
34905	MANGANESE,SED,BOT,	2	2	0	0	2	0
34910	MERCURY,SED,BOT,	2	2	0	0	2	0
34915	MOLYBDENUM,SED,BOT,	2	2	0	0	2	0
34920	NEODYMIUM,SED,BOT,	2	2	0	0	2	0
34925	NICKEL,SED,BOT,	2	2	0	0	2	0
34930	NIOBIUM,SED,BOT,	2	2	0	0	2	0
34935	PHOSPHORUS,SED,BOT,	2	2	0	0	2	0
34940	POTASSIUM,SED,BOT,	2	2	0	0	2	0
34945	SCANDIUM,SED,BOT,	2	2	0	0	2	0
34950	SELENIUM,SED,BOT,	2	2	0	0	2	0
34955	SILVER,SED,BOT,	2	2	0	0	2	0
34960	SODIUM,SED,BOT,	2	2	0	0	2	0
34965	STRONTIUM,SED,BOT,	2	2	0	0	2	0
34970	SULFUR,SED,BOT,	2	2	0	0	2	0
34975	TANTALUM,SED,BOT,	2	2	0	0	2	0
34980	THORIUM,SED,BOT,	2	2	0	0	2	0
34985	TIN,SED,BOT,	2	2	0	0	2	0
35000	URANIUM,SED,BOT,	2	2	0	0	2	0
35005	VANADIUM,SED,BOT,	2	2	0	0	2	0
35010	YTTRIUM,SED,BOT,	2	2	0	0	2	0
35015	YTTERBIUM,SED,BOT,	2	2	0	0	2	0
35020	ZINC,SED,BOT,	2	2	0	0	2	0
38442	DICAMBA (BANVEL) WATER,DISSUG/L	4	4	0	0	4	0
38478	LINURON WATER,DISSUG/L	4	4	0	0	4	0
38482	MCPA WATER,DISSUG/L	4	4	0	0	4	0
38487	MCPB WATER,DISSUG/L	4	4	0	0	4	0
38501	METHIOCARB WATER,DISSUG/L	4	4	0	0	4	0
38538	PROPOXUR WATER,DISSUG/L	4	4	0	0	4	0
38711	BENTAZON WATER, DISUG/L	4	4	0	0	4	0
38746	2,4-DB WATER, DISUG/L	4	4	0	0	4	0
38811	FLUOMETURON WATER, DISUG/L	4	4	0	0	4	0
38866	OXAMYL WATER, DISUG/L	4	4	0	0	4	0
38933	CHLORPYRIFOS,DISSOLVED UG/L	4	4	0	0	4	0
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	1	0	1	0	1	0
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	1	0	1	0	1	0
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	30	30	0	0	4	0
39102	BIS(2-ETHYLHEXYL) PHTHALATE,SEDIMENT,DRY WGT,UG/KG	1	0	1	0	1	0
39112	DI-N-BUTYL PHTHALATE,SEDIMENTS,DRY WGT,UG/KG	1	0	1	0	1	0
39121	BENZIDINE IN BOTTOM DEPOS UG/KG DRY SOLIDS	1	0	1	0	1	0
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	4	4	0	0	4	0
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	4	4	0	0	4	0
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39311	P,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39316	O,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	2	0	2	0	2	0
39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	4	4	0	0	4	0
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	2	0	2	0	2	0
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	2	0	2	0	2	0
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	1	0	1	0	1	0
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	1	0	1	0	1	0
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	1	0	1	0	1	0
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4	0
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	2	0	2	0	2	0
39389	ENDOSULFAN IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	2	0	2	0	2	0
39399	ETHION IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	2	0	2	0	2	0
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	2	0	2	0	2	0
39415	METOLACHLOR, WATER, DISSOLVED UG/L	4	4	0	0	4	0
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	2	0	2	0	2	0
39481	METHOXYCHLOR IN BOTTOM DEPOSITS (UG/KG DRY SOL.)	1	0	1	0	1	0
39491	PCB - 1221 BOT. DEP.,PCB SERIES DRY SOL UG/KG	1	0	1	0	1	0
39495	PCB - 1232 BOT. DEP.,PCB-SERIES DRY SOL UG/KG	1	0	1	0	1	0
39499	PCB - 1242 BOT. DEP.,PCB-SERIES DRY SOL UG/KG	1	0	1	0	1	0
39503	PCB - 1248 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	1	0	1	0	1	0
39507	PCB - 1254 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	1	0	1	0	1	0
39511	PCB - 1260 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	1	0	1	0	1	0
39514	PCB - 1016 IN BOTTOM SEDIMENTS DRY WT UG/KG	1	0	1	0	1	0
39519	PCBS IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39531	MALATHION IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	1	0	1	0	1	0
39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4	0
39541	PARATHION IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	1	0	1	0	1	0
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4	0
39571	DIAZINON IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	1	0	1	0	1	0
39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4	0
39601	METHYL PARATHION IN BOT. DEPOS.(UG/KG DRY SOLIDS)	1	0	1	0	1	0
39632	ATRAZINE DISSOLVED IN WATER PPB	4	4	0	0	4	0
39701	HEXACHLOROBENZENE IN BOT DEPOS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	5	5	0	0	5	0
39705	HEXACHLOROBUTADIENE BOT. DEPOS.(UG/KG DRY WGT)	1	0	1	0	1	0
39731	2,4-D IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4	0
39741	2,4,5-T IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4	0
39761	SILVEX IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4	0
39787	TRITHION IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
39791	METHYL TRITHION IN BOT DEPOS (UG/KG DRY SOLIDS)	1	0	1	0	1	0
46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	4	4	0	0	4	0
46460	CHLOROPHYLL-A, SPECTRO,CORRECT FOR PHEOPHYTIN UG/L	9	9	0	0	3	0
46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	193	98	30	65	39	0
47004	SOLIDS,TOTAL DISSOLVED (ELECT-CONDUCTIVITY) MG/L	81	81	0	0	2	0
49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	4	4	0	0	4	0
49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	4	4	0	0	4	0
49237	ALUMINUM, DRY WEIGHT, TISSUE/BIOTA,RECV UG/G	2	2	0	0	1	0
49238	BARIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49239	BORON, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49240	CHROMIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49241	COPPER, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49242	IRON, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49243	MANGANESE, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49244	STRONTIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49245	ZINC, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49246	ANTIMONY, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49247	ARSENIC, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49248	BERYLLIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49249	CADMIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49250	COBALT, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49251	LEAD, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49252	MOLYBDENUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
49253	NICKEL, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49254	SELENIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49255	SILVER, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49257	URANIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49258	MERCURY, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	2	2	0	0	1	0
49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	4	4	0	0	4	0
49261	ALPHA-BHC,D6, WET WT.,TISSUE,WHOLE ORG,RECV %	1	1	0	0	1	0
49264	BIPHENYL,3,5-DICHLORO-,WET WT,TISS,WHL ORG,RECV %	1	1	0	0	1	0
49266	CARBON,ORGANIC,DRY WEIGHT,SEDIMENT,RECV,SIEVE	2	2	0	0	2	0
49267	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	2	2	0	0	2	0
49269	CARBON,INORGANIC, DRY WT, SEDIMENT,RECV,SIEVE	2	2	0	0	2	0
49270	CARBON,INORGANIC, DRY WT,SEDIMENT,RECV,SIEVE	2	2	0	0	2	0
49271	CARBON,ORGANIC,DRY WT,SEDIMENT,RECV,SIEVE	2	2	0	0	2	0
49272	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	2	2	0	0	2	0
49273	WATER PRESENT,DRY WT,TISSUE/BIOTA,LIVER,RECV UG/G	2	2	0	0	1	0
49274	TITANIUM, DRY WT, SIEVE	2	2	0	0	2	0
49275	ALPHA-BHC,D6, DRY WT,SIEVE	2	2	0	0	2	0
49276	OCTACHLOROBIPHENYL,DRY WT,SIEVE	2	2	0	0	2	0
49277	BIPHENYL,3,5-DICHLORO-,DRY WT,SIEVE	2	2	0	0	2	0
49278	TERPHENYL,D14-,DRY WT,SIEVE	2	2	0	0	2	0
49279	BIPHENYL, 2-FLUORO,DRY WT,SIEVE	2	2	0	0	2	0
49280	BENZENE,NITRO-,D5,DRY WT,SIEVE	2	2	0	0	2	0
49289	LIPIDS, WET WEIGHT, TISSUE, WHOLE ORGANISM,RECV %	1	1	0	0	1	0
49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	4	4	0	0	4	0
49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	4	4	0	0	4	0
49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	4	4	0	0	4	0
49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	4	4	0	0	4	0
49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	4	4	0	0	4	0
49316	NONACHLOR,CIS-,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49317	NONACHLOR,TRANS-,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49318	OXYCHLORDANE,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49319	ALDRIN,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49320	CHLORDANE, CIS-,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49321	CHLORDANE,TRANS-,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49322	CHLORONEB,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49324	DCPA,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49325	DDD,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49326	DDD,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49327	DDE,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49328	DDE,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49329	DDT,O,P'-,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49330	DDT,P,P'-,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49331	DIELDRIN,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49332	ENDOSULFAN I,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49335	ENDRIN,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49338	ALPHA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49339	BETA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49341	HEPTACHLOR,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49342	HEPTACHLOR EPOXIDE,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49343	HEXACHLOROBENZENE,DRY WT,SEDIMENT,SIEVE	2	2	0	0	2	0
49344	ISODRIN,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49345	LINDANE,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49346	METHOXYCHLOR,P,P'-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49347	METHOXYCHLOR,O,P'-,DRY WT,SED,SIEVE	2	2	0	0	2	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
49348	MIREX,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49349	PERMETHRIN,CIS-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49350	PERMETHRIN,TRANS-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49351	TOXAPHENE,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49353	ALDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49354	PCB, WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49355	TOXAPHENE, WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49356	PENTACHLOROANISOLE,WET WT,TISS,WHOLE ORG,RECVUG/KG	1	1	0	0	1	0
49357	OXYCHLORDANE,WET WT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49358	NONACHLOR,TRANS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49359	NONACHLOR,CIS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49360	MIREX,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49361	METHOXYCHLOR,P,P'-,WET WT,TISS,WHOLE ORG,RECVUG/KG	1	1	0	0	1	0
49362	METHOXYCHLOR,O,P'-,WET WT,TISS,WHOLE ORG,RECVUG/KG	1	1	0	0	1	0
49363	LINDANE,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49364	DELTA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49365	BETA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49366	ALPHA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49367	HEXACHLOROBENZENE,WET WT,TISS,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49368	HEPTACHLOR EPOXIDE,WET WT,TISS,WHOLE ORG,RECVUG/KG	1	1	0	0	1	0
49369	HEPTACHLOR,WET WT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49370	ENDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49371	DIELDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49372	DDE,P,P',WET WT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49373	DDE,O,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49374	DDD,O,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49375	DDD,P,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49376	DDT,P,P',WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49377	DDT,O,P',WET WT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49378	DCPA,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49379	CHLORDANE,TRANS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	1	1	0	0	1	0
49380	CHLORDANE,CIS-,WET WEIGHT,TISS,WHOLE ORG,RECVUG/KG	1	1	0	0	1	0
49381	DIBUTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49382	DIOCTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49383	DIETHYLPHTHALATE,DRY WEIGHT,SED,SIEVE	1	1	0	0	1	0
49384	DIMETHYLPHTHALATE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49387	PYRENE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49388	METHYLPYRENE,DRY WEIGHT,SED,SIEVE	1	1	0	0	1	0
49389	METHYLBENZO(A)PYRENE,DRY WT,SED,SIEVE	2	2	0	0	2	0
49390	METHYLINDENO(1,2,3-CD)PYRENE,DRY WT,SEV	2	2	0	0	2	0
49391	BIQUINOLINE,2,2'-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49392	QUINOLINE,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49393	PHENANTHRIDINE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49394	ISOQUINOLINE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49395	TOLUENE, 2,4-DINITRO-,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49396	TOLUENE, 2,6-DINITRO-,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49397	BENZO(K)FLUORANTHENE,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49398	METHYL-9H-FLUORENE,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49399	FLUORENE,9H-,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49400	ISOPHORONE,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49401	METHANE, BIS(2-CHLOROETHOXY),DRY WT,SEV	2	2	0	0	2	0
49402	NAPHTHALENE, DRY WEIGHT, SIEVE	2	2	0	0	2	0
49403	NAPHTHALENE, 1,2-DIMETHYL-,DRY WT,SIEVE	2	2	0	0	2	0
49404	NAPHTHALENE, 1,6-DIMETHYL-,DRY WT,SIEVE	2	2	0	0	2	0
49405	NAPHTHALENE, 2,3,6-TRIMETHYL-,DRY WT,SEV	2	2	0	0	2	0
49406	NAPHTHALENE, 2,6-DIMETHYL-,DRY WT,SIEVE	1	1	0	0	1	0
49407	NAPHTHALENE, 2-CHLORO-,DRY WT,SIEVE	2	2	0	0	2	0
49408	BENZO(G,H,I)PERYLENE,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49409	PHENANTHRENE,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49410	METHYLPHENANTHRENE,DRY WT,SIEVE	2	2	0	0	2	0
49411	CYCLOPENTA(DEF)PHENANTHRENE, 4H-,DRY WT,SEV	2	2	0	0	2	0
49413	PHENOL,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49421	XYLENOL, 3,5-,DRY WEIGHT,SIEVE	2	2	0	0	2	0
49422	M-CRESOL, 4-CHLORO-,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49424	PHENOL, C8-ALKYL-,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49425	PHENOL, PENTACHLORO,DRY WEIGHT,SED,SIEVE	1	1	0	0	1	0
49426	PHTHALATE, BIS(2-ETHYLHEXYL)-,DRY WT,SEV	2	2	0	0	2	0
49427	PHTHALATE, BUTYL BENZYL, DRY WT,SED,SEV	2	2	0	0	2	0
49428	ACENAPHTHYLENE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49429	ACENAPHTHENE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49430	ACRIDINE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
49431	N-NITROSO-DIPROPYLAMINE,DRY WT,SED,SIEVE	2	2	0	0	2	0
49433	N-NITROSO-DIPHENYLAMINE,DRY WT,SED,SEV	2	2	0	0	2	0
49434	ANTHRACENE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49435	ANTHRACENE, 2-METHYL-,DRY WEIGHT,SED,SEV	1	1	0	0	1	0
49436	BENZ(A)ANTHRACENE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49437	ANTHRAQUINONE, 9, 10-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49438	BENZENE, 1,2,4-TRICHLORO-,DRY WT,SED,SEV	2	2	0	0	2	0
49439	BENZENE, O-DICHLORO-,SED,SIEVE	2	2	0	0	2	0
49441	BENZENE, M-DICHLORO-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49442	BENZENE, P-DICHLORO-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49443	AZOBENZENE,DRY WT,SED,SIEVE	2	2	0	0	2	0
49444	BENZENE, NITRO-,DRY WT,SED,SIEVE	2	2	0	0	2	0
49446	BENZENE,PENTACHLORONITRO-,DRY WT,SIEVE	2	2	0	0	2	0
49449	CARBAZOLE,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49450	CHRYSENE,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49451	P-CRESOL,DRY WEIGHT,SEDIMENT,SIEVE	2	2	0	0	2	0
49452	DIBENZOTHIOPHENE,DRY WEIGHT,SED,SIEVE	2	2	0	0	2	0
49454	BROMOPHENYL, 4-PHENYL ETHER,SED,SIEVE	2	2	0	0	2	0
49455	CHLOROPHENYL,4-PHENYL ETHER,SED,SIEVE	2	2	0	0	2	0
49458	BENZO(B)FLUORANTHENE,DRY WT,SIEVE	2	2	0	0	2	0
49459	PCB,DRY WEIGHT,BED MATERIAL,SIEVE	2	2	0	0	2	0
49460	PENTACHLOROANISOLE,DRY WT,BED MAT,SIEVE	2	2	0	0	2	0
49461	DIBENZ(A,H)ANTHRACENE,DRY WT,SIEVE	2	2	0	0	2	0
49465	VANADIUM,BIOTA,TISSUE,LIVER,DRY WEIGHT,RECV UG/G	2	2	0	0	1	0
49466	FLUORANTHENE,SED,BED MAT,WET SIEV	2	2	0	0	2	0
49467	PHENOL, O-CHLORO,SED,BED MAT,WETSEV	2	2	0	0	2	0
49468	BENZO(C)CINNOLINE,SED,BED MAT,WETSEV	2	2	0	0	2	0
49948	NAPHTHALENE,2-ETHYL-,BEDMAT,WETSIEV,	2	2	0	0	2	0
49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	4	4	0	0	4	0
49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	4	4	0	0	4	0
50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	4	4	0	0	4	0
50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	4	4	0	0	4	0
50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	4	4	0	0	4	0
50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	4	4	0	0	4	0
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	119	118	0	1	21	0
50064	CHLORINE, FREE AVAILABLE (MG/L)	60	60	0	0	13	0
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	6	6	0	0	6	0
50280	PURPOSE, SITE VISIT CODE	31	31	0	0	2	0
50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	4	0	4	0	4	0
50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	4	0	4	0	4	0
60050	ALGAE, TOTAL (CELLS/ML)	2	0	2	0	1	0
61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	4	4	0	0	4	0
70299	SOLIDS, SUSP. - RESIDUE ON EVAP. AT 180 C (MG/L)	1	0	1	0	1	0
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	289	253	33	3	30	0
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	94	0	28	66	29	0
70302	SOLIDS, DISSOLVED-TONS PER DAY	23	0	20	3	2	0
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	32	0	28	4	4	0
70304	SOLIDS, TOTAL DISSOLVED-COND. METER (MG/L)	15	0	11	4	3	0
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	5	4	1	0	2	0
70337	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .002MM	3	0	3	0	1	0
70338	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .004MM	3	0	3	0	1	0
70340	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .016MM	3	0	3	0	1	0
70342	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .062MM	3	0	3	0	1	0
70343	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .125MM	3	0	3	0	1	0
70344	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .250MM	2	0	2	0	1	0
70956	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-SPECTRO	9	9	0	0	3	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
70957	CHLOROPHYLL-A,PERIPHYTON UG/L,CHROMO-FLUORO	1	1	0	0	1	0
70958	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-FLUORO	1	1	0	0	1	0
71830	HYDROXIDE ION (MG/L AS OH)	69	69	0	0	9	0
71845	NITROGEN, AMMONIA, TOTAL (MG/L AS NH4)	1	0	1	0	1	0
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	239	98	76	65	44	0
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	3	0	2	1	2	0
71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	78	78	0	0	5	0
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	16	14	2	0	4	0
71870	BROMIDE (MG/L AS BR)	11	11	0	0	4	0
71875	HYDROGEN SULFIDE (MG/L)	2	0	0	2	1	0
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	2	0	2	0	1	0
71887	NITROGEN, TOTAL, AS NO3 - MG/L	23	0	23	0	1	0
71890	MERCURY, DISSOLVED (UG/L AS HG)	98	97	1	0	11	0
71900	MERCURY, TOTAL (UG/L AS HG)	292	242	37	13	38	0
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	10	6	4	0	8	0
71999	SAMPLE PURPOSE CODE	33	33	0	0	2	0
73085	CHLOROBROMOMETHANE, TOTAL, WATER UG/L	1	1	0	0	1	0
73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	4	4	0	0	4	0
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	4	4	0	0	4	0
74069	FLOW, ESTIMATED STREAM CFS	2	2	0	0	1	0
77041	CARBON DISULFIDE WHOLE WATER,UG/L	4	4	0	0	4	0
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	5	5	0	0	5	0
77103	2-HEXANONE WHOLE WATER,UG/L	4	4	0	0	4	0
77128	STYRENE WHOLE WATER,UG/L	4	4	0	0	4	0
77135	O-XYLENE WHOLE WATER,UG/L	4	4	0	0	4	0
77163	1,3-DICHLOROPROPENE-1 WHOLE WATER,UG/L	1	1	0	0	1	0
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	4	4	0	0	4	0
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	4	4	0	0	4	0
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	4	4	0	0	4	0
77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77224	N-PROPYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	4	4	0	0	4	0
77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	4	4	0	0	4	0
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	4	4	0	0	4	0
77342	N-BUTYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77424	IODOMETHANE WHOLE WATER,UG/L	4	4	0	0	4	0
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	5	5	0	0	5	0
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	5	5	0	0	5	0
77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	4	4	0	0	4	0
77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	4	4	0	0	4	0
77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	4	4	0	0	4	0
78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	4	4	0	0	4	0
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	4	4	0	0	4	0
78133	4-METHYL-2-PENTANONE IN WATER UG/L	4	4	0	0	4	0
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	55	26	12	17	5	0
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	28	0	11	17	2	0
80164	BED MATERIAL SIEVE DIAMETER,% FINER THAN .062MM	2	2	0	0	2	0
81551	XYLENE WHL WATER SMPL UG/L	1	1	0	0	1	0
81552	ACETONE WHL WATER SMPL UG/L	4	4	0	0	4	0
81555	BROMOBENZENE WHL WATER SMPL UG/L	4	4	0	0	4	0
81576	DIETHYL ETHER WHL WATER SMPL UG/L	4	4	0	0	4	0
81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	4	4	0	0	4	0
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	4	4	0	0	4	0
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	4	4	0	0	4	0
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	4	4	0	0	4	0
81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	4	4	0	0	4	0
82037	MAGNESIUM - DISSOLVED UG/L (AS MG)	2	0	2	0	2	0
82039	DISSOLVED-SODIUM UG/L (AS NA)	4	0	4	0	4	0
82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	4	0	4	0	4	0
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	191	191	0	0	18	0
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	193	184	9	0	27	0
82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	12	12	0	0	4	0
82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	12	12	0	0	4	0
82398	SAMPLING METHOD (CODES)	33	30	3	0	5	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	4	4	0	0	4	0
82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	4	4	0	0	4	0
82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	4	4	0	0	4	0
82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	4	4	0	0	4	0
82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	4	4	0	0	4	0
82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82680	CARBARYL, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	4	4	0	0	4	0
84164	SAMPLER TYPE, CODE	26	26	0	0	1	0
85663	FLOW, RATE FT/SEC	241	241	0	0	19	0
85795	XYLENE, META & PARA, WATER, WHOLE UG/L	4	4	0	0	4	0
90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	32	30	2	0	6	0
90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	31	30	1	0	6	0
91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	4	4	0	0	4	0
91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	4	4	0	0	4	0
91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	4	4	0	0	4	0
95100	CONVERSION FACTOR	3	0	3	0	1	0
95200	TOTAL COUNT (CELLS/ML)	3	0	3	0	1	0
96014	CHLAMYDOMONAS (4) USGS, ACL-74	1	0	1	0	1	0
96190	SCHROEDERIA (4) USGS, ACL-74	1	0	1	0	1	0
96200	COELASTRUM (4) USGS, ACL-74	2	0	2	0	1	0
96202	ANKISTRODESMUS (4) USGS, ACL-74	3	0	3	0	1	0
96215	KIRCHNERIELLA (4) USGS, ACL-74	1	0	1	0	1	0
96218	OOCYSTIS (4) USGS, ACL-74	1	0	1	0	1	0
96238	ACTINASTRUM (4) USGS, ACL-74	1	0	1	0	1	0
96243	SCENEDESMUS (4) USGS, ACL-74	3	0	3	0	1	0
96254	MICRACTINIUM (4) USGS, ACL-74	2	0	2	0	1	0
96387	EUGLENA (4) USGS, ACL-74	2	0	2	0	1	0
96706	CYCLOTELLA (4) USGS, ACL-74	2	0	2	0	1	0
96777	ACHNANTHES (4) USGS, ACL-74	1	0	1	0	1	0
96778	COCCONEIS (4) USGS, ACL-74	1	0	1	0	1	0
96791	NAVICULA (4) USGS, ACL-74	2	0	2	0	1	0
96793	PINNULARIA (4) USGS, ACL-74	1	0	1	0	1	0
96802	GOMPHONEMA (4) USGS, ACL-74	1	0	1	0	1	0
96806	CYMBELLA (4) USGS, ACL-74	1	0	1	0	1	0
96812	NITZSCHIA (4) USGS, ACL-74	2	0	2	0	1	0
98082	ANACYSTIS (4) MENEGH, 1837 -98066	2	0	2	0	1	0
98165	ANABAENA (4) USGS, ACL-74	1	0	1	0	1	0
99111	QUALITY ASSURANCE DATA TYPE ASSOCIATED WITH SAMPLE	26	26	0	0	1	0
99818	SET NUMBER, SCHEDULE 2001	4	4	0	0	4	0
99820	SET NUMBER, SCHEDULE 2050	4	4	0	0	4	0
99822	SET NUMBER, SCHEDULE 2101	1	1	0	0	1	0
99824	SET NUMBER, SCHEDULE 2501	2	2	0	0	2	0
99825	SET NUMBER, SCHEDULE 2502	2	2	0	0	2	0
99827	SET NUMBER, SCHEDULE 2090	4	4	0	0	4	0
99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	4	4	0	0	4	0
99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	4	4	0	0	4	0
99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	4	4	0	0	4	0
99835	BDMC, SURROGATE WATER, UNFILTERED, RECOVERABLE %	2	2	0	0	2	0
99848	SAMPLE VOLUME, SCHEDULE 2050, MILLILITERS	4	4	0	0	4	0

Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Parameter Code	Name	Total Obs	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Stations Total	Stations Park
99852	SAMPLE WEIGHT, SCHEDULE 2101, GRAMS	1	1	0	0	1	0
99853	SAMPLE WEIGHT, SCHEDULE 2501, GRAMS	2	2	0	0	2	0
99856	SAMPLE VOLUME, SCHEDULE 2001, ML	4	4	0	0	4	0

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0003	No	00004	STREAM WIDTH (FEET)	11/12/86-11/29/99	13	47	T,S
TUMA0006	No	00004	STREAM WIDTH (FEET)	01/24/89-11/29/99	10	41	T
TUMA0007	No	00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	1	20	
TUMA0013	No	00004	STREAM WIDTH (FEET)	03/23/98-03/23/98	0	1	
TUMA0017	No	00004	STREAM WIDTH (FEET)	08/11/86-10/15/86	0	2	
TUMA0028	No	00004	STREAM WIDTH (FEET)	09/15/86-09/01/87	0	11	
TUMA0034	No	00004	STREAM WIDTH (FEET)	03/23/98-03/23/98	0	1	
TUMA0040	No	00004	STREAM WIDTH (FEET)	02/24/98-12/28/99	1	5	
TUMA0050	No	00004	STREAM WIDTH (FEET)	03/23/98-03/23/98	0	1	
TUMA0060	No	00004	STREAM WIDTH (FEET)	11/03/97-11/03/97	0	1	
TUMA0062	No	00004	STREAM WIDTH (FEET)	08/11/86-09/19/92	6	45	
TUMA0065	No	00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	1	19	
TUMA0074	No	00004	STREAM WIDTH (FEET)	04/04/91-04/04/91	0	1	
TUMA0077	No	00004	STREAM WIDTH (FEET)	03/04/93-03/04/93	0	1	
TUMA0081	No	00004	STREAM WIDTH (FEET)	09/19/91-03/04/93	1	6	
TUMA0088	No	00004	STREAM WIDTH (FEET)	03/30/93-11/25/97	4	2	
TUMA0089	No	00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	1	20	
TUMA0090	No	00004	STREAM WIDTH (FEET)	11/04/97-11/04/97	0	1	
TUMA0094	No	00004	STREAM WIDTH (FEET)	10/11/95-09/10/97	1	26	
TUMA0096	No	00004	STREAM WIDTH (FEET)	06/04/96-06/04/96	0	1	
TUMA0100	No	00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	1	19	
TUMA0101	No	00004	STREAM WIDTH (FEET)	11/28/95-11/28/95	0	1	
TUMA0025	No	00008	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE	06/22/82-07/11/85	3	2	
TUMA0085	No	00008	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE	11/28/80-11/28/80	0	1	
TUMA0002	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-11/12/86	0	3	
TUMA0003	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/86-11/29/99	13	53	
TUMA0005	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	0	6	
TUMA0006	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/15/86-11/29/99	13	78	
TUMA0007	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	
TUMA0009	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/27/67-07/31/78	10	24	
TUMA0010	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/05/73-04/17/73	0	4	
TUMA0013	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/23/98-03/23/98	0	1	
TUMA0015	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	0	6	
TUMA0017	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/15/86	0	3	
TUMA0020	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/12/73	0	4	
TUMA0021	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/26/84-07/26/84	0	1	
TUMA0022	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/03/97-11/03/97	0	1	
TUMA0023	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	0	7	
TUMA0024	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/15/80-03/15/80	0	1	
TUMA0025	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/10/41-07/11/85	43	3	
TUMA0026	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/10/73-04/27/73	0	4	
TUMA0027	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/12/73	0	4	
TUMA0028	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-01/26/88	1	15	
TUMA0030	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/05/73-04/27/73	0	5	
TUMA0033	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/17/69-01/24/72	2	6	
TUMA0034	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/23/98-03/23/98	0	1	
TUMA0035	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/25/95-05/25/95	0	5	
TUMA0036	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/25/95-05/25/95	0	9	
TUMA0037	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/92-05/19/98	6	66	
TUMA0038	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/06/73	0	2	
TUMA0039	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/04/80-01/04/80	0	1	
TUMA0040	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/24/98-12/28/99	1	6	
TUMA0042	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	0	7	
TUMA0043	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	0	1	
TUMA0045	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/07/80-01/13/81	0	2	
TUMA0046	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/07/80-03/07/81	0	3	
TUMA0047	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/07/81-03/07/81	0	1	
TUMA0048	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/07/80-03/07/81	0	3	
TUMA0049	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	0	1	
TUMA0050	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/23/98-03/23/98	0	1	
TUMA0051	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/06/73	0	2	
TUMA0052	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	0	8	
TUMA0053	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/26/84-07/26/84	0	1	
TUMA0055	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/26/73-06/28/84	11	2	
TUMA0057	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/85-06/28/85	0	1	
TUMA0058	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/10/73-04/27/73	0	5	
TUMA0059	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-07/26/84	11	7	
TUMA0060	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/03/97-11/03/97	0	1	
TUMA0061	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	0	1	
TUMA0062	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/09/92	6	51	
TUMA0064	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/30/76-05/07/79	3	26	
TUMA0065	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0066	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/13/73	0	5	
TUMA0067	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/20/73-04/20/73	0	1	
TUMA0068	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/29/92-04/29/92	0	6	
TUMA0069	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/29/92-05/20/98	6	55	
TUMA0070	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/22/75-09/27/80	4	17	
TUMA0071	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/10/86-08/13/86	0	5	
TUMA0072	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/10/80-03/10/80	0	1	
TUMA0073	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/06/73-04/26/73	0	5	
TUMA0074	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/91-04/04/91	0	1	
TUMA0075	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/27/73	0	6	
TUMA0076	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/28/92-03/28/92	0	1	
TUMA0077	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/28/92-03/04/93	0	2	
TUMA0078	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	0	2	
TUMA0079	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	0	6	
TUMA0080	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/17/73-04/26/73	0	3	
TUMA0081	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/19/91-03/04/93	1	6	
TUMA0082	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/10/73-04/26/73	0	3	
TUMA0083	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/28/92-03/28/92	0	1	
TUMA0084	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	0	1	
TUMA0086	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/07/80-03/07/80	0	1	
TUMA0087	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-04/27/73	0	3	
TUMA0088	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/93-11/25/97	4	2	
TUMA0089	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	
TUMA0090	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/04/97-11/04/97	0	1	
TUMA0091	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	0	1	
TUMA0092	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/07/80-03/07/80	0	1	
TUMA0093	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/27/84-07/27/84	0	1	
TUMA0094	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/11/95-11/04/97	2	26	
TUMA0095	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/05/92-01/05/92	0	1	
TUMA0096	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/04/96-06/04/96	0	1	
TUMA0097	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/27/73	0	6	
TUMA0098	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/19/92-09/19/92	0	2	
TUMA0100	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	
TUMA0101	No	00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/28/95-11/28/95	0	1	
TUMA0033	No	00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	10/17/69-01/24/72	2	6	
TUMA0071	No	00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	06/10/86-08/13/86	0	5	
TUMA0002	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-11/12/86	0	3	
TUMA0003	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/12/86-11/29/99	13	54	
TUMA0006	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/15/86-11/29/99	13	77	
TUMA0007	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	
TUMA0009	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/28/69-09/23/70	1	3	
TUMA0013	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/23/98-03/23/98	0	1	
TUMA0017	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/15/86	0	3	
TUMA0021	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/26/84-07/26/84	0	1	
TUMA0022	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/03/97-11/03/97	0	1	
TUMA0028	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-01/26/88	1	15	
TUMA0034	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/23/98-03/23/98	0	1	
TUMA0039	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/04/80-01/04/80	0	1	
TUMA0040	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	02/24/98-12/28/99	1	6	
TUMA0045	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/13/81-01/13/81	0	1	
TUMA0046	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/06/81-03/07/81	0	2	
TUMA0047	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/07/81-03/07/81	0	1	
TUMA0048	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	02/07/81-03/07/81	0	2	
TUMA0050	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/23/98-03/23/98	0	1	
TUMA0055	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	06/28/84-07/26/84	0	2	
TUMA0057	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	06/28/85-06/28/85	0	1	
TUMA0059	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/26/84-07/26/84	0	1	
TUMA0060	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/03/97-11/03/97	0	1	
TUMA0062	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/09/92	6	51	
TUMA0064	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/28/78-05/07/79	0	2	
TUMA0065	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	
TUMA0074	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	04/04/91-04/04/91	0	1	
TUMA0076	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/28/92-03/28/92	0	1	
TUMA0077	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/28/92-03/04/93	0	2	
TUMA0081	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/19/91-03/04/93	1	6	
TUMA0083	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/28/92-03/28/92	0	1	
TUMA0088	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/30/93-11/25/97	4	2	
TUMA0089	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	
TUMA0090	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/04/97-11/04/97	0	1	
TUMA0093	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/27/84-07/27/84	0	1	
TUMA0094	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/11/95-11/04/97	2	27	
TUMA0095	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/05/92-01/05/92	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0096	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	06/04/96-06/04/96	0	1	
TUMA0098	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/19/92-09/19/92	0	2	
TUMA0100	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	1	21	
TUMA0101	No	00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/28/95-11/28/95	0	1	
TUMA0033	No	00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	10/17/69-01/24/72	2	6	
TUMA0071	No	00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	06/10/86-08/13/86	0	5	
TUMA0022	No	00025	BAROMETRIC PRESSURE (MM OF HG)	11/03/97-11/03/97	0	1	
TUMA0060	No	00025	BAROMETRIC PRESSURE (MM OF HG)	11/03/97-11/03/97	0	1	
TUMA0090	No	00025	BAROMETRIC PRESSURE (MM OF HG)	11/04/97-11/04/97	0	1	
TUMA0094	No	00025	BAROMETRIC PRESSURE (MM OF HG)	10/11/95-11/04/97	2	26	
TUMA0022	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	11/03/97-11/14/97	0	2	
TUMA0025	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	10/10/41-06/22/82	40	3	
TUMA0056	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	05/09/96-05/09/96	0	1	
TUMA0060	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	11/03/97-11/14/97	0	2	
TUMA0064	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	06/21/76-05/07/79	2	3	
TUMA0090	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	11/04/97-11/14/97	0	2	
TUMA0094	No	00027	CODE NO FOR AGENCY COLLECTING SAMPLE-SEE APPEND.	10/11/95-11/14/97	2	32	
TUMA0022	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	11/03/97-11/14/97	0	2	
TUMA0025	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	10/10/41-06/22/82	40	3	
TUMA0056	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	05/09/96-05/09/96	0	1	
TUMA0060	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	11/03/97-11/14/97	0	2	
TUMA0064	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	06/21/76-05/07/79	2	5	
TUMA0085	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	11/28/80-11/28/80	0	1	
TUMA0090	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	11/04/97-11/14/97	0	2	
TUMA0094	No	00028	CODE NO FOR AGENCY ANALYZING SAMPLE (SEE APPEND)	10/11/95-11/14/97	2	32	
TUMA0095	No	00055	VELOCITY, STREAM FT/SEC	01/05/92-01/05/92	0	1	
TUMA0098	No	00055	VELOCITY, STREAM FT/SEC	09/19/92-09/19/92	0	2	
TUMA0009	No	00060	FLOW, STREAM, MEAN DAILY CFS	12/27/67-09/23/70	2	22	
TUMA0003	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	11/12/86-11/29/99	13	68	
TUMA0006	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/24/89-11/29/99	10	38	
TUMA0007	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	1	20	
TUMA0009	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	08/25/76-09/22/81	5	6	
TUMA0013	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/23/98-03/23/98	0	1	
TUMA0015	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/04/73-04/26/73	0	6	
TUMA0017	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	10/15/86-10/15/86	0	1	
TUMA0022	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	11/03/97-11/03/97	0	1	
TUMA0023	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/04/73-04/13/73	0	6	
TUMA0026	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/27/73-04/27/73	0	2	
TUMA0028	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	10/15/86-09/01/87	0	10	
TUMA0030	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/27/73-04/27/73	0	2	
TUMA0033	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/10/71-06/16/71	0	2	
TUMA0034	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/23/98-03/23/98	0	1	
TUMA0039	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/04/80-01/04/80	0	1	
TUMA0040	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	02/24/98-12/28/99	1	5	
TUMA0042	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	0	2	
TUMA0050	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/23/98-03/23/98	0	1	
TUMA0052	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/20/73-04/26/73	0	4	
TUMA0058	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/19/73-04/24/73	0	2	
TUMA0059	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	0	1	
TUMA0060	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	11/03/97-11/03/97	0	1	
TUMA0062	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	10/14/86-09/19/92	5	46	
TUMA0064	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/30/76-09/20/79	3	29	
TUMA0065	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	1	19	
TUMA0066	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	0	1	
TUMA0067	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/20/73-04/20/73	0	1	
TUMA0074	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/04/91-04/04/91	0	1	
TUMA0075	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	0	1	
TUMA0076	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/28/92-03/28/92	0	1	
TUMA0077	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/28/92-03/04/93	0	2	
TUMA0079	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	0	1	
TUMA0080	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	0	1	
TUMA0081	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/19/91-03/04/93	1	6	
TUMA0082	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	0	2	
TUMA0083	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/28/92-03/28/92	0	1	
TUMA0087	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	0	2	
TUMA0088	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/93-11/25/97	4	2	
TUMA0089	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	1	19	
TUMA0090	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	11/04/97-11/04/97	0	1	
TUMA0094	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	10/11/95-11/04/97	2	27	
TUMA0095	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/05/92-01/05/92	0	1	
TUMA0096	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	06/04/96-06/04/96	0	1	
TUMA0098	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	09/19/92-09/19/92	0	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0100	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	1	19	
TUMA0101	No	00061	FLOW, STREAM, INSTANTANEOUS CFS	11/28/95-11/28/95	0	1	
TUMA0022	No	00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION	11/03/97-11/03/97	0	1	
TUMA0060	No	00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION	11/03/97-11/03/97	0	1	
TUMA0090	No	00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION	11/04/97-11/04/97	0	1	
TUMA0094	No	00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION	10/11/95-11/04/97	2	27	
TUMA0003	No	00064	DEPTH OF STREAM, MEAN (FT)	11/12/86-11/29/99	13	47	T,S
TUMA0006	No	00064	DEPTH OF STREAM, MEAN (FT)	01/24/89-11/29/99	10	41	T
TUMA0007	No	00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	1	20	
TUMA0013	No	00064	DEPTH OF STREAM, MEAN (FT)	03/23/98-03/23/98	0	1	
TUMA0017	No	00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-10/15/86	0	2	
TUMA0028	No	00064	DEPTH OF STREAM, MEAN (FT)	09/15/86-09/01/87	0	11	
TUMA0034	No	00064	DEPTH OF STREAM, MEAN (FT)	03/23/98-03/23/98	0	1	
TUMA0040	No	00064	DEPTH OF STREAM, MEAN (FT)	02/24/98-12/28/99	1	5	
TUMA0050	No	00064	DEPTH OF STREAM, MEAN (FT)	03/23/98-03/23/98	0	1	
TUMA0062	No	00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-09/19/92	6	45	
TUMA0065	No	00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	1	19	
TUMA0074	No	00064	DEPTH OF STREAM, MEAN (FT)	04/04/91-04/04/91	0	1	
TUMA0077	No	00064	DEPTH OF STREAM, MEAN (FT)	03/04/93-03/04/93	0	1	
TUMA0081	No	00064	DEPTH OF STREAM, MEAN (FT)	09/19/91-03/04/93	1	6	
TUMA0088	No	00064	DEPTH OF STREAM, MEAN (FT)	03/30/93-11/25/97	4	2	
TUMA0089	No	00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	1	19	
TUMA0095	No	00064	DEPTH OF STREAM, MEAN (FT)	01/05/92-01/05/92	0	1	
TUMA0096	No	00064	DEPTH OF STREAM, MEAN (FT)	06/04/96-06/04/96	0	1	
TUMA0098	No	00064	DEPTH OF STREAM, MEAN (FT)	09/19/92-09/19/92	0	2	
TUMA0100	No	00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	1	19	
TUMA0101	No	00064	DEPTH OF STREAM, MEAN (FT)	11/28/95-11/28/95	0	1	
TUMA0094	No	00065	STAGE, STREAM (FEET)	10/11/95-09/10/97	1	26	
TUMA0095	No	00065	STAGE, STREAM (FEET)	01/05/92-01/05/92	0	1	
TUMA0098	No	00065	STAGE, STREAM (FEET)	09/19/92-09/19/92	0	2	
TUMA0031	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	10/21/75-10/21/75	0	1	
TUMA0033	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	10/17/69-01/24/72	2	4	
TUMA0064	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	01/30/76-12/02/77	1	22	
TUMA0070	No	00070	TURBIDITY, (JACKSON CANDLE UNITS)	10/22/75-09/27/80	4	17	
TUMA0009	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	10/10/77-10/10/77	0	1	
TUMA0039	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	01/04/80-01/04/80	0	1	
TUMA0064	No	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/04/77-05/07/79	1	5	
TUMA0037	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	04/29/92-05/19/98	6	4	
TUMA0069	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	12/17/97-05/20/98	0	3	
TUMA0070	No	00078	TRANSPARENCY, SECCHI DISC (METERS)	09/27/79-03/24/80	0	2	
TUMA0035	No	00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	05/25/95-05/25/95	0	5	
TUMA0036	No	00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	05/25/95-05/25/95	0	9	
TUMA0037	No	00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	04/30/92-05/19/98	6	34	
TUMA0069	No	00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	12/17/97-05/20/98	0	29	
TUMA0002	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-11/12/86	0	3	
TUMA0003	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/86-11/29/99	13	52	T,S
TUMA0006	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/15/86-11/29/99	13	75	T,S
TUMA0007	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/27/98-12/28/99	1	21	
TUMA0013	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/23/98-03/23/98	0	1	
TUMA0017	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/15/86	0	3	
TUMA0021	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/26/84-07/26/84	0	1	
TUMA0028	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-01/26/88	1	15	
TUMA0034	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/23/98-03/23/98	0	1	
TUMA0035	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/25/95-05/25/95	0	5	
TUMA0036	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/25/95-05/25/95	0	9	
TUMA0037	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/30/92-05/19/98	6	66	
TUMA0040	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	02/24/98-12/28/99	1	5	
TUMA0048	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/07/80-09/07/80	0	1	
TUMA0050	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/23/98-03/23/98	0	1	
TUMA0053	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/26/84-07/26/84	0	1	
TUMA0055	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/28/84-07/26/84	0	2	
TUMA0057	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/28/85-06/28/85	0	1	
TUMA0059	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/26/84-07/26/84	0	1	
TUMA0062	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/09/92	6	51	
TUMA0065	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/27/98-12/28/99	1	21	
TUMA0068	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/29/92-04/29/92	0	6	
TUMA0069	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/29/92-05/20/98	6	55	
TUMA0074	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/04/91-04/04/91	0	1	
TUMA0077	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/04/93-03/04/93	0	1	
TUMA0081	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/19/91-03/04/93	1	6	
TUMA0088	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/30/93-11/25/97	4	2	
TUMA0089	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM 25C)	01/27/98-12/28/99	1	21	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0093	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/27/84-07/27/84	0	1	
TUMA0095	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/05/92-01/05/92	0	1	
TUMA0096	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/04/96-06/04/96	0	1	
TUMA0098	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/19/92-09/19/92	0	2	
TUMA0100	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/27/98-12/28/99	1	21	
TUMA0101	No	00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/28/95-11/28/95	0	1	
TUMA0003	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	12	52	T,S
TUMA0006	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	12	75	T,S
TUMA0009	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/28/69-10/10/77	8	6	
TUMA0013	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/23/98-03/23/98	0	1	
TUMA0021	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/26/84-07/26/84	0	1	
TUMA0022	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/03/97-11/03/97	0	1	
TUMA0024	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/15/80-03/15/80	0	1	
TUMA0025	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/10/41-07/11/85	43	4	
TUMA0028	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-07/19/88	1	10	
TUMA0033	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/06/76-05/03/76	0	2	
TUMA0034	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/23/98-03/23/98	0	1	
TUMA0037	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/29/92-05/19/98	6	14	
TUMA0039	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/06/76-01/04/80	3	3	
TUMA0045	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/07/80-01/13/81	0	2	
TUMA0046	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/07/80-03/07/81	0	3	
TUMA0047	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/06/81-03/07/81	0	2	
TUMA0048	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/07/80-03/07/81	0	4	
TUMA0050	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/24/98-03/24/98	0	1	
TUMA0053	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/26/84-07/26/84	0	1	
TUMA0055	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/28/84-07/26/84	0	2	
TUMA0057	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/28/85-06/28/85	0	1	
TUMA0059	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/26/84-07/26/84	0	1	
TUMA0060	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/03/97-11/03/97	0	1	
TUMA0062	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-09/19/92	5	41	
TUMA0064	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/30/76-05/07/79	3	26	
TUMA0068	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/29/92-04/29/92	0	2	
TUMA0069	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/29/92-05/20/98	6	11	
TUMA0072	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/10/80-03/10/80	0	1	
TUMA0074	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/04/91-04/04/91	0	1	
TUMA0076	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/28/92-03/28/92	0	1	
TUMA0077	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/28/92-03/28/92	0	1	
TUMA0081	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/19/91-09/19/91	0	1	
TUMA0083	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/28/92-03/28/92	0	1	
TUMA0086	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/07/80-03/07/80	0	1	
TUMA0088	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	02/23/93-02/23/93	0	1	
TUMA0090	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/04/97-11/04/97	0	1	
TUMA0092	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/07/80-03/07/80	0	1	
TUMA0093	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/27/84-07/27/84	0	1	
TUMA0094	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/11/95-11/04/97	2	27	
TUMA0095	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/05/92-01/05/92	0	1	
TUMA0098	No	00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/19/92-09/19/92	0	2	
TUMA0094	No	00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)	10/11/95-09/10/97	1	26	
TUMA0002	No	00300	OXYGEN, DISSOLVED MG/L	08/11/86-09/15/86	0	2	
TUMA0003	No	00300	OXYGEN, DISSOLVED MG/L	11/12/86-11/29/99	13	51	T,S
TUMA0005	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/26/73	0	3	
TUMA0006	No	00300	OXYGEN, DISSOLVED MG/L	12/16/86-11/29/99	12	69	T,S
TUMA0007	No	00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	1	20	
TUMA0009	No	00300	OXYGEN, DISSOLVED MG/L	09/23/70-09/23/70	0	1	
TUMA0013	No	00300	OXYGEN, DISSOLVED MG/L	03/23/98-03/23/98	0	1	
TUMA0015	No	00300	OXYGEN, DISSOLVED MG/L	04/09/73-04/26/73	0	2	
TUMA0017	No	00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/15/86	0	3	
TUMA0020	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	0	1	
TUMA0021	No	00300	OXYGEN, DISSOLVED MG/L	07/26/84-07/26/84	0	1	
TUMA0022	No	00300	OXYGEN, DISSOLVED MG/L	11/03/97-11/03/97	0	1	
TUMA0023	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/09/73	0	2	
TUMA0025	No	00300	OXYGEN, DISSOLVED MG/L	07/11/85-07/11/85	0	1	
TUMA0026	No	00300	OXYGEN, DISSOLVED MG/L	04/27/73-04/27/73	0	1	
TUMA0027	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	0	1	
TUMA0028	No	00300	OXYGEN, DISSOLVED MG/L	08/11/86-09/01/87	1	13	
TUMA0030	No	00300	OXYGEN, DISSOLVED MG/L	04/27/73-04/27/73	0	1	
TUMA0033	No	00300	OXYGEN, DISSOLVED MG/L	10/17/69-01/24/72	2	5	
TUMA0034	No	00300	OXYGEN, DISSOLVED MG/L	03/23/98-03/23/98	0	1	
TUMA0035	No	00300	OXYGEN, DISSOLVED MG/L	05/25/95-05/25/95	0	5	
TUMA0036	No	00300	OXYGEN, DISSOLVED MG/L	05/25/95-05/25/95	0	9	
TUMA0037	No	00300	OXYGEN, DISSOLVED MG/L	04/30/92-05/19/98	6	55	
TUMA0038	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0039	No	00300	OXYGEN, DISSOLVED MG/L	01/04/80-01/04/80	0	1	
TUMA0040	No	00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	1	6	
TUMA0042	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/20/73	0	3	
TUMA0050	No	00300	OXYGEN, DISSOLVED MG/L	03/23/98-03/23/98	0	1	
TUMA0051	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	0	1	
TUMA0052	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/26/73	0	4	
TUMA0053	No	00300	OXYGEN, DISSOLVED MG/L	07/26/84-07/26/84	0	1	
TUMA0055	No	00300	OXYGEN, DISSOLVED MG/L	04/20/73-07/26/84	11	4	
TUMA0057	No	00300	OXYGEN, DISSOLVED MG/L	06/28/85-06/28/85	0	1	
TUMA0058	No	00300	OXYGEN, DISSOLVED MG/L	04/27/73-04/27/73	0	1	
TUMA0059	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-07/26/84	11	2	
TUMA0060	No	00300	OXYGEN, DISSOLVED MG/L	11/03/97-11/03/97	0	1	
TUMA0062	No	00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/09/92	6	47	
TUMA0064	No	00300	OXYGEN, DISSOLVED MG/L	06/21/76-11/28/78	2	20	
TUMA0065	No	00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	1	20	
TUMA0066	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	0	1	
TUMA0067	No	00300	OXYGEN, DISSOLVED MG/L	04/20/73-04/20/73	0	1	
TUMA0068	No	00300	OXYGEN, DISSOLVED MG/L	04/29/92-04/29/92	0	6	
TUMA0069	No	00300	OXYGEN, DISSOLVED MG/L	04/29/92-05/20/98	6	44	
TUMA0070	No	00300	OXYGEN, DISSOLVED MG/L	07/26/78-09/27/80	2	16	
TUMA0073	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/09/73	0	2	
TUMA0074	No	00300	OXYGEN, DISSOLVED MG/L	04/04/91-04/04/91	0	1	
TUMA0075	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	0	1	
TUMA0077	No	00300	OXYGEN, DISSOLVED MG/L	03/04/93-03/04/93	0	1	
TUMA0079	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/26/73	0	3	
TUMA0080	No	00300	OXYGEN, DISSOLVED MG/L	04/19/73-04/26/73	0	2	
TUMA0081	No	00300	OXYGEN, DISSOLVED MG/L	09/19/91-03/04/93	1	6	
TUMA0082	No	00300	OXYGEN, DISSOLVED MG/L	04/26/73-04/26/73	0	1	
TUMA0087	No	00300	OXYGEN, DISSOLVED MG/L	04/19/73-04/20/73	0	2	
TUMA0088	No	00300	OXYGEN, DISSOLVED MG/L	03/30/93-11/25/97	4	2	
TUMA0089	No	00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	1	20	
TUMA0090	No	00300	OXYGEN, DISSOLVED MG/L	11/04/97-11/04/97	0	1	
TUMA0093	No	00300	OXYGEN, DISSOLVED MG/L	07/27/84-07/27/84	0	1	
TUMA0094	No	00300	OXYGEN, DISSOLVED MG/L	10/11/95-11/04/97	2	26	
TUMA0095	No	00300	OXYGEN, DISSOLVED MG/L	01/05/92-01/05/92	0	1	
TUMA0097	No	00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	0	1	
TUMA0098	No	00300	OXYGEN, DISSOLVED MG/L	09/19/92-09/19/92	0	2	
TUMA0100	No	00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	1	20	
TUMA0002	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-09/15/86	0	2	
TUMA0003	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/12/86-11/29/99	13	50	T,S
TUMA0005	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/26/73	0	3	
TUMA0006	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	12/16/86-11/29/99	12	69	T,S
TUMA0013	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/23/98-03/23/98	0	1	
TUMA0015	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/09/73-04/26/73	0	2	
TUMA0017	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/15/86	0	3	
TUMA0020	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/06/73	0	1	
TUMA0021	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	07/26/84-07/26/84	0	1	
TUMA0023	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/09/73	0	2	
TUMA0026	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/27/73-04/27/73	0	1	
TUMA0027	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/06/73	0	1	
TUMA0028	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-09/01/87	1	13	
TUMA0030	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/27/73-04/27/73	0	1	
TUMA0033	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	10/17/69-01/24/72	2	5	
TUMA0034	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/23/98-03/23/98	0	1	
TUMA0035	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/25/95-05/25/95	0	5	
TUMA0036	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/25/95-05/25/95	0	9	
TUMA0037	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/17/94-05/19/98	4	44	
TUMA0038	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/06/73	0	1	
TUMA0039	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	01/04/80-01/04/80	0	1	
TUMA0042	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/20/73	0	3	
TUMA0050	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/23/98-03/23/98	0	1	
TUMA0051	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/06/73	0	1	
TUMA0052	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/26/73	0	4	
TUMA0053	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	07/26/84-07/26/84	0	1	
TUMA0055	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/26/73-06/28/84	11	2	
TUMA0057	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	06/28/85-06/28/85	0	1	
TUMA0058	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/27/73-04/27/73	0	1	
TUMA0059	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-07/26/84	11	2	
TUMA0062	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/09/92	6	47	
TUMA0066	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/06/73	0	1	
TUMA0067	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/20/73-04/20/73	0	1	
TUMA0069	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/14/98-05/20/98	0	29	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0070	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	07/26/78-09/27/80	2	16	
TUMA0073	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/09/73	0	2	
TUMA0074	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/04/91-04/04/91	0	1	
TUMA0075	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/06/73	0	1	
TUMA0077	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/04/93-03/04/93	0	1	
TUMA0079	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/26/73	0	3	
TUMA0080	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/19/73-04/26/73	0	2	
TUMA0081	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	09/19/91-03/04/93	1	6	
TUMA0082	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/26/73-04/26/73	0	1	
TUMA0087	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/19/73-04/20/73	0	2	
TUMA0088	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/30/93-03/30/93	0	1	
TUMA0093	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	07/27/84-07/27/84	0	1	
TUMA0095	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	01/05/92-01/05/92	0	1	
TUMA0097	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/06/73-04/06/73	0	1	
TUMA0098	No	00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	09/19/92-09/19/92	0	2	
TUMA0005	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	0	1	
TUMA0007	No	00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	1	18	
TUMA0010	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	0	1	
TUMA0015	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	0	1	
TUMA0020	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	0	1	
TUMA0023	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	0	1	
TUMA0026	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	0	1	
TUMA0027	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	0	1	
TUMA0030	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	0	1	
TUMA0040	No	00310	BOD, 5 DAY, 20 DEG C MG/L	02/24/98-12/28/99	1	6	
TUMA0042	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/20/73	0	3	
TUMA0052	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/20/73	0	3	
TUMA0058	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/20/73	0	3	
TUMA0059	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/20/73	0	3	
TUMA0065	No	00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	1	18	
TUMA0066	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	0	1	
TUMA0070	No	00310	BOD, 5 DAY, 20 DEG C MG/L	09/27/79-09/27/80	1	15	
TUMA0073	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/11/73	0	1	
TUMA0075	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	0	1	
TUMA0080	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/19/73-04/19/73	0	1	
TUMA0082	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/11/73	0	1	
TUMA0087	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/19/73-04/19/73	0	1	
TUMA0089	No	00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	1	18	
TUMA0097	No	00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	0	1	
TUMA0100	No	00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	1	18	
TUMA0064	No	00340	COD, .25N K2CR2O7 MG/L	04/29/76-06/21/76	0	2	
TUMA0009	No	00400	PH (STANDARD UNITS)	08/28/69-10/10/77	8	6	
TUMA0021	No	00400	PH (STANDARD UNITS)	07/26/84-07/26/84	0	1	
TUMA0022	No	00400	PH (STANDARD UNITS)	11/03/97-11/03/97	0	1	
TUMA0024	No	00400	PH (STANDARD UNITS)	03/15/80-03/15/80	0	1	
TUMA0025	No	00400	PH (STANDARD UNITS)	06/22/82-07/11/85	3	2	
TUMA0033	No	00400	PH (STANDARD UNITS)	10/17/69-10/04/77	7	28	
TUMA0039	No	00400	PH (STANDARD UNITS)	10/07/75-01/04/80	4	23	
TUMA0043	No	00400	PH (STANDARD UNITS)	05/30/97-05/30/97	0	1	
TUMA0045	No	00400	PH (STANDARD UNITS)	09/07/80-01/13/81	0	2	
TUMA0046	No	00400	PH (STANDARD UNITS)	09/07/80-03/07/81	0	3	
TUMA0047	No	00400	PH (STANDARD UNITS)	03/06/81-03/07/81	0	2	
TUMA0048	No	00400	PH (STANDARD UNITS)	09/07/80-03/07/81	0	4	
TUMA0049	No	00400	PH (STANDARD UNITS)	05/30/97-05/30/97	0	1	
TUMA0053	No	00400	PH (STANDARD UNITS)	07/26/84-07/26/84	0	1	
TUMA0055	No	00400	PH (STANDARD UNITS)	06/28/84-07/26/84	0	2	
TUMA0057	No	00400	PH (STANDARD UNITS)	06/28/85-06/28/85	0	1	
TUMA0059	No	00400	PH (STANDARD UNITS)	07/26/84-07/26/84	0	1	
TUMA0060	No	00400	PH (STANDARD UNITS)	11/03/97-11/03/97	0	1	
TUMA0061	No	00400	PH (STANDARD UNITS)	05/30/97-05/30/97	0	1	
TUMA0064	No	00400	PH (STANDARD UNITS)	01/30/76-05/07/79	3	26	
TUMA0070	No	00400	PH (STANDARD UNITS)	10/22/75-09/27/80	4	17	
TUMA0072	No	00400	PH (STANDARD UNITS)	03/10/80-03/10/80	0	1	
TUMA0084	No	00400	PH (STANDARD UNITS)	05/30/97-05/30/97	0	1	
TUMA0086	No	00400	PH (STANDARD UNITS)	03/07/80-03/07/80	0	1	
TUMA0090	No	00400	PH (STANDARD UNITS)	11/04/97-11/04/97	0	1	
TUMA0091	No	00400	PH (STANDARD UNITS)	05/30/97-05/30/97	0	1	
TUMA0092	No	00400	PH (STANDARD UNITS)	03/07/80-03/07/80	0	1	
TUMA0093	No	00400	PH (STANDARD UNITS)	07/27/84-07/27/84	0	1	
TUMA0094	No	00400	PH (STANDARD UNITS)	10/11/95-11/04/97	2	27	
TUMA0002	No	00403	PH, LAB, STANDARD UNITS SU	08/11/86-11/12/86	0	3	
TUMA0003	No	00403	PH, LAB, STANDARD UNITS SU	11/12/86-11/29/99	13	54	T,S

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0005	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	0	3	
TUMA0006	No	00403	PH, LAB, STANDARD UNITS SU	10/15/86-11/29/99	13	76	T,S
TUMA0010	No	00403	PH, LAB, STANDARD UNITS SU	04/05/73-04/10/73	0	2	
TUMA0013	No	00403	PH, LAB, STANDARD UNITS SU	03/23/98-03/23/98	0	1	
TUMA0015	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	0	3	
TUMA0017	No	00403	PH, LAB, STANDARD UNITS SU	08/11/86-10/15/86	0	3	
TUMA0020	No	00403	PH, LAB, STANDARD UNITS SU	04/04/73-04/12/73	0	4	
TUMA0022	No	00403	PH, LAB, STANDARD UNITS SU	11/03/97-11/03/97	0	1	
TUMA0023	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	0	3	
TUMA0025	No	00403	PH, LAB, STANDARD UNITS SU	06/22/82-07/11/85	3	2	
TUMA0026	No	00403	PH, LAB, STANDARD UNITS SU	04/10/73-04/27/73	0	2	
TUMA0027	No	00403	PH, LAB, STANDARD UNITS SU	04/04/73-04/12/73	0	4	
TUMA0028	No	00403	PH, LAB, STANDARD UNITS SU	08/11/86-07/19/88	1	15	
TUMA0030	No	00403	PH, LAB, STANDARD UNITS SU	04/05/73-04/27/73	0	3	
TUMA0031	No	00403	PH, LAB, STANDARD UNITS SU	10/21/75-10/21/75	0	1	
TUMA0034	No	00403	PH, LAB, STANDARD UNITS SU	03/23/98-03/23/98	0	1	
TUMA0037	No	00403	PH, LAB, STANDARD UNITS SU	04/29/92-05/19/98	6	14	
TUMA0038	No	00403	PH, LAB, STANDARD UNITS SU	04/04/73-04/06/73	0	2	
TUMA0042	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	0	4	
TUMA0045	No	00403	PH, LAB, STANDARD UNITS SU	01/13/81-01/13/81	0	1	
TUMA0046	No	00403	PH, LAB, STANDARD UNITS SU	09/07/80-03/07/81	0	3	
TUMA0047	No	00403	PH, LAB, STANDARD UNITS SU	03/06/81-03/07/81	0	2	
TUMA0048	No	00403	PH, LAB, STANDARD UNITS SU	09/07/80-03/07/81	0	4	
TUMA0050	No	00403	PH, LAB, STANDARD UNITS SU	03/24/98-03/24/98	0	1	
TUMA0051	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/06/73	0	1	
TUMA0052	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	0	3	
TUMA0055	No	00403	PH, LAB, STANDARD UNITS SU	04/26/73-04/26/73	0	1	
TUMA0058	No	00403	PH, LAB, STANDARD UNITS SU	04/10/73-04/27/73	0	2	
TUMA0059	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/27/73	0	2	
TUMA0060	No	00403	PH, LAB, STANDARD UNITS SU	11/03/97-11/03/97	0	1	
TUMA0062	No	00403	PH, LAB, STANDARD UNITS SU	08/11/86-09/19/92	6	46	
TUMA0066	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/10/73	0	2	
TUMA0067	No	00403	PH, LAB, STANDARD UNITS SU	04/20/73-04/20/73	0	1	
TUMA0068	No	00403	PH, LAB, STANDARD UNITS SU	04/29/92-04/29/92	0	2	
TUMA0069	No	00403	PH, LAB, STANDARD UNITS SU	04/29/92-05/20/98	6	11	
TUMA0070	No	00403	PH, LAB, STANDARD UNITS SU	07/26/78-07/26/78	0	1	
TUMA0073	No	00403	PH, LAB, STANDARD UNITS SU	04/09/73-04/26/73	0	2	
TUMA0074	No	00403	PH, LAB, STANDARD UNITS SU	04/04/91-04/04/91	0	1	
TUMA0075	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/27/73	0	3	
TUMA0076	No	00403	PH, LAB, STANDARD UNITS SU	03/28/92-03/28/92	0	1	
TUMA0077	No	00403	PH, LAB, STANDARD UNITS SU	03/28/92-03/28/92	0	1	
TUMA0078	No	00403	PH, LAB, STANDARD UNITS SU	04/26/73-04/26/73	0	1	
TUMA0079	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	0	3	
TUMA0080	No	00403	PH, LAB, STANDARD UNITS SU	04/19/73-04/26/73	0	2	
TUMA0081	No	00403	PH, LAB, STANDARD UNITS SU	09/19/91-09/19/91	0	1	
TUMA0082	No	00403	PH, LAB, STANDARD UNITS SU	04/10/73-04/26/73	0	3	
TUMA0083	No	00403	PH, LAB, STANDARD UNITS SU	03/28/92-03/28/92	0	1	
TUMA0085	No	00403	PH, LAB, STANDARD UNITS SU	11/28/80-11/28/80	0	1	
TUMA0087	No	00403	PH, LAB, STANDARD UNITS SU	04/18/73-04/27/73	0	4	
TUMA0088	No	00403	PH, LAB, STANDARD UNITS SU	02/23/93-02/23/93	0	1	
TUMA0090	No	00403	PH, LAB, STANDARD UNITS SU	11/04/97-11/04/97	0	1	
TUMA0094	No	00403	PH, LAB, STANDARD UNITS SU	10/11/95-11/04/97	2	26	
TUMA0095	No	00403	PH, LAB, STANDARD UNITS SU	01/05/92-01/05/92	0	1	
TUMA0097	No	00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/27/73	0	3	
TUMA0098	No	00403	PH, LAB, STANDARD UNITS SU	09/19/92-09/19/92	0	2	
TUMA0009	No	00405	CARBON DIOXIDE (MG/L AS CO2)	10/10/77-10/10/77	0	1	
TUMA0033	No	00405	CARBON DIOXIDE (MG/L AS CO2)	10/17/69-01/24/72	2	6	
TUMA0064	No	00405	CARBON DIOXIDE (MG/L AS CO2)	01/30/76-12/02/77	1	23	
TUMA0070	No	00405	CARBON DIOXIDE (MG/L AS CO2)	07/26/78-07/26/78	0	1	
TUMA0002	No	00406	PH, FIELD, STANDARD UNITS SU	08/11/86-11/12/86	0	3	
TUMA0003	No	00406	PH, FIELD, STANDARD UNITS SU	11/12/86-11/29/99	13	53	T,S
TUMA0006	No	00406	PH, FIELD, STANDARD UNITS SU	10/15/86-11/29/99	13	76	T,S
TUMA0007	No	00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	1	20	
TUMA0013	No	00406	PH, FIELD, STANDARD UNITS SU	03/23/98-03/23/98	0	1	
TUMA0017	No	00406	PH, FIELD, STANDARD UNITS SU	08/11/86-10/15/86	0	3	
TUMA0028	No	00406	PH, FIELD, STANDARD UNITS SU	08/11/86-01/26/88	1	15	
TUMA0034	No	00406	PH, FIELD, STANDARD UNITS SU	03/23/98-03/23/98	0	1	
TUMA0040	No	00406	PH, FIELD, STANDARD UNITS SU	02/24/98-12/28/99	1	6	
TUMA0050	No	00406	PH, FIELD, STANDARD UNITS SU	03/23/98-03/23/98	0	1	
TUMA0062	No	00406	PH, FIELD, STANDARD UNITS SU	08/11/86-09/19/92	6	50	
TUMA0065	No	00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	1	20	
TUMA0074	No	00406	PH, FIELD, STANDARD UNITS SU	04/04/91-04/04/91	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0077	No	00406	PH, FIELD, STANDARD UNITS SU	03/04/93-03/04/93	0	1	
TUMA0081	No	00406	PH, FIELD, STANDARD UNITS SU	09/19/91-03/04/93	1	6	
TUMA0088	No	00406	PH, FIELD, STANDARD UNITS SU	03/30/93-11/25/97	4	2	
TUMA0089	No	00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	1	19	
TUMA0095	No	00406	PH, FIELD, STANDARD UNITS SU	01/05/92-01/05/92	0	1	
TUMA0096	No	00406	PH, FIELD, STANDARD UNITS SU	06/04/96-06/04/96	0	1	
TUMA0098	No	00406	PH, FIELD, STANDARD UNITS SU	09/19/92-09/19/92	0	2	
TUMA0100	No	00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	1	19	
TUMA0101	No	00406	PH, FIELD, STANDARD UNITS SU	11/28/95-11/28/95	0	1	
TUMA0002	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-11/12/86	0	3	
TUMA0003	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/86-11/29/99	13	54	T,S
TUMA0005	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0006	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/15/86-11/29/99	13	77	T,S
TUMA0009	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/28/69-10/10/77	8	4	
TUMA0010	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/73-04/10/73	0	2	
TUMA0013	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	0	1	
TUMA0015	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0017	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-10/15/86	0	3	
TUMA0020	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	0	4	
TUMA0023	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0024	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/15/80-03/15/80	0	1	
TUMA0025	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/10/41-07/11/85	43	3	
TUMA0026	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	0	2	
TUMA0027	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	0	4	
TUMA0028	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-07/19/88	1	15	
TUMA0030	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/73-04/27/73	0	3	
TUMA0031	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/21/75-10/21/75	0	1	
TUMA0033	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/17/69-01/24/72	2	6	
TUMA0034	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	0	1	
TUMA0037	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/92-05/19/98	6	14	
TUMA0038	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/73-04/06/73	0	2	
TUMA0039	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/04/80-01/04/80	0	1	
TUMA0042	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	4	
TUMA0045	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/07/80-01/13/81	0	2	
TUMA0046	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/07/80-03/07/81	0	3	
TUMA0047	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/06/81-03/07/81	0	2	
TUMA0048	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/07/80-03/07/81	0	4	
TUMA0050	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/24/98-03/24/98	0	1	
TUMA0051	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/06/73	0	1	
TUMA0052	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	4	
TUMA0055	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	0	1	
TUMA0058	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	0	2	
TUMA0059	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	0	2	
TUMA0062	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-09/19/92	6	46	
TUMA0064	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/30/76-05/07/79	3	26	
TUMA0066	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/10/73	0	2	
TUMA0067	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/20/73-04/20/73	0	1	
TUMA0068	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/92-04/29/92	0	2	
TUMA0069	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/92-05/20/98	6	11	
TUMA0070	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/22/75-09/27/80	4	17	
TUMA0072	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/10/80-03/10/80	0	1	
TUMA0073	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0074	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/91-04/04/91	0	1	
TUMA0075	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	0	3	
TUMA0076	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	0	1	
TUMA0077	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	0	1	
TUMA0078	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	0	1	
TUMA0079	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0080	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/19/73-04/26/73	0	2	
TUMA0081	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/19/91-09/19/91	0	1	
TUMA0082	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/10/73-04/26/73	0	3	
TUMA0083	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	0	1	
TUMA0086	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/07/80-03/07/80	0	1	
TUMA0087	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/18/73-04/27/73	0	4	
TUMA0088	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/23/93-02/23/93	0	1	
TUMA0092	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/07/80-03/07/80	0	1	
TUMA0095	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/05/92-01/05/92	0	1	
TUMA0097	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	0	3	
TUMA0098	No	00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/19/92-09/19/92	0	2	
TUMA0003	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-11/29/99	12	38	S
TUMA0006	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	10/15/86-11/29/99	13	62	T,S
TUMA0013	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/23/98-03/23/98	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0028	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/11/86-07/19/88	1	4	
TUMA0033	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	10/17/69-01/24/72	2	6	
TUMA0034	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/23/98-03/23/98	0	1	
TUMA0037	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/17/94-05/19/98	4	11	
TUMA0045	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/07/80-01/13/81	0	2	
TUMA0046	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/07/80-03/07/81	0	3	
TUMA0047	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/06/81-03/07/81	0	2	
TUMA0048	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/07/80-03/07/81	0	4	
TUMA0050	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/24/98-03/24/98	0	1	
TUMA0062	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-09/19/92	4	29	
TUMA0069	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	12/17/97-05/20/98	0	8	
TUMA0074	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	04/04/91-04/04/91	0	1	
TUMA0076	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/28/92-03/28/92	0	1	
TUMA0077	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/28/92-03/28/92	0	1	
TUMA0081	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/19/91-09/19/91	0	1	
TUMA0083	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/28/92-03/28/92	0	1	
TUMA0095	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	01/05/92-01/05/92	0	1	
TUMA0098	No	00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/19/92-09/19/92	0	1	
TUMA0002	No	00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-11/12/86	0	3	
TUMA0003	No	00440	BICARBONATE ION (MG/L AS HCO3)	11/12/86-11/29/99	13	54	T,S
TUMA0006	No	00440	BICARBONATE ION (MG/L AS HCO3)	10/15/86-11/29/99	13	76	T,S
TUMA0009	No	00440	BICARBONATE ION (MG/L AS HCO3)	08/28/69-10/10/77	8	4	
TUMA0013	No	00440	BICARBONATE ION (MG/L AS HCO3)	03/23/98-03/23/98	0	1	
TUMA0017	No	00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-10/15/86	0	3	
TUMA0025	No	00440	BICARBONATE ION (MG/L AS HCO3)	10/10/41-04/17/46	4	2	
TUMA0028	No	00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-07/19/88	1	15	
TUMA0033	No	00440	BICARBONATE ION (MG/L AS HCO3)	04/06/76-05/03/76	0	2	
TUMA0034	No	00440	BICARBONATE ION (MG/L AS HCO3)	03/23/98-03/23/98	0	1	
TUMA0037	No	00440	BICARBONATE ION (MG/L AS HCO3)	04/29/92-05/19/98	6	14	
TUMA0039	No	00440	BICARBONATE ION (MG/L AS HCO3)	04/06/76-05/03/76	0	2	
TUMA0050	No	00440	BICARBONATE ION (MG/L AS HCO3)	03/24/98-03/24/98	0	1	
TUMA0062	No	00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-09/19/92	6	45	
TUMA0064	No	00440	BICARBONATE ION (MG/L AS HCO3)	01/30/76-12/02/77	1	23	
TUMA0068	No	00440	BICARBONATE ION (MG/L AS HCO3)	04/29/92-04/29/92	0	2	
TUMA0069	No	00440	BICARBONATE ION (MG/L AS HCO3)	04/29/92-05/20/98	6	11	
TUMA0074	No	00440	BICARBONATE ION (MG/L AS HCO3)	04/04/91-04/04/91	0	1	
TUMA0076	No	00440	BICARBONATE ION (MG/L AS HCO3)	03/28/92-03/28/92	0	1	
TUMA0077	No	00440	BICARBONATE ION (MG/L AS HCO3)	03/28/92-03/28/92	0	1	
TUMA0081	No	00440	BICARBONATE ION (MG/L AS HCO3)	09/19/91-09/19/91	0	1	
TUMA0083	No	00440	BICARBONATE ION (MG/L AS HCO3)	03/28/92-03/28/92	0	1	
TUMA0088	No	00440	BICARBONATE ION (MG/L AS HCO3)	02/23/93-02/23/93	0	1	
TUMA0095	No	00440	BICARBONATE ION (MG/L AS HCO3)	01/05/92-01/05/92	0	1	
TUMA0098	No	00440	BICARBONATE ION (MG/L AS HCO3)	09/19/92-09/19/92	0	2	
TUMA0003	No	00445	CARBONATE ION (MG/L AS CO3)	11/23/87-11/29/99	12	40	T,S
TUMA0006	No	00445	CARBONATE ION (MG/L AS CO3)	10/15/86-11/29/99	13	63	T,S
TUMA0009	No	00445	CARBONATE ION (MG/L AS CO3)	08/28/69-10/10/77	8	4	
TUMA0013	No	00445	CARBONATE ION (MG/L AS CO3)	03/23/98-03/23/98	0	1	
TUMA0025	No	00445	CARBONATE ION (MG/L AS CO3)	10/10/41-04/17/46	4	2	
TUMA0028	No	00445	CARBONATE ION (MG/L AS CO3)	08/11/86-07/19/88	1	4	
TUMA0033	No	00445	CARBONATE ION (MG/L AS CO3)	04/06/76-05/03/76	0	2	
TUMA0034	No	00445	CARBONATE ION (MG/L AS CO3)	03/23/98-03/23/98	0	1	
TUMA0037	No	00445	CARBONATE ION (MG/L AS CO3)	04/29/92-05/19/98	6	14	
TUMA0039	No	00445	CARBONATE ION (MG/L AS CO3)	04/06/76-05/03/76	0	2	
TUMA0050	No	00445	CARBONATE ION (MG/L AS CO3)	03/24/98-03/24/98	0	1	
TUMA0062	No	00445	CARBONATE ION (MG/L AS CO3)	11/23/87-09/19/92	4	28	
TUMA0064	No	00445	CARBONATE ION (MG/L AS CO3)	01/30/76-12/02/77	1	23	
TUMA0068	No	00445	CARBONATE ION (MG/L AS CO3)	04/29/92-04/29/92	0	2	
TUMA0069	No	00445	CARBONATE ION (MG/L AS CO3)	04/29/92-05/20/98	6	11	
TUMA0074	No	00445	CARBONATE ION (MG/L AS CO3)	04/04/91-04/04/91	0	1	
TUMA0076	No	00445	CARBONATE ION (MG/L AS CO3)	03/28/92-03/28/92	0	1	
TUMA0077	No	00445	CARBONATE ION (MG/L AS CO3)	03/28/92-03/28/92	0	1	
TUMA0081	No	00445	CARBONATE ION (MG/L AS CO3)	09/19/91-09/19/91	0	1	
TUMA0083	No	00445	CARBONATE ION (MG/L AS CO3)	03/28/92-03/28/92	0	1	
TUMA0088	No	00445	CARBONATE ION (MG/L AS CO3)	02/23/93-02/23/93	0	1	
TUMA0095	No	00445	CARBONATE ION (MG/L AS CO3)	01/05/92-01/05/92	0	1	
TUMA0098	No	00445	CARBONATE ION (MG/L AS CO3)	09/19/92-09/19/92	0	2	
TUMA0022	No	00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	10/11/95-11/04/97	2	27	
TUMA0022	No	00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	11/03/97-11/03/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0090	No	00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	10/11/95-11/04/97	2	27	
TUMA0045	No	00500	RESIDUE, TOTAL (MG/L)	09/07/80-01/13/81	0	2	
TUMA0046	No	00500	RESIDUE, TOTAL (MG/L)	09/07/80-03/07/81	0	3	
TUMA0047	No	00500	RESIDUE, TOTAL (MG/L)	03/06/81-03/07/81	0	2	
TUMA0048	No	00500	RESIDUE, TOTAL (MG/L)	09/07/80-03/07/81	0	4	
TUMA0037	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	04/29/92-05/19/98	6	14	
TUMA0068	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	04/29/92-04/29/92	0	2	
TUMA0069	No	00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	04/29/92-05/20/98	6	11	
TUMA0070	No	00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	09/27/79-09/27/80	1	15	
TUMA0002	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-11/12/86	0	3	
TUMA0003	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/86-11/29/99	13	54	T,S
TUMA0005	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	0	3	
TUMA0006	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/10/73	0	1	
TUMA0013	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/23/98-03/23/98	0	1	
TUMA0015	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	0	3	
TUMA0017	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-10/15/86	0	3	
TUMA0020	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/12/73	0	3	
TUMA0021	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/26/84-07/26/84	0	1	
TUMA0023	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	0	3	
TUMA0026	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/27/73	0	2	
TUMA0027	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/12/73	0	3	
TUMA0028	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-07/19/88	1	14	
TUMA0030	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/27/73	0	2	
TUMA0034	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/23/98-03/23/98	0	1	
TUMA0037	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/92-05/19/98	6	14	
TUMA0038	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/06/73	0	1	
TUMA0042	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	0	4	
TUMA0045	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/07/80-01/13/81	0	2	
TUMA0046	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/07/80-03/07/81	0	3	
TUMA0047	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/06/81-03/07/81	0	2	
TUMA0048	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/07/80-03/07/81	0	4	
TUMA0050	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/24/98-03/24/98	0	1	
TUMA0051	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/06/73	0	1	
TUMA0052	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	0	4	
TUMA0053	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/26/84-07/26/84	0	1	
TUMA0055	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/26/73-07/26/84	11	3	
TUMA0057	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	06/28/85-06/28/85	0	1	
TUMA0058	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/27/73	0	2	
TUMA0059	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-07/26/84	11	3	
TUMA0062	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-09/19/92	6	46	
TUMA0066	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/10/73	0	2	
TUMA0067	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/20/73-04/20/73	0	1	
TUMA0068	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/92-04/29/92	0	2	
TUMA0069	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/92-05/20/98	6	11	
TUMA0073	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	0	3	
TUMA0074	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/04/91-04/04/91	0	1	
TUMA0075	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/27/73	0	3	
TUMA0076	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/28/92-03/28/92	0	1	
TUMA0077	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/28/92-03/04/93	0	2	
TUMA0078	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/26/73-04/26/73	0	1	
TUMA0079	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	0	3	
TUMA0080	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/19/73-04/26/73	0	2	
TUMA0081	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/19/91-03/04/93	1	6	
TUMA0082	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/26/73	0	3	
TUMA0083	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/28/92-03/28/92	0	1	
TUMA0087	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/18/73-04/27/73	0	4	
TUMA0088	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/23/93-02/23/93	0	1	
TUMA0093	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/27/84-07/27/84	0	1	
TUMA0095	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	01/05/92-01/05/92	0	1	
TUMA0097	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/27/73	0	3	
TUMA0098	No	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/19/92-09/19/92	0	2	
TUMA0005	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	0	1	
TUMA0023	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/06/73-04/06/73	0	1	
TUMA0026	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	0	1	
TUMA0027	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/10/73-04/10/73	0	1	
TUMA0030	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	0	1	
TUMA0042	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	0	1	
TUMA0052	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	0	1	
TUMA0055	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	0	1	
TUMA0058	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/10/73-04/27/73	0	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0059	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	0	1	
TUMA0073	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	0	1	
TUMA0075	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	0	1	
TUMA0078	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	0	1	
TUMA0080	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/19/73-04/26/73	0	2	
TUMA0087	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/18/73-04/27/73	0	4	
TUMA0097	No	00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	0	1	
TUMA0064	No	00572	BIOMASS, PERIPHYTON (GRAMS PER SQUARE METER)	10/28/76-10/28/76	0	1	
TUMA0094	No	00572	BIOMASS, PERIPHYTON (GRAMS PER SQUARE METER)	01/17/96-01/17/96	0	1	
TUMA0064	No	00573	BIOMASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	10/28/76-10/28/76	0	1	
TUMA0094	No	00573	BIOMASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	01/17/96-01/17/96	0	1	
TUMA0064	No	00600	NITROGEN, TOTAL (MG/L AS N)	01/30/76-05/07/79	3	23	
TUMA0064	No	00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	01/26/78-05/07/79	1	2	
TUMA0022	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0060	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0090	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	11/04/97-11/04/97	0	1	
TUMA0094	No	00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	10/11/95-11/04/97	2	26	
TUMA0003	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-11/29/99	11	41	T
TUMA0006	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/88-11/29/99	11	63	T
TUMA0007	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	1	18	
TUMA0013	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/23/98-03/23/98	0	1	
TUMA0021	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0028	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/19/88-07/19/88	0	1	
TUMA0031	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/21/75-10/21/75	0	1	
TUMA0034	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/23/98-03/23/98	0	1	
TUMA0036	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/25/95-05/25/95	0	5	
TUMA0037	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/92-05/19/98	6	14	
TUMA0040	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/24/98-12/28/99	1	6	
TUMA0044	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	12/29/98-12/29/98	0	1	
TUMA0050	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/98-03/24/98	0	1	
TUMA0053	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0055	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/28/84-07/26/84	0	2	
TUMA0059	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0062	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-09/19/92	4	29	
TUMA0064	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/04/77-05/07/79	1	4	
TUMA0065	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	1	18	
TUMA0068	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/92-04/29/92	0	2	
TUMA0069	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/92-05/20/98	6	10	
TUMA0070	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/22/75-09/27/80	4	17	
TUMA0074	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/04/91-04/04/91	0	1	
TUMA0076	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/28/92-03/28/92	0	1	
TUMA0077	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/28/92-03/04/93	0	2	
TUMA0081	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/19/91-03/04/93	1	6	
TUMA0083	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/28/92-03/28/92	0	1	
TUMA0088	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/23/93-02/23/93	0	1	
TUMA0089	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	1	18	
TUMA0093	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/27/84-07/27/84	0	1	
TUMA0095	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/05/92-01/05/92	0	1	
TUMA0096	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/24/95-10/24/95	0	1	
TUMA0098	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/19/92-09/19/92	0	2	
TUMA0100	No	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	1	18	
TUMA0021	No	00612	AMMONIA, UNIONZED (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0043	No	00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	0	1	
TUMA0049	No	00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	0	1	
TUMA0053	No	00612	AMMONIA, UNIONZED (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0055	No	00612	AMMONIA, UNIONZED (MG/L AS N)	06/28/84-06/28/84	0	1	
TUMA0057	No	00612	AMMONIA, UNIONZED (MG/L AS N)	06/28/85-06/28/85	0	1	
TUMA0059	No	00612	AMMONIA, UNIONZED (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0061	No	00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	0	1	
TUMA0070	No	00612	AMMONIA, UNIONZED (MG/L AS N)	10/22/75-09/27/80	4	17	
TUMA0084	No	00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	0	1	
TUMA0091	No	00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	0	1	
TUMA0093	No	00612	AMMONIA, UNIONZED (MG/L AS N)	07/27/84-07/27/84	0	1	
TUMA0095	No	00612	AMMONIA, UNIONZED (MG/L AS N)	01/05/92-01/05/92	0	1	
TUMA0098	No	00612	AMMONIA, UNIONZED (MG/L AS N)	09/19/92-09/19/92	0	2	
TUMA0022	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0060	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0064	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	12/02/76-12/29/76	0	2	
TUMA0090	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/04/97-11/04/97	0	1	
TUMA0094	No	00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	10/11/95-11/04/97	2	26	
TUMA0003	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/23/93-05/10/93	0	2	
TUMA0005	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/06/73-04/06/73	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0030	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/10/73-04/10/73	0	1	
TUMA0042	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-04/19/73	0	1	
TUMA0045	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	01/13/81-01/13/81	0	1	
TUMA0046	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/06/81-03/07/81	0	2	
TUMA0047	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/06/81-03/07/81	0	2	
TUMA0048	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/07/81-03/07/81	0	3	
TUMA0052	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/10/73-04/10/73	0	1	
TUMA0058	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/10/73-04/10/73	0	1	
TUMA0080	No	00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-04/19/73	0	1	
TUMA0025	No	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	04/17/46-04/17/46	0	1	
TUMA0064	No	00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	12/02/76-12/29/76	0	2	
TUMA0021	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	07/26/84-07/26/84	0	1	
TUMA0053	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	07/26/84-07/26/84	0	1	
TUMA0055	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	06/28/84-06/28/84	0	1	
TUMA0059	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	07/26/84-07/26/84	0	1	
TUMA0070	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	10/22/75-09/27/80	4	17	
TUMA0093	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	07/27/84-07/27/84	0	1	
TUMA0095	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	01/05/92-01/05/92	0	1	
TUMA0098	No	00619	AMMONIA, UNIONIZED (CALC FR TEMP-PH-NH4) (MG/L)	09/19/92-09/19/92	0	2	
TUMA0031	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/21/75-10/21/75	0	1	
TUMA0033	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	12/07/70-10/04/76	5	6	
TUMA0039	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	08/03/76-01/04/80	3	4	
TUMA0070	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/22/75-07/26/78	2	2	
TUMA0098	No	00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	09/19/92-09/19/92	0	1	
TUMA0022	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0060	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0064	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/04/77-05/07/79	1	4	
TUMA0090	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/04/97-11/04/97	0	1	
TUMA0094	No	00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	10/11/95-11/04/97	2	26	
TUMA0064	No	00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)	01/26/78-05/07/79	1	2	
TUMA0002	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-11/12/86	0	3	
TUMA0003	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/86-11/29/99	13	49	T,S
TUMA0005	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/09/73-04/26/73	0	2	
TUMA0006	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/15/86-11/29/99	13	71	T,S
TUMA0013	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/23/98-03/23/98	0	1	
TUMA0015	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/06/73-04/06/73	0	1	
TUMA0017	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-10/15/86	0	3	
TUMA0021	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0022	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0023	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/06/73-04/06/73	0	1	
TUMA0026	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/27/73-04/27/73	0	1	
TUMA0028	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-07/19/88	1	12	
TUMA0030	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/10/73-04/27/73	0	2	
TUMA0034	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/23/98-03/23/98	0	1	
TUMA0036	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/25/95-05/25/95	0	5	
TUMA0037	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/92-05/19/98	6	14	
TUMA0042	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-04/26/73	0	2	
TUMA0050	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/98-03/24/98	0	1	
TUMA0052	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/10/73-04/26/73	0	2	
TUMA0053	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/26/84-07/26/84	0	1	
TUMA0055	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/26/73-07/26/84	11	3	
TUMA0057	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	06/28/85-06/28/85	0	1	
TUMA0058	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/10/73-04/27/73	0	2	
TUMA0059	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/06/73-07/26/84	11	3	
TUMA0060	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0062	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-09/19/92	6	39	
TUMA0064	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	01/30/76-05/07/79	3	23	
TUMA0068	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/92-04/29/92	0	2	
TUMA0069	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/92-05/20/98	6	11	
TUMA0073	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/26/73-04/26/73	0	1	
TUMA0074	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/04/91-04/04/91	0	1	
TUMA0075	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/27/73-04/27/73	0	1	
TUMA0076	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/28/92-03/28/92	0	1	
TUMA0077	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/28/92-03/04/93	0	2	
TUMA0078	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/26/73-04/26/73	0	1	
TUMA0080	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-04/26/73	0	2	
TUMA0081	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/19/91-03/04/93	1	5	
TUMA0083	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/28/92-03/28/92	0	1	
TUMA0087	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-04/27/73	0	4	
TUMA0088	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/23/93-02/23/93	0	1	
TUMA0090	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/04/97-11/04/97	0	1	
TUMA0093	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/27/84-07/27/84	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/11/95-11/04/97	2	25	
TUMA0095	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	01/05/92-01/05/92	0	1	
TUMA0097	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/27/73-04/27/73	0	1	
TUMA0098	No	00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/19/92-09/19/92	0	2	
TUMA0064	No	00626	NITROGEN,ORG. KJEL.,BOT. DEPOS. (MG/KG-N DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0002	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-11/12/86	0	3	
TUMA0003	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/86-11/29/99	13	52	T,S
TUMA0006	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/15/86-11/29/99	13	76	T,S
TUMA0013	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/23/98-03/23/98	0	1	
TUMA0017	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-10/15/86	0	3	
TUMA0028	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/01/87	1	14	
TUMA0034	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/23/98-03/23/98	0	1	
TUMA0036	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/25/95-05/25/95	0	5	
TUMA0037	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/17/94-05/19/98	4	11	
TUMA0044	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	12/29/98-12/29/98	0	1	
TUMA0050	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/24/98-03/24/98	0	1	
TUMA0062	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/19/92	6	43	
TUMA0064	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	01/30/76-05/07/79	3	24	
TUMA0069	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	12/17/97-05/20/98	0	8	
TUMA0074	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/04/91-04/04/91	0	1	
TUMA0076	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/28/92-03/28/92	0	1	
TUMA0077	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/28/92-03/04/93	0	2	
TUMA0081	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/19/91-03/04/93	1	6	
TUMA0083	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/28/92-03/28/92	0	1	
TUMA0088	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	02/23/93-02/23/93	0	1	
TUMA0095	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	01/05/92-01/05/92	0	1	
TUMA0096	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/24/95-10/24/95	0	1	
TUMA0098	No	00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/19/92-09/19/92	0	2	
TUMA0022	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0025	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	06/22/82-07/11/85	3	2	
TUMA0060	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/03/97-11/03/97	0	1	
TUMA0064	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	01/30/76-12/02/77	1	21	
TUMA0085	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/28/80-11/28/80	0	1	
TUMA0090	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/04/97-11/04/97	0	1	
TUMA0094	No	00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	10/11/95-11/04/97	2	26	
TUMA0005	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	0	3	
TUMA0007	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	1	18	
TUMA0010	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/05/73-04/10/73	0	2	
TUMA0015	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	0	3	
TUMA0020	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/04/73-04/06/73	0	2	
TUMA0023	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	0	3	
TUMA0026	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/10/73-04/27/73	0	2	
TUMA0027	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/04/73-04/10/73	0	3	
TUMA0030	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/05/73-04/27/73	0	3	
TUMA0031	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	10/21/75-10/21/75	0	1	
TUMA0038	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/04/73-04/06/73	0	2	
TUMA0040	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	02/24/98-12/28/99	1	6	
TUMA0042	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	0	4	
TUMA0051	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/06/73	0	1	
TUMA0052	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	0	3	
TUMA0055	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/26/73-04/26/73	0	1	
TUMA0058	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/10/73-04/27/73	0	2	
TUMA0059	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/27/73-04/27/73	0	1	
TUMA0064	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	11/28/78-05/07/79	0	2	
TUMA0065	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	1	18	
TUMA0066	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/10/73	0	2	
TUMA0067	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/20/73-04/20/73	0	1	
TUMA0070	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	10/22/75-09/27/80	4	17	
TUMA0073	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	0	3	
TUMA0075	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/27/73	0	3	
TUMA0078	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/26/73-04/26/73	0	1	
TUMA0079	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	0	3	
TUMA0080	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/19/73-04/26/73	0	2	
TUMA0082	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/10/73-04/26/73	0	2	
TUMA0087	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/18/73-04/27/73	0	4	
TUMA0089	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	1	18	
TUMA0097	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/27/73	0	3	
TUMA0100	No	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	1	18	
TUMA0033	No	00655	PHOSPHATE, POLY (MG/L AS PO4)	12/07/70-01/24/72	1	3	
TUMA0033	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	12/07/70-10/04/77	6	25	
TUMA0039	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	10/07/75-10/04/77	1	22	
TUMA0064	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	01/30/76-12/02/77	1	21	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0085	No	00660	PHOSPHATE, ORTHO (MG/L AS PO4)	11/28/80-11/28/80	0	1	
TUMA0002	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-11/12/86	0	3	
TUMA0003	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/86-11/29/99	13	53	T,S
TUMA0006	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/15/86-11/29/99	13	75	T,S
TUMA0013	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/23/98-03/23/98	0	1	
TUMA0017	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-10/15/86	0	3	
TUMA0021	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/26/84-07/26/84	0	1	
TUMA0022	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/03/97-11/03/97	0	1	
TUMA0028	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-07/19/88	1	15	
TUMA0034	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/23/98-03/23/98	0	1	
TUMA0036	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/25/95-05/25/95	0	5	
TUMA0037	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/92-05/19/98	6	14	
TUMA0044	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	12/29/98-12/29/98	0	1	
TUMA0045	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/07/80-01/13/81	0	2	
TUMA0046	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/06/81-03/07/81	0	2	
TUMA0047	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/06/81-03/07/81	0	2	
TUMA0048	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/07/80-03/07/81	0	4	
TUMA0050	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/24/98-03/24/98	0	1	
TUMA0053	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/26/84-07/26/84	0	1	
TUMA0055	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/28/84-07/26/84	0	2	
TUMA0057	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/28/85-06/28/85	0	1	
TUMA0059	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/26/84-07/26/84	0	1	
TUMA0060	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/03/97-11/03/97	0	1	
TUMA0062	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-09/19/92	6	44	
TUMA0064	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	01/30/76-05/07/79	3	26	
TUMA0068	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/92-04/29/92	0	2	
TUMA0069	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/92-05/20/98	6	11	
TUMA0074	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/04/91-04/04/91	0	1	
TUMA0076	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/28/92-03/28/92	0	1	
TUMA0077	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/28/92-03/04/93	0	2	
TUMA0081	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/91-03/04/93	1	6	
TUMA0083	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/28/92-03/28/92	0	1	
TUMA0088	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	02/23/93-02/23/93	0	1	
TUMA0090	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/04/97-11/04/97	0	1	
TUMA0093	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/27/84-07/27/84	0	1	
TUMA0094	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/11/95-11/04/97	2	25	
TUMA0095	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	01/05/92-01/05/92	0	1	
TUMA0096	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/24/95-10/24/95	0	1	
TUMA0098	No	00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/92-09/19/92	0	2	
TUMA0022	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/03/97-11/03/97	0	1	
TUMA0060	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/03/97-11/03/97	0	1	
TUMA0064	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/04/77-05/07/79	1	5	
TUMA0090	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/04/97-11/04/97	0	1	
TUMA0094	No	00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	10/11/95-11/04/97	2	26	
TUMA0021	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/26/84-07/26/84	0	1	
TUMA0022	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/03/97-11/03/97	0	1	
TUMA0025	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/11/85-07/11/85	0	1	
TUMA0053	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/26/84-07/26/84	0	1	
TUMA0055	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	06/28/84-07/26/84	0	2	
TUMA0057	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	06/28/85-06/28/85	0	1	
TUMA0059	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/26/84-07/26/84	0	1	
TUMA0060	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/03/97-11/03/97	0	1	
TUMA0064	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	01/30/76-12/02/77	1	21	
TUMA0085	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/28/80-11/28/80	0	1	
TUMA0090	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/04/97-11/04/97	0	1	
TUMA0093	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/27/84-07/27/84	0	1	
TUMA0094	No	00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	10/11/95-11/04/97	2	26	
TUMA0064	No	00680	CARBON, TOTAL ORGANIC (MG/L AS C)	01/30/76-05/07/79	3	23	
TUMA0022	No	00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/03/97-11/03/97	0	1	
TUMA0060	No	00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/03/97-11/03/97	0	1	
TUMA0090	No	00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/04/97-11/04/97	0	1	
TUMA0094	No	00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/07/95-11/04/97	1	24	
TUMA0022	No	00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/03/97-11/03/97	0	1	
TUMA0060	No	00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/03/97-11/03/97	0	1	
TUMA0090	No	00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/04/97-11/04/97	0	1	
TUMA0094	No	00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/07/95-11/04/97	1	24	
TUMA0003	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	07/22/91-07/22/91	0	1	
TUMA0064	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	02/23/76-01/26/78	1	22	
TUMA0076	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	03/28/92-03/28/92	0	1	
TUMA0077	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	03/28/92-03/28/92	0	1	
TUMA0083	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	03/28/92-03/28/92	0	1	
TUMA0098	No	00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/19/92-09/19/92	0	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0064	No	00721	CYANIDE IN BOTTOM DEPOSITS (MG/KG AS CN DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0003	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	11	41	T
TUMA0005	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0006	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	11	63	T
TUMA0009	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	08/28/69-10/10/77	8	4	
TUMA0010	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/05/73-04/10/73	0	2	
TUMA0013	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	0	1	
TUMA0015	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0020	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	0	4	
TUMA0023	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0025	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/10/41-06/22/82	40	3	
TUMA0026	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	0	2	
TUMA0027	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	0	4	
TUMA0028	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-07/19/88	0	1	
TUMA0030	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/05/73-04/27/73	0	3	
TUMA0031	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/21/75-10/21/75	0	1	
TUMA0033	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/17/69-10/04/77	7	28	
TUMA0034	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	0	1	
TUMA0037	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/29/92-05/19/98	6	14	
TUMA0038	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/73-04/06/73	0	2	
TUMA0039	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/07/75-01/04/80	4	23	
TUMA0042	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	4	
TUMA0046	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/07/80-09/07/80	0	1	
TUMA0050	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/24/98-03/24/98	0	1	
TUMA0051	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/06/73	0	1	
TUMA0052	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	4	
TUMA0055	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	0	1	
TUMA0058	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	0	2	
TUMA0059	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	0	2	
TUMA0062	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-09/19/92	4	28	
TUMA0064	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	01/30/76-05/07/79	3	26	
TUMA0066	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/10/73	0	2	
TUMA0067	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/20/73-04/20/73	0	1	
TUMA0068	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/29/92-04/29/92	0	2	
TUMA0069	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/29/92-05/20/98	6	11	
TUMA0070	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/22/75-09/27/80	4	17	
TUMA0073	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0074	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/91-04/04/91	0	1	
TUMA0075	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	0	3	
TUMA0076	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	0	1	
TUMA0077	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	0	1	
TUMA0078	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	0	1	
TUMA0079	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0080	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/19/73-04/26/73	0	2	
TUMA0081	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/19/91-09/19/91	0	1	
TUMA0082	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/10/73-04/26/73	0	3	
TUMA0083	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	0	1	
TUMA0085	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/28/80-11/28/80	0	1	
TUMA0087	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/18/73-04/27/73	0	4	
TUMA0088	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	02/23/93-02/23/93	0	1	
TUMA0095	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	01/05/92-01/05/92	0	1	
TUMA0097	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	0	3	
TUMA0098	No	00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/19/92-09/19/92	0	2	
TUMA0009	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	08/28/69-10/10/77	8	4	
TUMA0025	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	10/10/41-04/17/46	4	2	
TUMA0064	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	01/30/76-05/07/79	3	26	
TUMA0085	No	00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	11/28/80-11/28/80	0	1	
TUMA0033	No	00910	CALCIUM (MG/L AS CACO3)	10/17/69-01/24/72	2	6	
TUMA0005	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	0	3	
TUMA0009	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	08/28/69-10/10/77	8	4	
TUMA0010	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/05/73-04/10/73	0	2	
TUMA0015	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	0	3	
TUMA0020	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/04/73-04/12/73	0	4	
TUMA0022	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/03/97-11/03/97	0	1	
TUMA0023	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	0	3	
TUMA0025	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/10/41-07/11/85	43	4	
TUMA0026	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/10/73-04/27/73	0	2	
TUMA0027	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/04/73-04/12/73	0	4	
TUMA0030	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/05/73-04/27/73	0	3	
TUMA0038	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/04/73-04/06/73	0	2	
TUMA0042	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	0	4	
TUMA0051	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/06/73	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0052	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	0	4	
TUMA0055	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/26/73-04/26/73	0	1	
TUMA0058	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/10/73-04/27/73	0	2	
TUMA0059	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/27/73	0	2	
TUMA0060	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/03/97-11/03/97	0	1	
TUMA0064	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	01/30/76-05/07/79	3	26	
TUMA0066	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/10/73	0	2	
TUMA0067	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/20/73-04/20/73	0	1	
TUMA0073	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	0	3	
TUMA0075	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/27/73	0	3	
TUMA0078	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/26/73-04/26/73	0	1	
TUMA0079	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	0	3	
TUMA0080	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/19/73-04/26/73	0	2	
TUMA0082	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/10/73-04/26/73	0	3	
TUMA0085	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/28/80-11/28/80	0	1	
TUMA0087	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/18/73-04/27/73	0	4	
TUMA0090	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/04/97-11/04/97	0	1	
TUMA0094	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/11/95-11/04/97	2	26	
TUMA0097	No	00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/27/73	0	3	
TUMA0002	No	00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-11/12/86	0	3	
TUMA0003	No	00916	CALCIUM, TOTAL (MG/L AS CA)	11/12/86-11/29/99	13	54	T,S
TUMA0006	No	00916	CALCIUM, TOTAL (MG/L AS CA)	10/15/86-11/29/99	13	76	T,S
TUMA0013	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/23/98-03/23/98	0	1	
TUMA0017	No	00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-10/15/86	0	3	
TUMA0028	No	00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-07/19/88	1	15	
TUMA0033	No	00916	CALCIUM, TOTAL (MG/L AS CA)	04/06/76-05/03/76	0	2	
TUMA0034	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/23/98-03/23/98	0	1	
TUMA0037	No	00916	CALCIUM, TOTAL (MG/L AS CA)	04/29/92-05/19/98	6	14	
TUMA0039	No	00916	CALCIUM, TOTAL (MG/L AS CA)	04/06/76-05/03/76	0	2	
TUMA0045	No	00916	CALCIUM, TOTAL (MG/L AS CA)	09/07/80-01/13/81	0	2	
TUMA0046	No	00916	CALCIUM, TOTAL (MG/L AS CA)	09/07/80-03/07/81	0	3	
TUMA0047	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/06/81-03/07/81	0	2	
TUMA0048	No	00916	CALCIUM, TOTAL (MG/L AS CA)	09/07/80-03/07/81	0	4	
TUMA0050	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/24/98-03/24/98	0	1	
TUMA0062	No	00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-09/19/92	6	45	
TUMA0068	No	00916	CALCIUM, TOTAL (MG/L AS CA)	04/29/92-04/29/92	0	2	
TUMA0069	No	00916	CALCIUM, TOTAL (MG/L AS CA)	04/29/92-05/20/98	6	11	
TUMA0070	No	00916	CALCIUM, TOTAL (MG/L AS CA)	09/27/79-09/27/80	1	15	
TUMA0074	No	00916	CALCIUM, TOTAL (MG/L AS CA)	04/04/91-04/04/91	0	1	
TUMA0076	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/28/92-03/28/92	0	1	
TUMA0077	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/28/92-03/28/92	0	1	
TUMA0081	No	00916	CALCIUM, TOTAL (MG/L AS CA)	09/19/91-09/19/91	0	1	
TUMA0083	No	00916	CALCIUM, TOTAL (MG/L AS CA)	03/28/92-03/28/92	0	1	
TUMA0088	No	00916	CALCIUM, TOTAL (MG/L AS CA)	02/23/93-02/23/93	0	1	
TUMA0095	No	00916	CALCIUM, TOTAL (MG/L AS CA)	01/05/92-01/05/92	0	1	
TUMA0098	No	00916	CALCIUM, TOTAL (MG/L AS CA)	09/19/92-09/19/92	0	2	
TUMA0005	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	0	3	
TUMA0009	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	08/28/69-10/10/77	8	4	
TUMA0010	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/05/73-04/10/73	0	2	
TUMA0015	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	0	3	
TUMA0020	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/04/73-04/12/73	0	4	
TUMA0022	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/03/97-11/03/97	0	1	
TUMA0023	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	0	3	
TUMA0025	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/10/41-07/11/85	43	4	
TUMA0026	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/10/73-04/27/73	0	2	
TUMA0027	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/04/73-04/12/73	0	4	
TUMA0030	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/05/73-04/27/73	0	3	
TUMA0038	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/04/73-04/06/73	0	2	
TUMA0042	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	0	4	
TUMA0051	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/06/73	0	1	
TUMA0052	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	0	4	
TUMA0055	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/26/73-04/26/73	0	1	
TUMA0058	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/10/73-04/27/73	0	2	
TUMA0059	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/27/73	0	2	
TUMA0060	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/03/97-11/03/97	0	1	
TUMA0064	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	01/30/76-05/07/79	3	26	
TUMA0066	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/10/73	0	2	
TUMA0067	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/20/73-04/20/73	0	1	
TUMA0073	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	0	3	
TUMA0075	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/27/73	0	3	
TUMA0078	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/26/73-04/26/73	0	1	
TUMA0079	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	0	3	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0080	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/19/73-04/26/73	0	2	
TUMA0082	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/10/73-04/26/73	0	3	
TUMA0085	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/28/80-11/28/80	0	1	
TUMA0087	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/18/73-04/27/73	0	4	
TUMA0090	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/04/97-11/04/97	0	1	
TUMA0094	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/11/95-11/04/97	2	26	
TUMA0097	No	00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/27/73	0	3	
TUMA0002	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-11/12/86	0	3	
TUMA0003	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/86-11/29/99	13	54	T,S
TUMA0006	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	10/15/86-11/29/99	13	75	T,S
TUMA0013	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/23/98-03/23/98	0	1	
TUMA0017	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-10/15/86	0	3	
TUMA0028	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-07/19/88	1	15	
TUMA0033	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/06/76-05/03/76	0	2	
TUMA0034	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/23/98-03/23/98	0	1	
TUMA0037	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/29/92-05/19/98	6	14	
TUMA0039	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/06/76-05/03/76	0	2	
TUMA0045	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/07/80-01/13/81	0	2	
TUMA0046	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/07/80-03/07/81	0	3	
TUMA0047	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/06/81-03/07/81	0	2	
TUMA0048	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/07/80-03/07/81	0	4	
TUMA0050	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/24/98-03/24/98	0	1	
TUMA0062	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-09/19/92	6	45	
TUMA0068	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/29/92-04/29/92	0	2	
TUMA0069	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/29/92-05/20/98	6	11	
TUMA0070	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/27/79-09/27/80	1	15	
TUMA0074	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/04/91-04/04/91	0	1	
TUMA0076	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/28/92-03/28/92	0	1	
TUMA0077	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/28/92-03/28/92	0	1	
TUMA0081	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/19/91-09/19/91	0	1	
TUMA0083	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/28/92-03/28/92	0	1	
TUMA0088	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	02/23/93-02/23/93	0	1	
TUMA0095	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	01/05/92-01/05/92	0	1	
TUMA0098	No	00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/19/92-09/19/92	0	2	
TUMA0002	No	00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-11/12/86	0	3	
TUMA0003	No	00929	SODIUM, TOTAL (MG/L AS NA)	11/12/86-11/29/99	13	54	T,S
TUMA0006	No	00929	SODIUM, TOTAL (MG/L AS NA)	10/15/86-11/29/99	13	76	T,S
TUMA0013	No	00929	SODIUM, TOTAL (MG/L AS NA)	03/23/98-03/23/98	0	1	
TUMA0017	No	00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-10/15/86	0	3	
TUMA0028	No	00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-07/19/88	1	15	
TUMA0033	No	00929	SODIUM, TOTAL (MG/L AS NA)	04/06/76-05/03/76	0	2	
TUMA0034	No	00929	SODIUM, TOTAL (MG/L AS NA)	03/23/98-03/23/98	0	1	
TUMA0037	No	00929	SODIUM, TOTAL (MG/L AS NA)	04/29/92-05/19/98	6	14	
TUMA0039	No	00929	SODIUM, TOTAL (MG/L AS NA)	04/06/76-05/03/76	0	2	
TUMA0045	No	00929	SODIUM, TOTAL (MG/L AS NA)	09/07/80-01/13/81	0	2	
TUMA0046	No	00929	SODIUM, TOTAL (MG/L AS NA)	09/07/80-03/07/81	0	3	
TUMA0047	No	00929	SODIUM, TOTAL (MG/L AS NA)	03/06/81-03/07/81	0	2	
TUMA0048	No	00929	SODIUM, TOTAL (MG/L AS NA)	09/07/80-03/07/81	0	4	
TUMA0050	No	00929	SODIUM, TOTAL (MG/L AS NA)	03/24/98-03/24/98	0	1	
TUMA0062	No	00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-09/19/92	6	45	
TUMA0068	No	00929	SODIUM, TOTAL (MG/L AS NA)	04/29/92-04/29/92	0	2	
TUMA0069	No	00929	SODIUM, TOTAL (MG/L AS NA)	04/29/92-05/20/98	6	11	
TUMA0070	No	00929	SODIUM, TOTAL (MG/L AS NA)	09/27/79-09/27/80	1	15	
TUMA0074	No	00929	SODIUM, TOTAL (MG/L AS NA)	04/04/91-04/04/91	0	1	
TUMA0076	No	00929	SODIUM, TOTAL (MG/L AS NA)	03/28/92-03/28/92	0	1	
TUMA0077	No	00929	SODIUM, TOTAL (MG/L AS NA)	03/28/92-03/28/92	0	1	
TUMA0081	No	00929	SODIUM, TOTAL (MG/L AS NA)	09/19/91-09/19/91	0	1	
TUMA0083	No	00929	SODIUM, TOTAL (MG/L AS NA)	03/28/92-03/28/92	0	1	
TUMA0088	No	00929	SODIUM, TOTAL (MG/L AS NA)	02/23/93-02/23/93	0	1	
TUMA0095	No	00929	SODIUM, TOTAL (MG/L AS NA)	01/05/92-01/05/92	0	1	
TUMA0098	No	00929	SODIUM, TOTAL (MG/L AS NA)	09/19/92-09/19/92	0	2	
TUMA0005	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	0	3	
TUMA0009	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	08/28/69-10/10/77	8	4	
TUMA0010	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/05/73-04/10/73	0	2	
TUMA0015	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	0	3	
TUMA0020	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/04/73-04/12/73	0	4	
TUMA0022	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	11/03/97-11/03/97	0	1	
TUMA0023	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	0	3	
TUMA0025	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	06/22/82-07/11/85	3	2	
TUMA0026	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/10/73-04/27/73	0	2	
TUMA0027	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/04/73-04/12/73	0	4	
TUMA0030	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/05/73-04/27/73	0	3	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0038	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/04/73-04/06/73	0	2	
TUMA0042	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	0	4	
TUMA0051	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/06/73	0	1	
TUMA0052	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	0	4	
TUMA0055	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/26/73-04/26/73	0	1	
TUMA0058	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/10/73-04/27/73	0	2	
TUMA0059	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/27/73	0	2	
TUMA0060	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	11/03/97-11/03/97	0	1	
TUMA0064	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	01/30/76-05/07/79	3	26	
TUMA0066	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/10/73	0	2	
TUMA0067	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/20/73-04/20/73	0	1	
TUMA0073	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	0	3	
TUMA0075	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/27/73	0	3	
TUMA0078	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/26/73-04/26/73	0	1	
TUMA0079	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	0	3	
TUMA0080	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/19/73-04/26/73	0	2	
TUMA0082	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/10/73-04/26/73	0	3	
TUMA0085	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	11/28/80-11/28/80	0	1	
TUMA0087	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/18/73-04/27/73	0	4	
TUMA0090	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	11/04/97-11/04/97	0	1	
TUMA0094	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	10/11/95-11/04/97	2	26	
TUMA0097	No	00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/27/73	0	3	
TUMA0009	No	00931	SODIUM ADSORPTION RATIO	08/28/69-10/10/77	8	4	
TUMA0025	No	00931	SODIUM ADSORPTION RATIO	06/22/82-06/22/82	0	1	
TUMA0064	No	00931	SODIUM ADSORPTION RATIO	01/30/76-05/07/79	3	26	
TUMA0085	No	00931	SODIUM ADSORPTION RATIO	11/28/80-11/28/80	0	1	
TUMA0009	No	00932	SODIUM, PERCENT	08/28/69-10/10/77	8	4	
TUMA0064	No	00932	SODIUM, PERCENT	01/30/76-05/07/79	3	26	
TUMA0085	No	00932	SODIUM, PERCENT	11/28/80-11/28/80	0	1	
TUMA0025	No	00933	SODIUM,PLUS POTASSIUM (MG/L)	10/10/41-04/17/46	4	2	
TUMA0064	No	00933	SODIUM,PLUS POTASSIUM (MG/L)	11/28/78-05/07/79	0	2	
TUMA0009	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	08/28/69-10/10/77	8	4	
TUMA0022	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/03/97-11/03/97	0	1	
TUMA0025	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	07/11/85-07/11/85	0	1	
TUMA0060	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/03/97-11/03/97	0	1	
TUMA0064	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	01/30/76-05/07/79	3	26	
TUMA0085	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/28/80-11/28/80	0	1	
TUMA0090	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/04/97-11/04/97	0	1	
TUMA0094	No	00935	POTASSIUM, DISSOLVED (MG/L AS K)	10/11/95-11/04/97	2	26	
TUMA0002	No	00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-11/12/86	0	3	
TUMA0003	No	00937	POTASSIUM, TOTAL MG/L AS K)	11/12/86-11/29/99	13	54	T,S
TUMA0006	No	00937	POTASSIUM, TOTAL MG/L AS K)	10/15/86-11/29/99	13	77	T,S
TUMA0013	No	00937	POTASSIUM, TOTAL MG/L AS K)	03/23/98-03/23/98	0	1	
TUMA0017	No	00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-10/15/86	0	3	
TUMA0028	No	00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-07/19/88	1	15	
TUMA0034	No	00937	POTASSIUM, TOTAL MG/L AS K)	03/23/98-03/23/98	0	1	
TUMA0037	No	00937	POTASSIUM, TOTAL MG/L AS K)	04/29/92-05/19/98	6	14	
TUMA0050	No	00937	POTASSIUM, TOTAL MG/L AS K)	03/24/98-03/24/98	0	1	
TUMA0062	No	00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-09/19/92	6	46	
TUMA0068	No	00937	POTASSIUM, TOTAL MG/L AS K)	04/29/92-04/29/92	0	2	
TUMA0069	No	00937	POTASSIUM, TOTAL MG/L AS K)	04/29/92-05/20/98	6	11	
TUMA0070	No	00937	POTASSIUM, TOTAL MG/L AS K)	09/27/79-09/27/80	1	15	
TUMA0074	No	00937	POTASSIUM, TOTAL MG/L AS K)	04/04/91-04/04/91	0	1	
TUMA0076	No	00937	POTASSIUM, TOTAL MG/L AS K)	03/28/92-03/28/92	0	1	
TUMA0077	No	00937	POTASSIUM, TOTAL MG/L AS K)	03/28/92-03/28/92	0	1	
TUMA0081	No	00937	POTASSIUM, TOTAL MG/L AS K)	09/19/91-09/19/91	0	1	
TUMA0083	No	00937	POTASSIUM, TOTAL MG/L AS K)	03/28/92-03/28/92	0	1	
TUMA0088	No	00937	POTASSIUM, TOTAL MG/L AS K)	02/23/93-02/23/93	0	1	
TUMA0095	No	00937	POTASSIUM, TOTAL MG/L AS K)	01/05/92-01/05/92	0	1	
TUMA0098	No	00937	POTASSIUM, TOTAL MG/L AS K)	09/19/92-09/19/92	0	2	
TUMA0002	No	00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-11/12/86	0	3	
TUMA0003	No	00940	CHLORIDE,TOTAL IN WATER MG/L	11/12/86-11/29/99	13	53	T,S
TUMA0005	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	0	3	
TUMA0006	No	00940	CHLORIDE,TOTAL IN WATER MG/L	10/15/86-11/29/99	13	75	T,S
TUMA0009	No	00940	CHLORIDE,TOTAL IN WATER MG/L	08/28/69-10/10/77	8	4	
TUMA0010	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/05/73-04/10/73	0	2	
TUMA0013	No	00940	CHLORIDE,TOTAL IN WATER MG/L	03/23/98-03/23/98	0	1	
TUMA0015	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	0	3	
TUMA0017	No	00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-10/15/86	0	3	
TUMA0020	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/73-04/12/73	0	4	
TUMA0022	No	00940	CHLORIDE,TOTAL IN WATER MG/L	11/03/97-11/03/97	0	1	
TUMA0023	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	0	3	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0025	No	00940	CHLORIDE,TOTAL IN WATER MG/L	10/10/41-07/11/85	43	4	
TUMA0026	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/10/73-04/27/73	0	2	
TUMA0027	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/73-04/12/73	0	4	
TUMA0028	No	00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-07/19/88	1	14	
TUMA0030	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/05/73-04/27/73	0	3	
TUMA0033	No	00940	CHLORIDE,TOTAL IN WATER MG/L	10/17/69-05/03/76	6	8	
TUMA0034	No	00940	CHLORIDE,TOTAL IN WATER MG/L	03/23/98-03/23/98	0	1	
TUMA0037	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/29/92-05/19/98	6	14	
TUMA0038	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/73-04/06/73	0	2	
TUMA0039	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/76-05/03/76	0	2	
TUMA0042	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	0	4	
TUMA0045	No	00940	CHLORIDE,TOTAL IN WATER MG/L	09/07/80-01/13/81	0	2	
TUMA0046	No	00940	CHLORIDE,TOTAL IN WATER MG/L	09/07/80-03/07/81	0	3	
TUMA0047	No	00940	CHLORIDE,TOTAL IN WATER MG/L	03/06/81-03/07/81	0	2	
TUMA0048	No	00940	CHLORIDE,TOTAL IN WATER MG/L	09/07/80-03/07/81	0	4	
TUMA0050	No	00940	CHLORIDE,TOTAL IN WATER MG/L	03/24/98-03/24/98	0	1	
TUMA0051	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/06/73	0	1	
TUMA0052	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	0	4	
TUMA0055	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/26/73-04/26/73	0	1	
TUMA0058	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/10/73-04/27/73	0	2	
TUMA0059	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/27/73	0	2	
TUMA0060	No	00940	CHLORIDE,TOTAL IN WATER MG/L	11/03/97-11/03/97	0	1	
TUMA0062	No	00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-09/19/92	6	44	
TUMA0064	No	00940	CHLORIDE,TOTAL IN WATER MG/L	01/30/76-05/07/79	3	26	
TUMA0066	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/10/73	0	2	
TUMA0067	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/20/73-04/20/73	0	1	
TUMA0068	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/29/92-04/29/92	0	2	
TUMA0069	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/29/92-05/20/98	6	11	
TUMA0070	No	00940	CHLORIDE,TOTAL IN WATER MG/L	07/26/78-09/27/80	2	16	
TUMA0073	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	0	3	
TUMA0074	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/91-04/04/91	0	1	
TUMA0075	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/27/73	0	3	
TUMA0076	No	00940	CHLORIDE,TOTAL IN WATER MG/L	03/28/92-03/28/92	0	1	
TUMA0077	No	00940	CHLORIDE,TOTAL IN WATER MG/L	03/28/92-03/28/92	0	1	
TUMA0078	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/26/73-04/26/73	0	1	
TUMA0079	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	0	3	
TUMA0080	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/19/73-04/26/73	0	2	
TUMA0081	No	00940	CHLORIDE,TOTAL IN WATER MG/L	09/19/91-09/19/91	0	1	
TUMA0082	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/10/73-04/26/73	0	3	
TUMA0083	No	00940	CHLORIDE,TOTAL IN WATER MG/L	03/28/92-03/28/92	0	1	
TUMA0085	No	00940	CHLORIDE,TOTAL IN WATER MG/L	11/28/80-11/28/80	0	1	
TUMA0087	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/18/73-04/27/73	0	4	
TUMA0088	No	00940	CHLORIDE,TOTAL IN WATER MG/L	02/23/93-02/23/93	0	1	
TUMA0090	No	00940	CHLORIDE,TOTAL IN WATER MG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	00940	CHLORIDE,TOTAL IN WATER MG/L	10/11/95-11/04/97	2	26	
TUMA0095	No	00940	CHLORIDE,TOTAL IN WATER MG/L	01/05/92-01/05/92	0	1	
TUMA0097	No	00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/27/73	0	3	
TUMA0098	No	00940	CHLORIDE,TOTAL IN WATER MG/L	09/19/92-09/19/92	0	2	
TUMA0002	No	00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-11/12/86	0	3	
TUMA0003	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/12/86-11/29/99	13	54	T,S
TUMA0005	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	0	3	
TUMA0006	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/15/86-11/29/99	13	76	T,S
TUMA0009	No	00945	SULFATE, TOTAL (MG/L AS SO4)	08/28/69-10/10/77	8	4	
TUMA0010	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/05/73-04/10/73	0	2	
TUMA0013	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/23/98-03/23/98	0	1	
TUMA0015	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	0	3	
TUMA0017	No	00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-10/15/86	0	3	
TUMA0020	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/73-04/12/73	0	4	
TUMA0022	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/03/97-11/03/97	0	1	
TUMA0023	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	0	3	
TUMA0025	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/10/41-07/11/85	43	4	
TUMA0026	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/10/73-04/27/73	0	2	
TUMA0027	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/73-04/12/73	0	4	
TUMA0028	No	00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-07/19/88	1	15	
TUMA0030	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/05/73-04/27/73	0	3	
TUMA0031	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/21/75-10/21/75	0	1	
TUMA0033	No	00945	SULFATE, TOTAL (MG/L AS SO4)	05/28/70-10/04/77	7	26	
TUMA0034	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/23/98-03/23/98	0	1	
TUMA0037	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/29/92-05/19/98	6	14	
TUMA0038	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/73-04/06/73	0	2	
TUMA0039	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/07/75-10/04/77	1	22	
TUMA0042	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	0	4	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0045	No	00945	SULFATE, TOTAL (MG/L AS SO4)	09/07/80-01/13/81	0	2	
TUMA0046	No	00945	SULFATE, TOTAL (MG/L AS SO4)	09/07/80-03/07/81	0	3	
TUMA0047	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/06/81-03/07/81	0	2	
TUMA0048	No	00945	SULFATE, TOTAL (MG/L AS SO4)	09/07/80-03/07/81	0	3	
TUMA0050	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/24/98-03/24/98	0	1	
TUMA0051	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/06/73	0	1	
TUMA0052	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	0	4	
TUMA0055	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/26/73-04/26/73	0	1	
TUMA0058	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/10/73-04/27/73	0	2	
TUMA0059	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/27/73	0	2	
TUMA0060	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/03/97-11/03/97	0	1	
TUMA0062	No	00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-09/19/92	6	44	
TUMA0064	No	00945	SULFATE, TOTAL (MG/L AS SO4)	01/30/76-05/07/79	3	26	
TUMA0066	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/10/73	0	2	
TUMA0067	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/20/73-04/20/73	0	1	
TUMA0068	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/29/92-04/29/92	0	2	
TUMA0069	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/29/92-05/20/98	6	11	
TUMA0070	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/22/75-09/27/80	4	17	
TUMA0073	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	0	3	
TUMA0074	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/91-04/04/91	0	1	
TUMA0075	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/27/73	0	3	
TUMA0076	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/28/92-03/28/92	0	1	
TUMA0077	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/28/92-03/28/92	0	1	
TUMA0078	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/26/73-04/26/73	0	1	
TUMA0079	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	0	3	
TUMA0080	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/19/73-04/26/73	0	2	
TUMA0081	No	00945	SULFATE, TOTAL (MG/L AS SO4)	09/19/91-09/19/91	0	1	
TUMA0082	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/10/73-04/26/73	0	3	
TUMA0083	No	00945	SULFATE, TOTAL (MG/L AS SO4)	03/28/92-03/28/92	0	1	
TUMA0085	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/28/80-11/28/80	0	1	
TUMA0087	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/18/73-04/27/73	0	4	
TUMA0088	No	00945	SULFATE, TOTAL (MG/L AS SO4)	02/23/93-02/23/93	0	1	
TUMA0090	No	00945	SULFATE, TOTAL (MG/L AS SO4)	11/04/97-11/04/97	0	1	
TUMA0094	No	00945	SULFATE, TOTAL (MG/L AS SO4)	10/11/95-11/04/97	2	26	
TUMA0095	No	00945	SULFATE, TOTAL (MG/L AS SO4)	01/05/92-01/05/92	0	1	
TUMA0097	No	00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/27/73	0	3	
TUMA0098	No	00945	SULFATE, TOTAL (MG/L AS SO4)	09/19/92-09/19/92	0	2	
TUMA0005	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/09/73-04/09/73	0	1	
TUMA0009	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	10/10/77-10/10/77	0	1	
TUMA0015	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0020	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0022	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/03/97-11/03/97	0	1	
TUMA0023	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0025	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/17/46-07/11/85	39	2	
TUMA0027	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0030	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/05/73-04/05/73	0	1	
TUMA0038	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0060	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/03/97-11/03/97	0	1	
TUMA0064	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	01/30/76-05/07/79	3	26	
TUMA0066	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0067	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/20/73-04/20/73	0	1	
TUMA0073	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0075	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	0	1	
TUMA0079	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/26/73	0	2	
TUMA0082	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/10/73-04/10/73	0	1	
TUMA0085	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/28/80-11/28/80	0	1	
TUMA0090	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/04/97-11/04/97	0	1	
TUMA0094	No	00950	FLUORIDE, DISSOLVED (MG/L AS F)	10/11/95-11/04/97	2	26	
TUMA0002	No	00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-11/12/86	0	3	
TUMA0003	No	00951	FLUORIDE, TOTAL (MG/L AS F)	11/12/86-11/29/99	13	52	T,S
TUMA0006	No	00951	FLUORIDE, TOTAL (MG/L AS F)	10/15/86-11/29/99	13	74	T,S
TUMA0013	No	00951	FLUORIDE, TOTAL (MG/L AS F)	03/23/98-03/23/98	0	1	
TUMA0017	No	00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-10/15/86	0	3	
TUMA0028	No	00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-07/19/88	1	13	
TUMA0033	No	00951	FLUORIDE, TOTAL (MG/L AS F)	01/24/72-05/03/76	4	3	
TUMA0034	No	00951	FLUORIDE, TOTAL (MG/L AS F)	03/23/98-03/23/98	0	1	
TUMA0037	No	00951	FLUORIDE, TOTAL (MG/L AS F)	04/29/92-05/19/98	6	14	
TUMA0039	No	00951	FLUORIDE, TOTAL (MG/L AS F)	04/06/76-05/03/76	0	2	
TUMA0045	No	00951	FLUORIDE, TOTAL (MG/L AS F)	09/07/80-01/13/81	0	2	
TUMA0046	No	00951	FLUORIDE, TOTAL (MG/L AS F)	09/07/80-03/07/81	0	3	
TUMA0047	No	00951	FLUORIDE, TOTAL (MG/L AS F)	03/06/81-03/06/81	0	1	
TUMA0048	No	00951	FLUORIDE, TOTAL (MG/L AS F)	09/07/80-03/07/81	0	4	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0050	No	00951	FLUORIDE, TOTAL (MG/L AS F)	03/24/98-03/24/98	0	1	
TUMA0062	No	00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-09/19/92	6	43	
TUMA0068	No	00951	FLUORIDE, TOTAL (MG/L AS F)	04/29/92-04/29/92	0	2	
TUMA0069	No	00951	FLUORIDE, TOTAL (MG/L AS F)	04/29/92-05/20/98	6	11	
TUMA0074	No	00951	FLUORIDE, TOTAL (MG/L AS F)	04/04/91-04/04/91	0	1	
TUMA0076	No	00951	FLUORIDE, TOTAL (MG/L AS F)	03/28/92-03/28/92	0	1	
TUMA0077	No	00951	FLUORIDE, TOTAL (MG/L AS F)	03/28/92-03/28/92	0	1	
TUMA0081	No	00951	FLUORIDE, TOTAL (MG/L AS F)	09/19/91-09/19/91	0	1	
TUMA0083	No	00951	FLUORIDE, TOTAL (MG/L AS F)	03/28/92-03/28/92	0	1	
TUMA0088	No	00951	FLUORIDE, TOTAL (MG/L AS F)	02/23/93-02/23/93	0	1	
TUMA0095	No	00951	FLUORIDE, TOTAL (MG/L AS F)	01/05/92-01/05/92	0	1	
TUMA0098	No	00951	FLUORIDE, TOTAL (MG/L AS F)	09/19/92-09/19/92	0	2	
TUMA0009	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	10/10/77-10/10/77	0	1	
TUMA0022	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	11/03/97-11/03/97	0	1	
TUMA0025	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	06/22/82-07/11/85	3	2	
TUMA0060	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	11/03/97-11/03/97	0	1	
TUMA0064	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	01/30/76-05/07/79	3	26	
TUMA0085	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	11/28/80-11/28/80	0	1	
TUMA0090	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	11/04/97-11/04/97	0	1	
TUMA0094	No	00955	SILICA, DISSOLVED (MG/L AS SI02)	10/11/95-11/04/97	2	26	
TUMA0015	No	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/06/73-04/06/73	0	1	
TUMA0030	No	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/05/73-04/05/73	0	1	
TUMA0052	No	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/06/73-04/06/73	0	1	
TUMA0079	No	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/06/73-04/06/73	0	1	
TUMA0082	No	00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/10/73-04/10/73	0	1	
TUMA0003	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	12	26	
TUMA0006	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	12	45	T,S
TUMA0013	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	03/23/98-03/23/98	0	1	
TUMA0022	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/03/97-11/03/97	0	1	
TUMA0025	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	06/22/82-06/22/82	0	1	
TUMA0028	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/15/86-04/13/87	0	5	
TUMA0034	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	03/23/98-03/23/98	0	1	
TUMA0050	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	03/24/98-03/24/98	0	1	
TUMA0060	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/03/97-11/03/97	0	1	
TUMA0062	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/15/86-09/19/92	5	15	
TUMA0081	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	09/19/91-09/19/91	0	1	
TUMA0085	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/28/80-11/28/80	0	1	
TUMA0088	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	02/23/93-02/23/93	0	1	
TUMA0090	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/04/97-11/04/97	0	1	
TUMA0094	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/04/97-11/04/97	0	1	
TUMA0098	No	01000	ARSENIC, DISSOLVED (UG/L AS AS)	09/19/92-09/19/92	0	2	
TUMA0002	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-11/12/86	0	3	
TUMA0003	No	01002	ARSENIC, TOTAL (UG/L AS AS)	11/12/86-11/29/99	13	55	T,S
TUMA0006	No	01002	ARSENIC, TOTAL (UG/L AS AS)	10/15/86-11/29/99	13	77	T,S
TUMA0013	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/23/98-03/23/98	0	1	
TUMA0017	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-10/15/86	0	3	
TUMA0028	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-07/19/88	1	15	
TUMA0034	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/23/98-03/23/98	0	1	
TUMA0037	No	01002	ARSENIC, TOTAL (UG/L AS AS)	05/17/94-05/19/98	4	11	
TUMA0045	No	01002	ARSENIC, TOTAL (UG/L AS AS)	09/07/80-01/13/81	0	2	
TUMA0046	No	01002	ARSENIC, TOTAL (UG/L AS AS)	09/07/80-03/07/81	0	3	
TUMA0047	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/06/81-03/07/81	0	2	
TUMA0048	No	01002	ARSENIC, TOTAL (UG/L AS AS)	09/07/80-03/07/81	0	4	
TUMA0050	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/24/98-03/24/98	0	1	
TUMA0062	No	01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-09/19/92	6	51	
TUMA0064	No	01002	ARSENIC, TOTAL (UG/L AS AS)	01/30/76-05/07/79	3	25	
TUMA0068	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/29/92-04/29/92	0	2	
TUMA0069	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/29/92-05/20/98	6	10	
TUMA0074	No	01002	ARSENIC, TOTAL (UG/L AS AS)	04/04/91-04/04/91	0	1	
TUMA0076	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/28/92-03/28/92	0	1	
TUMA0077	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/28/92-03/28/92	0	1	
TUMA0081	No	01002	ARSENIC, TOTAL (UG/L AS AS)	09/19/91-09/19/91	0	1	
TUMA0083	No	01002	ARSENIC, TOTAL (UG/L AS AS)	03/28/92-03/28/92	0	1	
TUMA0088	No	01002	ARSENIC, TOTAL (UG/L AS AS)	02/23/93-02/23/93	0	1	
TUMA0095	No	01002	ARSENIC, TOTAL (UG/L AS AS)	01/05/92-01/05/92	0	1	
TUMA0098	No	01002	ARSENIC, TOTAL (UG/L AS AS)	09/19/92-09/19/92	0	2	
TUMA0008	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0014	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0043	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0049	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0064	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0084	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0091	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0099	No	01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0003	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	12	26	
TUMA0006	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	12	45	T,S
TUMA0013	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	03/23/98-03/23/98	0	1	
TUMA0022	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	11/03/97-11/03/97	0	1	
TUMA0025	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	06/22/82-06/22/82	0	1	
TUMA0028	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	12/15/86-04/13/87	0	5	
TUMA0034	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	03/23/98-03/23/98	0	1	
TUMA0050	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	03/24/98-03/24/98	0	1	
TUMA0060	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	11/03/97-11/03/97	0	1	
TUMA0062	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	12/15/86-09/19/92	5	15	
TUMA0081	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	09/19/91-09/19/91	0	1	
TUMA0085	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	11/28/80-11/28/80	0	1	
TUMA0088	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	02/23/93-02/23/93	0	1	
TUMA0090	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	11/04/97-11/04/97	0	1	
TUMA0094	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	11/04/97-11/04/97	0	1	
TUMA0098	No	01005	BARIUM, DISSOLVED (UG/L AS BA)	09/19/92-09/19/92	0	2	
TUMA0002	No	01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-11/12/86	0	3	
TUMA0003	No	01007	BARIUM, TOTAL (UG/L AS BA)	11/12/86-11/29/99	13	53	T,S
TUMA0006	No	01007	BARIUM, TOTAL (UG/L AS BA)	10/15/86-11/29/99	13	77	T,S
TUMA0013	No	01007	BARIUM, TOTAL (UG/L AS BA)	03/23/98-03/23/98	0	1	
TUMA0017	No	01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-10/15/86	0	3	
TUMA0028	No	01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-07/19/88	1	15	
TUMA0034	No	01007	BARIUM, TOTAL (UG/L AS BA)	03/23/98-03/23/98	0	1	
TUMA0037	No	01007	BARIUM, TOTAL (UG/L AS BA)	04/29/92-05/19/98	6	14	
TUMA0045	No	01007	BARIUM, TOTAL (UG/L AS BA)	09/07/80-09/07/80	0	1	
TUMA0046	No	01007	BARIUM, TOTAL (UG/L AS BA)	09/07/80-09/07/80	0	1	
TUMA0050	No	01007	BARIUM, TOTAL (UG/L AS BA)	03/24/98-03/24/98	0	1	
TUMA0062	No	01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-09/19/92	6	45	
TUMA0064	No	01007	BARIUM, TOTAL (UG/L AS BA)	01/30/76-05/07/79	3	25	
TUMA0068	No	01007	BARIUM, TOTAL (UG/L AS BA)	04/29/92-04/29/92	0	2	
TUMA0069	No	01007	BARIUM, TOTAL (UG/L AS BA)	04/29/92-05/20/98	6	11	
TUMA0074	No	01007	BARIUM, TOTAL (UG/L AS BA)	04/04/91-04/04/91	0	1	
TUMA0076	No	01007	BARIUM, TOTAL (UG/L AS BA)	03/28/92-03/28/92	0	1	
TUMA0077	No	01007	BARIUM, TOTAL (UG/L AS BA)	03/28/92-03/28/92	0	1	
TUMA0081	No	01007	BARIUM, TOTAL (UG/L AS BA)	09/19/91-09/19/91	0	1	
TUMA0083	No	01007	BARIUM, TOTAL (UG/L AS BA)	03/28/92-03/28/92	0	1	
TUMA0088	No	01007	BARIUM, TOTAL (UG/L AS BA)	02/23/93-02/23/93	0	1	
TUMA0095	No	01007	BARIUM, TOTAL (UG/L AS BA)	01/05/92-01/05/92	0	1	
TUMA0098	No	01007	BARIUM, TOTAL (UG/L AS BA)	09/19/92-09/19/92	0	2	
TUMA0003	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	05/22/89-11/29/99	10	21	
TUMA0006	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	05/22/89-11/29/99	10	40	T
TUMA0013	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	03/23/98-03/23/98	0	1	
TUMA0022	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/03/97-11/03/97	0	1	
TUMA0025	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	06/22/82-06/22/82	0	1	
TUMA0034	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	03/23/98-03/23/98	0	1	
TUMA0050	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	03/24/98-03/24/98	0	1	
TUMA0060	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/03/97-11/03/97	0	1	
TUMA0062	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	05/22/89-09/19/92	3	10	
TUMA0081	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	09/19/91-09/19/91	0	1	
TUMA0085	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/28/80-11/28/80	0	1	
TUMA0088	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	02/23/93-02/23/93	0	1	
TUMA0090	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/04/97-11/04/97	0	1	
TUMA0094	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/04/97-11/04/97	0	1	
TUMA0098	No	01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	09/19/92-09/19/92	0	2	
TUMA0003	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	11	42	T
TUMA0006	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	11	64	T
TUMA0013	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/23/98-03/23/98	0	1	
TUMA0028	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-07/19/88	0	1	
TUMA0034	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/23/98-03/23/98	0	1	
TUMA0037	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/29/92-05/19/98	6	11	
TUMA0050	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/24/98-03/24/98	0	1	
TUMA0062	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-09/19/92	4	34	
TUMA0068	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/29/92-04/29/92	0	2	
TUMA0069	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/29/92-05/20/98	6	11	
TUMA0074	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/04/91-04/04/91	0	1	
TUMA0076	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/28/92-03/28/92	0	1	
TUMA0077	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/28/92-03/28/92	0	1	
TUMA0081	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	09/19/91-09/19/91	0	1	
TUMA0083	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/28/92-03/28/92	0	1	
TUMA0088	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	02/23/93-02/23/93	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0095	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	01/05/92-01/05/92	0	1	
TUMA0098	No	01012	BERYLLIUM, TOTAL (UG/L AS BE)	09/19/92-09/19/92	0	2	
TUMA0014	No	01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0003	No	01020	BORON, DISSOLVED (UG/L AS B)	05/22/89-04/07/98	8	18	
TUMA0006	No	01020	BORON, DISSOLVED (UG/L AS B)	05/22/89-10/21/98	9	35	
TUMA0009	No	01020	BORON, DISSOLVED (UG/L AS B)	10/10/77-10/10/77	0	1	
TUMA0013	No	01020	BORON, DISSOLVED (UG/L AS B)	03/23/98-03/23/98	0	1	
TUMA0025	No	01020	BORON, DISSOLVED (UG/L AS B)	07/11/85-07/11/85	0	1	
TUMA0034	No	01020	BORON, DISSOLVED (UG/L AS B)	03/23/98-03/23/98	0	1	
TUMA0050	No	01020	BORON, DISSOLVED (UG/L AS B)	03/24/98-03/24/98	0	1	
TUMA0062	No	01020	BORON, DISSOLVED (UG/L AS B)	05/22/89-09/19/92	3	10	
TUMA0064	No	01020	BORON, DISSOLVED (UG/L AS B)	01/30/76-12/02/77	1	22	
TUMA0081	No	01020	BORON, DISSOLVED (UG/L AS B)	09/19/91-09/19/91	0	1	
TUMA0085	No	01020	BORON, DISSOLVED (UG/L AS B)	11/28/80-11/28/80	0	1	
TUMA0088	No	01020	BORON, DISSOLVED (UG/L AS B)	02/23/93-02/23/93	0	1	
TUMA0098	No	01020	BORON, DISSOLVED (UG/L AS B)	09/19/92-09/19/92	0	2	
TUMA0002	No	01022	BORON, TOTAL (UG/L AS B)	08/11/86-11/12/86	0	3	
TUMA0003	No	01022	BORON, TOTAL (UG/L AS B)	11/12/86-11/29/99	13	53	T,S
TUMA0006	No	01022	BORON, TOTAL (UG/L AS B)	10/15/86-11/29/99	13	77	T,S
TUMA0013	No	01022	BORON, TOTAL (UG/L AS B)	03/23/98-03/23/98	0	1	
TUMA0017	No	01022	BORON, TOTAL (UG/L AS B)	08/11/86-10/15/86	0	3	
TUMA0028	No	01022	BORON, TOTAL (UG/L AS B)	08/11/86-07/19/88	1	15	
TUMA0034	No	01022	BORON, TOTAL (UG/L AS B)	03/23/98-03/23/98	0	1	
TUMA0050	No	01022	BORON, TOTAL (UG/L AS B)	03/24/98-03/24/98	0	1	
TUMA0062	No	01022	BORON, TOTAL (UG/L AS B)	08/11/86-09/19/92	6	45	
TUMA0064	No	01022	BORON, TOTAL (UG/L AS B)	01/30/76-05/07/79	3	26	
TUMA0074	No	01022	BORON, TOTAL (UG/L AS B)	04/04/91-04/04/91	0	1	
TUMA0076	No	01022	BORON, TOTAL (UG/L AS B)	03/28/92-03/28/92	0	1	
TUMA0077	No	01022	BORON, TOTAL (UG/L AS B)	03/28/92-03/28/92	0	1	
TUMA0081	No	01022	BORON, TOTAL (UG/L AS B)	09/19/91-09/19/91	0	1	
TUMA0083	No	01022	BORON, TOTAL (UG/L AS B)	03/28/92-03/28/92	0	1	
TUMA0088	No	01022	BORON, TOTAL (UG/L AS B)	02/23/93-02/23/93	0	1	
TUMA0095	No	01022	BORON, TOTAL (UG/L AS B)	01/05/92-01/05/92	0	1	
TUMA0098	No	01022	BORON, TOTAL (UG/L AS B)	09/19/92-09/19/92	0	2	
TUMA0003	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	12	25	
TUMA0006	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	12	43	T,S
TUMA0013	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/23/98-03/23/98	0	1	
TUMA0022	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/03/97-11/03/97	0	1	
TUMA0025	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	06/22/82-06/22/82	0	1	
TUMA0028	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/15/86-05/19/87	0	5	
TUMA0034	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/23/98-03/23/98	0	1	
TUMA0050	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/24/98-03/24/98	0	1	
TUMA0060	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/03/97-11/03/97	0	1	
TUMA0062	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/15/86-09/19/92	5	14	
TUMA0064	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	01/30/76-01/30/76	0	1	
TUMA0081	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	09/19/91-09/19/91	0	1	
TUMA0085	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/28/80-11/28/80	0	1	
TUMA0088	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	02/23/93-02/23/93	0	1	
TUMA0090	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/04/97-11/04/97	0	1	
TUMA0094	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/04/97-11/04/97	0	1	
TUMA0098	No	01025	CADMIUM, DISSOLVED (UG/L AS CD)	09/19/92-09/19/92	0	2	
TUMA0064	No	01026	CADMIUM, SUSPENDED (UG/L AS CD)	01/30/76-02/23/76	0	2	
TUMA0002	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-11/12/86	0	3	
TUMA0003	No	01027	CADMIUM, TOTAL (UG/L AS CD)	11/12/86-11/29/99	13	55	T,S
TUMA0005	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	0	1	
TUMA0006	No	01027	CADMIUM, TOTAL (UG/L AS CD)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/05/73-04/05/73	0	1	
TUMA0013	No	01027	CADMIUM, TOTAL (UG/L AS CD)	03/23/98-03/23/98	0	1	
TUMA0015	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	0	1	
TUMA0017	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-10/15/86	0	3	
TUMA0028	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-07/19/88	1	15	
TUMA0030	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/05/73-04/05/73	0	1	
TUMA0034	No	01027	CADMIUM, TOTAL (UG/L AS CD)	03/23/98-03/23/98	0	1	
TUMA0037	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/29/92-05/19/98	6	14	
TUMA0045	No	01027	CADMIUM, TOTAL (UG/L AS CD)	09/07/80-01/13/81	0	2	
TUMA0046	No	01027	CADMIUM, TOTAL (UG/L AS CD)	09/07/80-03/07/81	0	3	
TUMA0047	No	01027	CADMIUM, TOTAL (UG/L AS CD)	03/06/81-03/07/81	0	2	
TUMA0048	No	01027	CADMIUM, TOTAL (UG/L AS CD)	09/07/80-03/07/81	0	4	
TUMA0050	No	01027	CADMIUM, TOTAL (UG/L AS CD)	03/24/98-03/24/98	0	1	
TUMA0052	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	0	1	
TUMA0062	No	01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-09/19/92	6	51	
TUMA0064	No	01027	CADMIUM, TOTAL (UG/L AS CD)	01/30/76-05/07/79	3	25	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0068	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/29/92-04/29/92	0	2	
TUMA0069	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/29/92-05/20/98	6	11	
TUMA0073	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	0	1	
TUMA0074	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/04/91-04/04/91	0	1	
TUMA0076	No	01027	CADMIUM, TOTAL (UG/L AS CD)	03/28/92-03/28/92	0	1	
TUMA0077	No	01027	CADMIUM, TOTAL (UG/L AS CD)	03/28/92-03/28/92	0	1	
TUMA0079	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	0	1	
TUMA0081	No	01027	CADMIUM, TOTAL (UG/L AS CD)	09/19/91-09/19/91	0	1	
TUMA0082	No	01027	CADMIUM, TOTAL (UG/L AS CD)	04/10/73-04/10/73	0	1	
TUMA0083	No	01027	CADMIUM, TOTAL (UG/L AS CD)	03/28/92-03/28/92	0	1	
TUMA0088	No	01027	CADMIUM, TOTAL (UG/L AS CD)	02/23/93-02/23/93	0	1	
TUMA0095	No	01027	CADMIUM, TOTAL (UG/L AS CD)	01/05/92-01/05/92	0	1	
TUMA0098	No	01027	CADMIUM, TOTAL (UG/L AS CD)	09/19/92-09/19/92	0	2	
TUMA0014	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0064	No	01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0014	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0064	No	01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0003	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	12	26	
TUMA0006	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	12	45	T,S
TUMA0013	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/23/98-03/23/98	0	1	
TUMA0022	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/03/97-11/03/97	0	1	
TUMA0028	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/15/86-04/13/87	0	5	
TUMA0034	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/23/98-03/23/98	0	1	
TUMA0050	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/24/98-03/24/98	0	1	
TUMA0060	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/03/97-11/03/97	0	1	
TUMA0062	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/15/86-09/19/92	5	15	
TUMA0081	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	09/19/91-09/19/91	0	1	
TUMA0088	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	02/23/93-02/23/93	0	1	
TUMA0090	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/04/97-11/04/97	0	1	
TUMA0094	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/04/97-11/04/97	0	1	
TUMA0098	No	01030	CHROMIUM, DISSOLVED (UG/L AS CR)	09/19/92-09/19/92	0	2	
TUMA0025	No	01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	06/22/82-06/22/82	0	1	
TUMA0033	No	01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	06/16/71-01/24/72	0	2	
TUMA0085	No	01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	11/28/80-11/28/80	0	1	
TUMA0002	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-11/12/86	0	3	
TUMA0003	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	11/12/86-11/29/99	13	55	T,S
TUMA0005	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	0	1	
TUMA0006	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/05/73-04/05/73	0	1	
TUMA0013	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/23/98-03/23/98	0	1	
TUMA0015	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	0	1	
TUMA0017	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-10/15/86	0	3	
TUMA0028	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-07/19/88	1	15	
TUMA0030	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/05/73-04/05/73	0	1	
TUMA0034	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/23/98-03/23/98	0	1	
TUMA0037	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/29/92-05/19/98	6	14	
TUMA0045	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	09/07/80-01/13/81	0	2	
TUMA0046	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	09/07/80-03/07/81	0	3	
TUMA0047	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/06/81-03/07/81	0	2	
TUMA0048	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	09/07/80-03/07/81	0	4	
TUMA0050	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/98-03/24/98	0	1	
TUMA0052	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	0	1	
TUMA0062	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-09/19/92	6	51	
TUMA0064	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/25/76-11/28/78	2	11	
TUMA0068	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/29/92-04/29/92	0	2	
TUMA0069	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/29/92-05/20/98	6	11	
TUMA0074	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/04/91-04/04/91	0	1	
TUMA0076	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/28/92-03/28/92	0	1	
TUMA0077	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/28/92-03/28/92	0	1	
TUMA0079	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	0	1	
TUMA0081	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	09/19/91-09/19/91	0	1	
TUMA0082	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	04/10/73-04/10/73	0	1	
TUMA0083	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	03/28/92-03/28/92	0	1	
TUMA0088	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	02/23/93-02/23/93	0	1	
TUMA0095	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	01/05/92-01/05/92	0	1	
TUMA0098	No	01034	CHROMIUM, TOTAL (UG/L AS CR)	09/19/92-09/19/92	0	2	
TUMA0022	No	01035	COBALT, DISSOLVED (UG/L AS CO)	11/03/97-11/03/97	0	1	
TUMA0025	No	01035	COBALT, DISSOLVED (UG/L AS CO)	06/22/82-06/22/82	0	1	
TUMA0060	No	01035	COBALT, DISSOLVED (UG/L AS CO)	11/03/97-11/03/97	0	1	
TUMA0085	No	01035	COBALT, DISSOLVED (UG/L AS CO)	11/28/80-11/28/80	0	1	
TUMA0090	No	01035	COBALT, DISSOLVED (UG/L AS CO)	11/04/97-11/04/97	0	1	
TUMA0094	No	01035	COBALT, DISSOLVED (UG/L AS CO)	11/04/97-11/04/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0003	No	01040	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	12	26	
TUMA0006	No	01040	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	12	45	T,S
TUMA0013	No	01040	COPPER, DISSOLVED (UG/L AS CU)	03/23/98-03/23/98	0	1	
TUMA0022	No	01040	COPPER, DISSOLVED (UG/L AS CU)	11/03/97-11/03/97	0	1	
TUMA0025	No	01040	COPPER, DISSOLVED (UG/L AS CU)	06/22/82-06/22/82	0	1	
TUMA0028	No	01040	COPPER, DISSOLVED (UG/L AS CU)	12/15/86-04/13/87	0	5	
TUMA0034	No	01040	COPPER, DISSOLVED (UG/L AS CU)	03/23/98-03/23/98	0	1	
TUMA0050	No	01040	COPPER, DISSOLVED (UG/L AS CU)	03/24/98-03/24/98	0	1	
TUMA0060	No	01040	COPPER, DISSOLVED (UG/L AS CU)	11/03/97-11/03/97	0	1	
TUMA0062	No	01040	COPPER, DISSOLVED (UG/L AS CU)	12/15/86-09/19/92	5	15	
TUMA0081	No	01040	COPPER, DISSOLVED (UG/L AS CU)	09/19/91-09/19/91	0	1	
TUMA0085	No	01040	COPPER, DISSOLVED (UG/L AS CU)	11/28/80-11/28/80	0	1	
TUMA0088	No	01040	COPPER, DISSOLVED (UG/L AS CU)	02/23/93-02/23/93	0	1	
TUMA0090	No	01040	COPPER, DISSOLVED (UG/L AS CU)	11/04/97-11/04/97	0	1	
TUMA0094	No	01040	COPPER, DISSOLVED (UG/L AS CU)	11/04/97-11/04/97	0	1	
TUMA0098	No	01040	COPPER, DISSOLVED (UG/L AS CU)	09/19/92-09/19/92	0	2	
TUMA0002	No	01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-11/12/86	0	3	
TUMA0003	No	01042	COPPER, TOTAL (UG/L AS CU)	11/12/86-11/29/99	13	55	T,S
TUMA0005	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	0	1	
TUMA0006	No	01042	COPPER, TOTAL (UG/L AS CU)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	01042	COPPER, TOTAL (UG/L AS CU)	04/05/73-04/05/73	0	1	
TUMA0013	No	01042	COPPER, TOTAL (UG/L AS CU)	03/23/98-03/23/98	0	1	
TUMA0015	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	0	1	
TUMA0017	No	01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-10/15/86	0	3	
TUMA0020	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	0	1	
TUMA0023	No	01042	COPPER, TOTAL (UG/L AS CU)	04/26/73-04/26/73	0	1	
TUMA0027	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	0	1	
TUMA0028	No	01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-07/19/88	1	15	
TUMA0030	No	01042	COPPER, TOTAL (UG/L AS CU)	04/05/73-04/05/73	0	1	
TUMA0033	No	01042	COPPER, TOTAL (UG/L AS CU)	10/17/69-01/24/72	2	5	
TUMA0034	No	01042	COPPER, TOTAL (UG/L AS CU)	03/23/98-03/23/98	0	1	
TUMA0038	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	0	1	
TUMA0045	No	01042	COPPER, TOTAL (UG/L AS CU)	09/07/80-01/13/81	0	2	
TUMA0046	No	01042	COPPER, TOTAL (UG/L AS CU)	09/07/80-03/07/81	0	3	
TUMA0047	No	01042	COPPER, TOTAL (UG/L AS CU)	03/06/81-03/07/81	0	2	
TUMA0048	No	01042	COPPER, TOTAL (UG/L AS CU)	09/07/80-03/07/81	0	4	
TUMA0050	No	01042	COPPER, TOTAL (UG/L AS CU)	03/24/98-03/24/98	0	1	
TUMA0062	No	01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-09/19/92	6	51	
TUMA0064	No	01042	COPPER, TOTAL (UG/L AS CU)	01/30/76-05/07/79	3	25	
TUMA0066	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	0	1	
TUMA0067	No	01042	COPPER, TOTAL (UG/L AS CU)	04/20/73-04/20/73	0	1	
TUMA0073	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	0	1	
TUMA0074	No	01042	COPPER, TOTAL (UG/L AS CU)	04/04/91-04/04/91	0	1	
TUMA0075	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/27/73	0	2	
TUMA0076	No	01042	COPPER, TOTAL (UG/L AS CU)	03/28/92-03/28/92	0	1	
TUMA0077	No	01042	COPPER, TOTAL (UG/L AS CU)	03/28/92-03/28/92	0	1	
TUMA0079	No	01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/26/73	0	2	
TUMA0081	No	01042	COPPER, TOTAL (UG/L AS CU)	09/19/91-09/19/91	0	1	
TUMA0082	No	01042	COPPER, TOTAL (UG/L AS CU)	04/10/73-04/10/73	0	1	
TUMA0083	No	01042	COPPER, TOTAL (UG/L AS CU)	03/28/92-03/28/92	0	1	
TUMA0088	No	01042	COPPER, TOTAL (UG/L AS CU)	02/23/93-02/23/93	0	1	
TUMA0095	No	01042	COPPER, TOTAL (UG/L AS CU)	01/05/92-01/05/92	0	1	
TUMA0098	No	01042	COPPER, TOTAL (UG/L AS CU)	09/19/92-09/19/92	0	2	
TUMA0014	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0064	No	01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0002	No	01045	IRON, TOTAL (UG/L AS FE)	08/11/86-11/12/86	0	3	
TUMA0003	No	01045	IRON, TOTAL (UG/L AS FE)	11/12/86-11/29/99	13	53	T,S
TUMA0005	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0006	No	01045	IRON, TOTAL (UG/L AS FE)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	01045	IRON, TOTAL (UG/L AS FE)	04/05/73-04/05/73	0	1	
TUMA0013	No	01045	IRON, TOTAL (UG/L AS FE)	03/23/98-03/23/98	0	1	
TUMA0015	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0017	No	01045	IRON, TOTAL (UG/L AS FE)	08/11/86-10/15/86	0	3	
TUMA0020	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0023	No	01045	IRON, TOTAL (UG/L AS FE)	04/26/73-04/26/73	0	1	
TUMA0027	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0028	No	01045	IRON, TOTAL (UG/L AS FE)	08/11/86-07/19/88	1	15	
TUMA0030	No	01045	IRON, TOTAL (UG/L AS FE)	04/05/73-04/05/73	0	1	
TUMA0033	No	01045	IRON, TOTAL (UG/L AS FE)	10/17/69-01/24/72	2	5	
TUMA0034	No	01045	IRON, TOTAL (UG/L AS FE)	03/23/98-03/23/98	0	1	
TUMA0038	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0045	No	01045	IRON, TOTAL (UG/L AS FE)	09/07/80-01/13/81	0	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0046	No	01045	IRON, TOTAL (UG/L AS FE)	09/07/80-03/07/81	0	3	
TUMA0047	No	01045	IRON, TOTAL (UG/L AS FE)	03/06/81-03/07/81	0	2	
TUMA0048	No	01045	IRON, TOTAL (UG/L AS FE)	09/07/80-03/07/81	0	4	
TUMA0050	No	01045	IRON, TOTAL (UG/L AS FE)	03/24/98-03/24/98	0	1	
TUMA0059	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0062	No	01045	IRON, TOTAL (UG/L AS FE)	08/11/86-09/19/92	6	45	
TUMA0064	No	01045	IRON, TOTAL (UG/L AS FE)	01/30/76-05/07/79	3	25	
TUMA0066	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0067	No	01045	IRON, TOTAL (UG/L AS FE)	04/20/73-04/20/73	0	1	
TUMA0073	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	0	1	
TUMA0074	No	01045	IRON, TOTAL (UG/L AS FE)	04/04/91-04/04/91	0	1	
TUMA0075	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/27/73	0	2	
TUMA0076	No	01045	IRON, TOTAL (UG/L AS FE)	03/28/92-03/28/92	0	1	
TUMA0077	No	01045	IRON, TOTAL (UG/L AS FE)	03/28/92-03/28/92	0	1	
TUMA0079	No	01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/26/73	0	2	
TUMA0081	No	01045	IRON, TOTAL (UG/L AS FE)	09/19/91-09/19/91	0	1	
TUMA0082	No	01045	IRON, TOTAL (UG/L AS FE)	04/10/73-04/10/73	0	1	
TUMA0083	No	01045	IRON, TOTAL (UG/L AS FE)	03/28/92-03/28/92	0	1	
TUMA0088	No	01045	IRON, TOTAL (UG/L AS FE)	02/23/93-02/23/93	0	1	
TUMA0095	No	01045	IRON, TOTAL (UG/L AS FE)	01/05/92-01/05/92	0	1	
TUMA0098	No	01045	IRON, TOTAL (UG/L AS FE)	09/19/92-09/19/92	0	2	
TUMA0003	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/22/89-04/07/98	8	20	
TUMA0006	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/22/89-10/21/98	9	37	
TUMA0009	No	01046	IRON, DISSOLVED (UG/L AS FE)	10/10/77-10/10/77	0	1	
TUMA0013	No	01046	IRON, DISSOLVED (UG/L AS FE)	03/23/98-03/23/98	0	1	
TUMA0022	No	01046	IRON, DISSOLVED (UG/L AS FE)	11/03/97-11/03/97	0	1	
TUMA0025	No	01046	IRON, DISSOLVED (UG/L AS FE)	06/22/82-06/22/82	0	1	
TUMA0034	No	01046	IRON, DISSOLVED (UG/L AS FE)	03/23/98-03/23/98	0	1	
TUMA0050	No	01046	IRON, DISSOLVED (UG/L AS FE)	03/24/98-03/24/98	0	1	
TUMA0060	No	01046	IRON, DISSOLVED (UG/L AS FE)	11/03/97-11/03/97	0	1	
TUMA0062	No	01046	IRON, DISSOLVED (UG/L AS FE)	05/22/89-09/19/92	3	10	
TUMA0064	No	01046	IRON, DISSOLVED (UG/L AS FE)	01/30/76-12/02/77	1	23	
TUMA0081	No	01046	IRON, DISSOLVED (UG/L AS FE)	09/19/91-09/19/91	0	1	
TUMA0085	No	01046	IRON, DISSOLVED (UG/L AS FE)	11/28/80-11/28/80	0	1	
TUMA0088	No	01046	IRON, DISSOLVED (UG/L AS FE)	02/23/93-02/23/93	0	1	
TUMA0090	No	01046	IRON, DISSOLVED (UG/L AS FE)	11/04/97-11/04/97	0	1	
TUMA0094	No	01046	IRON, DISSOLVED (UG/L AS FE)	11/07/95-11/04/97	1	21	
TUMA0098	No	01046	IRON, DISSOLVED (UG/L AS FE)	09/19/92-09/19/92	0	2	
TUMA0003	No	01049	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	12	26	
TUMA0006	No	01049	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	12	45	T,S
TUMA0013	No	01049	LEAD, DISSOLVED (UG/L AS PB)	03/23/98-03/23/98	0	1	
TUMA0022	No	01049	LEAD, DISSOLVED (UG/L AS PB)	11/03/97-11/03/97	0	1	
TUMA0025	No	01049	LEAD, DISSOLVED (UG/L AS PB)	06/22/82-06/22/82	0	1	
TUMA0028	No	01049	LEAD, DISSOLVED (UG/L AS PB)	12/15/86-04/13/87	0	5	
TUMA0034	No	01049	LEAD, DISSOLVED (UG/L AS PB)	03/23/98-03/23/98	0	1	
TUMA0050	No	01049	LEAD, DISSOLVED (UG/L AS PB)	03/24/98-03/24/98	0	1	
TUMA0060	No	01049	LEAD, DISSOLVED (UG/L AS PB)	11/03/97-11/03/97	0	1	
TUMA0062	No	01049	LEAD, DISSOLVED (UG/L AS PB)	12/15/86-09/19/92	5	15	
TUMA0081	No	01049	LEAD, DISSOLVED (UG/L AS PB)	09/19/91-09/19/91	0	1	
TUMA0085	No	01049	LEAD, DISSOLVED (UG/L AS PB)	11/28/80-11/28/80	0	1	
TUMA0088	No	01049	LEAD, DISSOLVED (UG/L AS PB)	02/23/93-02/23/93	0	1	
TUMA0090	No	01049	LEAD, DISSOLVED (UG/L AS PB)	11/04/97-11/04/97	0	1	
TUMA0094	No	01049	LEAD, DISSOLVED (UG/L AS PB)	11/04/97-11/04/97	0	1	
TUMA0098	No	01049	LEAD, DISSOLVED (UG/L AS PB)	09/19/92-09/19/92	0	2	
TUMA0002	No	01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-11/12/86	0	3	
TUMA0003	No	01051	LEAD, TOTAL (UG/L AS PB)	11/12/86-11/29/99	13	55	T,S
TUMA0005	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0006	No	01051	LEAD, TOTAL (UG/L AS PB)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	01051	LEAD, TOTAL (UG/L AS PB)	04/05/73-04/05/73	0	1	
TUMA0013	No	01051	LEAD, TOTAL (UG/L AS PB)	03/23/98-03/23/98	0	1	
TUMA0015	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0017	No	01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-10/15/86	0	3	
TUMA0020	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0027	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0028	No	01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-07/19/88	1	15	
TUMA0030	No	01051	LEAD, TOTAL (UG/L AS PB)	04/05/73-04/05/73	0	1	
TUMA0034	No	01051	LEAD, TOTAL (UG/L AS PB)	03/23/98-03/23/98	0	1	
TUMA0037	No	01051	LEAD, TOTAL (UG/L AS PB)	04/29/92-05/19/98	6	14	
TUMA0038	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0045	No	01051	LEAD, TOTAL (UG/L AS PB)	09/07/80-01/13/81	0	2	
TUMA0046	No	01051	LEAD, TOTAL (UG/L AS PB)	09/07/80-03/07/81	0	3	
TUMA0047	No	01051	LEAD, TOTAL (UG/L AS PB)	03/06/81-03/07/81	0	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0048	No	01051	LEAD, TOTAL (UG/L AS PB)	09/07/80-03/07/81	0	4	
TUMA0050	No	01051	LEAD, TOTAL (UG/L AS PB)	03/24/98-03/24/98	0	1	
TUMA0052	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0062	No	01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-09/19/92	6	51	
TUMA0064	No	01051	LEAD, TOTAL (UG/L AS PB)	01/30/76-05/07/79	3	25	
TUMA0066	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0068	No	01051	LEAD, TOTAL (UG/L AS PB)	04/29/92-04/29/92	0	2	
TUMA0069	No	01051	LEAD, TOTAL (UG/L AS PB)	04/29/92-05/20/98	6	11	
TUMA0073	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0074	No	01051	LEAD, TOTAL (UG/L AS PB)	04/04/91-04/04/91	0	1	
TUMA0075	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0076	No	01051	LEAD, TOTAL (UG/L AS PB)	03/28/92-03/28/92	0	1	
TUMA0077	No	01051	LEAD, TOTAL (UG/L AS PB)	03/28/92-03/28/92	0	1	
TUMA0079	No	01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	0	1	
TUMA0081	No	01051	LEAD, TOTAL (UG/L AS PB)	09/19/91-09/19/91	0	1	
TUMA0082	No	01051	LEAD, TOTAL (UG/L AS PB)	04/10/73-04/10/73	0	1	
TUMA0083	No	01051	LEAD, TOTAL (UG/L AS PB)	03/28/92-03/28/92	0	1	
TUMA0088	No	01051	LEAD, TOTAL (UG/L AS PB)	02/23/93-02/23/93	0	1	
TUMA0095	No	01051	LEAD, TOTAL (UG/L AS PB)	01/05/92-01/05/92	0	1	
TUMA0098	No	01051	LEAD, TOTAL (UG/L AS PB)	09/19/92-09/19/92	0	2	
TUMA0014	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0064	No	01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0002	No	01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-11/12/86	0	3	
TUMA0003	No	01055	MANGANESE, TOTAL (UG/L AS MN)	11/12/86-11/29/99	13	53	T,S
TUMA0006	No	01055	MANGANESE, TOTAL (UG/L AS MN)	10/15/86-11/29/99	13	78	T,S
TUMA0013	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/23/98-03/23/98	0	1	
TUMA0017	No	01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-10/15/86	0	3	
TUMA0023	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/26/73-04/26/73	0	1	
TUMA0028	No	01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-07/19/88	1	15	
TUMA0033	No	01055	MANGANESE, TOTAL (UG/L AS MN)	05/28/70-01/24/72	1	3	
TUMA0034	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/23/98-03/23/98	0	1	
TUMA0045	No	01055	MANGANESE, TOTAL (UG/L AS MN)	09/07/80-01/13/81	0	2	
TUMA0046	No	01055	MANGANESE, TOTAL (UG/L AS MN)	09/07/80-03/07/81	0	3	
TUMA0047	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/06/81-03/07/81	0	2	
TUMA0048	No	01055	MANGANESE, TOTAL (UG/L AS MN)	09/07/80-03/07/81	0	4	
TUMA0050	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/98-03/24/98	0	1	
TUMA0062	No	01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-09/19/92	6	46	
TUMA0064	No	01055	MANGANESE, TOTAL (UG/L AS MN)	01/30/76-05/07/79	3	25	
TUMA0074	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/04/91-04/04/91	0	1	
TUMA0076	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/28/92-03/28/92	0	1	
TUMA0077	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/28/92-03/28/92	0	1	
TUMA0079	No	01055	MANGANESE, TOTAL (UG/L AS MN)	04/26/73-04/26/73	0	1	
TUMA0081	No	01055	MANGANESE, TOTAL (UG/L AS MN)	09/19/91-09/19/91	0	1	
TUMA0083	No	01055	MANGANESE, TOTAL (UG/L AS MN)	03/28/92-03/28/92	0	1	
TUMA0088	No	01055	MANGANESE, TOTAL (UG/L AS MN)	02/23/93-02/23/93	0	1	
TUMA0095	No	01055	MANGANESE, TOTAL (UG/L AS MN)	01/05/92-01/05/92	0	1	
TUMA0098	No	01055	MANGANESE, TOTAL (UG/L AS MN)	09/19/92-09/19/92	0	2	
TUMA0003	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/89-04/07/98	8	19	
TUMA0006	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/89-10/21/98	9	36	
TUMA0009	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	10/10/77-10/10/77	0	1	
TUMA0013	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/23/98-03/23/98	0	1	
TUMA0022	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/03/97-11/03/97	0	1	
TUMA0024	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/15/80-03/15/80	0	1	
TUMA0025	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	06/22/82-07/11/85	3	2	
TUMA0034	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/23/98-03/23/98	0	1	
TUMA0050	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/24/98-03/24/98	0	1	
TUMA0060	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/03/97-11/03/97	0	1	
TUMA0062	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/89-09/19/92	3	10	
TUMA0064	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	01/30/76-12/02/77	1	23	
TUMA0072	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/10/80-03/10/80	0	1	
TUMA0081	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	09/19/91-09/19/91	0	1	
TUMA0085	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/28/80-11/28/80	0	1	
TUMA0086	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/07/80-03/07/80	0	1	
TUMA0088	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	02/23/93-02/23/93	0	1	
TUMA0090	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/04/97-11/04/97	0	1	
TUMA0092	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/07/80-03/07/80	0	1	
TUMA0094	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	10/11/95-11/04/97	2	26	
TUMA0098	No	01056	MANGANESE, DISSOLVED (UG/L AS MN)	09/19/92-09/19/92	0	2	
TUMA0003	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	05/22/89-11/29/99	10	21	
TUMA0006	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	05/22/89-11/29/99	10	40	T
TUMA0013	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	03/23/98-03/23/98	0	1	
TUMA0034	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	03/23/98-03/23/98	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0050	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	03/24/98-03/24/98	0	1	
TUMA0062	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	05/22/89-09/19/92	3	10	
TUMA0081	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	09/19/91-09/19/91	0	1	
TUMA0088	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	02/23/93-02/23/93	0	1	
TUMA0098	No	01057	THALLIUM, DISSOLVED (UG/L AS TL)	09/19/92-09/19/92	0	2	
TUMA0003	No	01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	11	42	T
TUMA0006	No	01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	11	63	T
TUMA0013	No	01059	THALLIUM, TOTAL (UG/L AS TL)	03/23/98-03/23/98	0	1	
TUMA0028	No	01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-07/19/88	0	1	
TUMA0034	No	01059	THALLIUM, TOTAL (UG/L AS TL)	03/23/98-03/23/98	0	1	
TUMA0037	No	01059	THALLIUM, TOTAL (UG/L AS TL)	04/29/92-04/29/92	0	3	
TUMA0050	No	01059	THALLIUM, TOTAL (UG/L AS TL)	03/24/98-03/24/98	0	1	
TUMA0062	No	01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-09/19/92	4	34	
TUMA0068	No	01059	THALLIUM, TOTAL (UG/L AS TL)	04/29/92-04/29/92	0	2	
TUMA0069	No	01059	THALLIUM, TOTAL (UG/L AS TL)	04/29/92-04/29/92	0	3	
TUMA0074	No	01059	THALLIUM, TOTAL (UG/L AS TL)	04/04/91-04/04/91	0	1	
TUMA0076	No	01059	THALLIUM, TOTAL (UG/L AS TL)	03/28/92-03/28/92	0	1	
TUMA0077	No	01059	THALLIUM, TOTAL (UG/L AS TL)	03/28/92-03/28/92	0	1	
TUMA0081	No	01059	THALLIUM, TOTAL (UG/L AS TL)	09/19/91-09/19/91	0	1	
TUMA0083	No	01059	THALLIUM, TOTAL (UG/L AS TL)	03/28/92-03/28/92	0	1	
TUMA0088	No	01059	THALLIUM, TOTAL (UG/L AS TL)	02/23/93-02/23/93	0	1	
TUMA0095	No	01059	THALLIUM, TOTAL (UG/L AS TL)	01/05/92-01/05/92	0	1	
TUMA0098	No	01059	THALLIUM, TOTAL (UG/L AS TL)	09/19/92-09/19/92	0	2	
TUMA0022	No	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/03/97-11/03/97	0	1	
TUMA0025	No	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	06/22/82-06/22/82	0	1	
TUMA0060	No	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/03/97-11/03/97	0	1	
TUMA0085	No	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/28/80-11/28/80	0	1	
TUMA0090	No	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/04/97-11/04/97	0	1	
TUMA0094	No	01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/04/97-11/04/97	0	1	
TUMA0003	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/22/89-11/29/99	10	21	
TUMA0006	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/22/89-11/29/99	10	40	T
TUMA0013	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/23/98-03/23/98	0	1	
TUMA0022	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	11/03/97-11/03/97	0	1	
TUMA0034	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/23/98-03/23/98	0	1	
TUMA0050	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	03/24/98-03/24/98	0	1	
TUMA0060	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	11/03/97-11/03/97	0	1	
TUMA0062	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	05/22/89-09/19/92	3	10	
TUMA0081	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	09/19/91-09/19/91	0	1	
TUMA0088	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	02/23/93-02/23/93	0	1	
TUMA0090	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	11/04/97-11/04/97	0	1	
TUMA0094	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	11/04/97-11/04/97	0	1	
TUMA0098	No	01065	NICKEL, DISSOLVED (UG/L AS NI)	09/19/92-09/19/92	0	2	
TUMA0003	No	01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	11	42	T
TUMA0006	No	01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	11	64	T
TUMA0013	No	01067	NICKEL, TOTAL (UG/L AS NI)	03/23/98-03/23/98	0	1	
TUMA0028	No	01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-07/19/88	0	1	
TUMA0034	No	01067	NICKEL, TOTAL (UG/L AS NI)	03/23/98-03/23/98	0	1	
TUMA0037	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/29/92-04/29/92	0	3	
TUMA0050	No	01067	NICKEL, TOTAL (UG/L AS NI)	03/24/98-03/24/98	0	1	
TUMA0062	No	01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-09/19/92	4	34	
TUMA0068	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/29/92-04/29/92	0	2	
TUMA0069	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/29/92-04/29/92	0	3	
TUMA0074	No	01067	NICKEL, TOTAL (UG/L AS NI)	04/04/91-04/04/91	0	1	
TUMA0076	No	01067	NICKEL, TOTAL (UG/L AS NI)	03/28/92-03/28/92	0	1	
TUMA0077	No	01067	NICKEL, TOTAL (UG/L AS NI)	03/28/92-03/28/92	0	1	
TUMA0081	No	01067	NICKEL, TOTAL (UG/L AS NI)	09/19/91-09/19/91	0	1	
TUMA0083	No	01067	NICKEL, TOTAL (UG/L AS NI)	03/28/92-03/28/92	0	1	
TUMA0088	No	01067	NICKEL, TOTAL (UG/L AS NI)	02/23/93-02/23/93	0	1	
TUMA0095	No	01067	NICKEL, TOTAL (UG/L AS NI)	01/05/92-01/05/92	0	1	
TUMA0098	No	01067	NICKEL, TOTAL (UG/L AS NI)	09/19/92-09/19/92	0	2	
TUMA0014	No	01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0003	No	01075	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	12	26	
TUMA0006	No	01075	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	12	45	T,S
TUMA0013	No	01075	SILVER, DISSOLVED (UG/L AS AG)	03/23/98-03/23/98	0	1	
TUMA0022	No	01075	SILVER, DISSOLVED (UG/L AS AG)	11/03/97-11/03/97	0	1	
TUMA0028	No	01075	SILVER, DISSOLVED (UG/L AS AG)	12/15/86-04/13/87	0	5	
TUMA0034	No	01075	SILVER, DISSOLVED (UG/L AS AG)	03/23/98-03/23/98	0	1	
TUMA0050	No	01075	SILVER, DISSOLVED (UG/L AS AG)	03/24/98-03/24/98	0	1	
TUMA0060	No	01075	SILVER, DISSOLVED (UG/L AS AG)	11/03/97-11/03/97	0	1	
TUMA0062	No	01075	SILVER, DISSOLVED (UG/L AS AG)	12/15/86-09/19/92	5	15	
TUMA0081	No	01075	SILVER, DISSOLVED (UG/L AS AG)	09/19/91-09/19/91	0	1	
TUMA0088	No	01075	SILVER, DISSOLVED (UG/L AS AG)	02/23/93-02/23/93	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0090	No	01075	SILVER, DISSOLVED (UG/L AS AG)	11/04/97-11/04/97	0	1	
TUMA0094	No	01075	SILVER, DISSOLVED (UG/L AS AG)	11/04/97-11/04/97	0	1	
TUMA0098	No	01075	SILVER, DISSOLVED (UG/L AS AG)	09/19/92-09/19/92	0	2	
TUMA0002	No	01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-11/12/86	0	3	
TUMA0003	No	01077	SILVER, TOTAL (UG/L AS AG)	11/12/86-11/29/99	13	54	T,S
TUMA0006	No	01077	SILVER, TOTAL (UG/L AS AG)	10/15/86-11/29/99	13	76	T,S
TUMA0013	No	01077	SILVER, TOTAL (UG/L AS AG)	03/23/98-03/23/98	0	1	
TUMA0015	No	01077	SILVER, TOTAL (UG/L AS AG)	04/06/73-04/06/73	0	1	
TUMA0017	No	01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-10/15/86	0	3	
TUMA0028	No	01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-07/19/88	1	15	
TUMA0034	No	01077	SILVER, TOTAL (UG/L AS AG)	03/23/98-03/23/98	0	1	
TUMA0037	No	01077	SILVER, TOTAL (UG/L AS AG)	04/29/92-05/19/98	6	14	
TUMA0045	No	01077	SILVER, TOTAL (UG/L AS AG)	09/07/80-01/13/81	0	2	
TUMA0046	No	01077	SILVER, TOTAL (UG/L AS AG)	09/07/80-03/07/81	0	3	
TUMA0047	No	01077	SILVER, TOTAL (UG/L AS AG)	03/06/81-03/07/81	0	2	
TUMA0048	No	01077	SILVER, TOTAL (UG/L AS AG)	09/07/80-03/07/81	0	4	
TUMA0050	No	01077	SILVER, TOTAL (UG/L AS AG)	03/24/98-03/24/98	0	1	
TUMA0052	No	01077	SILVER, TOTAL (UG/L AS AG)	04/06/73-04/06/73	0	1	
TUMA0062	No	01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-09/19/92	6	50	
TUMA0064	No	01077	SILVER, TOTAL (UG/L AS AG)	01/30/76-12/02/77	1	22	
TUMA0068	No	01077	SILVER, TOTAL (UG/L AS AG)	04/29/92-04/29/92	0	2	
TUMA0069	No	01077	SILVER, TOTAL (UG/L AS AG)	04/29/92-05/20/98	6	11	
TUMA0074	No	01077	SILVER, TOTAL (UG/L AS AG)	04/04/91-04/04/91	0	1	
TUMA0076	No	01077	SILVER, TOTAL (UG/L AS AG)	03/28/92-03/28/92	0	1	
TUMA0077	No	01077	SILVER, TOTAL (UG/L AS AG)	03/28/92-03/28/92	0	1	
TUMA0079	No	01077	SILVER, TOTAL (UG/L AS AG)	04/06/73-04/06/73	0	1	
TUMA0081	No	01077	SILVER, TOTAL (UG/L AS AG)	09/19/91-09/19/91	0	1	
TUMA0082	No	01077	SILVER, TOTAL (UG/L AS AG)	04/10/73-04/10/73	0	1	
TUMA0083	No	01077	SILVER, TOTAL (UG/L AS AG)	03/28/92-03/28/92	0	1	
TUMA0088	No	01077	SILVER, TOTAL (UG/L AS AG)	02/23/93-02/23/93	0	1	
TUMA0095	No	01077	SILVER, TOTAL (UG/L AS AG)	01/05/92-01/05/92	0	1	
TUMA0098	No	01077	SILVER, TOTAL (UG/L AS AG)	09/19/92-09/19/92	0	2	
TUMA0014	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0064	No	01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	05/26/77-05/07/79	1	2	
TUMA0003	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	05/22/89-09/24/93	4	14	
TUMA0006	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	05/22/89-09/24/93	4	16	
TUMA0025	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	06/22/82-06/22/82	0	1	
TUMA0062	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	05/22/89-09/19/92	3	10	
TUMA0081	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	09/19/91-09/19/91	0	1	
TUMA0085	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	11/28/80-11/28/80	0	1	
TUMA0088	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	02/23/93-02/23/93	0	1	
TUMA0098	No	01080	STRONTIUM, DISSOLVED (UG/L AS SR)	09/19/92-09/19/92	0	2	
TUMA0003	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	11/21/88-09/24/93	4	25	
TUMA0006	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	11/21/88-09/24/93	4	30	
TUMA0062	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	11/21/88-09/19/92	3	25	
TUMA0074	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	04/04/91-04/04/91	0	1	
TUMA0076	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	03/28/92-03/28/92	0	1	
TUMA0077	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	03/28/92-03/28/92	0	1	
TUMA0081	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	09/19/91-09/19/91	0	1	
TUMA0083	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	03/28/92-03/28/92	0	1	
TUMA0088	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	02/23/93-02/23/93	0	1	
TUMA0095	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	01/05/92-01/05/92	0	1	
TUMA0098	No	01082	STRONTIUM, TOTAL (UG/L AS SR)	09/19/92-09/19/92	0	2	
TUMA0024	No	01085	VANADIUM, DISSOLVED (UG/L AS V)	03/15/80-03/15/80	0	1	
TUMA0025	No	01085	VANADIUM, DISSOLVED (UG/L AS V)	06/22/82-06/22/82	0	1	
TUMA0072	No	01085	VANADIUM, DISSOLVED (UG/L AS V)	03/10/80-03/10/80	0	1	
TUMA0085	No	01085	VANADIUM, DISSOLVED (UG/L AS V)	11/28/80-11/28/80	0	1	
TUMA0086	No	01085	VANADIUM, DISSOLVED (UG/L AS V)	03/07/80-03/07/80	0	1	
TUMA0092	No	01085	VANADIUM, DISSOLVED (UG/L AS V)	03/07/80-03/07/80	0	1	
TUMA0003	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	12	26	
TUMA0006	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	12	45	T,S
TUMA0013	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	03/23/98-03/23/98	0	1	
TUMA0022	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	11/03/97-11/03/97	0	1	
TUMA0025	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	06/22/82-06/22/82	0	1	
TUMA0028	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	12/15/86-04/13/87	0	5	
TUMA0034	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	03/23/98-03/23/98	0	1	
TUMA0050	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	03/24/98-03/24/98	0	1	
TUMA0060	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	11/03/97-11/03/97	0	1	
TUMA0062	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	12/15/86-09/19/92	5	15	
TUMA0081	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	09/19/91-09/19/91	0	1	
TUMA0085	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	11/28/80-11/28/80	0	1	
TUMA0088	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	02/23/93-02/23/93	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0090	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	11/04/97-11/04/97	0	1	
TUMA0094	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	11/04/97-11/04/97	0	1	
TUMA0098	No	01090	ZINC, DISSOLVED (UG/L AS ZN)	09/19/92-09/19/92	0	2	
TUMA0002	No	01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-11/12/86	0	3	
TUMA0003	No	01092	ZINC, TOTAL (UG/L AS ZN)	11/12/86-11/29/99	13	55	T,S
TUMA0005	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0006	No	01092	ZINC, TOTAL (UG/L AS ZN)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/05/73-04/05/73	0	1	
TUMA0013	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/23/98-03/23/98	0	1	
TUMA0015	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0017	No	01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-10/15/86	0	3	
TUMA0020	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0027	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0028	No	01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-07/19/88	1	15	
TUMA0030	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/05/73-04/05/73	0	1	
TUMA0034	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/23/98-03/23/98	0	1	
TUMA0038	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0045	No	01092	ZINC, TOTAL (UG/L AS ZN)	09/07/80-01/13/81	0	2	
TUMA0046	No	01092	ZINC, TOTAL (UG/L AS ZN)	09/07/80-03/07/81	0	3	
TUMA0047	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/06/81-03/07/81	0	2	
TUMA0048	No	01092	ZINC, TOTAL (UG/L AS ZN)	09/07/80-03/07/81	0	4	
TUMA0050	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/24/98-03/24/98	0	1	
TUMA0052	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0062	No	01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-09/19/92	6	51	
TUMA0064	No	01092	ZINC, TOTAL (UG/L AS ZN)	01/30/76-05/07/79	3	25	
TUMA0066	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0074	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/04/91-04/04/91	0	1	
TUMA0075	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0076	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/28/92-03/28/92	0	1	
TUMA0077	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/28/92-03/28/92	0	1	
TUMA0079	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	0	1	
TUMA0081	No	01092	ZINC, TOTAL (UG/L AS ZN)	09/19/91-09/19/91	0	1	
TUMA0082	No	01092	ZINC, TOTAL (UG/L AS ZN)	04/10/73-04/10/73	0	1	
TUMA0083	No	01092	ZINC, TOTAL (UG/L AS ZN)	03/28/92-03/28/92	0	1	
TUMA0088	No	01092	ZINC, TOTAL (UG/L AS ZN)	02/23/93-02/23/93	0	1	
TUMA0095	No	01092	ZINC, TOTAL (UG/L AS ZN)	01/05/92-01/05/92	0	1	
TUMA0098	No	01092	ZINC, TOTAL (UG/L AS ZN)	09/19/92-09/19/92	0	2	
TUMA0014	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0064	No	01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0003	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	05/22/89-11/29/99	10	21	
TUMA0006	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	05/22/89-11/29/99	10	40	T
TUMA0022	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/03/97-11/03/97	0	1	
TUMA0060	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/03/97-11/03/97	0	1	
TUMA0062	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	05/22/89-09/19/92	3	10	
TUMA0081	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	09/19/91-09/19/91	0	1	
TUMA0088	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	02/23/93-02/23/93	0	1	
TUMA0090	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/04/97-11/04/97	0	1	
TUMA0094	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/04/97-11/04/97	0	1	
TUMA0098	No	01095	ANTIMONY, DISSOLVED (UG/L AS SB)	09/19/92-09/19/92	0	2	
TUMA0003	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	11	40	T
TUMA0006	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	11	63	T
TUMA0028	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-07/19/88	0	1	
TUMA0037	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	04/29/92-04/29/92	0	3	
TUMA0062	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-09/19/92	4	33	
TUMA0068	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	04/29/92-04/29/92	0	2	
TUMA0069	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	04/29/92-04/29/92	0	3	
TUMA0074	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	04/04/91-04/04/91	0	1	
TUMA0076	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	03/28/92-03/28/92	0	1	
TUMA0077	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	03/28/92-03/28/92	0	1	
TUMA0081	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	09/19/91-09/19/91	0	1	
TUMA0083	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	03/28/92-03/28/92	0	1	
TUMA0088	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	02/23/93-02/23/93	0	1	
TUMA0095	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	01/05/92-01/05/92	0	1	
TUMA0098	No	01097	ANTIMONY, TOTAL (UG/L AS SB)	09/19/92-09/19/92	0	2	
TUMA0014	No	01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0022	No	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/03/97-11/03/97	0	1	
TUMA0060	No	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/03/97-11/03/97	0	1	
TUMA0085	No	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/28/80-11/28/80	0	1	
TUMA0090	No	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/04/97-11/04/97	0	1	
TUMA0094	No	01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/04/97-11/04/97	0	1	
TUMA0025	No	01130	LITHIUM, DISSOLVED (UG/L AS LI)	06/22/82-06/22/82	0	1	
TUMA0085	No	01130	LITHIUM, DISSOLVED (UG/L AS LI)	11/28/80-11/28/80	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0003	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	12	26	
TUMA0006	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	12	44	T,S
TUMA0013	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/23/98-03/23/98	0	1	
TUMA0022	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/03/97-11/03/97	0	1	
TUMA0028	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/15/86-04/13/87	0	5	
TUMA0034	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/23/98-03/23/98	0	1	
TUMA0050	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/24/98-03/24/98	0	1	
TUMA0060	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/03/97-11/03/97	0	1	
TUMA0062	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/15/86-09/19/92	5	15	
TUMA0081	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	09/19/91-09/19/91	0	1	
TUMA0085	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/28/80-11/28/80	0	1	
TUMA0088	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	02/23/93-02/23/93	0	1	
TUMA0090	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/04/97-11/04/97	0	1	
TUMA0094	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/04/97-11/04/97	0	1	
TUMA0098	No	01145	SELENIUM, DISSOLVED (UG/L AS SE)	09/19/92-09/19/92	0	2	
TUMA0002	No	01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-11/12/86	0	3	
TUMA0003	No	01147	SELENIUM, TOTAL (UG/L AS SE)	11/12/86-11/29/99	13	55	T,S
TUMA0006	No	01147	SELENIUM, TOTAL (UG/L AS SE)	10/15/86-11/29/99	13	76	T,S
TUMA0013	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/23/98-03/23/98	0	1	
TUMA0017	No	01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-10/15/86	0	3	
TUMA0028	No	01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-07/19/88	1	15	
TUMA0034	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/23/98-03/23/98	0	1	
TUMA0037	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/29/92-05/19/98	6	13	
TUMA0045	No	01147	SELENIUM, TOTAL (UG/L AS SE)	09/07/80-01/13/81	0	2	
TUMA0046	No	01147	SELENIUM, TOTAL (UG/L AS SE)	09/07/80-03/07/81	0	3	
TUMA0047	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/06/81-03/07/81	0	2	
TUMA0048	No	01147	SELENIUM, TOTAL (UG/L AS SE)	09/07/80-03/07/81	0	4	
TUMA0050	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/24/98-03/24/98	0	1	
TUMA0062	No	01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-09/19/92	6	51	
TUMA0064	No	01147	SELENIUM, TOTAL (UG/L AS SE)	01/30/76-05/07/79	3	23	
TUMA0068	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/29/92-04/29/92	0	2	
TUMA0069	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/29/92-05/20/98	6	11	
TUMA0074	No	01147	SELENIUM, TOTAL (UG/L AS SE)	04/04/91-04/04/91	0	1	
TUMA0076	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/28/92-03/28/92	0	1	
TUMA0077	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/28/92-03/28/92	0	1	
TUMA0081	No	01147	SELENIUM, TOTAL (UG/L AS SE)	09/19/91-09/19/91	0	1	
TUMA0083	No	01147	SELENIUM, TOTAL (UG/L AS SE)	03/28/92-03/28/92	0	1	
TUMA0088	No	01147	SELENIUM, TOTAL (UG/L AS SE)	02/23/93-02/23/93	0	1	
TUMA0095	No	01147	SELENIUM, TOTAL (UG/L AS SE)	01/05/92-01/05/92	0	1	
TUMA0098	No	01147	SELENIUM, TOTAL (UG/L AS SE)	09/19/92-09/19/92	0	2	
TUMA0008	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0014	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0043	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0049	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0064	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0084	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0091	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0099	No	01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0094	No	01300	OIL-GREASE (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0094	No	01305	DETERGENT SUDS (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0094	No	01320	GARBAGE, FLOATING (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0094	No	01325	ALGAE, FLOATING MATS (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0094	No	01330	ODOR, ATMOSPHERIC (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0094	No	01340	FISH, DEAD (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0094	No	01345	DEBRIS, FLOATING (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0094	No	01350	TURBIDITY (SEVERITY)	10/11/95-09/10/97	1	25	
TUMA0022	No	04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0022	No	04037	PROMETON, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04037	PROMETON, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04037	PROMETON, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04037	PROMETON, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	22703	URANIUM, NATURAL, DISSOLVED	11/03/97-11/03/97	0	1	
TUMA0060	No	22703	URANIUM, NATURAL, DISSOLVED	11/03/97-11/03/97	0	1	
TUMA0090	No	22703	URANIUM, NATURAL, DISSOLVED	11/04/97-11/04/97	0	1	
TUMA0094	No	22703	URANIUM, NATURAL, DISSOLVED	11/04/97-11/04/97	0	1	
TUMA0022	No	30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	0	1	
TUMA0033	No	31501	COLIFORM,TOT,MEMBRANE FILTER,IMMED.M-ENDO MED,35C	12/07/70-01/24/72	1	4	
TUMA0071	No	31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/10/86-08/13/86	0	5	
TUMA0003	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	03/30/88-11/29/99	11	21	
TUMA0006	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-11/29/99	11	45	T
TUMA0028	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-01/26/88	0	1	
TUMA0033	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/10/71-06/16/71	0	2	
TUMA0039	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	11/28/77-02/20/80	2	11	
TUMA0062	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	03/30/88-07/21/92	4	15	
TUMA0074	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	04/04/91-04/04/91	0	1	
TUMA0088	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	02/23/93-02/23/93	0	1	
TUMA0096	No	31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	10/24/95-10/24/95	0	1	
TUMA0071	No	31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/10/86-08/13/86	0	5	
TUMA0005	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/17/73	0	4	
TUMA0010	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	0	2	
TUMA0015	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	0	1	
TUMA0020	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	0	2	
TUMA0023	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	0	1	
TUMA0026	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	0	3	
TUMA0027	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	0	1	
TUMA0030	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	0	3	
TUMA0033	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	08/31/76-07/06/77	0	10	
TUMA0038	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	0	1	
TUMA0039	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	08/31/76-08/03/77	0	11	
TUMA0042	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	0	1	
TUMA0051	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	0	1	
TUMA0052	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/17/73	0	4	
TUMA0058	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/11/73	0	2	
TUMA0059	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/11/73	0	2	
TUMA0064	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	01/30/76-09/30/76	0	9	
TUMA0066	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	0	2	
TUMA0073	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/11/73-04/11/73	0	1	
TUMA0075	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	0	2	
TUMA0078	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	0	1	
TUMA0079	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/13/73	0	2	
TUMA0080	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/17/73-04/17/73	0	1	
TUMA0082	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/11/73	0	2	
TUMA0097	No	31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	0	2	
TUMA0064	No	31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	10/28/76-05/07/79	2	17	
TUMA0003	No	31648	E. COLI - MTEC-MF N0/100ML	05/25/94-11/29/99	5	7	
TUMA0006	No	31648	E. COLI - MTEC-MF N0/100ML	11/29/93-11/29/99	6	20	
TUMA0003	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/30/88-04/07/98	10	16	
TUMA0006	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	10	34	
TUMA0007	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	1	16	
TUMA0028	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-01/26/88	0	1	
TUMA0040	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	02/24/98-12/28/99	1	6	
TUMA0062	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	07/24/89-07/21/92	2	12	
TUMA0064	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	05/07/79-05/07/79	0	1	
TUMA0065	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	1	17	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0074	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	04/04/91-04/04/91	0	1	
TUMA0088	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	02/23/93-02/23/93	0	1	
TUMA0089	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	1	16	
TUMA0100	No	31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	1	16	
TUMA0003	No	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	32104	BROMOFORM,WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	32106	CHLOROFORM,WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	32106	CHLOROFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	32106	CHLOROFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	32106	CHLOROFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	32106	CHLOROFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0036	No	32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	05/25/95-05/25/95	0	1	
TUMA0037	No	32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	04/29/92-05/19/98	6	4	
TUMA0069	No	32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	04/29/92-05/20/98	6	4	
TUMA0036	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	05/25/95-05/25/95	0	1	
TUMA0037	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	12/16/97-05/19/98	0	3	
TUMA0069	No	32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	04/29/92-05/20/98	6	4	
TUMA0064	No	32226	CHLOROPHYLL B, PERIPHYTON, SPECTRO, MG/M2	10/28/76-10/28/76	0	1	
TUMA0064	No	32228	CHLOROPHYLL A, PERIPHYTON, SPECTRO, MG/M2	10/28/76-10/28/76	0	1	
TUMA0064	No	32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	02/23/76-05/07/79	3	23	
TUMA0003	No	34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	07/22/91-07/22/91	0	1	
TUMA0022	No	34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0060	No	34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0090	No	34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0094	No	34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0003	No	34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	07/22/91-07/22/91	0	1	
TUMA0022	No	34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0060	No	34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0090	No	34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0094	No	34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	0	1	
TUMA0014	No	34203	ACENAPHTHYLENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34208	ACENAPHTHENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34213	ACROLEIN DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34218	ACRYLONITRILE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34237	BENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34250	BENZO-A-PYRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34253	A-BHC-ALPHA DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	34253	A-BHC-ALPHA DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	34253	A-BHC-ALPHA DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	34253	A-BHC-ALPHA DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0014	No	34257	B-BHC-BETA DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34276	BIS (2-CHLOROETHYL) ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34281	BIS (2-CHLOROETHOXY) METHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0014	No	34286	BIS (2-CHLOROISOPROPYL) ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34290	BROMOFORM DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34295	N-BUTYL BENZYL PHTHALATE,SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34299	CARBON TETRACHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34301	CHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34304	CHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34309	CHLORODIBROMOMETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34314	CHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34318	CHLOROFORM DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34323	CHRYSENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34330	DICHLOROBROMOMETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34339	DIETHYL PHTHALATE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34344	DIMETHYL PHTHALATE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34349	1,2-DIPHENYLHYDRAZINE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34354	ENDOSULFAN SULFATE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34364	ENDOSULFAN, ALPHA DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34371	ETHYLBENZENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34374	ETHYLBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34379	FLUORANTHENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34384	FLUORENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34389	HEXACHLOROCYCLOPENTADIENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34399	HEXACHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34411	ISOPHORONE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34413	METHYL BROMIDE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34416	METHYL BROMIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34418	METHYL CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34418	METHYL CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34418	METHYL CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34418	METHYL CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34421	METHYL CHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34426	METHYLENE CHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34431	N-NITROSODI-N-PROPYLAMINE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34436	N-NITROSODIPHENYLAMINE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34441	N-NITROSODIMETHYLAMINE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34445	NAPHTHALENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34450	NITROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34455	PARACHLOROMETA CRESOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34464	PHENANTHRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34472	PYRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34478	TETRACHLOROETHYLENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34480	THALLIUM DRY WGTBOTMG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34483	TOLUENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0003	No	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34491	TRICHLOROFLUOROMETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34495	VINYL CHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34496	1,1-DICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34499	1,1-DICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34501	1,1-DICHLOROETHYLENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34504	1,1-DICHLOROETHYLENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34509	1,1,1-TRICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34514	1,1,2-TRICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34519	1,1,2,2-TETRACHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34529	BENZO(A)ANTHRACENE1,2-BENZANTHRACENDRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34531	1,2-DICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0014	No	34534	1,2-DICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34536	1,2-DICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34539	1,2-DICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34541	1,2-DICHLOROPROPANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34544	1,2-DICHLOROPROPANE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34549	TRANS-1,2-DICHLOROETHENE, IN SED. DRY WT. UG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34554	1,2,4-TRICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34559	1,2,5,6-DIBENZANTHRACENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34564	1,3-DICHLOROPROPENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34566	1,3-DICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0014	No	34569	1,3-DICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34571	1,4-DICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34571	1,4-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34571	1,4-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34571	1,4-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34571	1,4-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34574	1,4-DICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34579	2-CHLOROETHYL VINYL ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34584	2-CHLORONAPHTHALENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34589	2-CHLOROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34594	2-NITROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34599	DI-N-OCTYL PHTHALATE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34604	2,4-DICHLOROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34609	2,4-DIMETHYLPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34619	2,4-DINITROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34624	2,4,6-TRICHLOROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34629	2,6-DINITROTOLUENE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34634	3,3'-DICHLOROBENZIDINE DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34639	4-BROMOPHENYL PHENYL ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34644	4-CHLOROPHENYL PHENYL ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	34649	4-NITROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0022	No	34653	P,P'-DDE DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	34653	P,P'-DDE DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	34653	P,P'-DDE DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	34653	P,P'-DDE DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0014	No	34660	DNOC (4,6-DINITRO-ORTHO-CRESOL) DRY WGTBOTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34668	DICHLORODIFUOROMETHANE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	34695	PHENOL(C6H5OH)-SINGLE COMPOUND DRY WGTTUG/KG	05/17/84-05/17/84	0	1	
TUMA0003	No	34696	NAPHTHALENE TOTWUG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0056	No	34790	SURFACTANTS, AS CTAS, WATER MG/L	05/09/96-05/09/96	0	1	
TUMA0094	No	34790	SURFACTANTS, AS CTAS, WATER MG/L	05/07/96-05/07/96	0	1	
TUMA0056	No	34795	ANTIMONY,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34795	ANTIMONY,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34800	ARSENIC,SED,BOT,WET SIEVE,	05/09/96-05/09/96	0	1	
TUMA0094	No	34800	ARSENIC,SED,BOT,WET SIEVE,	05/07/96-05/07/96	0	1	
TUMA0056	No	34805	BARIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34805	BARIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34810	BERYLLIUM,SED,BOT,WET SIEVE,	05/09/96-05/09/96	0	1	
TUMA0094	No	34810	BERYLLIUM,SED,BOT,WET SIEVE,	05/07/96-05/07/96	0	1	
TUMA0056	No	34816	BISMUTH,SED,BOT,WET SIEVE,	05/09/96-05/09/96	0	1	
TUMA0094	No	34816	BISMUTH,SED,BOT,WET SIEVE,	05/07/96-05/07/96	0	1	
TUMA0056	No	34825	CADMIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34825	CADMIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34830	CALCIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34830	CALCIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34835	CERIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34835	CERIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34840	CHROMIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34840	CHROMIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34845	COBALT,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34845	COBALT,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34850	COPPER,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34850	COPPER,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34855	EUROPIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34855	EUROPIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34860	GALLIUM,SED,BOT,	05/09/96-05/09/96	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	34860	GALLIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34870	GOLD,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34870	GOLD,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34875	HOLMIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34875	HOLMIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34880	IRON,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34880	IRON,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34885	LANTHANUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34885	LANTHANUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34890	LEAD,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34890	LEAD,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34895	LITHIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34895	LITHIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34900	MAGNESIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34900	MAGNESIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34905	MANGANESE,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34905	MANGANESE,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34910	MERCURY,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34910	MERCURY,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34915	MOLYBDENUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34915	MOLYBDENUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34920	NEODYMIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34920	NEODYMIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34925	NICKEL,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34925	NICKEL,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34930	NIOBIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34930	NIOBIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34935	PHOSPHORUS,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34935	PHOSPHORUS,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34940	POTASSIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34940	POTASSIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34945	SCANDIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34945	SCANDIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34950	SELENIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34950	SELENIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34955	SILVER,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34955	SILVER,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34960	SODIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34960	SODIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34965	STRONTIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34965	STRONTIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34970	SULFUR,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34970	SULFUR,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34975	TANTALUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34975	TANTALUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34980	THORIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34980	THORIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	34985	TIN,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	34985	TIN,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	35000	URANIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	35000	URANIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	35005	VANADIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	35005	VANADIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	35010	YTTRIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	35010	YTTRIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	35015	YTTERBIUM,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	35015	YTTERBIUM,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0056	No	35020	ZINC,SED,BOT,	05/09/96-05/09/96	0	1	
TUMA0094	No	35020	ZINC,SED,BOT,	05/07/96-05/07/96	0	1	
TUMA0022	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38478	LINURON WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38478	LINURON WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38478	LINURON WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38478	LINURON WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38482	MCPA WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38482	MCPA WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38482	MCPA WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38482	MCPA WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38487	MCPB WATER,DISSUG/L	11/03/97-11/03/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0060	No	38487	MCPB WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38487	MCPB WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38487	MCPB WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38501	METHIOCARB WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38501	METHIOCARB WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38501	METHIOCARB WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38501	METHIOCARB WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38538	PROPOXUR WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38538	PROPOXUR WATER,DISSUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38538	PROPOXUR WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38538	PROPOXUR WATER,DISSUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38711	BENTAZON WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38711	BENTAZON WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38711	BENTAZON WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38711	BENTAZON WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38746	2,4-DB WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38746	2,4-DB WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38746	2,4-DB WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38746	2,4-DB WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38811	FLUOMETURON WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38811	FLUOMETURON WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38811	FLUOMETURON WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38811	FLUOMETURON WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38866	OXAMYL WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38866	OXAMYL WATER, DISUG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38866	OXAMYL WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38866	OXAMYL WATER, DISUG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	38933	CHLORPYRIFOS,DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	38933	CHLORPYRIFOS,DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	38933	CHLORPYRIFOS,DISSOLVED UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	38933	CHLORPYRIFOS,DISSOLVED UG/L	11/04/97-11/04/97	0	1	
TUMA0014	No	39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	05/17/84-05/17/84	0	1	
TUMA0022	No	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	10/11/95-11/04/97	2	27	
TUMA0014	No	39102	BIS(2-ETHYLHEXYL) PHTHALATE,SEDIMENT,DRY WGT,UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39112	DI-N-BUTYL PHTHALATE,SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39121	BENZIDINE IN BOTTOM DEPOS UG/KG DRY SOLIDS	05/17/84-05/17/84	0	1	
TUMA0022	No	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	0	1	
TUMA0014	No	39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0014	No	39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0014	No	39311	P,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0014	No	39316	O,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0014	No	39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0014	No	39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0014	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0064	No	39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/04/97-11/04/97	0	1	
TUMA0014	No	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	0	1	
TUMA0064	No	39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	06/21/76-06/21/76	0	1	
TUMA0014	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	0	1	
TUMA0064	No	39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	06/21/76-06/21/76	0	1	
TUMA0064	No	39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0064	No	39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0064	No	39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0060	No	39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0090	No	39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0014	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	05/17/84-05/17/84	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0064	No	39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/21/76-06/21/76	0	1	
TUMA0014	No	39389	ENDOSULFAN IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0014	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0064	No	39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0064	No	39399	ETHION IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0014	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	05/17/84-05/17/84	0	1	
TUMA0064	No	39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/21/76-06/21/76	0	1	
TUMA0014	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0064	No	39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/04/97-11/04/97	0	1	
TUMA0014	No	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	05/17/84-05/17/84	0	1	
TUMA0064	No	39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	06/21/76-06/21/76	0	1	
TUMA0014	No	39481	METHOXYCHLOR IN BOTTOM DEPOSITS (UG/KG DRY SOL.)	05/17/84-05/17/84	0	1	
TUMA0014	No	39491	PCB - 1221 BOT. DEP.,PCB SERIES DRY SOL UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39495	PCB - 1232 BOT. DEP.,PCB-SERIES DRY SOL UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39499	PCB - 1242 BOT. DEP.,PCB-SERIES DRY SOL UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39503	PCB - 1248 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39507	PCB - 1254 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39511	PCB - 1260 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	05/17/84-05/17/84	0	1	
TUMA0014	No	39514	PCB - 1016 IN BOTTOM SEDIMENTS DRY WT UG/KG	05/17/84-05/17/84	0	1	
TUMA0064	No	39519	PCBS IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0064	No	39531	MALATHION IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0060	No	39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0090	No	39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0064	No	39541	PARATHION IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0060	No	39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0090	No	39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0064	No	39571	DIAZINON IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0060	No	39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0090	No	39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0064	No	39601	METHYL PARATHION IN BOT. DEPOS.(UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39632	ATRAZINE DISSOLVED IN WATER PPB	11/03/97-11/03/97	0	1	
TUMA0060	No	39632	ATRAZINE DISSOLVED IN WATER PPB	11/03/97-11/03/97	0	1	
TUMA0090	No	39632	ATRAZINE DISSOLVED IN WATER PPB	11/04/97-11/04/97	0	1	
TUMA0094	No	39632	ATRAZINE DISSOLVED IN WATER PPB	11/04/97-11/04/97	0	1	
TUMA0014	No	39701	HEXACHLOROBENZENE IN BOT DEPOS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	0	1	
TUMA0003	No	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	07/22/91-07/22/91	0	1	
TUMA0022	No	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	0	1	
TUMA0060	No	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	0	1	
TUMA0090	No	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	0	1	
TUMA0094	No	39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	0	1	
TUMA0014	No	39705	HEXACHLOROBUTADIENE BOT. DEPOS.(UG/KG DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0064	No	39731	2,4-D IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0060	No	39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0090	No	39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0064	No	39741	2,4,5-T IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0060	No	39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0090	No	39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0064	No	39761	SILVEX IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0060	No	39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	0	1	
TUMA0090	No	39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	0	1	
TUMA0064	No	39787	TRITHION IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0064	No	39791	METHYL TRITHION IN BOT DEPOS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	0	1	
TUMA0022	No	46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/04/97-11/04/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0036	No	46460	CHLOROPHYLL-A, SPECTRO,CORRECT FOR PHEOPHYTIN UG/L	05/25/95-05/25/95	0	1	
TUMA0037	No	46460	CHLOROPHYLL-A, SPECTRO,CORRECT FOR PHEOPHYTIN UG/L	04/29/92-05/19/98	6	4	
TUMA0069	No	46460	CHLOROPHYLL-A, SPECTRO,CORRECT FOR PHEOPHYTIN UG/L	04/29/92-05/20/98	6	4	
TUMA0001	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	08/11/86-11/12/86	0	3	
TUMA0004	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	11/12/86-09/18/92	5	34	
TUMA0005	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0010	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/05/73-04/10/73	0	2	
TUMA0015	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0018	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	08/11/86-10/15/86	0	3	
TUMA0020	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/04/73-04/12/73	0	4	
TUMA0023	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0026	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/10/73-04/27/73	0	2	
TUMA0027	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/04/73-04/12/73	0	4	
TUMA0029	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	08/11/86-09/01/87	1	14	
TUMA0030	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/05/73-04/27/73	0	3	
TUMA0033	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/76-05/03/76	0	2	
TUMA0038	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/04/73-04/06/73	0	2	
TUMA0039	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/76-05/03/76	0	2	
TUMA0042	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/26/73	0	4	
TUMA0045	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	09/07/80-01/13/81	0	2	
TUMA0046	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	09/07/80-03/07/81	0	3	
TUMA0047	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	03/06/81-03/07/81	0	2	
TUMA0048	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	09/07/80-03/07/81	0	4	
TUMA0051	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/06/73	0	1	
TUMA0052	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/26/73	0	4	
TUMA0055	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/26/73-04/26/73	0	1	
TUMA0058	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/10/73-04/27/73	0	2	
TUMA0059	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/27/73	0	2	
TUMA0063	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	08/11/86-09/19/92	6	41	
TUMA0066	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/10/73	0	2	
TUMA0067	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/20/73-04/20/73	0	1	
TUMA0070	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	09/27/79-09/27/80	1	15	
TUMA0073	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0075	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/27/73	0	3	
TUMA0078	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/26/73-04/26/73	0	1	
TUMA0079	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/26/73	0	3	
TUMA0080	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/19/73-04/26/73	0	2	
TUMA0082	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/10/73-04/26/73	0	3	
TUMA0087	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/18/73-04/27/73	0	4	
TUMA0095	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	01/05/92-01/05/92	0	1	
TUMA0097	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	04/06/73-04/27/73	0	3	
TUMA0098	No	46570	HARDNESS, CA MG CALCULATED (MG/L AS CACO3)	09/19/92-09/19/92	0	2	
TUMA0037	No	47004	SOLIDS,TOTAL DISSOLVED (ELECT-CONDUCTIVITY) MG/L	12/16/97-05/19/98	0	41	
TUMA0069	No	47004	SOLIDS,TOTAL DISSOLVED (ELECT-CONDUCTIVITY) MG/L	12/17/97-05/20/98	0	40	
TUMA0022	No	49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49237	ALUMINUM, DRY WEIGHT, TISSUE/BIOTA,RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49238	BARIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49239	BORON, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49240	CHROMIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49241	COPPER, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49242	IRON, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49243	MANGANESE, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49244	STRONTIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49245	ZINC, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49246	ANTIMONY, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49247	ARSENIC, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49248	BERYLLIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49249	CADMIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49250	COBALT, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49251	LEAD, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49252	MOLYBDENUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49253	NICKEL, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49254	SELENIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49255	SILVER, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0094	No	49257	URANIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	49258	MERCURY, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0022	No	49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49261	ALPHA-BHC,D6, WET WT.,TISSUE,WHOLE ORG,RECV %	05/07/96-05/07/96	0	1	
TUMA0094	No	49264	BIPHENYL,3,5-DICHLORO-,WET WT,TISS,WHL ORG,RECV %	05/07/96-05/07/96	0	1	
TUMA0056	No	49266	CARBON,ORGANIC,DRY WEIGHT,SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49266	CARBON,ORGANIC,DRY WEIGHT,SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49267	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49267	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49269	CARBON,INORGANIC, DRY WT, SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49269	CARBON,INORGANIC, DRY WT, SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49270	CARBON,INORGANIC, DRY WT,SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49270	CARBON,INORGANIC, DRY WT,SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49271	CARBON,ORGANIC,DRY WT,SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49271	CARBON,ORGANIC,DRY WT,SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49272	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49272	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/07/96-05/07/96	0	1	
TUMA0094	No	49273	WATER PRESENT,DRY WT,TISSUE/BIOTA,LIVER,RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0056	No	49274	TITANIUM, DRY WT, SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49274	TITANIUM, DRY WT, SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49275	ALPHA-BHC,D6, DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49275	ALPHA-BHC,D6, DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49276	OCTACHLOROBIPHENYL,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49276	OCTACHLOROBIPHENYL,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49277	BIPHENYL,3,5-DICHLORO-,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49277	BIPHENYL,3,5-DICHLORO-,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49278	TERPHENYL,D14-,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49278	TERPHENYL,D14-,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49279	BIPHENYL, 2-FLUORO,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49279	BIPHENYL, 2-FLUORO,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49280	BENZENE,NITRO-,D5,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49280	BENZENE,NITRO-,D5,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0094	No	49289	LIPIDS, WET WEIGHT, TISSUE, WHOLE ORGANISM,RECV %	05/07/96-05/07/96	0	1	
TUMA0022	No	49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0060	No	49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	0	1	
TUMA0056	No	49316	NONACHLOR,CIS-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49316	NONACHLOR,CIS-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49317	NONACHLOR,TRANS-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49317	NONACHLOR,TRANS-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49318	OXYCHLORDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49318	OXYCHLORDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49319	ALDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49319	ALDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49320	CHLORDANE, CIS-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49320	CHLORDANE, CIS-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49321	CHLORDANE,TRANS-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49321	CHLORDANE,TRANS-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49322	CHLORONEB,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49322	CHLORONEB,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49324	DCPA,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49324	DCPA,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49325	DDD,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49325	DDD,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49326	DDD,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49326	DDD,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49327	DDE,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	49327	DDE,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49328	DDE,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49328	DDE,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49329	DDT,O,P'-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49329	DDT,O,P'-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49330	DDT,P,P'-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49330	DDT,P,P'-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49331	DIELDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49331	DIELDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49332	ENDOSULFAN I,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49332	ENDOSULFAN I,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49335	ENDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49335	ENDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49338	ALPHA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49338	ALPHA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49339	BETA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49339	BETA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49341	HEPTACHLOR,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49341	HEPTACHLOR,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49342	HEPTACHLOR EPOXIDE,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49342	HEPTACHLOR EPOXIDE,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49343	HEXACHLOROBENZENE,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49343	HEXACHLOROBENZENE,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49344	ISODRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49344	ISODRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49345	LINDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49345	LINDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49346	METHOXYCHLOR,P,P'-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49346	METHOXYCHLOR,P,P'-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49347	METHOXYCHLOR,O,P'-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49347	METHOXYCHLOR,O,P'-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49348	MIREX,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49348	MIREX,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49349	PERMETHRIN,CIS-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49349	PERMETHRIN,CIS-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49350	PERMETHRIN,TRANS-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49350	PERMETHRIN,TRANS-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49351	TOXAPHENE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49351	TOXAPHENE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0094	No	49353	ALDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49354	PCB, WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49355	TOXAPHENE, WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49356	PENTACHLOROANISOLE,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49357	OXYCHLORDANE,WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49358	NONACHLOR,TRANS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49359	NONACHLOR,CIS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49360	MIREX,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49361	METHOXYCHLOR,P,P'-,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49362	METHOXYCHLOR,O,P'-,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49363	LINDANE,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49364	DELTA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49365	BETA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49366	ALPHA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49367	HEXACHLOROBENZENE,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49368	HEPTACHLOR EPOXIDE,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49369	HEPTACHLOR,WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49370	ENDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49371	DIELDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49372	DDE,P,P',WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49373	DDE,O,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49374	DDD,O,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49375	DDD,P,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49376	DDT,P,P',WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49377	DDT,O,P',WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49378	DCPA,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49379	CHLORDANE,TRANS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	0	1	
TUMA0094	No	49380	CHLORDANE,CIS-,WET WEIGHT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	0	1	
TUMA0056	No	49381	DIBUTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49381	DIBUTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49382	DIOCTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49382	DIOCTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49383	DIETHYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0056	No	49384	DIMETHYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49384	DIMETHYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49387	PYRENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49387	PYRENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49388	METHYLPYRENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0056	No	49389	METHYLBENZO(A)PYRENE,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49389	METHYLBENZO(A)PYRENE,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49390	METHYLINDENO(1,2,3-CD)PYRENE,DRY WT,SEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49390	METHYLINDENO(1,2,3-CD)PYRENE,DRY WT,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49391	BIQUINOLINE,2,2'-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49391	BIQUINOLINE,2,2'-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49392	QUINOLINE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49392	QUINOLINE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49393	PHENANTHRIDINE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49393	PHENANTHRIDINE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49394	ISOQUINOLINE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49394	ISOQUINOLINE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49395	TOLUENE, 2,4-DINITRO-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49395	TOLUENE, 2,4-DINITRO-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49396	TOLUENE, 2,6-DINITRO-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49396	TOLUENE, 2,6-DINITRO-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49397	BENZO(K)FLUORANTHENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49397	BENZO(K)FLUORANTHENE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49398	METHYL-9H-FLUORENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49398	METHYL-9H-FLUORENE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49399	FLUORENE,9H-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49399	FLUORENE,9H-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49400	ISOPHORONE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49400	ISOPHORONE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49401	METHANE, BIS(2-CHLOROETHOXY),DRY WT,SEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49401	METHANE, BIS(2-CHLOROETHOXY),DRY WT,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49402	NAPHTHALENE, DRY WEIGHT, SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49402	NAPHTHALENE, DRY WEIGHT, SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49403	NAPHTHALENE, 1,2-DIMETHYL-,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49403	NAPHTHALENE, 1,2-DIMETHYL-,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49404	NAPHTHALENE, 1,6-DIMETHYL-,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49404	NAPHTHALENE, 1,6-DIMETHYL-,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49405	NAPHTHALENE, 2,3,6-TRIMETHYL-,DRY WT,SEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49405	NAPHTHALENE, 2,3,6-TRIMETHYL-,DRY WT,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49406	NAPHTHALENE, 2,6-DIMETHYL-,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0056	No	49407	NAPHTHALENE, 2-CHLORO-,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49407	NAPHTHALENE, 2-CHLORO-,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49408	BENZO(G,H,I)PERYLENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49408	BENZO(G,H,I)PERYLENE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49409	PHENANTHRENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49409	PHENANTHRENE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49410	METHYLPHENANTHRENE,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49410	METHYLPHENANTHRENE,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49411	CYCLOPENTA(DEF)PHENANTHRENE, 4H-,DRY WT,SEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49411	CYCLOPENTA(DEF)PHENANTHRENE, 4H-,DRY WT,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49413	PHENOL,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49413	PHENOL,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49421	XYLENOL, 3,5-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49421	XYLENOL, 3,5-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49422	M-CRESOL, 4-CHLORO-,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49422	M-CRESOL, 4-CHLORO-,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49424	PHENOL, C8-ALKYL-,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49424	PHENOL, C8-ALKYL-,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0094	No	49425	PHENOL, PENTACHLORO,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49426	PHTHALATE, BIS(2-ETHYLHEXYL)-,DRY WT,SEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49426	PHTHALATE, BIS(2-ETHYLHEXYL)-,DRY WT,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49427	PHTHALATE, BUTYL BENZYL, DRY WT,SED,SEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49427	PHTHALATE, BUTYL BENZYL, DRY WT,SED,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49428	ACENAPHTHYLENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49428	ACENAPHTHYLENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49429	ACENAPHTHENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49429	ACENAPHTHENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49430	ACRIDINE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49430	ACRIDINE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49431	N-NITROSO-DIPROPYLAMINE,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49431	N-NITROSO-DIPROPYLAMINE,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49433	N-NITROSO-DIPHENYLAMINE,DRY WT,SED,SEV	05/09/96-05/09/96	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	49433	N-NITROSO-DIPHENYLAMINE,DRY WT,SED,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49434	ANTHRACENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49434	ANTHRACENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49435	ANTHRACENE, 2-METHYL-,DRY WEIGHT,SED,SEV	05/09/96-05/09/96	0	1	
TUMA0056	No	49436	BENZ(A)ANTHRACENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49436	BENZ(A)ANTHRACENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49437	ANTHRAQUINONE, 9, 10-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49437	ANTHRAQUINONE, 9, 10-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49438	BENZENE, 1,2,4-TRICHLORO-,DRY WT,SED,SEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49438	BENZENE, 1,2,4-TRICHLORO-,DRY WT,SED,SEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49439	BENZENE, O-DICHLORO-,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49439	BENZENE, O-DICHLORO-,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49441	BENZENE, M-DICHLORO-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49441	BENZENE, M-DICHLORO-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49442	BENZENE, P-DICHLORO-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49442	BENZENE, P-DICHLORO-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49443	AZOBENZENE,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49443	AZOBENZENE,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49444	BENZENE, NITRO-,DRY WT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49444	BENZENE, NITRO-,DRY WT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49446	BENZENE,PENTACHLORONITRO-,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49446	BENZENE,PENTACHLORONITRO-,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49449	CARBAZOLE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49449	CARBAZOLE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49450	CHRYSENE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49450	CHRYSENE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49451	P-CRESOL,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49451	P-CRESOL,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49452	DIBENZOTHIOPHENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49452	DIBENZOTHIOPHENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49454	BROMOPHENYL, 4-PHENYL ETHER,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49454	BROMOPHENYL, 4-PHENYL ETHER,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49455	CHLOROPHENYL,4-PHENYL ETHER,SED,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49455	CHLOROPHENYL,4-PHENYL ETHER,SED,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49458	BENZO(B)FLUORANTHENE,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49458	BENZO(B)FLUORANTHENE,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49459	PCB,DRY WEIGHT,BED MATERIAL,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49459	PCB,DRY WEIGHT,BED MATERIAL,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49460	PENTACHLOROANISOLE,DRY WT,BED MAT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49460	PENTACHLOROANISOLE,DRY WT,BED MAT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0056	No	49461	DIBENZ(A,H)ANTHRACENE,DRY WT,SIEVE	05/09/96-05/09/96	0	1	
TUMA0094	No	49461	DIBENZ(A,H)ANTHRACENE,DRY WT,SIEVE	05/07/96-05/07/96	0	1	
TUMA0094	No	49465	VANADIUM,BIOTA,TISSUE,LIVER,DRY WEIGHT,RECV UG/G	05/07/96-05/07/96	0	2	
TUMA0056	No	49466	FLUORANTHENE,SED,BED MAT,WET SIEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49466	FLUORANTHENE,SED,BED MAT,WET SIEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49467	PHENOL, O-CHLORO,SED,BED MAT,WETSEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49467	PHENOL, O-CHLORO,SED,BED MAT,WETSEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49468	BENZO(C)CINNOLINE,SED,BED MAT,WETSEV	05/09/96-05/09/96	0	1	
TUMA0094	No	49468	BENZO(C)CINNOLINE,SED,BED MAT,WETSEV	05/07/96-05/07/96	0	1	
TUMA0056	No	49948	NAPHTHALENE,2-ETHYL-,BEDMAT,WETSIEV,	05/09/96-05/09/96	0	1	
TUMA0094	No	49948	NAPHTHALENE,2-ETHYL-,BEDMAT,WETSIEV,	05/07/96-05/07/96	0	1	
TUMA0022	No	49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0060	No	50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0006	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/21/95-11/29/99	4	19	
TUMA0007	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	1	21	
TUMA0011	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	0	1	
TUMA0012	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	0	1	
TUMA0013	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/23/98-03/23/98	0	1	
TUMA0016	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	0	1	
TUMA0019	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	0	1	
TUMA0032	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	0	1	
TUMA0033	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	06/16/71-06/16/71	0	1	
TUMA0040	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	02/24/98-12/28/99	1	5	
TUMA0041	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	0	1	
TUMA0043	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	0	1	
TUMA0049	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	0	1	
TUMA0050	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/23/98-03/23/98	0	1	
TUMA0054	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	0	1	
TUMA0061	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	0	1	
TUMA0065	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	1	19	
TUMA0084	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	0	1	
TUMA0089	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	1	20	
TUMA0091	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	0	1	
TUMA0100	No	50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	1	20	
TUMA0006	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	07/21/95-11/29/99	4	19	
TUMA0007	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	12/29/98-10/26/99	0	9	
TUMA0011	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	0	1	
TUMA0012	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	0	1	
TUMA0013	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/23/98-03/23/98	0	1	
TUMA0016	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	0	1	
TUMA0019	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	0	1	
TUMA0041	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	0	1	
TUMA0050	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/23/98-03/23/98	0	1	
TUMA0054	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	0	1	
TUMA0065	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	07/28/98-08/31/99	1	8	
TUMA0089	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	12/29/98-08/31/99	0	8	
TUMA0100	No	50064	CHLORINE, FREE AVAILABLE (MG/L)	12/29/98-08/31/99	0	8	
TUMA0008	No	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0099	No	50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0008	No	50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0043	No	50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0049	No	50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0084	No	50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0091	No	50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0099	No	50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	0	1	
TUMA0056	No	50280	PURPOSE, SITE VISIT CODE	05/09/96-05/09/96	0	1	
TUMA0094	No	50280	PURPOSE, SITE VISIT CODE	10/11/95-09/10/97	1	30	
TUMA0024	No	50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/15/80-03/15/80	0	1	
TUMA0072	No	50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/10/80-03/10/80	0	1	
TUMA0086	No	50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	0	1	
TUMA0092	No	50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	0	1	
TUMA0024	No	50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/15/80-03/15/80	0	1	
TUMA0072	No	50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/10/80-03/10/80	0	1	
TUMA0086	No	50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	0	1	
TUMA0092	No	50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	0	1	
TUMA0064	No	60050	ALGAE, TOTAL (CELLS/ML)	06/21/76-05/07/79	2	2	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0022	No	61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/04/97-11/04/97	0	1	
TUMA0039	No	70299	SOLIDS, SUSP. - RESIDUE ON EVAP. AT 180 C (MG/L)	01/04/80-01/04/80	0	1	
TUMA0002	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-11/12/86	0	3	
TUMA0003	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/12/86-11/29/99	13	56	T,S
TUMA0006	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/15/86-11/29/99	13	82	T,S
TUMA0009	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/28/69-09/23/70	1	3	
TUMA0013	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/23/98-03/23/98	0	1	
TUMA0017	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-10/15/86	0	3	
TUMA0021	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/84-07/26/84	0	1	
TUMA0022	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/03/97-11/03/97	0	1	
TUMA0028	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-07/19/88	1	15	
TUMA0034	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/23/98-03/23/98	0	1	
TUMA0050	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/24/98-03/24/98	0	1	
TUMA0053	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/84-07/26/84	0	1	
TUMA0055	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	06/28/84-07/26/84	0	2	
TUMA0057	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	06/28/85-06/28/85	0	1	
TUMA0059	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/84-07/26/84	0	1	
TUMA0060	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/03/97-11/03/97	0	1	
TUMA0062	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-09/19/92	6	46	
TUMA0064	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	01/30/76-05/07/79	3	26	
TUMA0070	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/78-07/26/78	0	1	
TUMA0074	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/04/91-04/04/91	0	1	
TUMA0076	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/28/92-03/28/92	0	1	
TUMA0077	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/28/92-03/04/93	0	2	
TUMA0081	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	09/19/91-03/04/93	1	6	
TUMA0083	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/28/92-03/28/92	0	1	
TUMA0088	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	02/23/93-02/23/93	0	1	
TUMA0090	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/04/97-11/04/97	0	1	
TUMA0093	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/27/84-07/27/84	0	1	
TUMA0094	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/11/95-11/04/97	2	26	
TUMA0095	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	01/05/92-01/05/92	0	1	
TUMA0098	No	70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	09/19/92-09/19/92	0	2	
TUMA0005	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	0	3	
TUMA0009	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	08/28/69-10/10/77	8	2	
TUMA0010	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/05/73-04/10/73	0	2	
TUMA0015	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	0	3	
TUMA0020	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/04/73-04/12/73	0	4	
TUMA0023	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	0	3	
TUMA0025	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	10/10/41-04/17/46	4	2	
TUMA0026	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/27/73	0	2	
TUMA0027	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/04/73-04/12/73	0	4	
TUMA0030	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/05/73-04/27/73	0	3	
TUMA0038	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/04/73-04/06/73	0	2	
TUMA0042	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	0	4	
TUMA0051	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/06/73	0	1	
TUMA0052	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	0	4	
TUMA0055	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/26/73-04/26/73	0	1	
TUMA0058	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/27/73	0	2	
TUMA0059	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/27/73	0	2	
TUMA0064	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	01/30/76-05/07/79	3	26	
TUMA0066	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/10/73	0	1	
TUMA0067	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/20/73-04/20/73	0	1	
TUMA0073	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	0	3	
TUMA0075	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/10/73	0	2	
TUMA0078	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/26/73-04/26/73	0	1	
TUMA0079	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	0	3	
TUMA0080	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/19/73-04/26/73	0	2	
TUMA0082	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/26/73	0	3	
TUMA0085	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	11/28/80-11/28/80	0	1	
TUMA0087	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/18/73-04/27/73	0	4	
TUMA0097	No	70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/27/73	0	3	
TUMA0009	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	08/28/69-09/23/70	1	3	
TUMA0064	No	70302	SOLIDS, DISSOLVED-TONS PER DAY	01/30/76-05/07/79	3	20	
TUMA0009	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	08/28/69-10/10/77	8	4	
TUMA0025	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/17/46-04/17/46	0	1	
TUMA0064	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	01/30/76-05/07/79	3	26	
TUMA0085	No	70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	11/28/80-11/28/80	0	1	
TUMA0031	No	70304	SOLIDS, TOTAL DISSOLVED-COND. METER (MG/L)	10/21/75-10/21/75	0	1	
TUMA0033	No	70304	SOLIDS, TOTAL DISSOLVED-COND. METER (MG/L)	10/17/69-01/24/72	2	4	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0070	No	70304	SOLIDS, TOTAL DISSOLVED-COND. METER (MG/L)	09/27/79-09/27/80	1	10	
TUMA0009	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	08/11/81-08/11/81	0	1	
TUMA0094	No	70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	10/17/96-02/26/97	0	4	
TUMA0009	No	70337	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .002MM	08/25/76-07/31/78	1	3	
TUMA0009	No	70338	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .004MM	08/25/76-07/31/78	1	3	
TUMA0009	No	70340	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .016MM	08/25/76-07/31/78	1	3	
TUMA0009	No	70342	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .062MM	08/25/76-07/31/78	1	3	
TUMA0009	No	70343	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .125MM	08/25/76-07/31/78	1	3	
TUMA0009	No	70344	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .250MM	08/25/76-07/27/78	1	2	
TUMA0036	No	70956	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-SPECTRO	05/25/95-05/25/95	0	1	
TUMA0037	No	70956	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-SPECTRO	04/29/92-05/19/98	6	4	
TUMA0069	No	70956	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-SPECTRO	04/29/92-05/20/98	6	4	
TUMA0094	No	70957	CHLOROPHYLL-A,PERIPHYTON UG/L,CHROMO-FLUORO	01/17/96-01/17/96	0	1	
TUMA0094	No	70958	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-FLUORO	01/17/96-01/17/96	0	1	
TUMA0003	No	71830	HYDROXIDE ION (MG/L AS OH)	09/20/88-01/26/93	4	19	
TUMA0006	No	71830	HYDROXIDE ION (MG/L AS OH)	09/20/88-01/26/93	4	23	
TUMA0028	No	71830	HYDROXIDE ION (MG/L AS OH)	07/19/88-07/19/88	0	1	
TUMA0062	No	71830	HYDROXIDE ION (MG/L AS OH)	09/20/88-05/28/92	3	21	
TUMA0074	No	71830	HYDROXIDE ION (MG/L AS OH)	04/04/91-04/04/91	0	1	
TUMA0081	No	71830	HYDROXIDE ION (MG/L AS OH)	09/19/91-09/19/91	0	1	
TUMA0088	No	71830	HYDROXIDE ION (MG/L AS OH)	02/23/93-02/23/93	0	1	
TUMA0095	No	71830	HYDROXIDE ION (MG/L AS OH)	01/05/92-01/05/92	0	1	
TUMA0098	No	71830	HYDROXIDE ION (MG/L AS OH)	09/19/92-09/19/92	0	1	
TUMA0064	No	71845	NITROGEN, AMMONIA, TOTAL (MG/L AS NH4)	05/07/79-05/07/79	0	1	
TUMA0003	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	11/20/92-03/07/96	3	7	
TUMA0005	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	0	3	
TUMA0006	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	11/19/92-01/03/97	4	11	
TUMA0007	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	1	18	
TUMA0010	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/05/73-04/10/73	0	2	
TUMA0015	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	0	3	
TUMA0020	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/04/73-04/12/73	0	4	
TUMA0021	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/26/84-07/26/84	0	1	
TUMA0023	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	0	3	
TUMA0026	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/10/73-04/27/73	0	2	
TUMA0027	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/04/73-04/12/73	0	4	
TUMA0028	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/19/88-07/19/88	0	1	
TUMA0030	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/05/73-04/27/73	0	3	
TUMA0033	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	10/07/75-10/04/77	1	22	
TUMA0038	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/04/73-04/06/73	0	2	
TUMA0039	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	10/07/75-10/04/77	1	22	
TUMA0040	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	02/24/98-12/28/99	1	6	
TUMA0042	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	0	4	
TUMA0045	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/07/80-01/13/81	0	2	
TUMA0046	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/07/80-03/07/81	0	3	
TUMA0047	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	03/06/81-03/07/81	0	2	
TUMA0048	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/07/80-03/07/81	0	4	
TUMA0051	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/06/73	0	1	
TUMA0052	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	0	4	
TUMA0053	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/26/84-07/26/84	0	1	
TUMA0055	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/26/73-07/26/84	11	3	
TUMA0057	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	06/28/85-06/28/85	0	1	
TUMA0058	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/10/73-04/27/73	0	2	
TUMA0059	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-07/26/84	11	3	
TUMA0065	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	1	18	
TUMA0066	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/10/73	0	2	
TUMA0067	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/20/73-04/20/73	0	1	
TUMA0070	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/27/79-09/27/80	1	15	
TUMA0073	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	0	3	
TUMA0075	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/27/73	0	3	
TUMA0078	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/26/73-04/26/73	0	1	
TUMA0079	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	0	3	
TUMA0080	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/19/73-04/26/73	0	2	
TUMA0082	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/10/73-04/26/73	0	3	
TUMA0087	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/18/73-04/27/73	0	4	
TUMA0089	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	1	18	
TUMA0093	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/27/84-07/27/84	0	1	
TUMA0097	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/27/73	0	3	
TUMA0100	No	71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	1	18	
TUMA0025	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	04/17/46-04/17/46	0	1	
TUMA0064	No	71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	12/02/76-12/29/76	0	2	
TUMA0007	No	71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	1	18	
TUMA0040	No	71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	02/24/98-12/28/99	1	6	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0065	No	71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	1	18	
TUMA0089	No	71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	1	18	
TUMA0100	No	71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	1	18	
TUMA0003	No	71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	11/20/92-03/07/96	3	5	
TUMA0006	No	71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	07/21/95-01/03/97	1	8	
TUMA0028	No	71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	07/19/88-07/19/88	0	1	
TUMA0064	No	71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	12/02/76-12/29/76	0	2	
TUMA0022	No	71870	BROMIDE (MG/L AS BR)	11/03/97-11/03/97	0	1	
TUMA0060	No	71870	BROMIDE (MG/L AS BR)	11/03/97-11/03/97	0	1	
TUMA0090	No	71870	BROMIDE (MG/L AS BR)	11/04/97-11/04/97	0	1	
TUMA0094	No	71870	BROMIDE (MG/L AS BR)	02/20/96-11/04/97	1	8	
TUMA0033	No	71875	HYDROGEN SULFIDE (MG/L)	06/16/71-01/24/72	0	2	
TUMA0064	No	71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	11/28/78-05/07/79	0	2	
TUMA0064	No	71887	NITROGEN, TOTAL, AS NO3 - MG/L	01/30/76-05/07/79	3	23	
TUMA0003	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	12	26	
TUMA0006	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	12	44	T,S
TUMA0013	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	03/23/98-03/23/98	0	1	
TUMA0028	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	12/15/86-04/13/87	0	5	
TUMA0034	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	03/23/98-03/23/98	0	1	
TUMA0050	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	03/24/98-03/24/98	0	1	
TUMA0062	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	12/15/86-09/19/92	5	15	
TUMA0081	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	09/19/91-09/19/91	0	1	
TUMA0085	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	11/28/80-11/28/80	0	1	
TUMA0088	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	02/23/93-02/23/93	0	1	
TUMA0098	No	71890	MERCURY, DISSOLVED (UG/L AS HG)	09/19/92-09/19/92	0	2	
TUMA0002	No	71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-11/12/86	0	3	
TUMA0003	No	71900	MERCURY, TOTAL (UG/L AS HG)	11/12/86-11/29/99	13	54	T,S
TUMA0005	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0006	No	71900	MERCURY, TOTAL (UG/L AS HG)	10/15/86-11/29/99	13	77	T,S
TUMA0010	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/05/73-04/05/73	0	1	
TUMA0013	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/23/98-03/23/98	0	1	
TUMA0015	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0017	No	71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-10/15/86	0	3	
TUMA0020	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0027	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0028	No	71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-07/19/88	1	15	
TUMA0030	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/05/73-04/05/73	0	1	
TUMA0034	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/23/98-03/23/98	0	1	
TUMA0037	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/29/92-05/19/98	6	14	
TUMA0038	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0045	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/07/80-01/13/81	0	2	
TUMA0046	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/07/80-03/07/81	0	3	
TUMA0047	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/06/81-03/07/81	0	2	
TUMA0048	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/07/80-03/07/81	0	4	
TUMA0050	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/24/98-03/24/98	0	1	
TUMA0052	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0062	No	71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-09/19/92	6	51	
TUMA0064	No	71900	MERCURY, TOTAL (UG/L AS HG)	01/30/76-05/07/79	3	26	
TUMA0066	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0068	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/29/92-04/29/92	0	2	
TUMA0069	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/29/92-05/20/98	6	11	
TUMA0073	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0074	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/04/91-04/04/91	0	1	
TUMA0075	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0076	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/28/92-03/28/92	0	1	
TUMA0077	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/28/92-03/28/92	0	1	
TUMA0079	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	0	1	
TUMA0081	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/19/91-09/19/91	0	1	
TUMA0082	No	71900	MERCURY, TOTAL (UG/L AS HG)	04/10/73-04/10/73	0	1	
TUMA0083	No	71900	MERCURY, TOTAL (UG/L AS HG)	03/28/92-03/28/92	0	1	
TUMA0088	No	71900	MERCURY, TOTAL (UG/L AS HG)	02/23/93-02/23/93	0	1	
TUMA0095	No	71900	MERCURY, TOTAL (UG/L AS HG)	01/05/92-01/05/92	0	1	
TUMA0098	No	71900	MERCURY, TOTAL (UG/L AS HG)	09/19/92-09/19/92	0	2	
TUMA0008	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0014	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/17/84-05/17/84	0	1	
TUMA0043	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0049	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0064	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	06/21/76-05/07/79	2	3	
TUMA0084	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0091	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0099	No	71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	0	1	
TUMA0056	No	71999	SAMPLE PURPOSE CODE	05/09/96-05/09/96	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	71999	SAMPLE PURPOSE CODE	10/11/95-11/14/97	2	32	
TUMA0003	No	73085	CHLOROBROMOMETHANE, TOTAL, WATER UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	0	1	
TUMA0006	No	74069	FLOW, ESTIMATED STREAM CFS	11/19/92-03/10/94	1	2	
TUMA0022	No	77041	CARBON DISULFIDE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77041	CARBON DISULFIDE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77041	CARBON DISULFIDE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77041	CARBON DISULFIDE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77128	STYRENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77128	STYRENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77128	STYRENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77128	STYRENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	77163	1,3-DICHLOROPROPENE-1 WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0003	No	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	0	1	
TUMA0009	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	12/27/67-09/22/81	13	23	
TUMA0039	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	01/04/80-01/04/80	0	1	
TUMA0064	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/28/78-09/20/79	0	5	
TUMA0090	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/04/97-11/04/97	0	1	
TUMA0094	No	80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	10/11/95-11/04/97	2	25	
TUMA0009	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	12/27/67-09/22/81	13	23	
TUMA0064	No	80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	11/28/78-09/20/79	0	5	
TUMA0056	No	80164	BED MATERIAL SIEVE DIAMETER,% FINER THAN .062MM	05/09/96-05/09/96	0	1	
TUMA0094	No	80164	BED MATERIAL SIEVE DIAMETER,% FINER THAN .062MM	05/07/96-05/07/96	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0003	No	81551	XYLENE WHL WATER SMPL UG/L	07/22/91-07/22/91	0	1	
TUMA0022	No	81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	0	1	
TUMA0072	No	82037	MAGNESIUM - DISSOLVED UG/L (AS MG)	03/10/80-03/10/80	0	1	
TUMA0086	No	82037	MAGNESIUM - DISSOLVED UG/L (AS MG)	03/07/80-03/07/80	0	1	
TUMA0024	No	82039	DISSOLVED-SODIUM UG/L (AS NA)	03/15/80-03/15/80	0	1	
TUMA0072	No	82039	DISSOLVED-SODIUM UG/L (AS NA)	03/10/80-03/10/80	0	1	
TUMA0086	No	82039	DISSOLVED-SODIUM UG/L (AS NA)	03/07/80-03/07/80	0	1	
TUMA0092	No	82039	DISSOLVED-SODIUM UG/L (AS NA)	03/07/80-03/07/80	0	1	
TUMA0024	No	82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/15/80-03/15/80	0	1	
TUMA0072	No	82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/10/80-03/10/80	0	1	
TUMA0086	No	82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/07/80-03/07/80	0	1	
TUMA0092	No	82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/07/80-03/07/80	0	1	
TUMA0003	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/18/92-11/29/99	7	18	
TUMA0006	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-11/29/99	8	40	
TUMA0007	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	1	18	
TUMA0013	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/23/98-03/23/98	0	1	
TUMA0034	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/23/98-03/23/98	0	1	
TUMA0037	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	05/19/98-05/19/98	0	18	
TUMA0040	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	02/24/98-12/28/99	1	6	
TUMA0050	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/23/98-03/23/98	0	1	
TUMA0062	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-09/19/92	0	5	
TUMA0065	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	1	18	
TUMA0069	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	05/20/98-05/20/98	0	18	
TUMA0081	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	12/05/91-03/04/93	1	5	
TUMA0088	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/30/93-11/25/97	4	2	
TUMA0089	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	1	18	
TUMA0095	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/05/92-01/05/92	0	1	
TUMA0098	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/19/92-09/19/92	0	2	
TUMA0100	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	1	18	
TUMA0101	No	82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/28/95-11/28/95	0	1	
TUMA0003	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-11/29/99	11	45	T
TUMA0006	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/30/88-11/29/99	11	65	T
TUMA0013	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/23/98-03/23/98	0	1	
TUMA0021	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/26/84-07/26/84	0	1	
TUMA0028	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/19/88-07/19/88	0	1	
TUMA0034	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/23/98-03/23/98	0	1	
TUMA0037	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/29/92-05/19/98	6	14	
TUMA0045	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/07/80-09/07/80	0	1	
TUMA0046	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/07/80-09/07/80	0	1	
TUMA0048	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/07/80-09/07/80	0	1	
TUMA0050	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/24/98-03/24/98	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0053	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/26/84-07/26/84	0	1	
TUMA0055	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	06/28/84-07/26/84	0	2	
TUMA0057	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	06/28/85-06/28/85	0	1	
TUMA0059	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/26/84-07/26/84	0	1	
TUMA0062	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-09/19/92	4	31	
TUMA0068	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/29/92-04/29/92	0	2	
TUMA0069	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/29/92-05/20/98	6	11	
TUMA0074	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/04/91-04/04/91	0	1	
TUMA0076	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/28/92-03/28/92	0	1	
TUMA0077	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/28/92-03/04/93	0	2	
TUMA0081	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/19/91-02/26/92	0	2	
TUMA0083	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/28/92-03/28/92	0	1	
TUMA0088	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	02/23/93-02/23/93	0	1	
TUMA0093	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/27/84-07/27/84	0	1	
TUMA0095	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/05/92-01/05/92	0	1	
TUMA0098	No	82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/19/92-09/19/92	0	2	
TUMA0022	No	82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	11/03/97-11/03/97	0	1	
TUMA0060	No	82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	11/03/97-11/03/97	0	1	
TUMA0090	No	82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	11/04/97-11/04/97	0	1	
TUMA0094	No	82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	12/12/95-11/04/97	1	9	
TUMA0022	No	82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	11/03/97-11/03/97	0	1	
TUMA0060	No	82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	11/03/97-11/03/97	0	1	
TUMA0090	No	82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	11/04/97-11/04/97	0	1	
TUMA0094	No	82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	12/12/95-11/04/97	1	9	
TUMA0022	No	82398	SAMPLING METHOD (CODES)	11/03/97-11/03/97	0	1	
TUMA0060	No	82398	SAMPLING METHOD (CODES)	11/03/97-11/03/97	0	1	
TUMA0064	No	82398	SAMPLING METHOD (CODES)	06/21/76-05/07/79	2	3	
TUMA0090	No	82398	SAMPLING METHOD (CODES)	11/04/97-11/04/97	0	1	
TUMA0094	No	82398	SAMPLING METHOD (CODES)	10/11/95-11/04/97	2	27	
TUMA0022	No	82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82680	CARBARYL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82680	CARBARYL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82680	CARBARYL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82680	CARBARYL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0022	No	82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0060	No	82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	0	1	
TUMA0090	No	82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0094	No	82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	0	1	
TUMA0094	No	84164	SAMPLER TYPE, CODE	10/11/95-09/10/97	1	26	
TUMA0003	No	85663	FLOW, RATE FT/SEC	11/12/86-11/29/99	13	47	T,S
TUMA0006	No	85663	FLOW, RATE FT/SEC	01/24/89-11/29/99	10	42	
TUMA0007	No	85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	1	20	
TUMA0013	No	85663	FLOW, RATE FT/SEC	03/23/98-03/23/98	0	1	
TUMA0017	No	85663	FLOW, RATE FT/SEC	10/15/86-10/15/86	0	1	
TUMA0028	No	85663	FLOW, RATE FT/SEC	10/15/86-09/01/87	0	10	
TUMA0034	No	85663	FLOW, RATE FT/SEC	03/23/98-03/23/98	0	1	
TUMA0040	No	85663	FLOW, RATE FT/SEC	02/24/98-12/28/99	1	5	
TUMA0050	No	85663	FLOW, RATE FT/SEC	03/23/98-03/23/98	0	1	
TUMA0062	No	85663	FLOW, RATE FT/SEC	10/14/86-09/19/92	5	44	
TUMA0065	No	85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	1	19	
TUMA0074	No	85663	FLOW, RATE FT/SEC	04/04/91-04/04/91	0	1	
TUMA0077	No	85663	FLOW, RATE FT/SEC	03/04/93-03/04/93	0	1	
TUMA0081	No	85663	FLOW, RATE FT/SEC	09/19/91-03/04/93	1	6	
TUMA0088	No	85663	FLOW, RATE FT/SEC	03/30/93-11/25/97	4	2	
TUMA0089	No	85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	1	19	
TUMA0096	No	85663	FLOW, RATE FT/SEC	06/04/96-06/04/96	0	1	
TUMA0100	No	85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	1	19	
TUMA0101	No	85663	FLOW, RATE FT/SEC	11/28/95-11/28/95	0	1	
TUMA0022	No	85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	0	1	
TUMA0060	No	85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	0	1	
TUMA0090	No	85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	0	1	
TUMA0094	No	85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	0	1	
TUMA0022	No	90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/03/97-11/03/97	0	1	
TUMA0025	No	90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	06/22/82-07/11/85	3	2	
TUMA0060	No	90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/03/97-11/03/97	0	1	
TUMA0085	No	90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/28/80-11/28/80	0	1	
TUMA0090	No	90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/04/97-11/04/97	0	1	
TUMA0094	No	90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	10/11/95-11/04/97	2	26	
TUMA0022	No	90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/03/97-11/03/97	0	1	
TUMA0025	No	90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	07/11/85-07/11/85	0	1	
TUMA0060	No	90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/03/97-11/03/97	0	1	
TUMA0085	No	90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/28/80-11/28/80	0	1	
TUMA0090	No	90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/04/97-11/04/97	0	1	
TUMA0094	No	90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	10/11/95-11/04/97	2	26	
TUMA0022	No	91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/03/97-11/03/97	0	1	
TUMA0060	No	91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/03/97-11/03/97	0	1	
TUMA0090	No	91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/04/97-11/04/97	0	1	
TUMA0094	No	91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/04/97-11/04/97	0	1	
TUMA0022	No	91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	0	1	
TUMA0060	No	91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	0	1	
TUMA0090	No	91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	0	1	
TUMA0094	No	91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	0	1	
TUMA0022	No	91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	0	1	
TUMA0060	No	91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	0	1	
TUMA0090	No	91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	0	1	
TUMA0094	No	91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	0	1	
TUMA0064	No	95100	CONVERSION FACTOR	06/21/76-05/07/79	2	3	
TUMA0064	No	95200	TOTAL COUNT (CELLS/ML)	06/21/76-05/07/79	2	3	
TUMA0064	No	96014	CHLAMYDOMONAS (4) USGS, ACL-74	05/07/79-05/07/79	0	1	
TUMA0064	No	96190	SCHROEDERIA (4) USGS, ACL-74	06/21/76-06/21/76	0	1	
TUMA0064	No	96200	COELASTRUM (4) USGS, ACL-74	06/21/76-05/07/79	2	2	
TUMA0064	No	96202	ANKISTRODESMUS (4) USGS, ACL-74	06/21/76-05/07/79	2	3	
TUMA0064	No	96215	KIRCHNERIELLA (4) USGS, ACL-74	06/21/76-06/21/76	0	1	
TUMA0064	No	96218	OOCYSTIS (4) USGS, ACL-74	05/07/79-05/07/79	0	1	
TUMA0064	No	96238	ACTINASTRUM (4) USGS, ACL-74	03/31/77-03/31/77	0	1	
TUMA0064	No	96243	SCENEDESMUS (4) USGS, ACL-74	06/21/76-05/07/79	2	3	
TUMA0064	No	96254	MICRACTINIUM (4) USGS, ACL-74	06/21/76-03/31/77	0	2	
TUMA0064	No	96387	EUGLENA (4) USGS, ACL-74	03/31/77-05/07/79	2	2	
TUMA0064	No	96706	CYCLOTELLA (4) USGS, ACL-74	06/21/76-05/07/79	2	2	
TUMA0064	No	96777	ACHNANTHES (4) USGS, ACL-74	06/21/76-06/21/76	0	1	
TUMA0064	No	96778	COCCONEIS (4) USGS, ACL-74	06/21/76-06/21/76	0	1	
TUMA0064	No	96791	NAVICULA (4) USGS, ACL-74	03/31/77-05/07/79	2	2	
TUMA0064	No	96793	PINNULARIA (4) USGS, ACL-74	03/31/77-03/31/77	0	1	
TUMA0064	No	96802	GOMPHONEMA (4) USGS, ACL-74	05/07/79-05/07/79	0	1	
TUMA0064	No	96806	CYMBELLA (4) USGS, ACL-74	05/07/79-05/07/79	0	1	
TUMA0064	No	96812	NITZSCHIA (4) USGS, ACL-74	06/21/76-05/07/79	2	2	
TUMA0064	No	98082	ANACYSTIS (4) MENEGH, 1837 -98066	06/21/76-05/07/79	2	2	
TUMA0064	No	98165	ANABAENA (4) USGS, ACL-74	05/07/79-05/07/79	0	1	
TUMA0094	No	99111	QUALITY ASSURANCE DATA TYPE ASSOCIATED WITH SAMPLE	10/11/95-09/10/97	1	26	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station/Parameter Period of Record Tabulation
From 10/10/41 To 12/28/99

Station	In Park	Code	Name	Start - End	Years	Obs	Plots[1]
TUMA0022	No	99818	SET NUMBER, SCHEDULE 2001	11/03/97-11/03/97	0	1	
TUMA0060	No	99818	SET NUMBER, SCHEDULE 2001	11/03/97-11/03/97	0	1	
TUMA0090	No	99818	SET NUMBER, SCHEDULE 2001	11/04/97-11/04/97	0	1	
TUMA0094	No	99818	SET NUMBER, SCHEDULE 2001	11/04/97-11/04/97	0	1	
TUMA0022	No	99820	SET NUMBER, SCHEDULE 2050	11/03/97-11/03/97	0	1	
TUMA0060	No	99820	SET NUMBER, SCHEDULE 2050	11/03/97-11/03/97	0	1	
TUMA0090	No	99820	SET NUMBER, SCHEDULE 2050	11/04/97-11/04/97	0	1	
TUMA0094	No	99820	SET NUMBER, SCHEDULE 2050	11/04/97-11/04/97	0	1	
TUMA0094	No	99822	SET NUMBER, SCHEDULE 2101	05/07/96-05/07/96	0	1	
TUMA0056	No	99824	SET NUMBER, SCHEDULE 2501	05/09/96-05/09/96	0	1	
TUMA0094	No	99824	SET NUMBER, SCHEDULE 2501	05/07/96-05/07/96	0	1	
TUMA0056	No	99825	SET NUMBER, SCHEDULE 2502	05/09/96-05/09/96	0	1	
TUMA0094	No	99825	SET NUMBER, SCHEDULE 2502	05/07/96-05/07/96	0	1	
TUMA0022	No	99827	SET NUMBER, SCHEDULE 2090	11/14/97-11/14/97	0	1	
TUMA0060	No	99827	SET NUMBER, SCHEDULE 2090	11/14/97-11/14/97	0	1	
TUMA0090	No	99827	SET NUMBER, SCHEDULE 2090	11/14/97-11/14/97	0	1	
TUMA0094	No	99827	SET NUMBER, SCHEDULE 2090	11/14/97-11/14/97	0	1	
TUMA0022	No	99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0060	No	99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0090	No	99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0094	No	99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0022	No	99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0060	No	99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0090	No	99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0094	No	99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0022	No	99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0060	No	99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0090	No	99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0094	No	99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	0	1	
TUMA0022	No	99835	BDMC, SURROGATE WATER, UNFILTERED, RECOVERABLE %	11/03/97-11/03/97	0	1	
TUMA0094	No	99835	BDMC, SURROGATE WATER, UNFILTERED, RECOVERABLE %	11/04/97-11/04/97	0	1	
TUMA0022	No	99848	SAMPLE VOLUME, SCHEDULE 2050, MILLILITERS	11/03/97-11/03/97	0	1	
TUMA0060	No	99848	SAMPLE VOLUME, SCHEDULE 2050, MILLILITERS	11/03/97-11/03/97	0	1	
TUMA0090	No	99848	SAMPLE VOLUME, SCHEDULE 2050, MILLILITERS	11/04/97-11/04/97	0	1	
TUMA0094	No	99848	SAMPLE VOLUME, SCHEDULE 2050, MILLILITERS	11/04/97-11/04/97	0	1	
TUMA0094	No	99852	SAMPLE WEIGHT, SCHEDULE 2101, GRAMS	05/07/96-05/07/96	0	1	
TUMA0056	No	99853	SAMPLE WEIGHT, SCHEDULE 2501, GRAMS	05/09/96-05/09/96	0	1	
TUMA0094	No	99853	SAMPLE WEIGHT, SCHEDULE 2501, GRAMS	05/07/96-05/07/96	0	1	
TUMA0022	No	99856	SAMPLE VOLUME, SCHEDULE 2001, ML	11/03/97-11/03/97	0	1	
TUMA0060	No	99856	SAMPLE VOLUME, SCHEDULE 2001, ML	11/03/97-11/03/97	0	1	
TUMA0090	No	99856	SAMPLE VOLUME, SCHEDULE 2001, ML	11/04/97-11/04/97	0	1	
TUMA0094	No	99856	SAMPLE VOLUME, SCHEDULE 2001, ML	11/04/97-11/04/97	0	1	

[1]T=Times Series Plot, A=Annual Plot, and S=Seasonal Plot

Station-By-Station Results

Station Inventory for Station: TUMA0001

NPS Station ID: TUMA0001 LAT/LON: 31.332778/-110.940833 Agency: 21ARIZ Date Created: / /
Location: E.NOGALES WASH AT US/MEXICAN BORDER IN TUNNEL FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 801005000001160/SC-NW-3
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 1.70 On/Off RF1:
RF3 Index: 15050301027000.00 RF3 Mile Point: 2.00 Distance from RF3: 0.47 On/Off RF3:
Description:
E. NOGALES WASH (TRIBUTARY OF SANTA CRUZ R.) EXACTLY AT THE U.S./MEXICAN THE WASH FLOWS NORTH ACROSS THE BORDER IN A TUNNEL WHICH OPENS UP ES NORTH. SITE IS ENTERED FROM A LOCKED STAIRWAY. LOCATED IN 14E SEC 17CCC. ELEVATION 3830.

Parameter Inventory for Station: TUMA0001

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data at this Station Suitable for Statistical Analysis ********

Station Inventory for Station: TUMA0002

NPS Station ID: TUMA0002 LAT/LON: 31.332778/-110.940833 Agency: 21ARIZ Date Created: / /
Location: SCNGW004.80 (NOGALES WASH AT INTERNTNL BOUNDARY) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100252
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3830 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0002

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-11/12/86	3	22.	21.667	23.	20.	2.333	1.528	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-11/12/86	3	29.	31.	37.	27.	28.	5.292	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-11/12/86	3	515.	510.667	551.	466.	1820.333	42.665	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	08/11/86-09/15/86	2	5.8	5.8	6.8	4.8	2.	1.414	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-09/15/86	2	77.5	77.5	90.	65.	312.5	17.678	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	08/11/86-11/12/86	3	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-11/12/86	3	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-11/12/86	3	0.008	0.008	0.008	0.008	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-11/12/86	3	7.75	7.783	7.87	7.73	0.006	0.076	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-11/12/86	3	7.75	7.779	7.87	7.73	0.006	0.076	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-11/12/86	3	0.018	0.017	0.019	0.013	0.	0.003	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-11/12/86	3	221.	223.	232.	216.	67.	8.185	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-11/12/86	3	269.	271.667	283.	263.	105.333	10.263	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-11/12/86	3	11.	15.	24.	10.	61.	7.81	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-11/12/86	3	0.47	0.437	0.55	0.29	0.018	0.133	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-11/12/86	3	1.89	1.747	2.47	0.88	0.647	0.805	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-11/12/86	3	0.44	0.487	0.59	0.43	0.008	0.09	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-11/12/86	3	66.	64.9	67.2	61.5	9.03	3.005	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-11/12/86	3	13.2	13.133	13.9	12.3	0.643	0.802	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-11/12/86	3	38.7	39.267	47.5	31.6	63.443	7.965	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-11/12/86	3	6.64	8.88	13.6	6.4	16.723	4.089	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-11/12/86	3	24.2	26.867	32.9	23.5	27.423	5.237	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-11/12/86	3	37.	38.933	43.7	36.1	17.243	4.153	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-11/12/86	3	0.39	0.373	0.39	0.34	0.001	0.029	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-11/12/86	3 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-11/12/86	3 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	08/11/86-11/12/86	3 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-11/12/86	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-11/12/86	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-11/12/86	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-11/12/86	3	160.	196.667	300.	130.	8233.333	90.738	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-11/12/86	3 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-11/12/86	3	64.	164.667	380.	50.	34825.333	186.615	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-11/12/86	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-11/12/86	3 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-11/12/86	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-11/12/86	3	358.	328.667	408.	220.	9481.333	97.372	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-11/12/86	3 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0002

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00	2	0	0.00									
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00	2	0	0.00	1	0	0.00						
		Other-Lo Lim.	6.5	3	0	0.00	2	0	0.00	1	0	0.00						
00406	PH, FIELD	Fresh Chronic	9.	3	0	0.00	2	0	0.00	1	0	0.00						
		Other-Lo Lim.	6.5	3	0	0.00	2	0	0.00	1	0	0.00						
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	3	0	0.00	2	0	0.00	1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	250.	3	0	0.00	2	0	0.00	1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00	2	0	0.00	1	0	0.00						
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	3	0	0.00	2	0	0.00	1	0	0.00						
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	50.	3	0	0.00	2	0	0.00	1	0	0.00						
01007	BARIUM, TOTAL	Drinking Water	2000.	3	0	0.00	2	0	0.00	1	0	0.00						
01027	CADMIUM, TOTAL	Fresh Acute	3.9	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	5.	3	0	0.00	2	0	0.00	1	0	0.00						
01034	CHROMIUM, TOTAL	Drinking Water	100.	3	0	0.00	2	0	0.00	1	0	0.00						
01042	COPPER, TOTAL	Fresh Acute	18.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	1300.	3	0	0.00	2	0	0.00	1	0	0.00						
01051	LEAD, TOTAL	Fresh Acute	82.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	15.	3	0	0.00	2	0	0.00	1	0	0.00						
01077	SILVER, TOTAL	Fresh Acute	4.1	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	100.	3	0	0.00	2	0	0.00	1	0	0.00						
01092	ZINC, TOTAL	Fresh Acute	120.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	5000.	3	0	0.00	2	0	0.00	1	0	0.00						
01147	SELENIUM, TOTAL	Fresh Acute	20.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	50.	3	0	0.00	2	0	0.00	1	0	0.00						
71900	MERCURY, TOTAL	Fresh Acute	2.4	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	2.	3	0	0.00	2	0	0.00	1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0003

NPS Station ID: TUMA0003 LAT/LON: 31.336945/-110.849167 Agency: 21ARIZ Date Created: / /
Location: SCSCR097.28 (SANTA CRUZ R AT INTERNTL BOUNDARY) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100239
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3725 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301010 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004p	STREAM WIDTH (FEET)	11/12/86-11/29/99	47	7.7	23.468	124.	2.	741.928	27.238	3.4	5.1	42.	65.1
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/86-11/29/99	53	21.2	21.336	33.	7.5	35.715	5.976	13.16	17.	26.65	29.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/12/86-11/29/99	54	24.5	23.824	37.	6.	49.827	7.059	14.25	19.375	29.	34.
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/12/86-11/29/99	67	0.49	12.082	200.66	0.	1049.114	32.39	0.	0.	8.69	38.088
00064p	DEPTH OF STREAM, MEAN (FT)	11/12/86-11/29/99	47	0.21	0.27	1.3	0.08	0.038	0.195	0.1	0.17	0.3	0.432
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/86-11/29/99	52	374.	356.712	451.	132.	4817.425	69.408	248.6	328.	403.	425.1
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	52	388.	384.115	569.	155.	5223.947	72.277	295.1	350.	417.5	451.2
00300p	OXYGEN, DISSOLVED MG/L	11/12/86-11/29/99	51	7.13	7.62	11.7	4.3	2.162	1.47	6.202	6.6	8.47	9.98
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/12/86-11/29/99	50	95.95	96.714	135.	69.	166.826	12.916	83.19	87.775	100.025	113.73
00403p	PH, LAB, STANDARD UNITS SU	11/12/86-11/29/99	54	8.2	8.111	8.6	7.	0.094	0.306	7.75	8.	8.3	8.4
00403p	CONVERTED PH, LAB, STANDARD UNITS	11/12/86-11/29/99	54	8.2	7.949	8.6	7.	0.121	0.347	7.75	8.	8.3	8.4
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	54	0.006	0.011	0.1	0.003	0.	0.016	0.004	0.005	0.01	0.018
00406p	PH, FIELD, STANDARD UNITS SU	11/12/86-11/29/99	53	7.98	7.892	8.44	6.94	0.089	0.299	7.406	7.72	8.09	8.236
00406p	CONVERTED PH, FIELD, STANDARD UNITS	11/12/86-11/29/99	53	7.98	7.771	8.44	6.94	0.104	0.323	7.406	7.72	8.09	8.236
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	53	0.01	0.017	0.115	0.004	0.	0.017	0.006	0.008	0.019	0.039
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/86-11/29/99	54	160.5	150.378	178.	51.	794.824	28.193	104.5	139.75	170.	175.
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-11/29/99	38 ##	1.	1.034	4.	0.5	0.529	0.727	0.5	0.5	1.	2.12
00440p	BICARBONATE ION (MG/L AS HCO3)	11/12/86-11/29/99	54	171.5	167.185	213.	51.	1059.286	32.547	121.5	155.75	192.25	205.
00445p	CARBONATE ION (MG/L AS CO3)	11/23/87-11/29/99	40 ##	1.	1.303	8.	0.5	1.85	1.36	0.5	0.5	1.	2.77
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/86-11/29/99	54	5.	32.717	371.	2.	4478.177	66.919	2.	4.	32.5	84.5
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-11/29/99	41 ##	0.05	0.057	0.23	0.01	0.002	0.044	0.015	0.03	0.055	0.128
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/23/93-05/10/93	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/86-11/29/99	49	0.17	0.751	21.	0.025	9.021	3.003	0.05	0.08	0.335	1.
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/86-11/29/99	52 ##	0.05	0.15	1.44	0.005	0.057	0.239	0.03	0.03	0.208	0.334
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/86-11/29/99	53	0.14	0.239	2.1	0.025	0.124	0.353	0.05	0.1	0.24	0.312
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	07/22/91-07/22/91	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	41	149.	145.561	218.	20.	1133.552	33.668	105.2	131.	164.	179.8
00916p	CALCIUM, TOTAL (MG/L AS CA)	11/12/86-11/29/99	54	51.2	48.46	78.	3.66	137.415	11.722	32.35	43.925	55.175	59.35
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/86-11/29/99	54	5.705	5.941	15.8	4.2	2.215	1.488	5.1	5.4	6.193	6.6
00929p	SODIUM, TOTAL (MG/L AS NA)	11/12/86-11/29/99	54	28.	27.387	39.1	10.6	26.74	5.171	20.7	24.775	30.65	33.65
00937p	POTASSIUM, TOTAL MG/L AS K)	11/12/86-11/29/99	54	2.985	3.333	15.2	1.9	3.256	1.805	2.255	2.578	3.725	4.24
00940p	CHLORIDE,TOTAL IN WATER MG/L	11/12/86-11/29/99	53	8.	8.1	19.5	2.5	5.268	2.295	6.28	7.	9.	9.9
00945p	SULFATE, TOTAL (MG/L AS SO4)	11/12/86-11/29/99	54	41.7	41.265	99.	17.	149.541	12.229	26.2	34.425	48.	51.95
00951p	FLUORIDE, TOTAL (MG/L AS F)	11/12/86-11/29/99	52	0.52	0.646	5.6	0.33	0.589	0.767	0.383	0.45	0.56	0.631
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	26 ##	5.	4.981	10.	2.5	6.41	2.532	2.5	2.5	5.	10.
01002p	ARSENIC, TOTAL (UG/L AS AS)	11/12/86-11/29/99	55 ##	5.	5.182	14.	2.5	9.429	3.071	2.5	2.5	5.	10.
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	26 ##	50.	63.038	250.	24.	3123.078	55.885	24.7	48.75	50.75	120.5
01007p	BARIUM, TOTAL (UG/L AS BA)	11/12/86-11/29/99	53 ##	50.	85.	780.	25.	14026.615	118.434	38.8	50.	59.	205.2

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	05/22/89-11/29/99	21 ##	0.25	1.088	2.5	0.05	1.291	1.136	0.09	0.25	2.5	2.5
01012p	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	42 ##	1.375	1.385	3.3	0.05	1.38	1.175	0.25	0.25	2.5	2.5
01020	BORON, DISSOLVED (UG/L AS B)	05/22/89-04/07/98	18 ##	50.	47.278	50.	11.	87.507	9.354	37.1	50.	50.	50.
01022p	BORON, TOTAL (UG/L AS B)	11/12/86-11/29/99	53 ##	50.	88.377	480.	15.	8160.201	90.334	50.	50.	100.	194.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	25 ##	0.5	1.088	2.5	0.35	0.85	0.922	0.44	0.5	2.5	2.5
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/12/86-11/29/99	55 ##	0.5	1.217	7.	0.25	1.33	1.153	0.5	0.5	2.	2.5
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	26 ##	5.	5.327	20.	0.5	11.679	3.417	1.5	5.	5.	6.5
01034p	CHROMIUM, TOTAL (UG/L AS CR)	11/12/86-11/29/99	55 ##	5.	8.	80.	0.5	136.796	11.696	5.	5.	5.	10.8
01040	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	26 ##	5.	7.962	75.	2.	189.238	13.756	5.	5.	5.	10.
01042p	COPPER, TOTAL (UG/L AS CU)	11/12/86-11/29/99	55 ##	5.	9.827	82.	2.5	153.15	12.375	5.	5.	10.	22.
01045p	IRON, TOTAL (UG/L AS FE)	11/12/86-11/29/99	53	210.	1068.849	18000.	5.	9204546.477	3033.9	35.	50.	600.	1896.4
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/89-04/07/98	20 ##	50.	44.5	215.	5.	1991.105	44.622	9.1	10.	50.	53.6
01049	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	26 ##	2.5	4.846	30.	1.	37.255	6.104	1.	1.	6.25	10.
01051p	LEAD, TOTAL (UG/L AS PB)	11/12/86-11/29/99	55 ##	2.5	5.982	62.	1.	86.102	9.279	1.	1.5	6.	10.
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/12/86-11/29/99	53	110.	250.27	3000.	0.29	218048.754	466.957	25.	70.	224.5	538.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/89-04/07/98	19	25.	72.695	330.	0.2	8509.726	92.248	3.	5.	110.	273.
01057	THALLIUM, DISSOLVED (UG/L AS TL)	05/22/89-11/29/99	21 ##	2.5	4.571	25.	1.	46.232	6.799	2.5	2.5	2.5	20.5
01059p	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	42 ##	2.5	3.619	30.	1.	29.62	5.442	2.5	2.5	2.5	2.5
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/22/89-11/29/99	21 ##	50.	31.143	50.	2.	429.529	20.725	3.6	10.	50.	50.
01067p	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	42 ##	25.	29.095	50.	2.	368.625	19.2	10.	10.	50.	50.
01075	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	26 ##	1.	2.231	5.	0.5	4.045	2.011	0.5	0.5	5.	5.
01077p	SILVER, TOTAL (UG/L AS AG)	11/12/86-11/29/99	54 ##	2.	2.454	5.	0.5	4.012	2.003	0.5	0.5	5.	5.
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	05/22/89-09/24/93	14	260.	239.643	290.	101.	2768.093	52.613	139.5	210.25	272.5	289.
01082	STRONTIUM, TOTAL (UG/L AS SR)	11/21/88-09/24/93	25	262.	251.64	316.	60.	2747.407	52.416	188.4	235.	280.	301.4
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	26 ##	25.	17.712	35.	2.5	108.563	10.419	5.	5.	25.	25.
01092p	ZINC, TOTAL (UG/L AS ZN)	11/12/86-11/29/99	55 ##	25.	30.964	250.	2.5	2156.878	46.442	5.	8.	25.	40.2
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	05/22/89-11/29/99	21 ##	2.5	12.262	25.	2.5	128.065	11.317	2.5	2.5	25.	25.
01097p	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	40 ##	3.75	11.25	30.	2.5	114.423	10.697	2.5	2.5	25.	25.
01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	26 ##	2.5	2.846	12.5	1.5	3.915	1.979	2.5	2.5	2.5	2.5
01147p	SELENIUM, TOTAL (UG/L AS SE)	11/12/86-11/29/99	55 ##	2.5	4.336	25.	1.5	35.389	5.949	2.5	2.5	2.5	8.
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	03/30/88-11/29/99	21	50.	830.714	11200.	2.	6119920.614	2473.847	4.8	11.	204.	2380.
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	03/30/88-11/29/99	21	1.699	1.812	4.049	0.301	0.944	0.972	0.662	1.041	2.303	3.377
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			64.889								
31648	E. COLI - MTEC-MF N0/100ML	05/25/94-11/29/99	7	28.	578.	2200.	4.	880873.333	938.549	**	**	**	**
31648	LOG E. COLI - MTEC-MF N0/1	05/25/94-11/29/99	7	1.447	1.865	3.342	0.602	1.136	1.066	**	**	**	**
31648	GM E. COLI - MTEC-MF N0/10	GEOMETRIC MEAN =			73.342								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/30/88-04/07/98	16	107.	142.313	450.	1.	22592.896	150.309	10.1	21.	223.5	436.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	03/30/88-04/07/98	16	2.028	1.802	2.653	0.	0.501	0.707	0.802	1.321	2.343	2.639
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			63.446								
32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
32104	BROMOFORM,WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
32106	CHLOROFORM,WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34488	TRICHLOROFLUOROMETHANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34501	1,1-DICHLOROETHYLENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34511	1,1,2-TRICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34531	1,2-DICHLOROETHANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34571	1,4-DICHLOROBENZENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34696	NAPHTHALENE TOTWUG/L	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	07/22/91-07/22/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/12/86-11/29/99	56	268.5	258.	367.	114.	1808.727	42.529	202.1	232.25	281.5	296.8
71830	HYDROXIDE ION (MG/L AS OH)	09/20/88-01/26/93	19 ##	0.5	0.658	2.	0.5	0.224	0.473	0.5	0.5	0.5	2.
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	11/20/92-03/07/96	7 ##	0.1	0.164	0.5	0.05	0.026	0.163	**	**	**	**
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	11/20/92-03/07/96	5 ##	0.05	0.07	0.1	0.05	0.001	0.027	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	26 ##	0.25	0.221	1.	0.1	0.031	0.175	0.1	0.1	0.25	0.25
71900p	MERCURY, TOTAL (UG/L AS HG)	11/12/86-11/29/99	54 ##	0.25	0.365	5.25	0.1	0.531	0.729	0.1	0.1	0.25	1.
73085	CHLOROBROMOMETHANE, TOTAL, WATER UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77163	1,3-DICHLOROPROPENE-1 WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	07/22/91-07/22/91	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
81551	XYLENE WHL WATER SMPL UG/L	07/22/91-07/22/91	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/18/92-11/29/99	18	1.34	125.19	1854.	0.2	190275.239	436.206	0.38	0.543	19.25	432.9
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-11/29/99	45	1.	22.413	570.	0.06	7526.365	86.755	0.326	0.43	10.55	31.6
85663p	FLOW, RATE FT/SEC	11/12/86-11/29/99	47	0.7	0.793	2.	0.03	0.288	0.536	0.186	0.31	1.19	1.622

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0003

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	51	0	0.00	10	0	0.00	9	0	0.00	20	0	0.00	12	0	0.00
00403	PH, LAB	Fresh Chronic	9.	54	0	0.00	11	0	0.00	9	0	0.00	22	0	0.00	12	0	0.00
		Other-Lo Lim.	6.5	54	0	0.00	11	0	0.00	9	0	0.00	22	0	0.00	12	0	0.00
00406	PH, FIELD	Fresh Chronic	9.	53	0	0.00	11	0	0.00	9	0	0.00	21	0	0.00	12	0	0.00
		Other-Lo Lim.	6.5	53	0	0.00	11	0	0.00	9	0	0.00	21	0	0.00	12	0	0.00
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	2	0	0.00							1	0	0.00	1	0	0.00
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	52	0	0.00	10	0	0.00	9	0	0.00	21	0	0.00	12	0	0.00
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1	1	1.00	1	1	1.00									
		Drinking Water	0.2	1	0	0.00	1	0	0.00									
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	53	0	0.00	11	0	0.00	9	0	0.00	21	0	0.00	12	0	0.00
		Drinking Water	250.	53	0	0.00	11	0	0.00	9	0	0.00	21	0	0.00	12	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	54	0	0.00	11	0	0.00	9	0	0.00	22	0	0.00	12	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	52	1	0.02	11	1	0.09	9	0	0.00	21	0	0.00	11	0	0.00
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
		Drinking Water	50.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	55	0	0.00	12	0	0.00	9	0	0.00	21	0	0.00	13	0	0.00
		Drinking Water	50.	55	0	0.00	12	0	0.00	9	0	0.00	21	0	0.00	13	0	0.00
01005	BARIUM, DISSOLVED	Drinking Water	2000.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
01007	BARIUM, TOTAL	Drinking Water	2000.	53	0	0.00	11	0	0.00	9	0	0.00	21	0	0.00	12	0	0.00
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	21	0	0.00	3	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	4.	21	0	0.00	3	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	42	0	0.00	10	0	0.00	7	0	0.00	14	0	0.00	11	0	0.00
		Drinking Water	4.	42	0	0.00	10	0	0.00	7	0	0.00	14	0	0.00	11	0	0.00
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	25	0	0.00	3	0	0.00	3	0	0.00	12	0	0.00	7	0	0.00
		Drinking Water	5.	25	0	0.00	3	0	0.00	3	0	0.00	12	0	0.00	7	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	55	1	0.02	12	0	0.00	9	0	0.00	21	1	0.05	13	0	0.00
		Drinking Water	5.	55	1	0.02	12	0	0.00	9	0	0.00	21	1	0.05	13	0	0.00
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	55	0	0.00	12	0	0.00	9	0	0.00	21	0	0.00	13	0	0.00
01040	COPPER, DISSOLVED	Fresh Acute	18.	25 &	0	0.00	3	0	0.00	3	0	0.00	12	0	0.00	7	0	0.00
		Drinking Water	1300.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
01042	COPPER, TOTAL	Fresh Acute	18.	55	6	0.11	12	3	0.25	9	0	0.00	21	3	0.14	13	0	0.00
		Drinking Water	1300.	55	0	0.00	12	0	0.00	9	0	0.00	21	0	0.00	13	0	0.00
01049	LEAD, DISSOLVED	Fresh Acute	82.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
		Drinking Water	15.	26	1	0.04	3	0	0.00	3	0	0.00	13	1	0.08	7	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	55	0	0.00	12	0	0.00	9	0	0.00	21	0	0.00	13	0	0.00
		Drinking Water	15.	55	3	0.05	12	1	0.08	9	1	0.11	21	1	0.05	13	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0003

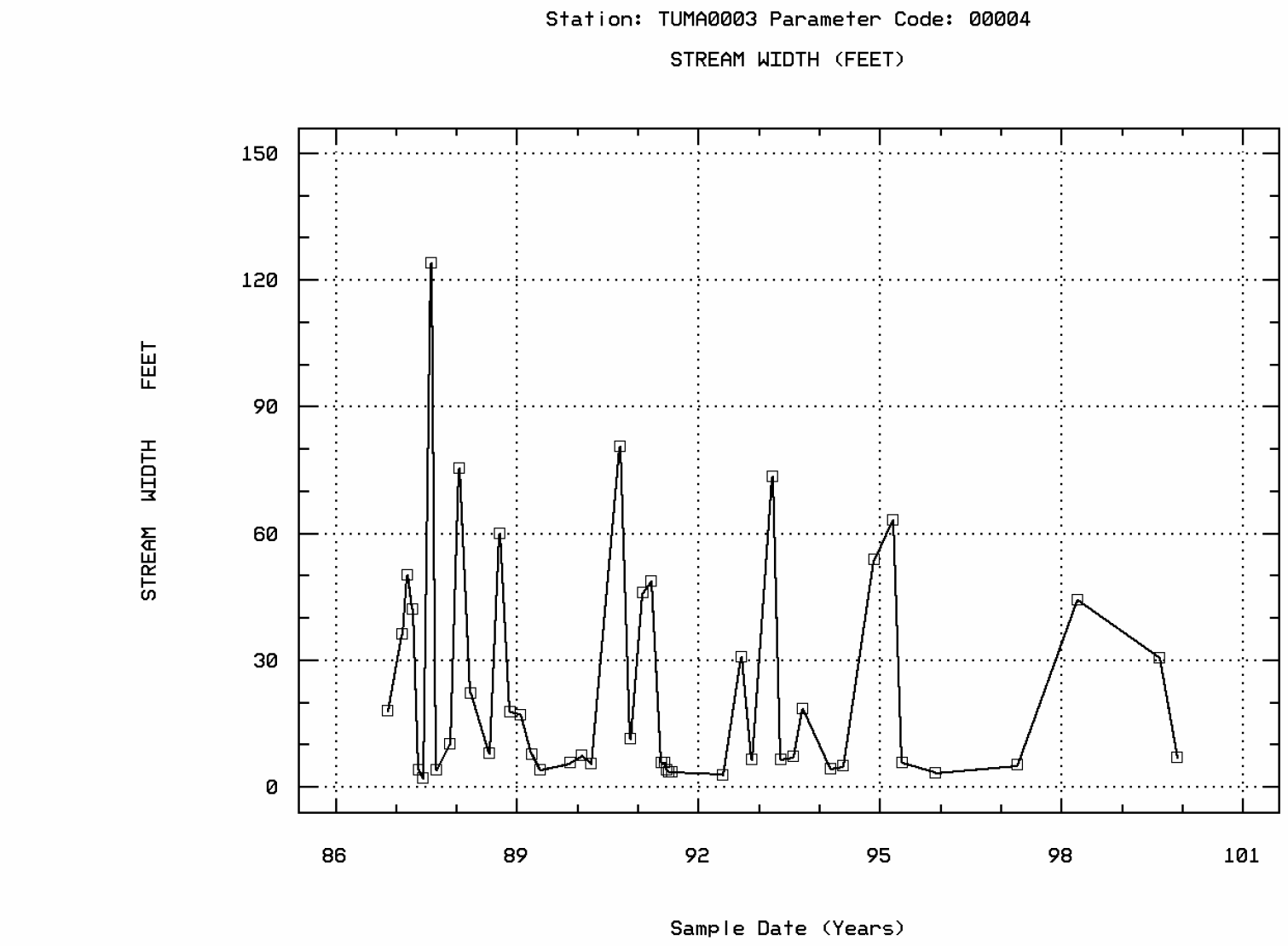
Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	21	0	0.00	3	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	2.	1 &	0	0.00				1	0	0.00						
01059	THALLIUM, TOTAL	Fresh Acute	1400.	42	0	0.00	10	0	0.00	7	0	0.00	14	0	0.00	11	0	0.00
		Drinking Water	2.	2 &	0	0.00	1	0	0.00	1	0	0.00						
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	21	0	0.00	3	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	100.	21	0	0.00	3	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00
01067	NICKEL, TOTAL	Fresh Acute	1400.	42	0	0.00	10	0	0.00	7	0	0.00	14	0	0.00	11	0	0.00
		Drinking Water	100.	42	0	0.00	10	0	0.00	7	0	0.00	14	0	0.00	11	0	0.00
01075	SILVER, DISSOLVED	Fresh Acute	4.1	18 &	0	0.00	2	0	0.00	3	0	0.00	12	0	0.00	1	0	0.00
		Drinking Water	100.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
01077	SILVER, TOTAL	Fresh Acute	4.1	35 &	0	0.00	7	0	0.00	6	0	0.00	16	0	0.00	6	0	0.00
		Drinking Water	100.	54	0	0.00	12	0	0.00	8	0	0.00	21	0	0.00	13	0	0.00
01090	ZINC, DISSOLVED	Fresh Acute	120.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
		Drinking Water	5000.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	55	3	0.05	12	3	0.25	9	0	0.00	21	0	0.00	13	0	0.00
		Drinking Water	5000.	55	0	0.00	12	0	0.00	9	0	0.00	21	0	0.00	13	0	0.00
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	21	0	0.00	3	0	0.00	3	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	6.	12 &	0	0.00	2	0	0.00	3	0	0.00	5	0	0.00	2	0	0.00
01097	ANTIMONY, TOTAL	Fresh Acute	88.	40	0	0.00	9	0	0.00	6	0	0.00	14	0	0.00	11	0	0.00
		Drinking Water	6.	23 &	0	0.00	5	0	0.00	3	0	0.00	10	0	0.00	5	0	0.00
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
		Drinking Water	50.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
01147	SELENIUM, TOTAL	Fresh Acute	20.	53 &	2	0.04	12	0	0.00	9	0	0.00	20	0	0.00	12	2	0.17
		Drinking Water	50.	55	0	0.00	12	0	0.00	9	0	0.00	21	0	0.00	13	0	0.00
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	21	5	0.24	4	1	0.25	4	1	0.25	10	1	0.10	3	2	0.67
31648	E. COLI, MTEC, MF	Other-Hi Lim.	126.	7	2	0.29	2	1	0.50	1	0	0.00	2	0	0.00	2	1	0.50
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00	1	0	0.00									
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00	1	0	0.00									
		Drinking Water	5.	1	0	0.00	1	0	0.00									
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00	1	0	0.00									
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00	1	0	0.00									
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	1	0	0.00	1	0	0.00									
		Drinking Water	100.	1	0	0.00	1	0	0.00									
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE E	Fresh Acute	17500.	1	0	0.00	1	0	0.00									
		Drinking Water	1000.	1	0	0.00	1	0	0.00									
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00	1	0	0.00									
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00	1	0	0.00									
		Drinking Water	700.	1	0	0.00	1	0	0.00									
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00	1	0	0.00									
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00	1	0	0.00									
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00	1	0	0.00									
34531	1,2-DICHLOROETHANE, TOTAL	Fresh Acute	118000.	1	0	0.00	1	0	0.00									
		Drinking Water	5.	1	0	0.00	1	0	0.00									
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00	1	0	0.00									
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00	1	0	0.00									
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00	1	0	0.00									
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00	1	0	0.00									
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00	1	0	0.00									
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00	1	0	0.00									
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00	1	0	0.00									
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	1	0	0.00	1	0	0.00									
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	7	0	0.00				2	0	0.00	4	0	0.00	1	0	0.00
71856	NITRITE NITROGEN, DISSOLVED (AS NO2)	Drinking Water	3.3	5	0	0.00				2	0	0.00	3	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
		Drinking Water	2.	26	0	0.00	3	0	0.00	3	0	0.00	13	0	0.00	7	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	53 &	0	0.00	12	0	0.00	9	0	0.00	19	0	0.00	13	0	0.00
		Drinking Water	2.	53 &	0	0.00	12	0	0.00	9	0	0.00	19	0	0.00	13	0	0.00
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	1	0	0.00	1	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

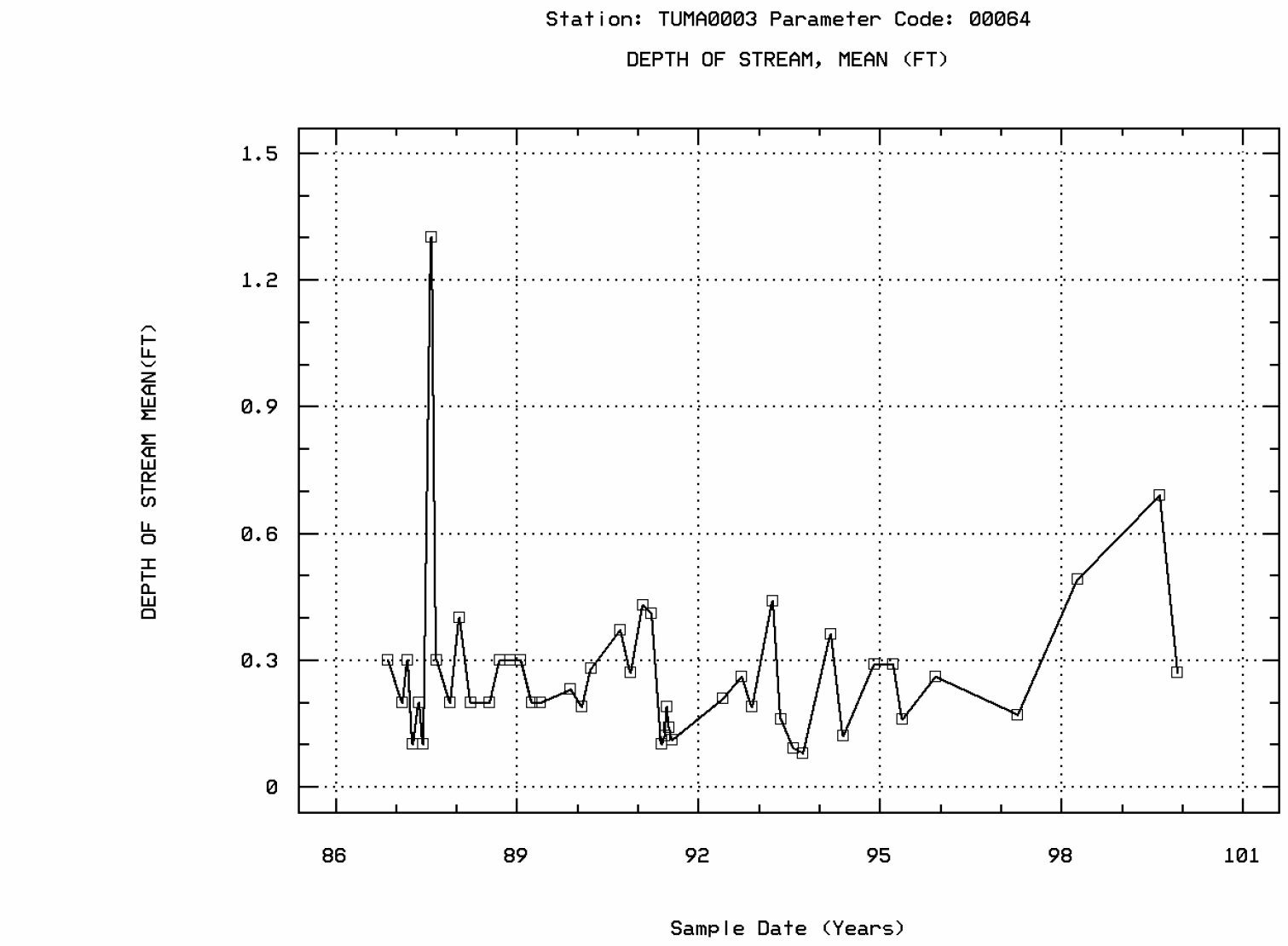
EPA Water Quality Criteria Analysis for Station: TUMA0003

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	18	2	0.11	4	1	0.25	4	0	0.00	7	1	0.14	3	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	45	3	0.07	10	1	0.10	7	0	0.00	17	2	0.12	11	0	0.00

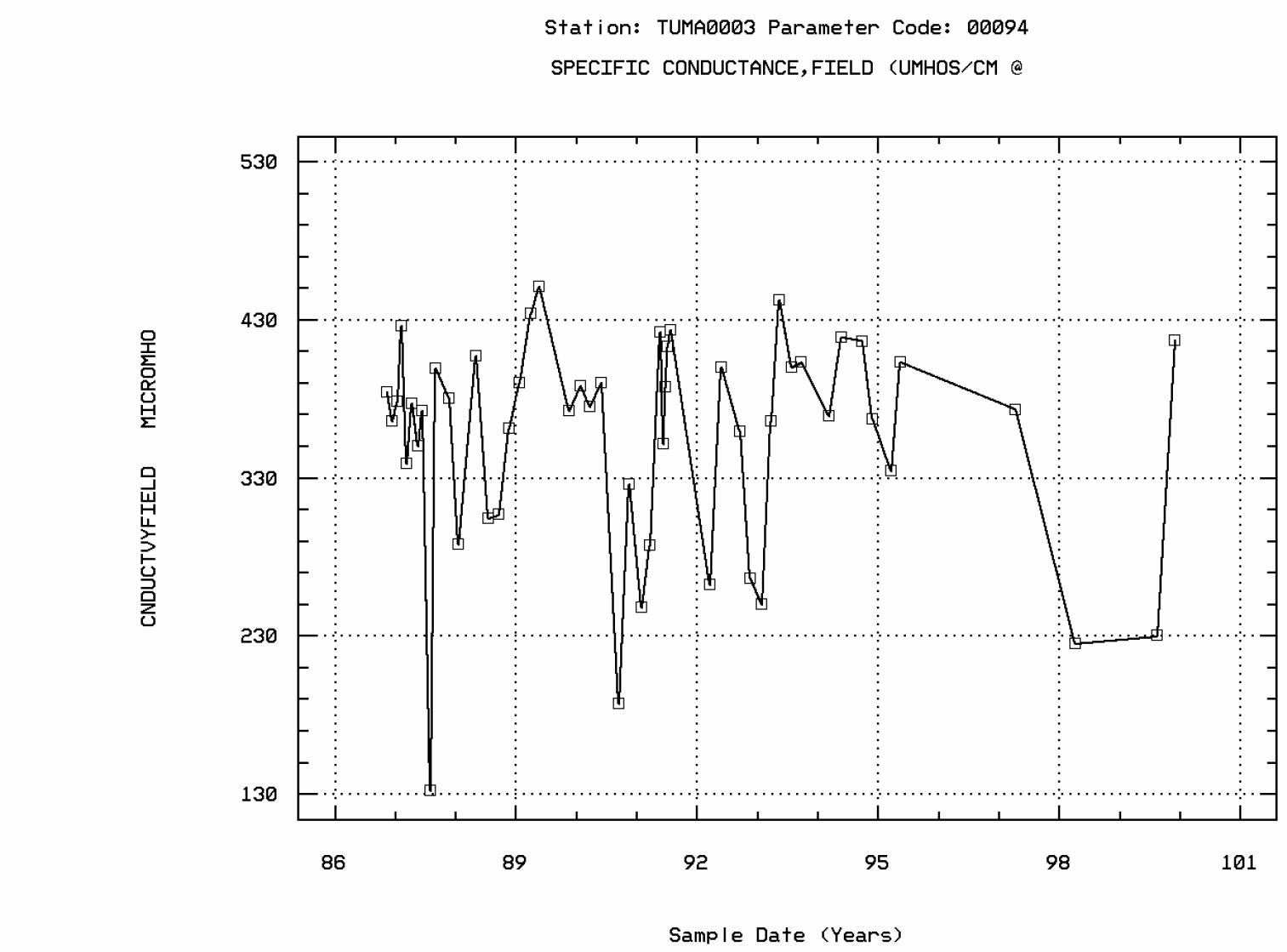
& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter



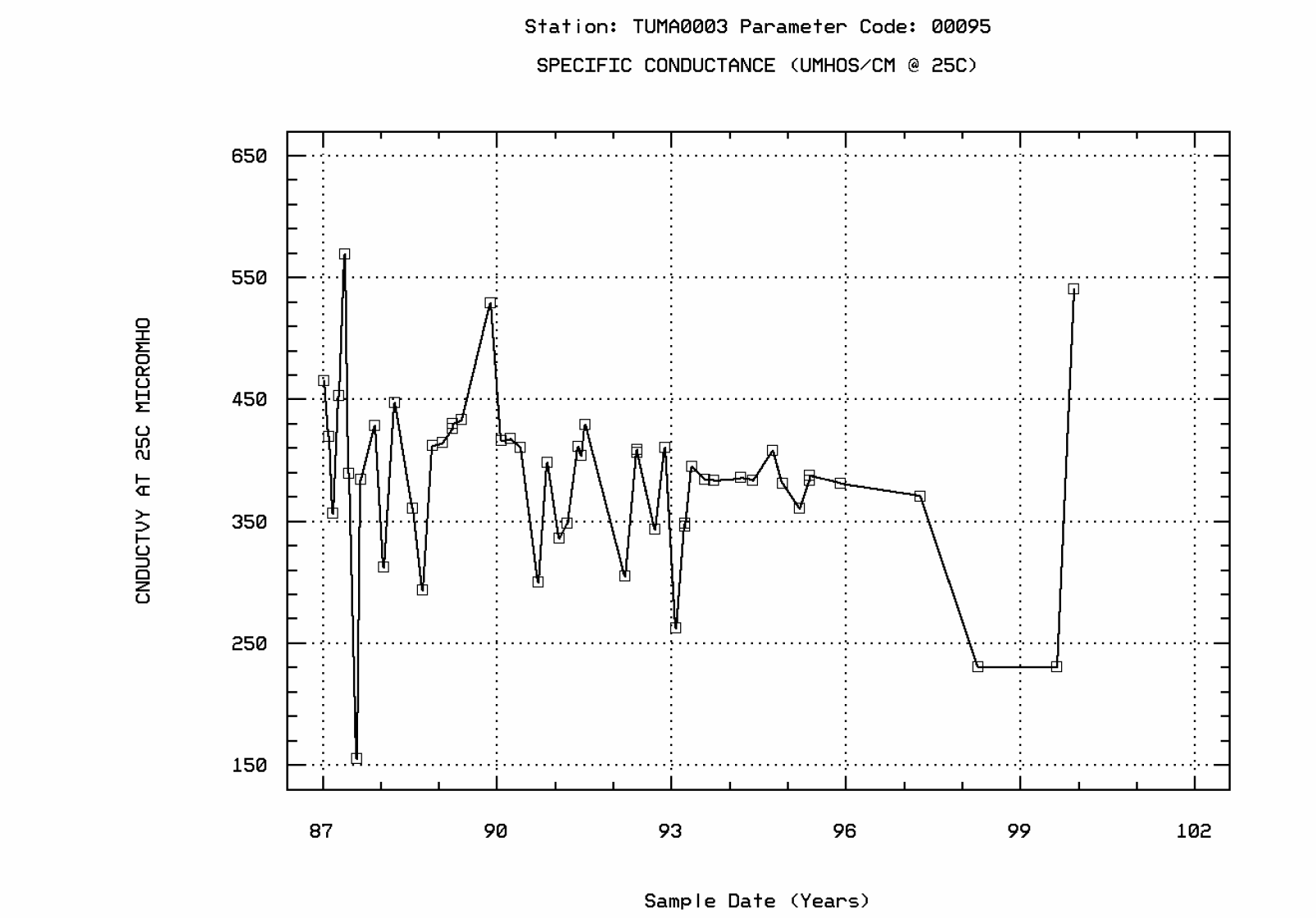
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



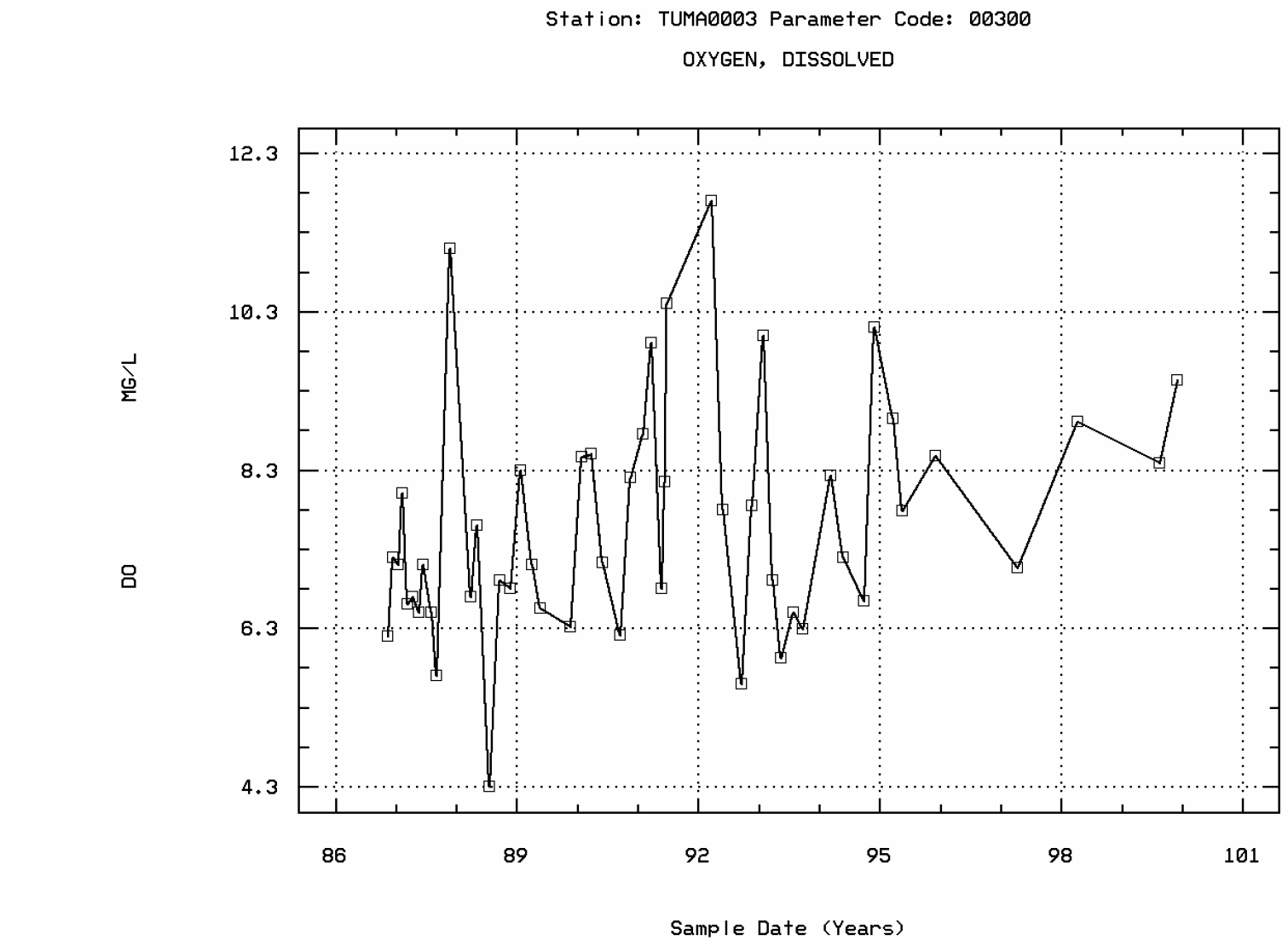
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



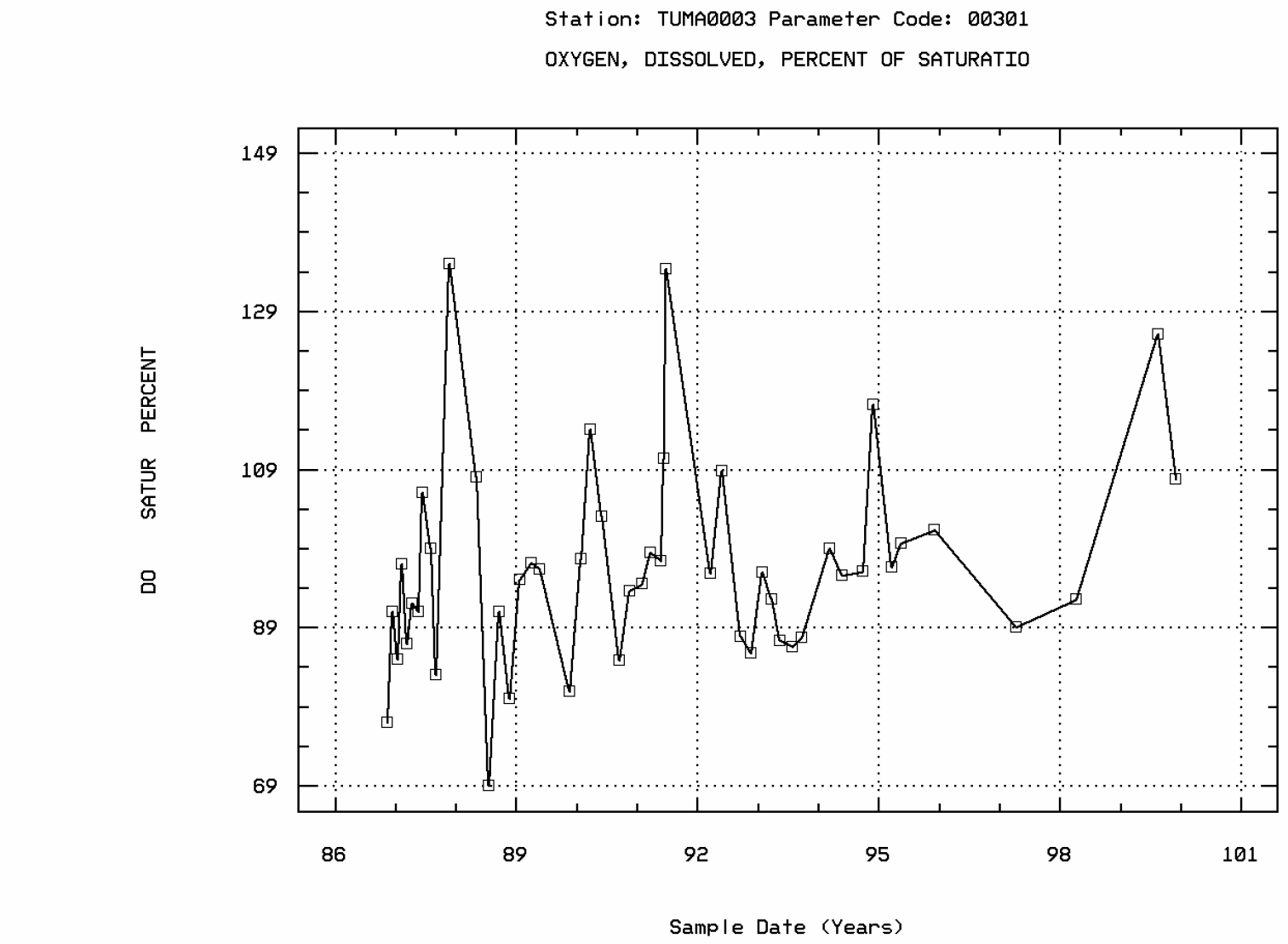
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



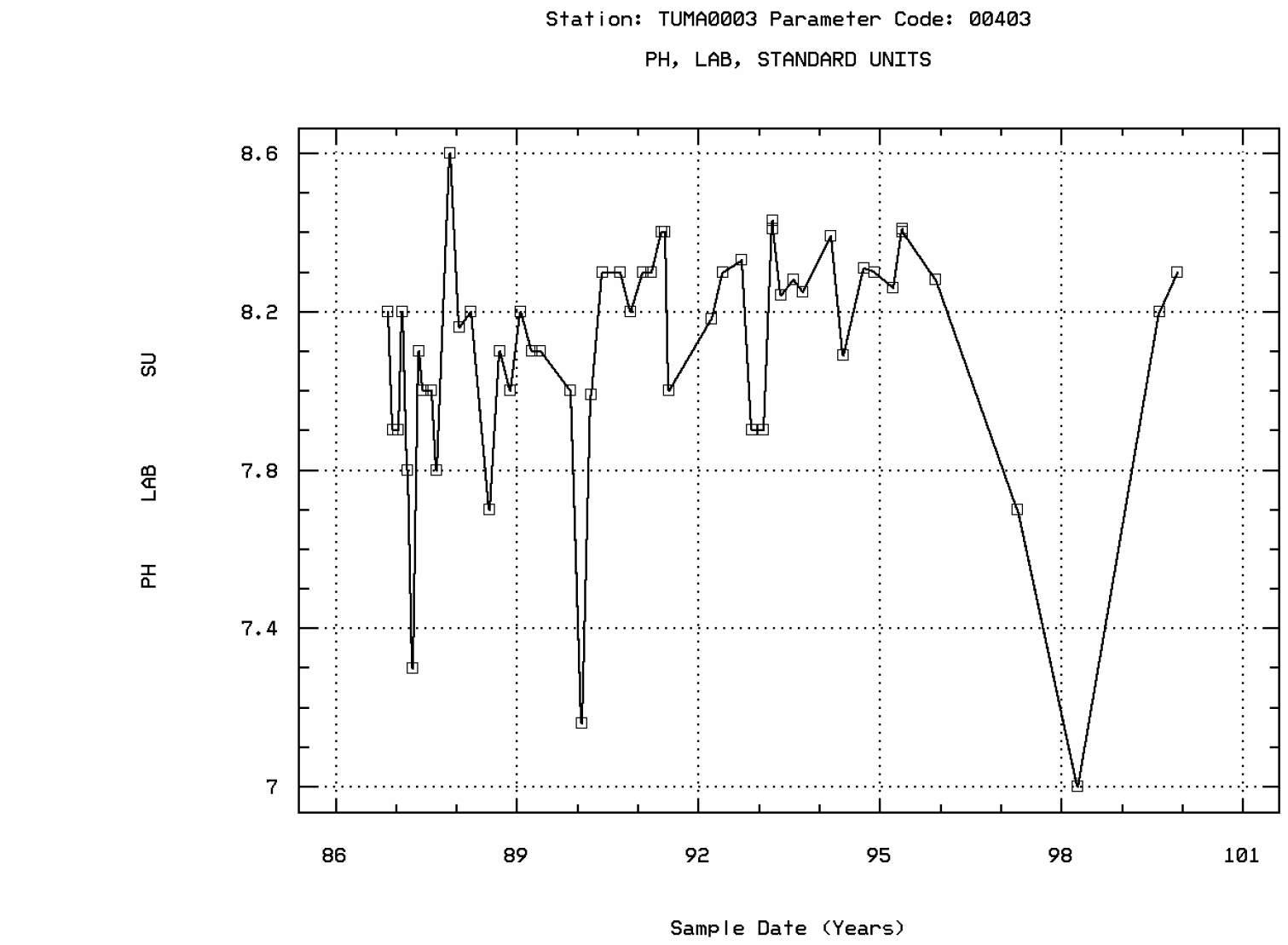
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



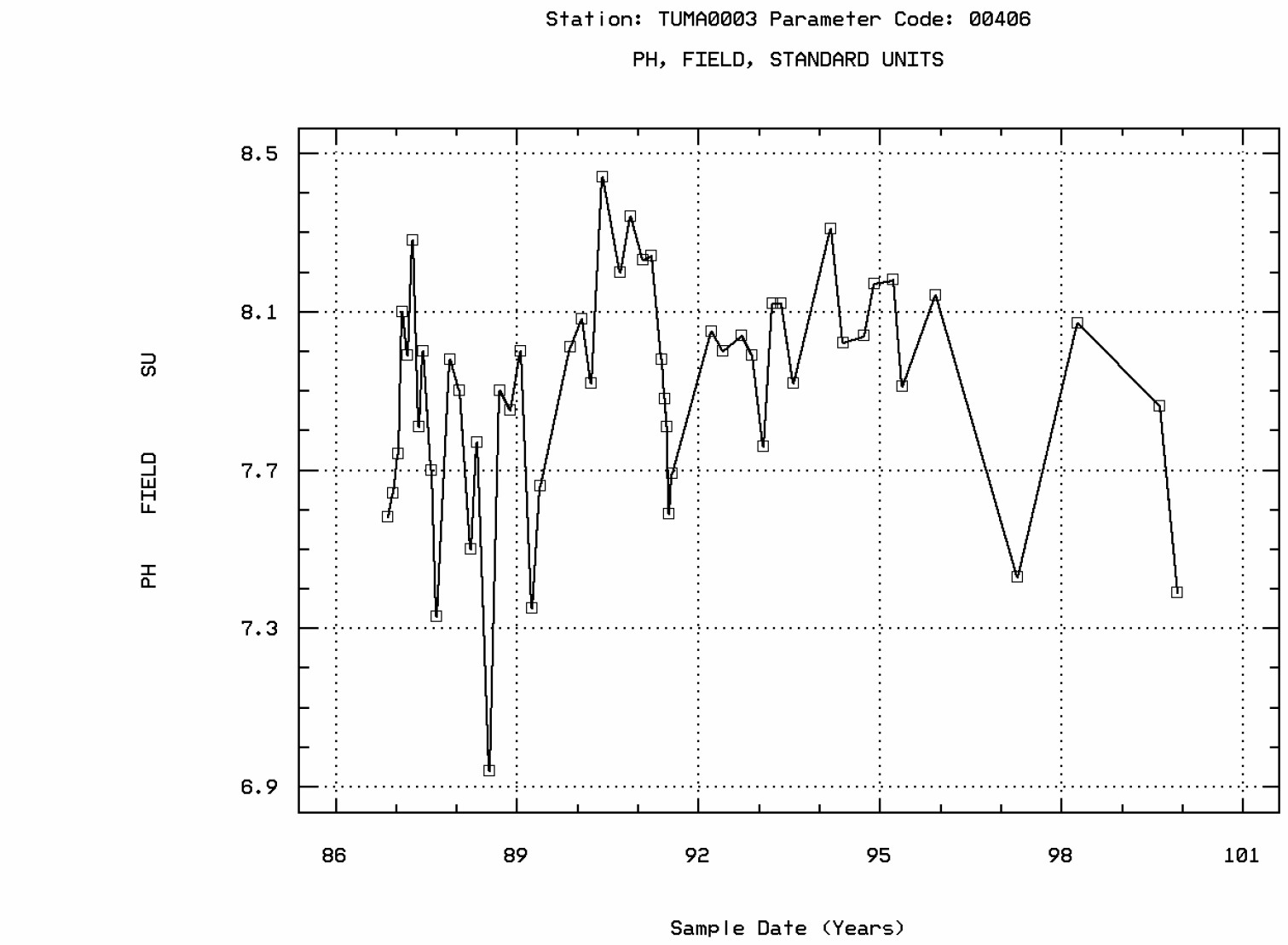
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



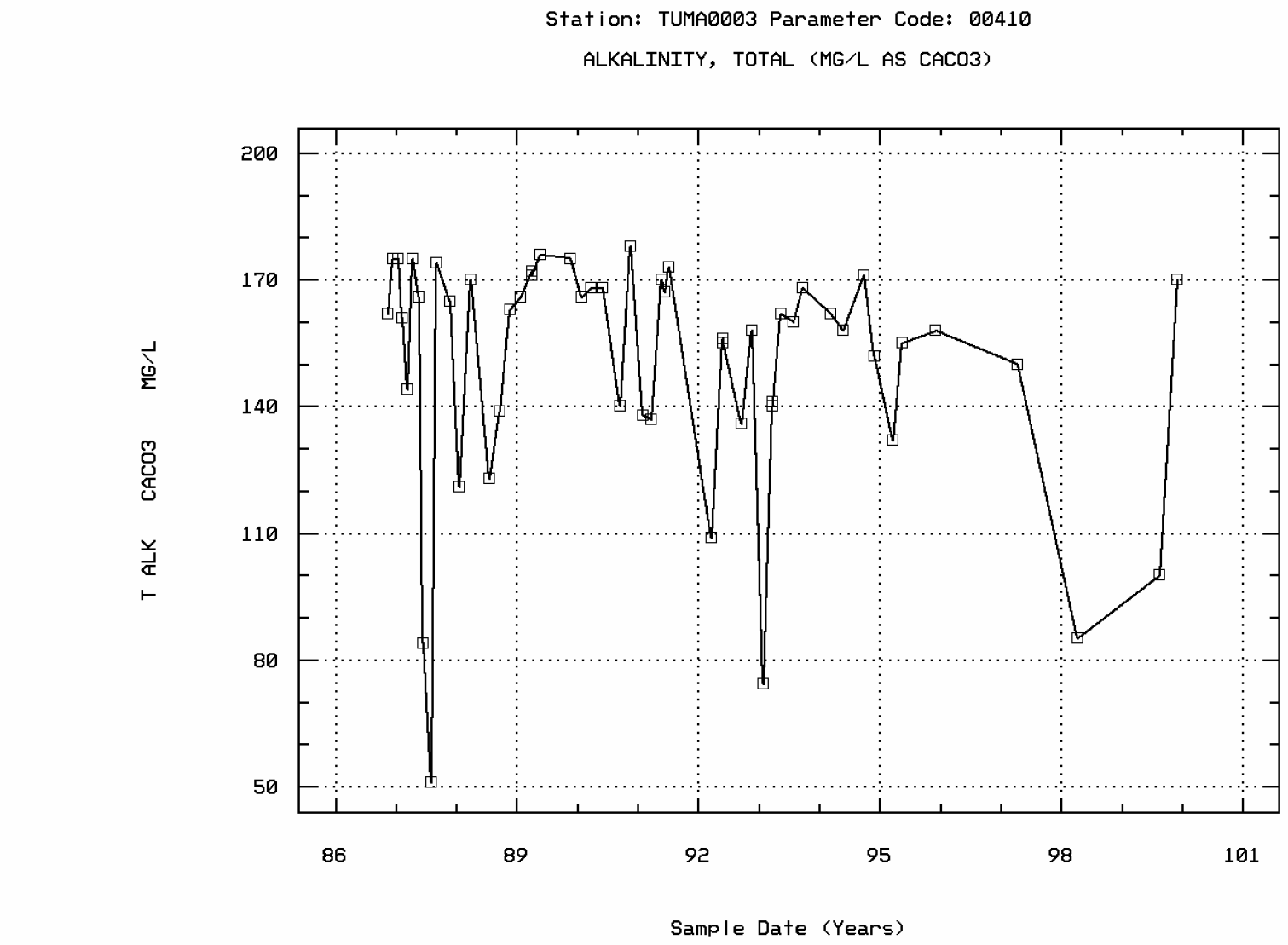
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



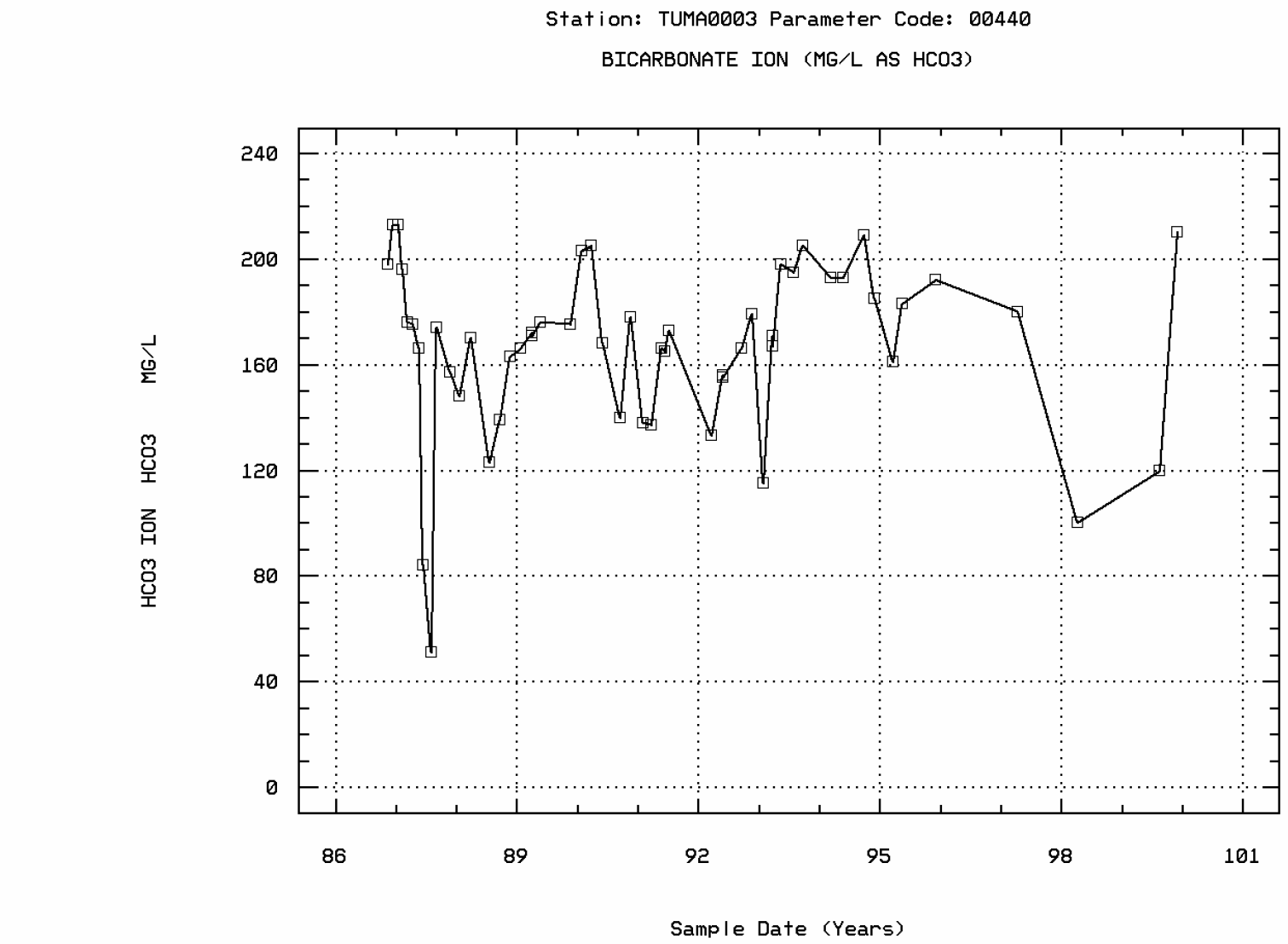
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



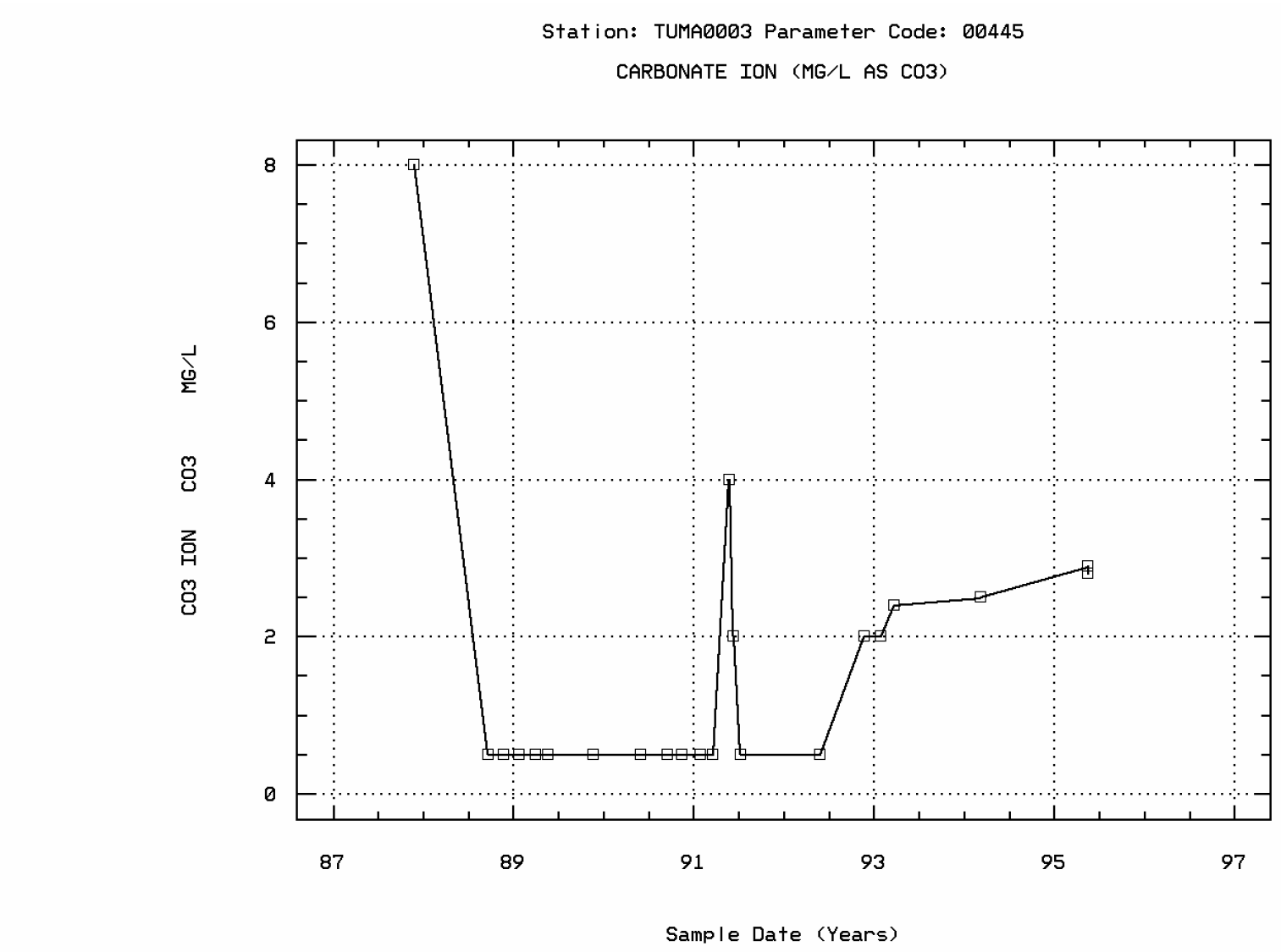
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



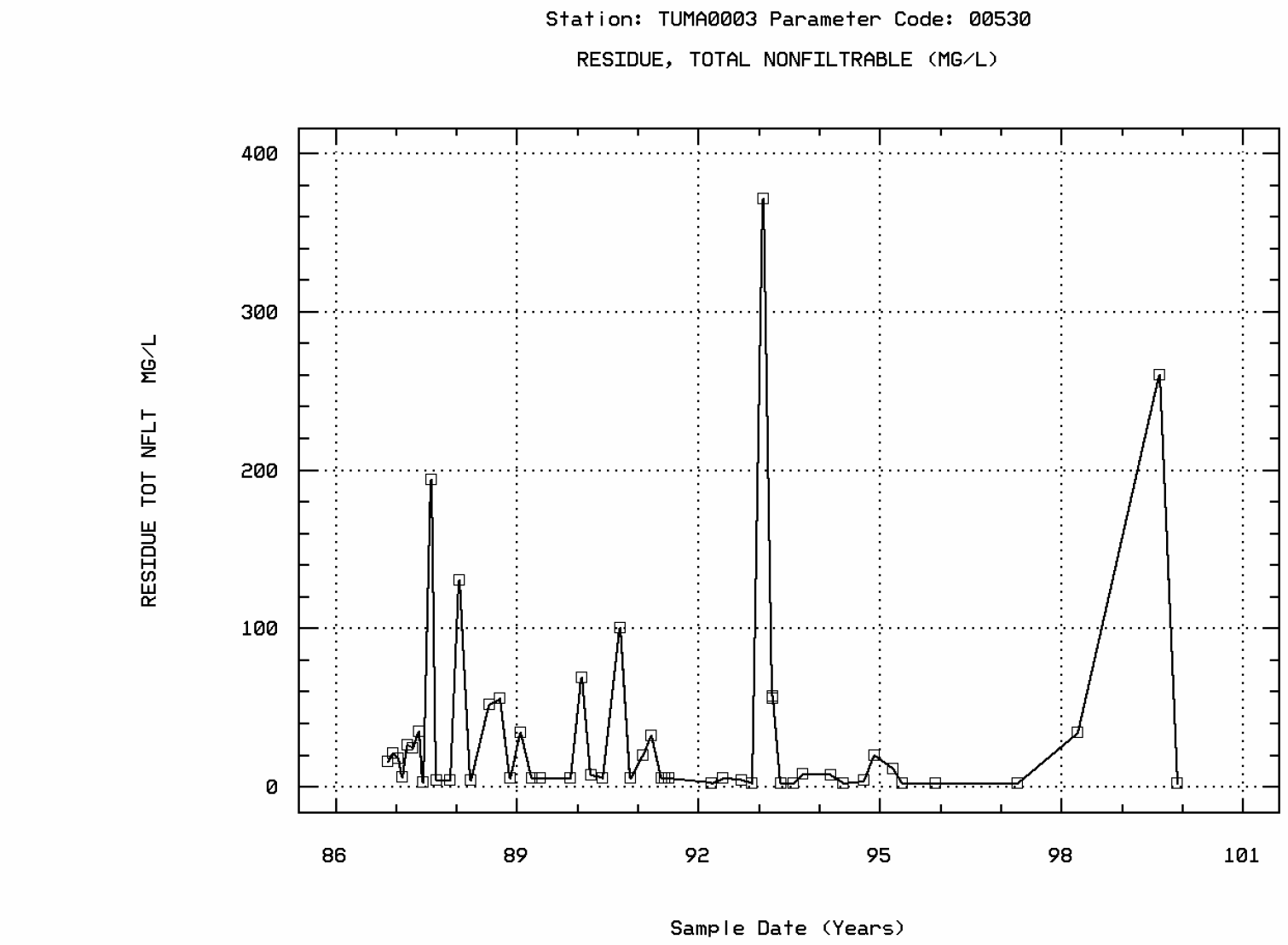
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



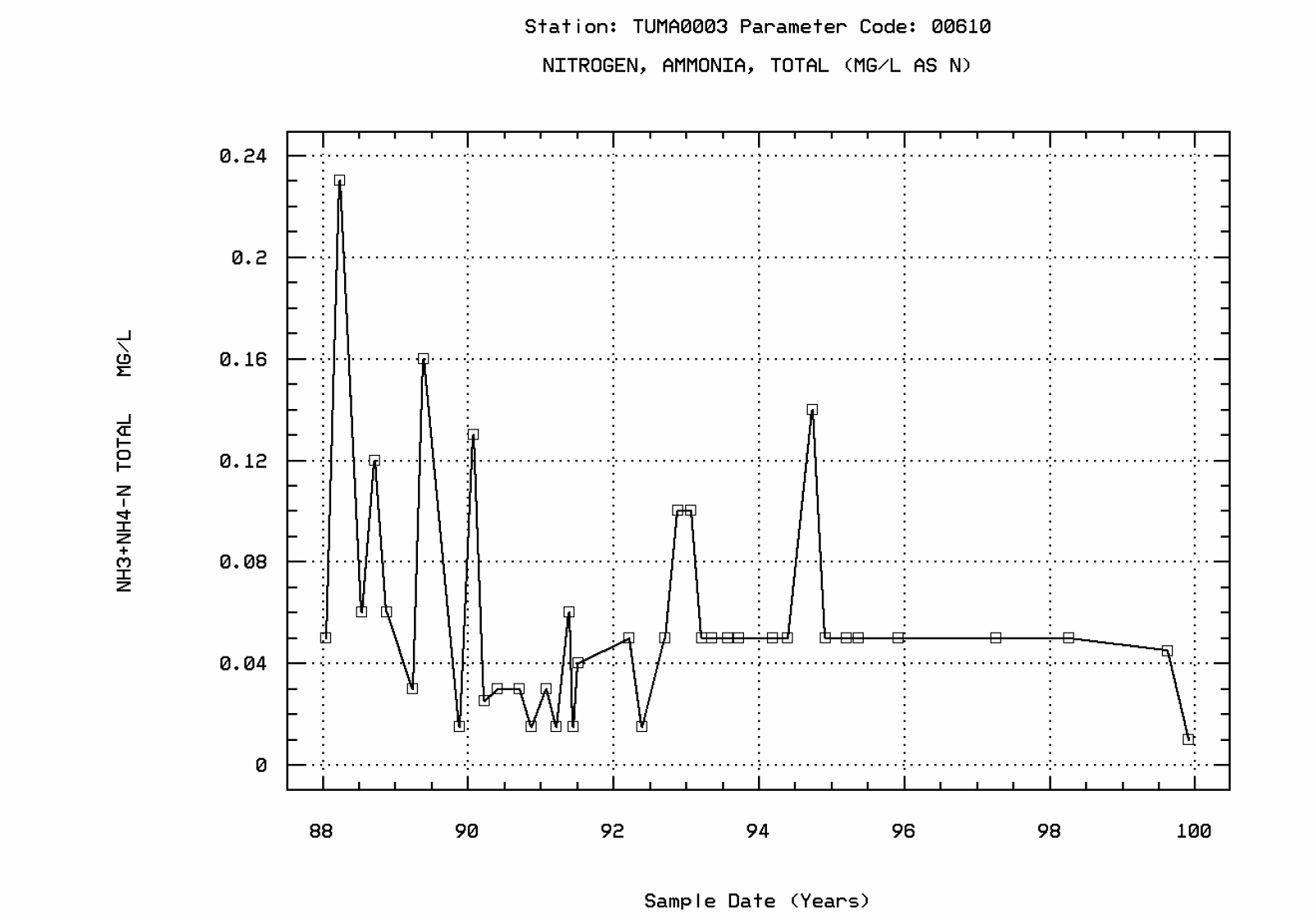
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



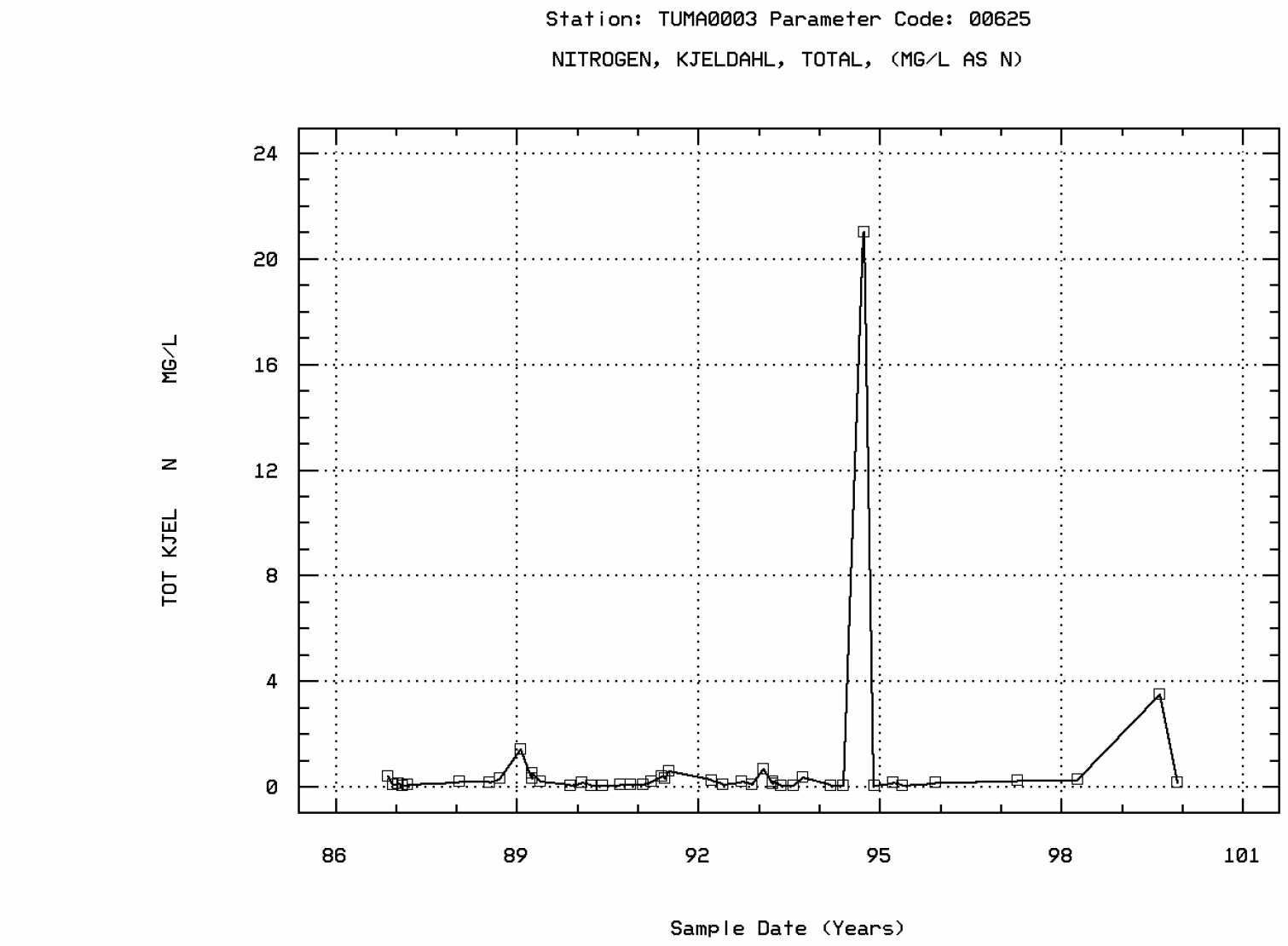
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



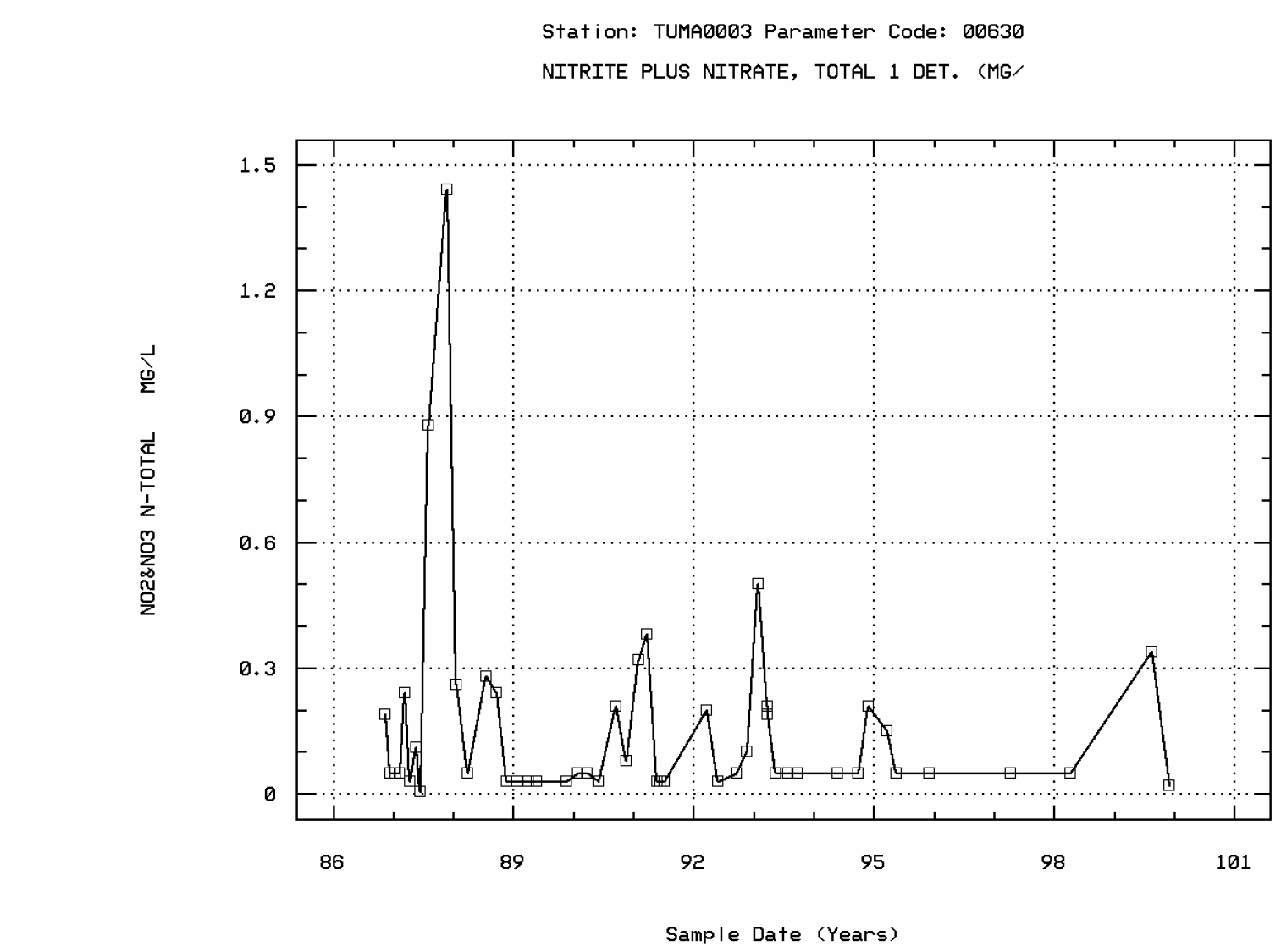
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



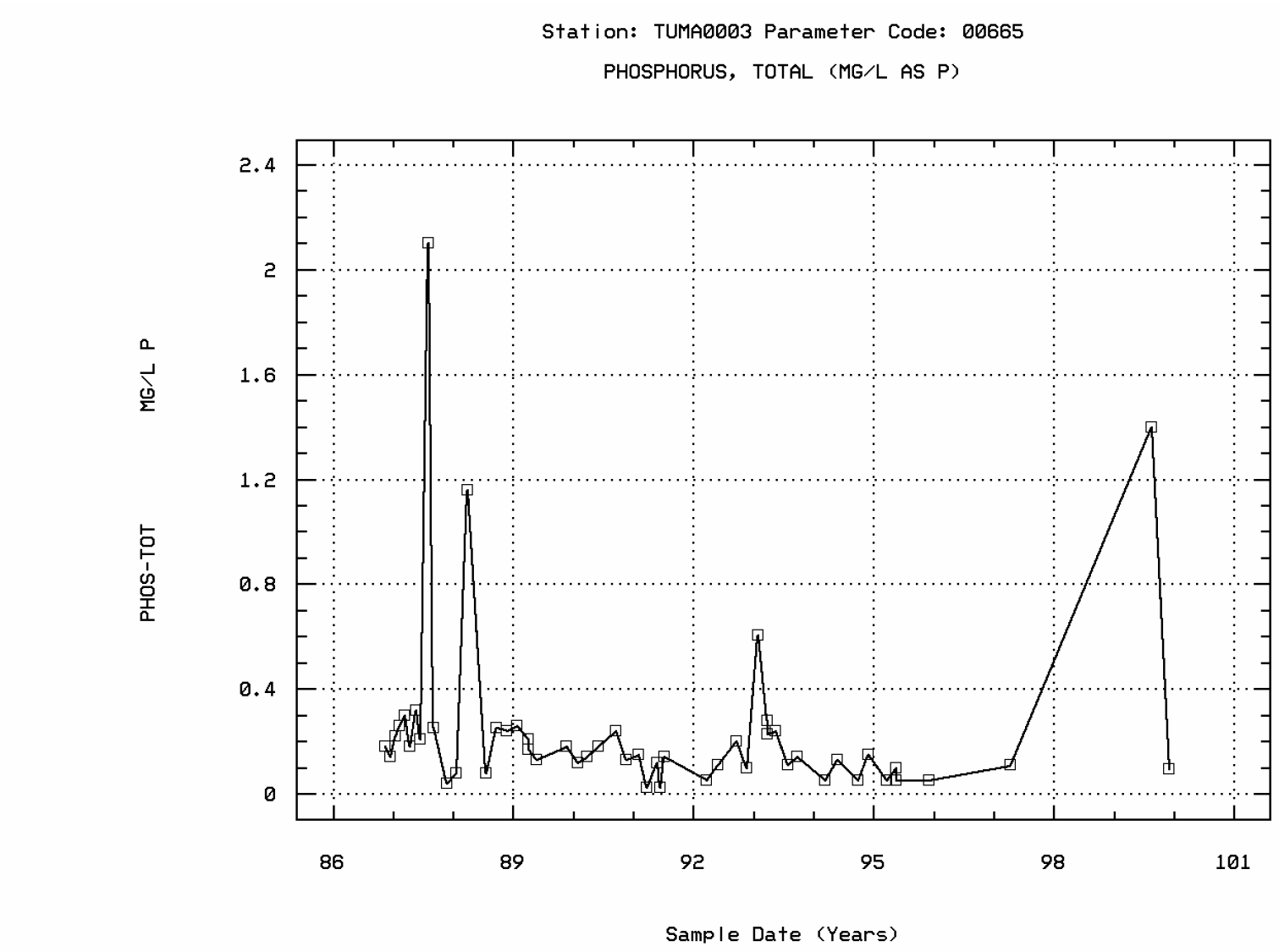
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



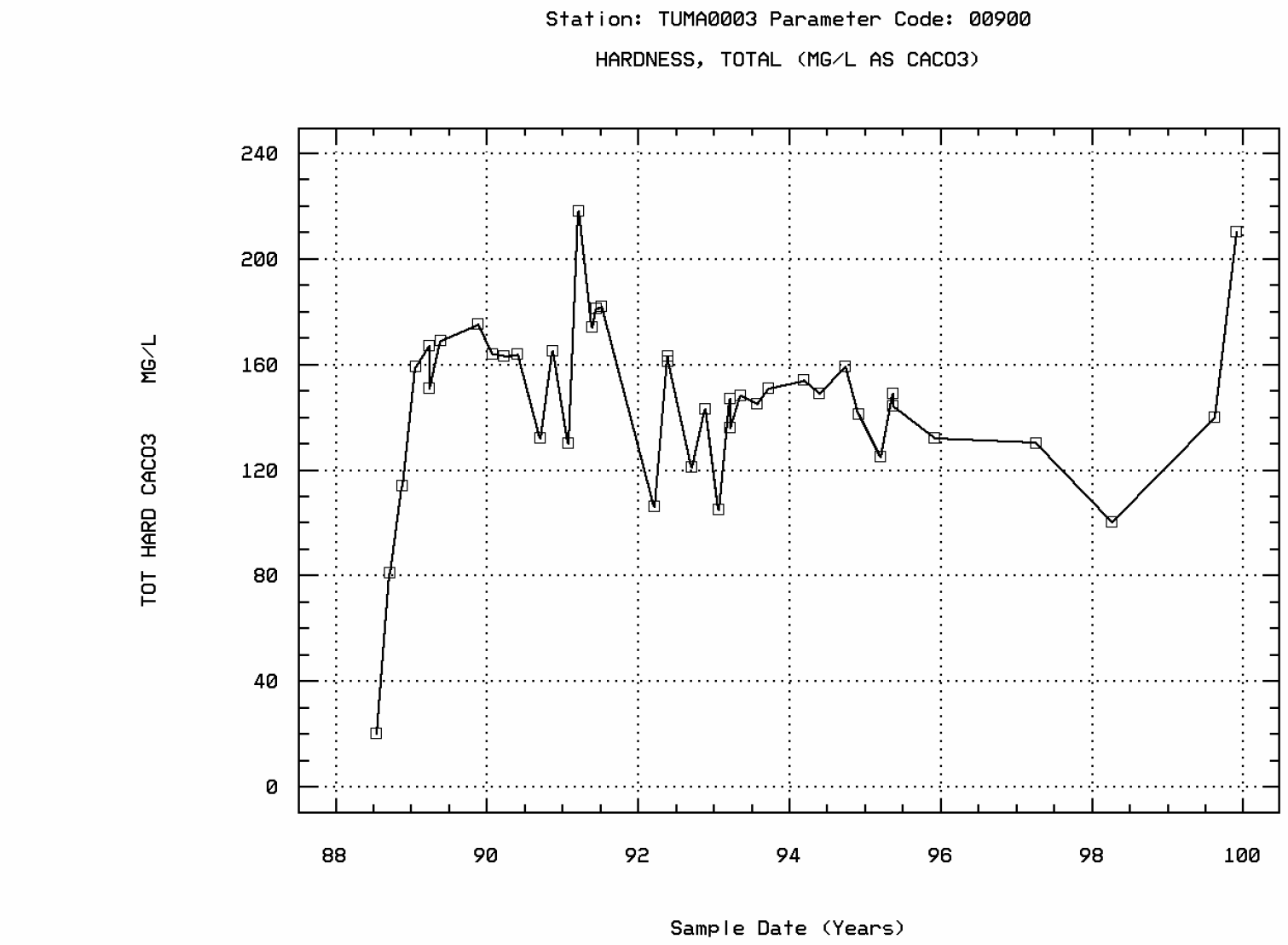
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



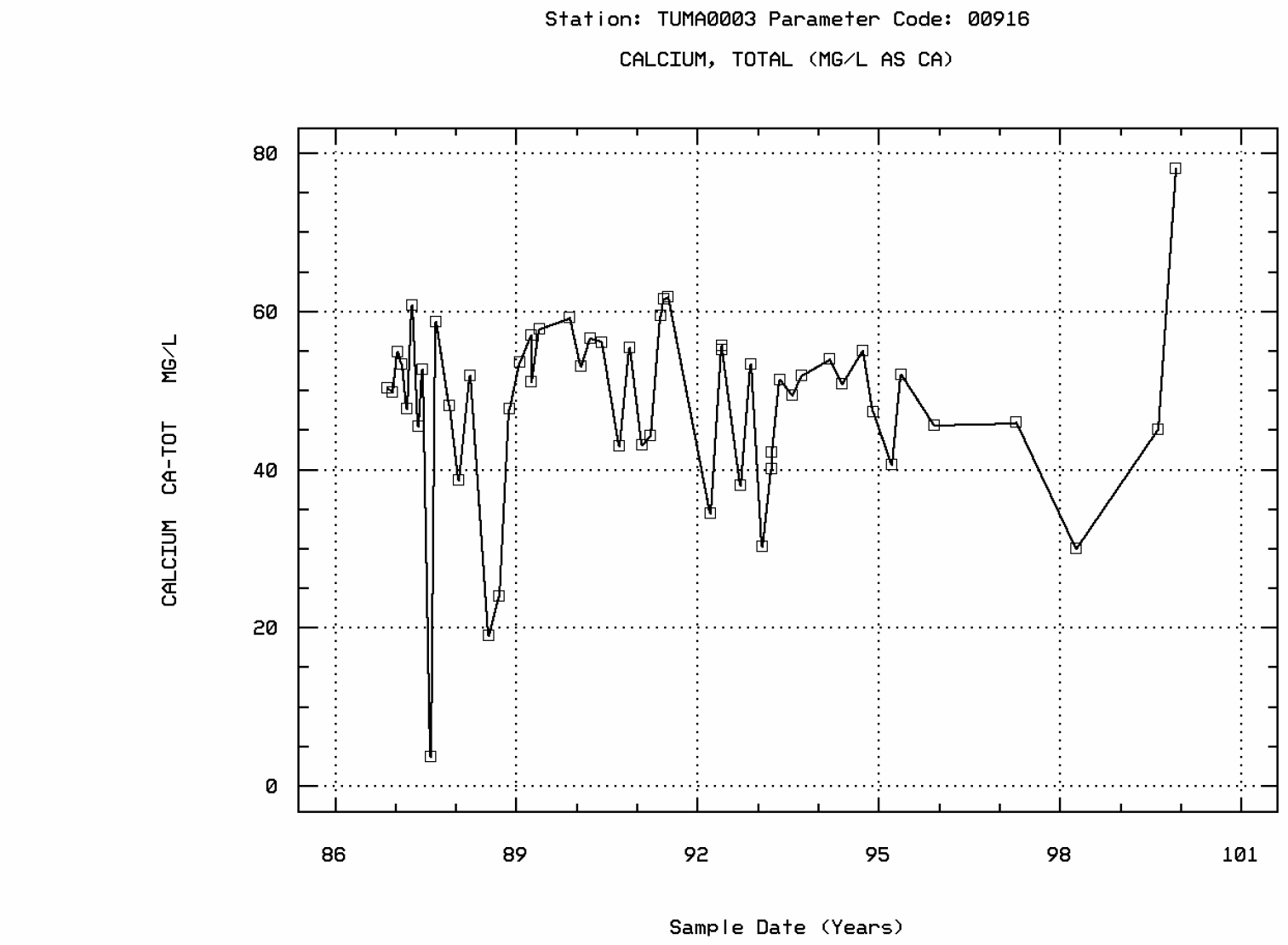
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



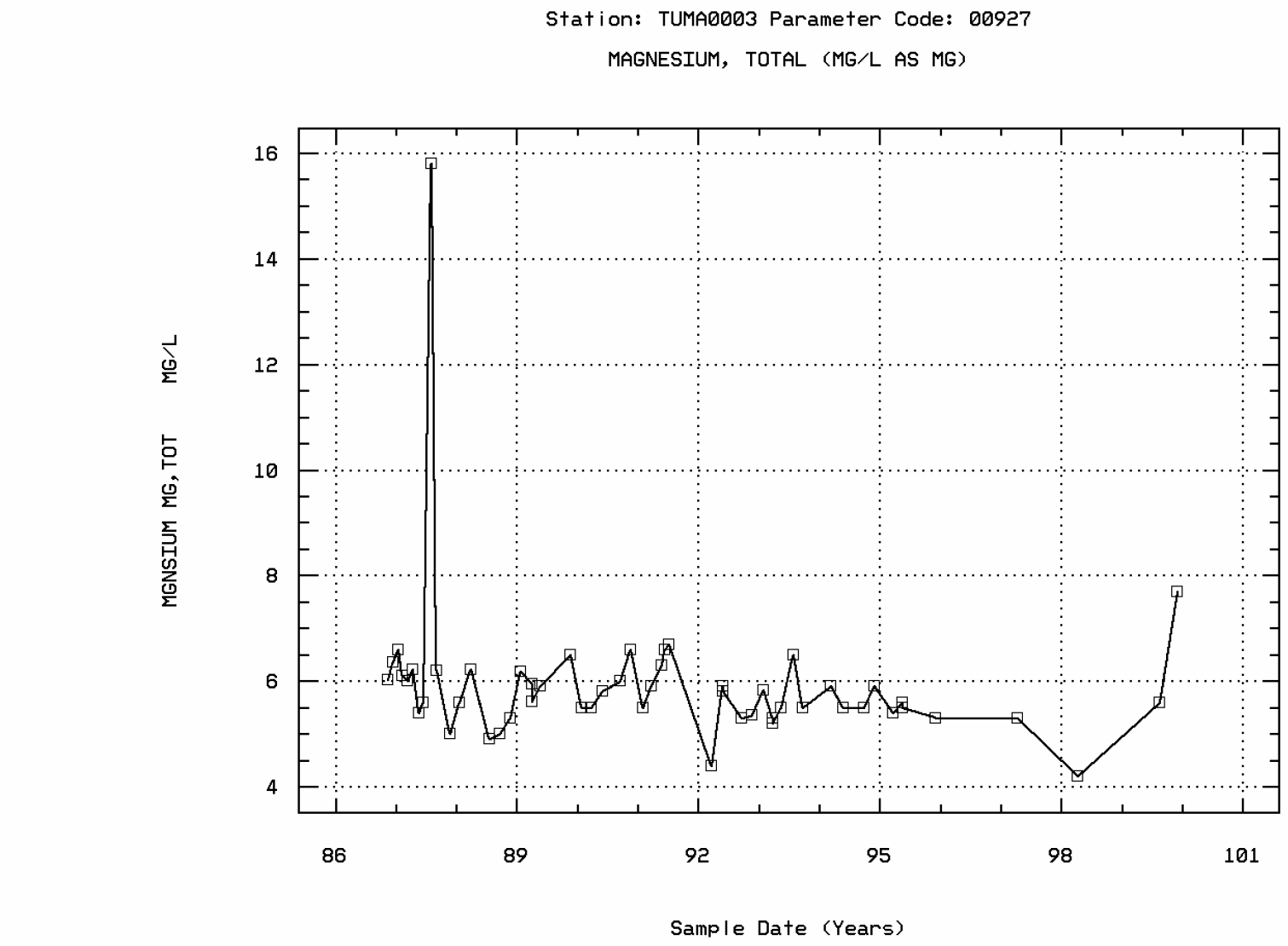
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



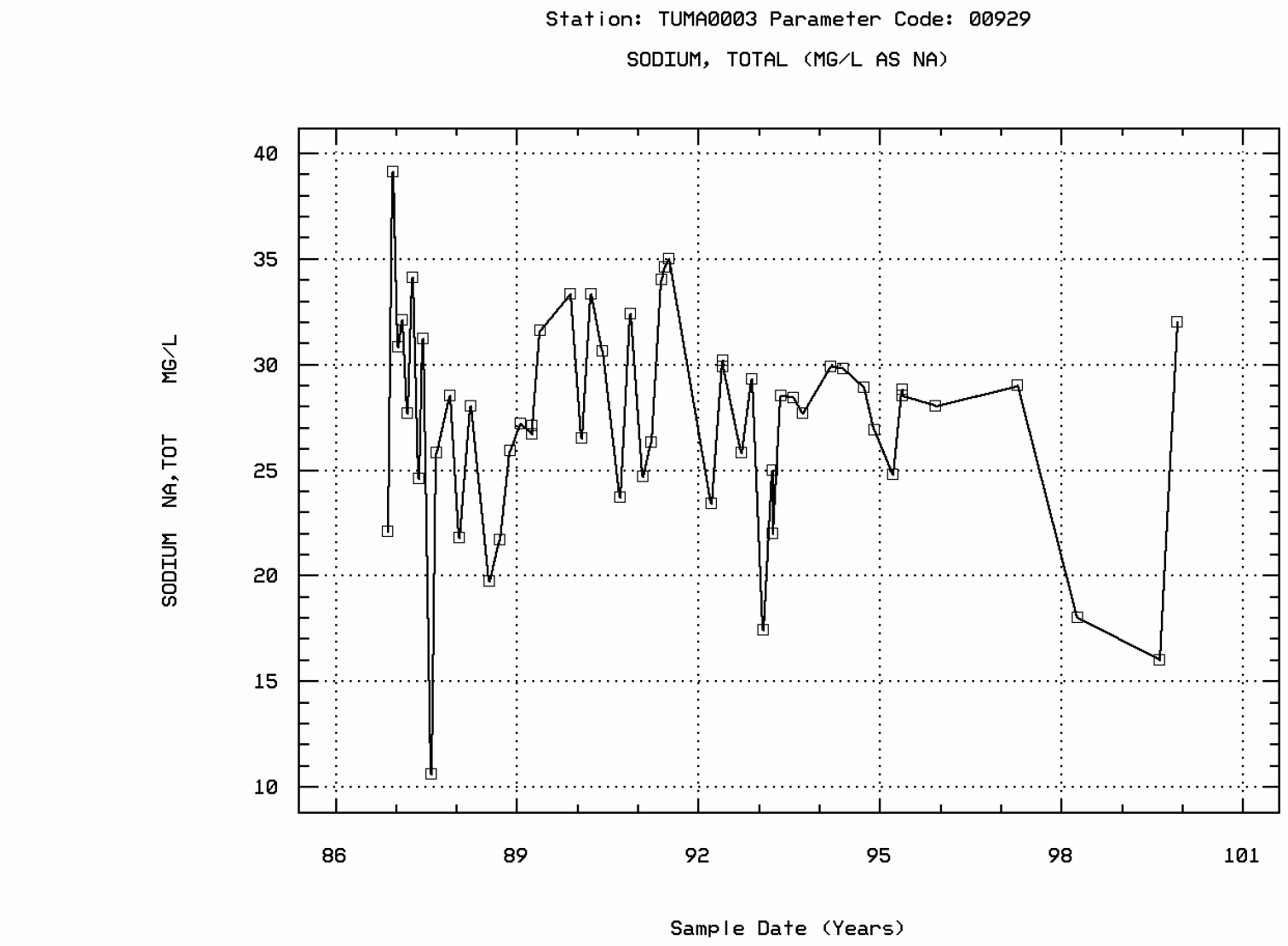
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



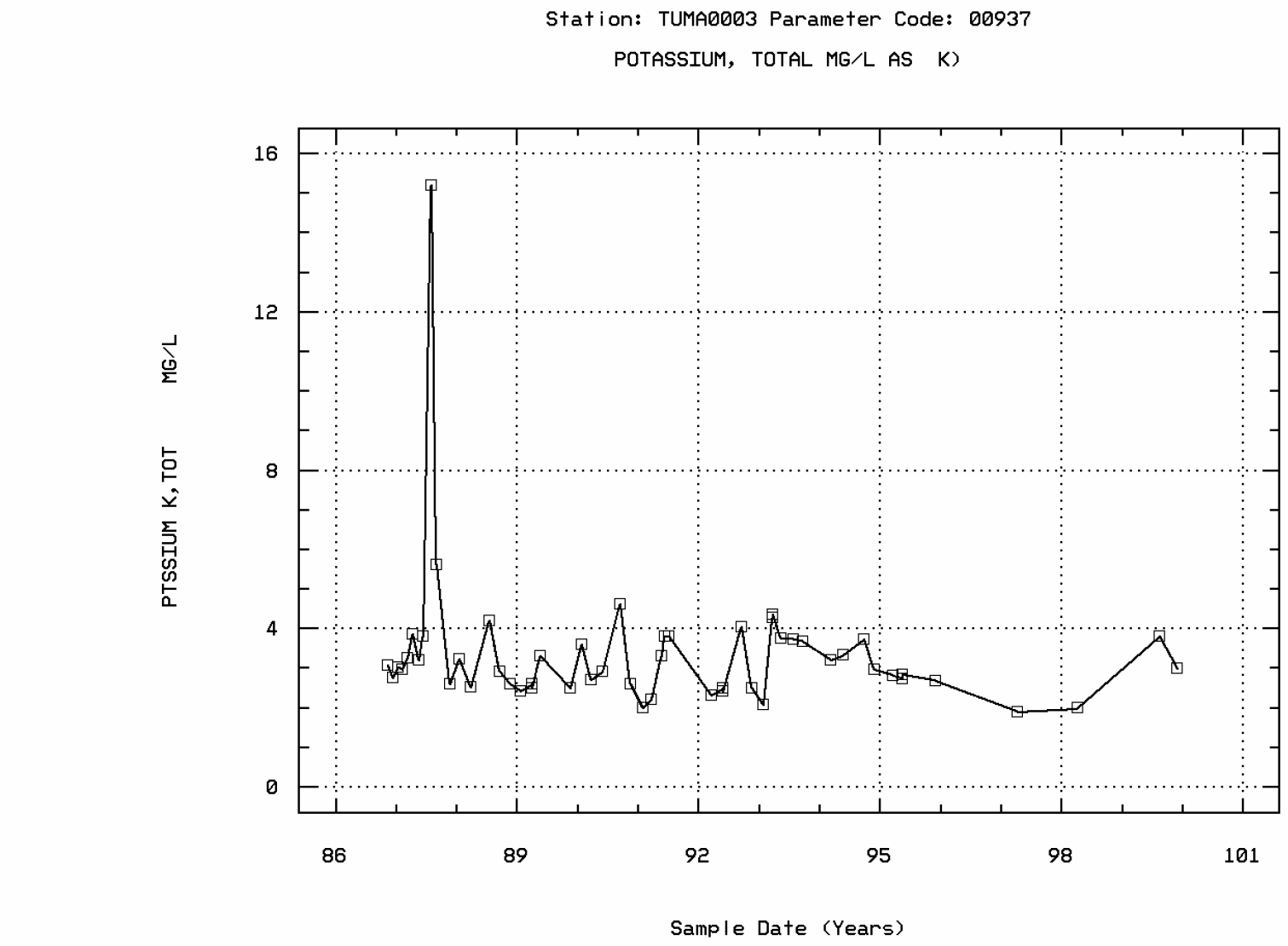
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



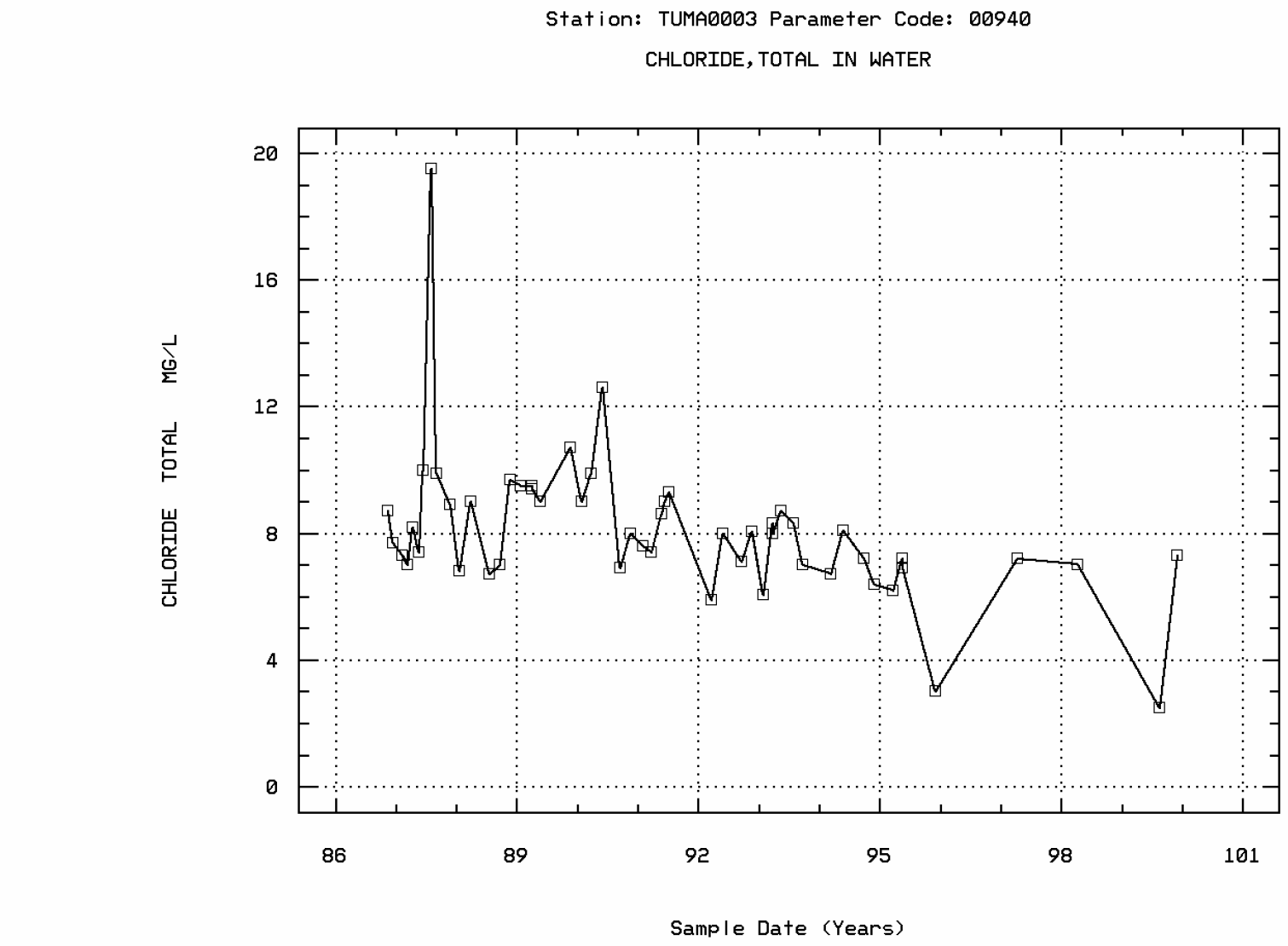
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



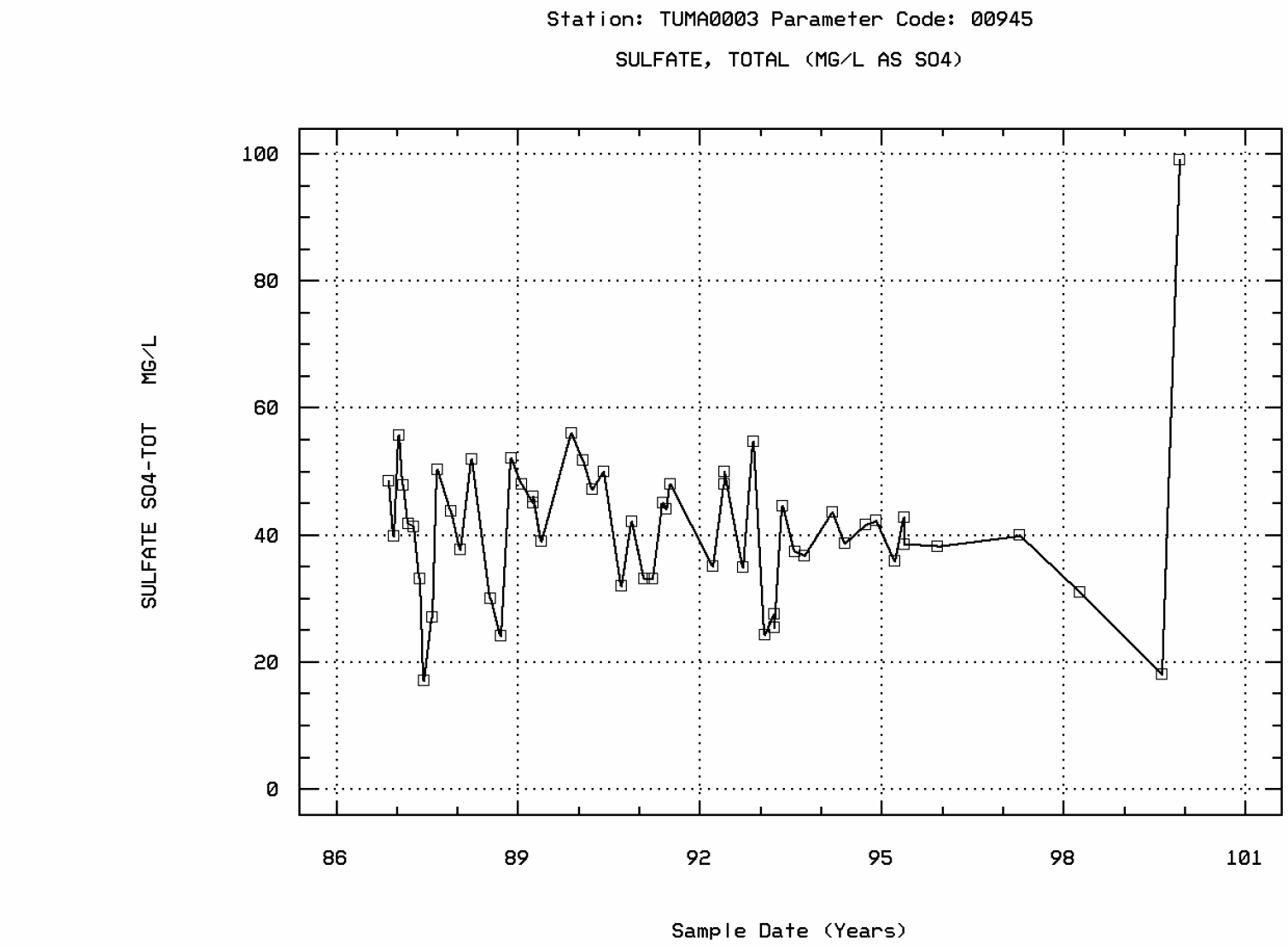
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



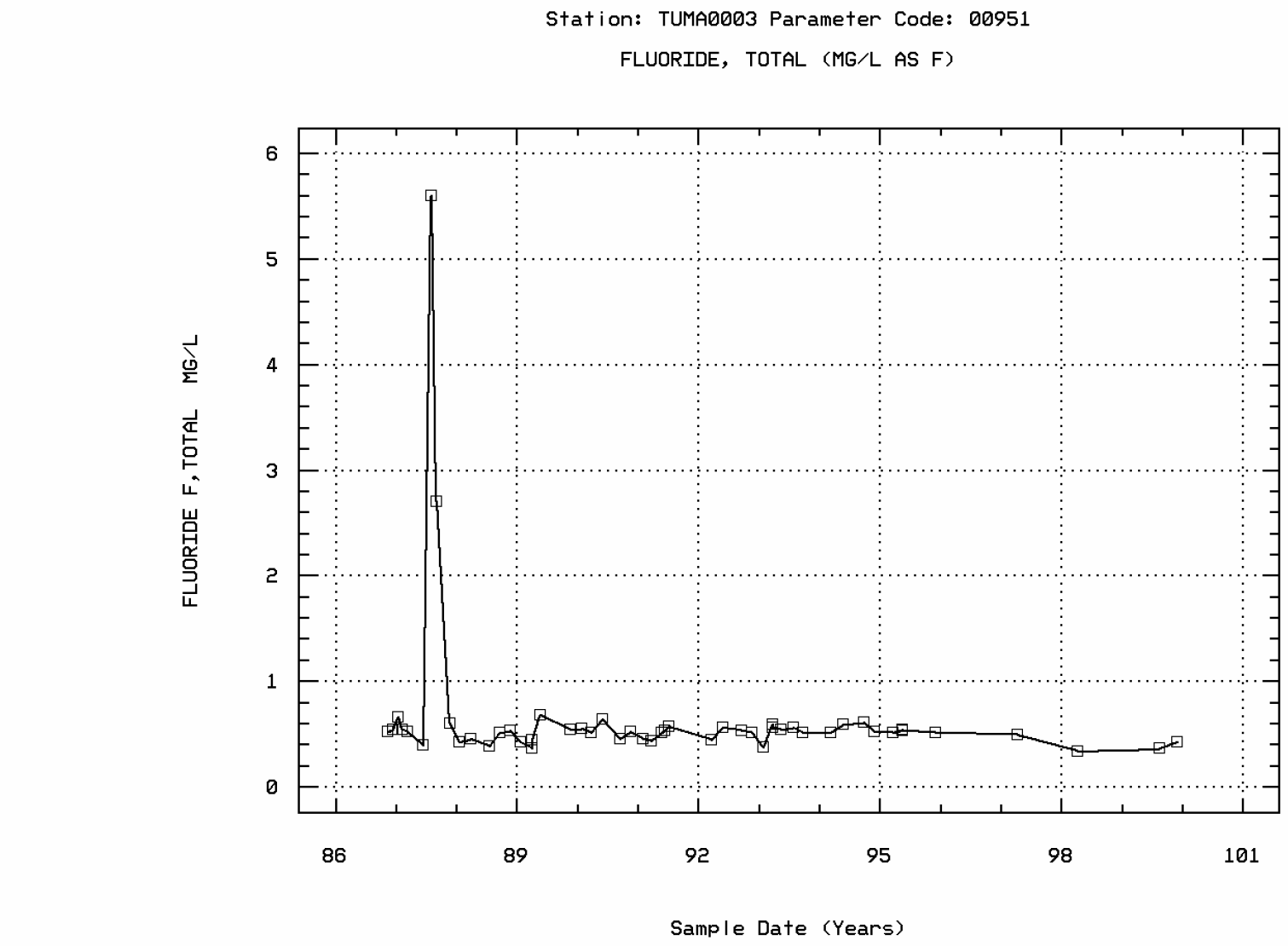
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



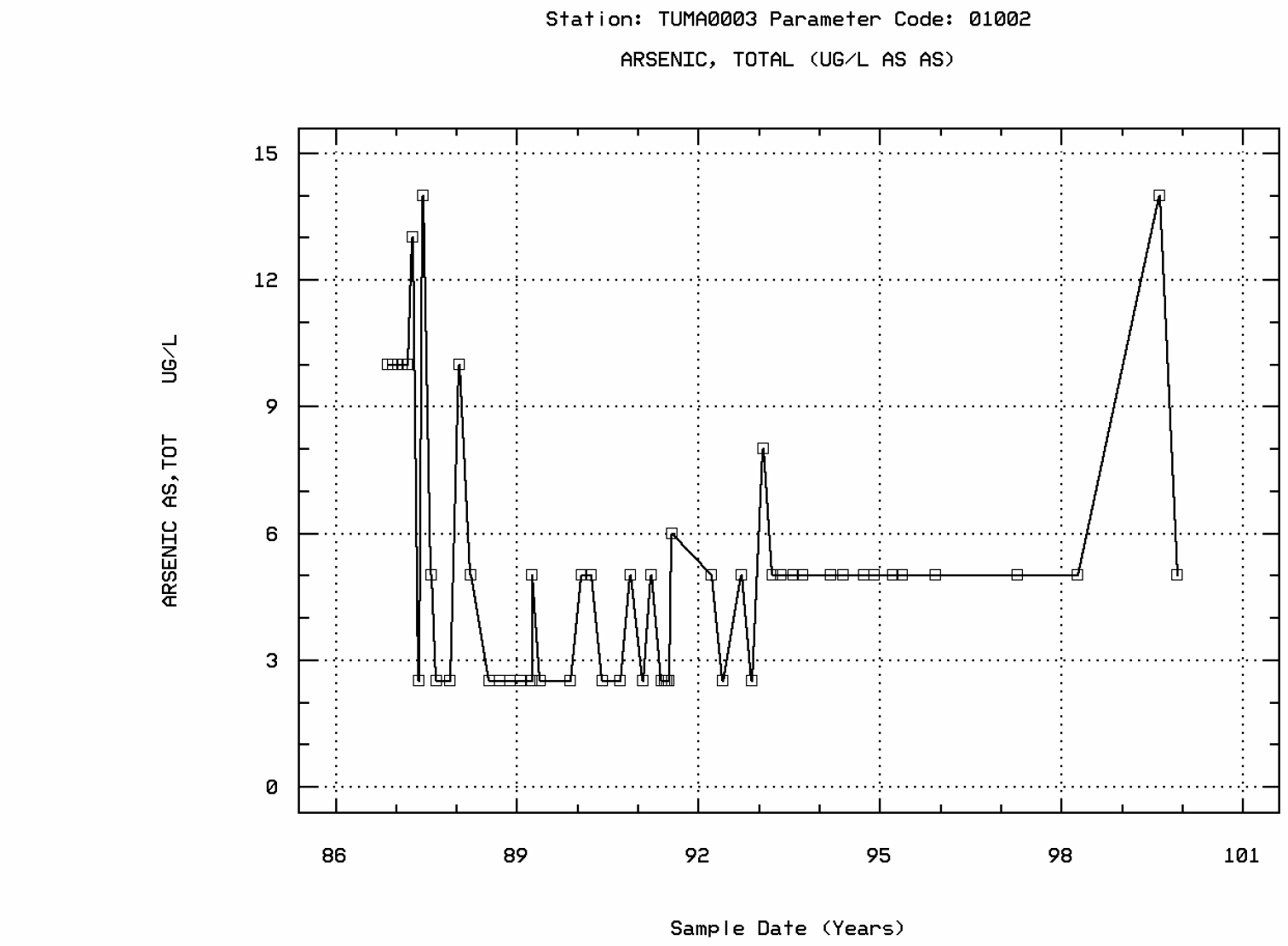
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



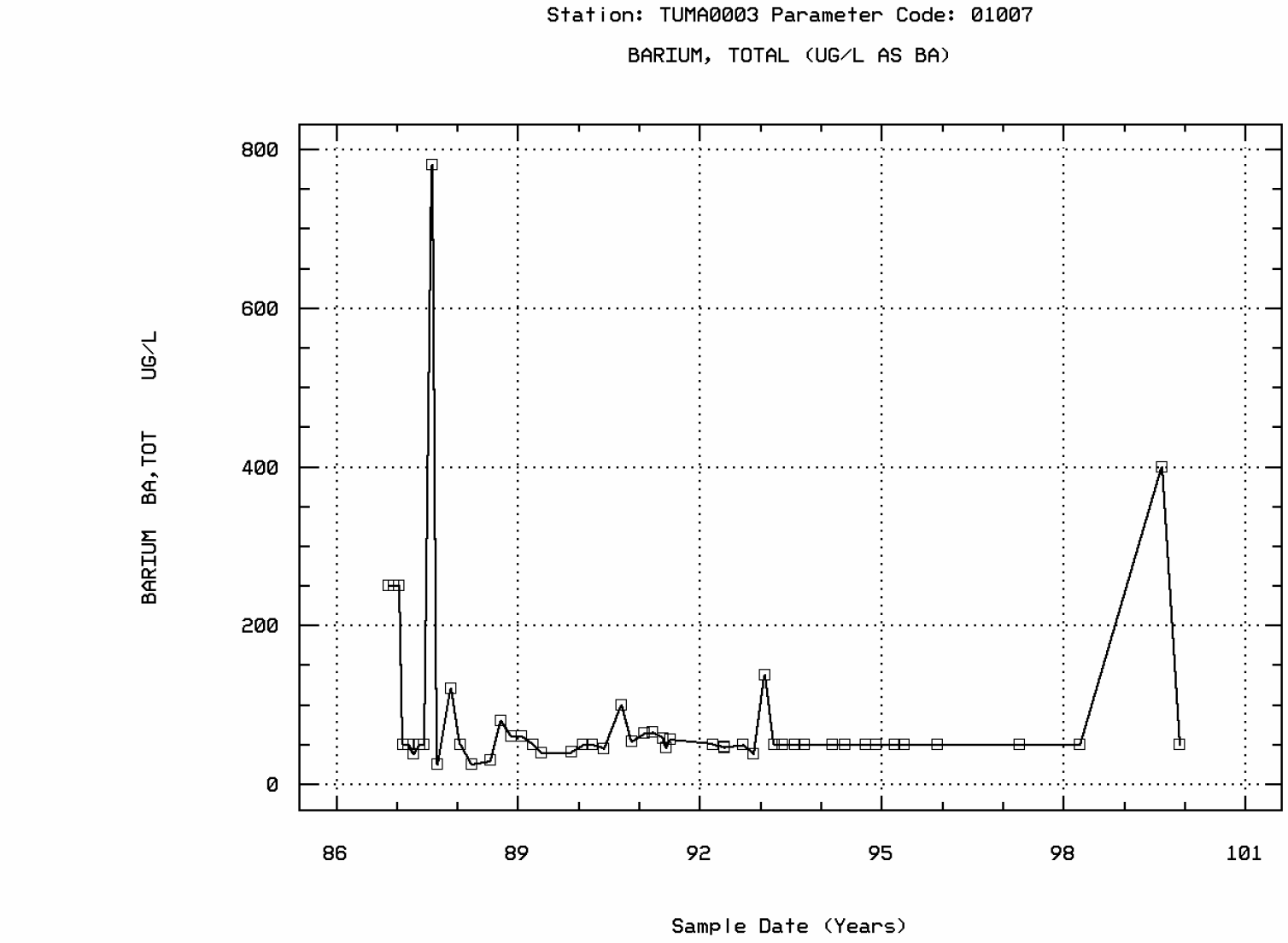
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



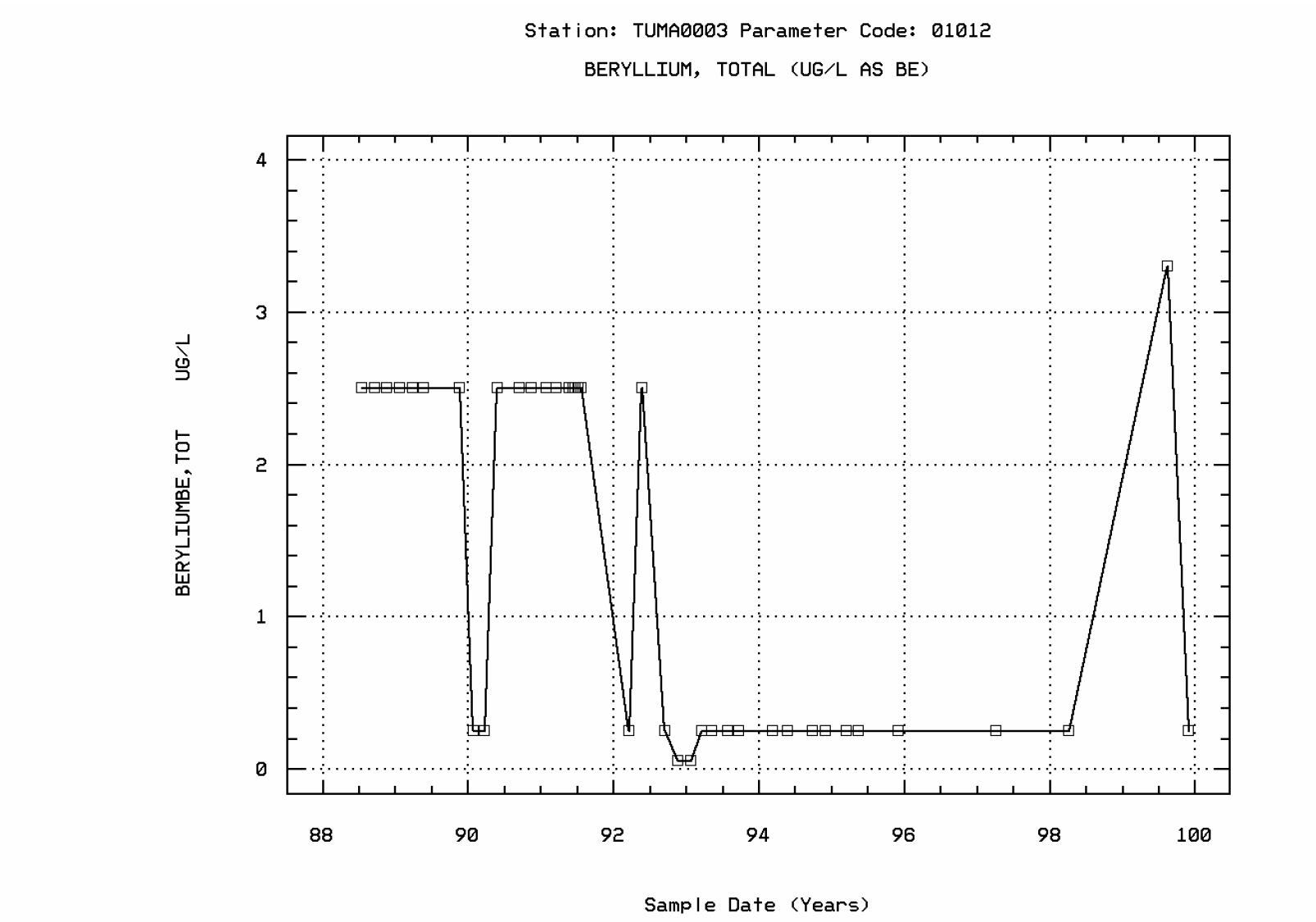
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



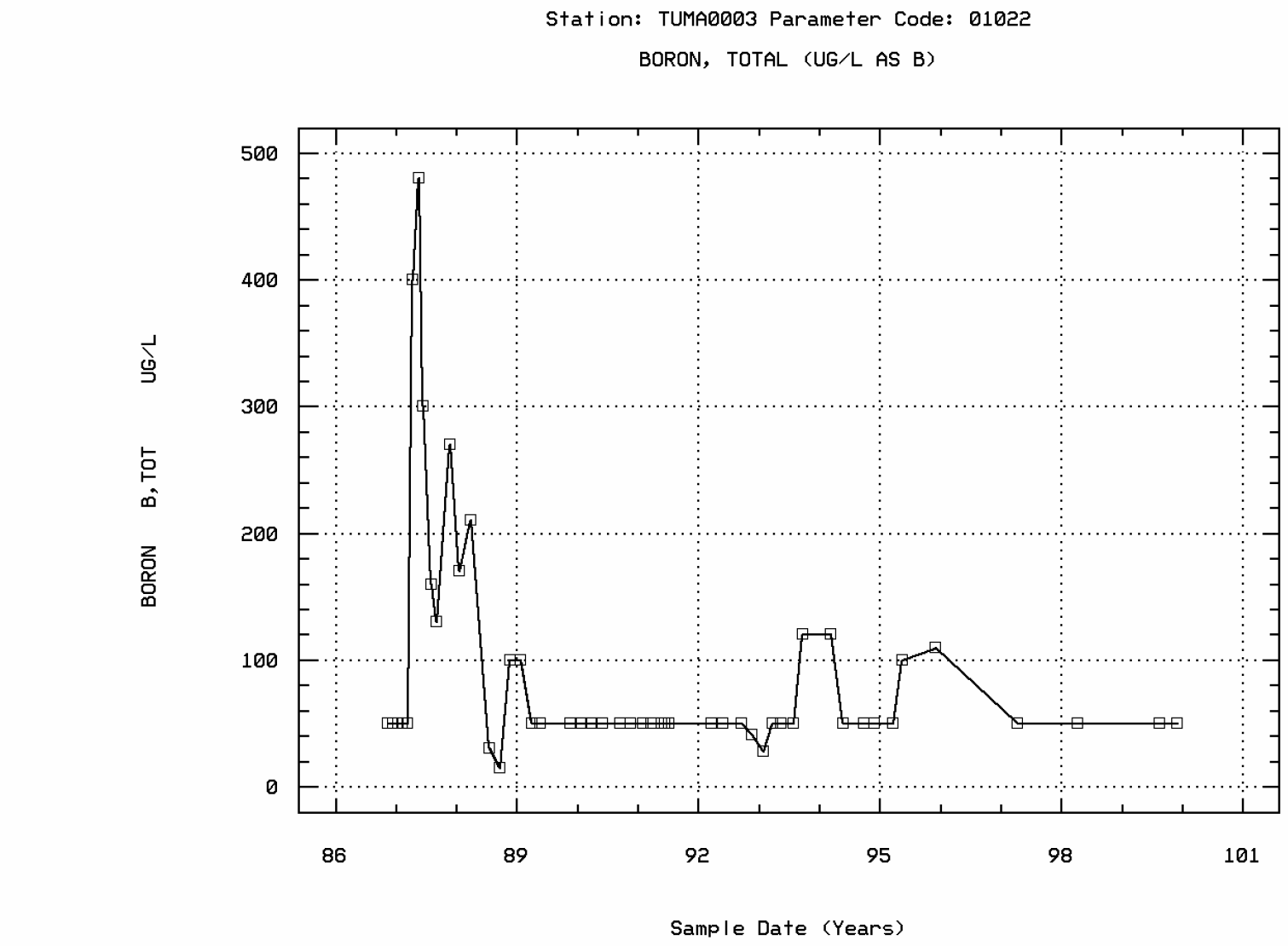
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



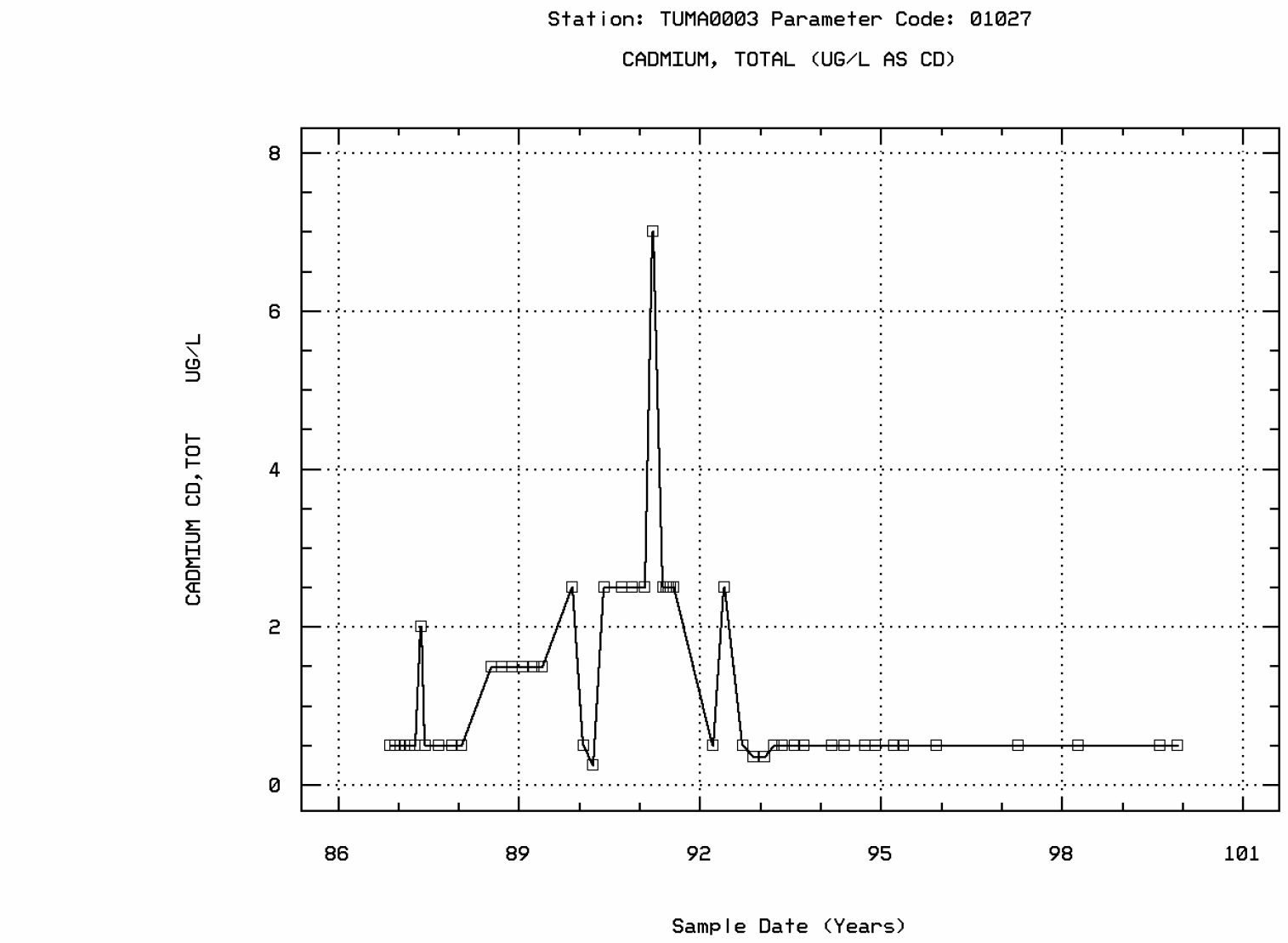
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



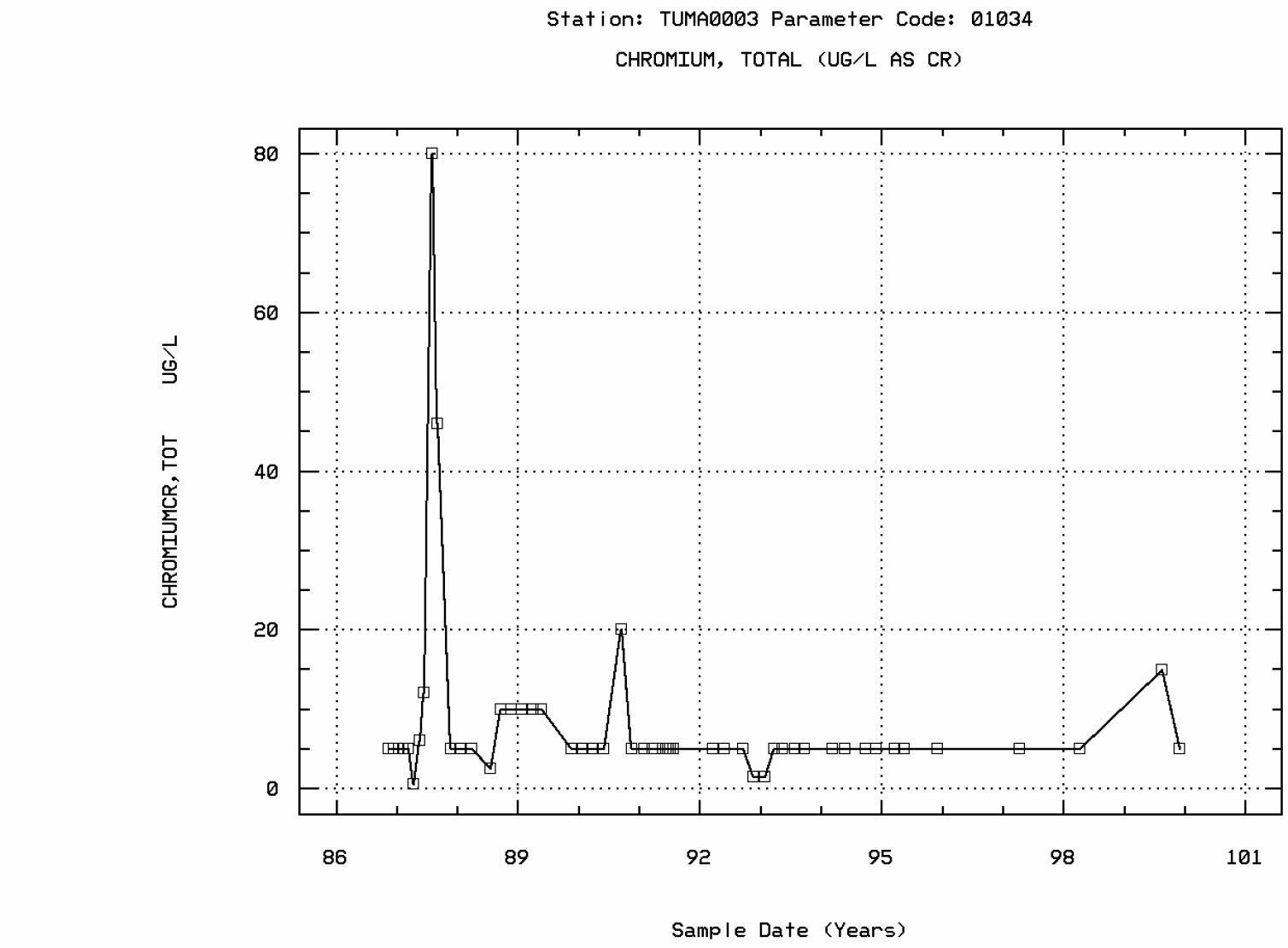
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



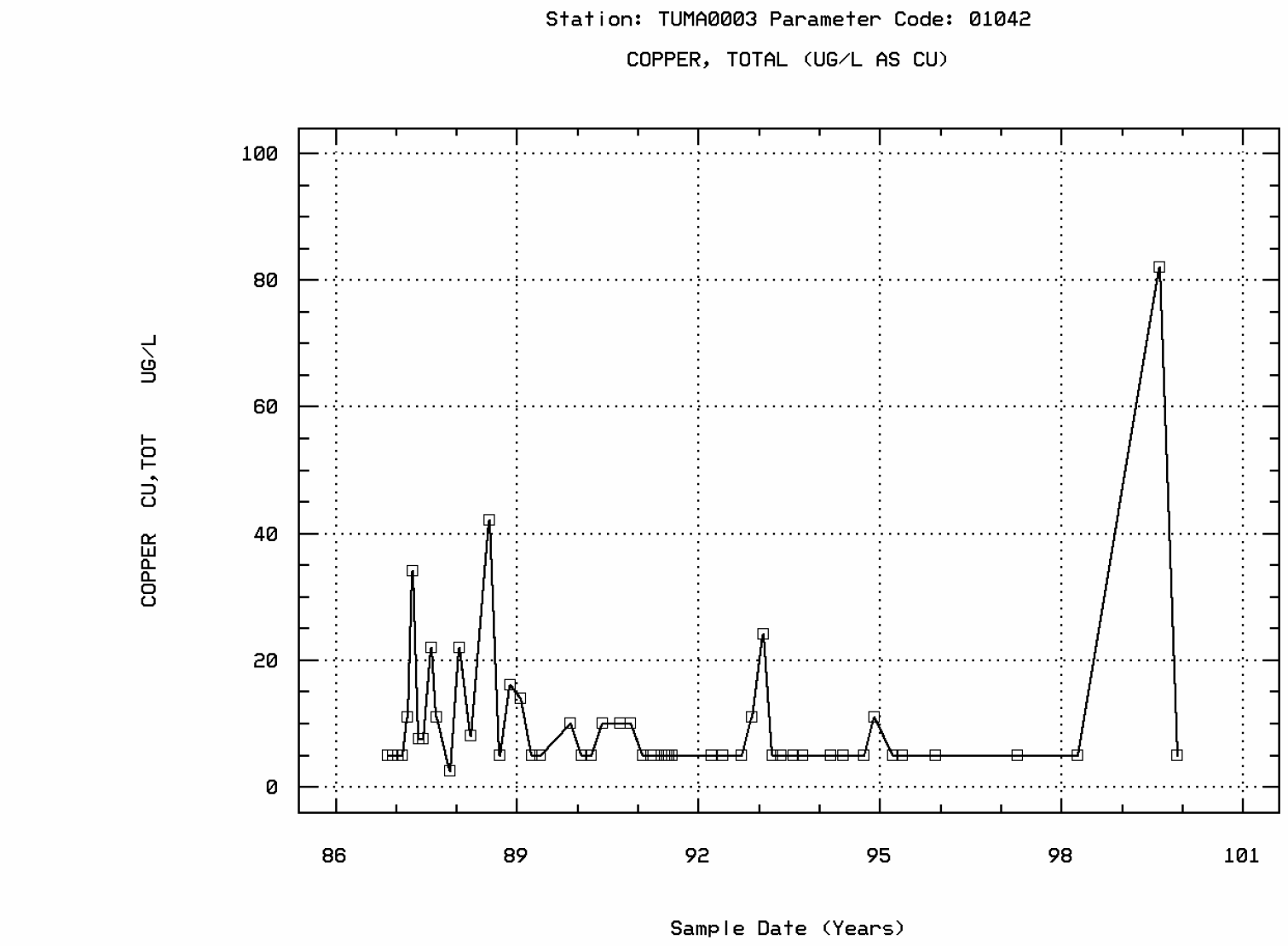
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



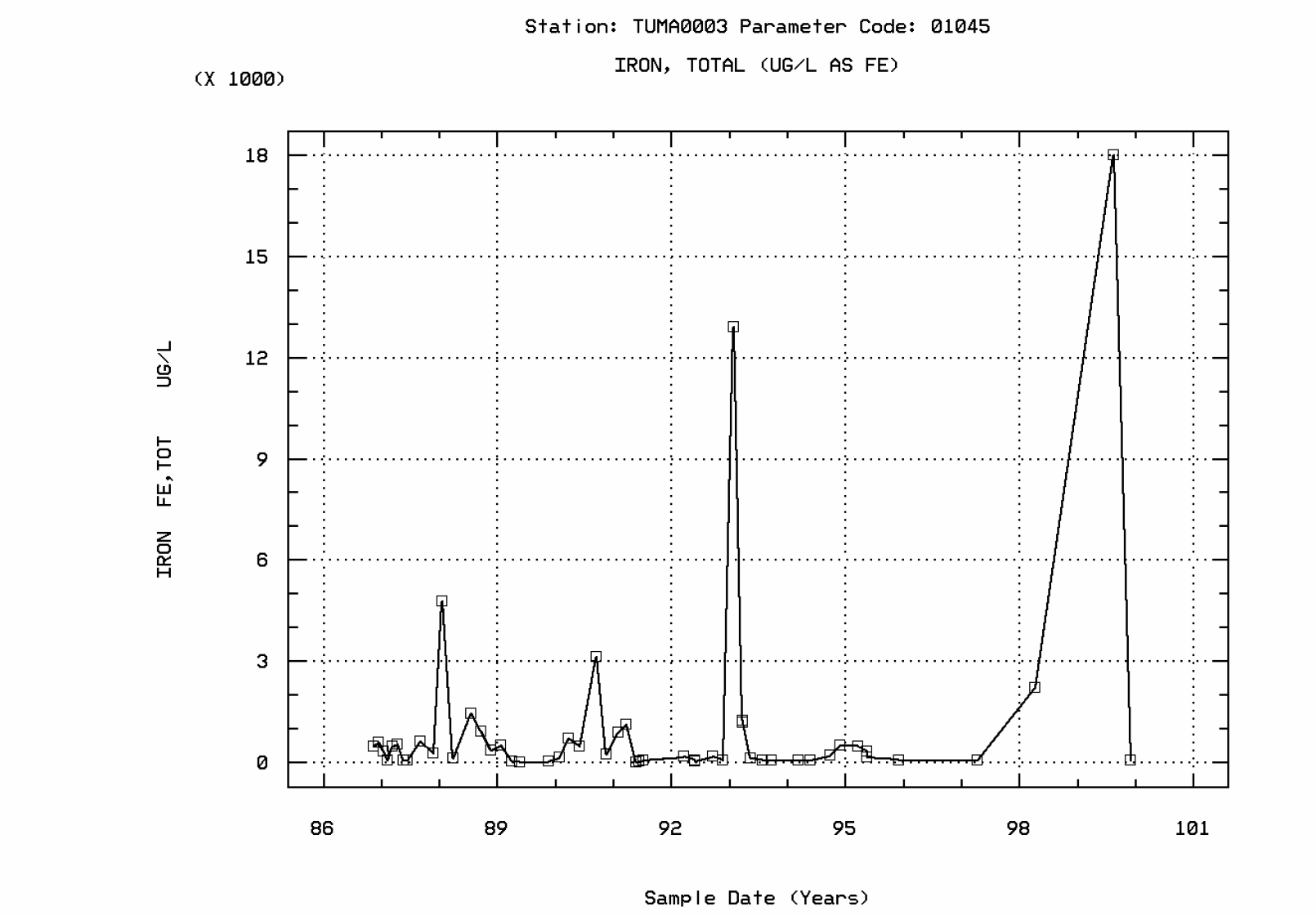
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



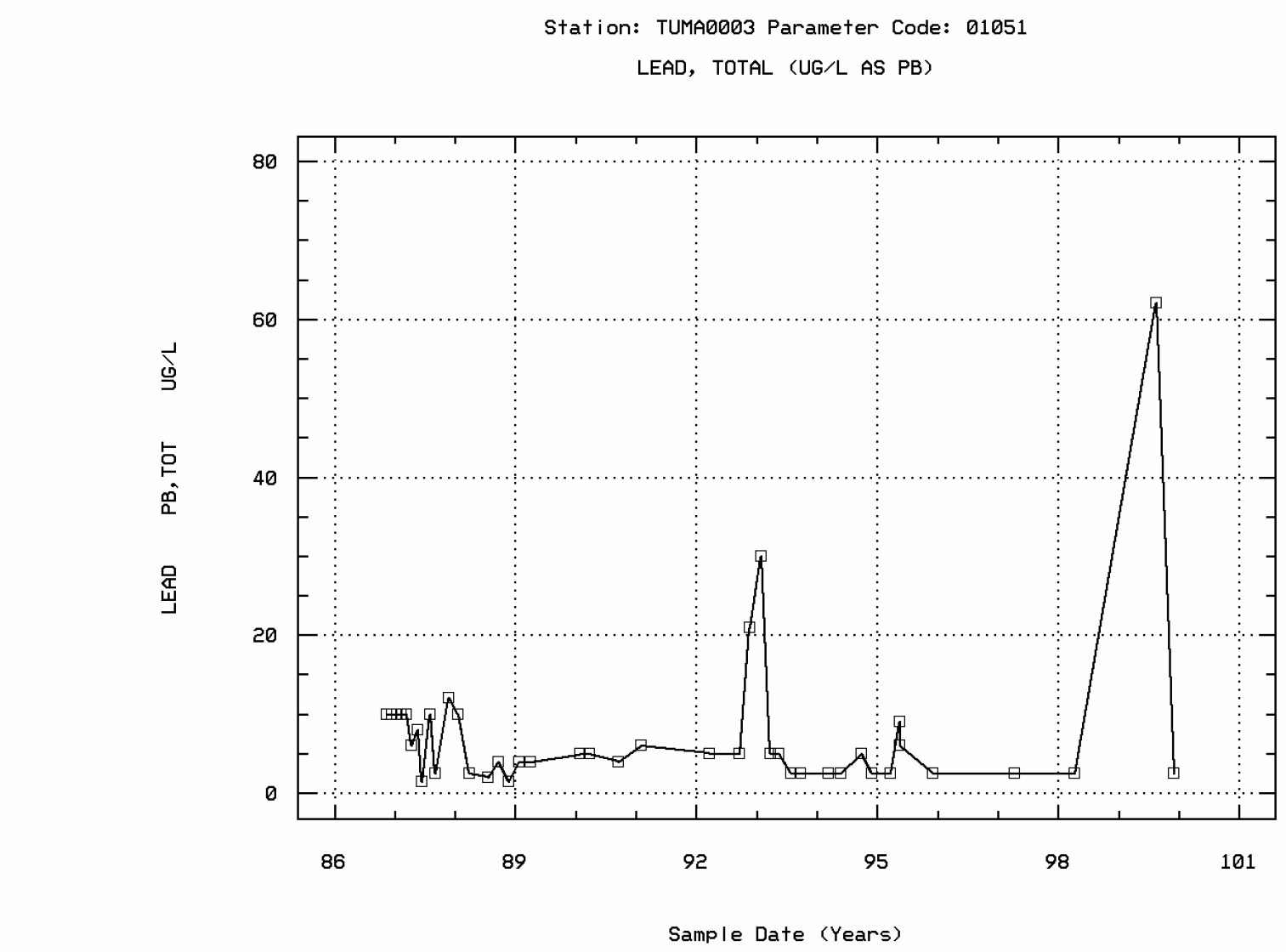
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



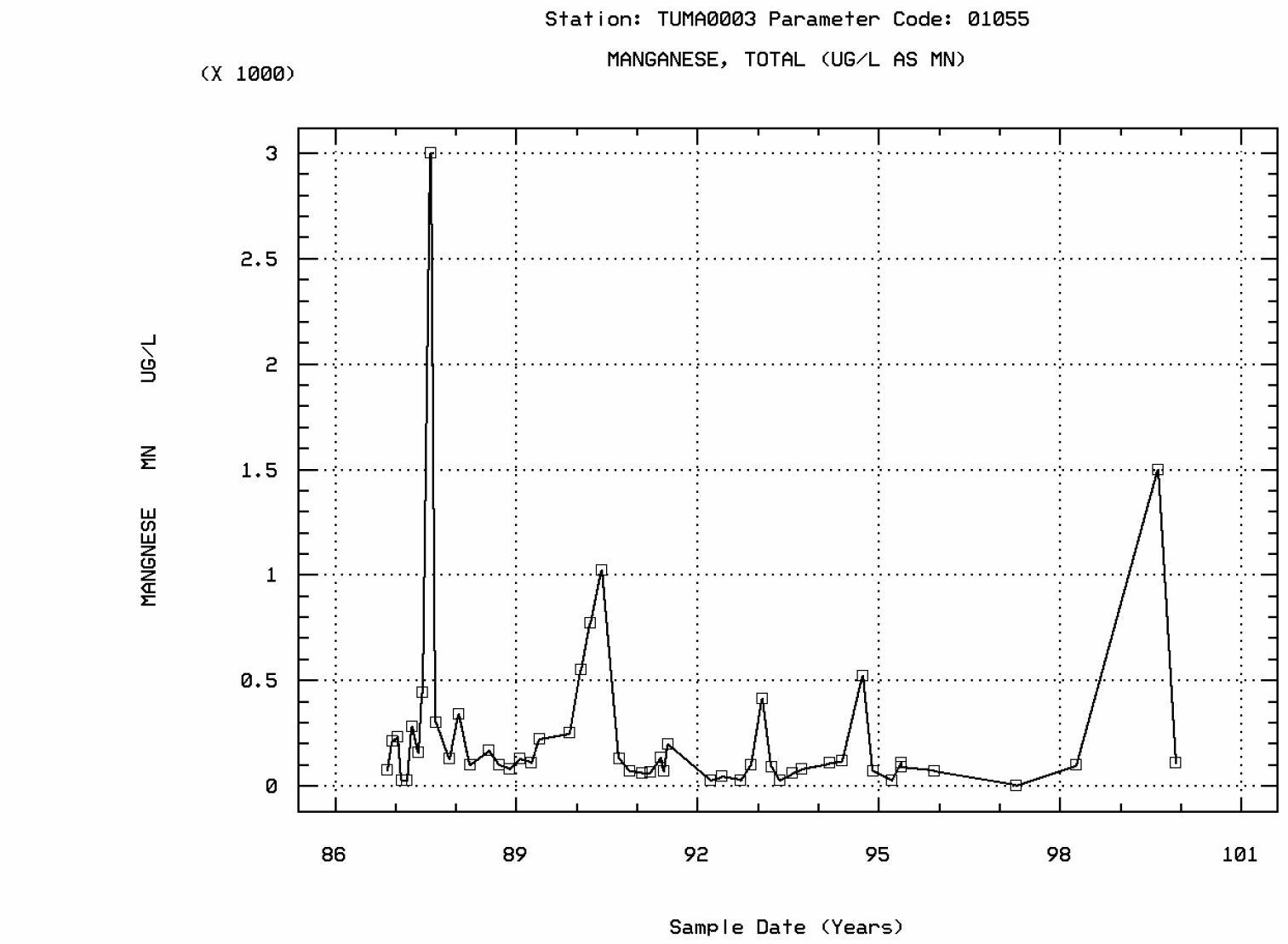
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



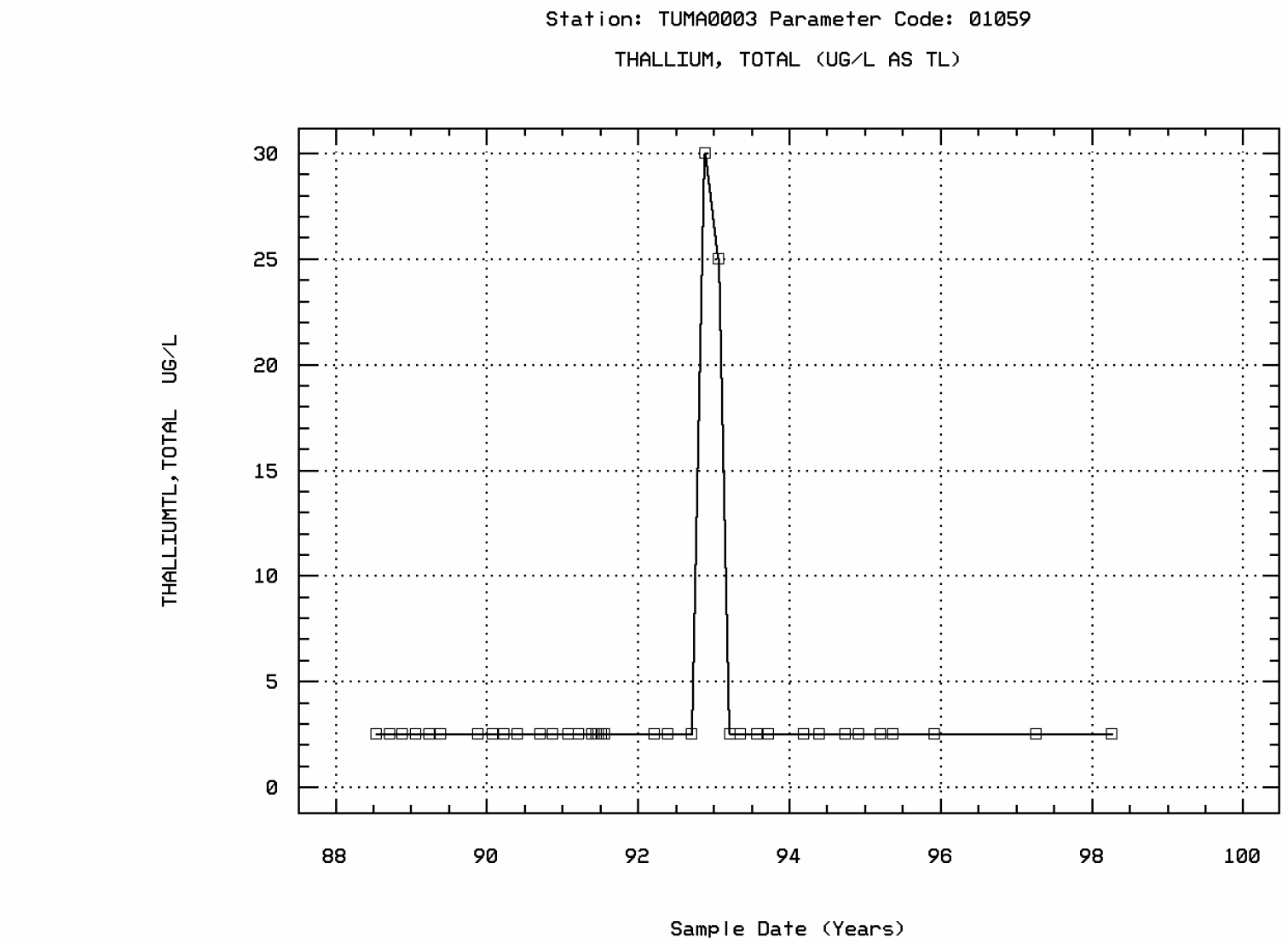
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



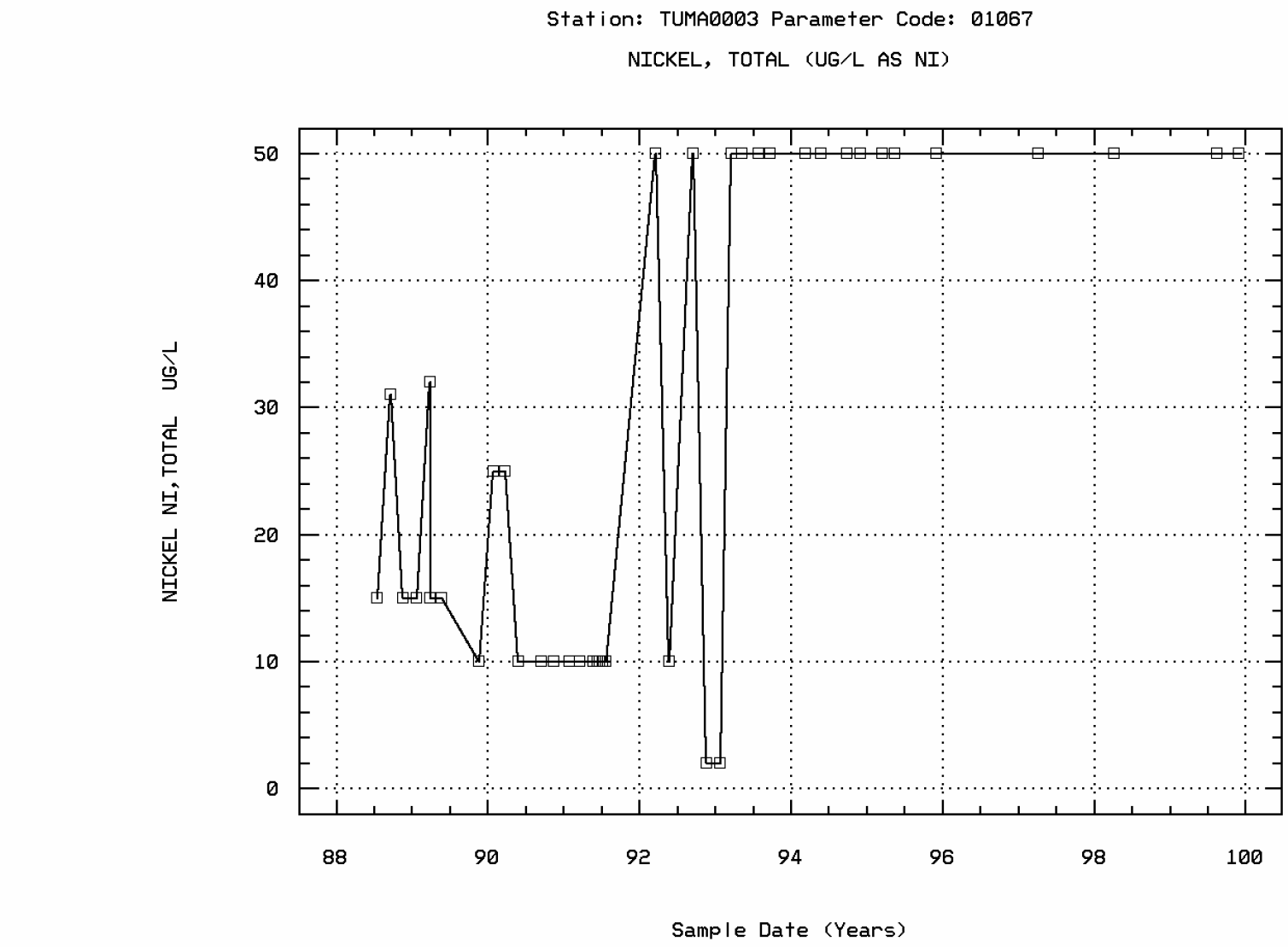
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



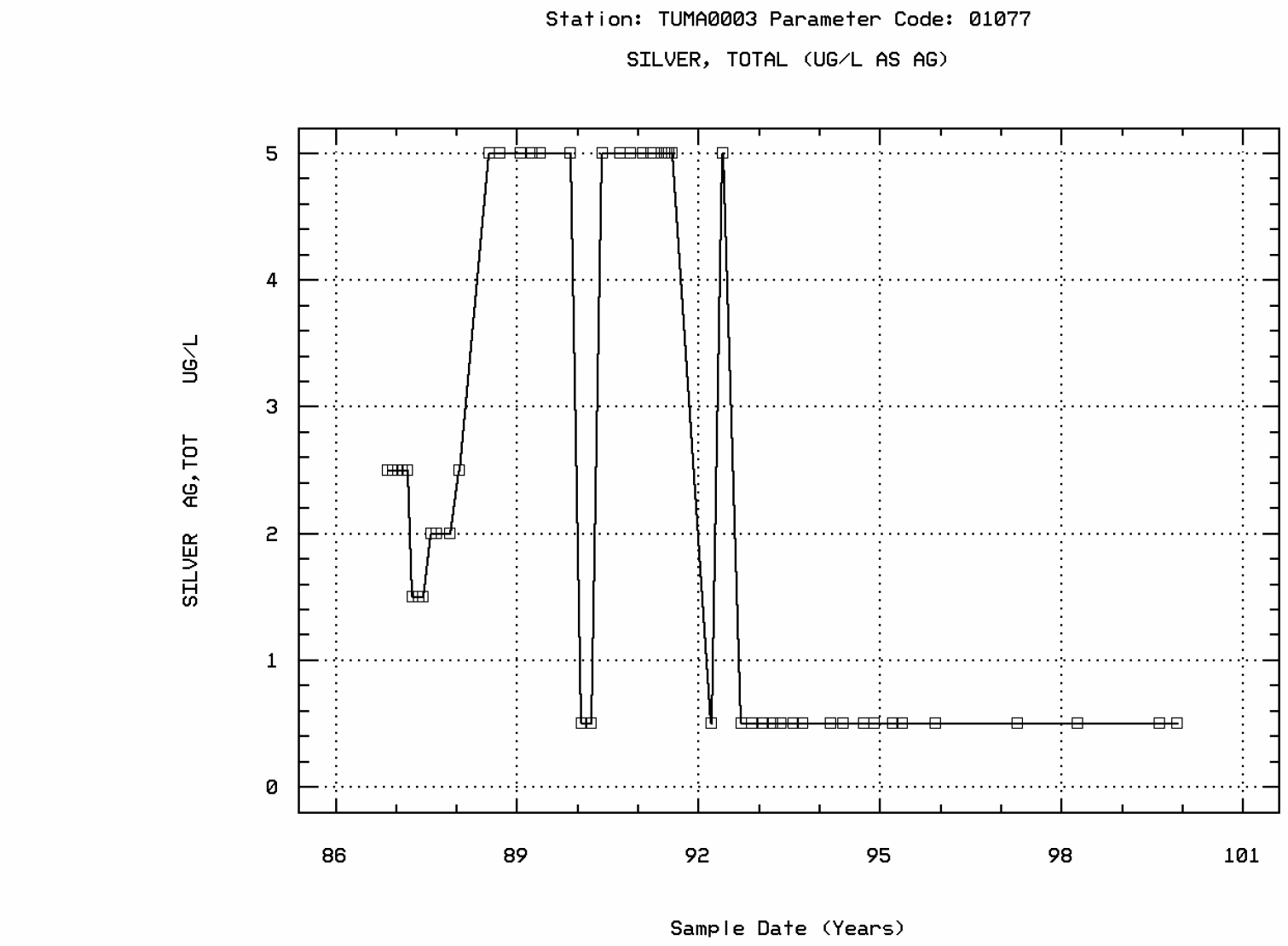
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



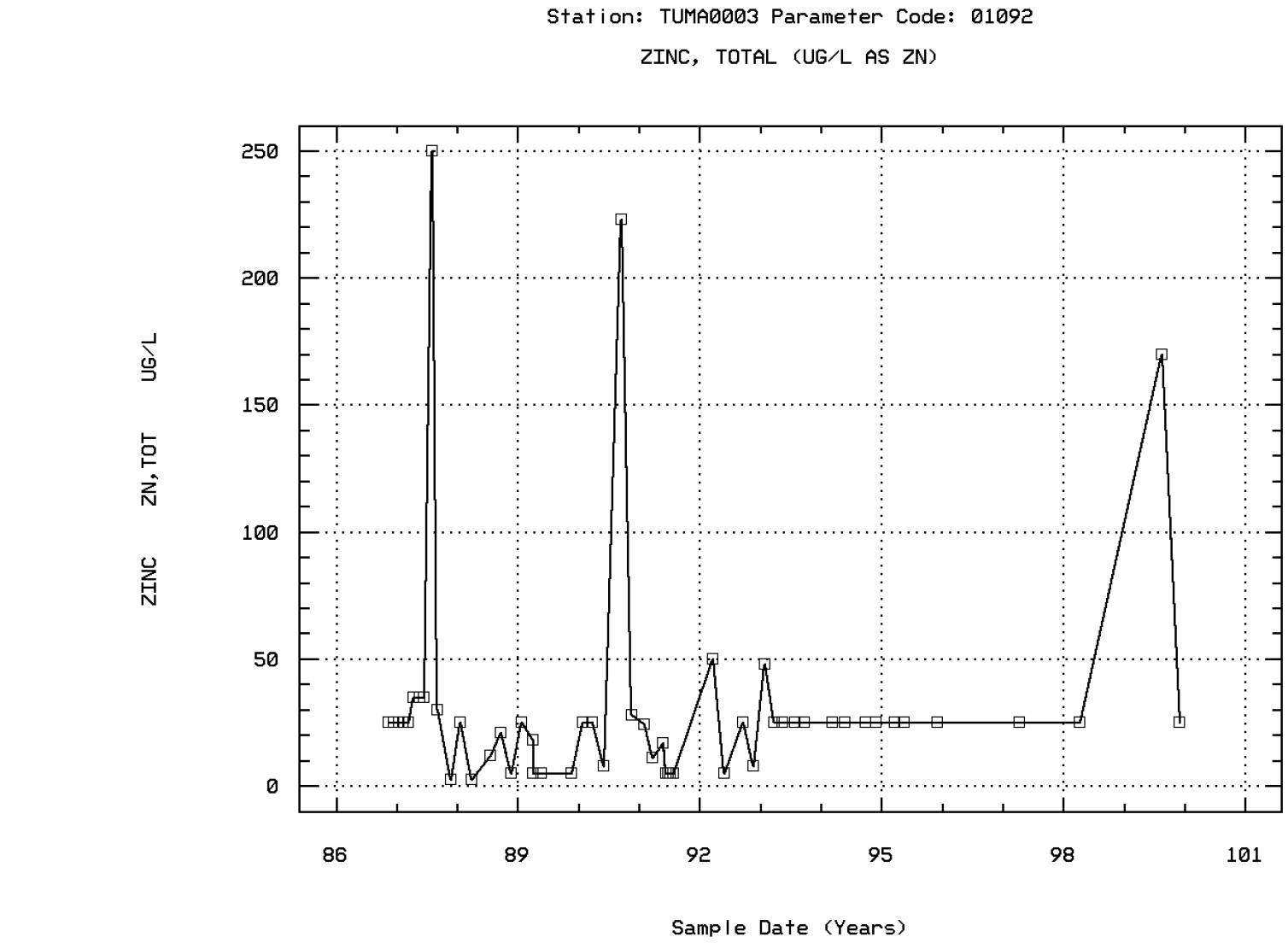
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



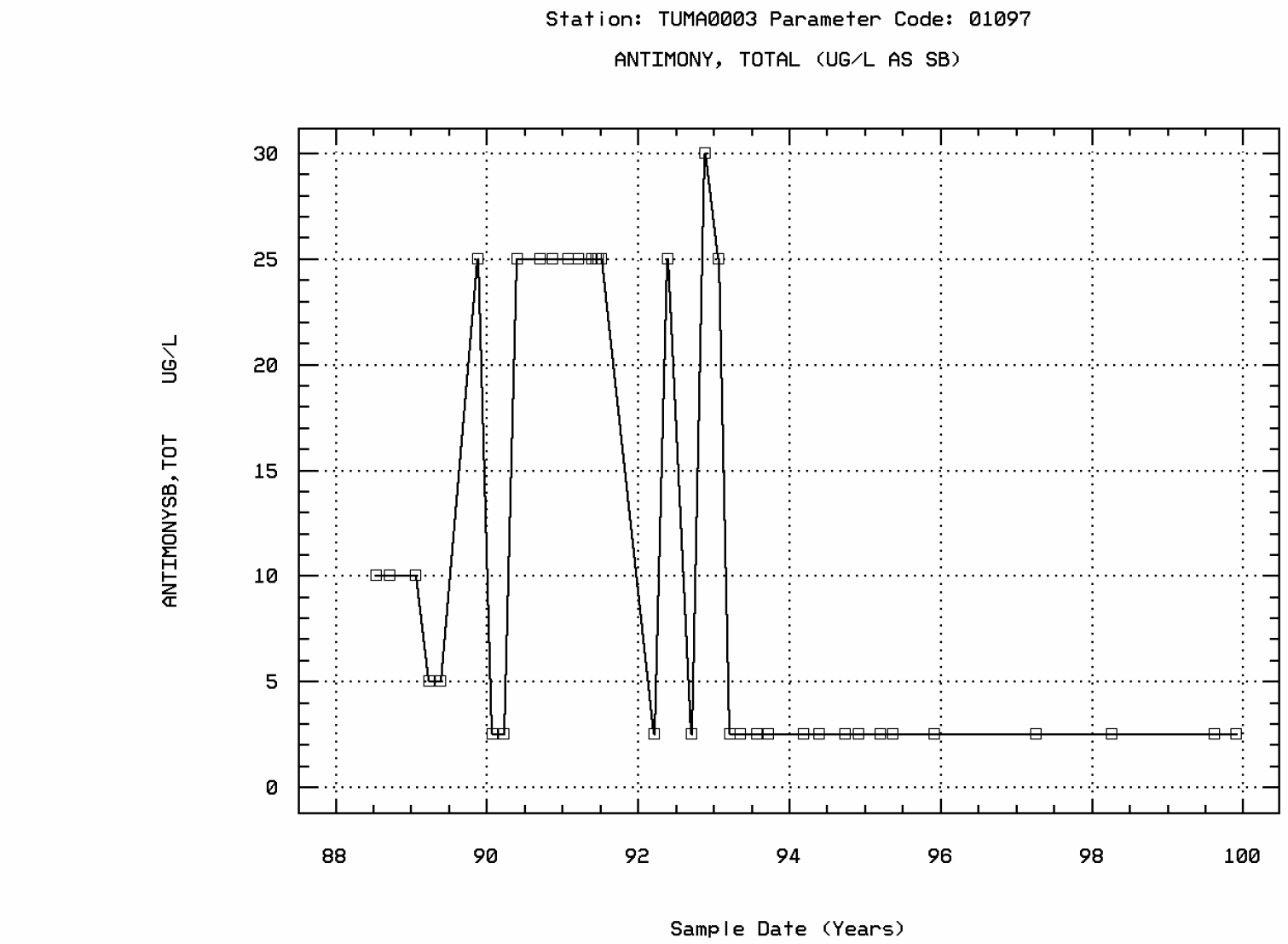
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



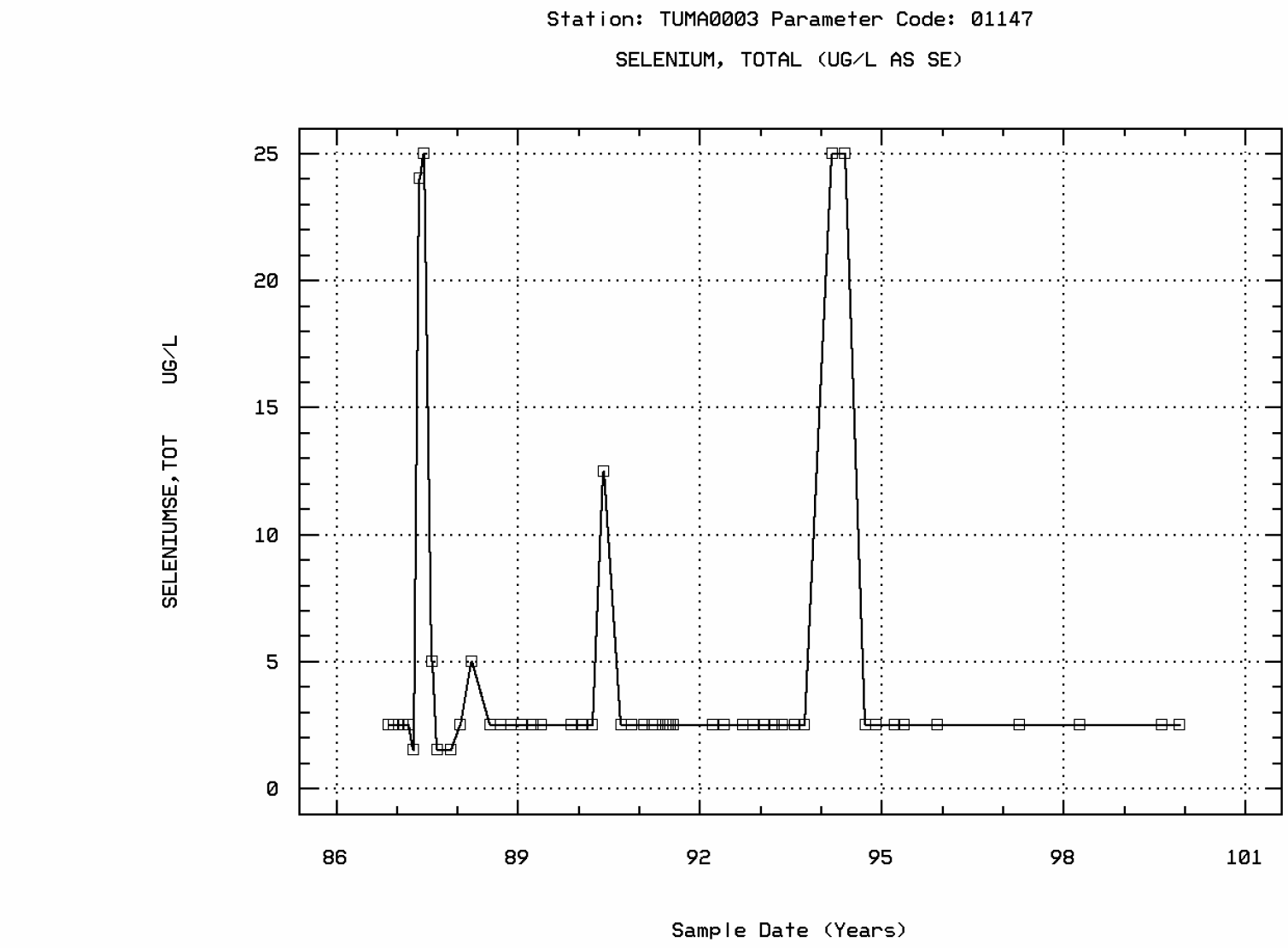
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



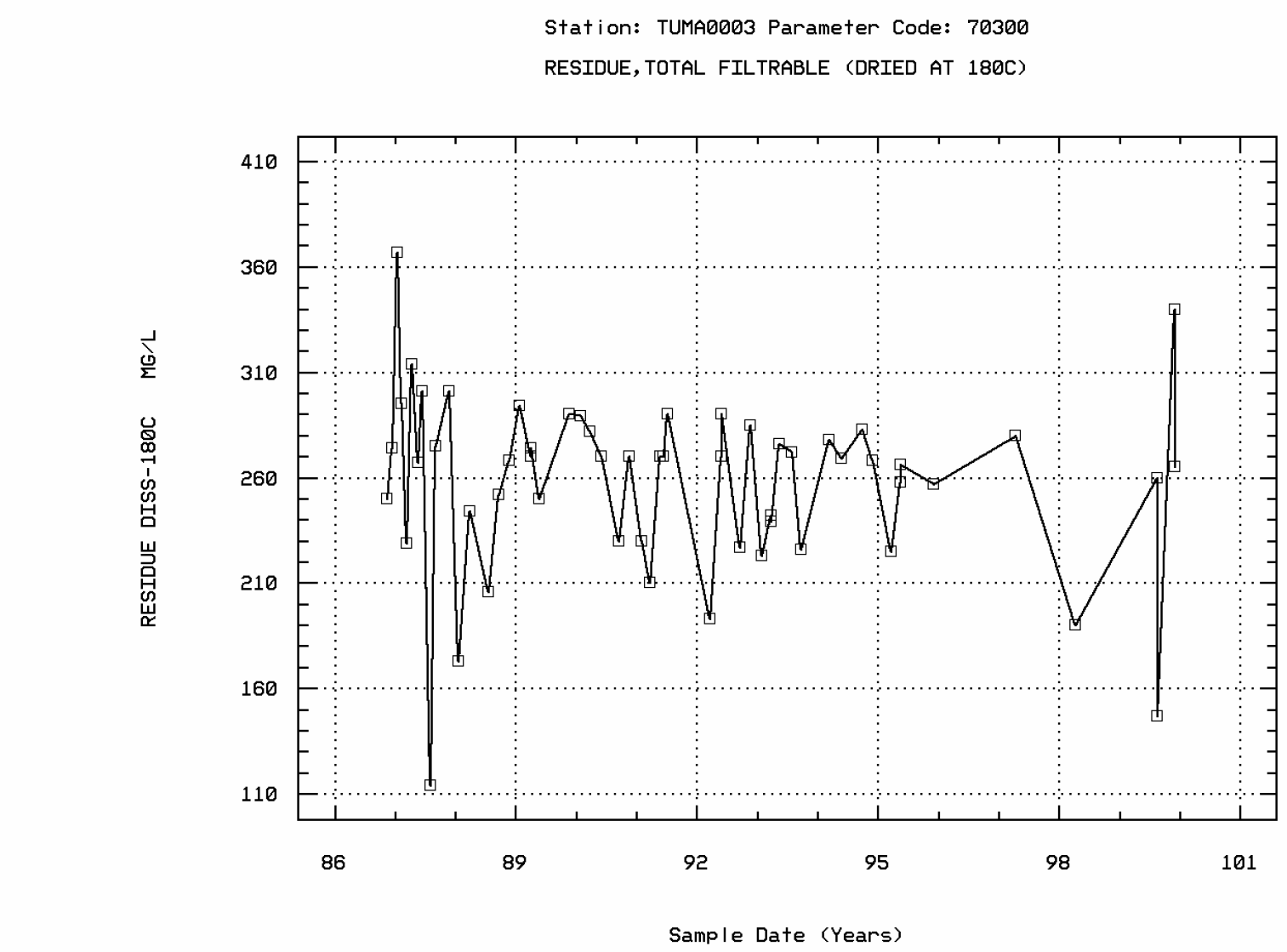
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



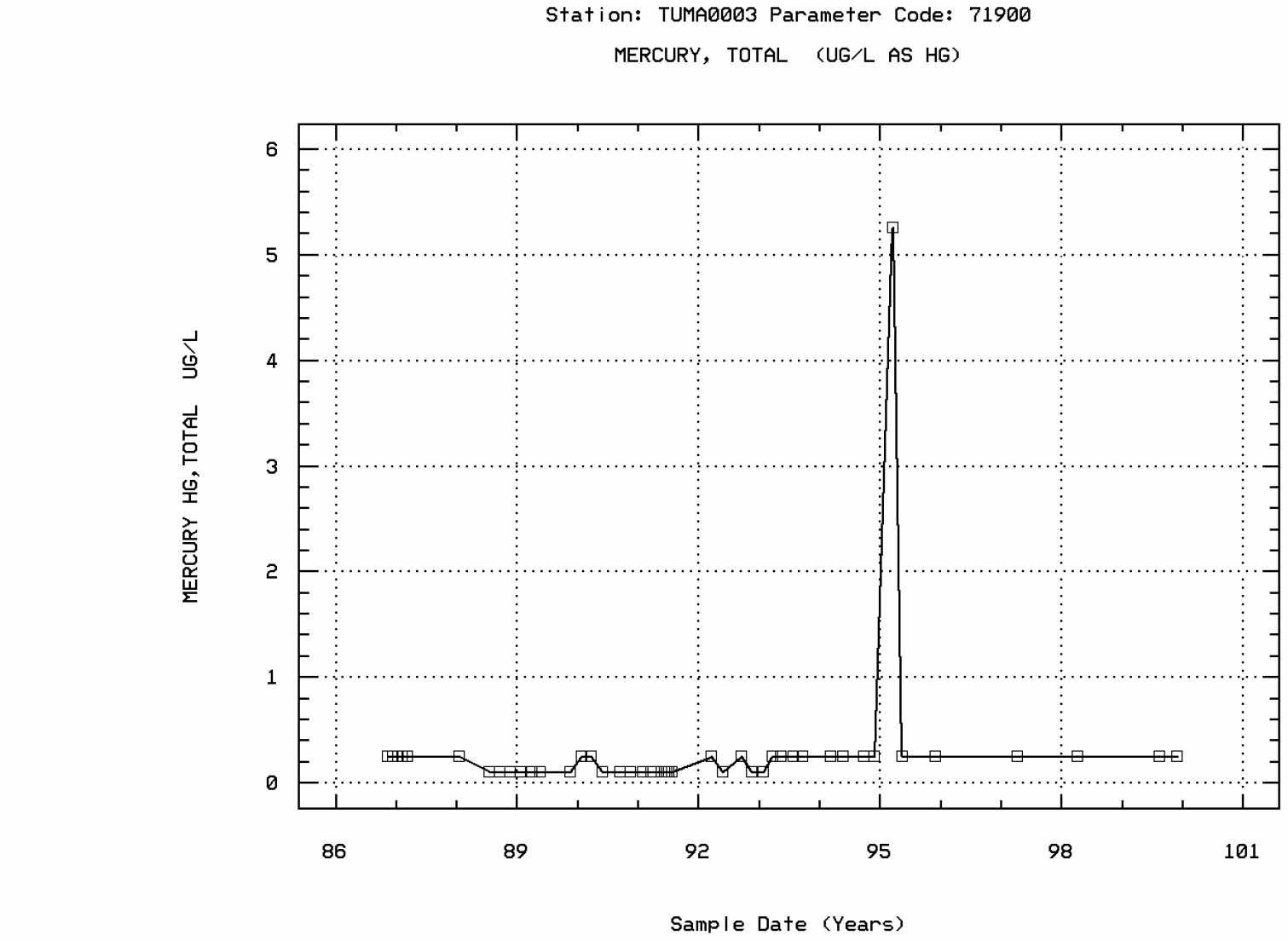
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



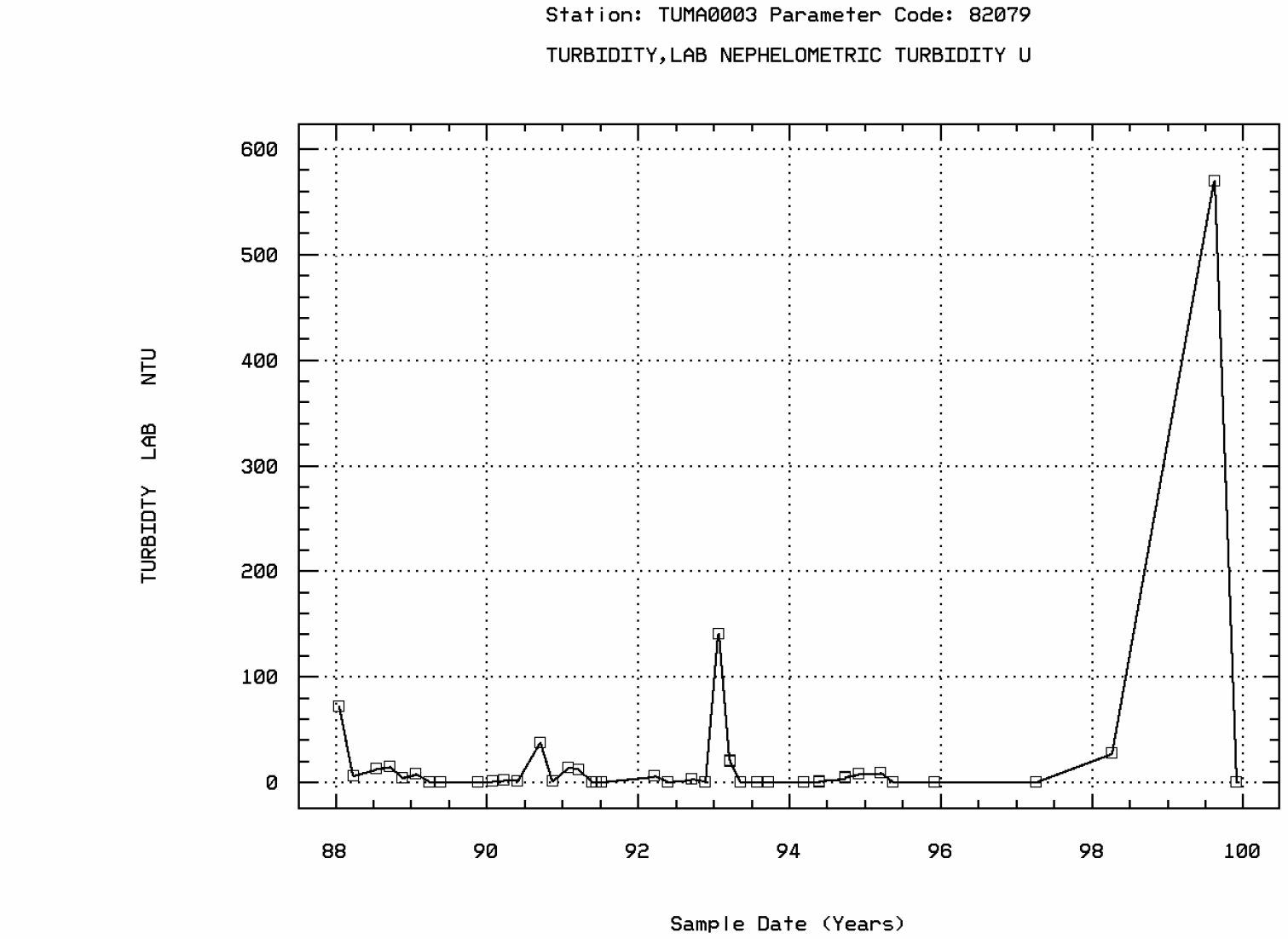
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



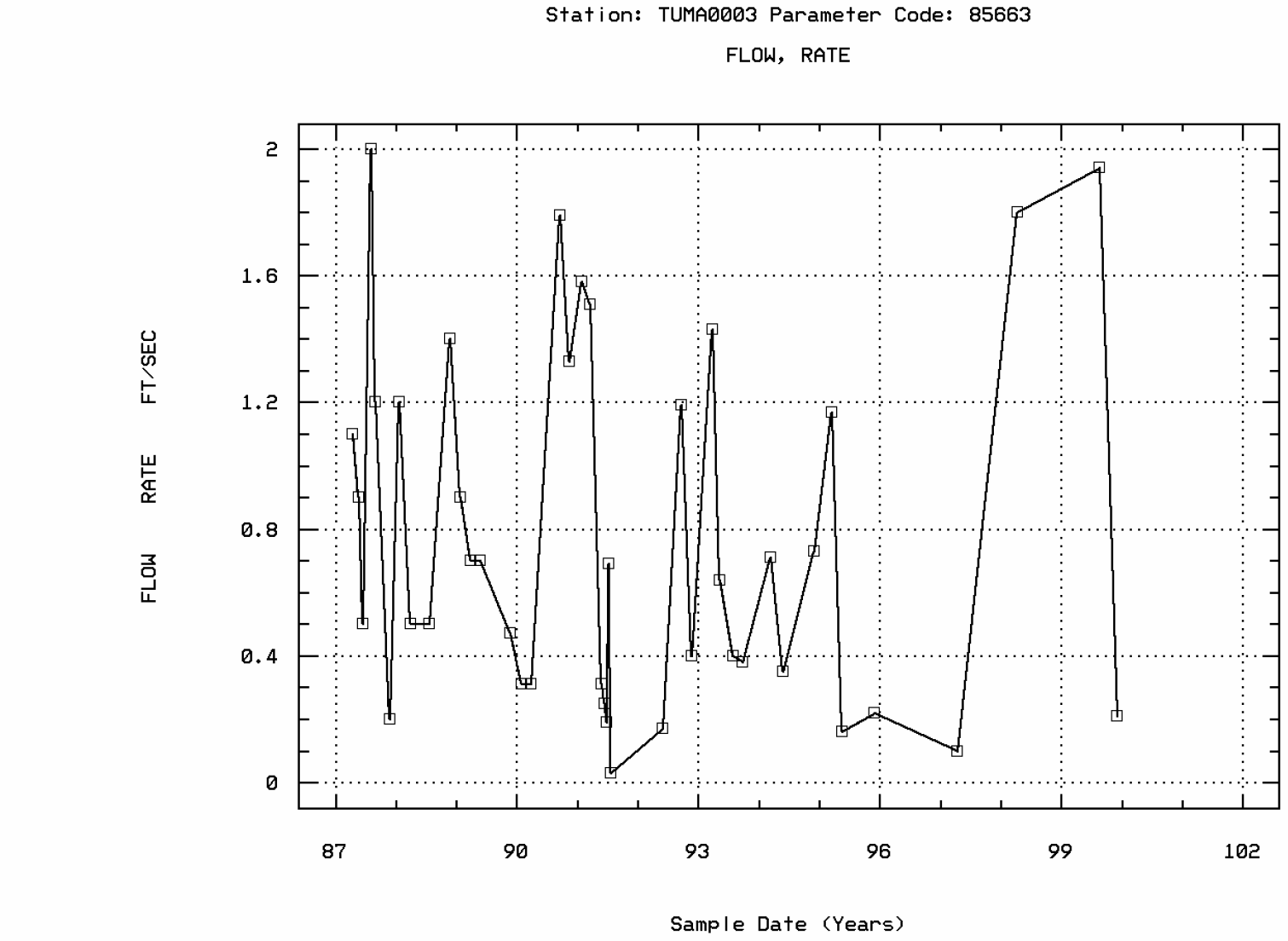
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Seasonal Analysis for Season #1: 7/05 to 10/10 - Station TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004p	STREAM WIDTH (FEET)	11/12/86-11/29/99	11	18.4	33.655	124.	3.4	1538.443	39.223	3.4	4.	60.	115.32
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/86-11/29/99	12	27.25	27.458	33.	20.5	13.496	3.674	20.95	25.45	30.143	32.55
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/12/86-11/29/99	12	30.79	30.457	35.	23.5	14.479	3.805	24.25	27.5	34.	35.
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/12/86-11/29/99	23	0.	15.365	200.66	0.	1900.024	43.589	0.	0.	8.69	57.802
00064p	DEPTH OF STREAM, MEAN (FT)	11/12/86-11/29/99	11	0.26	0.349	1.3	0.08	0.13	0.36	0.082	0.11	0.37	1.178
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/86-11/29/99	12	379.	331.083	423.	132.	9964.447	99.822	148.5	248.5	410.5	420.9
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	11	360.	333.545	429.	155.	6835.073	82.674	170.	293.	384.	424.8
00300p	OXYGEN, DISSOLVED MG/L	11/12/86-11/29/99	10	6.395	6.304	8.39	4.3	1.088	1.043	4.43	5.675	6.713	8.241
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/12/86-11/29/99	10	87.75	91.12	126.1	69.	216.397	14.71	70.4	84.425	96.825	123.39
00403p	PH, LAB, STANDARD UNITS SU	11/12/86-11/29/99	11	8.2	8.115	8.33	7.7	0.047	0.217	7.72	8.	8.3	8.326
00403p	CONVERTED PH, LAB, STANDARD UNITS	11/12/86-11/29/99	11	8.2	8.061	8.33	7.7	0.05	0.224	7.72	8.	8.3	8.326
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	11	0.006	0.009	0.02	0.005	0.	0.005	0.005	0.005	0.01	0.019
00406p	PH, FIELD, STANDARD UNITS SU	11/12/86-11/29/99	11	7.86	7.746	8.2	6.94	0.13	0.36	7.018	7.59	8.04	8.168
00406p	CONVERTED PH, FIELD, STANDARD UNITS	11/12/86-11/29/99	11	7.86	7.578	8.2	6.94	0.161	0.401	7.018	7.59	8.04	8.168
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	11	0.014	0.026	0.115	0.006	0.001	0.031	0.007	0.009	0.026	0.101
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/86-11/29/99	11	140.	139.545	174.	51.	1421.473	37.702	60.8	123.	171.	173.8
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-11/29/99	8 ##	1.	0.813	1.	0.5	0.067	0.259	**	**	**	**
00440p	BICARBONATE ION (MG/L AS HCO3)	11/12/86-11/29/99	11	166.	154.091	209.	51.	2135.891	46.216	64.8	123.	195.	208.2
00445p	CARBONATE ION (MG/L AS CO3)	11/23/87-11/29/99	8 ##	1.	0.813	1.	0.5	0.067	0.259	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/86-11/29/99	11	8.	62.655	260.	2.	7803.713	88.339	2.4	4.	100.	246.8
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-11/29/99	9	0.05	0.065	0.14	0.03	0.001	0.038	0.03	0.043	0.09	0.14
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/86-11/29/99	11 ##	0.37	2.57	21.	0.05	38.326	6.191	0.06	0.15	1.	17.5
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/86-11/29/99	10 ##	0.13	0.218	0.88	0.03	0.067	0.259	0.032	0.05	0.295	0.826
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/86-11/29/99	11	0.2	0.451	2.1	0.05	0.442	0.665	0.056	0.11	0.25	1.96
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	9	140.	125.667	182.	20.	2341.	48.384	20.	101.	155.	182.
00916p	CALCIUM, TOTAL (MG/L AS CA)	11/12/86-11/29/99	11	45.	40.851	61.8	3.66	332.566	18.236	6.728	24.	55.	61.18
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/86-11/29/99	11	5.6	6.636	15.8	4.9	9.573	3.094	4.92	5.3	6.5	13.98
00929p	SODIUM, TOTAL (MG/L AS NA)	11/12/86-11/29/99	11	25.8	23.936	35.	10.6	45.193	6.723	11.68	19.7	28.4	33.78
00937p	POTASSIUM, TOTAL MG/L AS K)	11/12/86-11/29/99	11	3.8	5.02	15.2	2.9	11.852	3.443	3.052	3.71	4.6	13.28
00940p	CHLORIDE,TOTAL IN WATER MG/L	11/12/86-11/29/99	11	7.1	8.309	19.5	2.5	17.319	4.162	3.34	6.9	9.3	17.58
00945p	SULFATE, TOTAL (MG/L AS SO4)	11/12/86-11/29/99	11	34.9	34.509	50.2	18.	95.681	9.782	19.2	27.	41.6	49.76
00951p	FLUORIDE, TOTAL (MG/L AS F)	11/12/86-11/29/99	11	0.53	1.162	5.6	0.36	2.609	1.615	0.364	0.45	0.61	5.02
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	3 ##	5.	4.167	5.	2.5	2.083	1.443	**	**	**	**
01002p	ARSENIC, TOTAL (UG/L AS AS)	11/12/86-11/29/99	12 ##	5.	4.792	14.	2.5	10.248	3.201	2.5	2.5	5.	11.6
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	3 ##	50.	52.667	58.	50.	21.333	4.619	**	**	**	**
01007p	BARIUM, TOTAL (UG/L AS BA)	11/12/86-11/29/99	11 ##	50.	151.818	780.	25.	54572.564	233.608	26.	50.	99.	704.
01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	10 ##	2.5	1.68	3.3	0.25	1.574	1.255	0.25	0.25	2.5	3.22
01022p	BORON, TOTAL (UG/L AS B)	11/12/86-11/29/99	11 ##	50.	68.636	160.	15.	2120.455	46.048	18.	50.	120.	154.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	3 ##	0.5	1.167	2.5	0.5	1.333	1.155	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/12/86-11/29/99	12 ##	0.75	1.208	2.5	0.5	0.748	0.865	0.5	0.5	2.25	2.5
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	3 ##	5.	10.	20.	5.	75.	8.66	**	**	**	**
01034p	CHROMIUM, TOTAL (UG/L AS CR)	11/12/86-11/29/99	12 ##	5.	16.958	80.	2.5	540.566	23.25	3.25	5.	18.75	69.8
01040	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	3 ##	5.	6.667	10.	5.	8.333	2.887	**	**	**	**
01042p	COPPER, TOTAL (UG/L AS CU)	11/12/86-11/29/99	12 ##	5.	16.833	82.	5.	542.515	23.292	5.	5.	19.25	70.
01045p	IRON, TOTAL (UG/L AS FE)	11/12/86-11/29/99	10	415.	2464.6	18000.	50.	30702786.044	5541.009	50.	53.75	1858.25	16511.
01049	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	3 ##	2.5	2.833	5.	1.	4.083	2.021	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	11/12/86-11/29/99	12 ##	3.25	8.458	62.	1.	290.203	17.035	1.	2.125	5.	46.4
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/12/86-11/29/99	11	165.	552.455	3000.	25.	835682.873	914.157	32.	80.	520.	2700.
01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	10 ##	2.5	2.35	2.5	1.	0.225	0.474	1.15	2.5	2.5	2.5
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	10 ##	40.5	32.6	50.	10.	373.156	19.317	10.	10.	50.	50.
01075	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	3 ##	0.5	2.	5.	0.5	6.75	2.598	**	**	**	**
01077p	SILVER, TOTAL (UG/L AS AG)	11/12/86-11/29/99	12 ##	2.	2.625	5.	0.5	4.688	2.165	0.5	0.5	5.	5.
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	3 ##	25.	18.333	25.	5.	133.333	11.547	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	11/12/86-11/29/99	12 ##	25.	68.	250.	5.	8152.364	90.29	5.	14.25	135.	241.9
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	9 ##	2.5	9.167	25.	2.5	90.625	9.52	2.5	2.5	17.5	25.
01147p	SELENIUM, TOTAL (UG/L AS SE)	11/12/86-11/29/99	12 ##	2.5	2.625	5.	1.5	0.642	0.801	1.8	2.5	2.5	4.25
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/12/86-11/29/99	12	241.	231.833	290.	114.	2953.424	54.345	123.9	211.	274.25	287.9
71900p	MERCURY, TOTAL (UG/L AS HG)	11/12/86-11/29/99	12 ##	0.25	0.313	1.	0.1	0.108	0.329	0.1	0.1	0.25	1.
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-11/29/99	10	4.54	64.858	570.	0.34	31627.803	177.842	0.346	0.445	20.5	516.7

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #1: 7/05 to 10/10 - Station TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
85663p	FLOW, RATE FT/SEC	11/12/86-11/29/99	11	1.	1.011	2.	0.03	0.461	0.679	0.1	0.4	1.79	1.988

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 10/11 to 12/07 - Station TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004p	STREAM WIDTH (FEET)	11/12/86-11/29/99	9	10.	14.756	53.7	3.3	239.968	15.491	3.3	6.	17.9	53.7
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/86-11/29/99	9	16.22	16.769	19.5	13.	4.015	2.004	13.	15.75	18.5	19.5
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/12/86-11/29/99	9	19.	19.778	26.	14.	19.757	4.445	14.	15.5	24.	26.
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/12/86-11/29/99	12	0.51	2.706	12.54	0.	16.393	4.049	0.	0.043	5.563	11.019
00064p	DEPTH OF STREAM, MEAN (FT)	11/12/86-11/29/99	9	0.27	0.257	0.3	0.19	0.002	0.041	0.19	0.215	0.295	0.3
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/86-11/29/99	8	369.5	359.125	417.	266.	2057.839	45.363	**	**	**	**
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	8	411.	434.875	540.	381.	4037.839	63.544	**	**	**	**
00300p	OXYGEN, DISSOLVED MG/L	11/12/86-11/29/99	9	8.2	8.276	11.1	6.2	2.897	1.702	6.2	6.56	9.765	11.1
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/12/86-11/29/99	9	93.6	97.622	135.	77.	383.612	19.586	77.	80.45	112.5	135.
00403p	PH, LAB, STANDARD UNITS SU	11/12/86-11/29/99	9	8.2	8.198	8.6	7.9	0.045	0.211	7.9	8.	8.3	8.6
00403p	CONVERTED PH, LAB, STANDARD UNITS	11/12/86-11/29/99	9	8.2	8.155	8.6	7.9	0.047	0.216	7.9	8.	8.3	8.6
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	9	0.006	0.007	0.013	0.003	0.	0.003	0.003	0.005	0.01	0.013
00406p	PH, FIELD, STANDARD UNITS SU	11/12/86-11/29/99	9	7.99	7.939	8.34	7.39	0.088	0.296	7.39	7.715	8.155	8.34
00406p	CONVERTED PH, FIELD, STANDARD UNITS	11/12/86-11/29/99	9	7.99	7.84	8.34	7.39	0.099	0.314	7.39	7.715	8.155	8.34
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	9	0.01	0.014	0.041	0.005	0.	0.012	0.005	0.007	0.02	0.041
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/86-11/29/99	9	163.	164.556	178.	152.	71.528	8.457	152.	158.	172.5	178.
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-11/29/99	7 ##	1.	1.214	4.	0.5	1.571	1.254	**	**	**	**
00440p	BICARBONATE ION (MG/L AS HCO3)	11/12/86-11/29/99	9	179.	181.889	210.	157.	276.111	16.617	157.	169.	195.	210.
00445p	CARBONATE ION (MG/L AS CO3)	11/23/87-11/29/99	8 ##	1.	1.813	8.	0.5	6.496	2.549	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/86-11/29/99	9 ##	5.	6.778	20.	2.	43.194	6.572	2.	2.	10.5	20.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-11/29/99	7 ##	0.05	0.043	0.1	0.01	0.001	0.032	**	**	**	**
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/86-11/29/99	8	0.125	0.253	1.	0.05	0.104	0.322	**	**	**	**
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/86-11/29/99	9	0.08	0.239	1.44	0.02	0.208	0.456	0.02	0.03	0.2	1.44
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/86-11/29/99	9	0.13	0.13	0.24	0.04	0.004	0.065	0.04	0.073	0.18	0.24
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	7	143.	154.286	210.	114.	1011.905	31.81	**	**	**	**
00916p	CALCIUM, TOTAL (MG/L AS CA)	11/12/86-11/29/99	9	50.3	53.856	78.	45.6	101.425	10.071	45.6	47.45	57.3	78.
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/86-11/29/99	9	5.9	5.963	7.7	5.	0.738	0.859	5.	5.3	6.55	7.7
00929p	SODIUM, TOTAL (MG/L AS NA)	11/12/86-11/29/99	9	28.5	28.711	33.3	22.1	12.659	3.558	22.1	26.4	32.2	33.3
00937p	POTASSIUM, TOTAL MG/L AS K)	11/12/86-11/29/99	9	2.6	2.719	3.06	2.48	0.051	0.226	2.48	2.55	2.985	3.06
00940p	CHLORIDE,TOTAL IN WATER MG/L	11/12/86-11/29/99	9	8.04	7.86	10.7	3.	4.919	2.218	3.	6.85	9.3	10.7
00945p	SULFATE, TOTAL (MG/L AS SO4)	11/12/86-11/29/99	9	48.4	52.911	99.	38.2	336.334	18.339	38.2	42.15	55.3	99.
00951p	FLUORIDE, TOTAL (MG/L AS F)	11/12/86-11/29/99	9	0.52	0.519	0.6	0.42	0.002	0.046	0.42	0.51	0.535	0.6
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01002p	ARSENIC, TOTAL (UG/L AS AS)	11/12/86-11/29/99	9 ##	5.	4.444	10.	2.5	5.903	2.43	2.5	2.5	5.	10.
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	3 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01007p	BARIUM, TOTAL (UG/L AS BA)	11/12/86-11/29/99	9	50.	79.222	250.	38.	4694.444	68.516	38.	45.5	90.	250.
01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	7 ##	0.25	1.186	2.5	0.05	1.516	1.231	**	**	**	**
01022p	BORON, TOTAL (UG/L AS B)	11/12/86-11/29/99	9 ##	50.	85.667	270.	41.	5391.5	73.427	41.	50.	105.	270.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/12/86-11/29/99	9 ##	0.5	1.039	2.5	0.35	0.801	0.895	0.35	0.5	2.	2.5
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034p	CHROMIUM, TOTAL (UG/L AS CR)	11/12/86-11/29/99	9 ##	5.	5.167	10.	1.5	4.625	2.151	1.5	5.	5.	10.
01040	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042p	COPPER, TOTAL (UG/L AS CU)	11/12/86-11/29/99	9 ##	10.	8.389	16.	2.5	18.236	4.27	2.5	5.	11.	16.
01045p	IRON, TOTAL (UG/L AS FE)	11/12/86-11/29/99	9	229.	223.889	490.	44.	33135.361	182.031	44.	50.	410.5	490.
01049	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	11/12/86-11/29/99	9 ##	2.5	6.	21.	1.	48.	6.928	1.	1.25	11.	21.
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/12/86-11/29/99	9	77.	105.778	249.	70.	3336.944	57.766	70.	70.5	120.	249.
01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	7 ##	2.5	6.214	30.	1.	110.321	10.503	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	7 ##	15.	26.714	50.	2.	488.905	22.111	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 10/11 to 12/07 - Station TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01075	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01077p	SILVER, TOTAL (UG/L AS AG)	11/12/86-11/29/99	8 ##	1.25	2.063	5.	0.5	3.888	1.972	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	3 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	11/12/86-11/29/99	9 ##	25.	16.5	28.	2.5	119.25	10.92	2.5	5.	25.	28.
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	6 ##	13.75	14.583	30.	2.5	178.542	13.362	**	**	**	**
01147p	SELENIUM, TOTAL (UG/L AS SE)	11/12/86-11/29/99	9 ##	2.5	2.389	2.5	1.5	0.111	0.333	1.5	2.5	2.5	2.5
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/12/86-11/29/99	10	269.	279.4	340.	250.	689.378	26.256	250.7	263.	292.75	336.1
71900p	MERCURY, TOTAL (UG/L AS HG)	11/12/86-11/29/99	9 ##	0.25	0.267	1.	0.1	0.081	0.285	0.1	0.1	0.25	1.
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-11/29/99	7	0.46	1.999	7.9	0.06	8.369	2.893	**	**	**	**
85663p	FLOW, RATE FT/SEC	11/12/86-11/29/99	9	0.47	0.662	1.4	0.2	0.229	0.478	0.2	0.215	1.165	1.4

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004p	STREAM WIDTH (FEET)	11/12/86-11/29/99	17	36.	32.665	75.5	4.1	620.974	24.919	4.9	7.6	49.25	73.9
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/86-11/29/99	20	17.25	17.335	24.	7.5	23.456	4.843	9.35	13.675	21.5	24.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/12/86-11/29/99	21	22.	19.857	28.	6.	40.304	6.349	9.4	14.5	25.	27.2
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/12/86-11/29/99	22	3.73	19.104	150.	0.	1118.68	33.447	0.	0.48	31.958	47.016
00064p	DEPTH OF STREAM, MEAN (FT)	11/12/86-11/29/99	17	0.29	0.292	0.49	0.1	0.013	0.114	0.156	0.2	0.405	0.45
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/86-11/29/99	20	367.5	345.45	434.	225.	4106.366	64.081	248.2	287.25	385.5	433.2
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	21	370.	373.667	465.	230.	3957.933	62.912	270.6	341.	422.5	451.8
00300p	OXYGEN, DISSOLVED MG/L	11/12/86-11/29/99	20	8.115	8.108	11.7	6.6	1.814	1.347	6.7	7.07	8.87	9.99
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/12/86-11/29/99	19	95.9	95.158	114.1	85.	36.306	6.025	87.	92.	97.2	99.
00403p	PH, LAB, STANDARD UNITS SU	11/12/86-11/29/99	22	8.13	7.995	8.43	7.	0.157	0.397	7.202	7.875	8.27	8.404
00403p	CONVERTED PH, LAB, STANDARD UNITS	11/12/86-11/29/99	22	8.129	7.764	8.43	7.	0.213	0.462	7.202	7.875	8.27	8.404
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	22	0.007	0.017	0.1	0.004	0.001	0.024	0.004	0.005	0.013	0.063
00406p	PH, FIELD, STANDARD UNITS SU	11/12/86-11/29/99	21	8.	7.916	8.31	7.35	0.095	0.308	7.366	7.69	8.15	8.272
00406p	CONVERTED PH, FIELD, STANDARD UNITS	11/12/86-11/29/99	21	8.	7.802	8.31	7.35	0.109	0.33	7.366	7.69	8.15	8.272
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	21	0.01	0.016	0.045	0.005	0.	0.013	0.005	0.007	0.021	0.043
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/86-11/29/99	22	155.5	146.927	175.	74.4	829.031	28.793	92.2	135.75	170.25	175.
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-11/29/99	13 ##	1.	0.969	2.1	0.5	0.287	0.536	0.5	0.5	1.	2.06
00440p	BICARBONATE ION (MG/L AS HCO3)	11/12/86-11/29/99	22	171.	168.318	213.	100.	919.942	30.331	120.4	145.5	193.75	210.6
00445p	CARBONATE ION (MG/L AS CO3)	11/23/87-11/29/99	14 ##	1.	1.1	2.5	0.5	0.486	0.697	0.5	0.5	1.25	2.45
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/86-11/29/99	22	20.5	42.773	371.	2.	6262.851	79.138	2.6	5.75	39.5	111.7
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-11/29/99	15 ##	0.05	0.063	0.23	0.015	0.003	0.055	0.021	0.03	0.05	0.17
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/86-11/29/99	20	0.175	0.258	1.4	0.025	0.096	0.31	0.05	0.093	0.28	0.653
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/86-11/29/99	21 ##	0.05	0.141	0.5	0.03	0.018	0.136	0.03	0.05	0.225	0.368
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/86-11/29/99	21	0.17	0.228	1.16	0.025	0.062	0.248	0.05	0.095	0.26	0.545
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	15	147.	143.667	218.	100.	918.952	30.314	103.	125.	163.	187.4
00916p	CALCIUM, TOTAL (MG/L AS CA)	11/12/86-11/29/99	22	48.7	46.955	60.8	30.	76.044	8.72	31.49	40.475	53.7	56.88
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/86-11/29/99	22	5.72	5.671	6.6	4.2	0.341	0.584	4.64	5.375	6.123	6.318
00929p	SODIUM, TOTAL (MG/L AS NA)	11/12/86-11/29/99	22	26.9	27.041	39.1	17.4	25.904	5.09	19.14	24.375	30.125	33.86
00937p	POTASSIUM, TOTAL MG/L AS K)	11/12/86-11/29/99	22	2.72	2.839	4.36	1.9	0.504	0.71	2.	2.283	3.218	4.154
00940p	CHLORIDE,TOTAL IN WATER MG/L	11/12/86-11/29/99	21	7.6	7.792	9.9	5.9	1.477	1.215	6.088	6.9	8.995	9.5
00945p	SULFATE, TOTAL (MG/L AS SO4)	11/12/86-11/29/99	22	40.6	40.1	55.6	24.3	76.986	8.774	26.03	33.	47.275	51.84
00951p	FLUORIDE, TOTAL (MG/L AS F)	11/12/86-11/29/99	21	0.49	0.48	0.66	0.33	0.007	0.081	0.362	0.425	0.54	0.584
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	13 ##	5.	6.115	10.	2.5	8.881	2.98	2.5	3.75	10.	10.
01002p	ARSENIC, TOTAL (UG/L AS AS)	11/12/86-11/29/99	21 ##	5.	6.357	13.	2.5	8.904	2.984	2.5	5.	10.	10.
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	13 ##	50.	76.615	250.	24.	6011.423	77.533	24.4	47.	51.5	250.
01007p	BARIUM, TOTAL (UG/L AS BA)	11/12/86-11/29/99	21 ##	50.	73.381	250.	25.	3879.248	62.284	40.4	50.	62.	227.6
01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	14 ##	0.25	1.039	2.5	0.05	1.279	1.131	0.15	0.25	2.5	2.5
01022p	BORON, TOTAL (UG/L AS B)	11/12/86-11/29/99	21 ##	50.	84.667	400.	28.	7257.333	85.19	50.	50.	75.	202.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	12 ##	0.5	0.642	2.5	0.35	0.346	0.588	0.35	0.5	0.5	1.9
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/12/86-11/29/99	21 ##	0.5	1.052	7.	0.25	2.159	1.469	0.38	0.5	1.25	2.3
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	13 ##	5.	4.115	5.	0.5	2.881	1.697	0.9	3.25	5.	5.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01034p	CHROMIUM, TOTAL (UG/L AS CR)	11/12/86-11/29/99	21 ##	5.	5.333	10.	0.5	5.258	2.293	2.2	5.	5.	10.
01040	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	13 ##	5.	10.154	75.	2.	380.308	19.501	3.2	5.	5.	47.
01042p	COPPER, TOTAL (UG/L AS CU)	11/12/86-11/29/99	21 ##	5.	8.952	34.	5.	64.448	8.028	5.	5.	9.5	23.6
01045p	IRON, TOTAL (UG/L AS FE)	11/12/86-11/29/99	22	493.	1297.864	12900.	25.	7806758.695	2794.058	33.2	95.	1127.5	3999.
01049	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	13 ##	5.	7.615	30.	1.	58.84	7.671	1.6	2.5	10.	22.
01051p	LEAD, TOTAL (UG/L AS PB)	11/12/86-11/29/99	21 ##	5.	6.405	30.	1.	38.79	6.228	1.3	2.5	10.	10.
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/12/86-11/29/99	21	106.	179.109	770.	0.29	38692.601	196.704	25.	42.5	255.	522.8
01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	14 ##	2.5	4.107	25.	2.5	36.161	6.013	2.5	2.5	2.5	13.75
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	14 ##	28.5	31.	50.	2.	344.154	18.551	6.	13.75	50.	50.
01075	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	13 ##	0.5	1.538	5.	0.5	1.936	1.391	0.5	0.5	2.5	4.
01077p	SILVER, TOTAL (UG/L AS AG)	11/12/86-11/29/99	21 ##	1.5	2.119	5.	0.5	3.373	1.836	0.5	0.5	3.75	5.
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	13 ##	25.	21.385	35.	5.	84.923	9.215	5.	16.5	25.	31.
01092p	ZINC, TOTAL (UG/L AS ZN)	11/12/86-11/29/99	21 ##	25.	24.69	50.	2.5	120.212	10.964	6.2	24.5	25.	45.4
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	14 ##	2.5	8.214	25.	2.5	86.951	9.325	2.5	2.5	13.75	25.
01147p	SELENIUM, TOTAL (UG/L AS SE)	11/12/86-11/29/99	21 ##	2.5	3.643	25.	1.5	24.304	4.93	2.5	2.5	2.5	4.5
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/12/86-11/29/99	22	257.	255.227	367.	173.	2081.898	45.628	190.9	224.5	283.75	308.3
71900p	MERCURY, TOTAL (UG/L AS HG)	11/12/86-11/29/99	20 ##	0.25	0.493	5.25	0.1	1.291	1.136	0.1	0.1	0.25	0.925
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-11/29/99	17	7.5	20.034	140.	0.31	1259.096	35.484	0.318	0.82	20.5	85.6
85663p	FLOW, RATE FT/SEC	11/12/86-11/29/99	17	1.	0.942	1.8	0.1	0.233	0.483	0.268	0.6	1.315	1.624

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0003

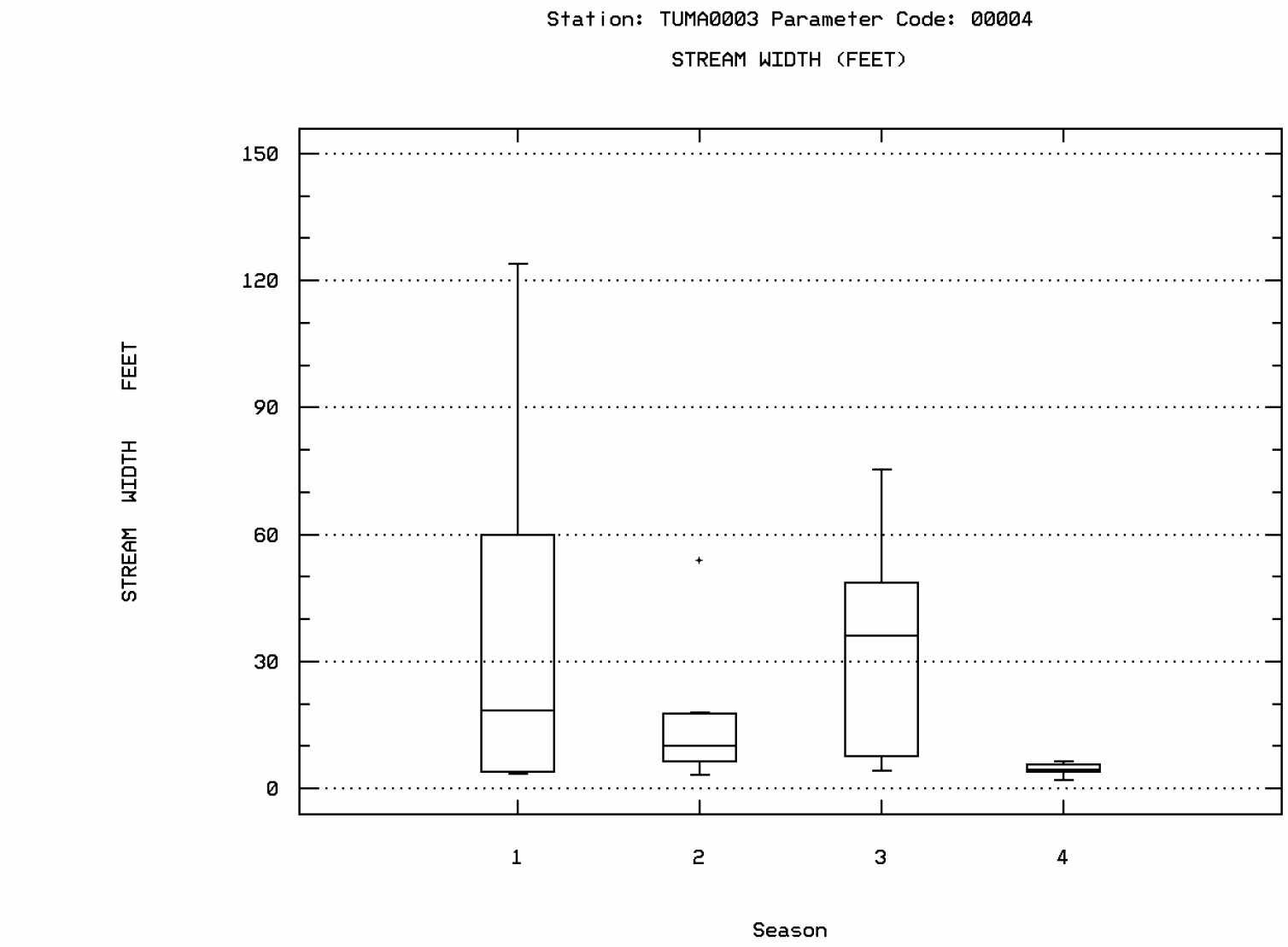
Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004p	STREAM WIDTH (FEET)	11/12/86-11/29/99	10	4.45	4.47	6.3	2.	1.918	1.385	2.07	3.675	5.6	6.23
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/12/86-11/29/99	12	25.5	25.308	29.	21.	7.641	2.764	21.06	22.75	28.	28.7
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/12/86-11/29/99	12	27.5	27.167	37.	14.5	34.333	5.859	16.75	23.875	30.	36.1
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/12/86-11/29/99	10	0.22	0.333	0.72	0.1	0.066	0.258	0.101	0.133	0.678	0.718
00064p	DEPTH OF STREAM, MEAN (FT)	11/12/86-11/29/99	10	0.16	0.156	0.21	0.1	0.002	0.043	0.1	0.115	0.2	0.209
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/12/86-11/29/99	12	401.5	399.5	451.	350.	1019.909	31.936	350.3	375.75	421.25	448.3
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	12	405.	414.917	569.	383.	2566.083	50.657	383.	387.5	410.75	528.2
00300p	OXYGEN, DISSOLVED MG/L	11/12/86-11/29/99	12	7.16	7.411	10.4	5.93	1.288	1.135	6.101	6.613	7.795	9.725
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	11/12/86-11/29/99	12	101.3	103.158	134.4	87.3	149.072	12.209	88.41	95.8	108.6	127.2
00403p	PH, LAB, STANDARD UNITS SU	11/12/86-11/29/99	12	8.3	8.253	8.41	8.	0.021	0.146	8.027	8.1	8.4	8.407
00403p	CONVERTED PH, LAB, STANDARD UNITS	11/12/86-11/29/99	12	8.3	8.23	8.41	8.	0.022	0.148	8.027	8.1	8.4	8.407
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	12	0.005	0.006	0.01	0.004	0.	0.002	0.004	0.004	0.008	0.009
00406p	PH, FIELD, STANDARD UNITS SU	11/12/86-11/29/99	12	7.945	7.95	8.44	7.66	0.04	0.2	7.693	7.81	8.015	8.344
00406p	CONVERTED PH, FIELD, STANDARD UNITS	11/12/86-11/29/99	12	7.944	7.913	8.44	7.66	0.042	0.204	7.693	7.81	8.015	8.344
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/12/86-11/29/99	12	0.011	0.012	0.022	0.004	0.	0.005	0.005	0.01	0.015	0.02
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	11/12/86-11/29/99	12	160.	156.	176.	84.	562.545	23.718	105.3	155.	167.75	174.2
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-11/29/99	10 ##	1.	1.17	2.4	0.5	0.596	0.772	0.5	0.5	2.075	2.39
00440p	BICARBONATE ION (MG/L AS HCO3)	11/12/86-11/29/99	12	167.	166.083	198.	84.	852.811	29.203	105.3	158.25	183.	196.5
00445p	CARBONATE ION (MG/L AS CO3)	11/23/87-11/29/99	10 ##	1.	1.57	4.	0.5	1.622	1.274	0.5	0.5	2.825	3.89
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	11/12/86-11/29/99	12 ##	5.	6.292	35.	2.	83.839	9.156	2.	2.	5.	26.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-11/29/99	10 ##	0.05	0.05	0.16	0.015	0.002	0.043	0.015	0.015	0.053	0.15
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/12/86-11/29/99	10 ##	0.075	0.135	0.4	0.05	0.016	0.125	0.05	0.05	0.225	0.39
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	11/12/86-11/29/99	12 ##	0.03	0.041	0.11	0.005	0.001	0.025	0.013	0.03	0.05	0.092
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	11/12/86-11/29/99	12	0.125	0.144	0.32	0.025	0.007	0.082	0.033	0.103	0.203	0.296
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	10	162.	160.2	181.	144.	153.956	12.408	144.4	148.75	170.25	180.3
00916p	CALCIUM, TOTAL (MG/L AS CA)	11/12/86-11/29/99	12	53.85	54.15	61.6	45.4	19.248	4.387	47.02	51.475	57.35	60.97
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	11/12/86-11/29/99	12	5.7	5.783	6.6	5.4	0.129	0.359	5.43	5.5	5.9	6.51
00929p	SODIUM, TOTAL (MG/L AS NA)	11/12/86-11/29/99	12	30.05	30.192	34.6	24.6	6.934	2.633	25.77	28.575	31.5	34.42
00937p	POTASSIUM, TOTAL MG/L AS K)	11/12/86-11/29/99	12	3.25	3.153	3.8	2.4	0.237	0.487	2.43	2.753	3.64	3.8
00940p	CHLORIDE,TOTAL IN WATER MG/L	11/12/86-11/29/99	12	8.35	8.625	12.6	6.9	2.322	1.524	6.99	7.55	9.	11.82
00945p	SULFATE, TOTAL (MG/L AS SO4)	11/12/86-11/29/99	12	43.35	40.858	50.	17.	82.446	9.08	21.8	38.525	47.25	50.
00951p	FLUORIDE, TOTAL (MG/L AS F)	11/12/86-11/29/99	11	0.54	0.552	0.68	0.39	0.005	0.074	0.414	0.53	0.59	0.672

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

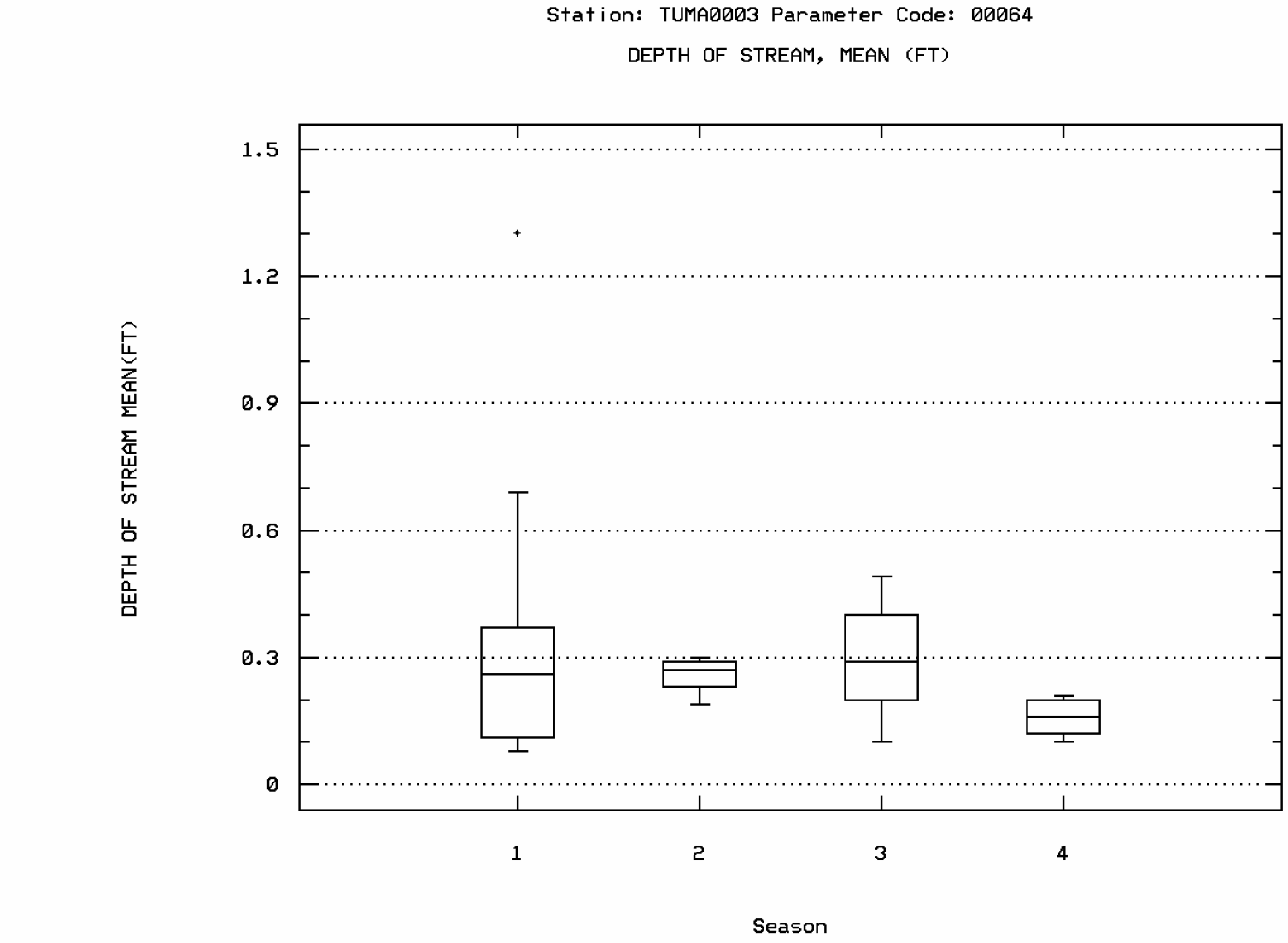
Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0003

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	7 ##	2.5	3.214	5.	2.5	1.488	1.22	**	**	**	**
01002p	ARSENIC, TOTAL (UG/L AS AS)	11/12/86-11/29/99	13 ##	2.5	4.154	14.	2.5	10.141	3.184	2.5	2.5	5.	10.4
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	7	49.	47.857	65.	24.	175.81	13.259	**	**	**	**
01007p	BARIUM, TOTAL (UG/L AS BA)	11/12/86-11/29/99	12 ##	50.	48.417	58.	40.	19.174	4.379	41.2	46.	50.	55.6
01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	11 ##	2.5	1.682	2.5	0.25	1.289	1.135	0.25	0.25	2.5	2.5
01022p	BORON, TOTAL (UG/L AS B)	11/12/86-11/29/99	12 ##	50.	115.	480.	50.	18336.364	135.412	50.	50.	100.	426.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	7 ##	2.5	2.071	2.5	0.5	0.619	0.787	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	11/12/86-11/29/99	13 ##	2.	1.615	2.5	0.5	0.923	0.961	0.5	0.5	2.5	2.5
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**	**
01034p	CHROMIUM, TOTAL (UG/L AS CR)	11/12/86-11/29/99	13 ##	5.	6.	12.	5.	5.167	2.273	5.	5.	5.5	11.2
01040	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**	**
01042p	COPPER, TOTAL (UG/L AS CU)	11/12/86-11/29/99	13 ##	5.	5.769	10.	5.	2.484	1.576	5.	5.	6.25	9.
01045p	IRON, TOTAL (UG/L AS FE)	11/12/86-11/29/99	12	65.	119.583	484.	5.	20944.265	144.721	6.5	34.25	145.	437.8
01049	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	7 ##	1.	1.571	5.	1.	2.286	1.512	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	11/12/86-11/29/99	13 ##	1.	3.	9.	1.	8.708	2.951	1.	1.	5.5	8.6
01055p	MANGANESE, TOTAL (UG/L AS MN)	11/12/86-11/29/99	12	115.	206.167	1020.	25.	78100.333	279.464	30.4	50.5	204.25	846.
01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	11 ##	2.5	2.5	2.5	2.5	0.	0.	2.5	2.5	2.5	2.5
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	11 ##	10.	25.	50.	10.	395.	19.875	10.	10.	50.	50.
01075	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	7 ##	5.	4.357	5.	0.5	2.893	1.701	**	**	**	**
01077p	SILVER, TOTAL (UG/L AS AG)	11/12/86-11/29/99	13 ##	5.	3.077	5.	0.5	4.785	2.188	0.5	0.5	5.	5.
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	7 ##	5.	7.5	25.	2.5	60.417	7.773	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	11/12/86-11/29/99	13 ##	17.	16.923	35.	5.	142.077	11.92	5.	5.	25.	35.
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	11 ##	25.	15.	25.	2.5	132.5	11.511	2.5	2.5	25.	25.
01147p	SELENIUM, TOTAL (UG/L AS SE)	11/12/86-11/29/99	13 ##	2.5	8.385	25.	2.5	93.715	9.681	2.5	2.5	18.25	25.
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/12/86-11/29/99	12	270.	271.417	301.	250.	176.629	13.29	252.4	266.25	274.5	297.7
71900p	MERCURY, TOTAL (UG/L AS HG)	11/12/86-11/29/99	13 ##	0.1	0.285	1.	0.1	0.106	0.325	0.1	0.1	0.25	1.
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-11/29/99	11	0.5	0.495	0.79	0.34	0.018	0.134	0.346	0.37	0.57	0.754
85663p	FLOW, RATE FT/SEC	11/12/86-11/29/99	10	0.33	0.417	0.9	0.16	0.066	0.257	0.161	0.185	0.655	0.88

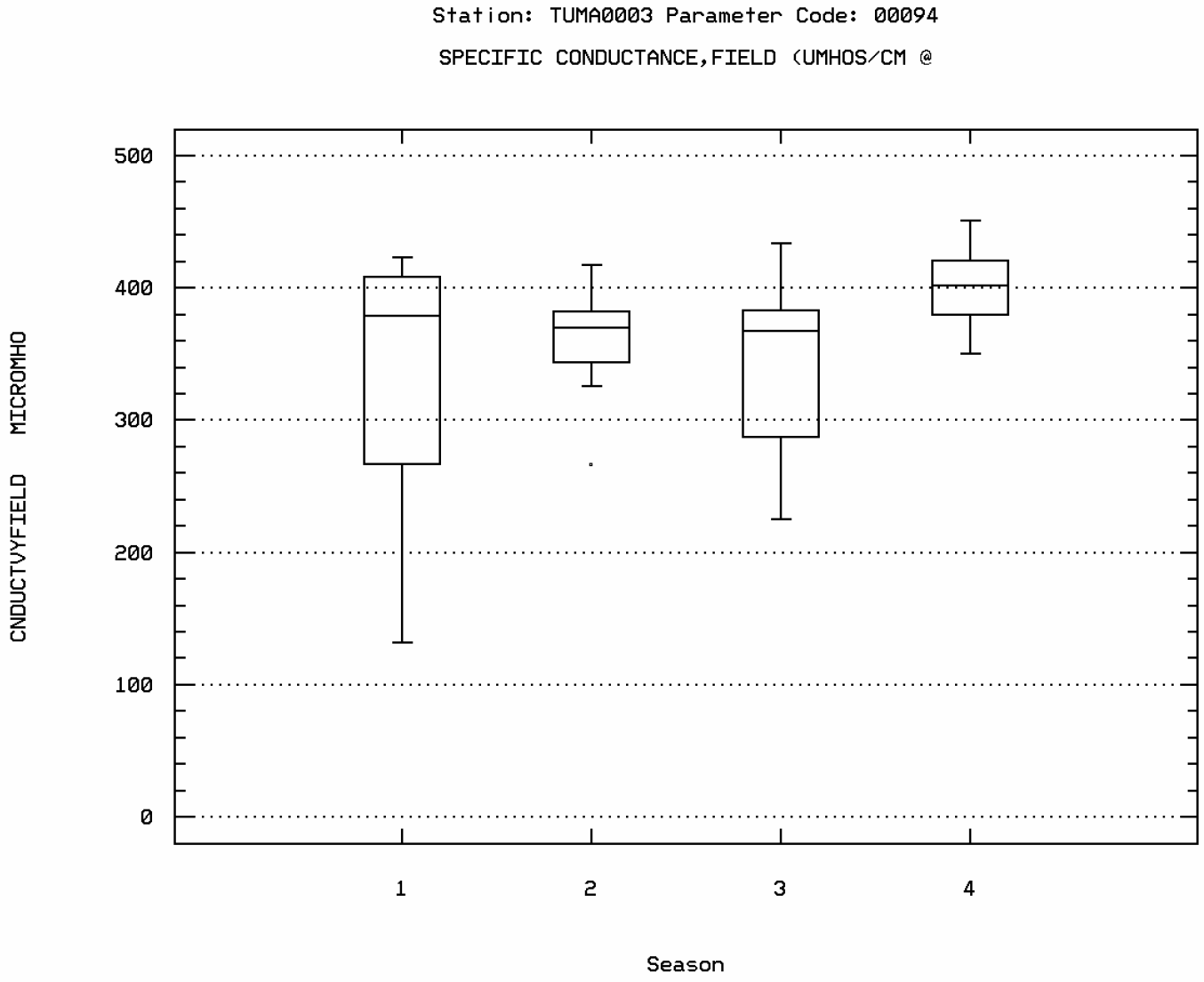
** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot



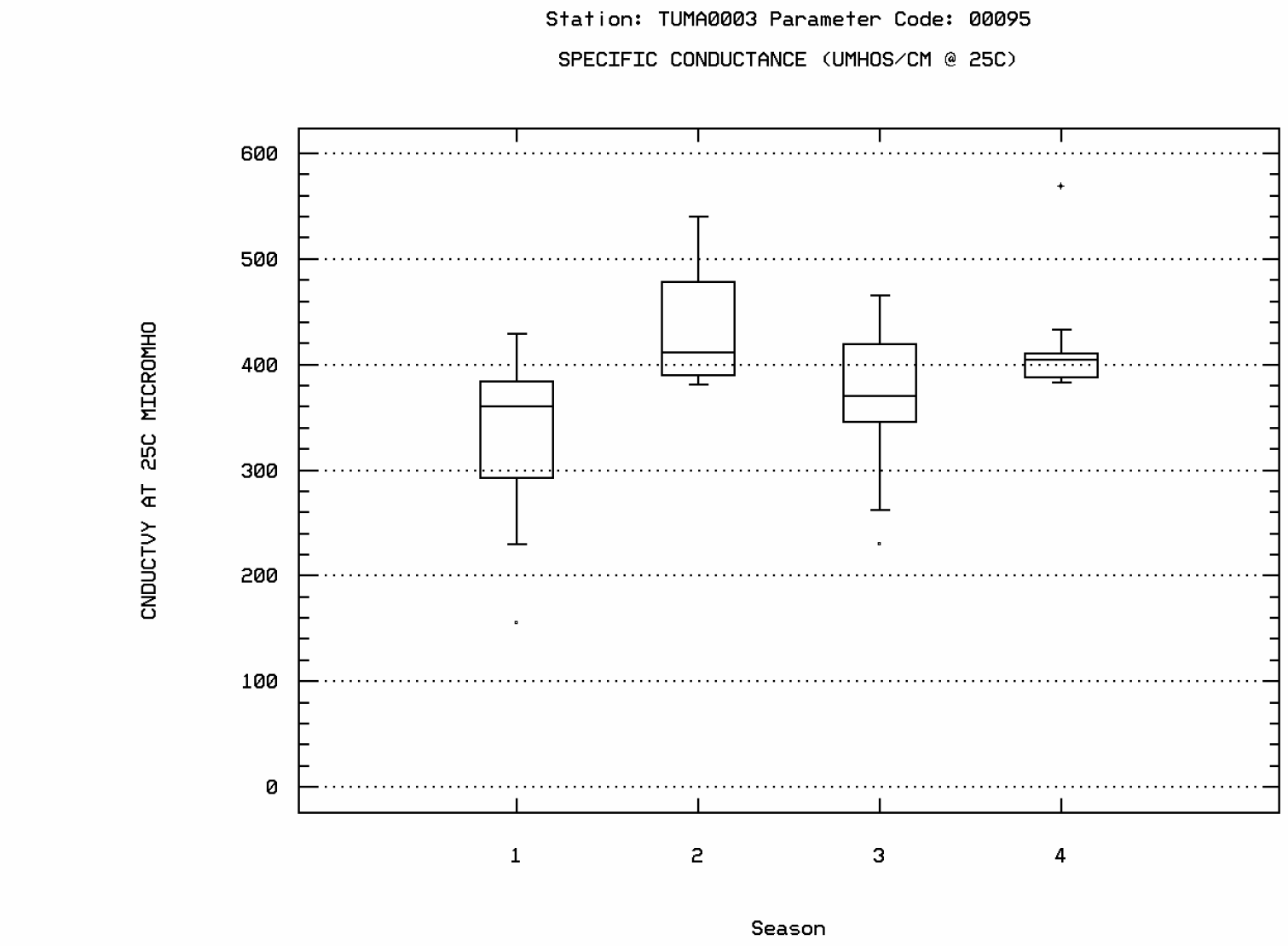
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



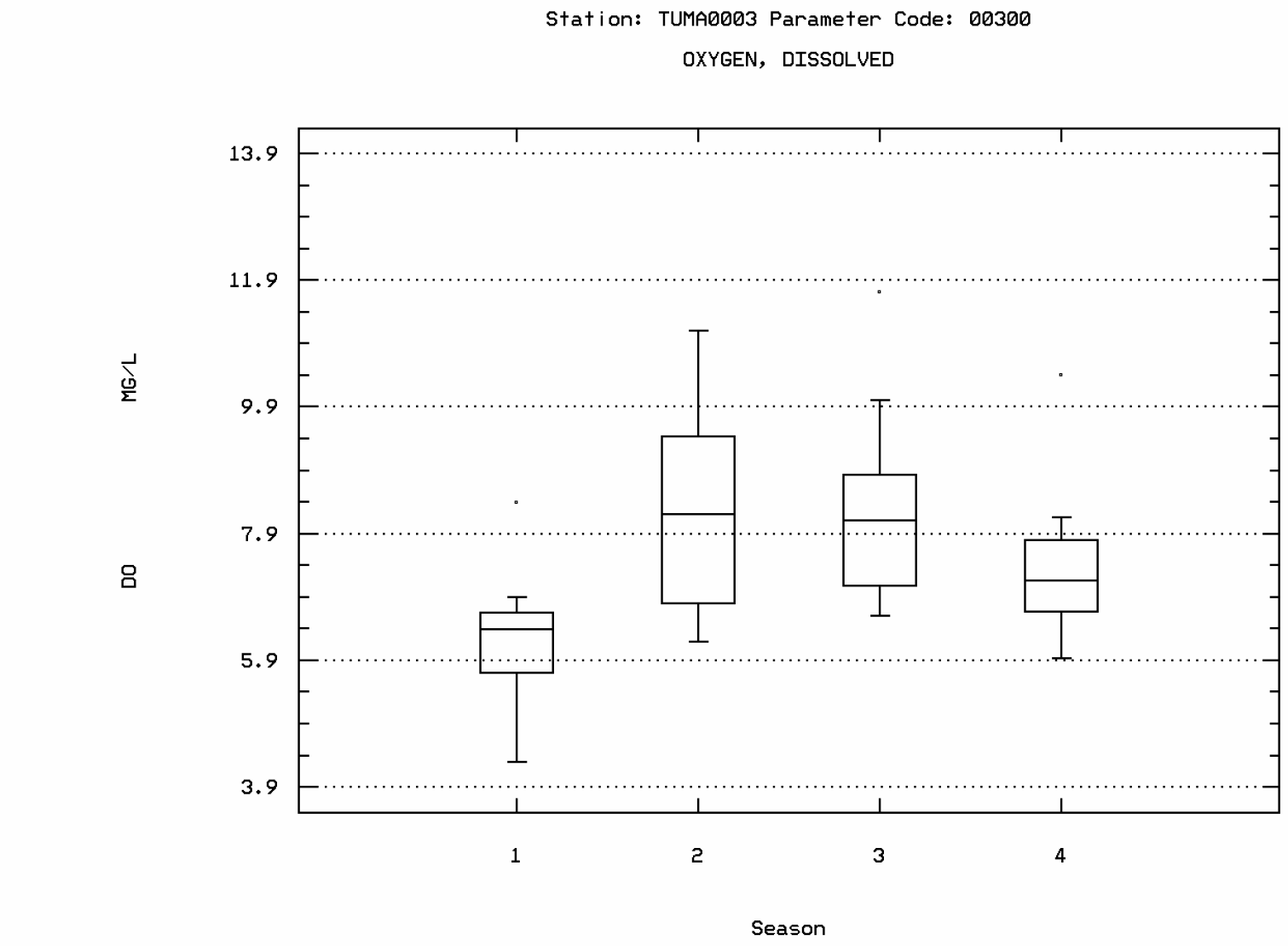
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



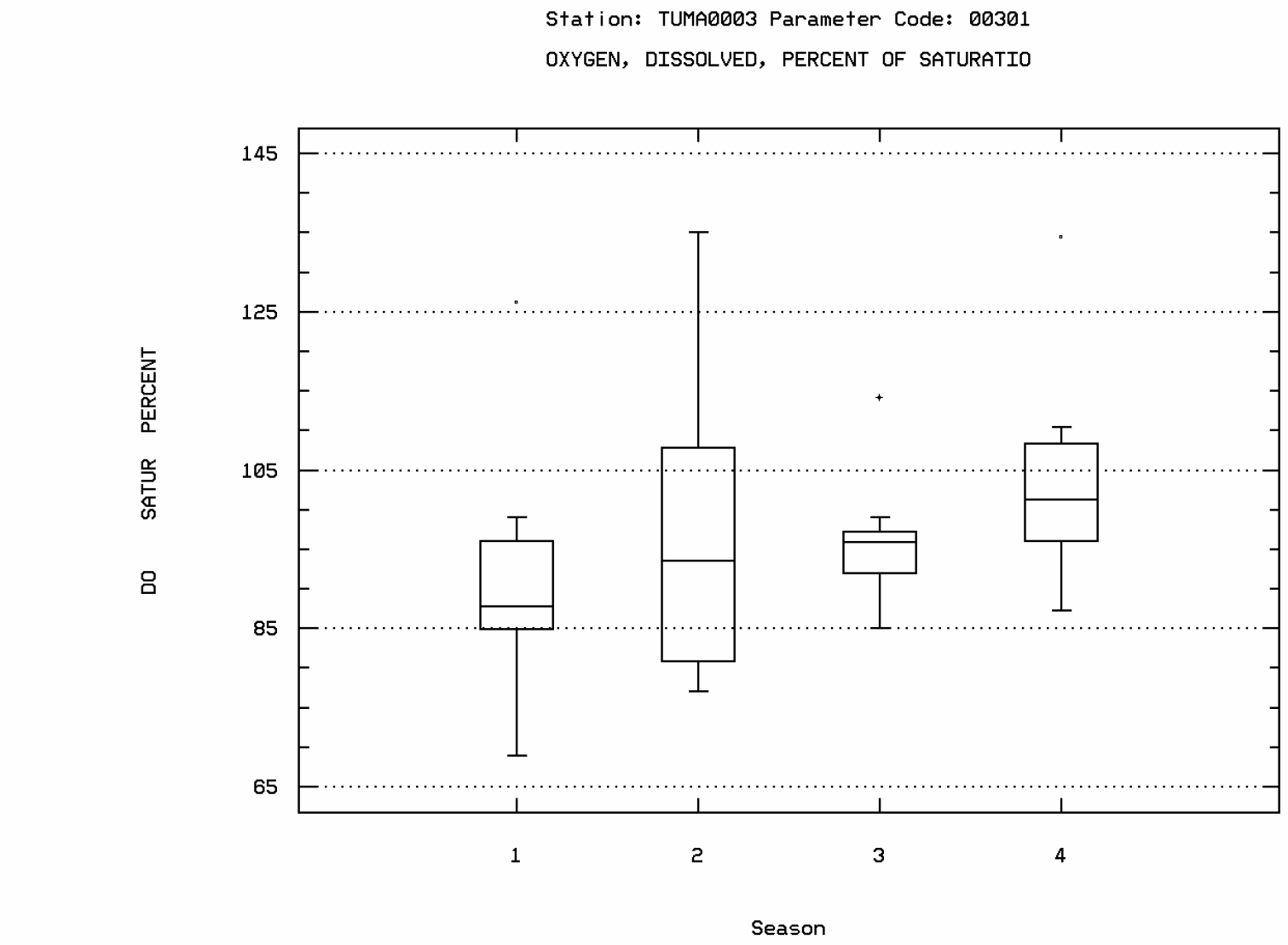
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



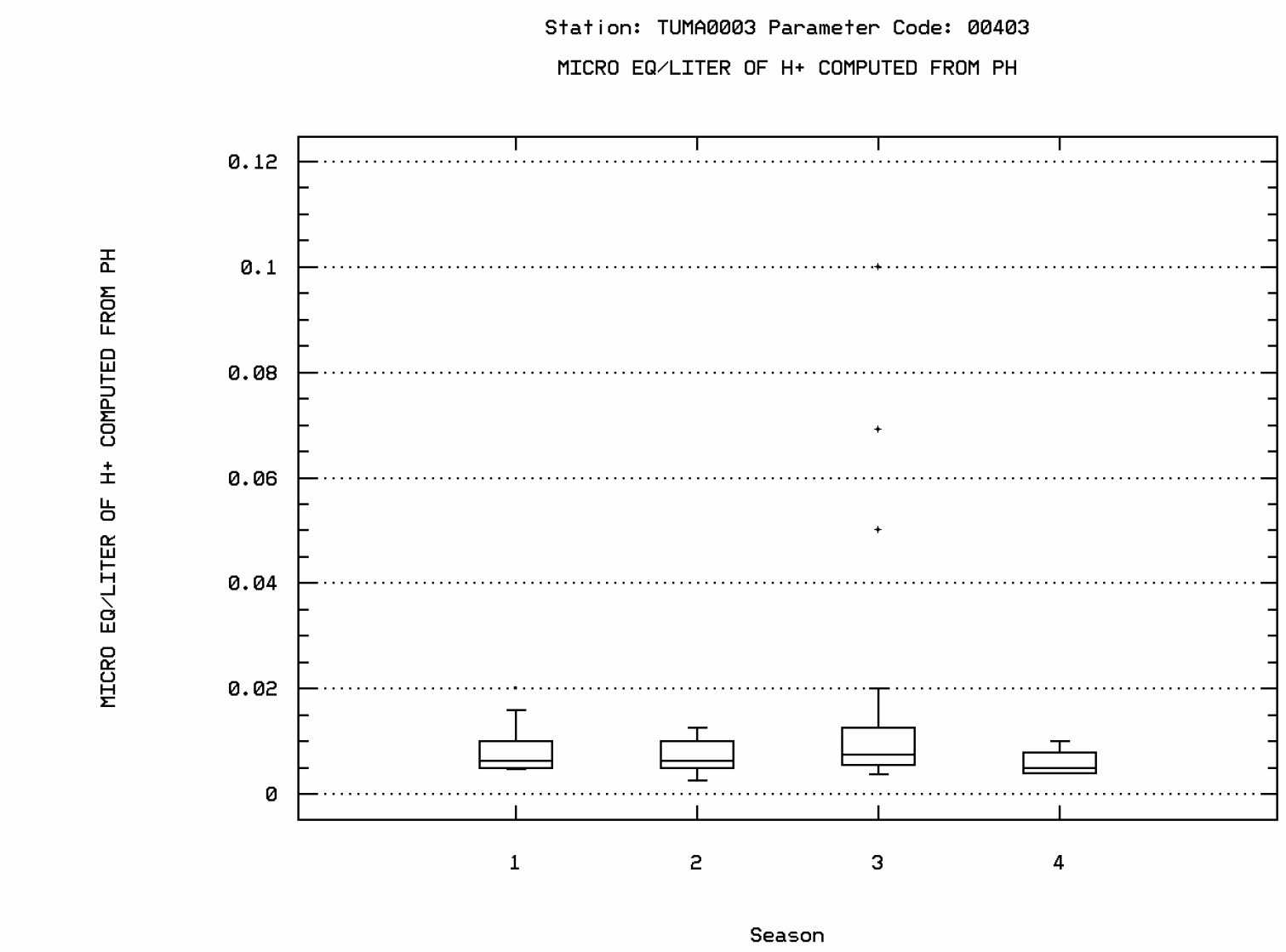
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



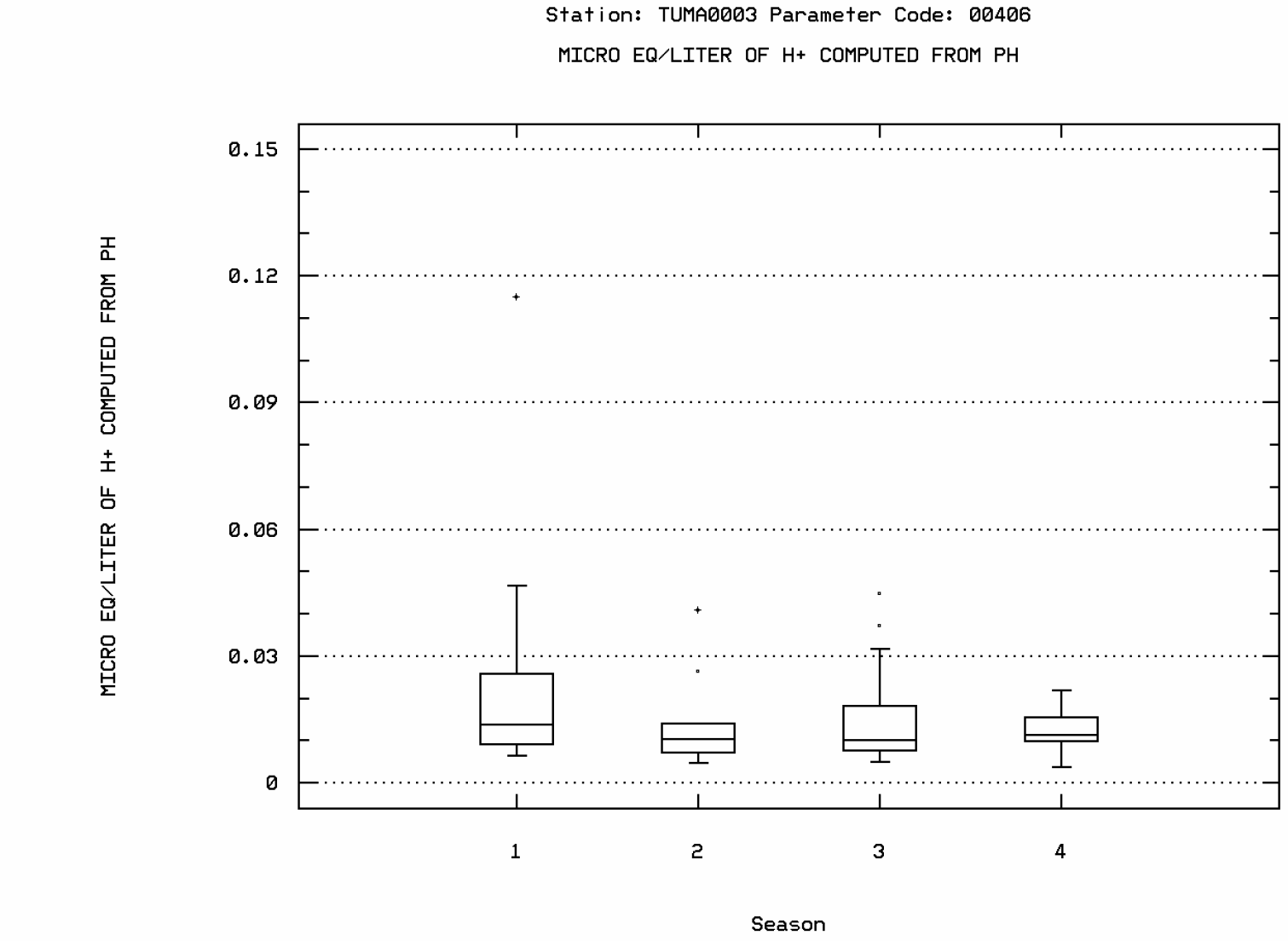
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



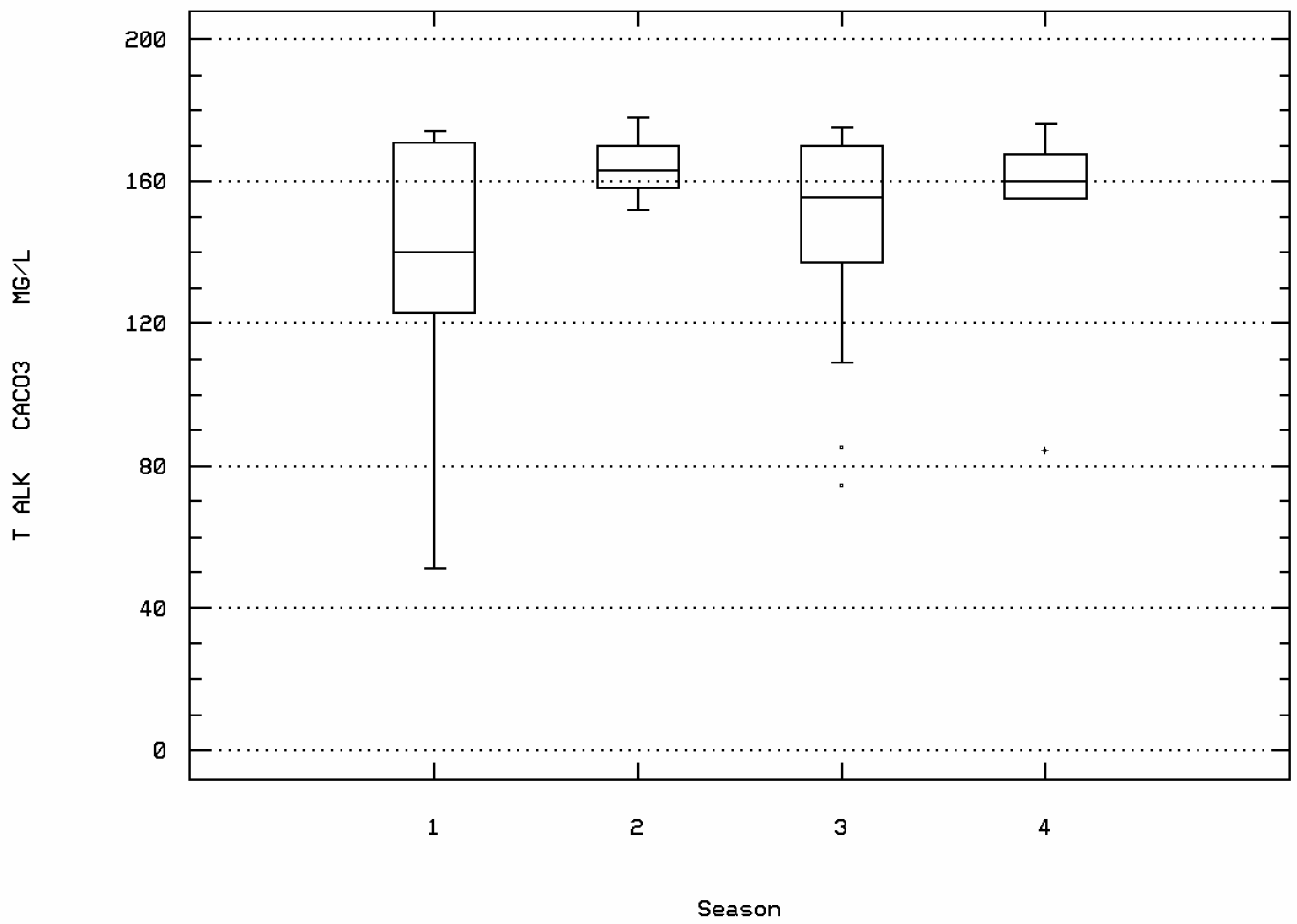
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



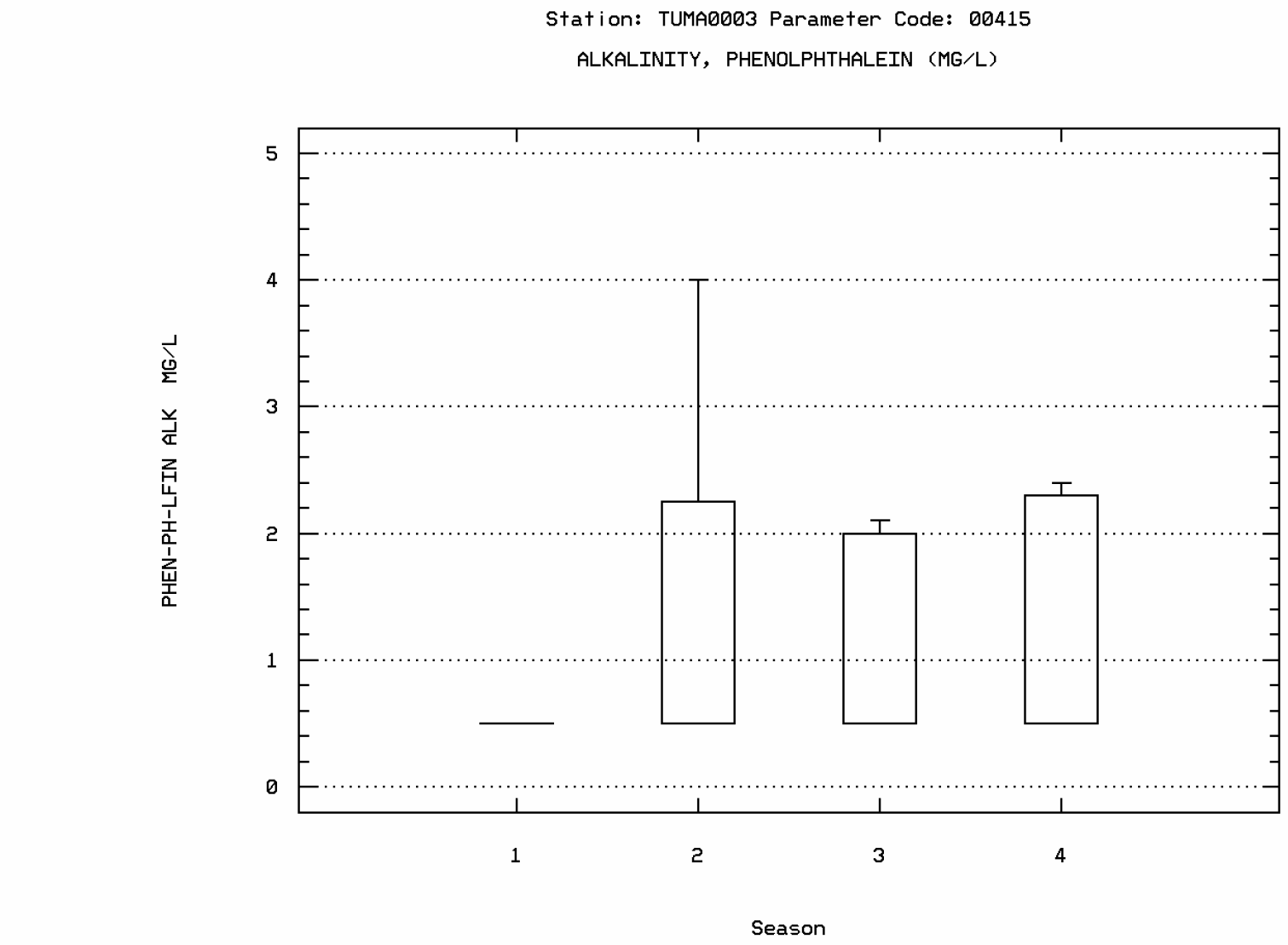
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Station: TUMA0003 Parameter Code: 00410

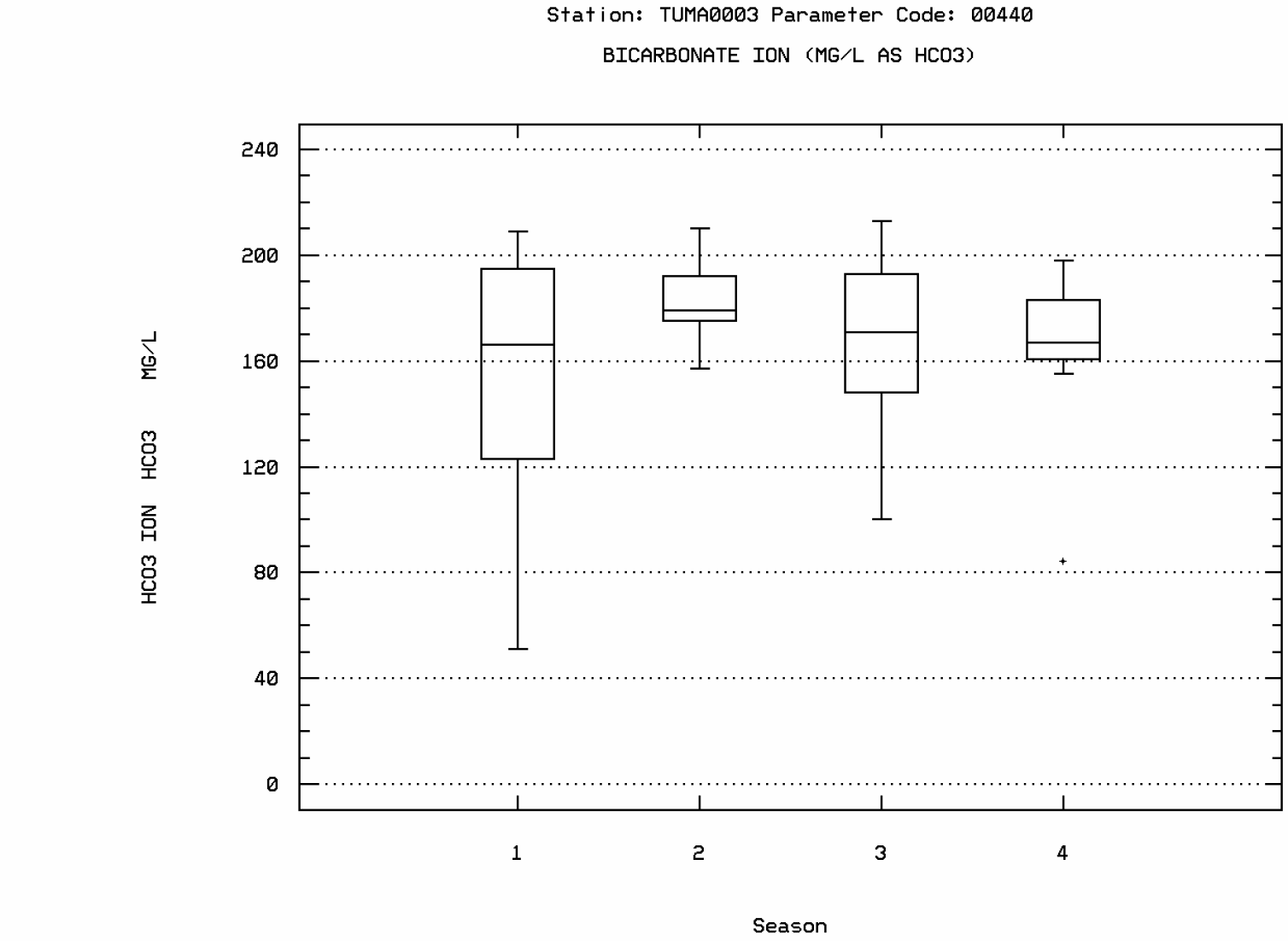
ALKALINITY, TOTAL (MG/L AS CACO3)



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



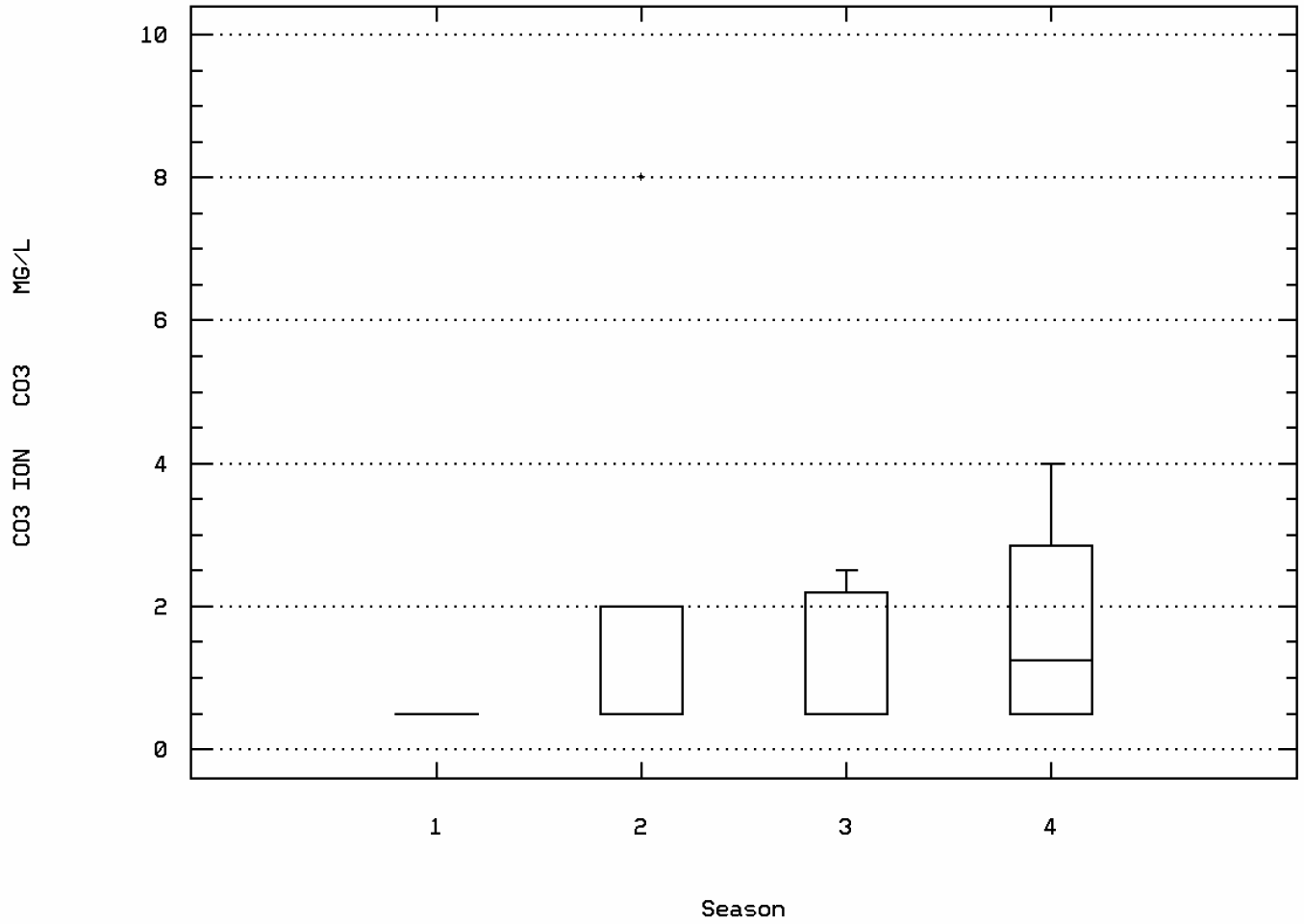
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



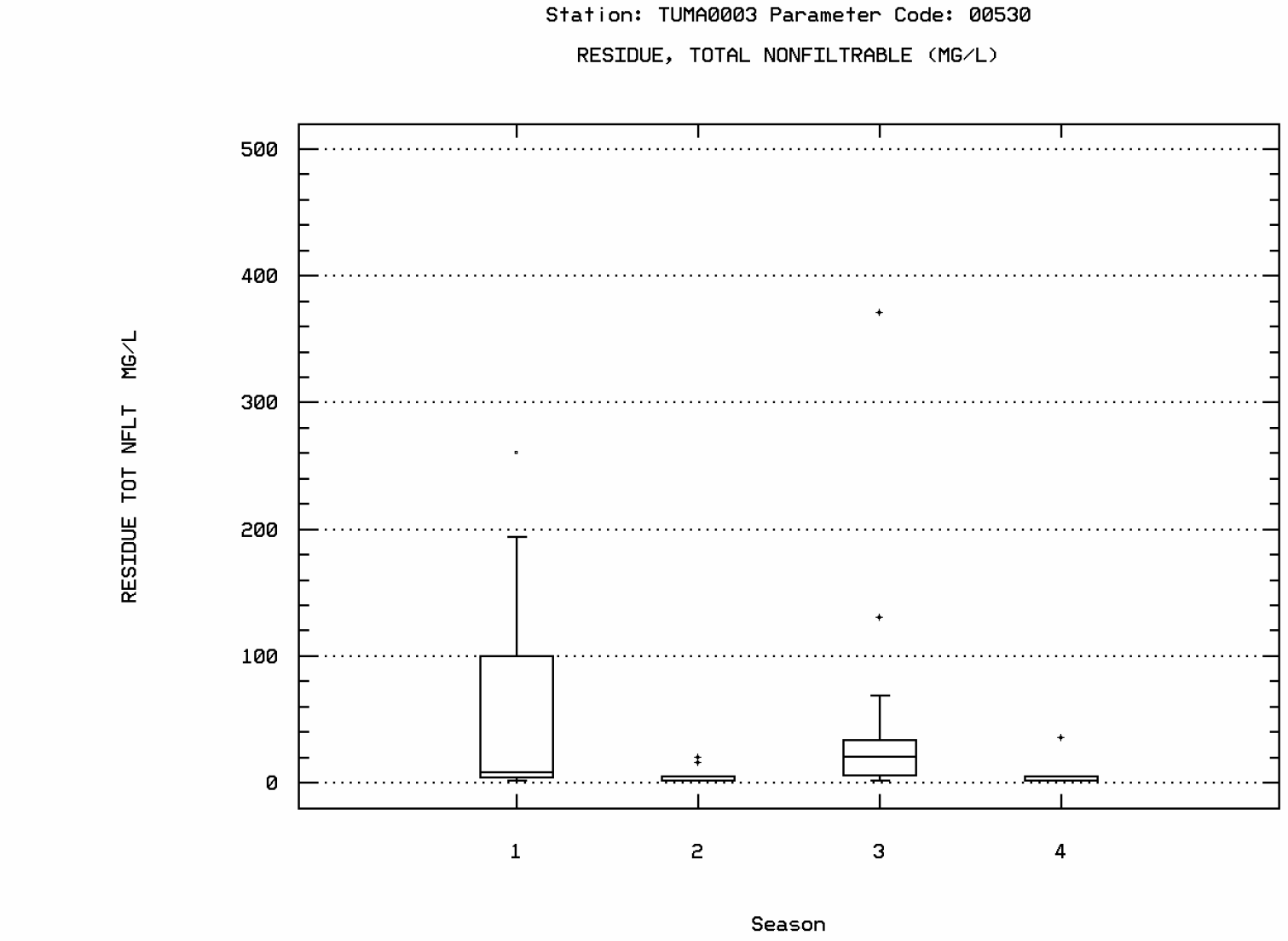
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Station: TUMA0003 Parameter Code: 00445

CARBONATE ION (MG/L AS CO3)



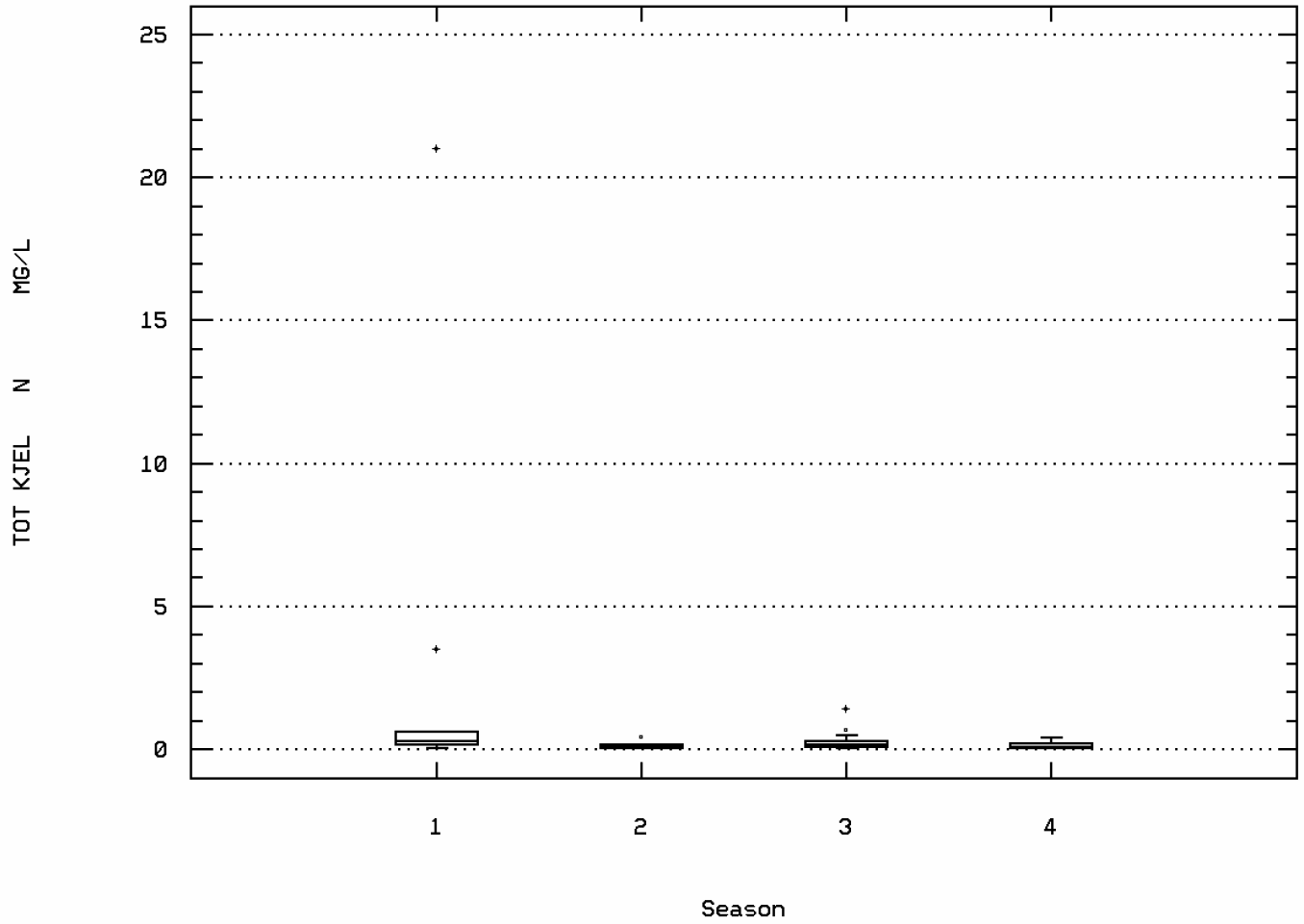
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



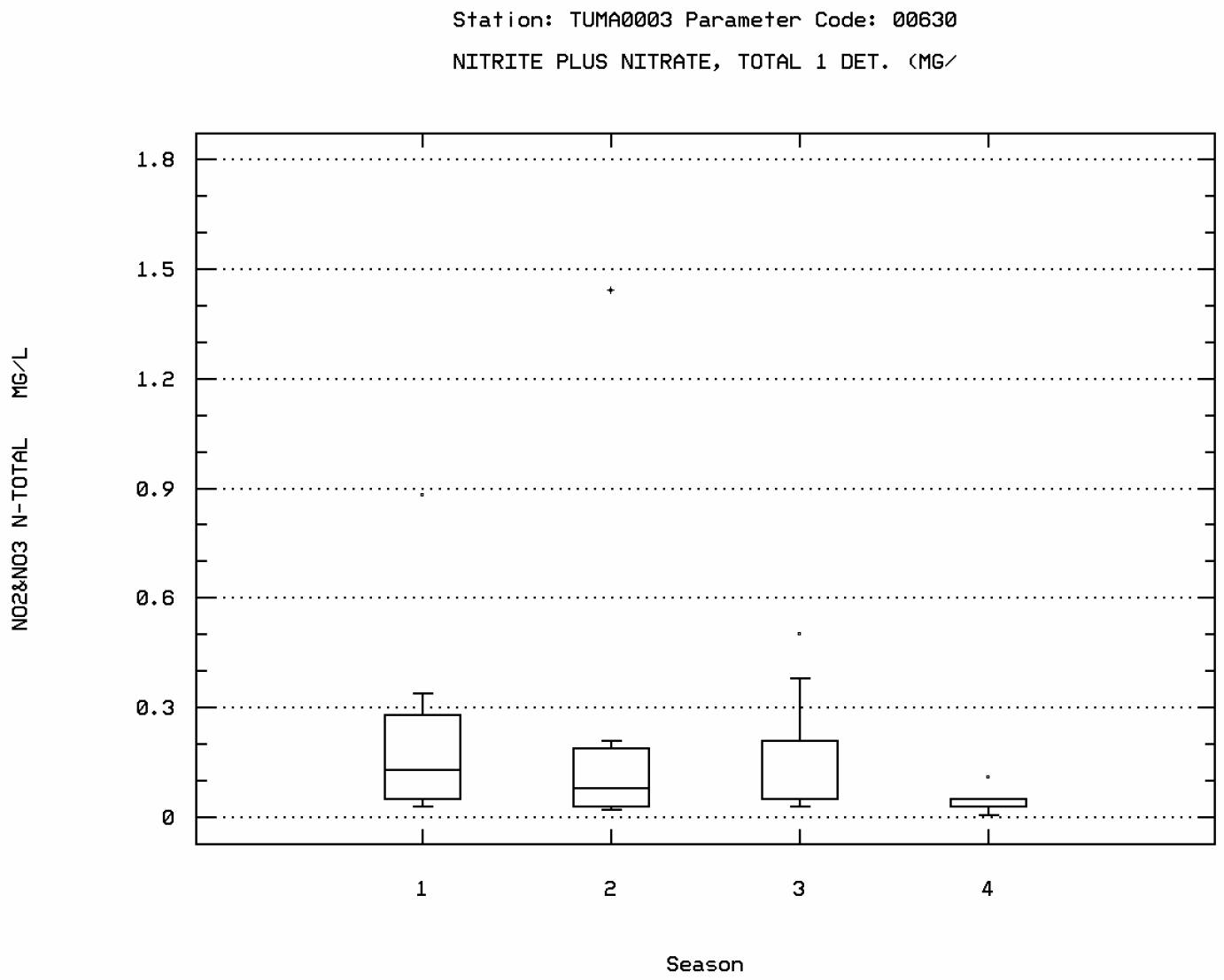
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Station: TUMA0003 Parameter Code: 00625

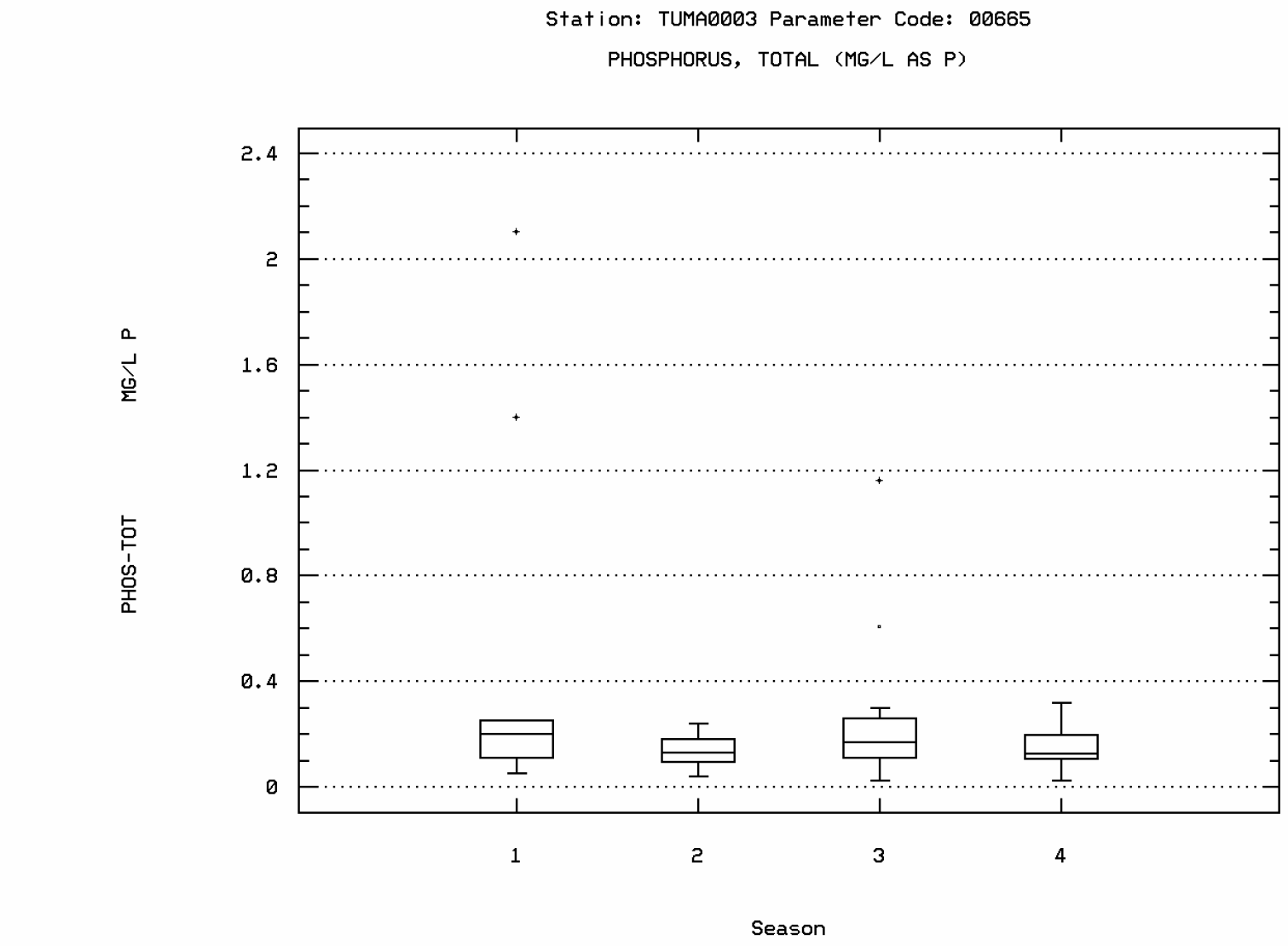
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



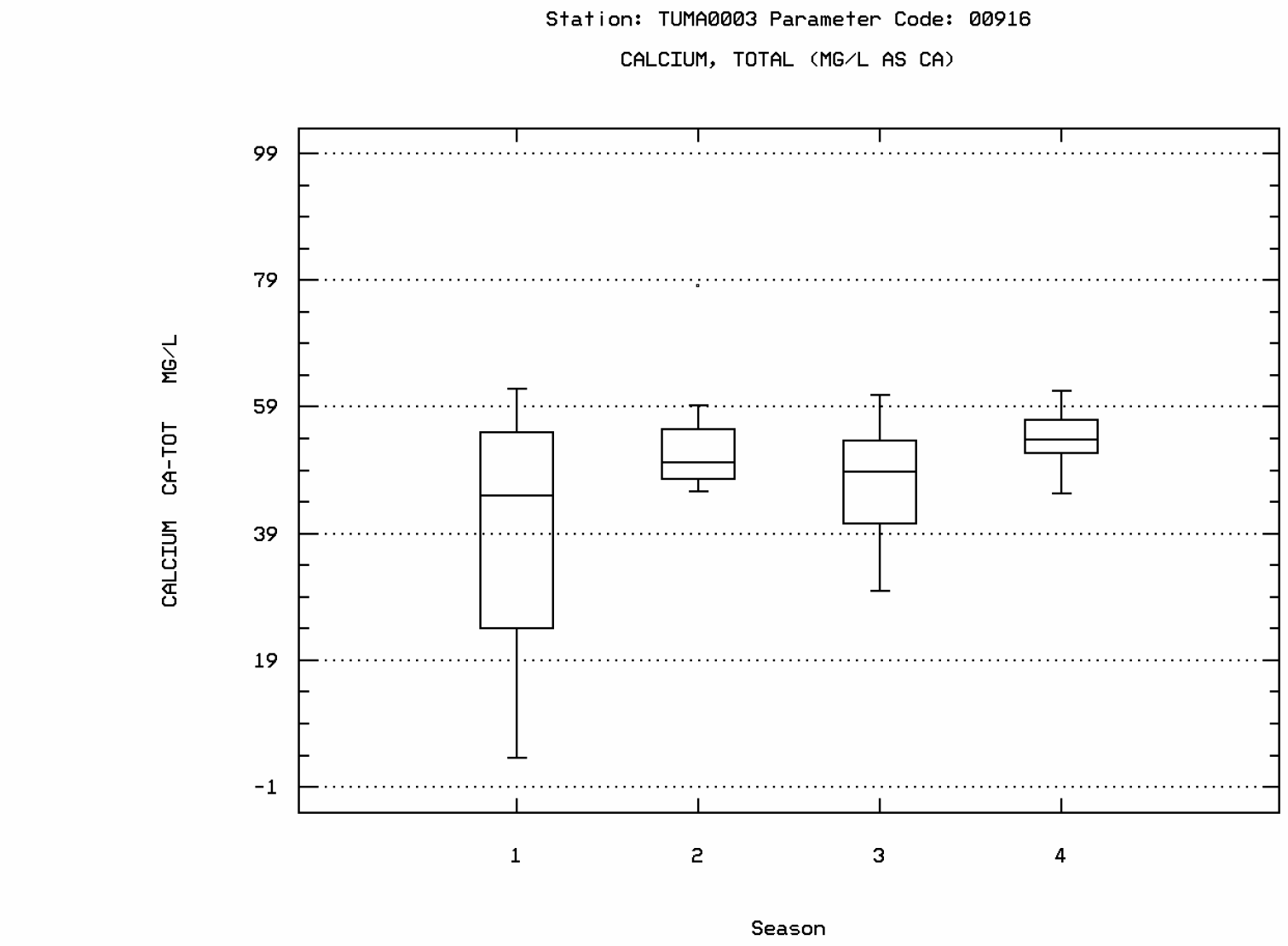
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



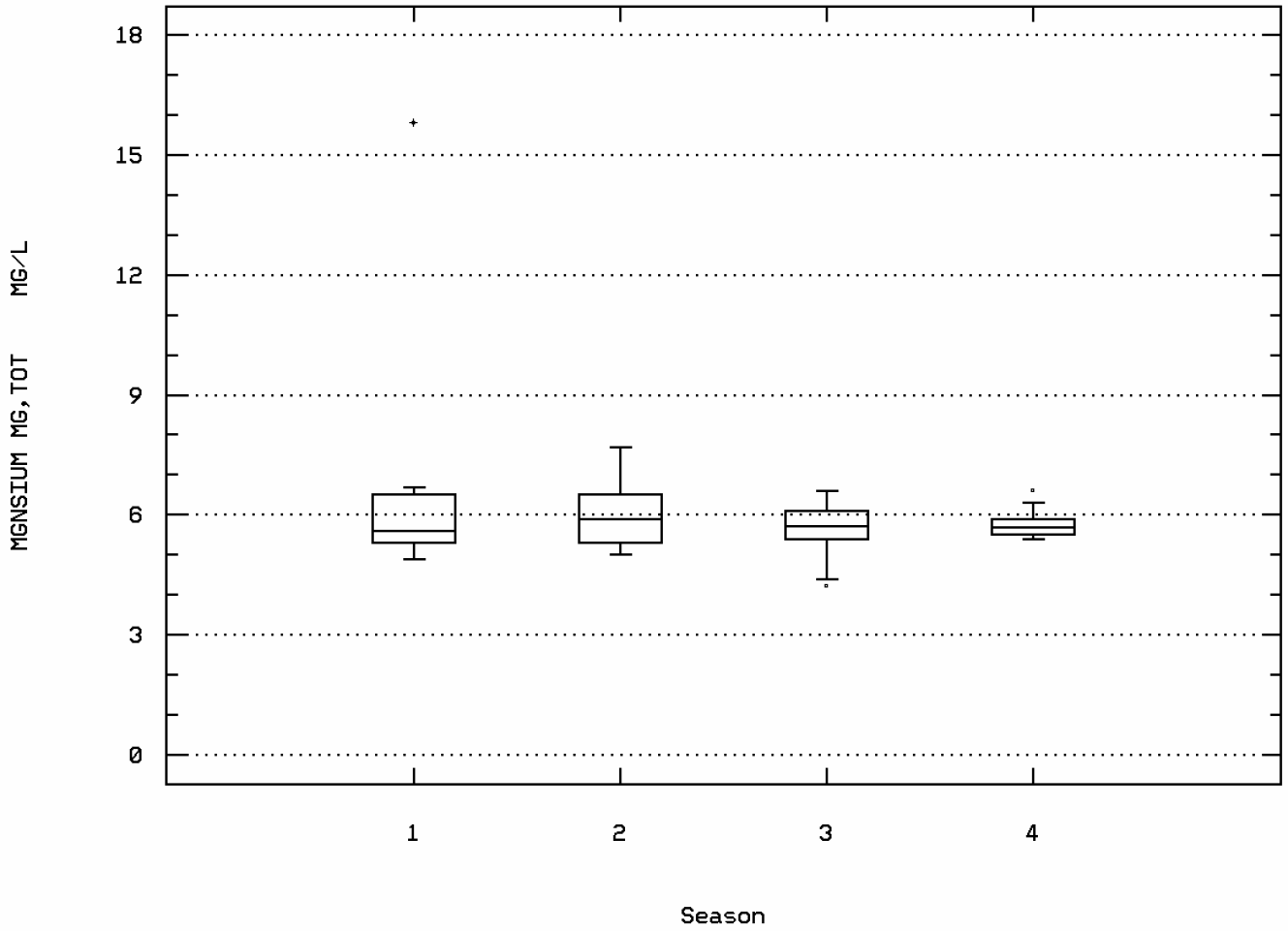
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



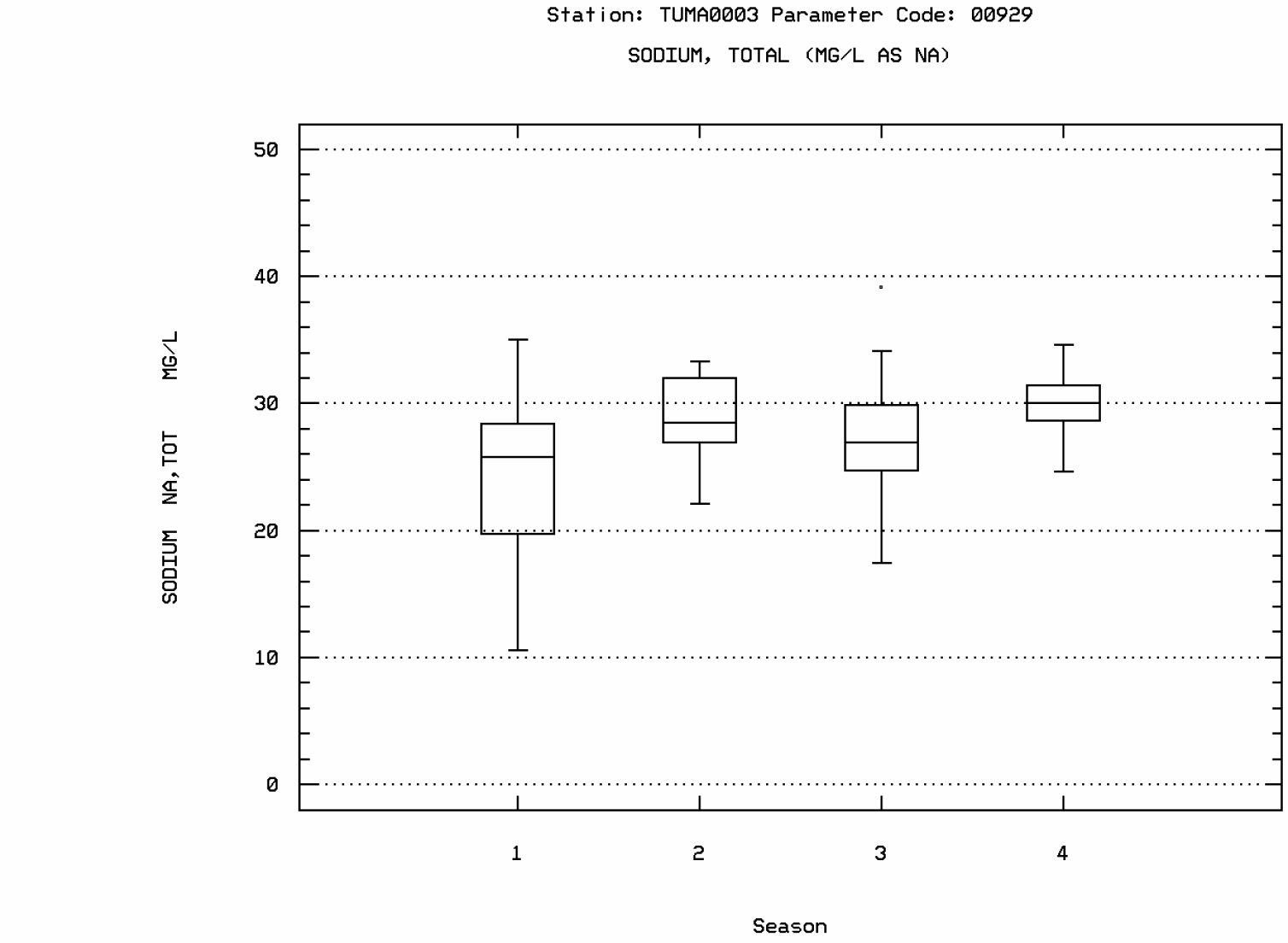
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Station: TUMA0003 Parameter Code: 00927

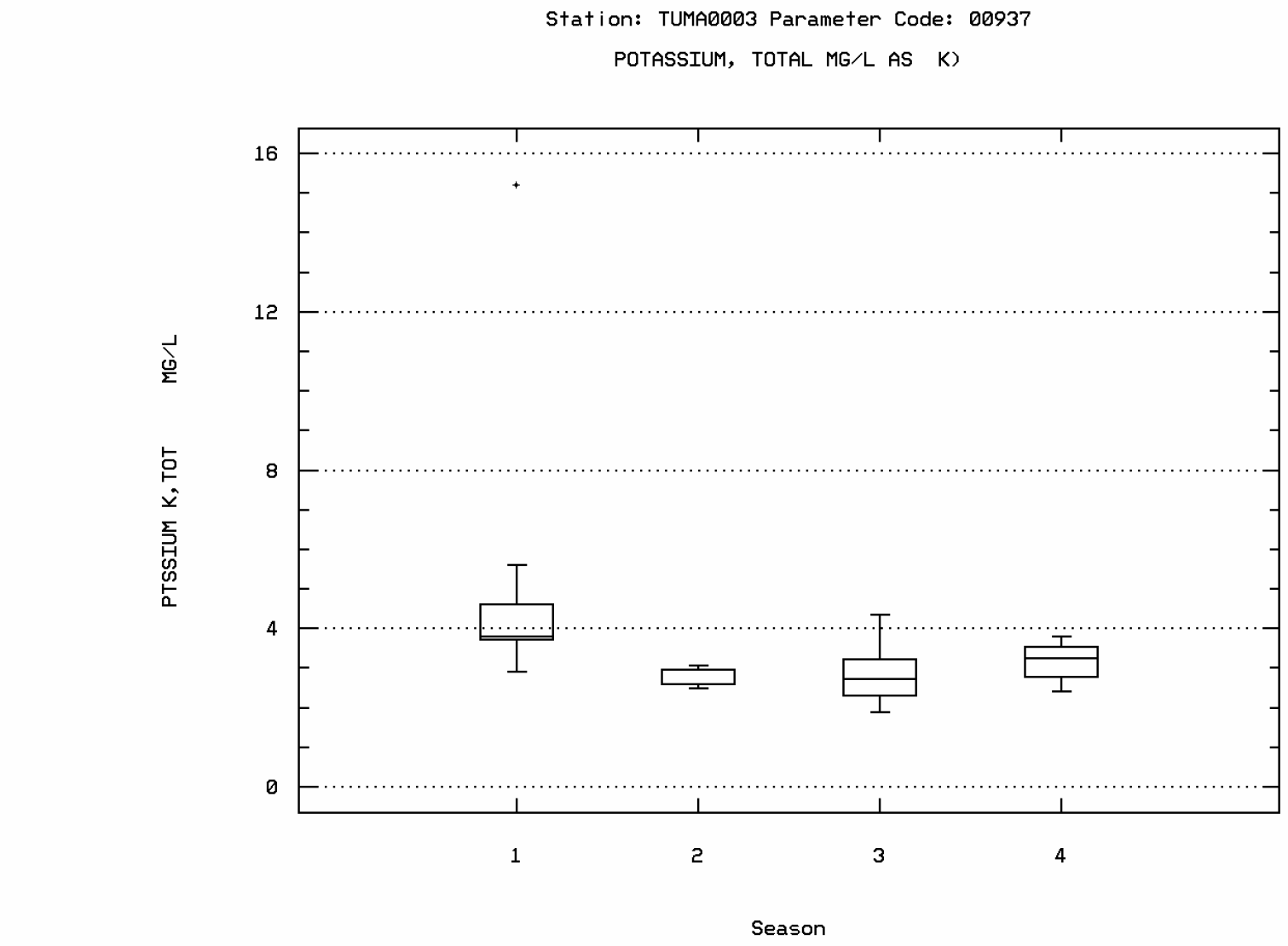
MAGNESIUM, TOTAL (MG/L AS MG)



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



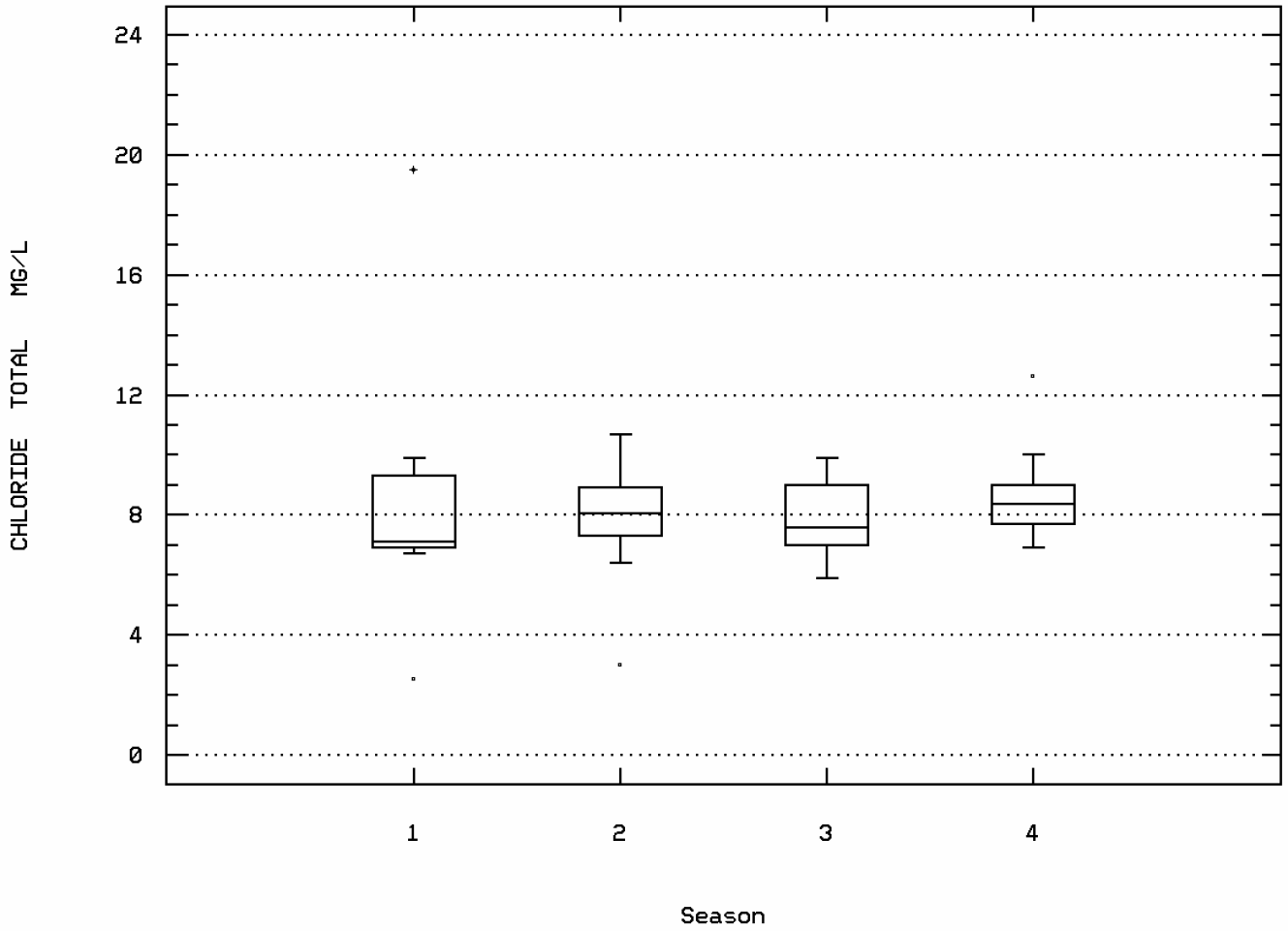
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



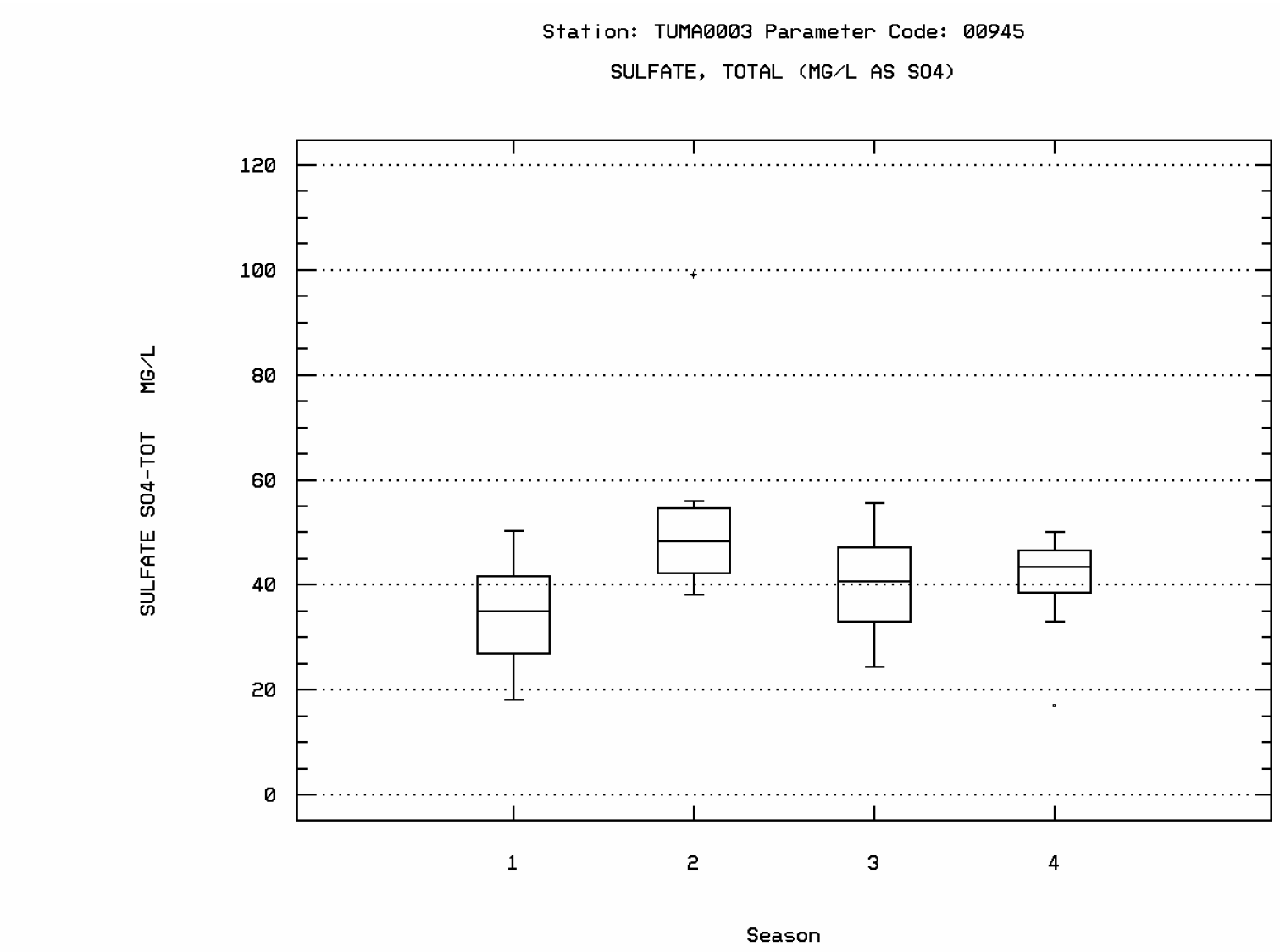
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Station: TUMA0003 Parameter Code: 00940

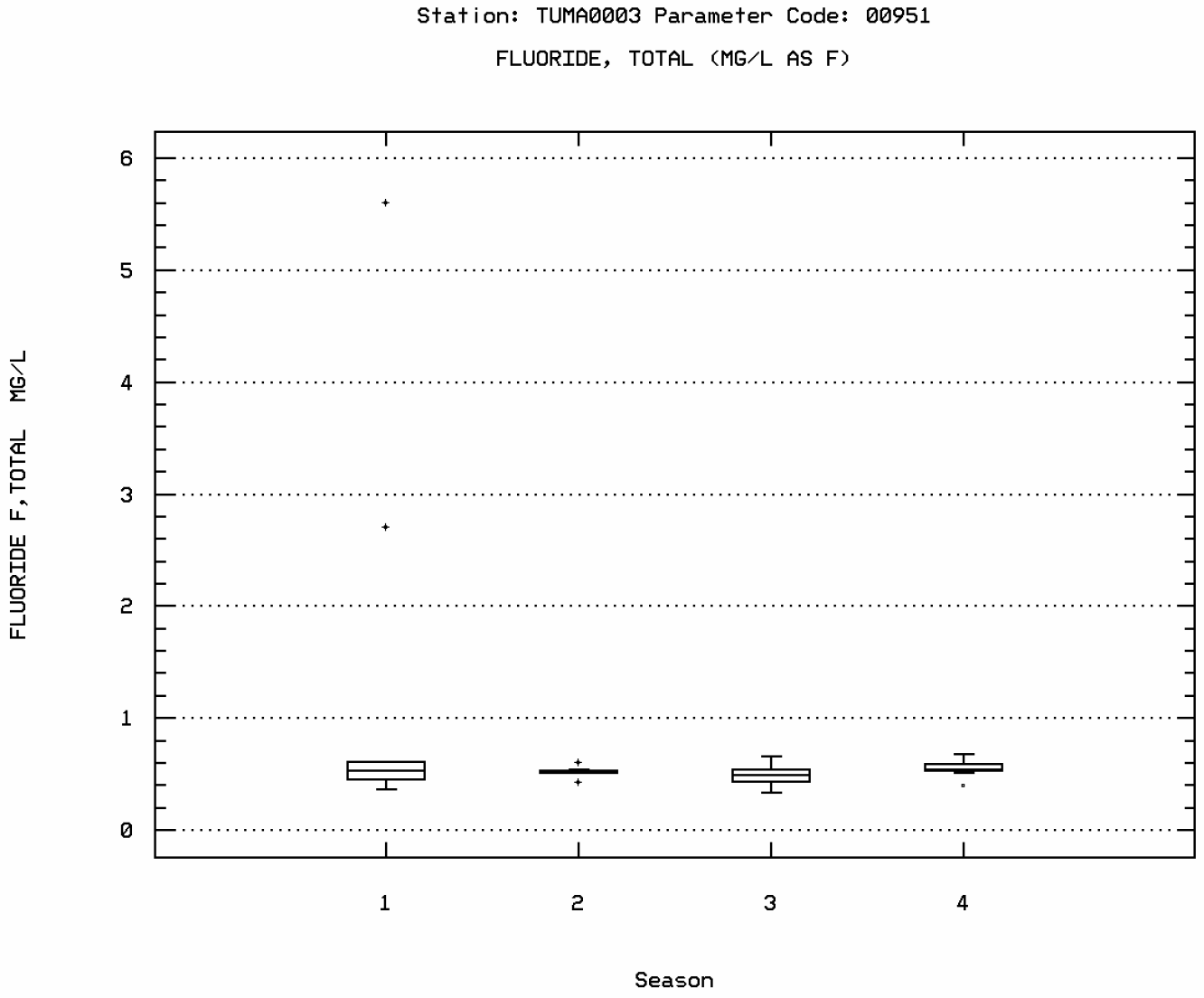
CHLORIDE,TOTAL IN WATER



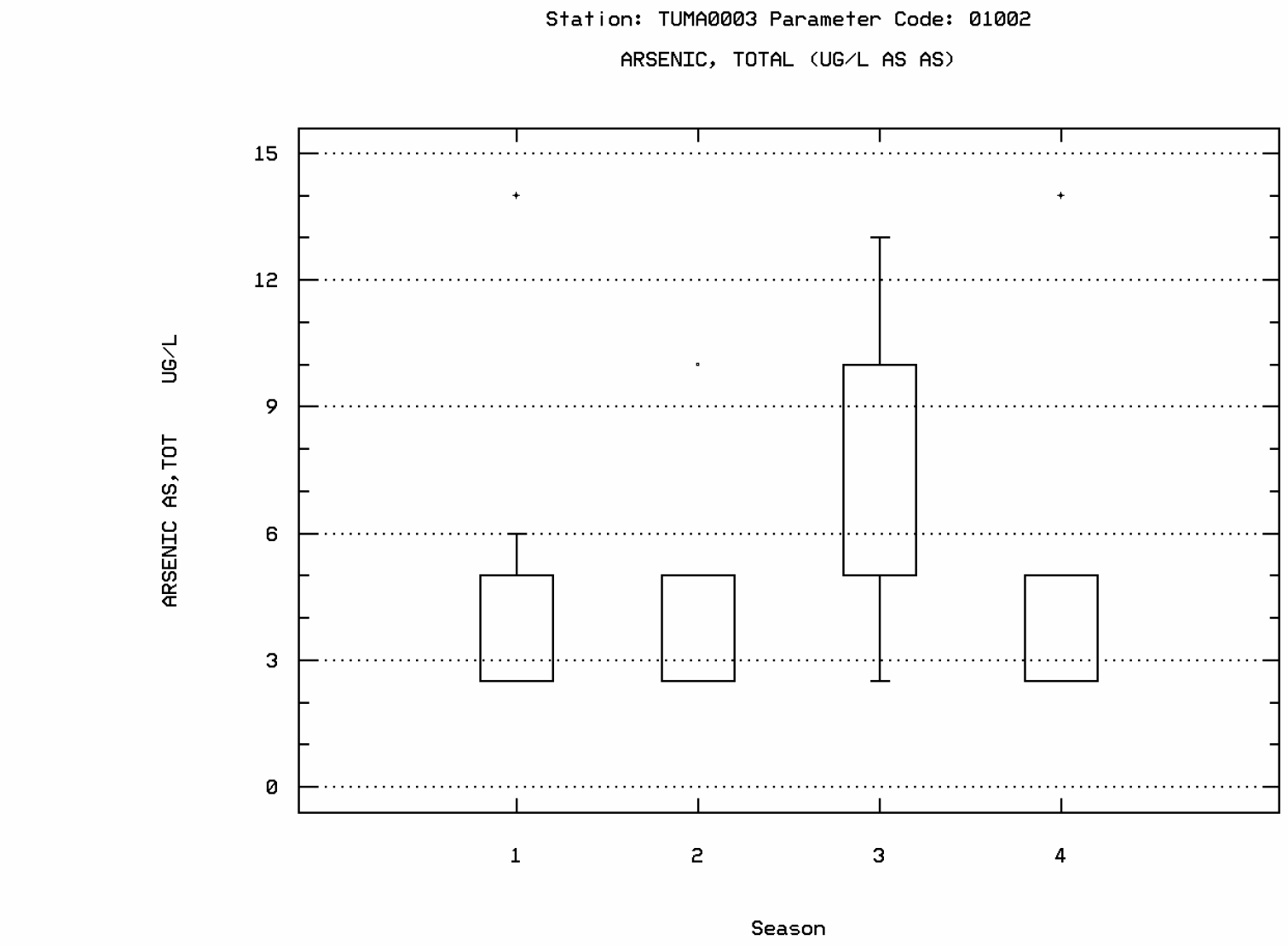
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



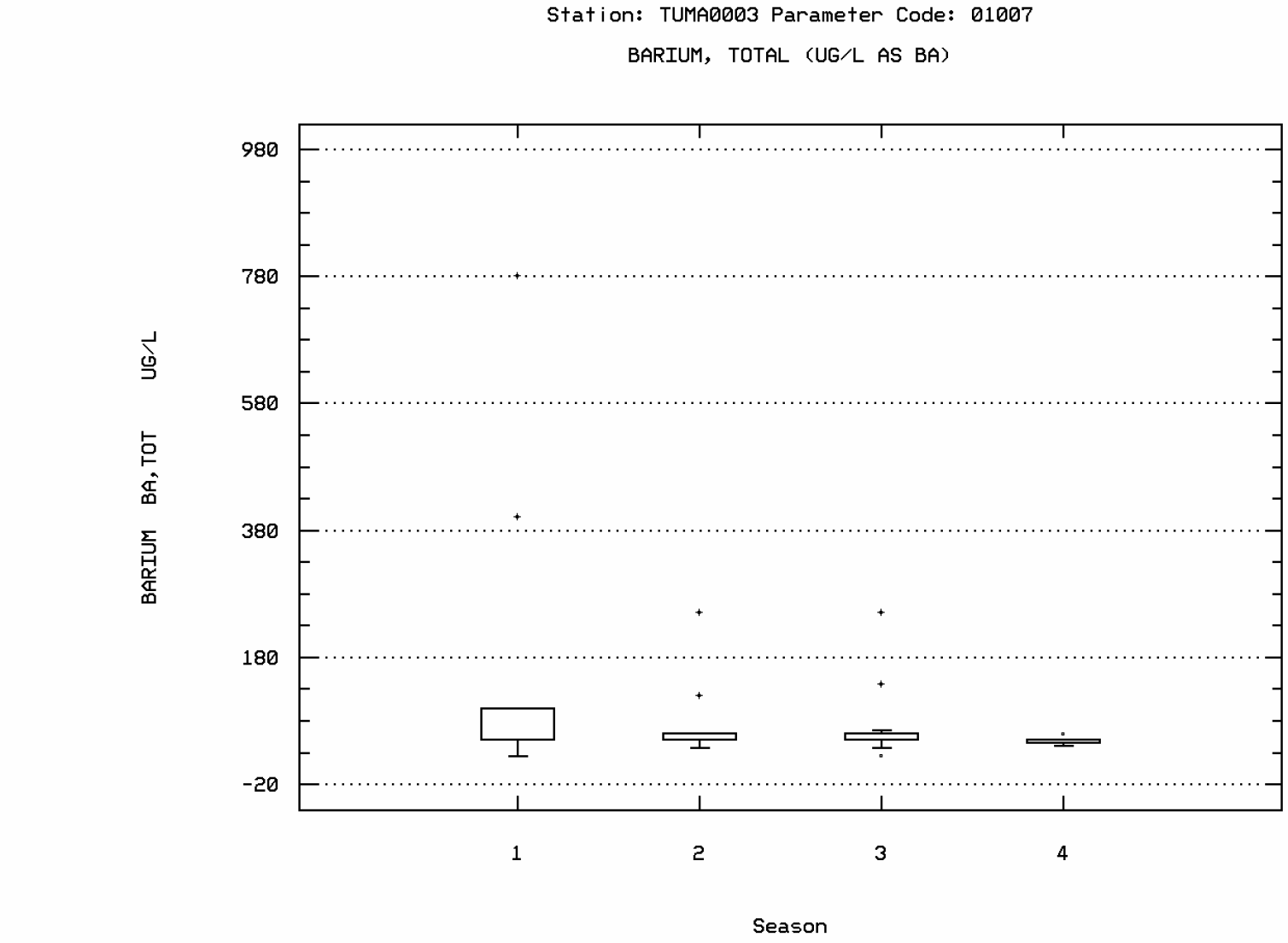
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



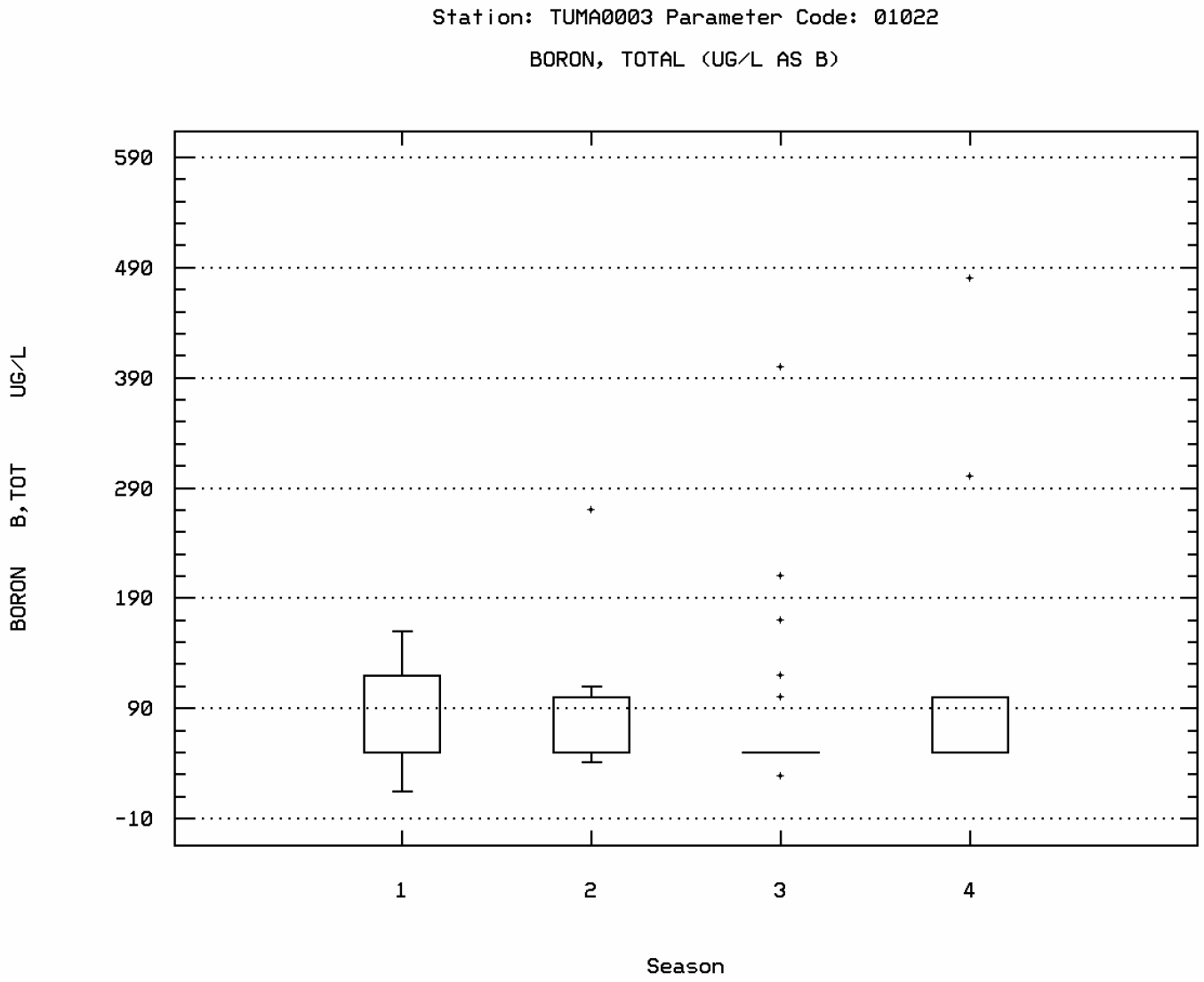
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



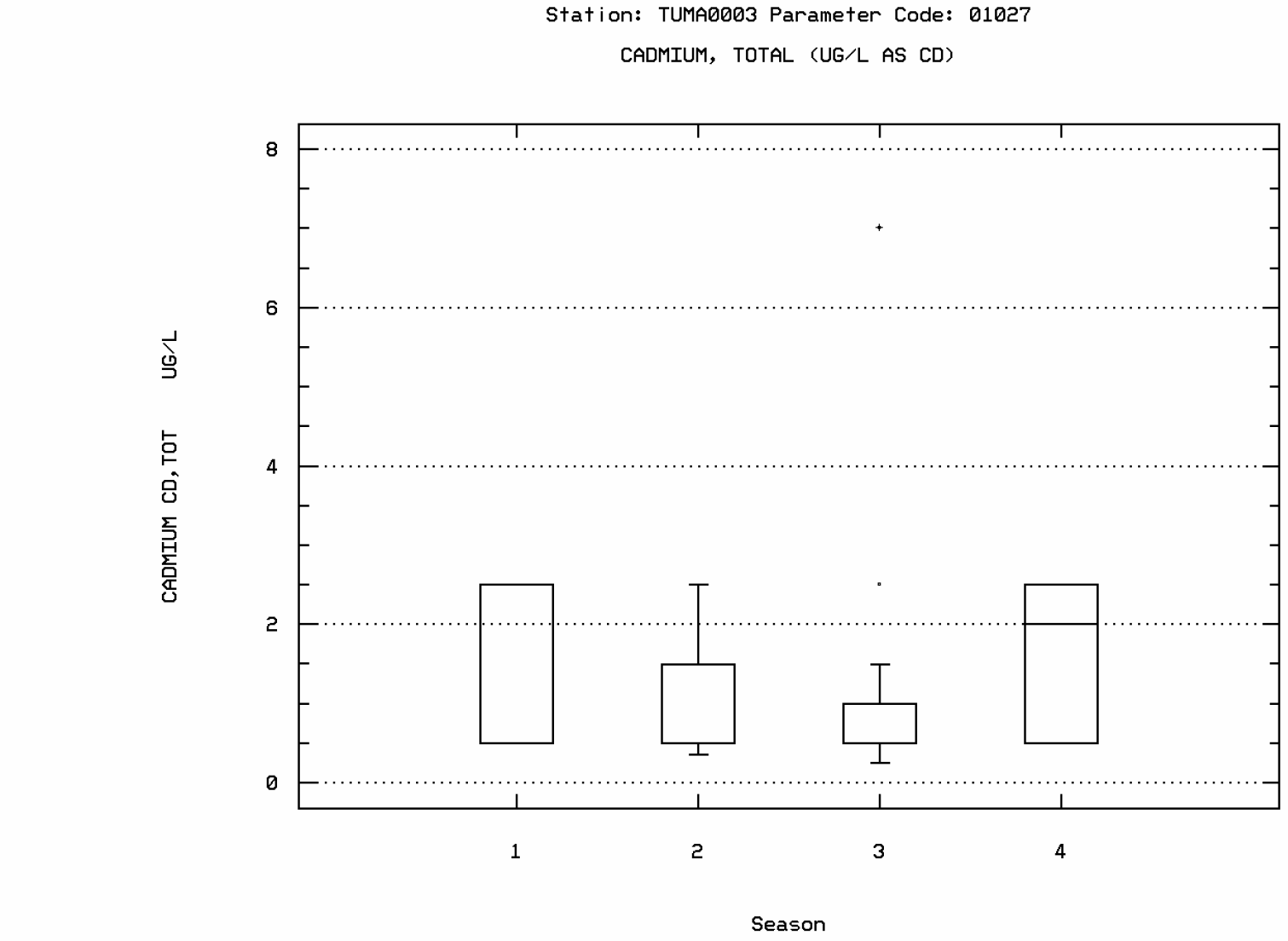
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



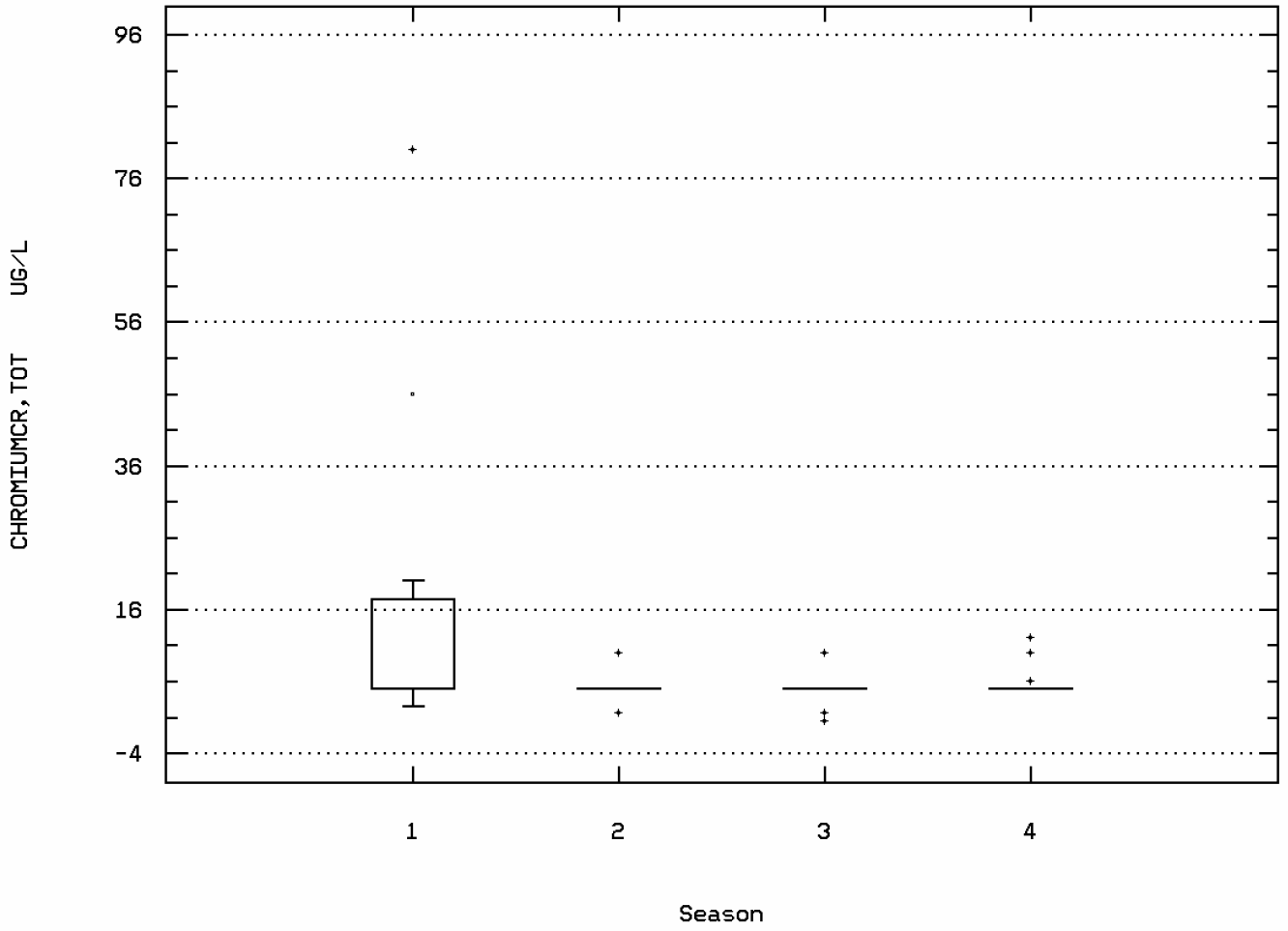
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



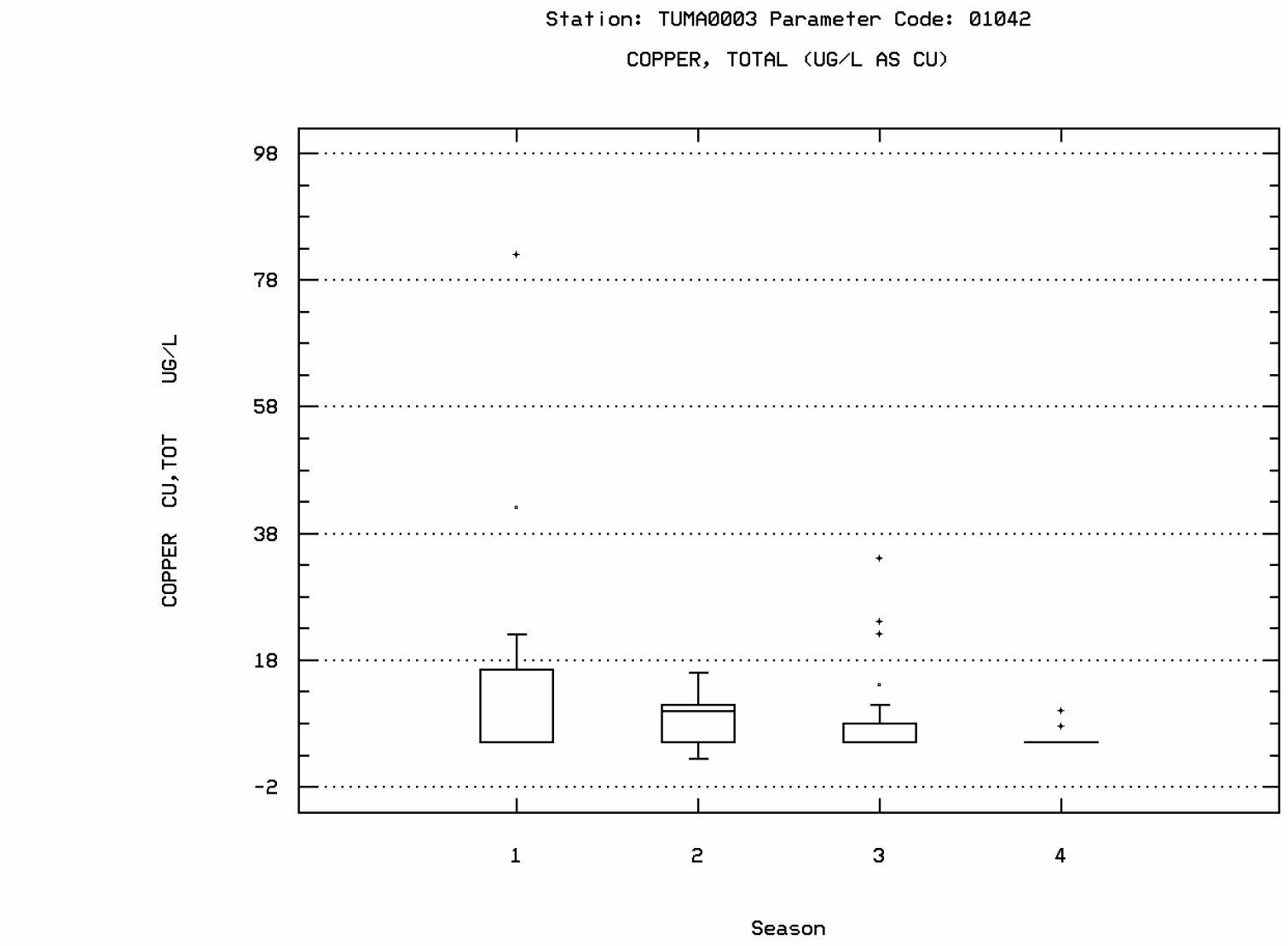
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Station: TUMA0003 Parameter Code: 01034

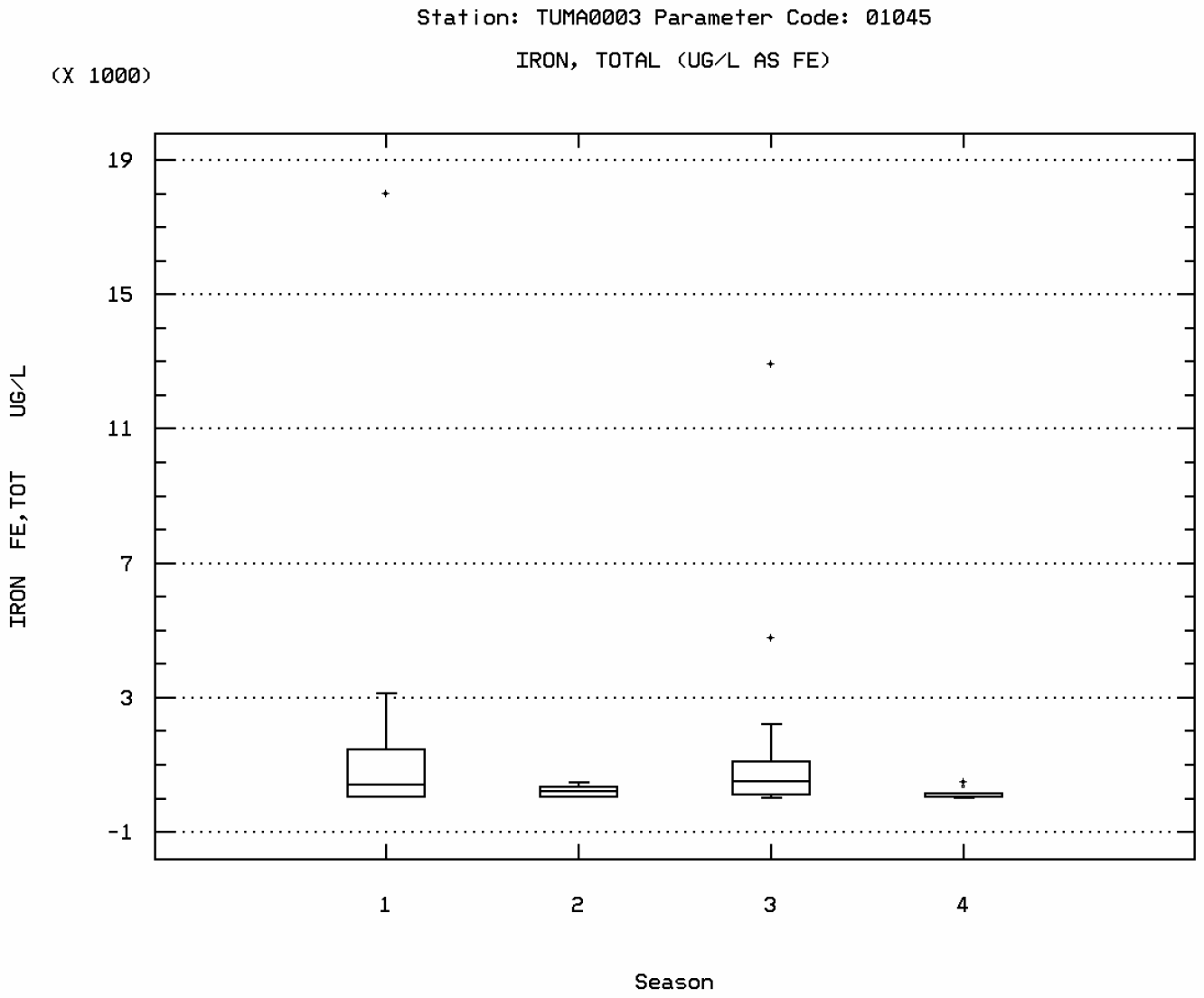
CHROMIUM, TOTAL (UG/L AS CR)



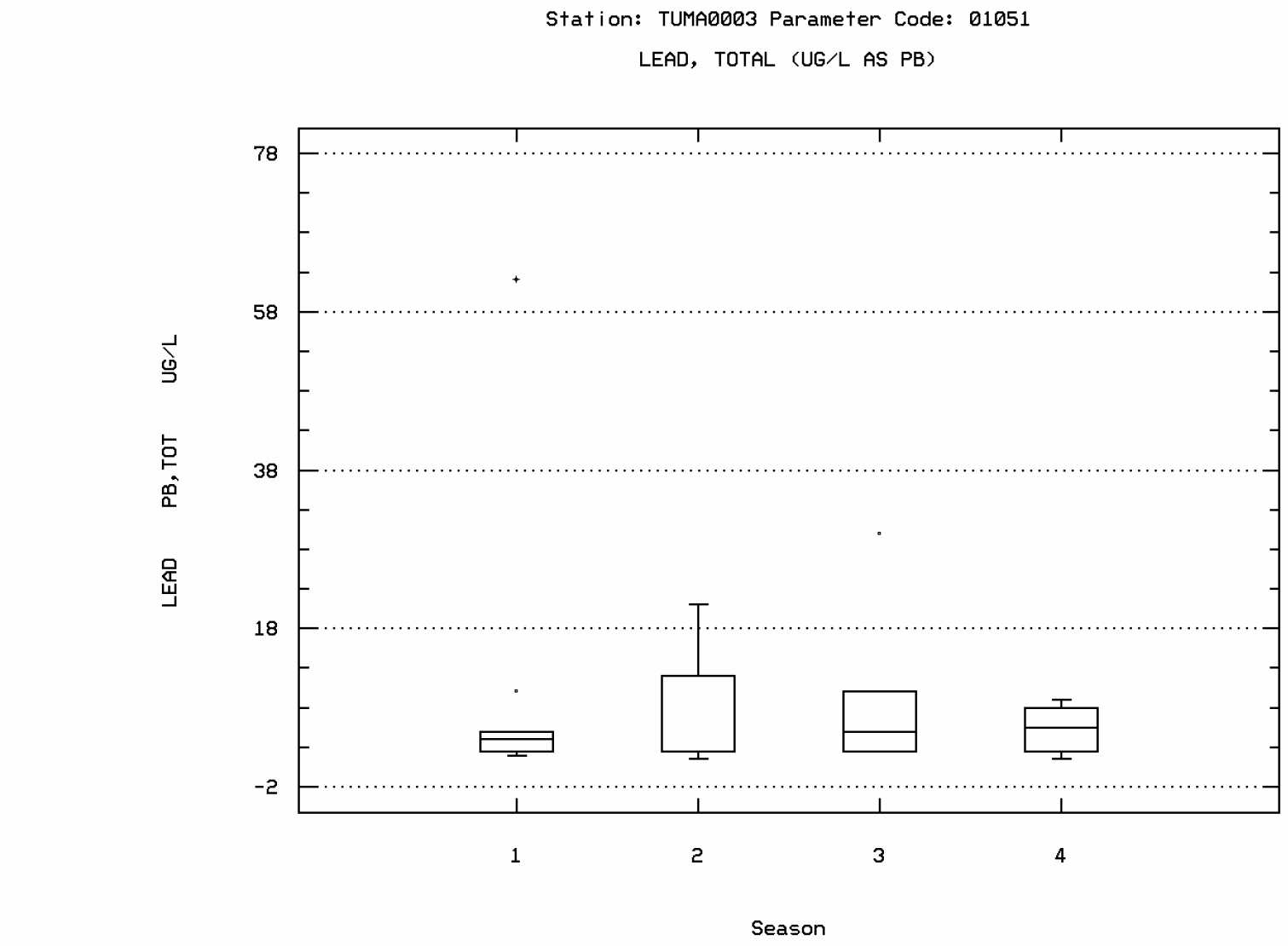
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



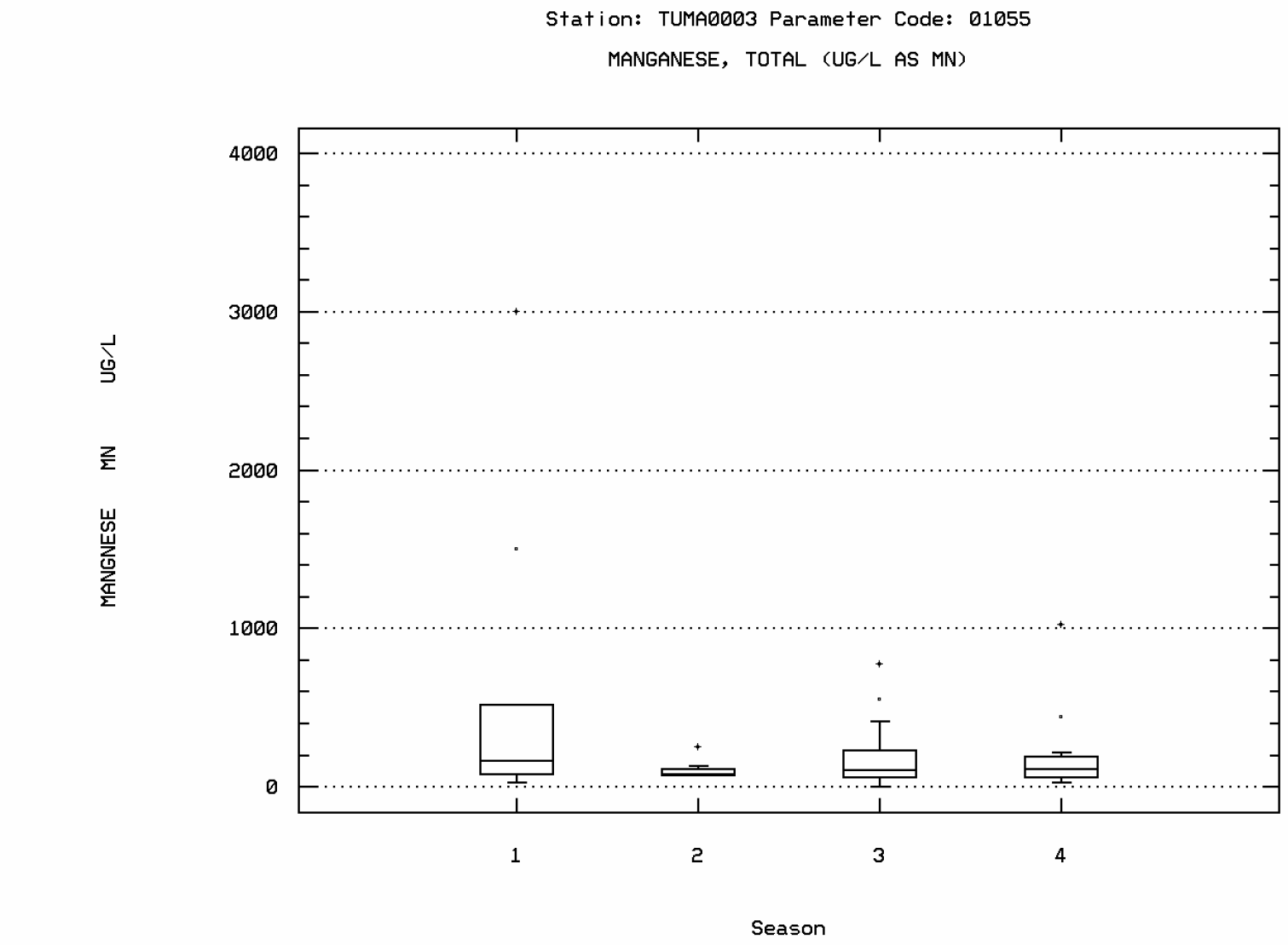
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



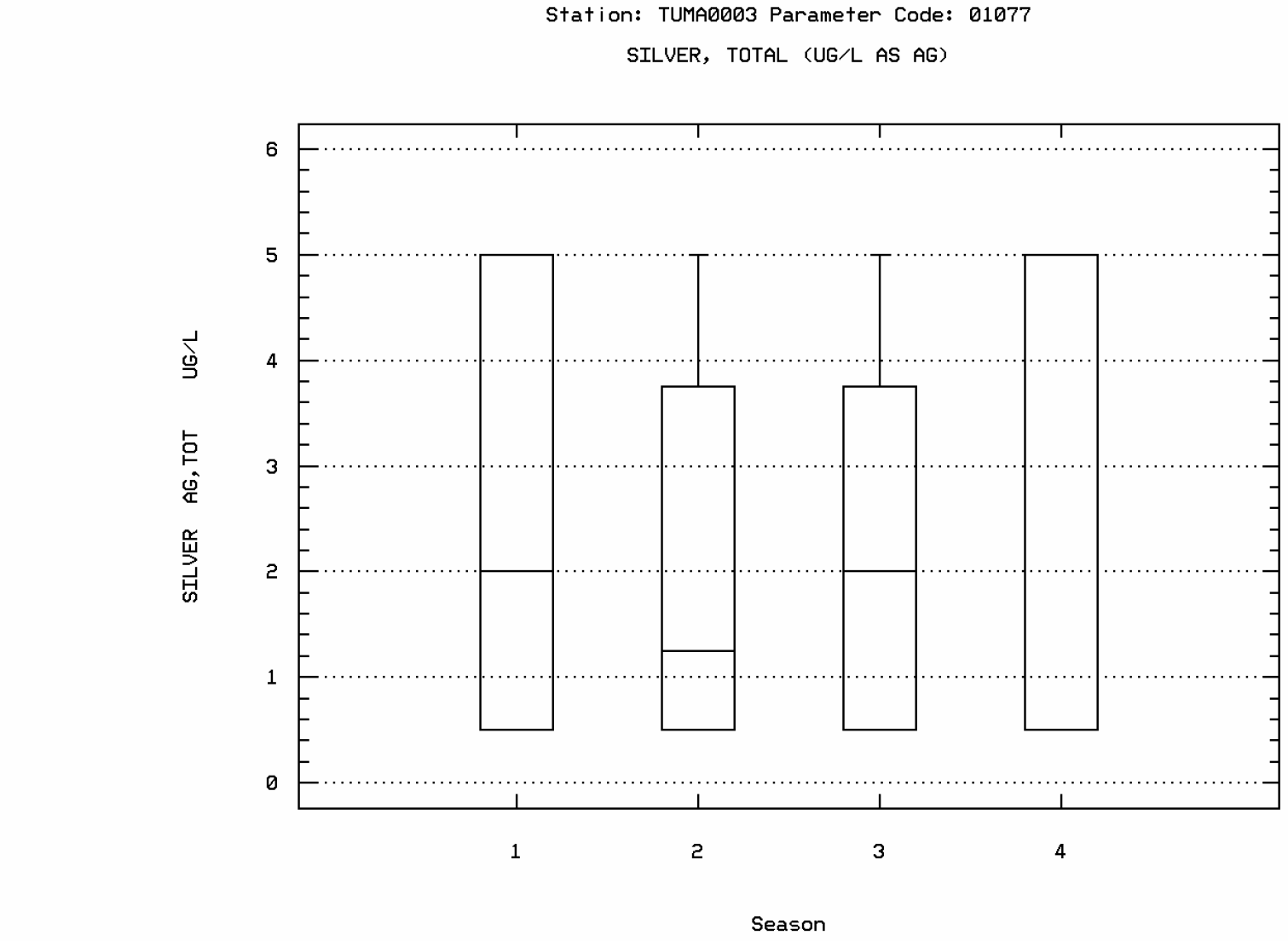
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



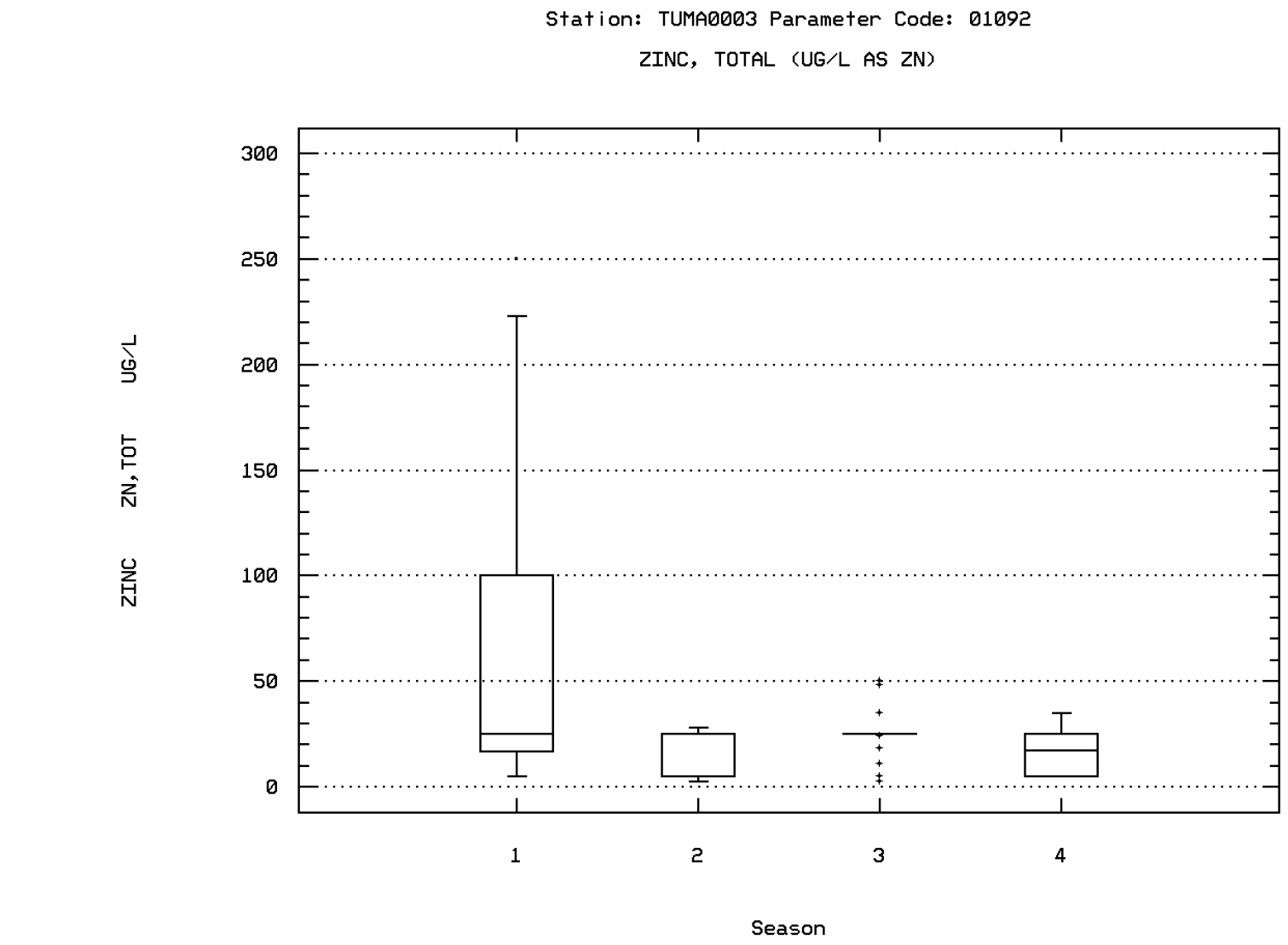
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



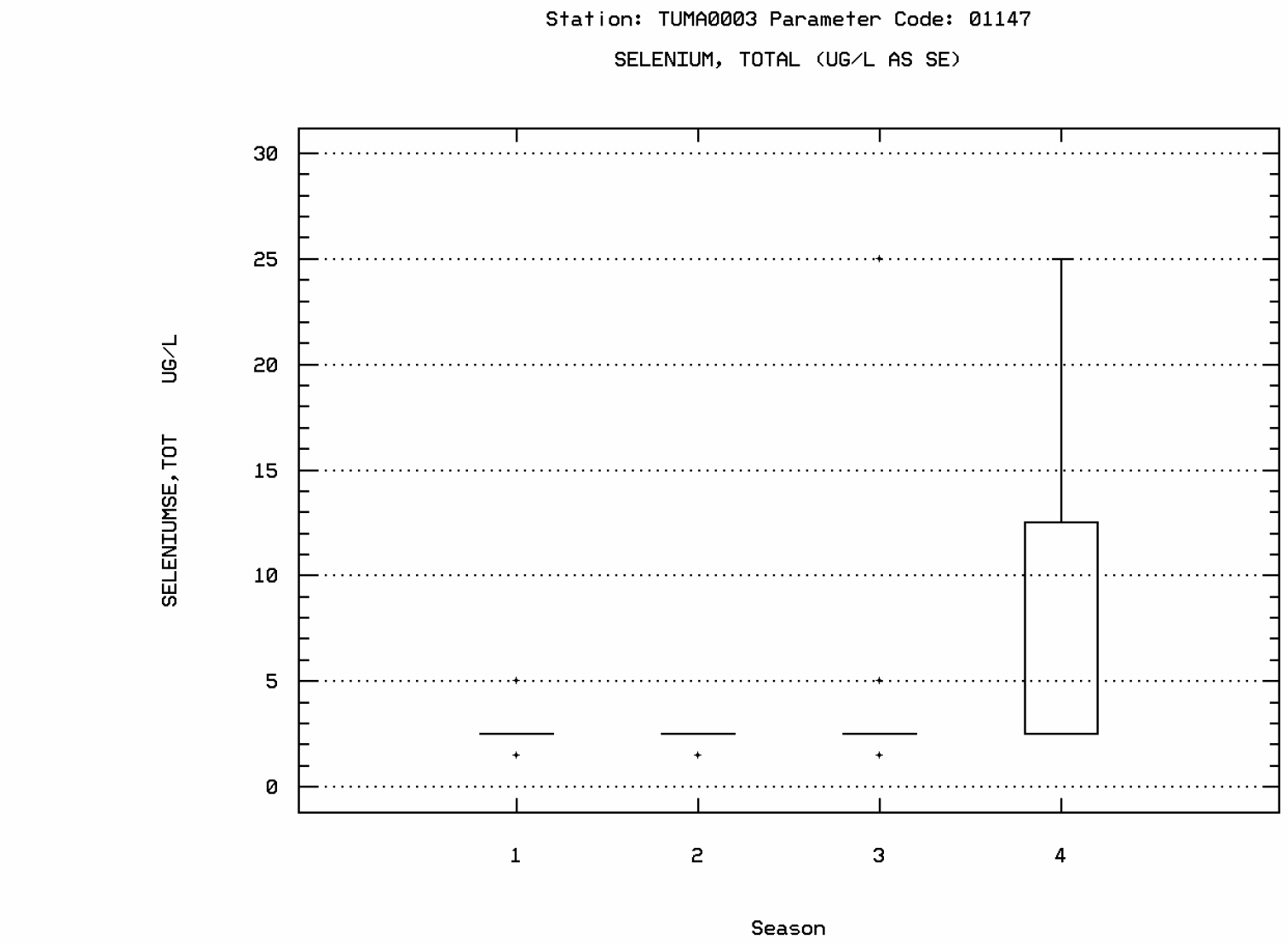
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



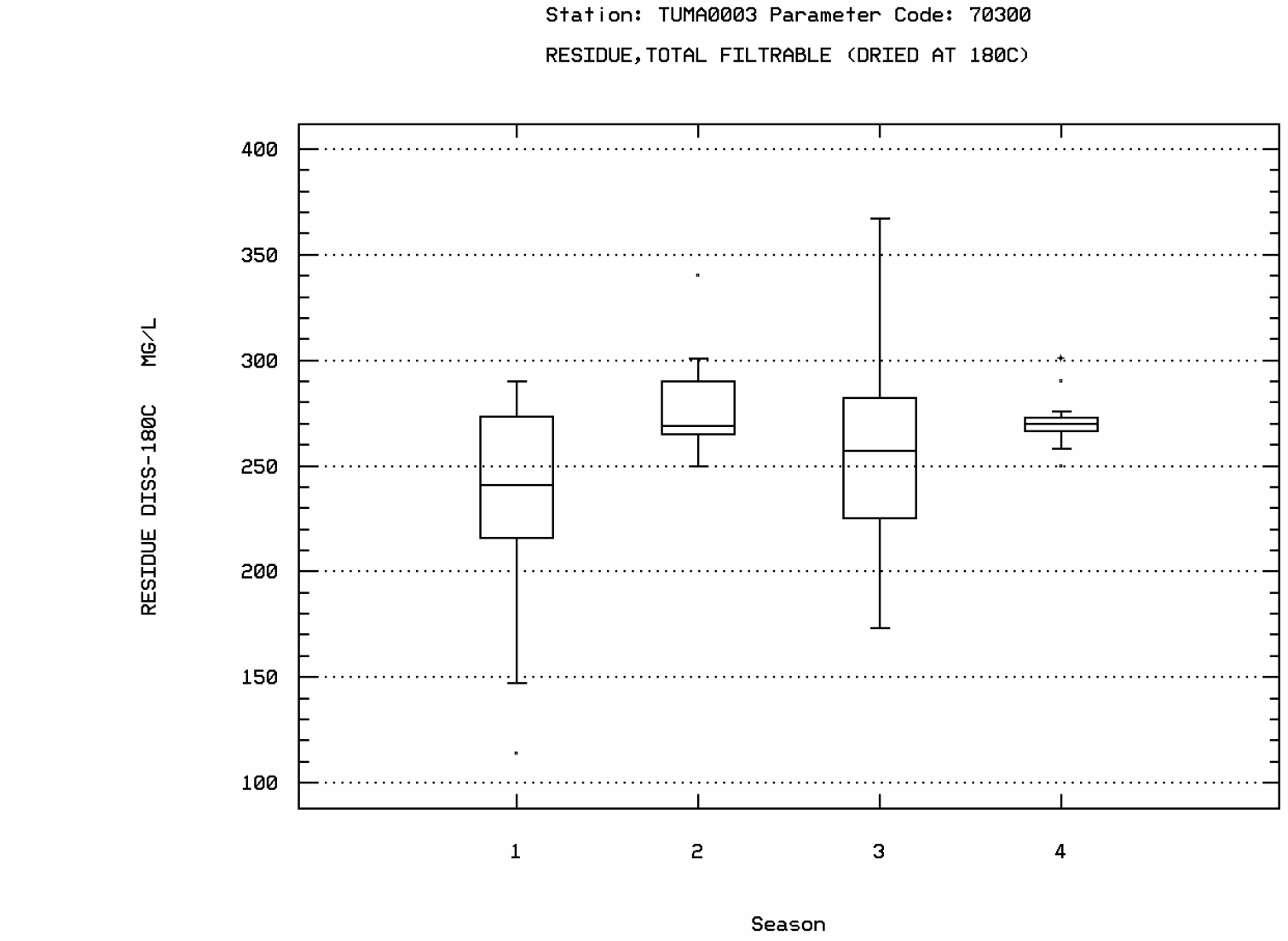
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



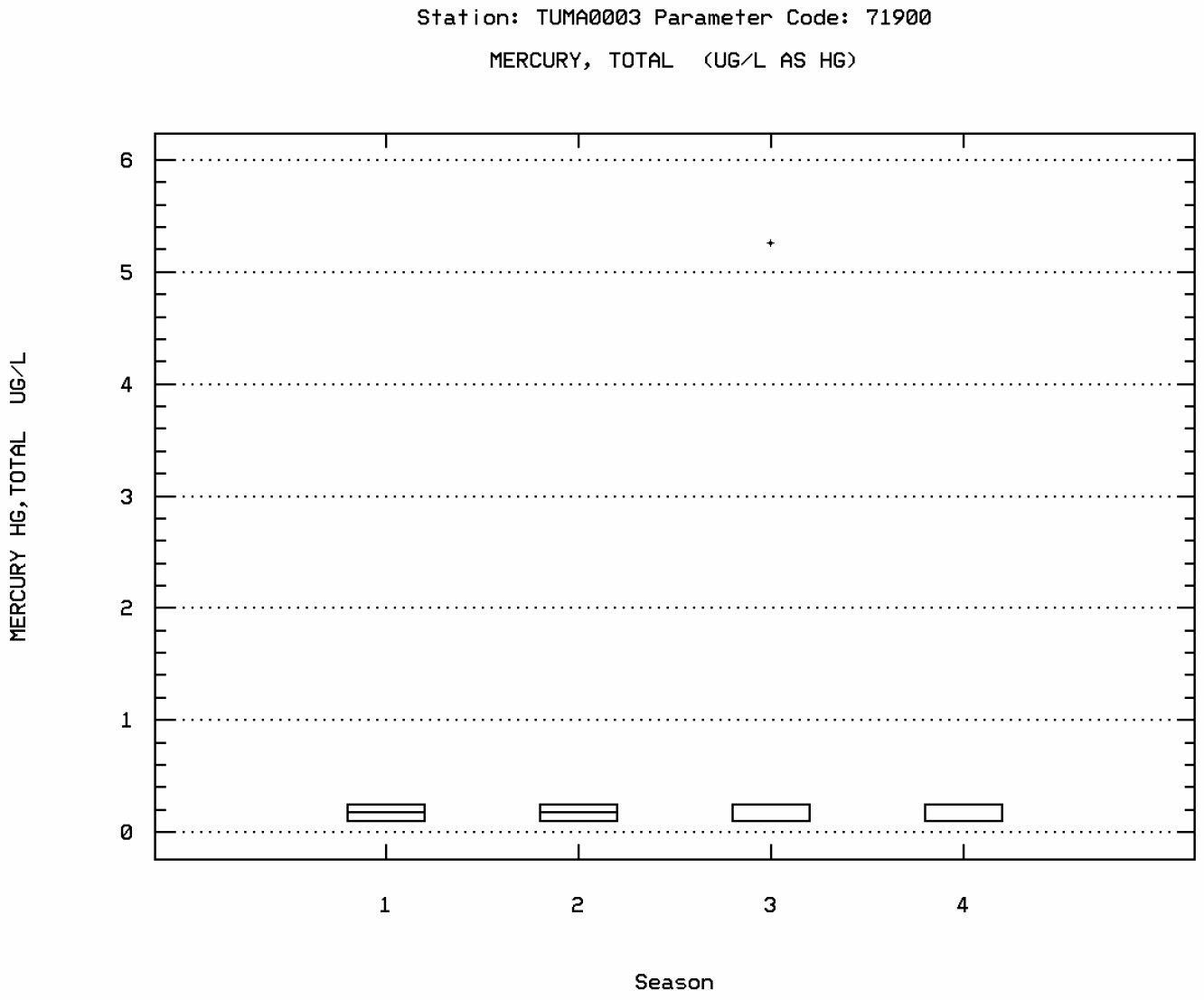
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



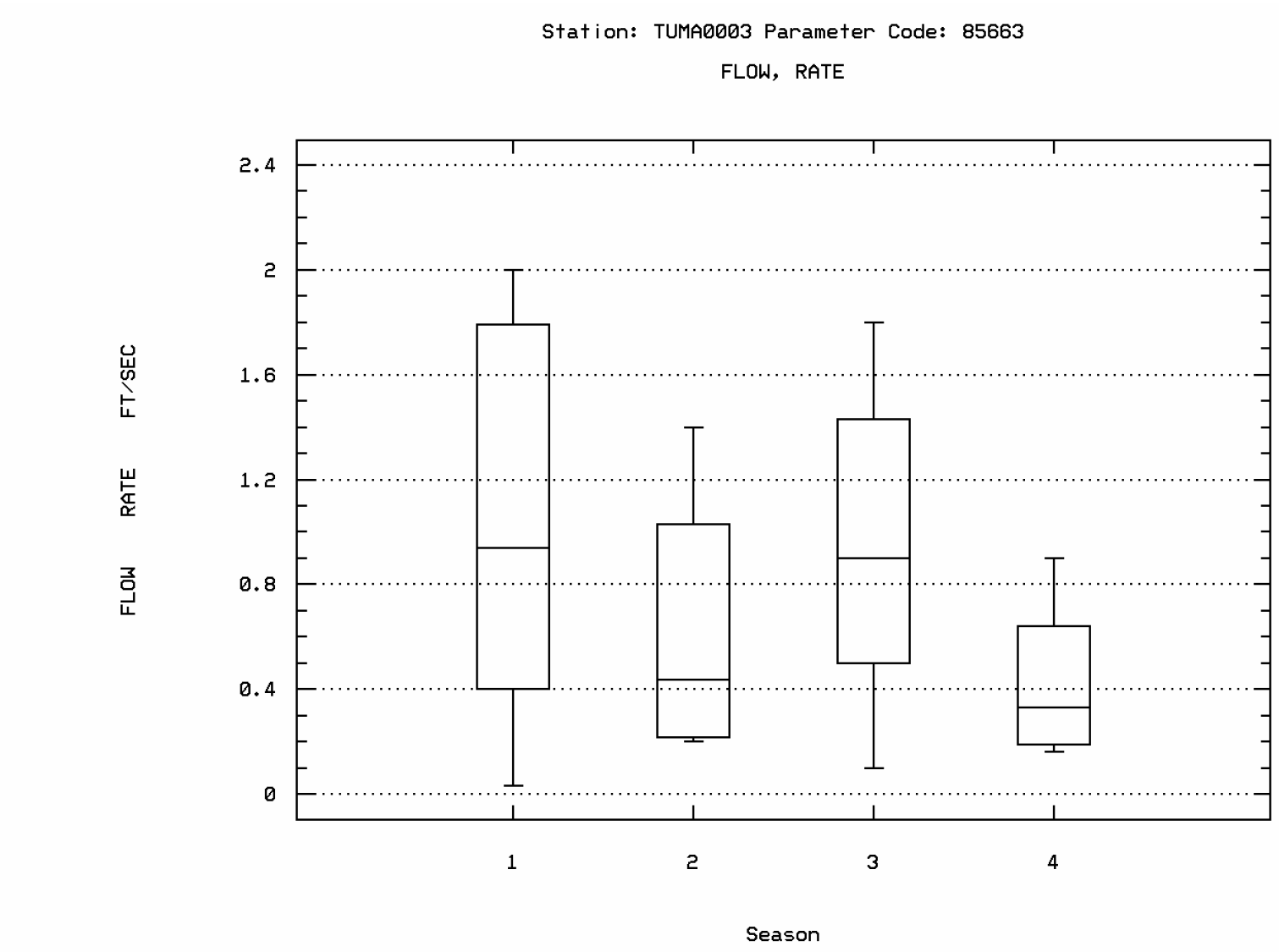
SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B



SCSCR097.28 (SANTA CRUZ R AT INTERNTL B

Station Inventory for Station: TUMA0004

NPS Station ID: TUMA0004 LAT/LON: 31.336944/-110.849167 Agency: 21ARIZ Date Created: / /
Location: SANTA CRUZ R./US BORDER/BUENA VISTA RANCH FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 800000000030550/SC-USB
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 6.30 On/Off RF1:
RF3 Index: 15050301037000.00 RF3 Mile Point: 0.00 Distance from RF3: 0.02 On/Off RF3:
Description:
SANTA CRUZ RIVER ABOUT 100 YARDS DOWNSTREAM (N.) OF THE U.S./MEXICAN ON THE BUENA VISTA RANCH. LOCATED IN T24S R15E SEC 18DCC.
ION 3725 FEET.

Parameter Inventory for Station: TUMA0004

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data at this Station Suitable for Statistical Analysis ********

Station Inventory for Station: TUMA0005

NPS Station ID: TUMA0005 | LAT/LON: 31.338611/-110.937500 | Agency: 21ARIZ | Date Created: / /
Location: NOGALES WASH IN NOGALES | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): 801005000000750/SC 006
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 2.10 | On/Off RF1:
RF3 Index: 15050301024800.00 | RF3 Mile Point: 0.29 | Distance from RF3: 0.08 | On/Off RF3:
Description:
LAT 31 20'19", LONG 110 56'15", SW1/4 NE1/4, SEC 17, T24S, R14E, SANTA CRUZ CO, 1.9 KM (1.2 MI) NORTH OF INTERNATIONAL BOUNDARY ON AZ 82, RIGHT BANK AT MADISON STREET INTERSECTION, 7.5 KM (4.7 MI) ABOVE CONFLUENCE WITH POTRERO CREEK, 14.4 KM (9.0 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.
- -
21ARIZ 04023 SANTA CRUZ ARIZONA E.NOGALES WAS 801005000001160 SC-NW-3 GILA RIVER
31 19 58.0 110 56 27.0 2 880618 COLORADO RIVER /TYPA/AMBNT/STREAM
E. NOGALES WASH (TRIBUTARY OF SANTA CRUZ R.) EXACTLY AT THE U.S./MEXICAN THE WASH FLOWS NORTH ACROSS THE BORDER IN A TUNNEL WHICH OPENS UP ES NORTH. SITE IS ENTERED FROM A LOCKED STAIRWAY. LOCATED IN 14E SEC 17CCC. ELEVATION 3830.

Parameter Inventory for Station: TUMA0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	6	16.25	16.483	21.9	12.5	10.782	3.284	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/26/73	3	10.8	10.933	12.	10.	1.013	1.007	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	3	8.2	8.367	8.7	8.2	0.083	0.289	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/26/73	3	8.2	8.312	8.7	8.2	0.088	0.296	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/26/73	3	0.006	0.005	0.006	0.002	0.	0.002	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	186.	184.667	188.	180.	17.333	4.163	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	3	18.	21.	30.	15.	63.	7.937	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/06/73-04/06/73	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/09/73-04/26/73	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	3	1.6	2.233	3.8	1.3	1.863	1.365	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	230.	235.333	246.	230.	85.333	9.238	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	3	75.	75.	80.	70.	25.	5.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	3	11.	11.333	13.	10.	2.333	1.528	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	3	30.	31.	37.	26.	31.	5.568	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	3	32.	33.333	37.	31.	10.333	3.215	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	3	58.	55.667	58.	51.	16.333	4.041	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/09/73-04/09/73	1	0.42	0.42	0.42	0.42	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0005

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/17/73	4	7750.	7550.	12600.	2100.	18470000.	4297.674	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/17/73	4	3.889	3.8	4.1	3.322	0.112	0.334	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			6312.266								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	3	345.	351.	369.	339.	252.	15.875	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	3	29.	34.	45.	28.	91.	9.539	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0005

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	3	0	0.00							3	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00							3	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	1	1.00							1	1	1.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00							3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	4	4	1.00							4	4	1.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	1	0.33							3	1	0.33			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0006

NPS Station ID: TUMA0006 LAT/LON: 31.341667/-110.932500 Agency: 21ARIZ Date Created: / /
Location: SCNGW004.23 (NOGALES WASH AT MORLEY AVE TUNNEL) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100251
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3939 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004p	STREAM WIDTH (FEET)	01/24/89-11/29/99	41	14.	12.371	18.	3.	13.811	3.716	6.2	9.65	15.	16.
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/15/86-11/29/99	78	18.98	19.455	28.	11.3	14.999	3.873	14.9	16.375	22.025	25.05
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/15/86-11/29/99	77	26.	24.074	42.	3.5	66.592	8.16	11.4	18.25	30.25	34.
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/24/89-11/29/99	18	3.01	3.861	9.1	1.12	5.277	2.297	1.606	2.375	4.725	8.92
00064p	DEPTH OF STREAM, MEAN (FT)	01/24/89-11/29/99	41	0.25	0.366	5.	0.04	0.562	0.75	0.084	0.17	0.31	0.4
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/15/86-11/29/99	75	513.	512.133	674.	276.	4333.09	65.826	451.4	488.	541.	576.4
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	75	543.	546.12	699.	344.	3664.134	60.532	466.	512.	589.	628.2
00300p	OXYGEN, DISSOLVED MG/L	12/16/86-11/29/99	69	7.34	7.193	9.39	4.19	1.366	1.169	5.3	6.78	8.04	8.5
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	12/16/86-11/29/99	69	94.3	93.045	123.3	55.5	220.681	14.855	72.	86.	102.	113.3
00403p	PH, LAB, STANDARD UNITS SU	10/15/86-11/29/99	76	8.2	8.127	9.3	7.1	0.102	0.319	7.6	7.978	8.315	8.4
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/15/86-11/29/99	76	8.2	7.994	9.3	7.1	0.119	0.346	7.6	7.977	8.315	8.4
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	76	0.006	0.01	0.079	0.001	0.	0.011	0.004	0.005	0.011	0.025
00406p	PH, FIELD, STANDARD UNITS SU	10/15/86-11/29/99	76	8.14	8.096	9.01	7.51	0.091	0.302	7.677	7.88	8.278	8.442
00406p	CONVERTED PH, FIELD, STANDARD UNITS	10/15/86-11/29/99	76	8.14	8.001	9.01	7.51	0.1	0.316	7.677	7.88	8.278	8.442
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	76	0.007	0.01	0.031	0.001	0.	0.007	0.004	0.005	0.013	0.021
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/15/86-11/29/99	77	196.	201.286	324.	108.	1144.523	33.831	169.	179.5	230.	238.2
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	10/15/86-11/29/99	62 ##	1.	1.887	38.	0.5	22.943	4.79	0.5	0.5	1.	3.2
00440p	BICARBONATE ION (MG/L AS HCO3)	10/15/86-11/29/99	76	220.	223.842	395.	108.	1555.308	39.437	177.7	207.25	237.25	277.9
00445p	CARBONATE ION (MG/L AS CO3)	10/15/86-11/29/99	63 ##	1.	2.389	45.	0.5	32.698	5.718	0.5	1.	2.	4.78
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10/15/86-11/29/99	77	20.	50.299	574.	2.	9314.765	96.513	2.	5.	44.	124.8
00610p	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/30/88-11/29/99	63	0.11	0.92	9.	0.01	3.782	1.945	0.044	0.05	0.62	3.014
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/15/86-11/29/99	71	0.73	1.958	19.	0.1	11.977	3.461	0.208	0.44	1.89	4.148
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/15/86-11/29/99	76	3.745	3.535	6.71	0.09	2.403	1.55	1.376	2.51	4.478	5.488
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	10/15/86-11/29/99	75	0.54	1.016	6.82	0.05	1.476	1.215	0.36	0.41	1.11	2.4
00900p	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-11/29/99	63	193.	199.508	468.	123.	2385.931	48.846	158.2	172.	215.	237.6
00916p	CALCIUM, TOTAL (MG/L AS CA)	10/15/86-11/29/99	76	59.5	60.261	147.	24.	218.298	14.775	48.9	54.	65.075	72.13
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	10/15/86-11/29/99	75	11.4	11.752	18.6	8.2	3.53	1.879	9.66	10.6	12.8	13.84
00929p	SODIUM, TOTAL (MG/L AS NA)	10/15/86-11/29/99	76	40.	41.462	62.	25.2	42.808	6.543	34.48	37.05	44.925	50.41
00937p	POTASSIUM, TOTAL MG/L AS K)	10/15/86-11/29/99	77	6.34	6.911	28.2	2.92	8.669	2.944	4.984	5.57	7.385	8.78
00940p	CHLORIDE,TOTAL IN WATER MG/L	10/15/86-11/29/99	75	26.5	26.551	45.3	1.	35.487	5.957	20.48	23.1	30.3	32.
00945p	SULFATE, TOTAL (MG/L AS SO4)	10/15/86-11/29/99	76	39.15	39.634	62.	5.	93.864	9.688	28.19	33.75	46.65	52.27
00951p	FLUORIDE, TOTAL (MG/L AS F)	10/15/86-11/29/99	74	0.35	0.4	2.9	0.2	0.101	0.318	0.305	0.33	0.38	0.41
01000p	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	45 ##	5.	5.	10.	2.5	4.08	2.02	2.5	5.	5.	9.4
01002p	ARSENIC, TOTAL (UG/L AS AS)	10/15/86-11/29/99	77 ##	5.	5.929	37.	2.5	26.939	5.19	2.5	3.75	5.	10.
01005p	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	45 ##	50.	66.267	250.	48.	1862.291	43.154	50.	50.	58.5	94.
01007p	BARIUM, TOTAL (UG/L AS BA)	10/15/86-11/29/99	77 ##	50.	116.429	960.	5.	31830.353	178.411	50.	50.	90.	218.
01010p	BERYLLIUM, DISSOLVED (UG/L AS BE)	05/22/89-11/29/99	40 ##	0.25	0.92	2.5	0.05	1.098	1.048	0.25	0.25	2.5	2.5
01012p	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-11/29/99	64 ##	0.25	1.366	15.4	0.05	4.914	2.217	0.25	0.25	2.5	2.5

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01020	BORON, DISSOLVED (UG/L AS B)	05/22/89-10/21/98	35 ##	50.	56.857	150.	50.	475.126	21.797	50.	50.	50.	82.
01022p	BORON, TOTAL (UG/L AS B)	10/15/86-11/29/99	77 ##	50.	105.364	490.	15.	7518.603	86.71	50.	50.	130.	250.
01025p	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	43 ##	0.5	1.043	4.	0.35	0.895	0.946	0.5	0.5	1.5	2.5
01027p	CADMIUM, TOTAL (UG/L AS CD)	10/15/86-11/29/99	77 ##	0.5	1.71	10.	0.25	4.324	2.079	0.5	0.5	2.5	5.
01030p	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	45 ##	5.	7.911	89.	0.5	182.549	13.511	5.	5.	5.	10.
01034p	CHROMIUM, TOTAL (UG/L AS CR)	10/15/86-11/29/99	77 ##	5.	12.766	250.	0.5	876.168	29.6	5.	5.	10.	25.2
01040p	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	45 ##	5.	7.822	75.	5.	118.513	10.886	5.	5.	5.	10.
01042p	COPPER, TOTAL (UG/L AS CU)	10/15/86-11/29/99	77 ##	7.5	15.143	204.	5.	644.854	25.394	5.	5.	14.	27.2
01045p	IRON, TOTAL (UG/L AS FE)	10/15/86-11/29/99	77	450.	3298.974	136000.	16.	250497120.262	15827.101	130.	263.	1320.	3136.
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/89-10/21/98	37 ##	50.	60.243	350.	5.	4723.8	68.73	5.	24.	50.	136.
01049p	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	45 ##	2.5	3.922	43.	1.	41.272	6.424	1.	2.5	2.5	10.
01051p	LEAD, TOTAL (UG/L AS PB)	10/15/86-11/29/99	77 ##	5.	14.052	278.	1.	1261.806	35.522	2.5	2.5	10.	22.
01055p	MANGANESE, TOTAL (UG/L AS MN)	10/15/86-11/29/99	78	475.	726.936	8000.	5.	1392392.217	1179.997	66.2	198.25	842.5	1330.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/89-10/21/98	36	225.	282.722	950.	5.	80475.406	283.682	5.	25.	473.	728.
01057p	THALLIUM, DISSOLVED (UG/L AS TL)	05/22/89-11/29/99	40 ##	2.5	2.838	25.	1.	13.21	3.635	1.	2.5	2.5	2.5
01059p	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-11/29/99	63 ##	2.5	3.103	30.	1.	20.284	4.504	1.	2.5	2.5	2.5
01065p	NICKEL, DISSOLVED (UG/L AS NI)	05/22/89-11/29/99	40 ##	50.	38.175	50.	2.	313.738	17.713	10.	15.	50.	50.
01067p	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	64 ##	50.	38.781	130.	2.	592.618	24.344	10.	15.	50.	50.
01075p	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	45 ##	0.5	1.8	5.	0.5	3.72	1.929	0.5	0.5	3.75	5.
01077p	SILVER, TOTAL (UG/L AS AG)	10/15/86-11/29/99	76 ##	0.5	2.082	6.	0.5	4.	2.	0.5	0.5	5.	5.
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	05/22/89-09/24/93	16	370.5	364.5	430.	300.	1554.8	39.431	301.4	330.	397.	423.
01082	STRONTIUM, TOTAL (UG/L AS SR)	11/21/88-09/24/93	30	372.5	373.3	740.	240.	6571.39	81.064	304.9	336.75	392.5	420.2
01090p	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	45 ##	25.	22.556	80.	5.	173.662	13.178	5.	22.	25.	25.8
01092p	ZINC, TOTAL (UG/L AS ZN)	10/15/86-11/29/99	77 ##	25.	54.61	710.	2.5	11289.169	106.25	14.6	25.	37.	96.
01095p	ANTIMONY, DISSOLVED (UG/L AS SB)	05/22/89-11/29/99	40 ##	2.5	7.25	25.	2.5	81.346	9.019	2.5	2.5	5.	25.
01097p	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	63 ##	2.5	8.175	30.	2.5	88.953	9.431	2.5	2.5	10.	25.
01145p	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	44 ##	2.5	3.216	25.	1.5	13.598	3.687	2.5	2.5	2.5	2.5
01147p	SELENIUM, TOTAL (UG/L AS SE)	10/15/86-11/29/99	76 ##	2.5	5.342	125.	1.	216.901	14.728	2.5	2.5	2.5	6.5
31613p	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-11/29/99	45	420.	3292.367	71600.	0.	115757334.959	10759.058	1.	1.	2550.	8000.
31613p	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	01/26/88-11/29/99	45	2.623	1.899	4.855	-0.301	2.797	1.672	0.	0.	3.406	3.903
31613p	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			79.204								
31648	E. COLI - MTEC-MF N0/100ML	11/29/93-11/29/99	20	34.	5628.375	85200.	0.	360129824.444	18977.087	0.55	1.	1052.25	9968.
31648	LOG E. COLI - MTEC-MF N0/1	11/29/93-11/29/99	20	1.469	1.602	4.93	-0.301	2.759	1.661	-0.271	0.	3.022	3.998
31648	GM E. COLI - MTEC-MF N0/10	GEOMETRIC MEAN =			40.008								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	33	22.	5324.	56000.	1.	166039536.625	12885.633	1.	1.	2683.	20860.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	33	1.342	1.774	4.748	0.	2.957	1.72	0.	0.	3.426	4.318
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			59.449								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	07/21/95-11/29/99	19	0.46	0.628	2.83	0.07	0.453	0.673	0.14	0.19	0.71	1.88
50064	CHLORINE, FREE AVAILABLE (MG/L)	07/21/95-11/29/99	19	0.15	0.363	2.4	0.06	0.319	0.565	0.07	0.09	0.3	1.23
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/15/86-11/29/99	82	352.5	361.622	670.	240.	2854.831	53.431	310.2	336.	388.	403.7
71830	HYDROXIDE ION (MG/L AS OH)	09/20/88-01/26/93	23 ##	0.5	0.63	2.	0.5	0.187	0.432	0.5	0.5	0.5	1.4
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	11/19/92-01/03/97	11	3.9	4.095	6.41	2.25	1.359	1.166	2.392	3.43	4.41	6.274
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	07/21/95-01/03/97	8 ##	0.05	0.148	0.7	0.05	0.052	0.228	**	**	**	**
71890p	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	44 ##	0.25	0.259	1.1	0.1	0.035	0.187	0.1	0.25	0.25	0.25
71900p	MERCURY, TOTAL (UG/L AS HG)	10/15/86-11/29/99	77 ##	0.25	0.321	1.4	0.1	0.094	0.306	0.1	0.15	0.25	1.
74069	FLOW, ESTIMATED STREAM CFS	11/19/92-03/10/94	1	6.	6.	6.	6.	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-11/29/99	40	15.	356.472	6220.	1.51	1681759.559	1296.827	2.946	4.853	47.325	346.4
82079p	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/30/88-11/29/99	65	7.	99.194	4850.	0.71	361976.06	601.644	1.724	2.7	24.	58.8
85663p	FLOW, RATE FT/SEC	01/24/89-11/29/99	42	1.7	2.071	6.8	0.65	2.031	1.425	0.874	1.233	2.125	4.64

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0006

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	69	0	0.00	22	0	0.00	12	0	0.00	26	0	0.00	9	0	0.00
00403	PH, LAB	Fresh Chronic	9.	76	1	0.01	26	0	0.00	14	1	0.07	26	0	0.00	10	0	0.00
		Other-Lo Lim.	6.5	76	0	0.00	26	0	0.00	14	0	0.00	26	0	0.00	10	0	0.00
00406	PH, FIELD	Fresh Chronic	9.	76	1	0.01	22	0	0.00	14	1	0.07	29	0	0.00	11	0	0.00
		Other-Lo Lim.	6.5	76	0	0.00	22	0	0.00	14	0	0.00	29	0	0.00	11	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0006

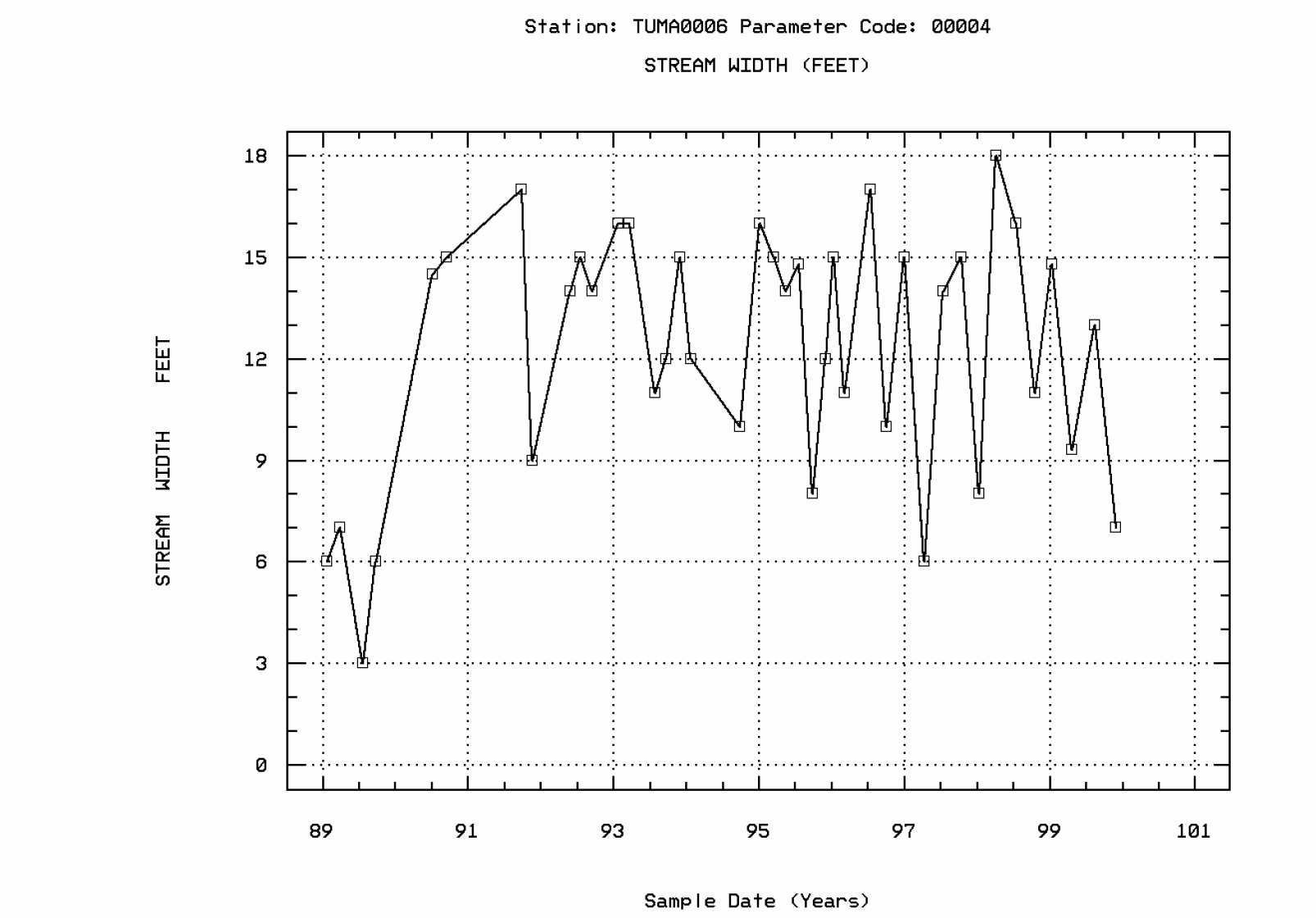
Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	76	0	0.00	25	0	0.00	15	0	0.00	26	0	0.00	10	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	75	0	0.00	26	0	0.00	14	0	0.00	25	0	0.00	10	0	0.00
		Drinking Water	250.	75	0	0.00	26	0	0.00	14	0	0.00	25	0	0.00	10	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	76	0	0.00	26	0	0.00	14	0	0.00	26	0	0.00	10	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	74	0	0.00	26	0	0.00	14	0	0.00	25	0	0.00	9	0	0.00
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
		Drinking Water	50.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	77	0	0.00	26	0	0.00	14	0	0.00	27	0	0.00	10	0	0.00
		Drinking Water	50.	77	0	0.00	26	0	0.00	14	0	0.00	27	0	0.00	10	0	0.00
01005	BARIUM, DISSOLVED	Drinking Water	2000.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
01007	BARIUM, TOTAL	Drinking Water	2000.	77	0	0.00	26	0	0.00	14	0	0.00	27	0	0.00	10	0	0.00
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	40	0	0.00	14	0	0.00	7	0	0.00	12	0	0.00	7	0	0.00
		Drinking Water	4.	40	0	0.00	14	0	0.00	7	0	0.00	12	0	0.00	7	0	0.00
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	64	0	0.00	23	0	0.00	12	0	0.00	21	0	0.00	8	0	0.00
		Drinking Water	4.	64	2	0.03	23	1	0.04	12	0	0.00	21	1	0.05	8	0	0.00
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	43	1	0.02	14	1	0.07	7	0	0.00	15	0	0.00	7	0	0.00
		Drinking Water	5.	43	0	0.00	14	0	0.00	7	0	0.00	15	0	0.00	7	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	77	9	0.12	26	8	0.31	14	0	0.00	27	1	0.04	10	0	0.00
		Drinking Water	5.	77	8	0.10	26	7	0.27	14	0	0.00	27	1	0.04	10	0	0.00
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	77	1	0.01	26	1	0.04	14	0	0.00	27	0	0.00	10	0	0.00
01040	COPPER, DISSOLVED	Fresh Acute	18.	44 &	2	0.05	14	1	0.07	7	0	0.00	16	1	0.06	7	0	0.00
		Drinking Water	1300.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
01042	COPPER, TOTAL	Fresh Acute	18.	77	16	0.21	26	8	0.31	14	1	0.07	27	7	0.26	10	0	0.00
		Drinking Water	1300.	77	0	0.00	26	0	0.00	14	0	0.00	27	0	0.00	10	0	0.00
01049	LEAD, DISSOLVED	Fresh Acute	82.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
		Drinking Water	15.	45	1	0.02	14	0	0.00	7	0	0.00	17	1	0.06	7	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	77	3	0.04	26	2	0.08	14	0	0.00	27	1	0.04	10	0	0.00
		Drinking Water	15.	77	13	0.17	26	5	0.19	14	2	0.14	27	5	0.19	10	1	0.10
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	40	0	0.00	14	0	0.00	7	0	0.00	12	0	0.00	7	0	0.00
		Drinking Water	2.	6 &	0	0.00	1	0	0.00	3	0	0.00	2	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	63	0	0.00	23	0	0.00	12	0	0.00	20	0	0.00	8	0	0.00
		Drinking Water	2.	8 &	0	0.00	3	0	0.00	3	0	0.00	2	0	0.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	40	0	0.00	14	0	0.00	7	0	0.00	12	0	0.00	7	0	0.00
		Drinking Water	100.	40	0	0.00	14	0	0.00	7	0	0.00	12	0	0.00	7	0	0.00
01067	NICKEL, TOTAL	Fresh Acute	1400.	64	0	0.00	23	0	0.00	12	0	0.00	21	0	0.00	8	0	0.00
		Drinking Water	100.	64	3	0.05	23	3	0.13	12	0	0.00	21	0	0.00	8	0	0.00
01075	SILVER, DISSOLVED	Fresh Acute	4.1	34 &	0	0.00	10	0	0.00	7	0	0.00	16	0	0.00	1	0	0.00
		Drinking Water	100.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
01077	SILVER, TOTAL	Fresh Acute	4.1	55 &	1	0.02	17	1	0.06	10	0	0.00	23	0	0.00	5	0	0.00
		Drinking Water	100.	76	0	0.00	26	0	0.00	13	0	0.00	27	0	0.00	10	0	0.00
01090	ZINC, DISSOLVED	Fresh Acute	120.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
		Drinking Water	5000.	45	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	7	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	77	7	0.09	26	6	0.23	14	0	0.00	27	1	0.04	10	0	0.00
		Drinking Water	5000.	77	0	0.00	26	0	0.00	14	0	0.00	27	0	0.00	10	0	0.00
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	40	0	0.00	14	0	0.00	7	0	0.00	12	0	0.00	7	0	0.00
		Drinking Water	6.	32 &	0	0.00	12	0	0.00	7	0	0.00	10	0	0.00	3	0	0.00
01097	ANTIMONY, TOTAL	Fresh Acute	88.	63	0	0.00	23	0	0.00	11	0	0.00	21	0	0.00	8	0	0.00
		Drinking Water	6.	46 &	0	0.00	17	0	0.00	7	0	0.00	17	0	0.00	5	0	0.00
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	43 &	0	0.00	14	0	0.00	7	0	0.00	15	0	0.00	7	0	0.00
		Drinking Water	50.	44	0	0.00	14	0	0.00	7	0	0.00	16	0	0.00	7	0	0.00
01147	SELENIUM, TOTAL	Fresh Acute	20.	74 &	2	0.03	24	0	0.00	14	0	0.00	26	0	0.00	10	2	0.20
		Drinking Water	50.	75 &	0	0.00	24	0	0.00	14	0	0.00	27	0	0.00	10	0	0.00
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	45	23	0.51	14	9	0.64	9	3	0.33	18	9	0.50	4	2	0.50
31648	E. COLI, MTEC, MF	Other-Hi Lim.	126.	20	6	0.30	5	3	0.60	4	1	0.25	9	2	0.22	2	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	19	19	1.00	6	6	1.00	4	4	1.00	8	8	1.00	1	1	1.00
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	19	19	1.00	6	6	1.00	4	4	1.00	8	8	1.00	1	1	1.00
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	11	0	0.00	5	0	0.00	2	0	0.00	3	0	0.00	1	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

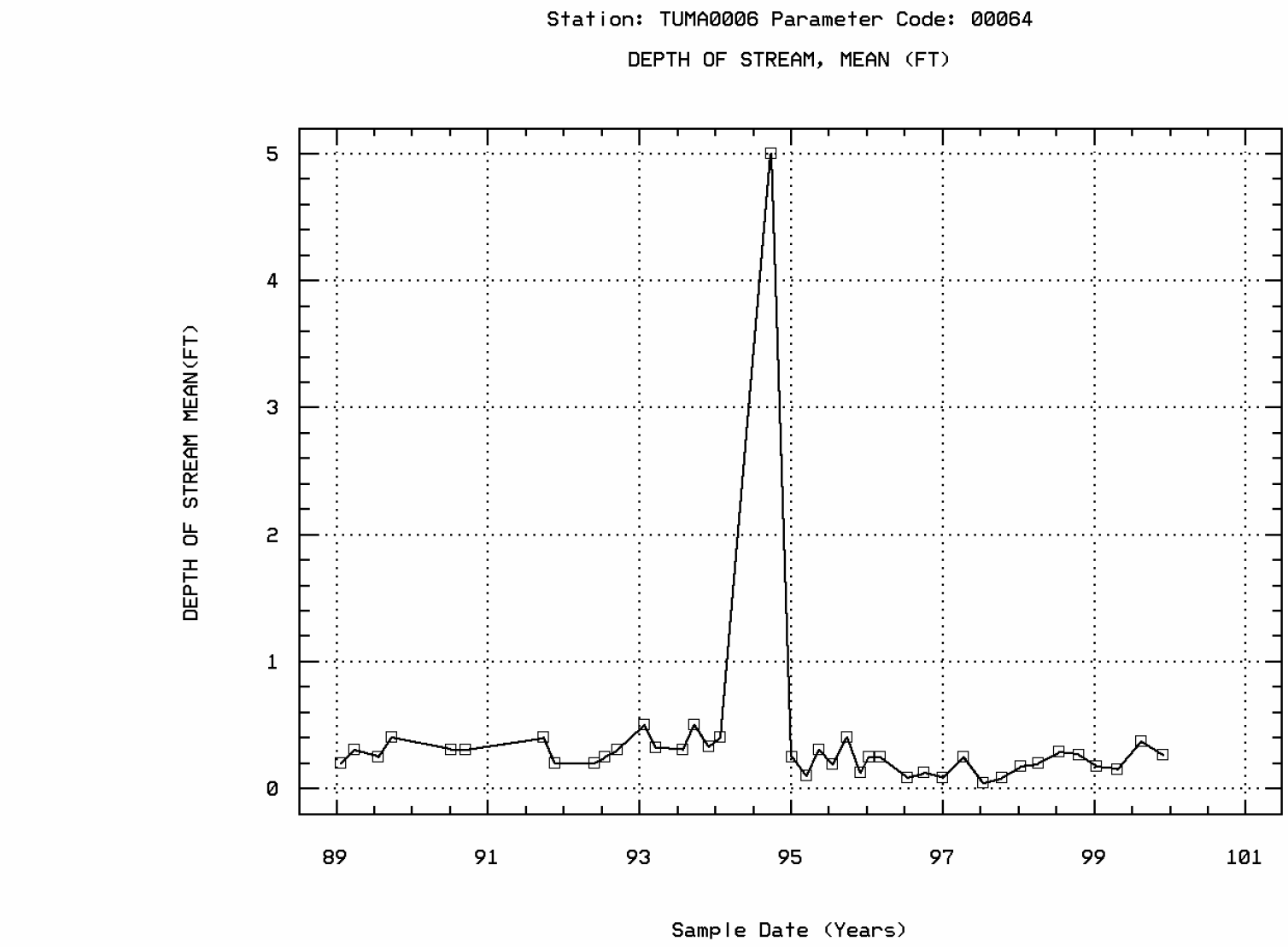
EPA Water Quality Criteria Analysis for Station: TUMA0006

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
71856	NITRITE NITROGEN, DISSOLVED (AS NO2)	Drinking Water	3.3	8	0	0.00	5	0	0.00	1	0	0.00	2	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	44	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	6	0	0.00
		Drinking Water	2.	44	0	0.00	14	0	0.00	7	0	0.00	17	0	0.00	6	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	77	0	0.00	26	0	0.00	15	0	0.00	26	0	0.00	10	0	0.00
		Drinking Water	2.	77	0	0.00	26	0	0.00	15	0	0.00	26	0	0.00	10	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	40	9	0.23	12	4	0.33	8	0	0.00	16	5	0.31	4	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	65	8	0.12	23	2	0.09	13	1	0.08	21	5	0.24	8	0	0.00

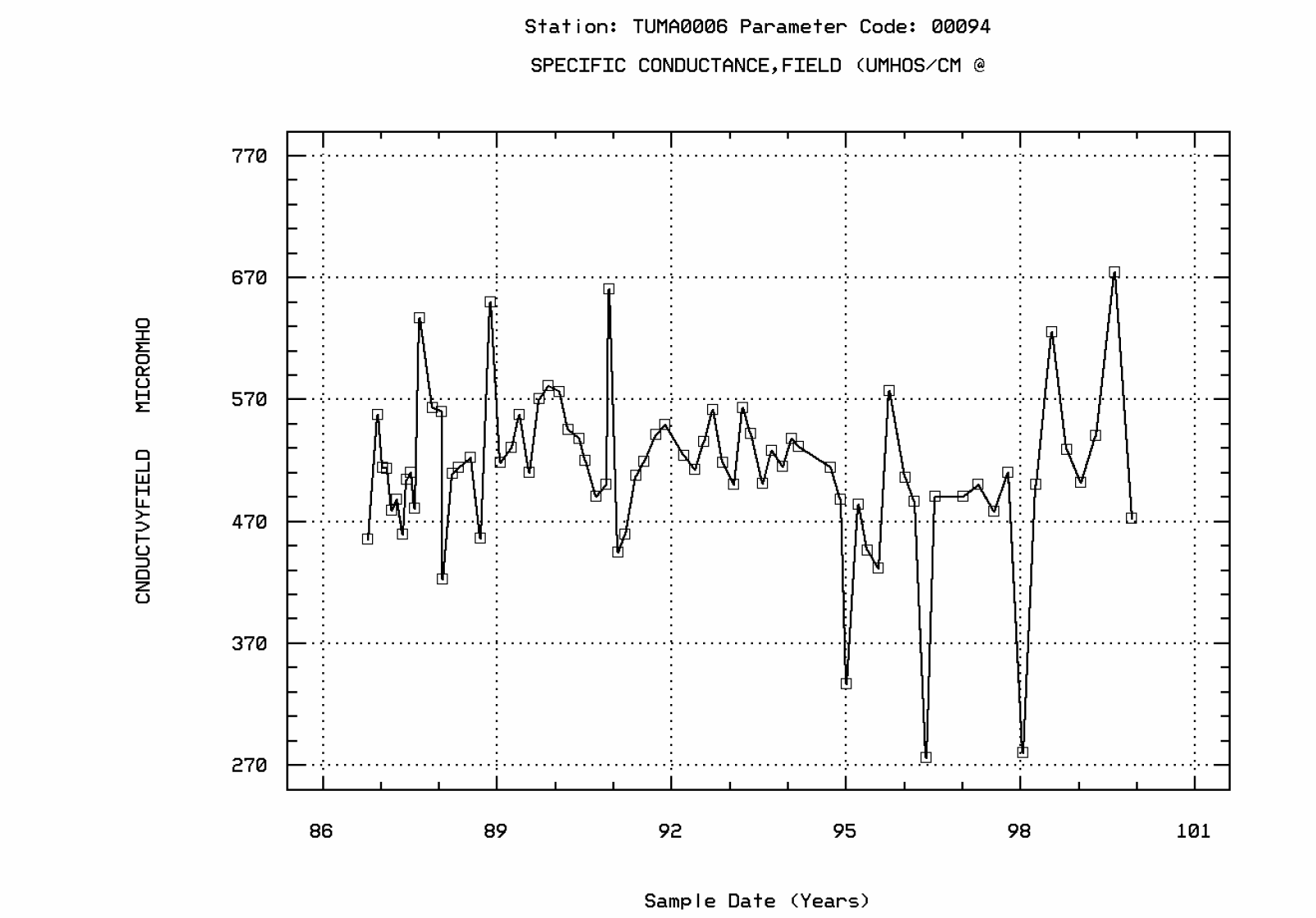
& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter



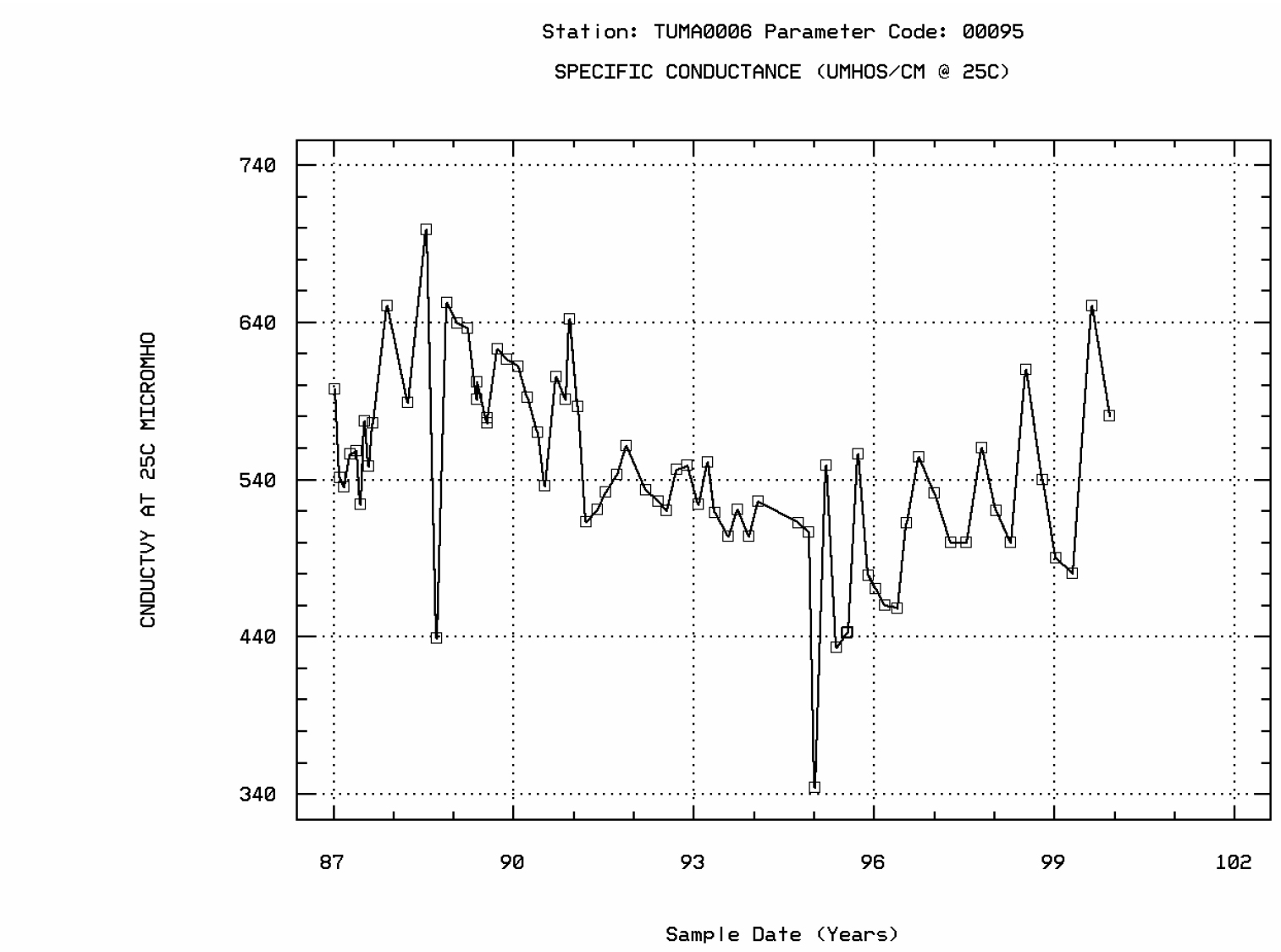
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



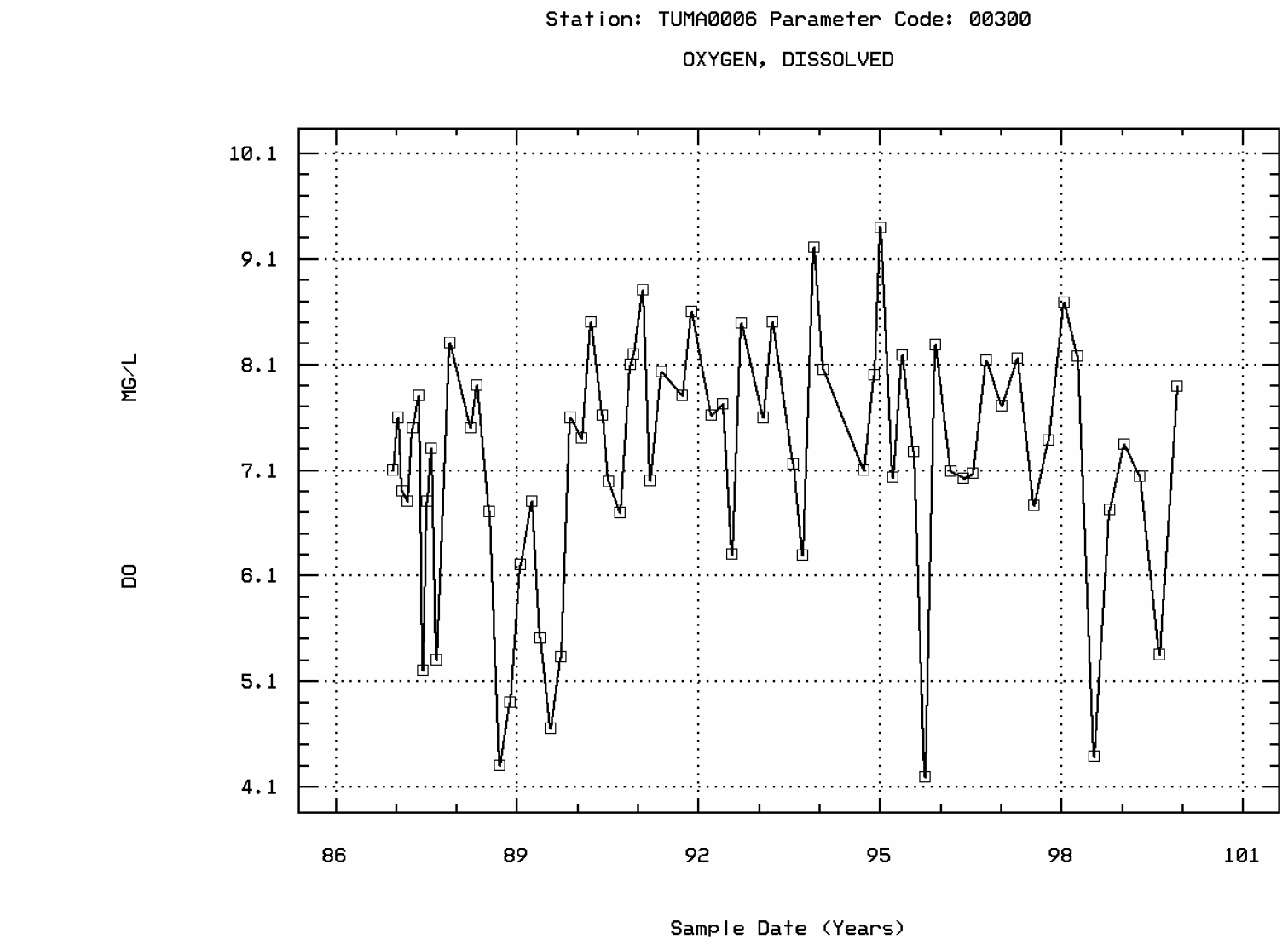
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



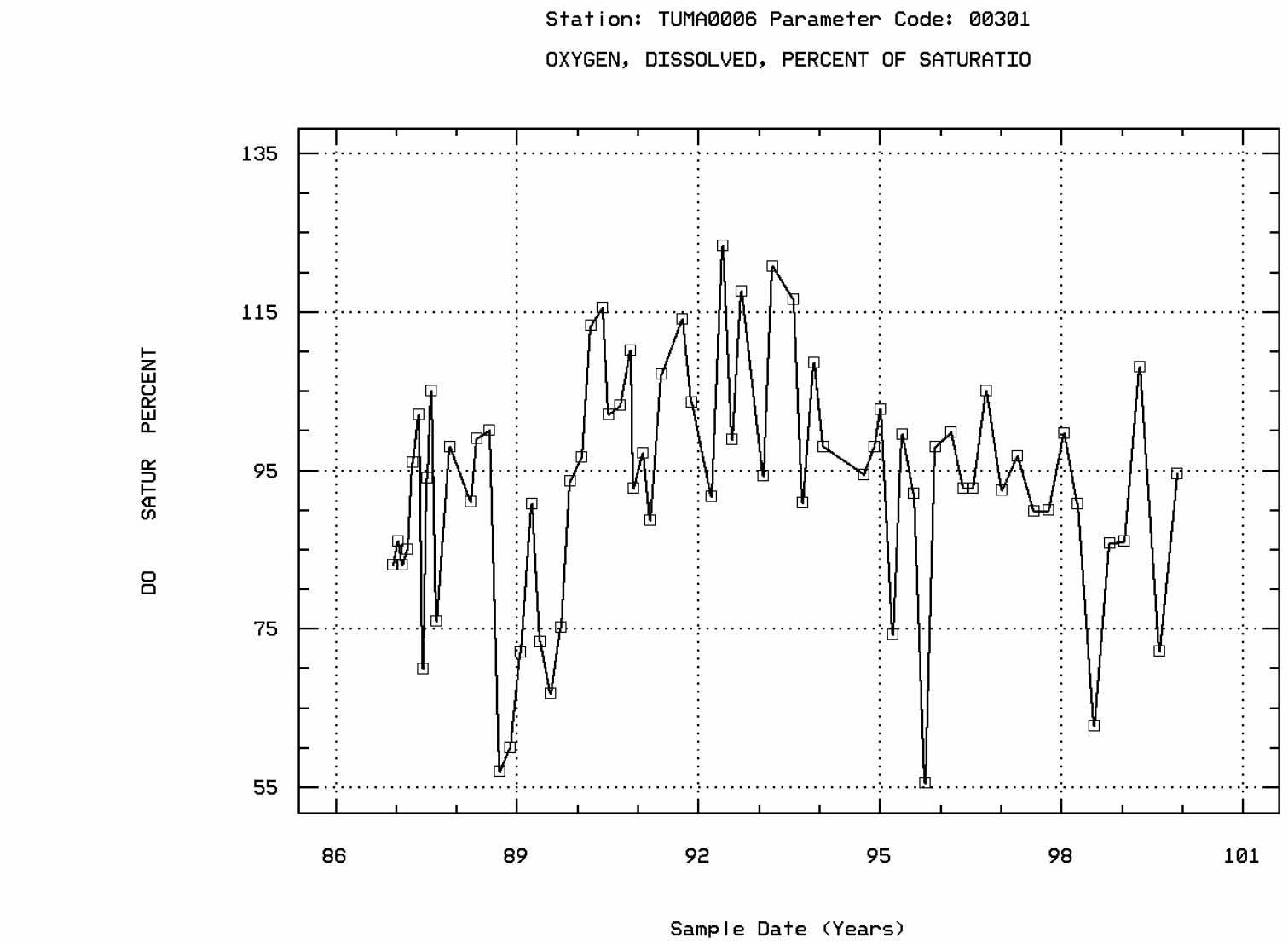
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



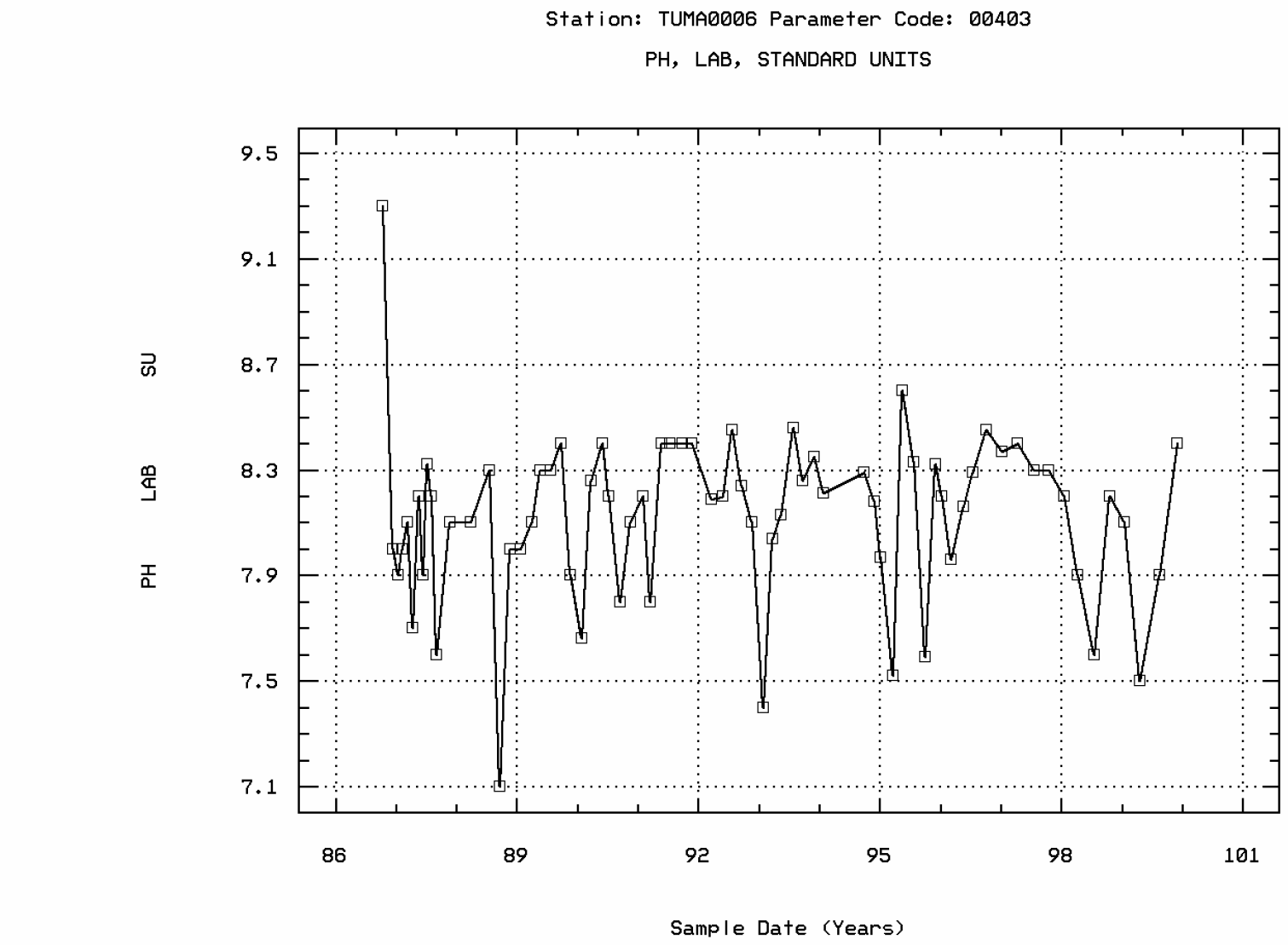
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



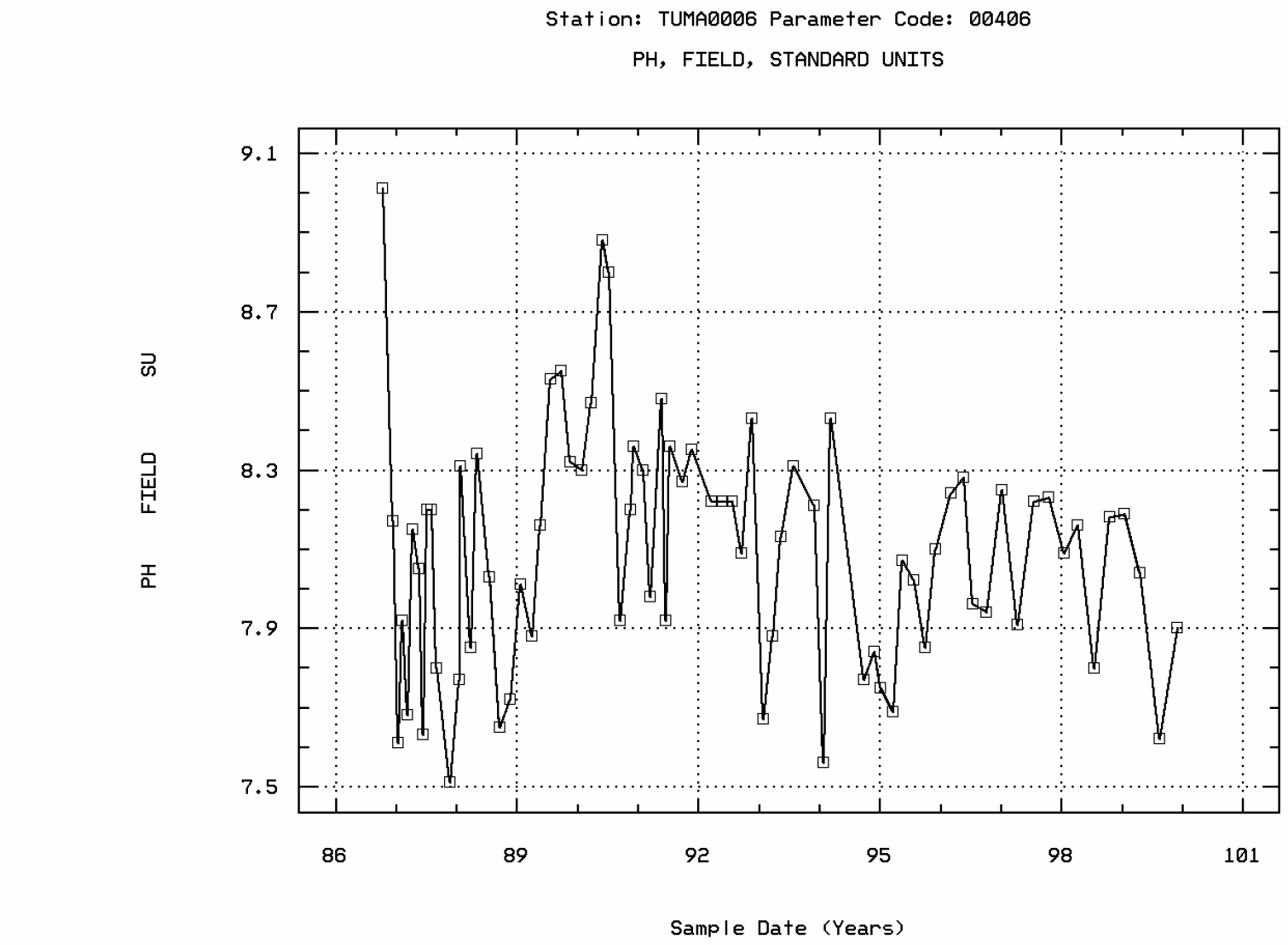
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



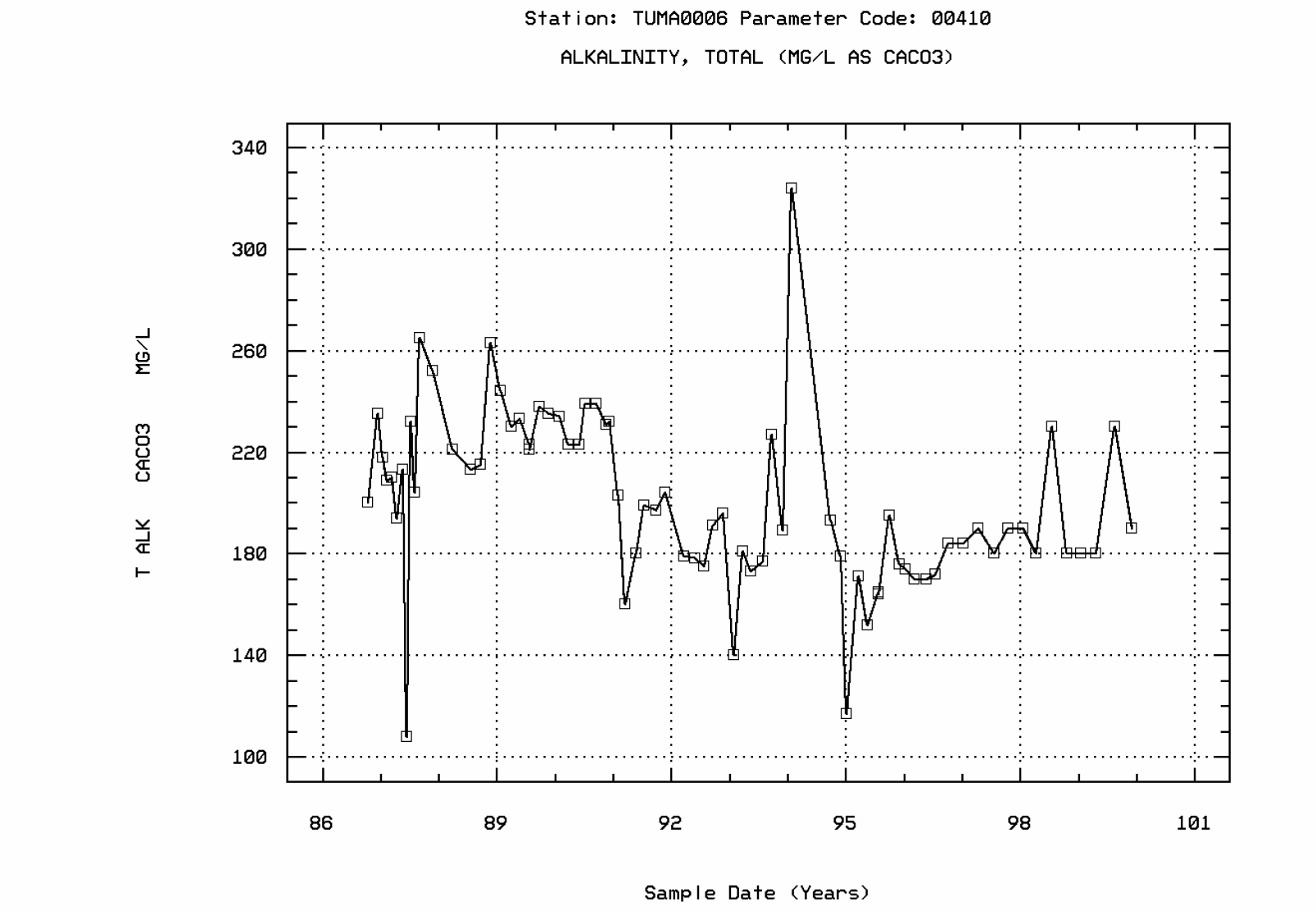
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



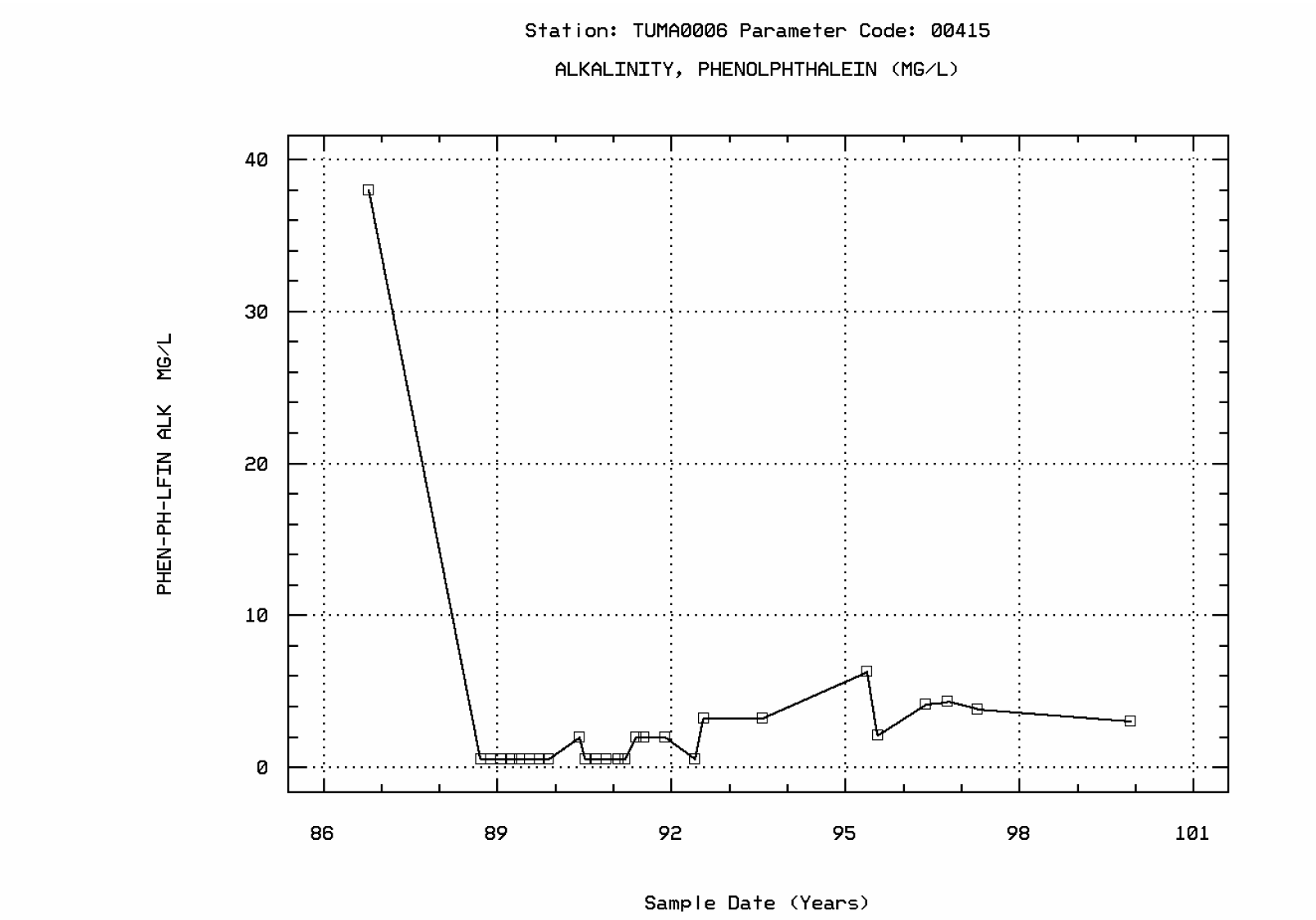
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



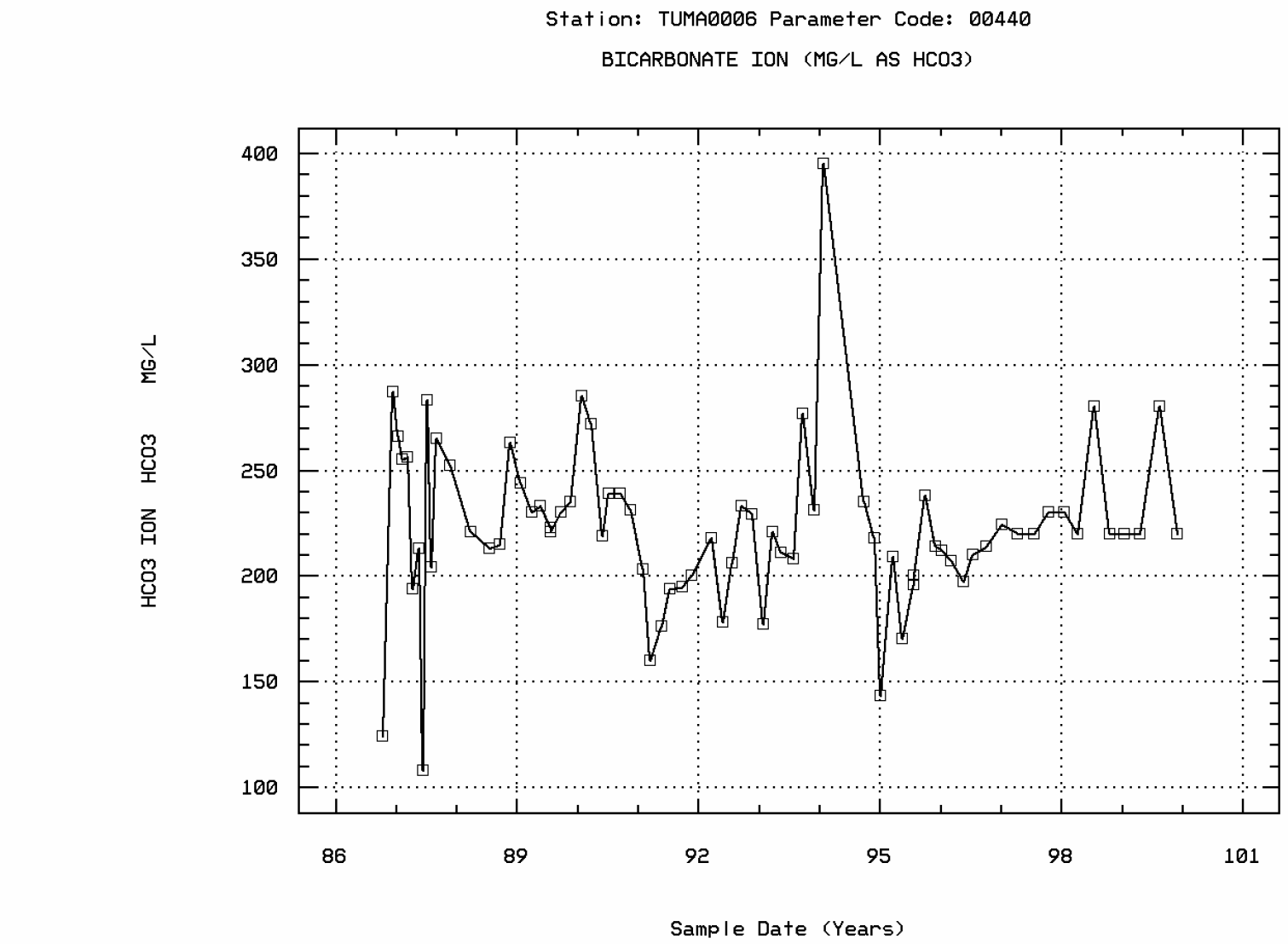
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



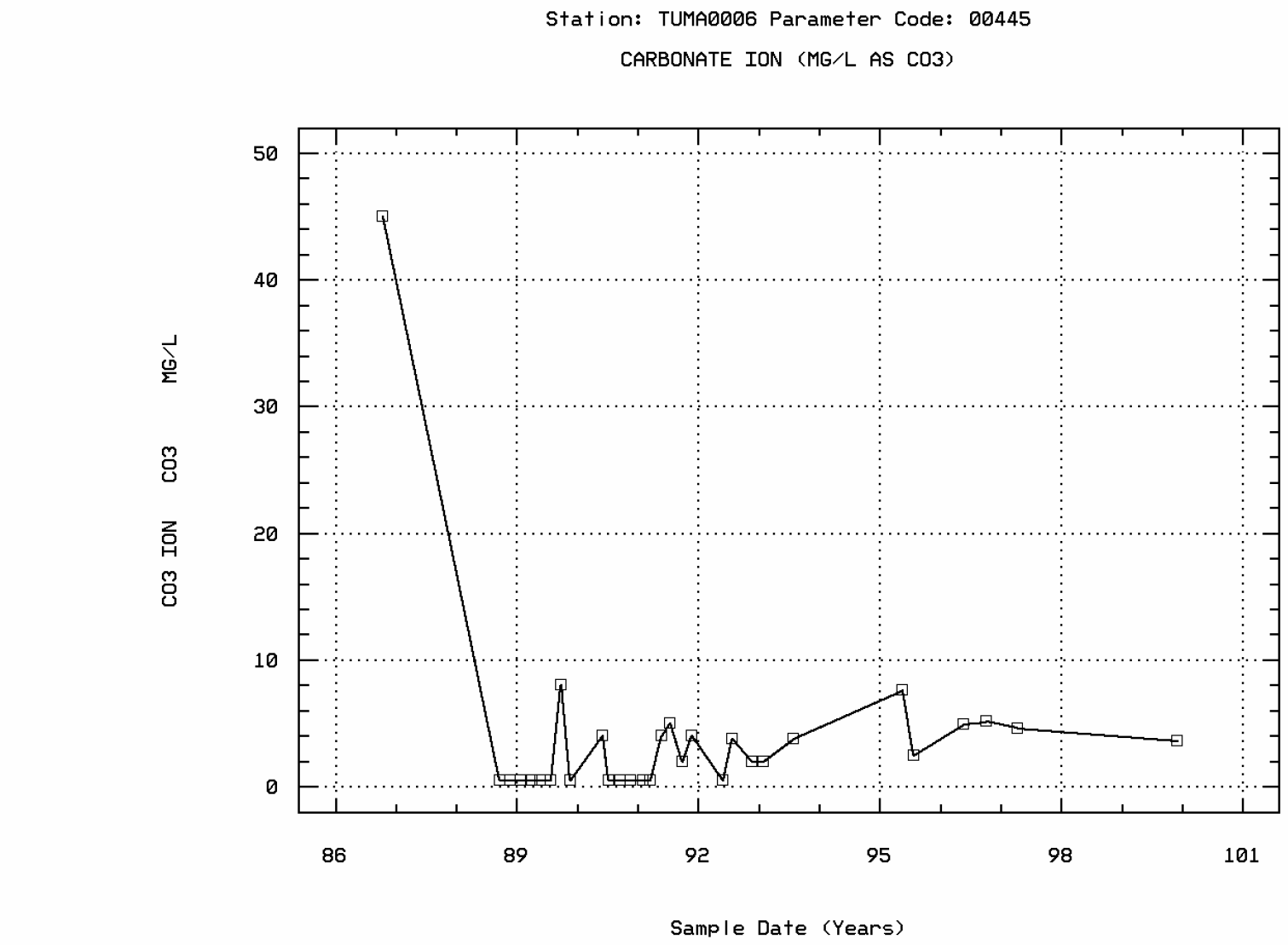
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



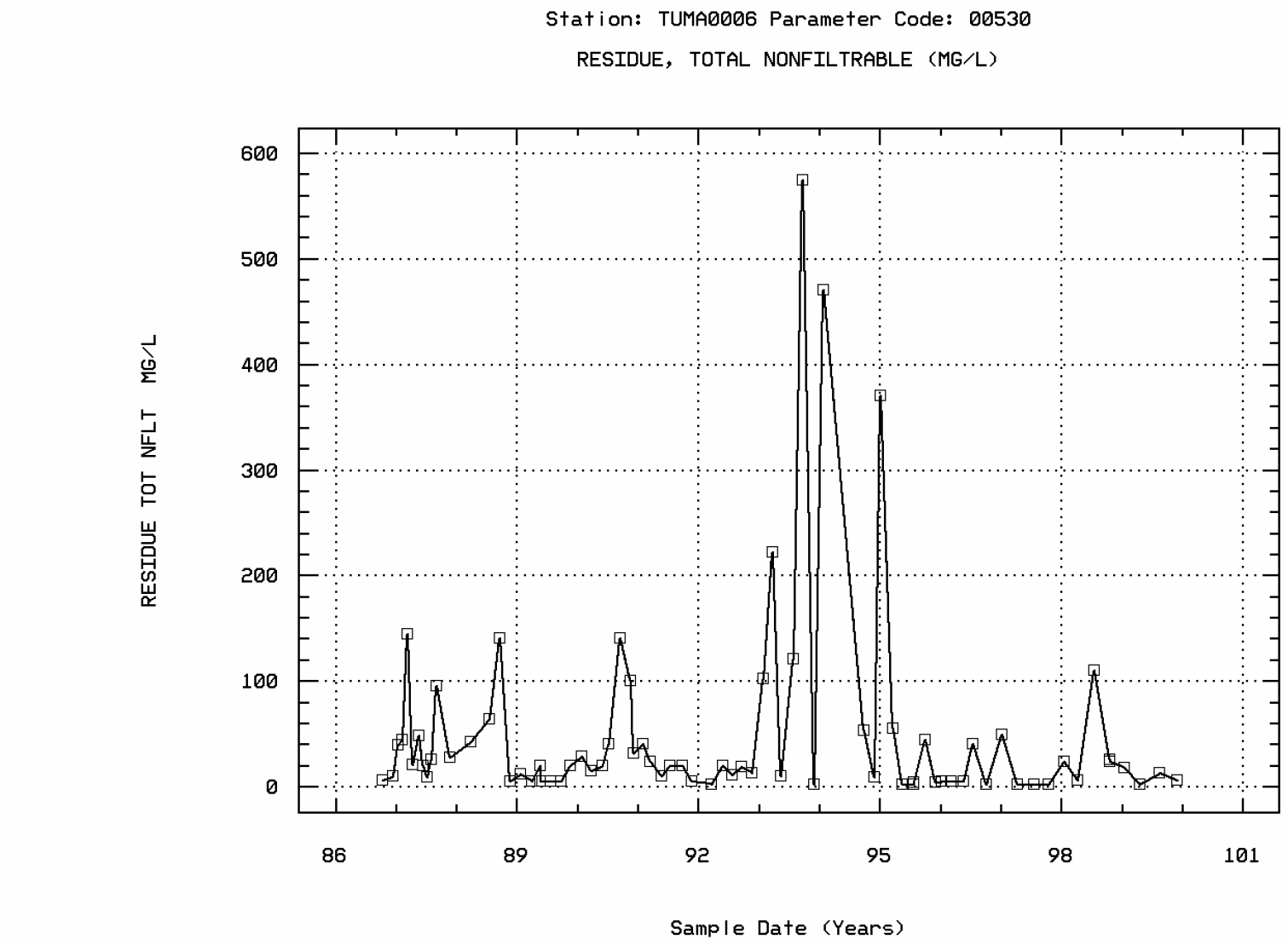
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE



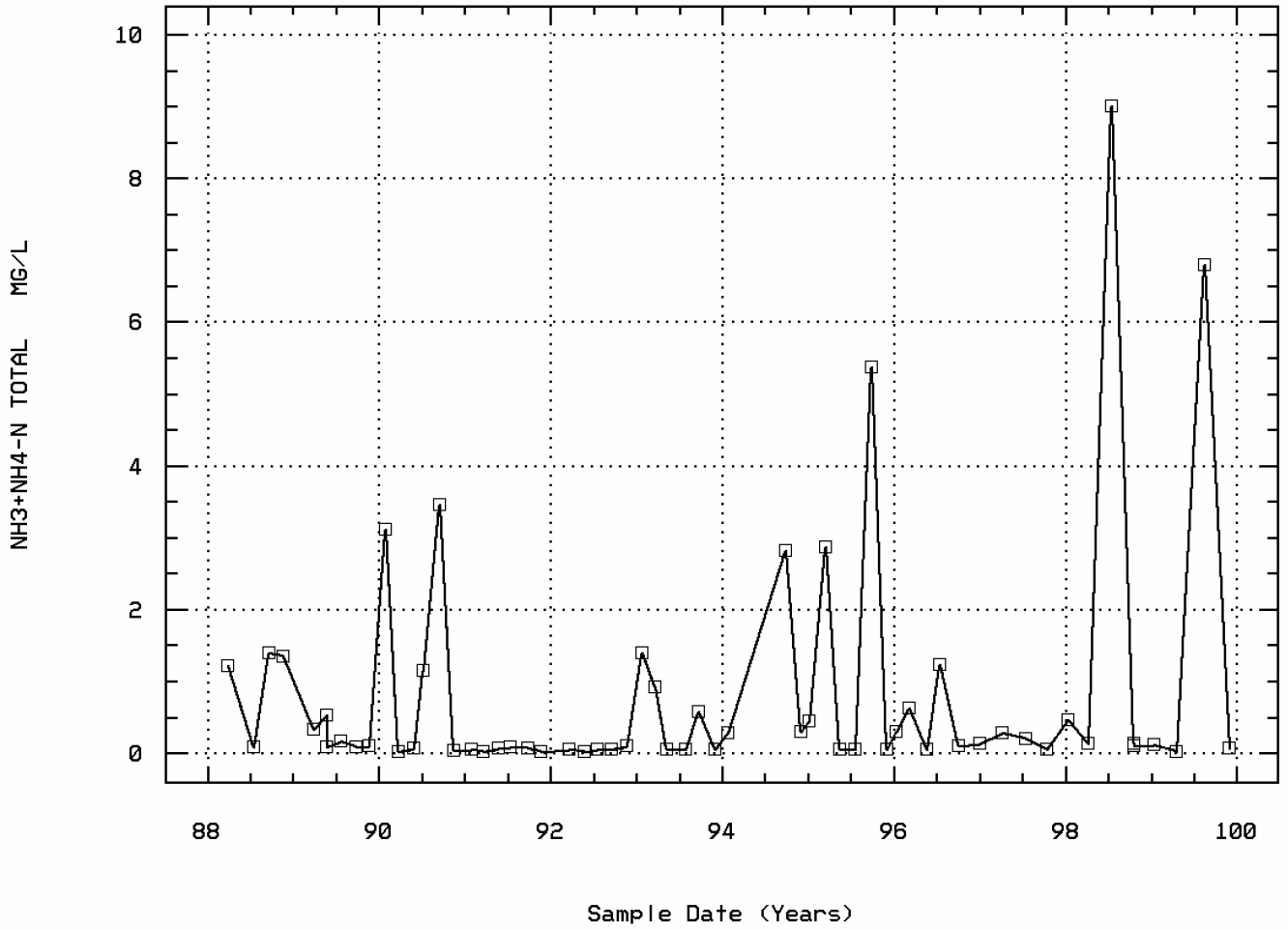
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



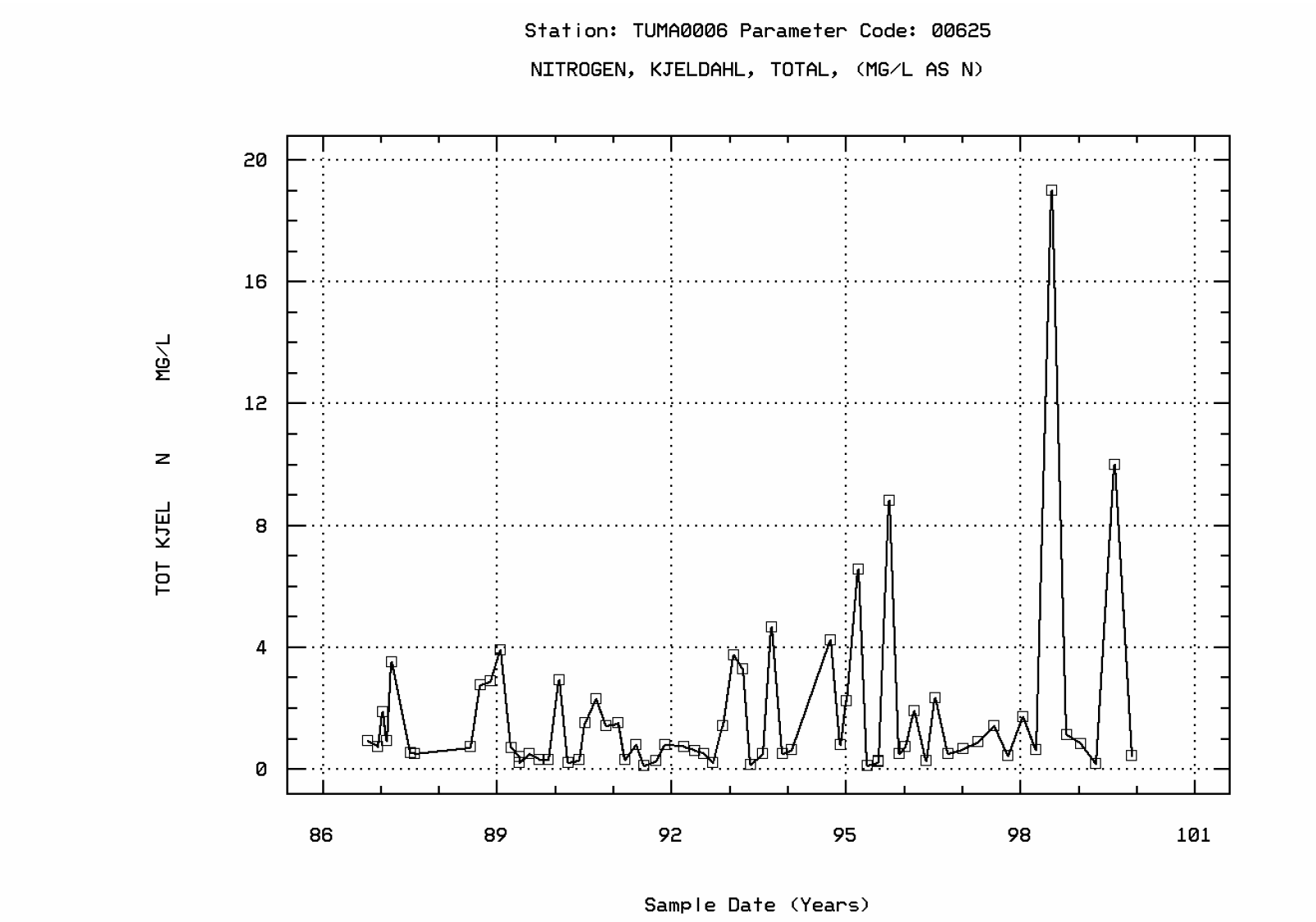
SCNGW004.23 (NOGALES WASH AT MORLEY AVE

Station: TUMA0006 Parameter Code: 00610

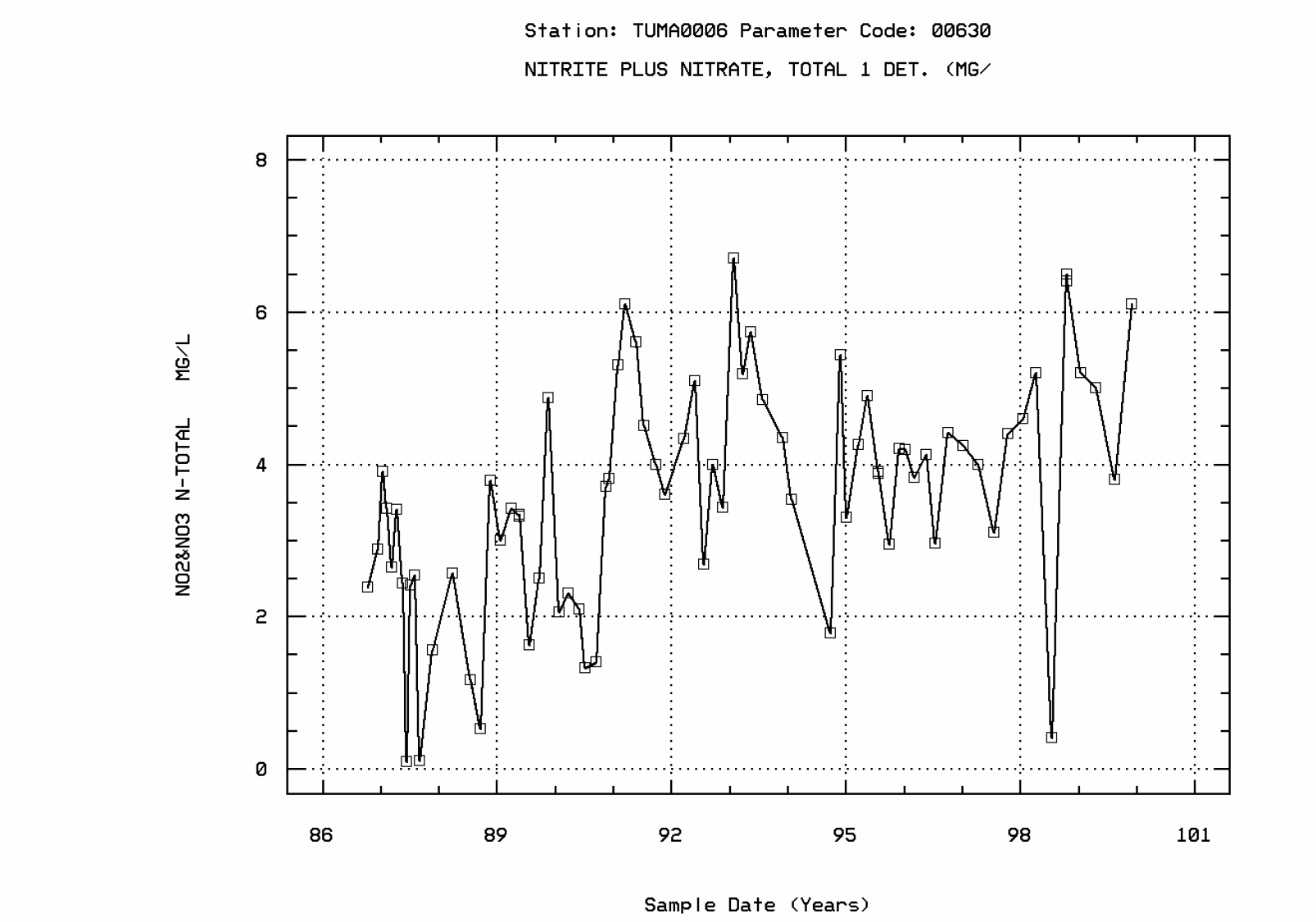
NITROGEN, AMMONIA, TOTAL (MG/L AS N)



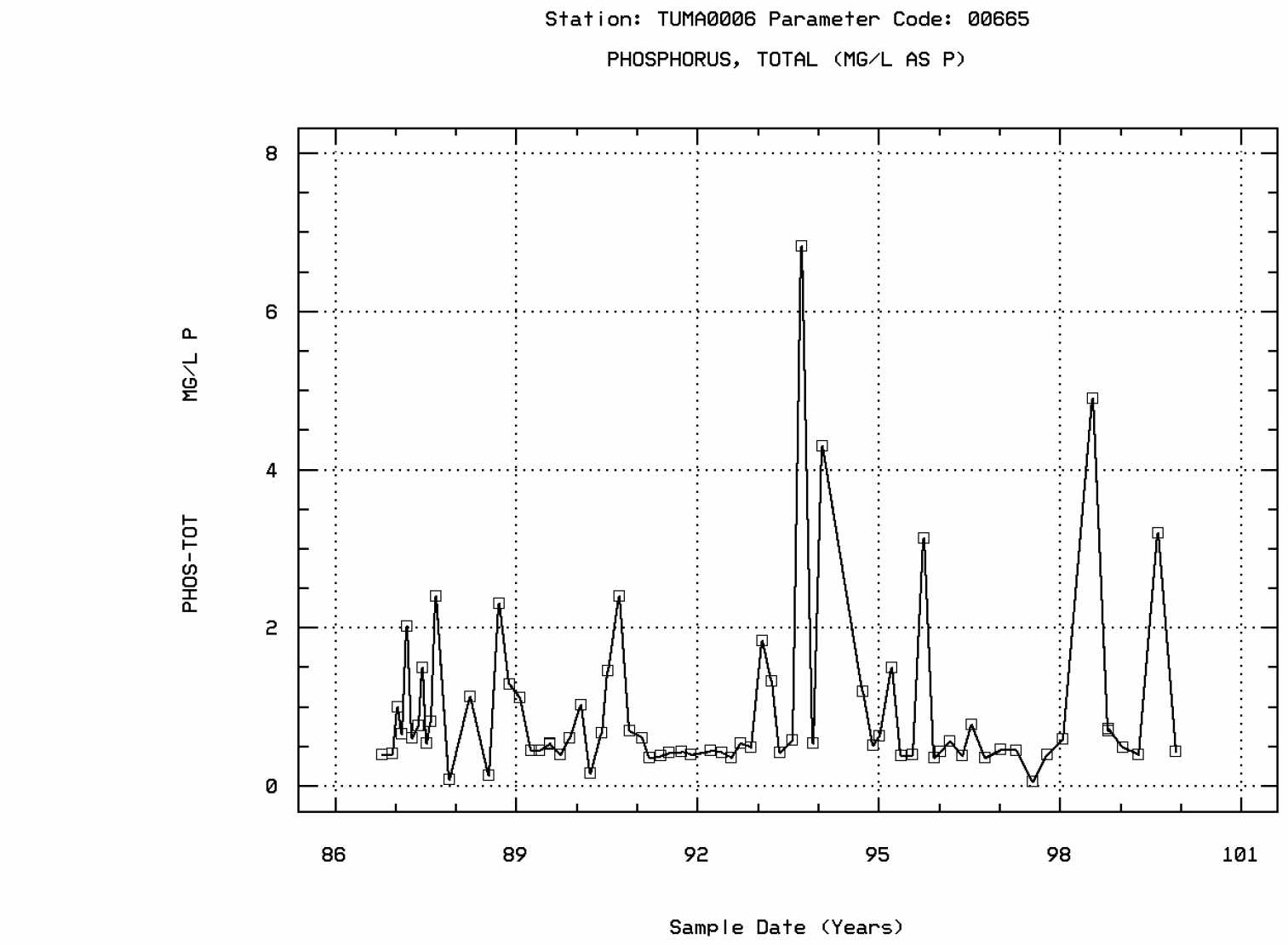
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



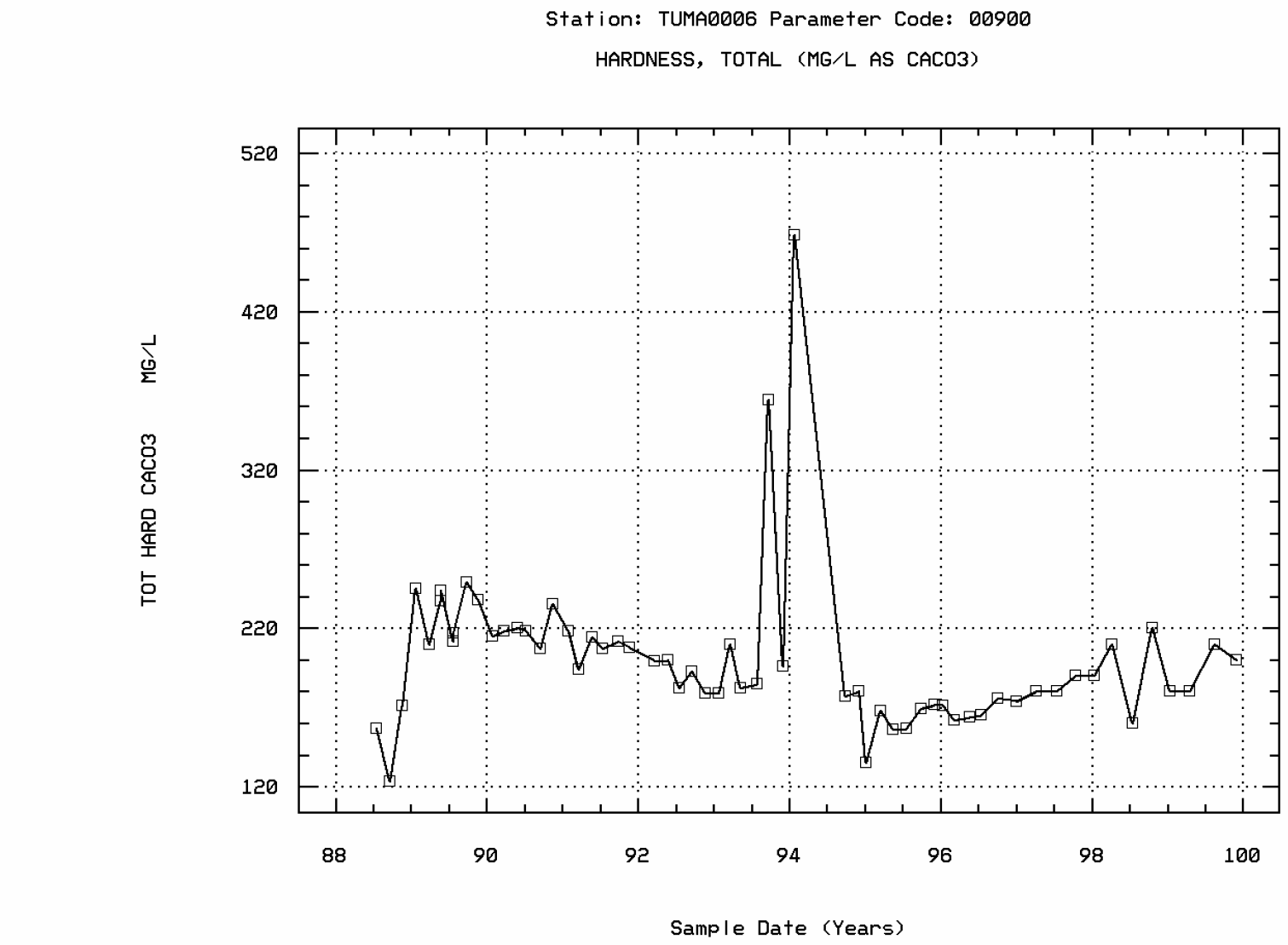
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



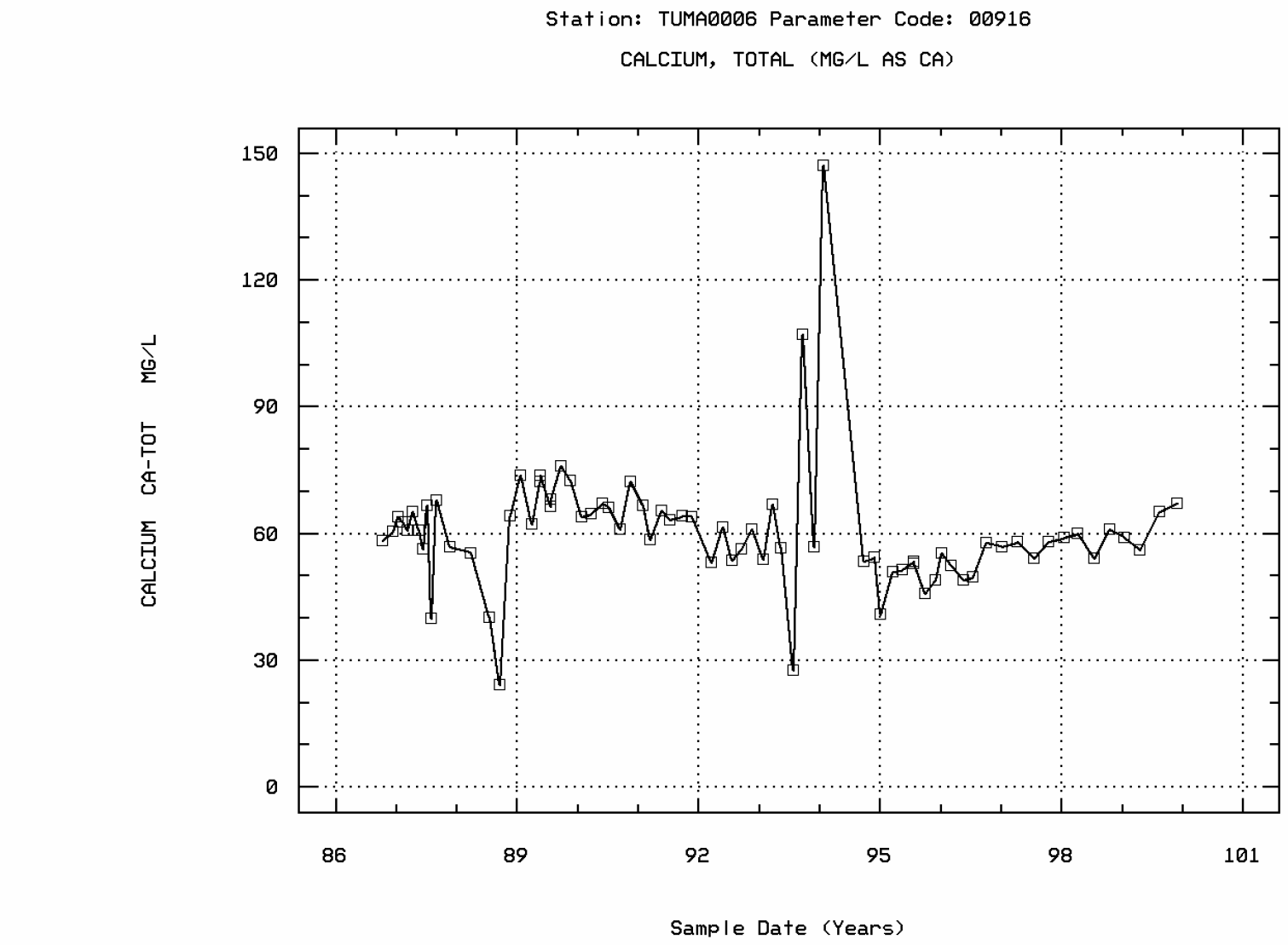
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



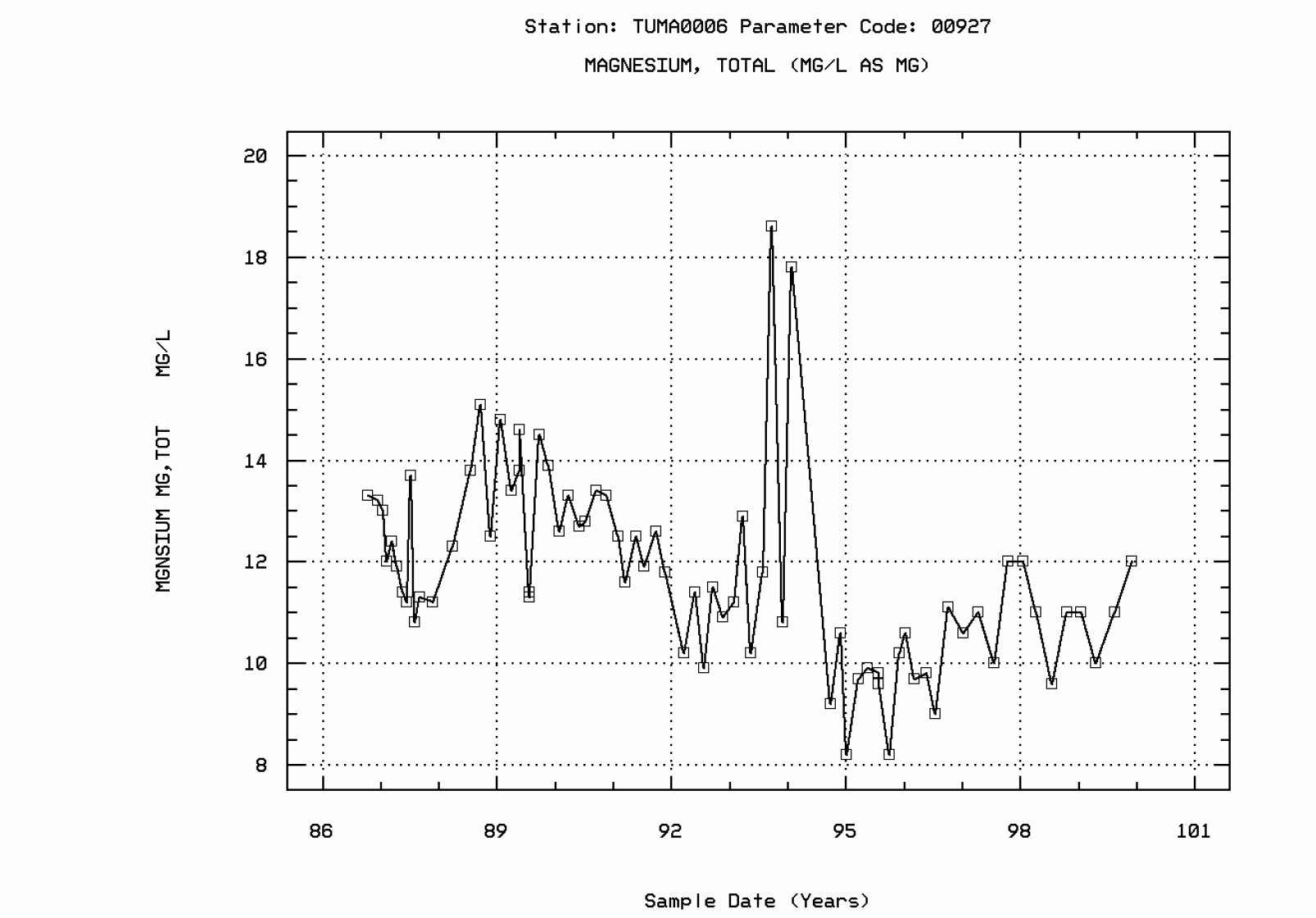
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



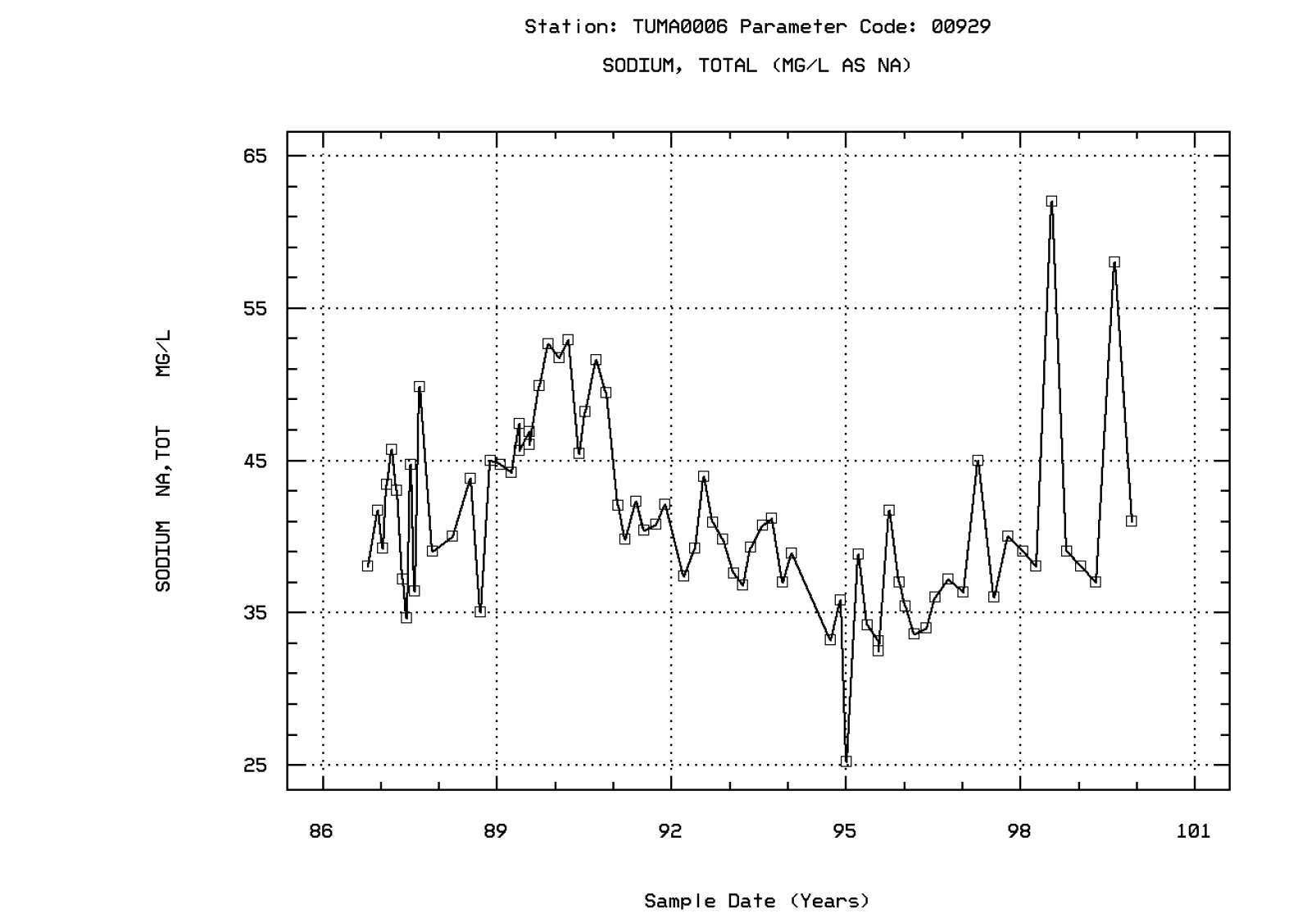
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



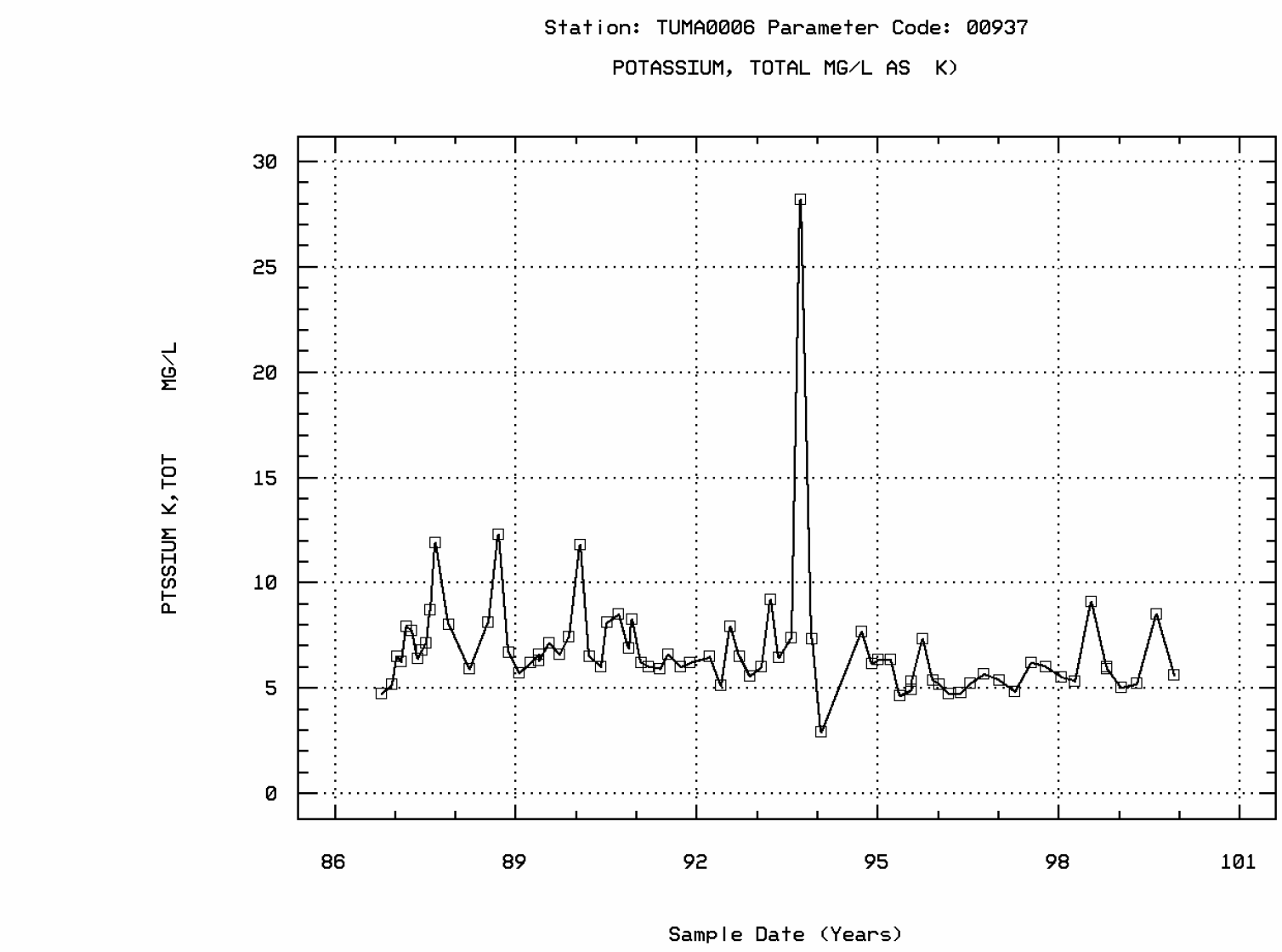
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



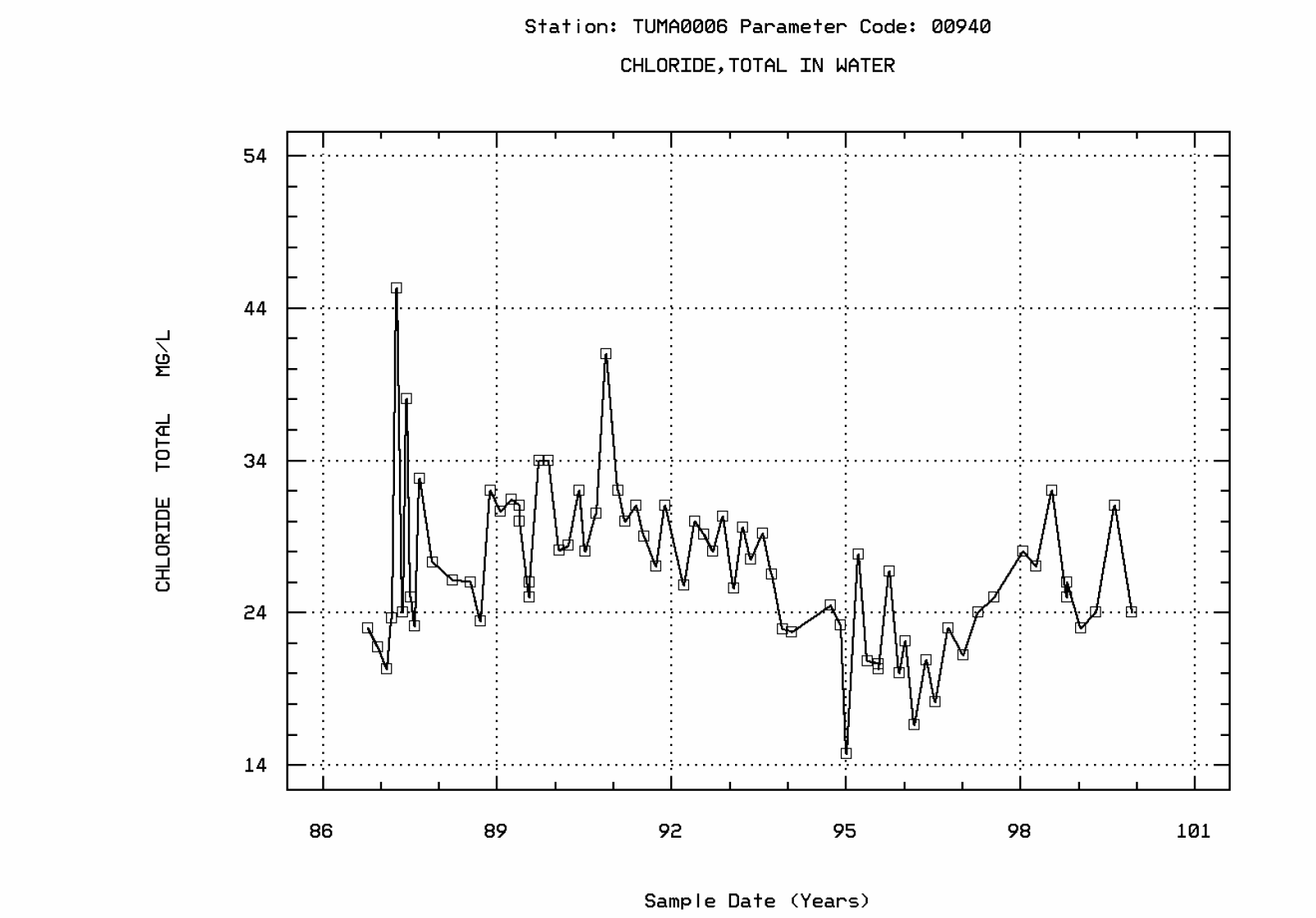
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



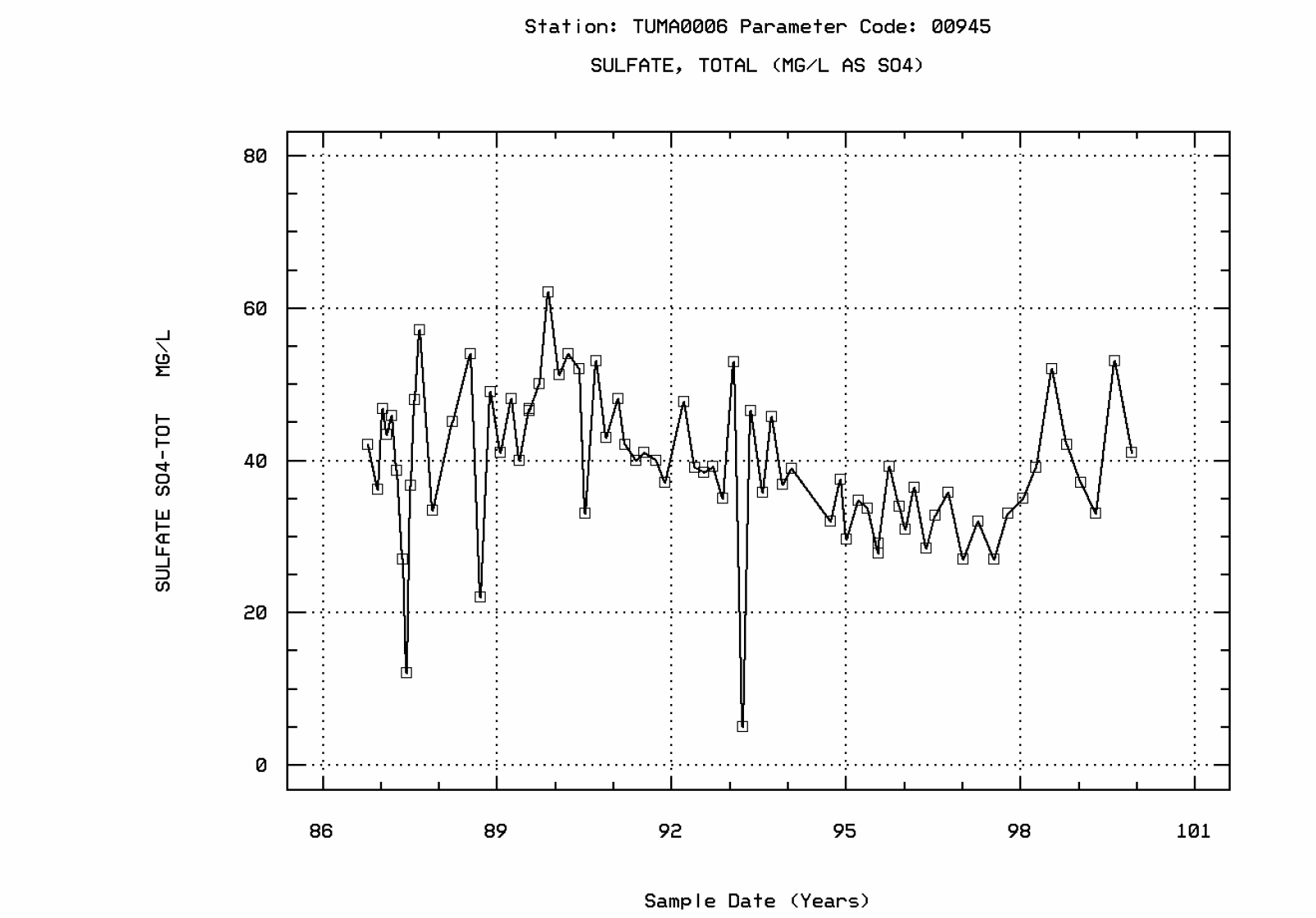
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



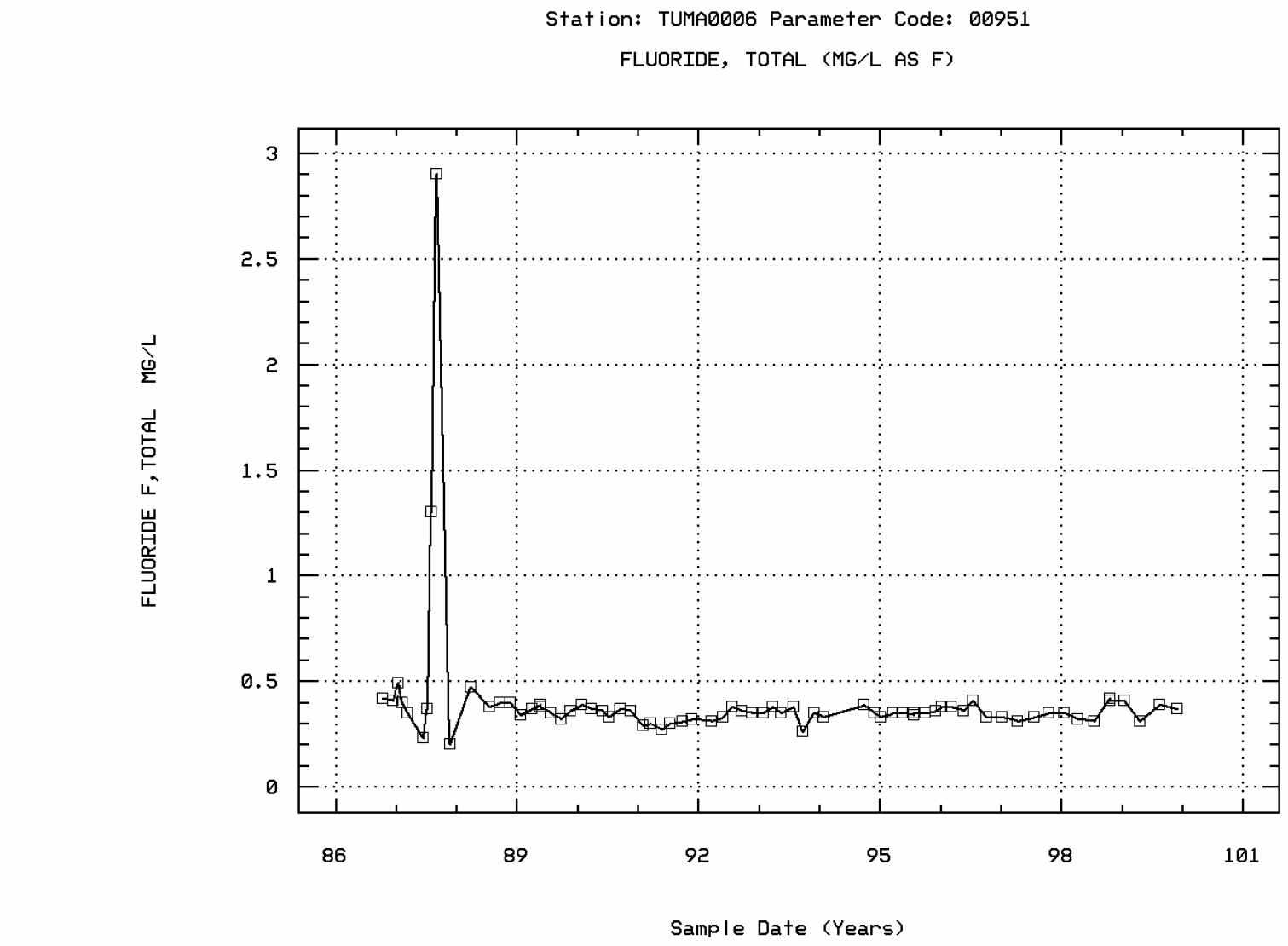
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



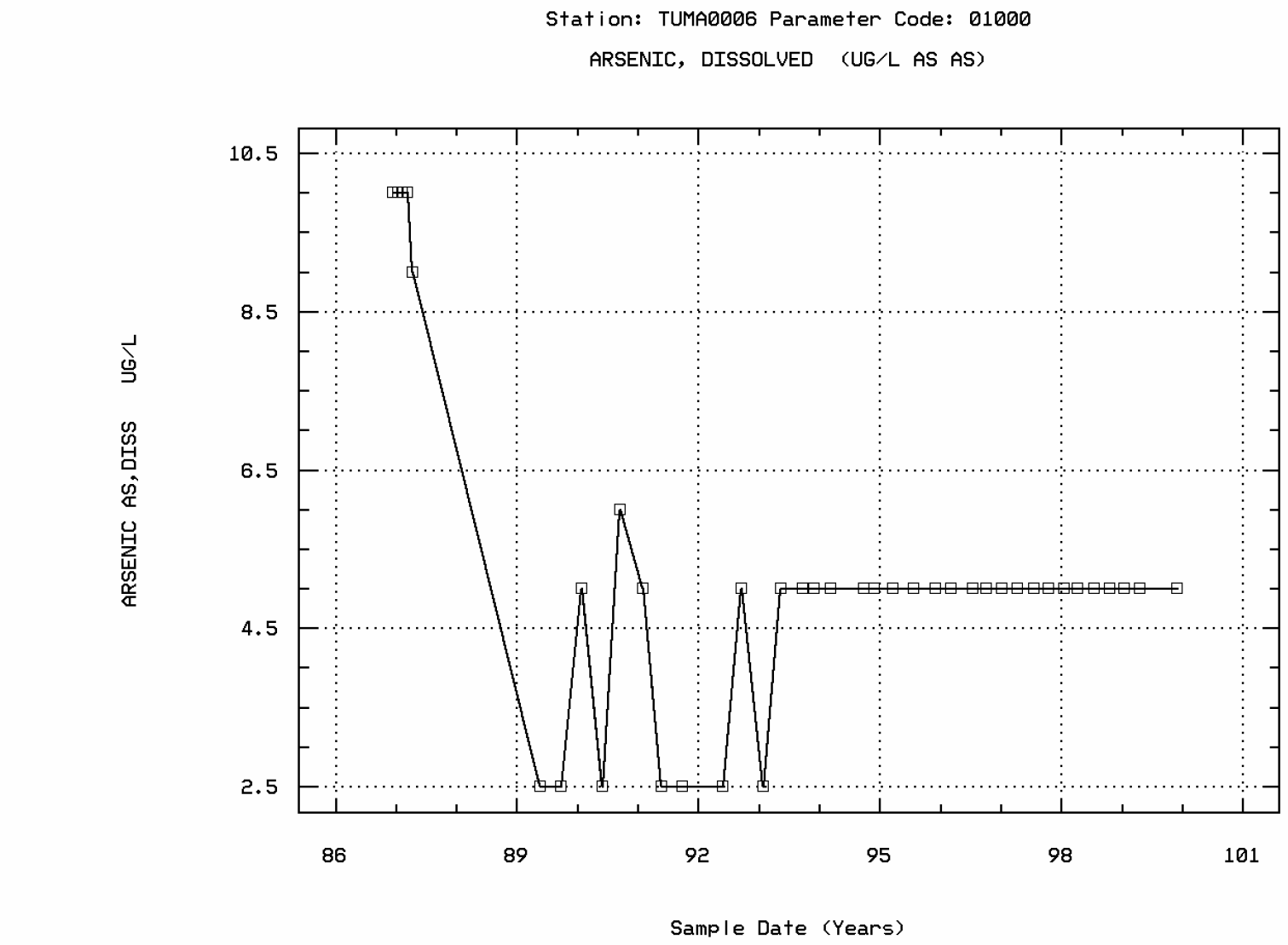
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



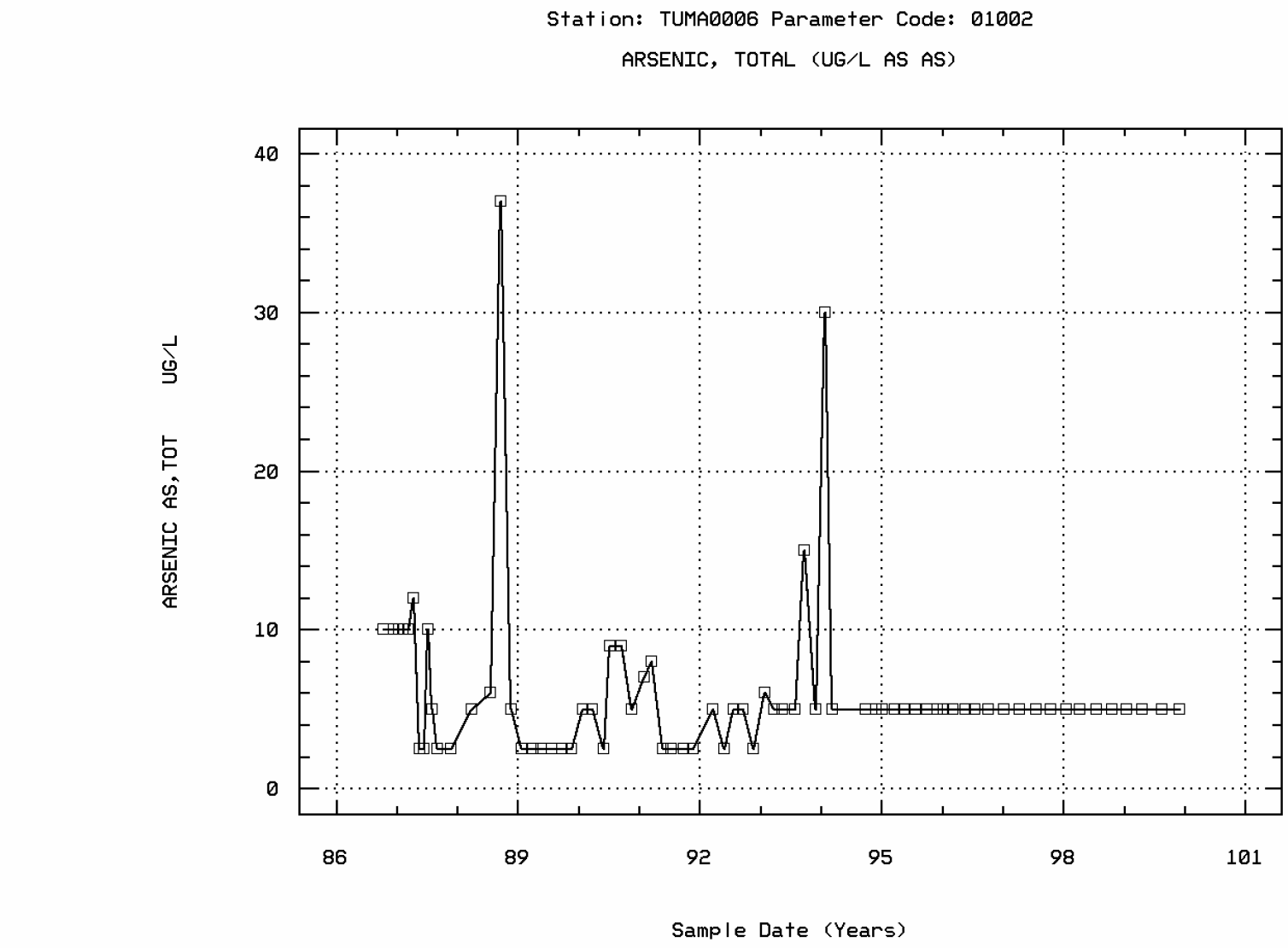
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



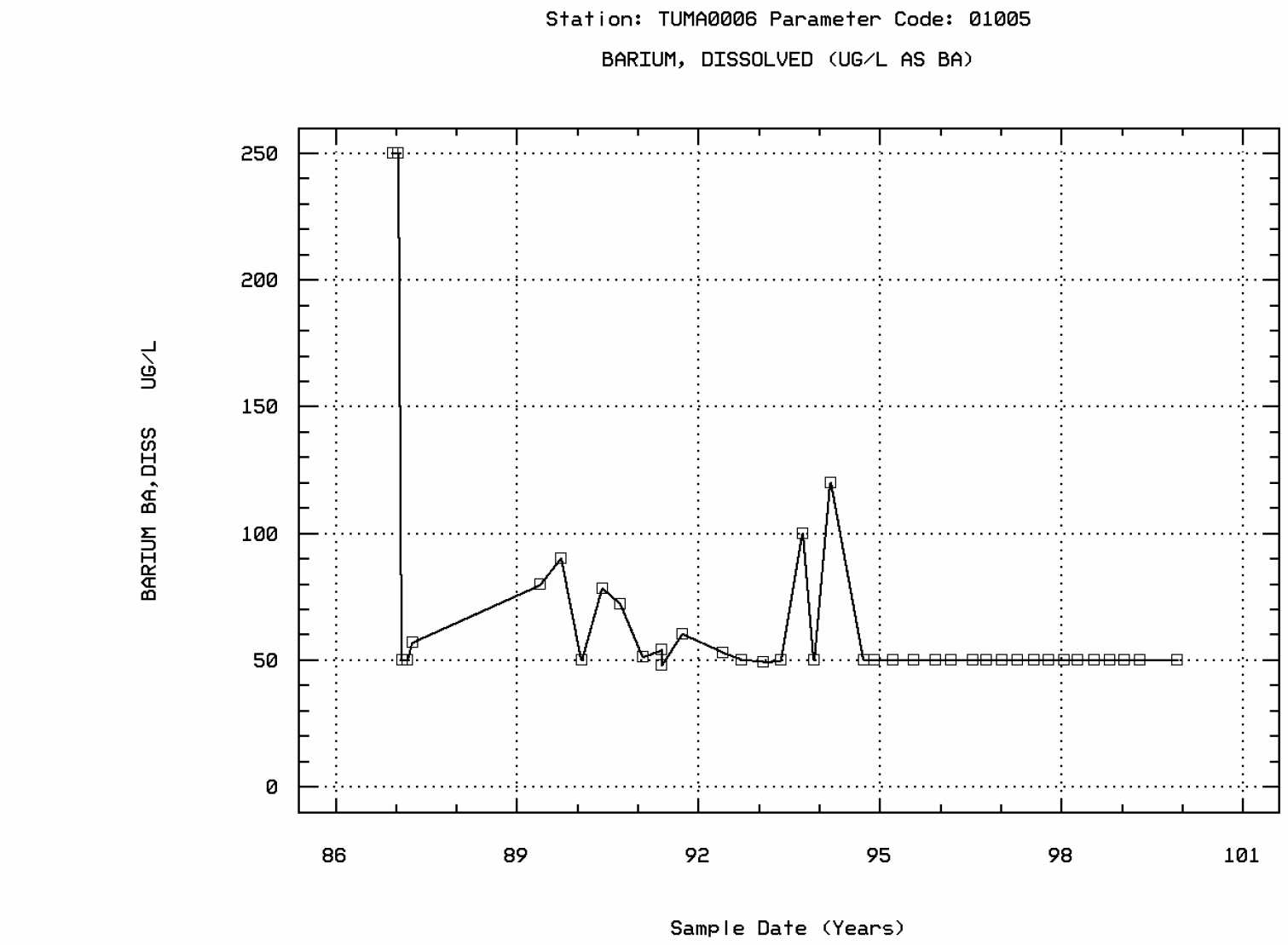
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



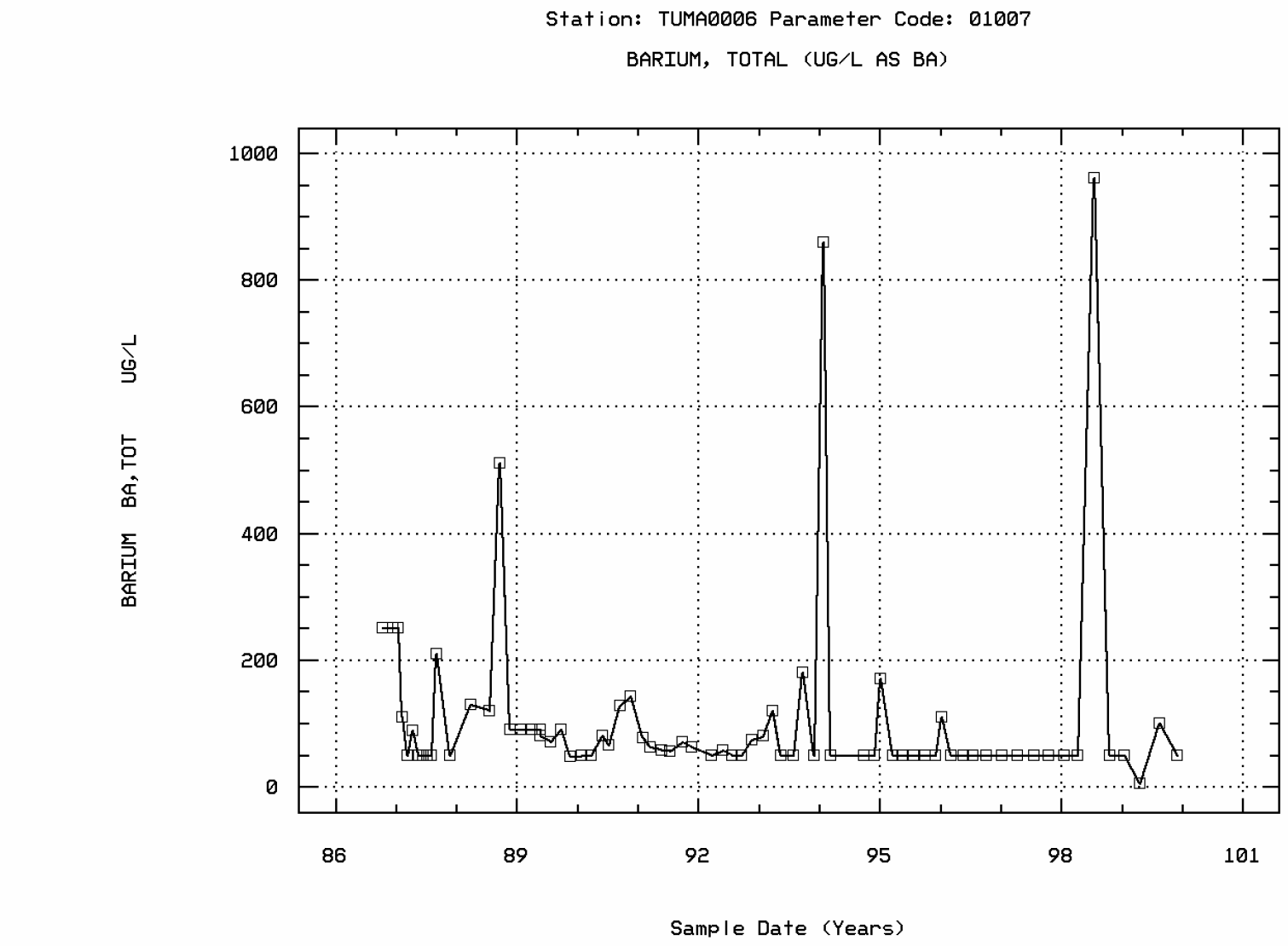
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



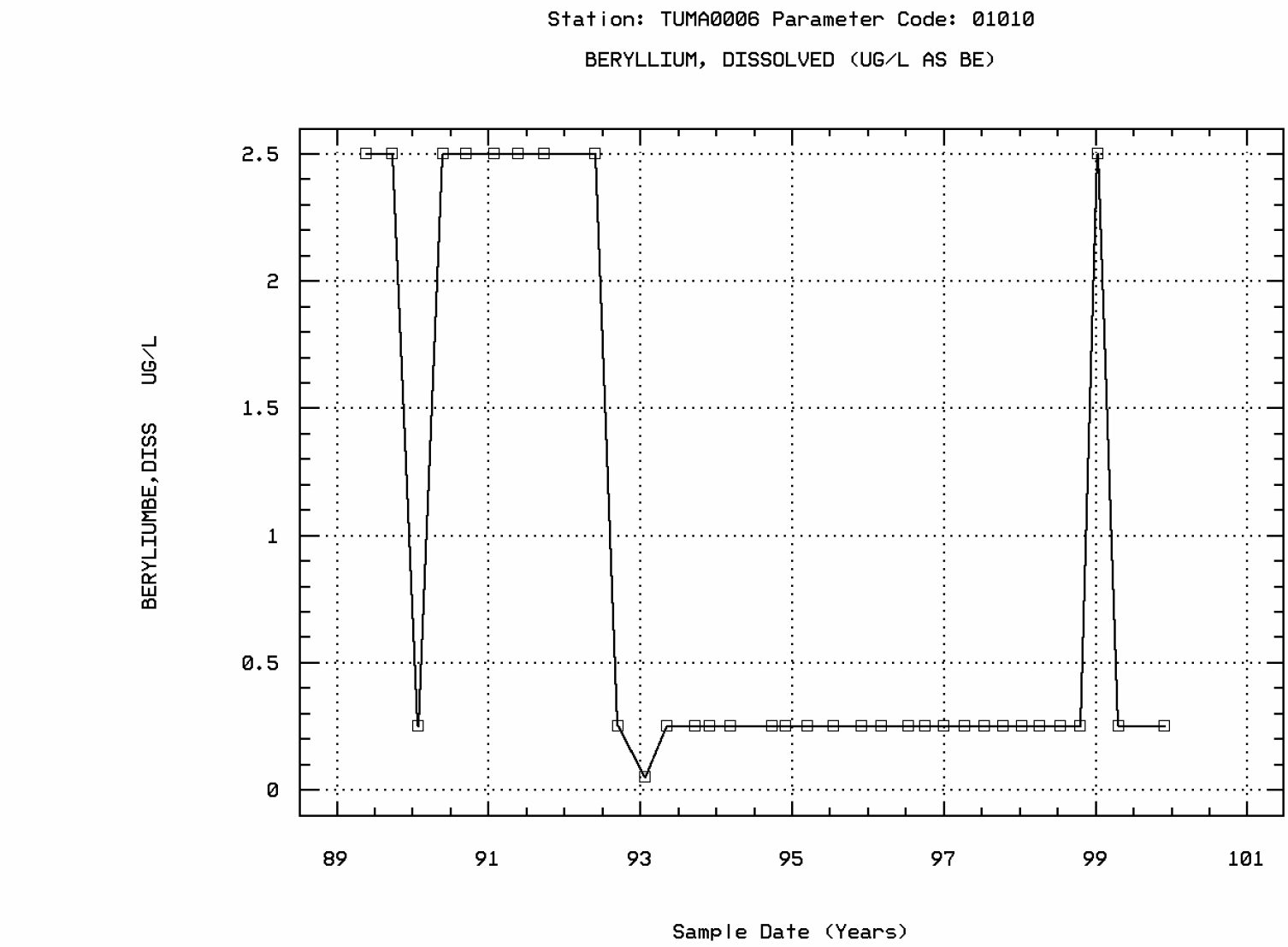
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



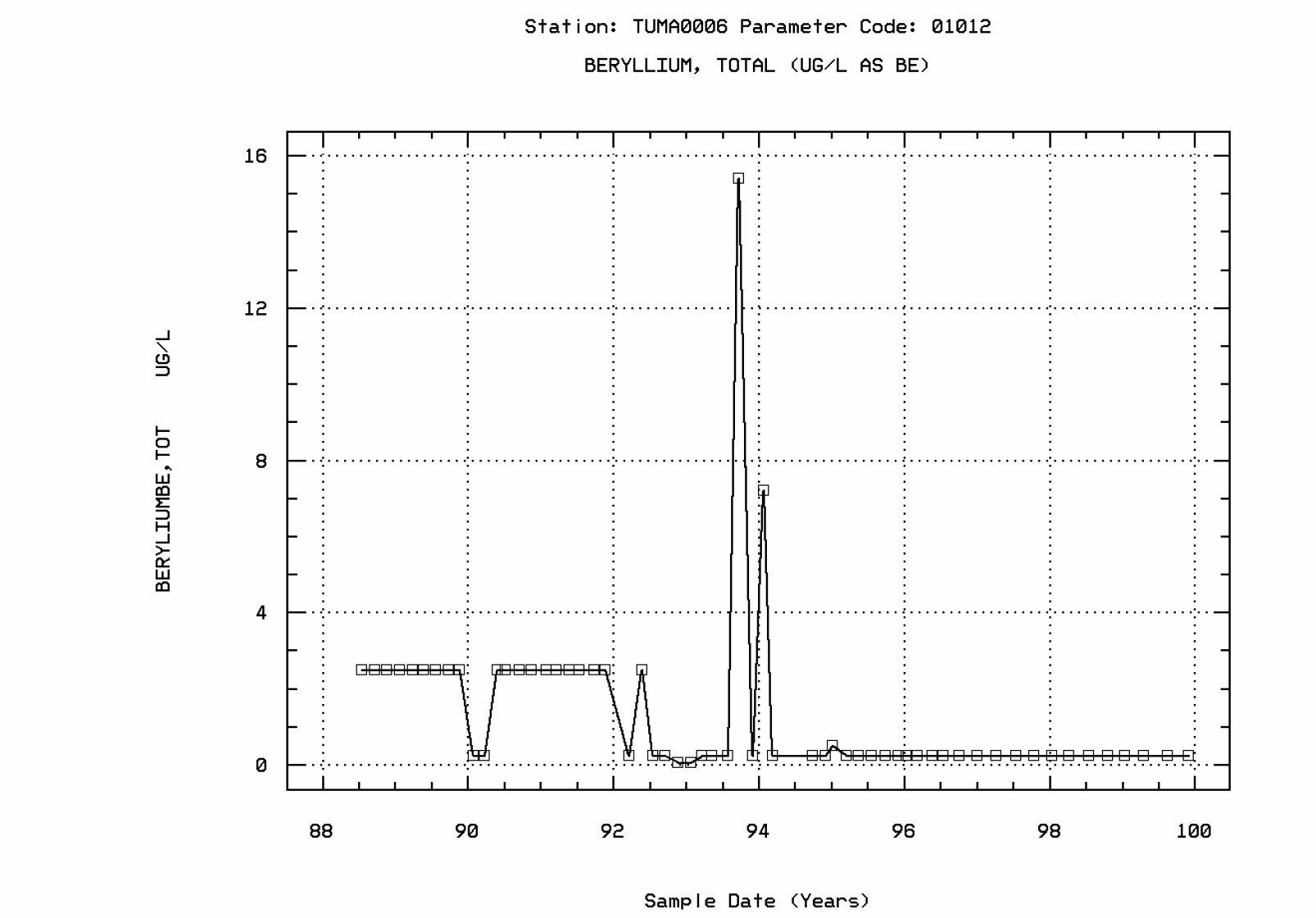
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



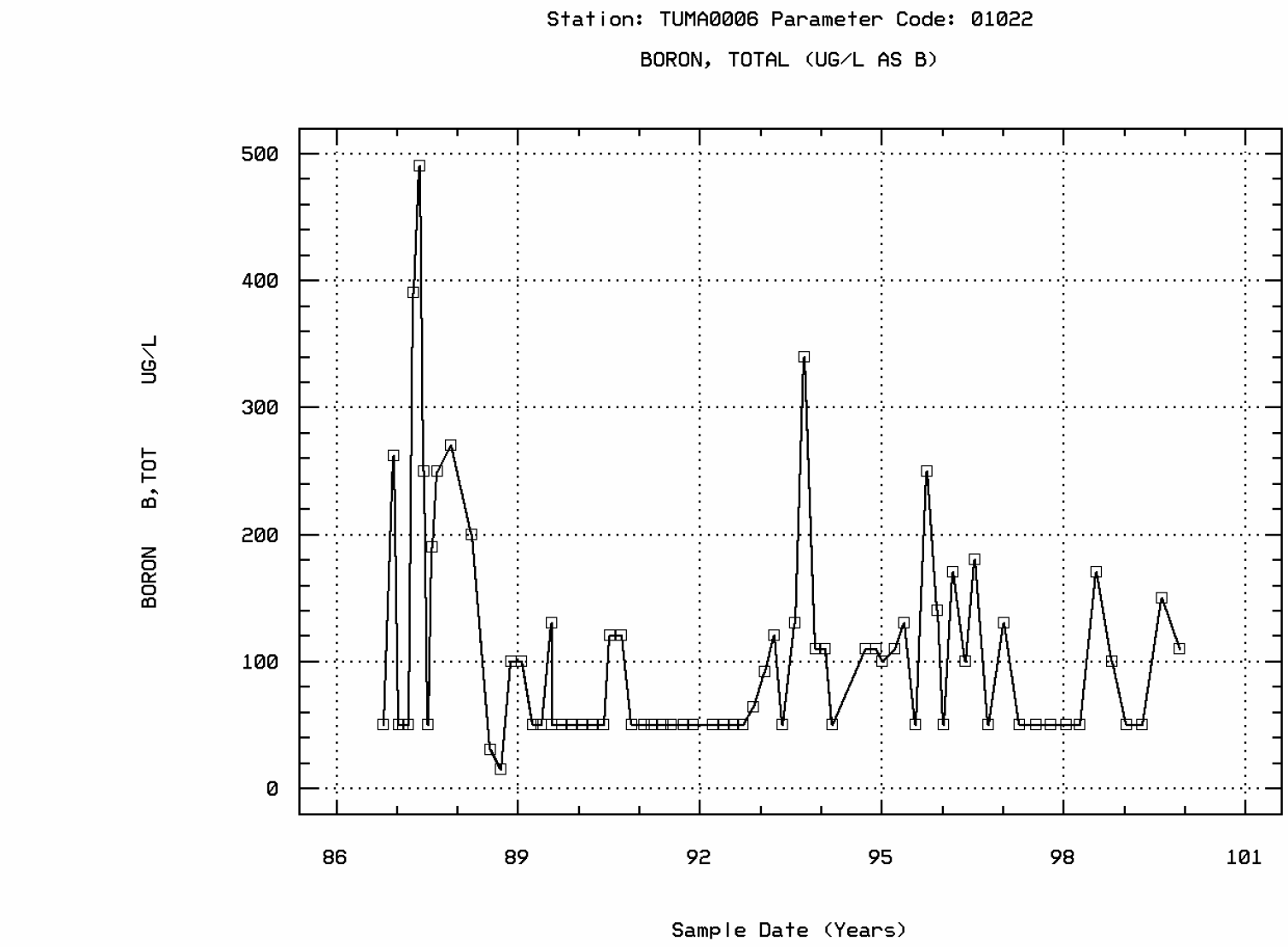
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



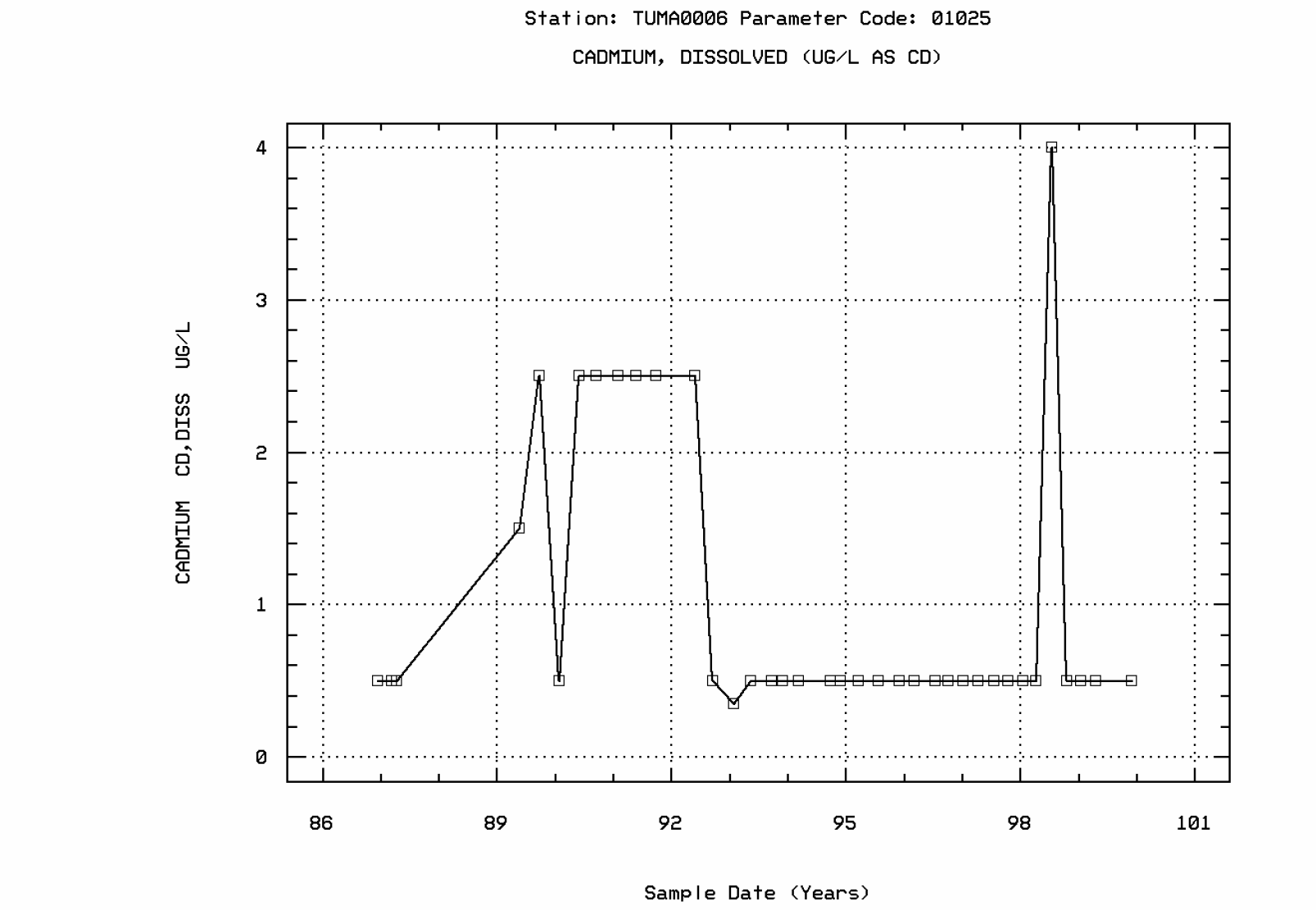
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



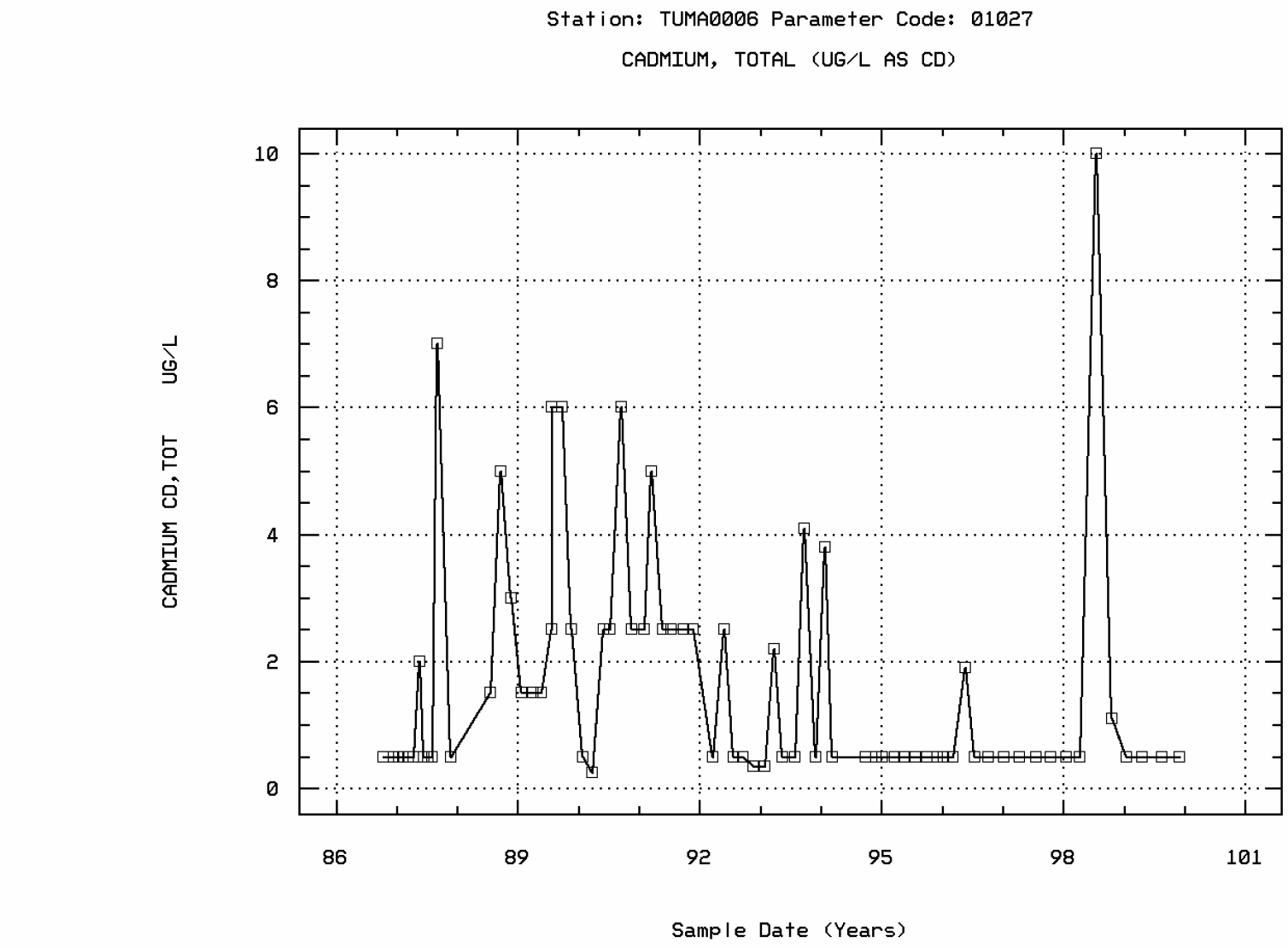
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



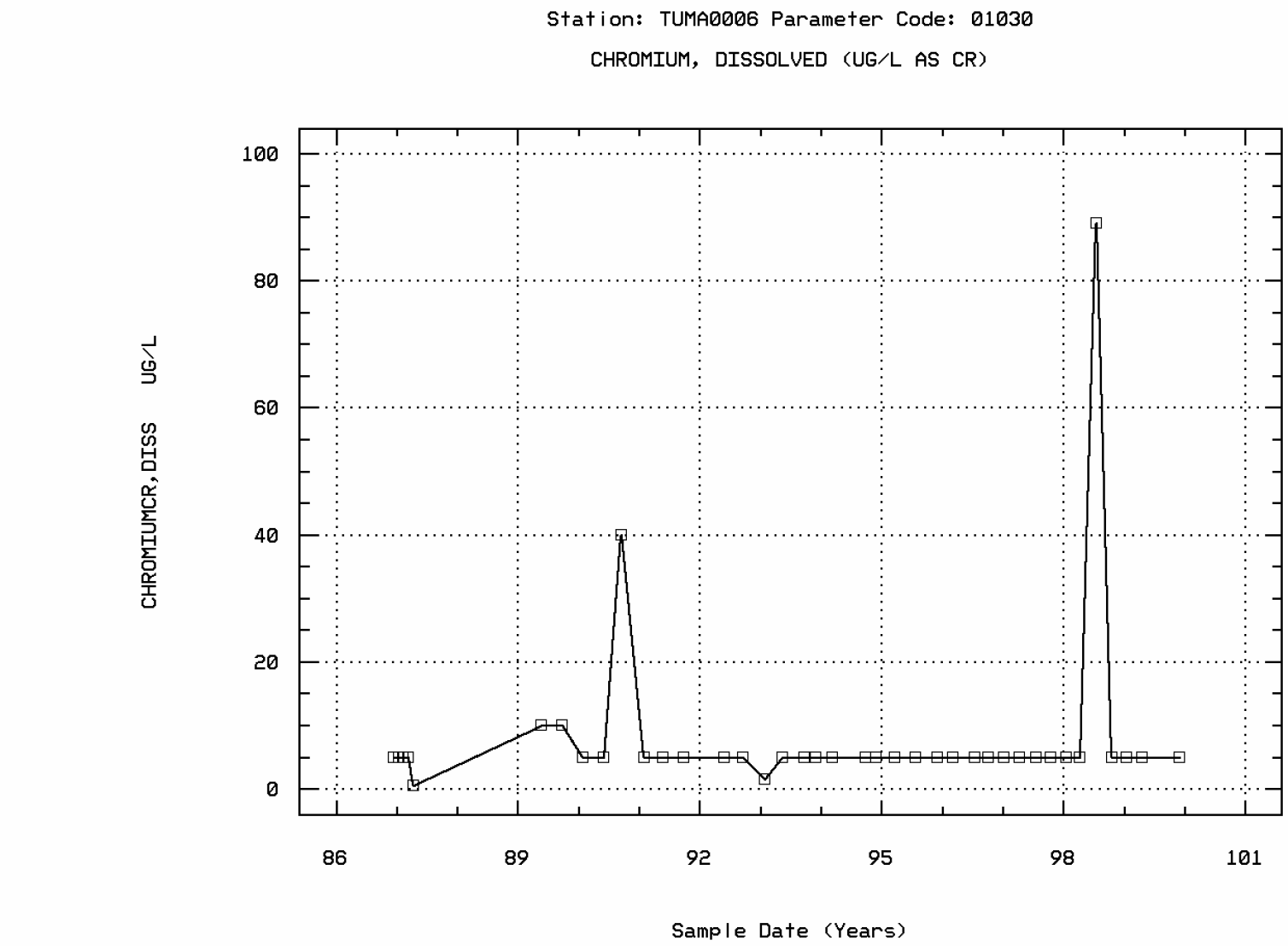
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



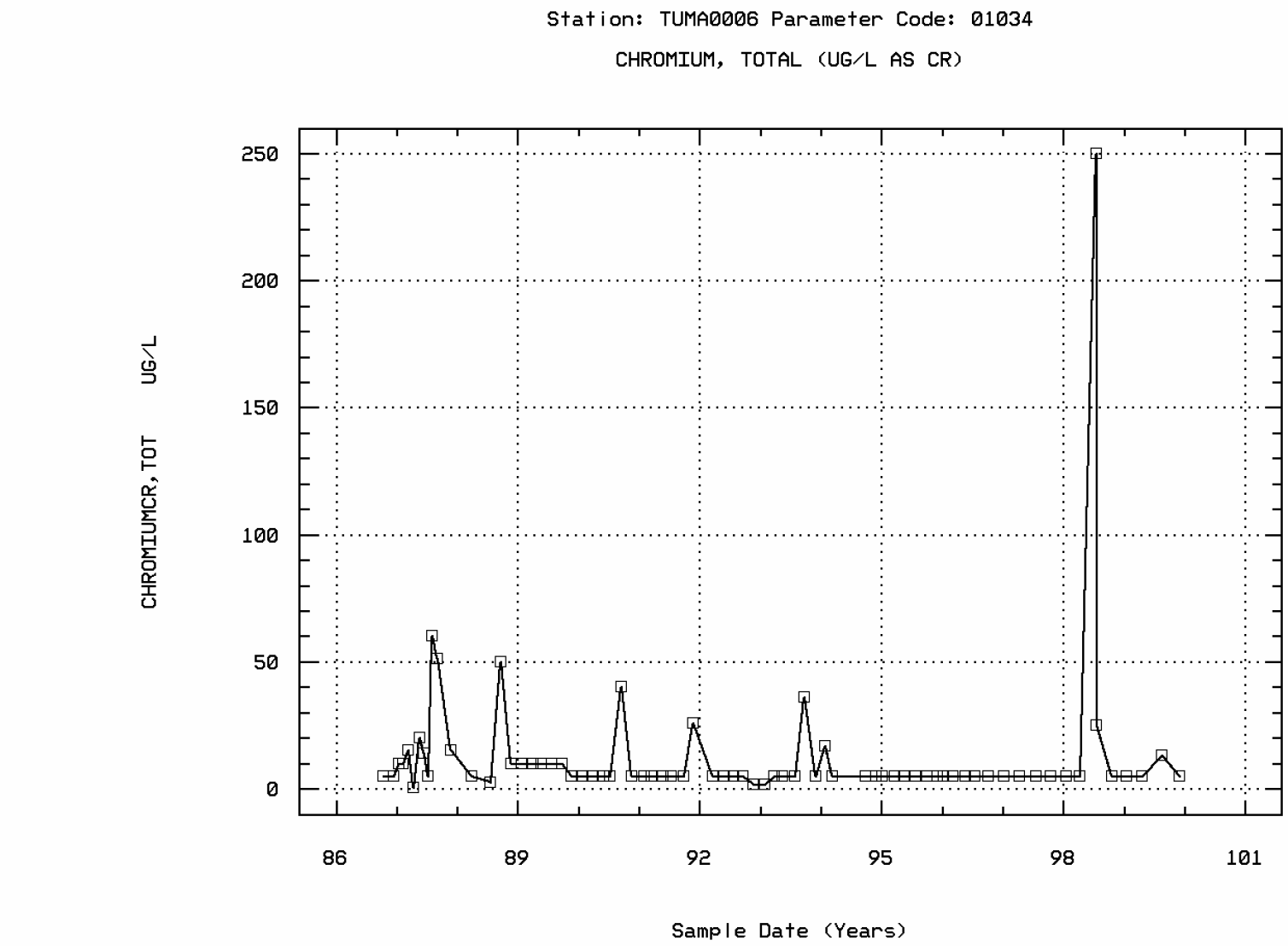
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



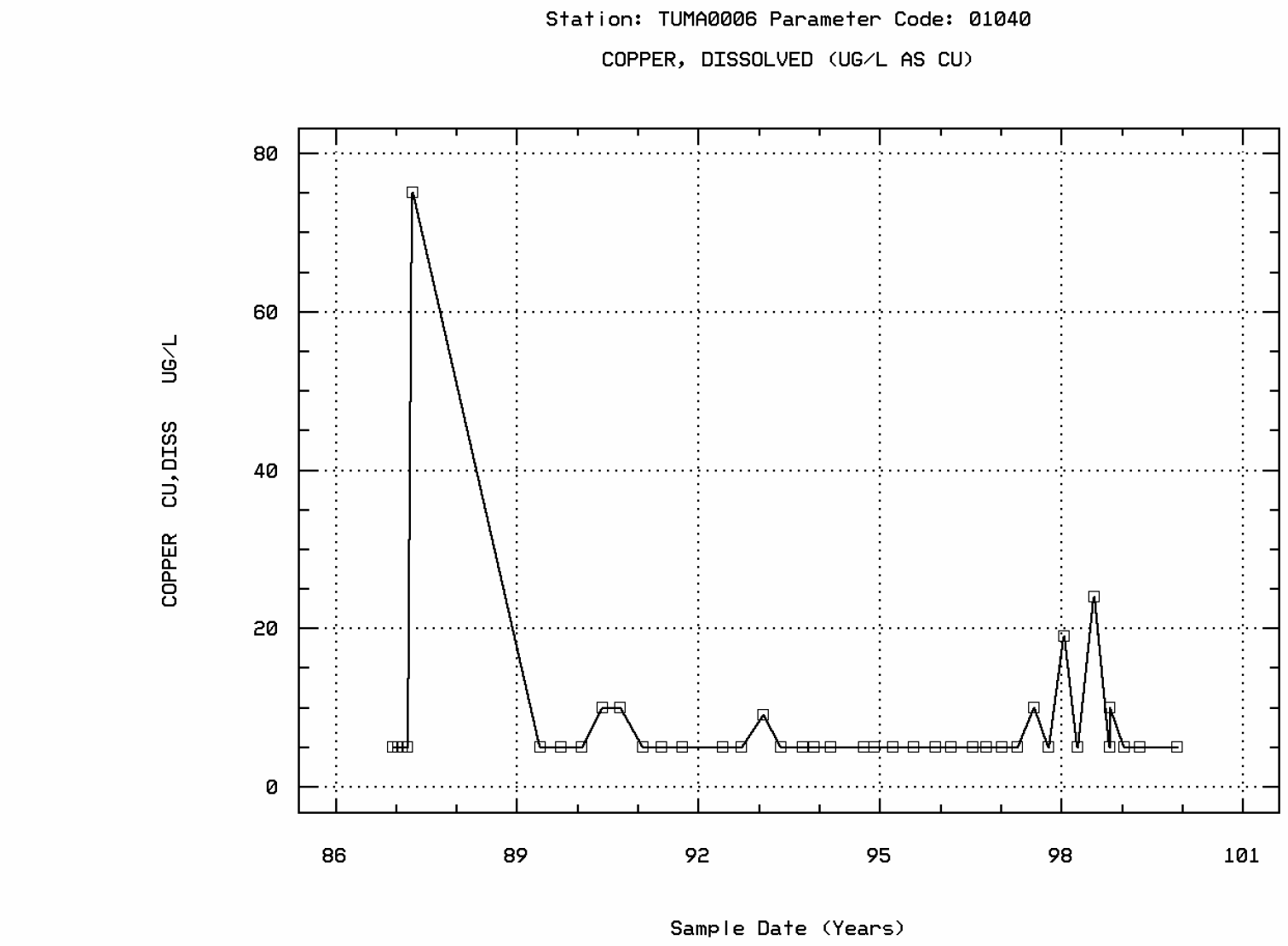
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



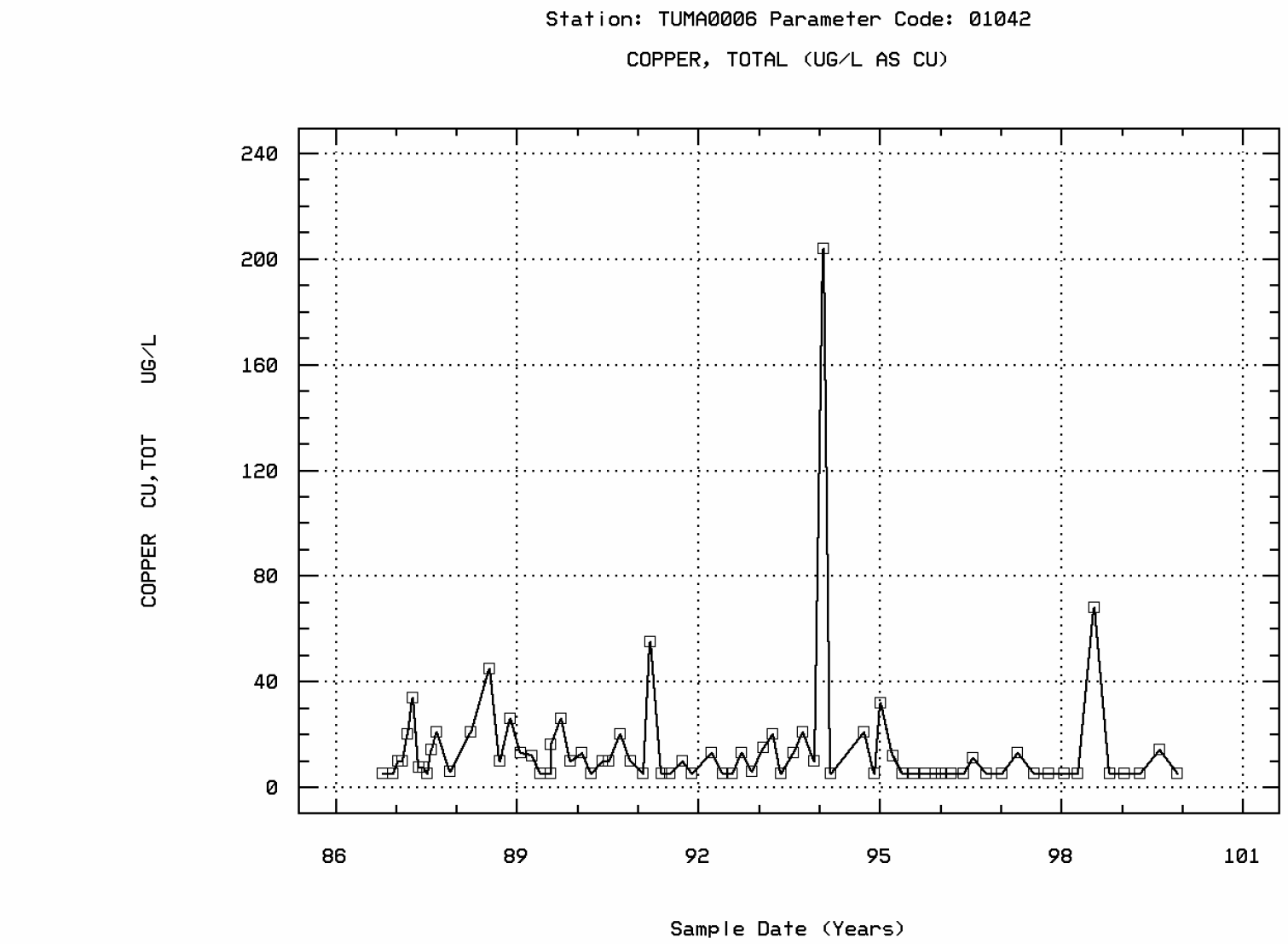
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



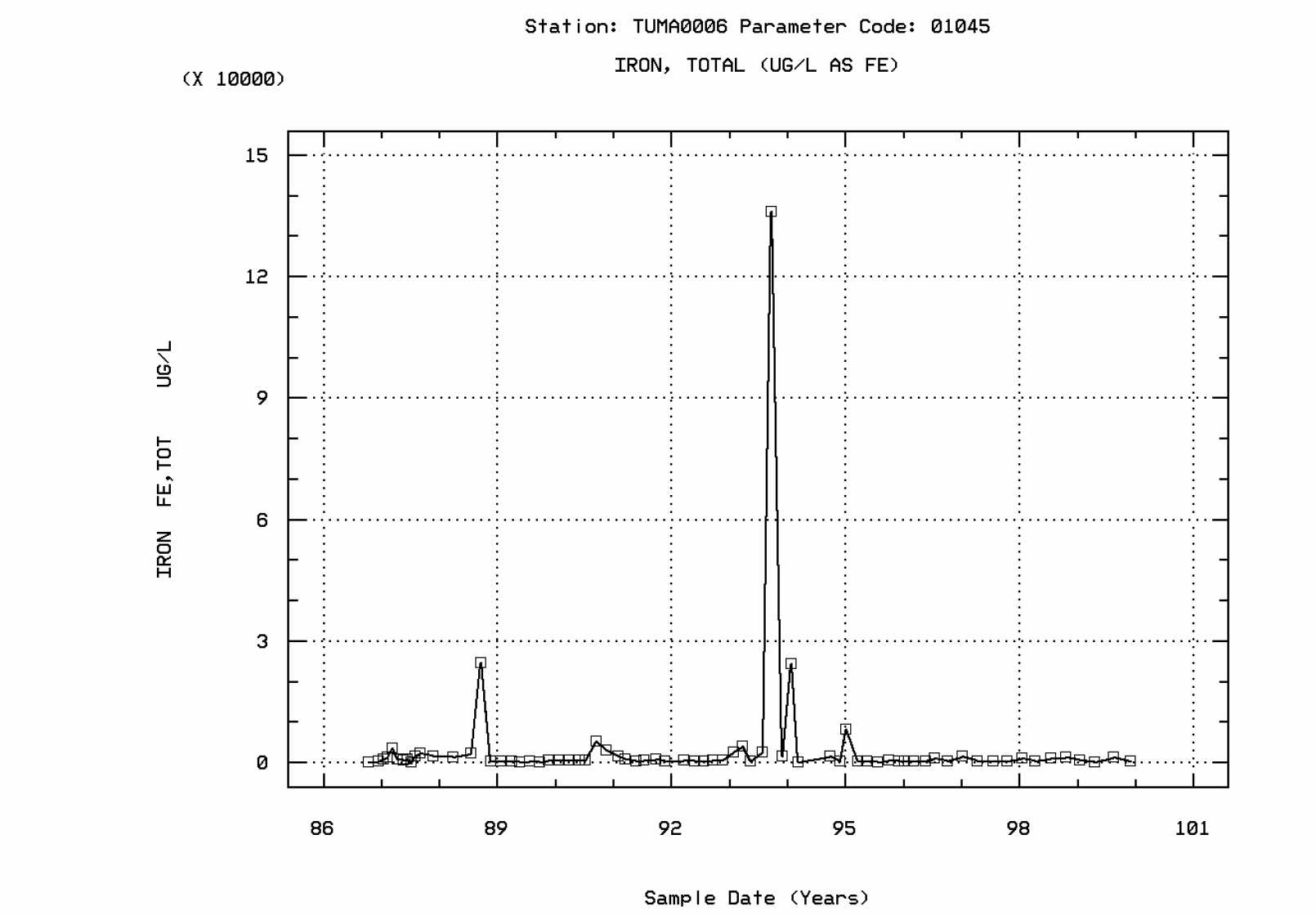
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



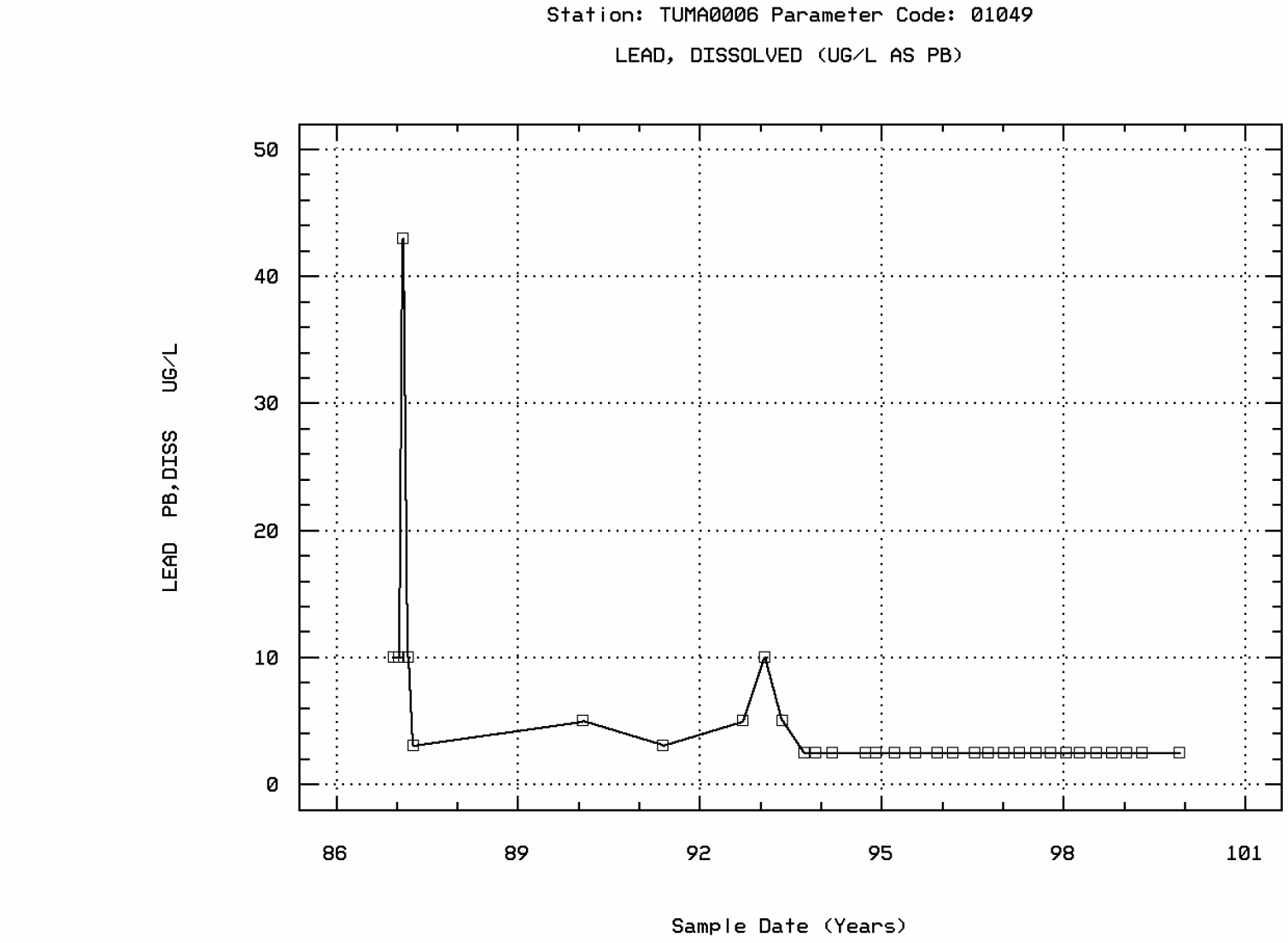
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



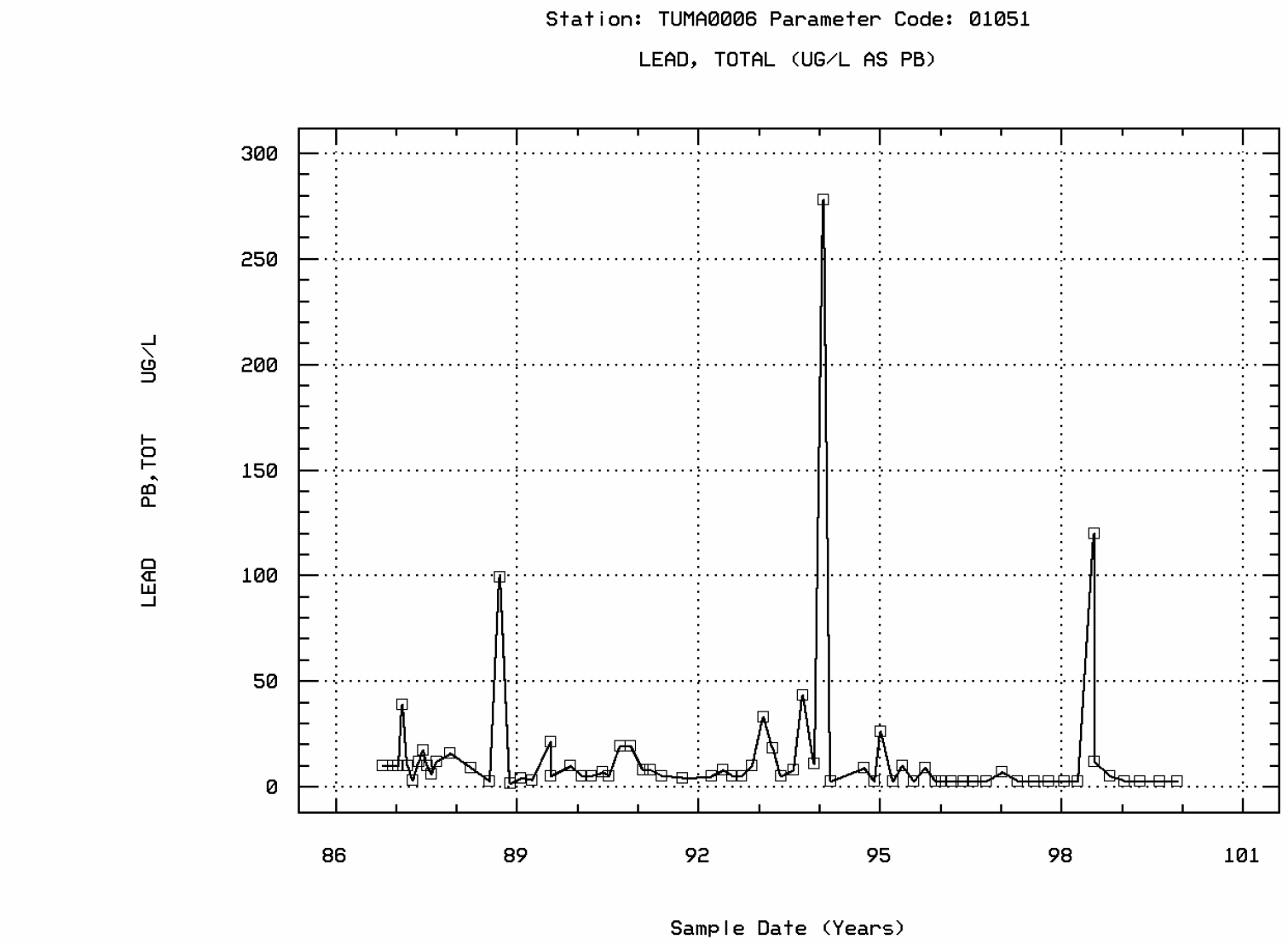
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



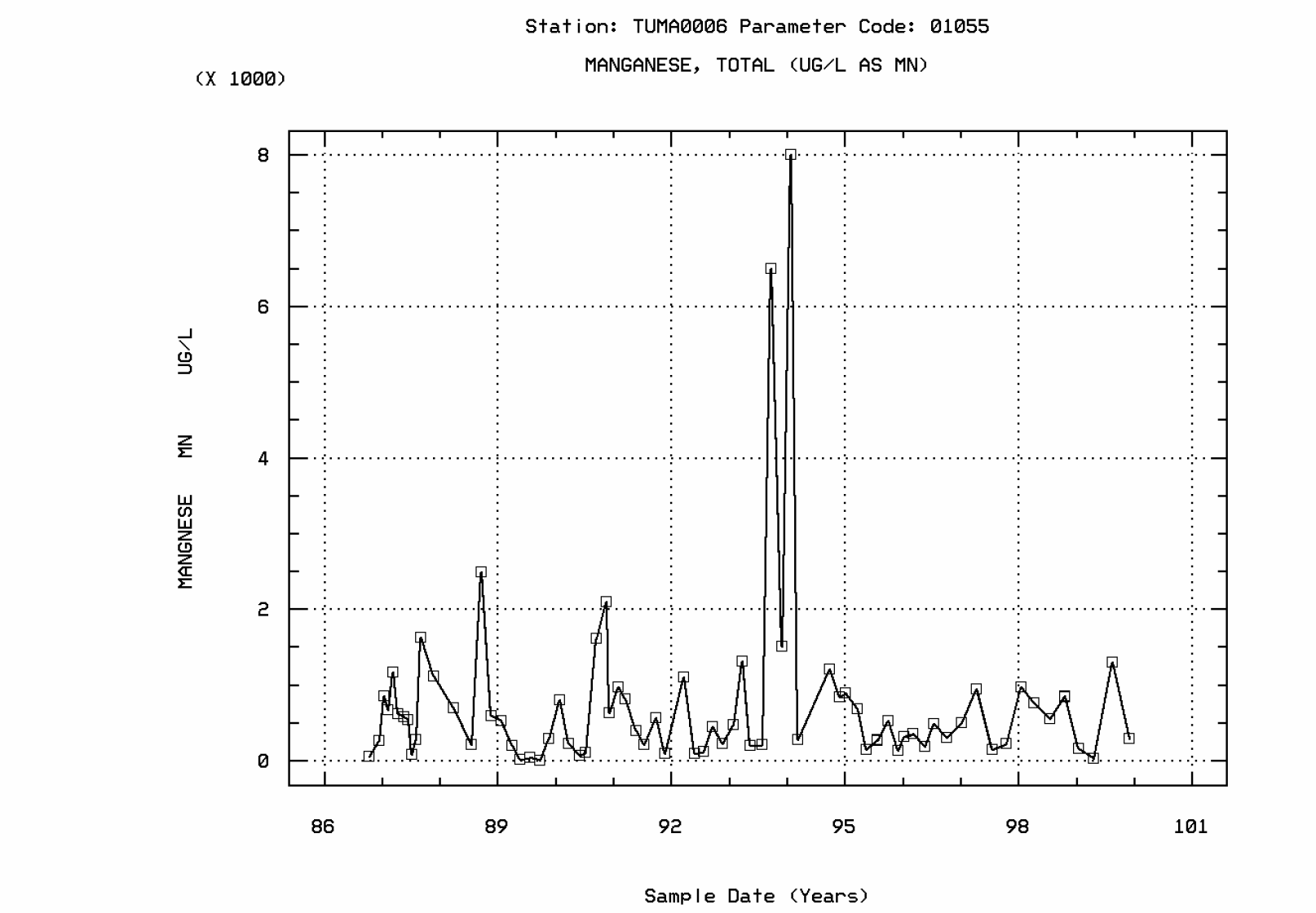
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



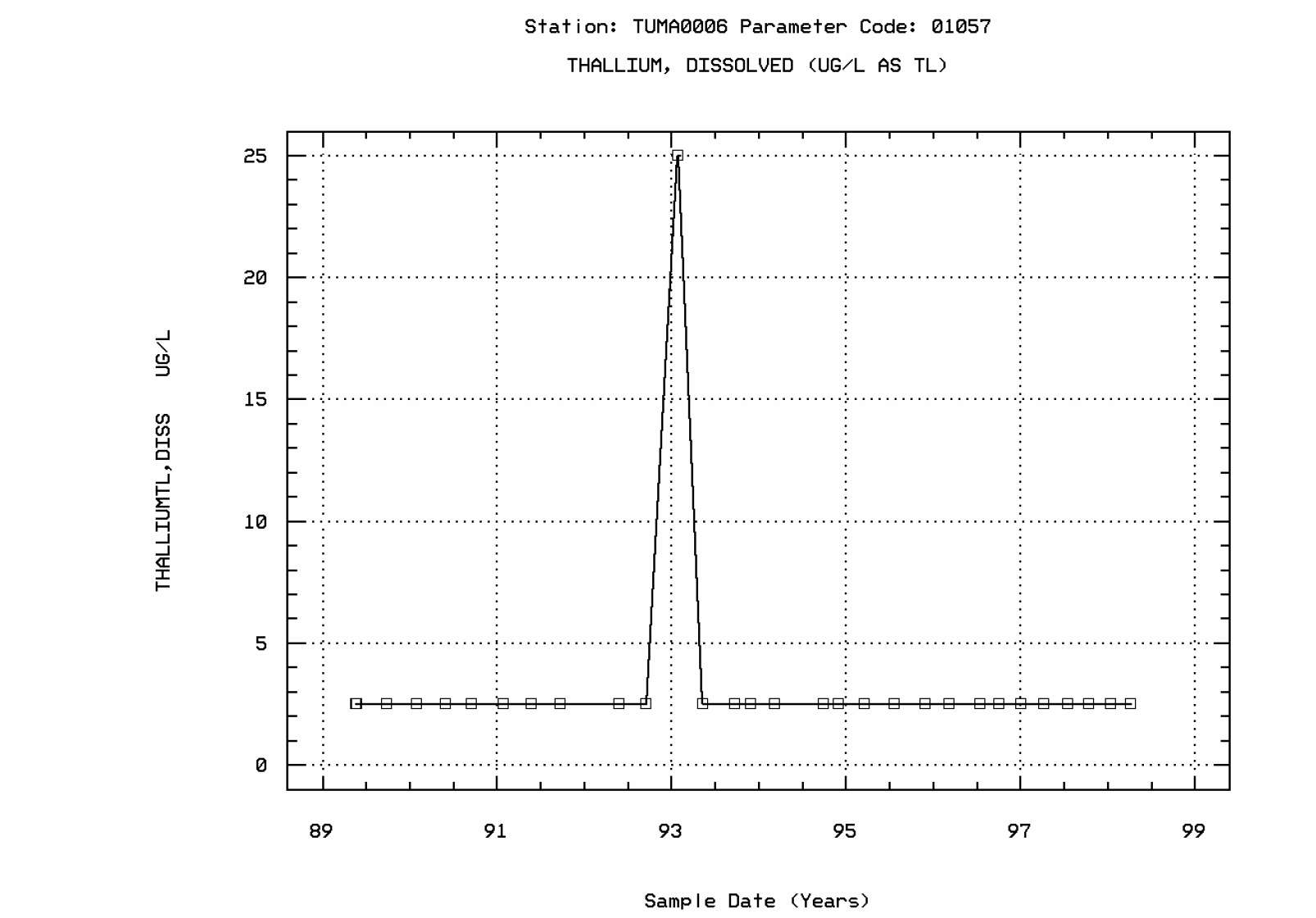
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



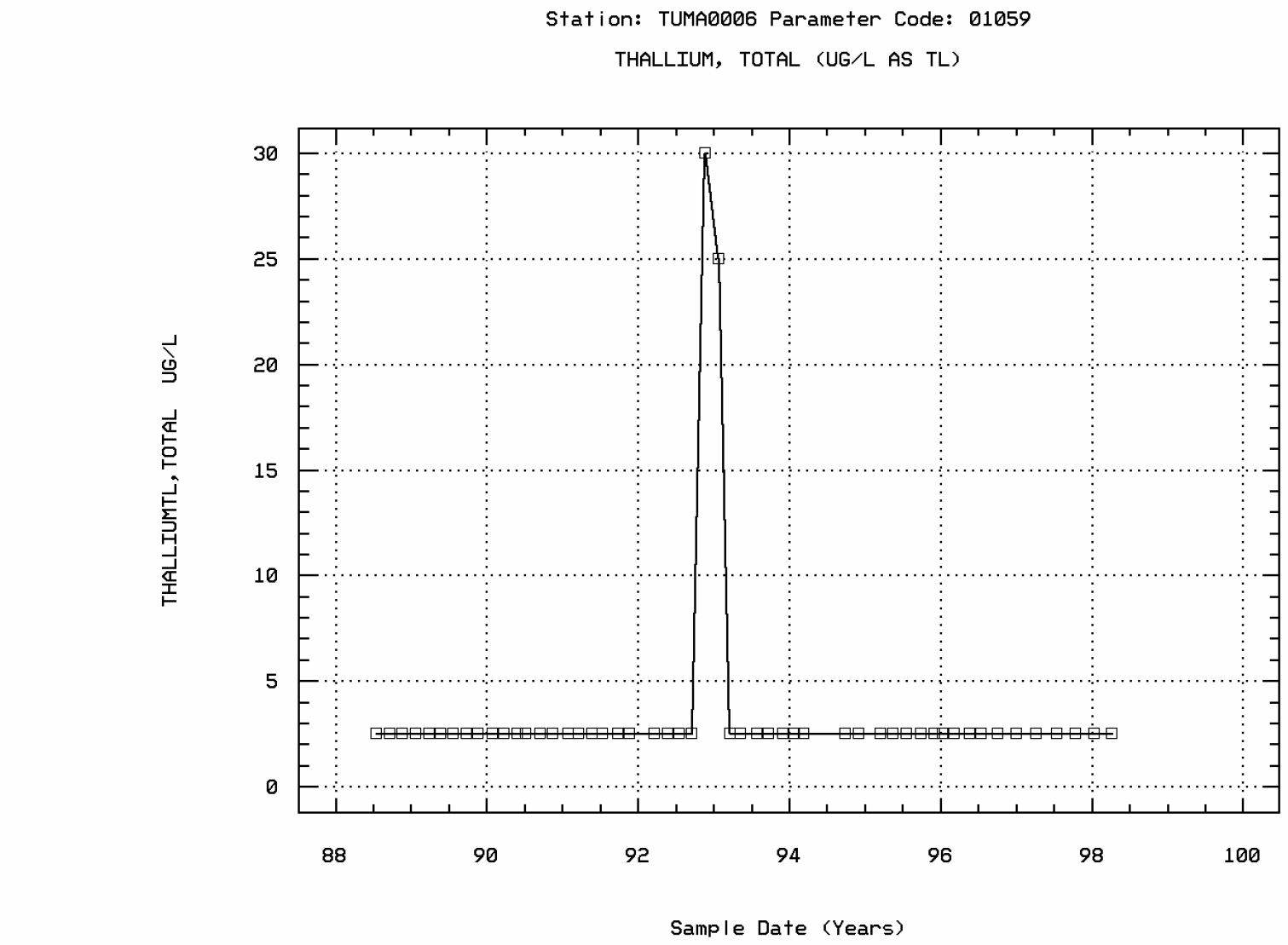
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



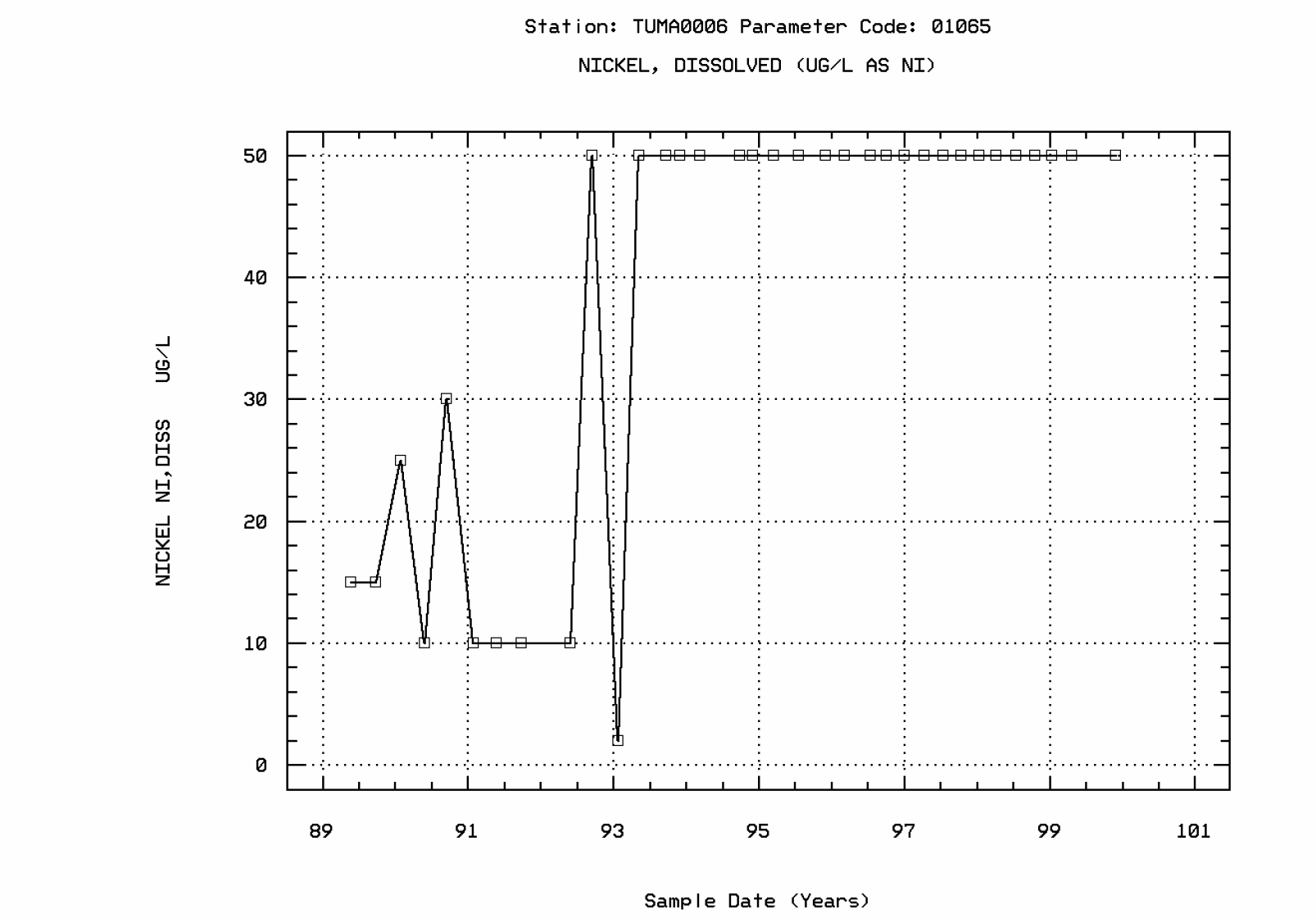
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



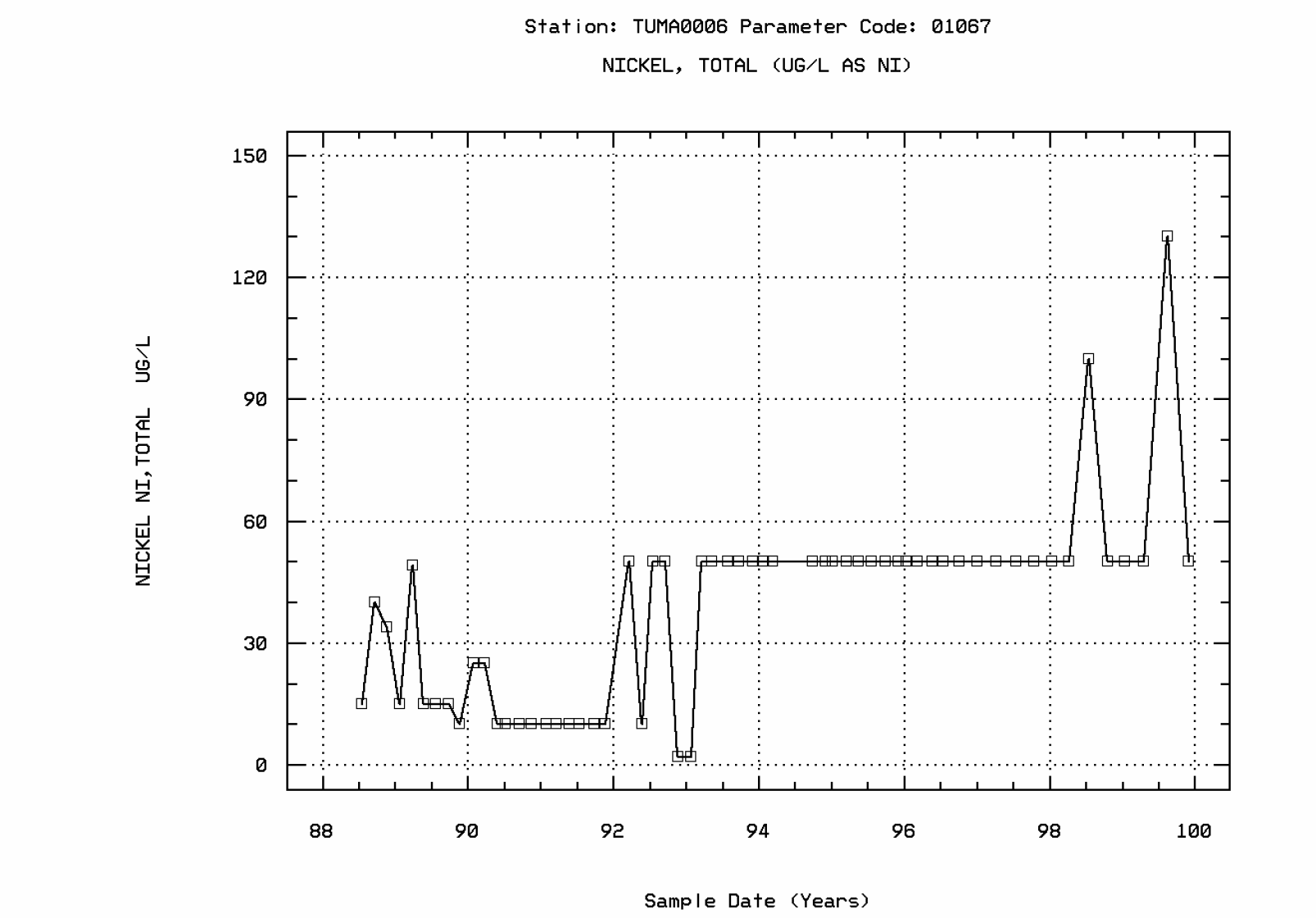
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



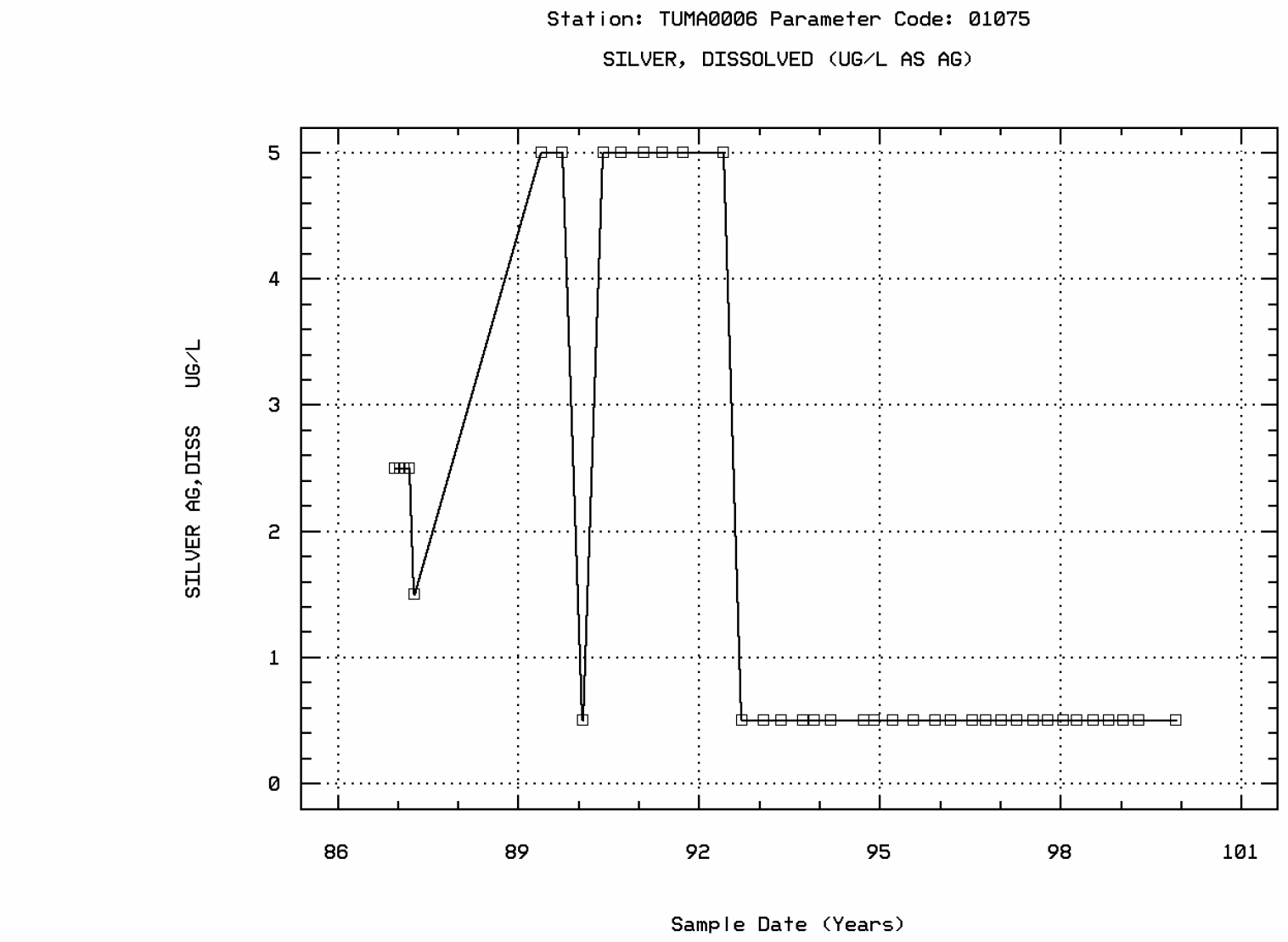
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



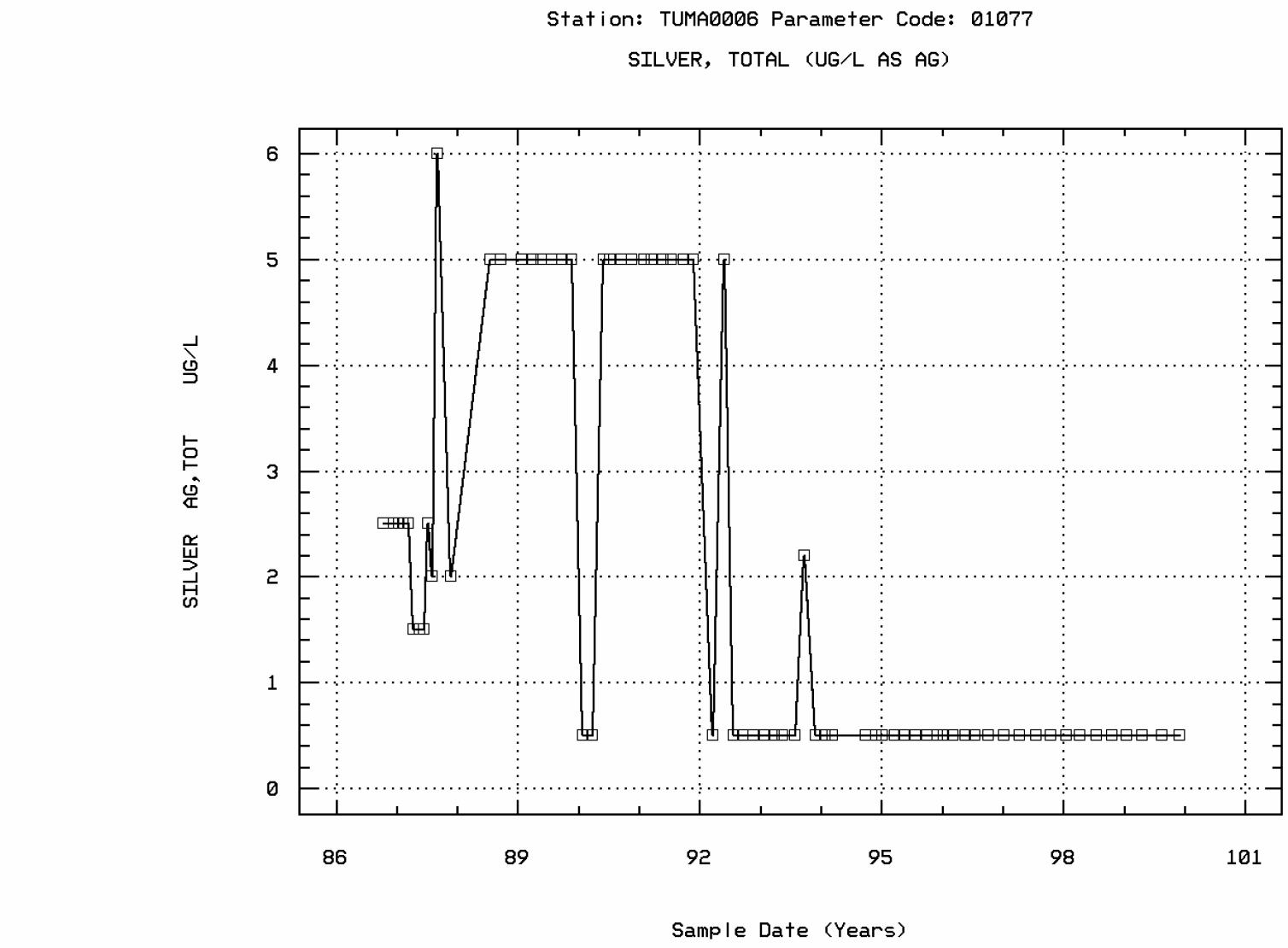
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



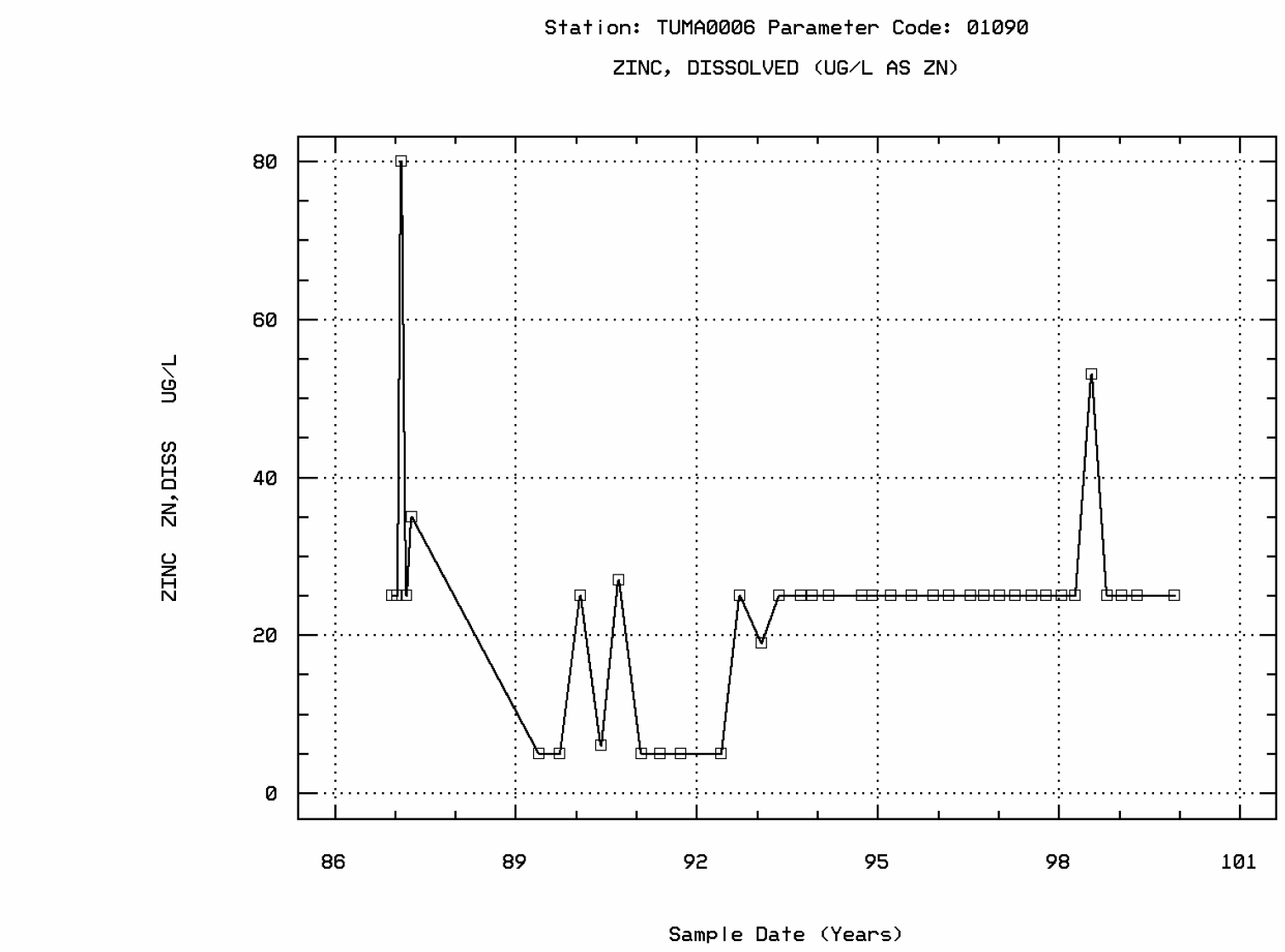
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



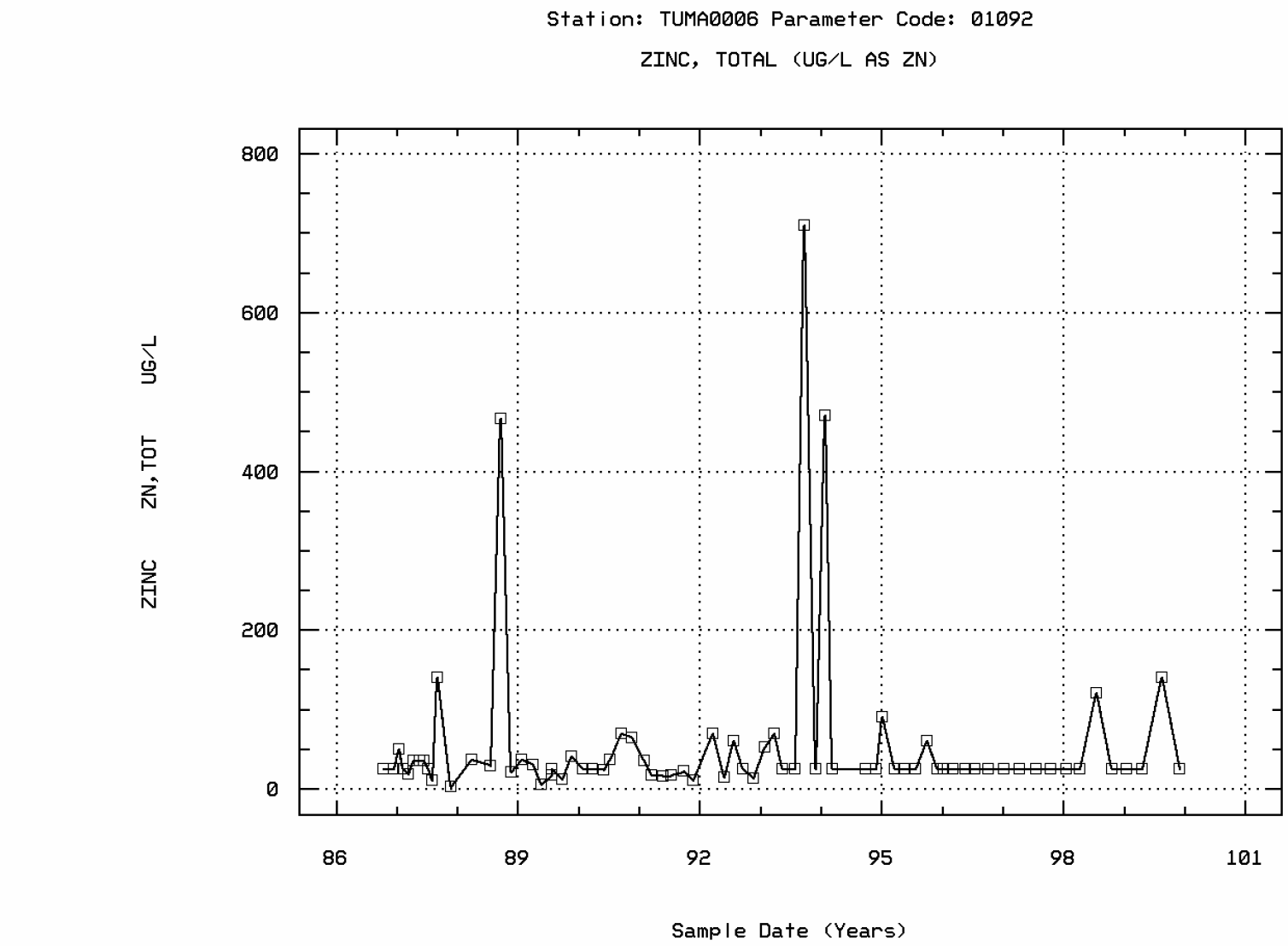
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



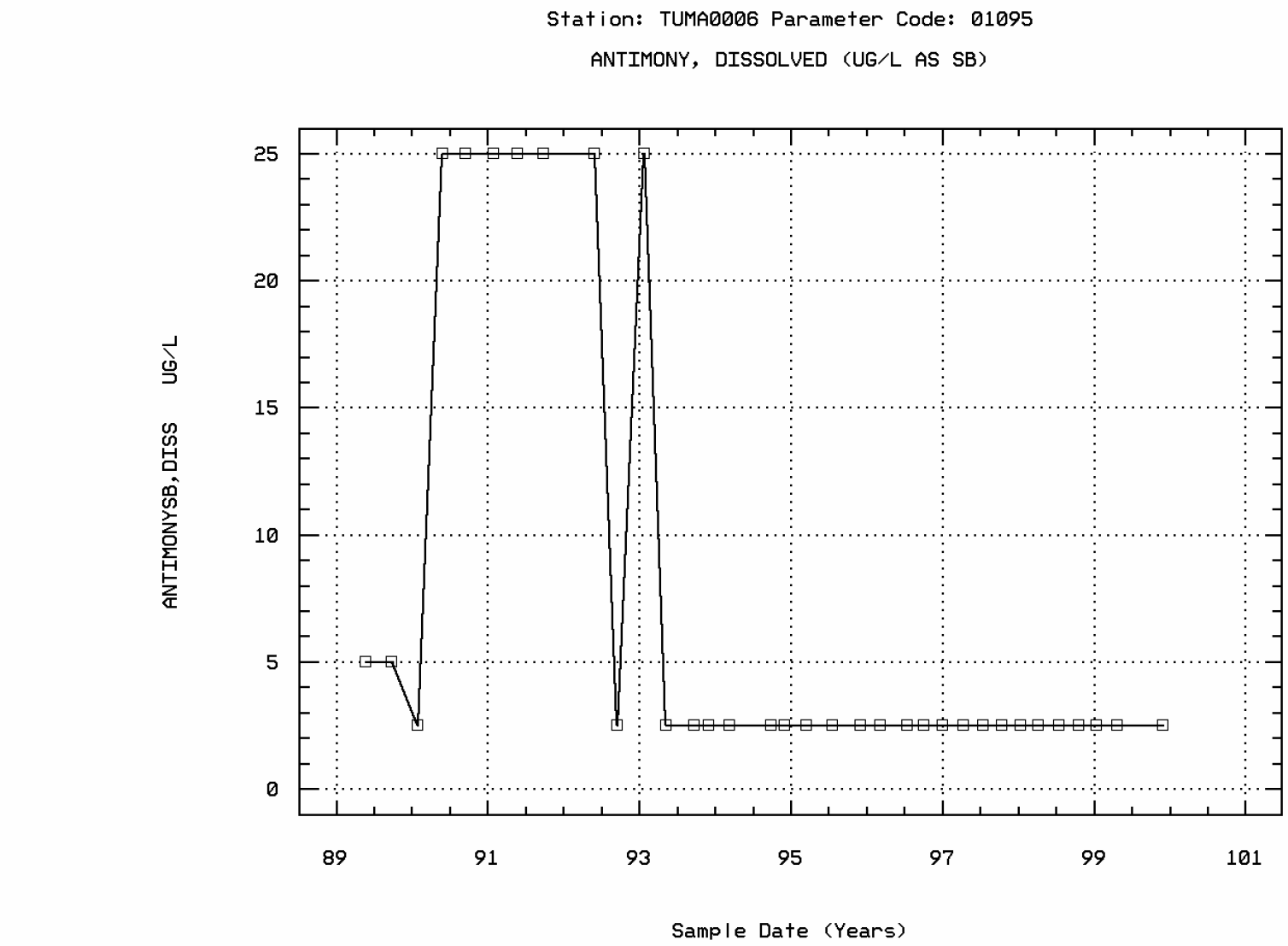
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



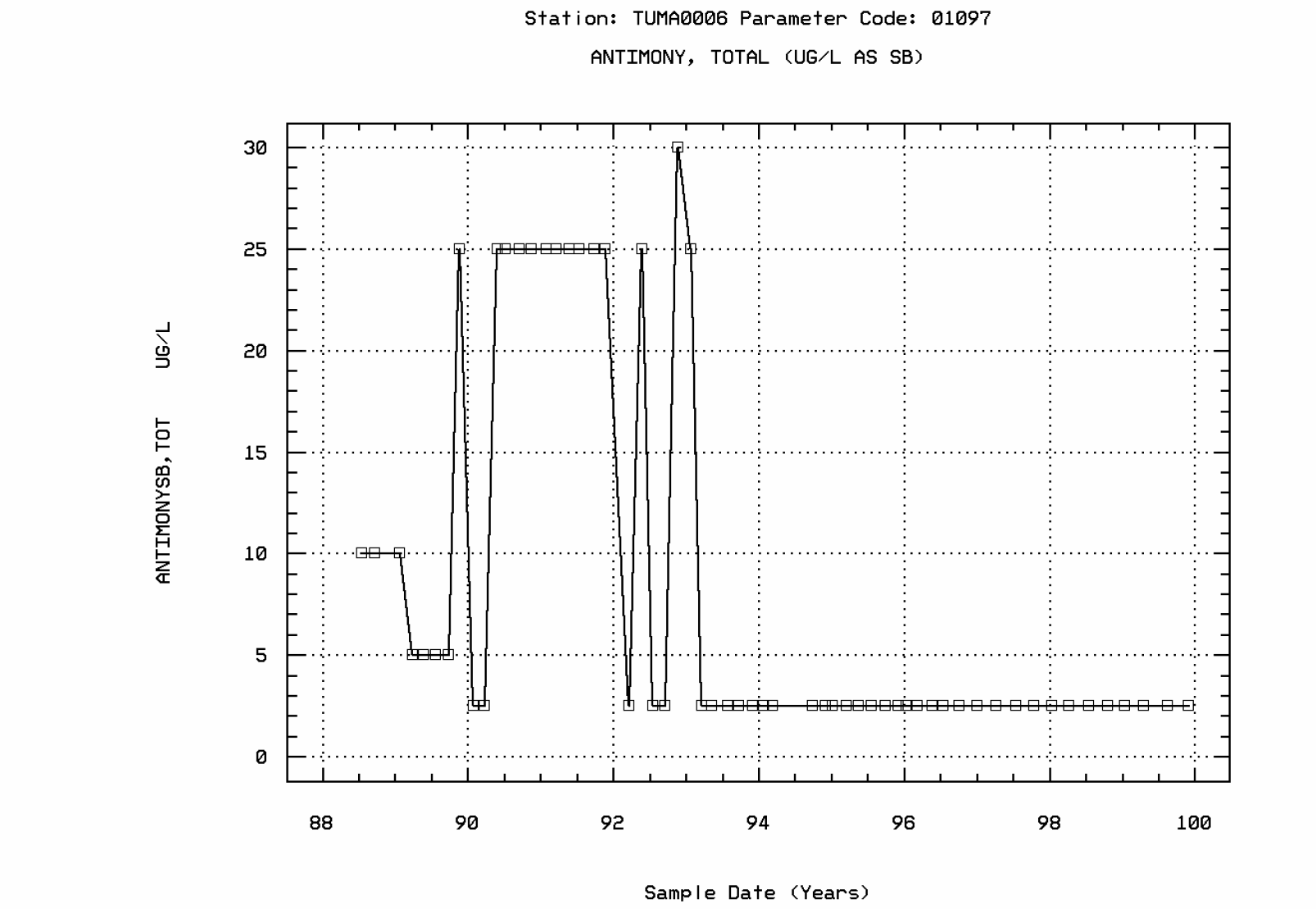
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



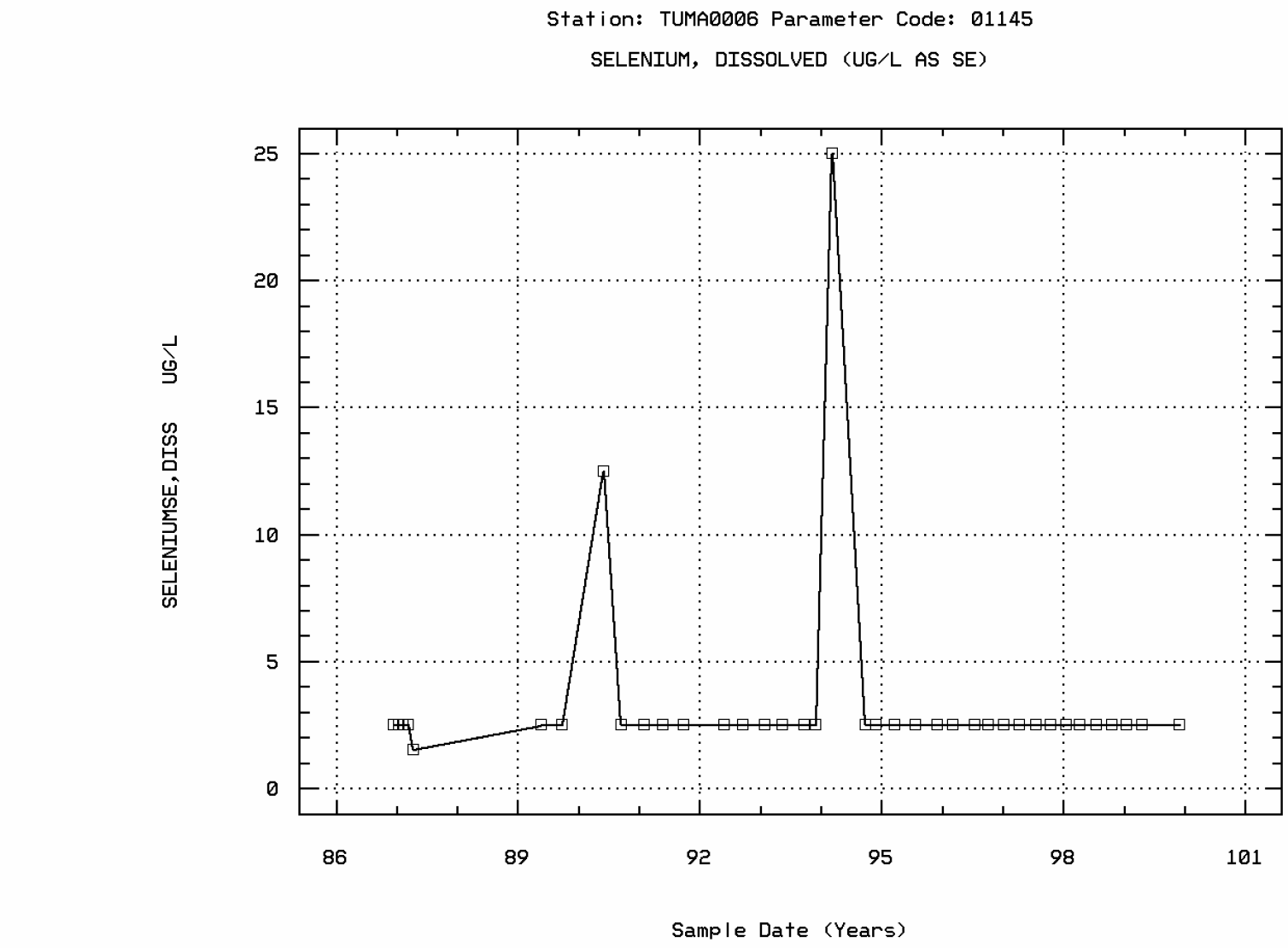
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



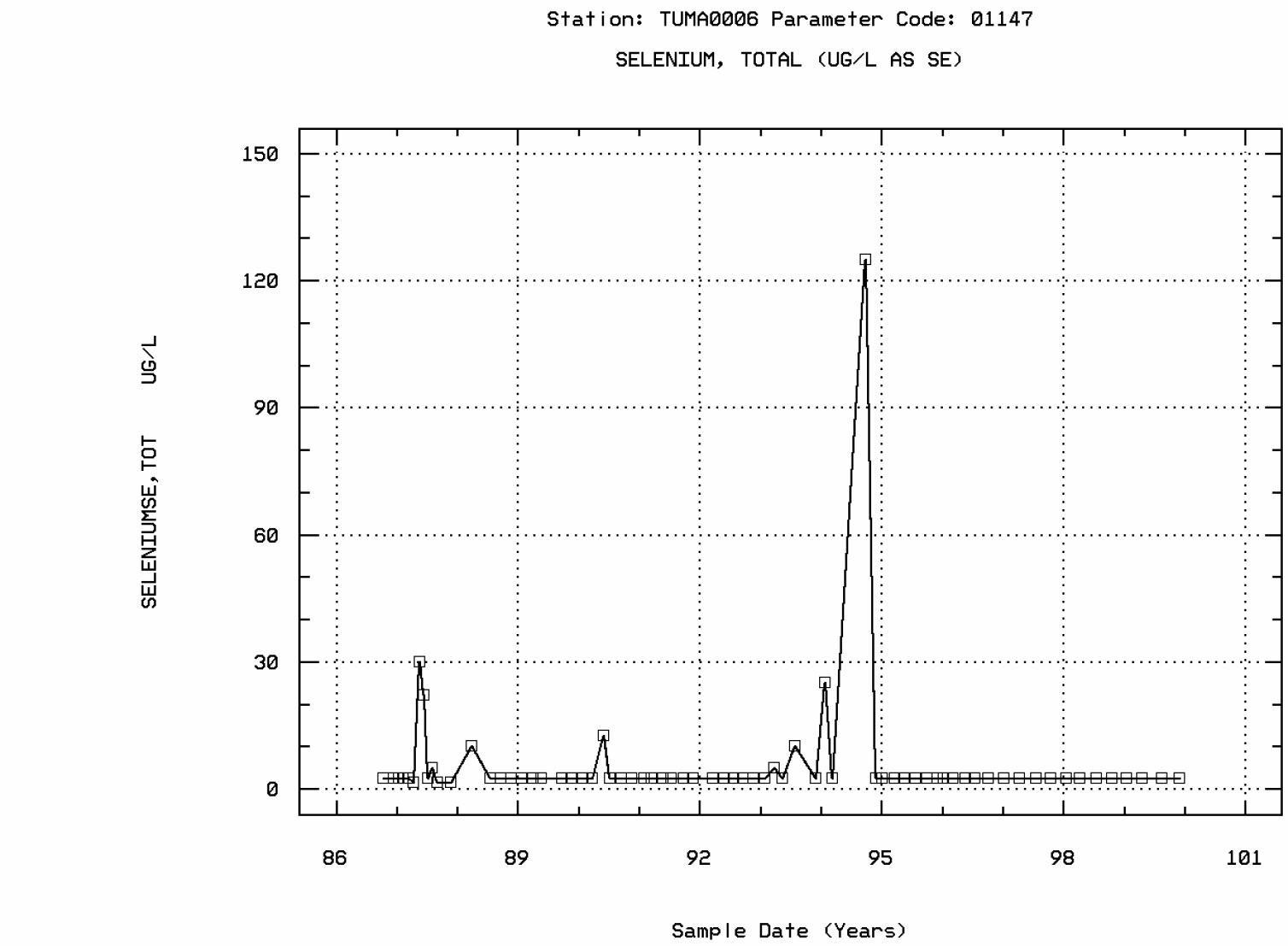
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



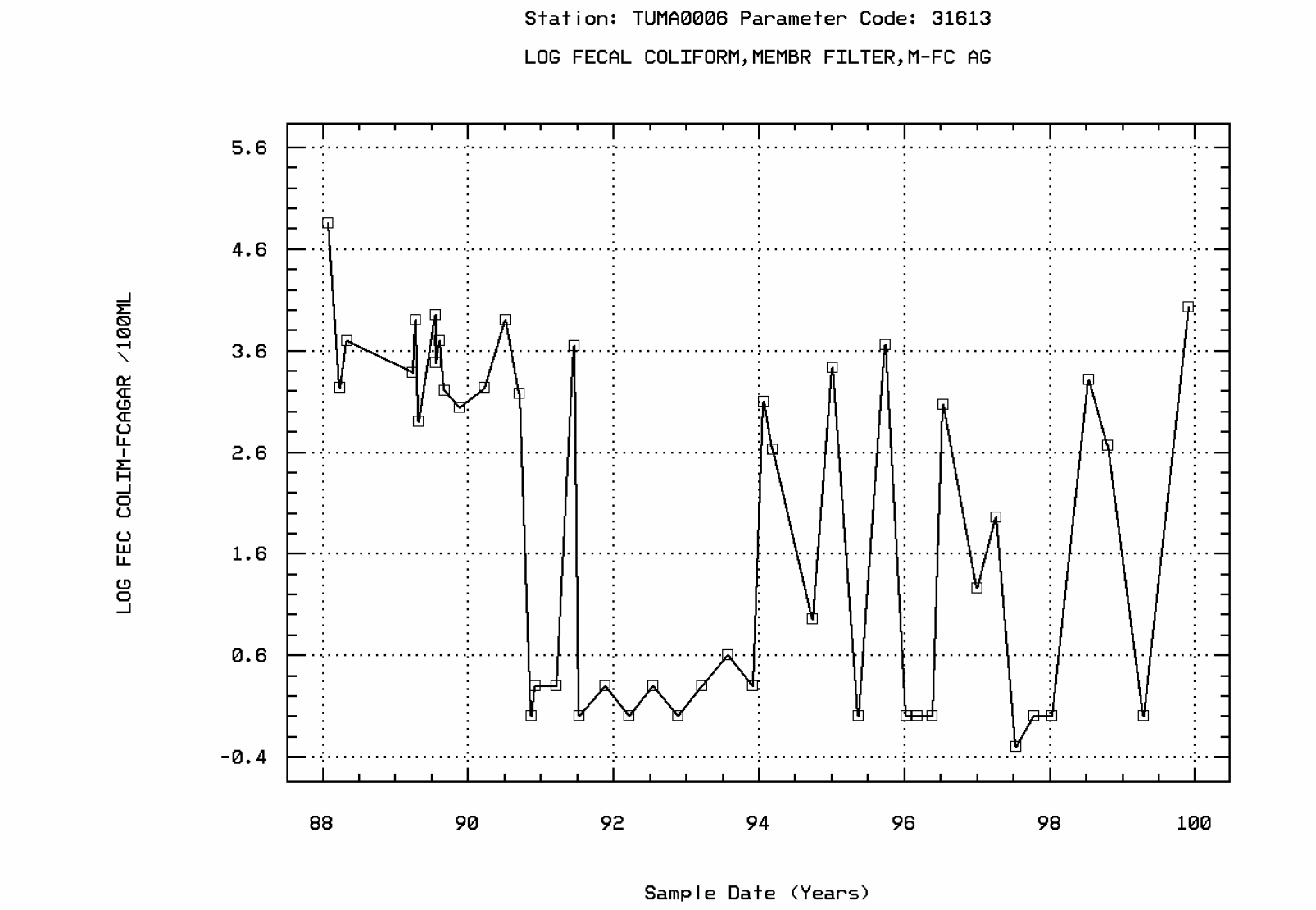
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



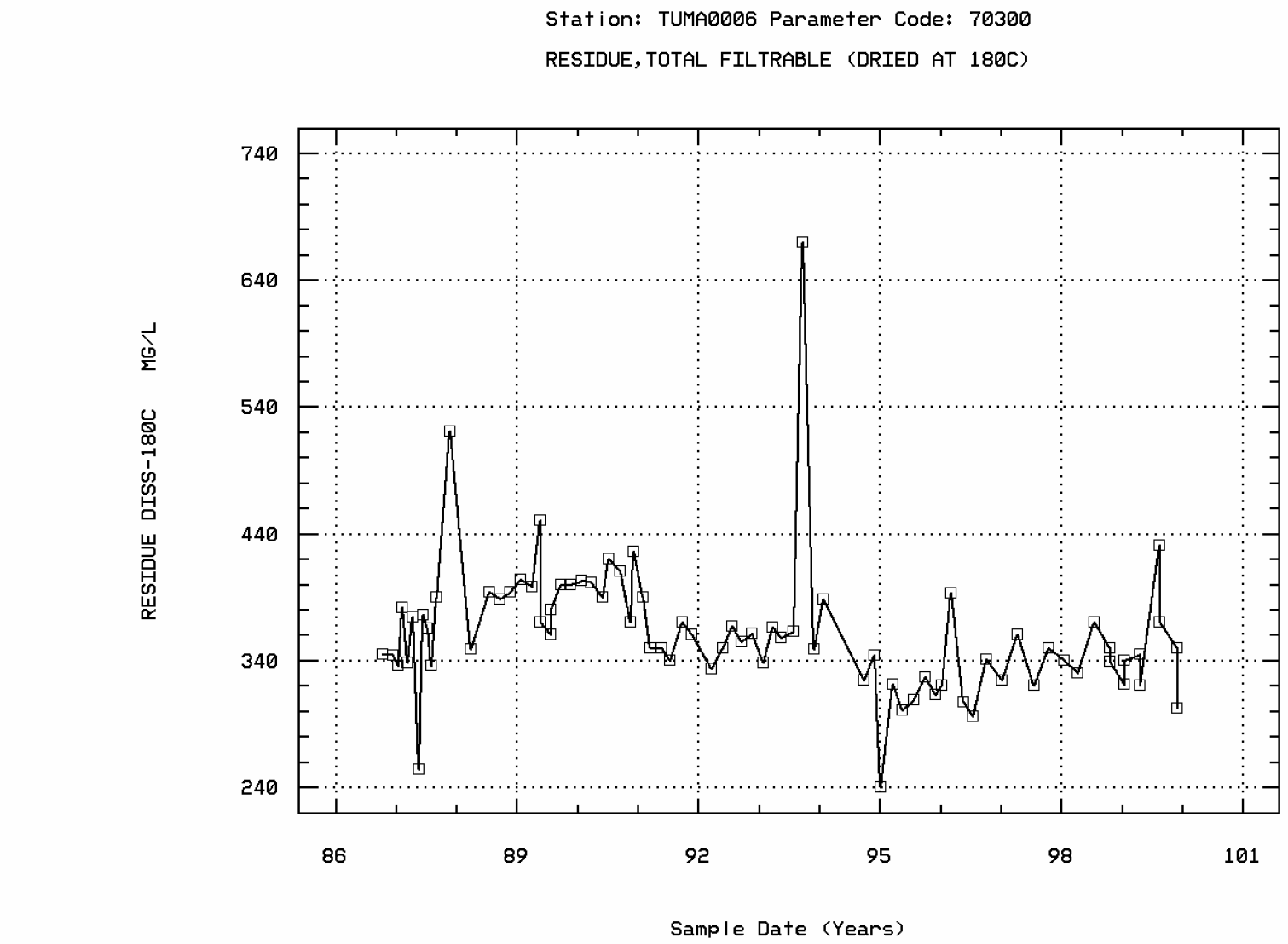
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



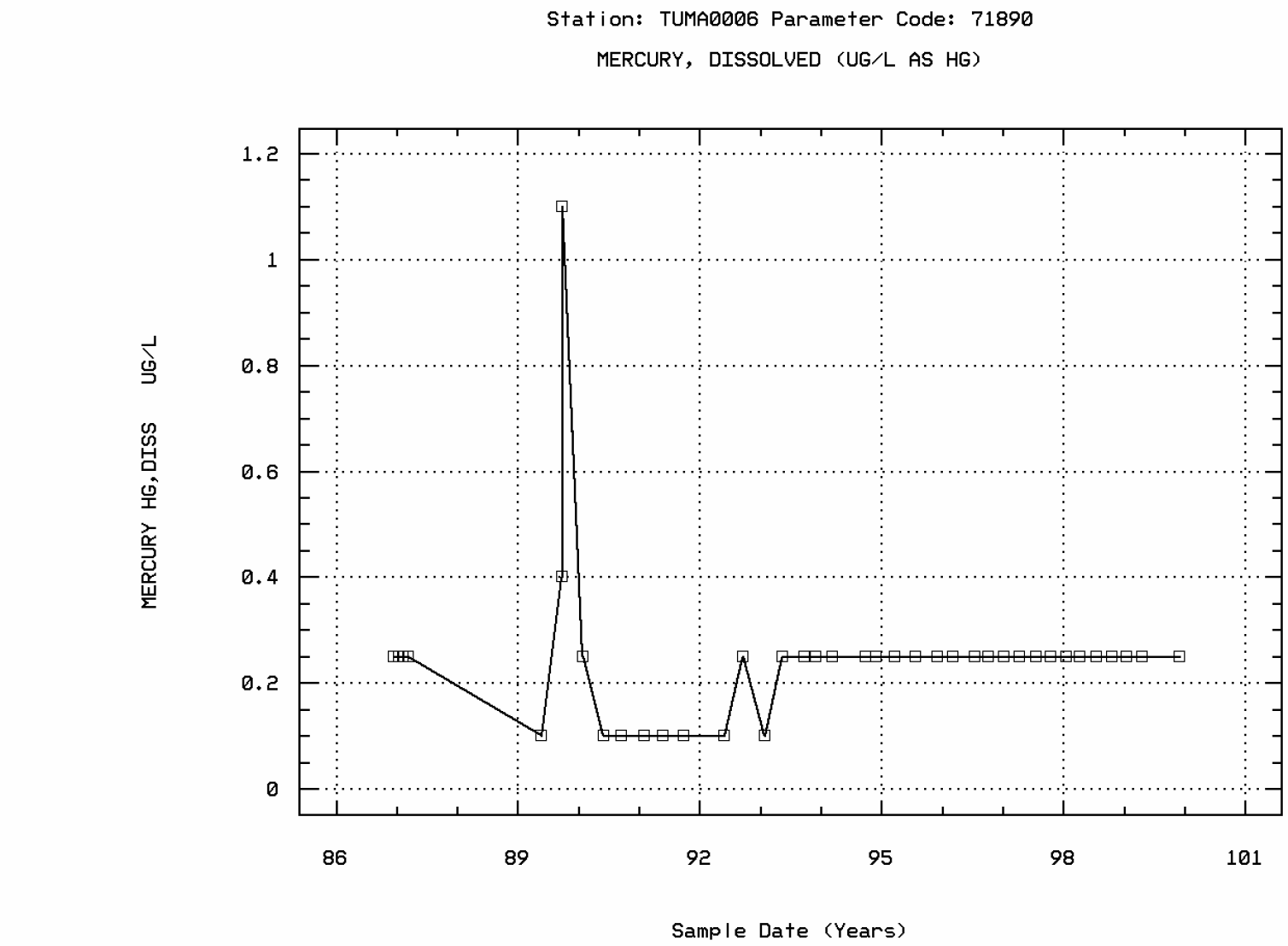
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



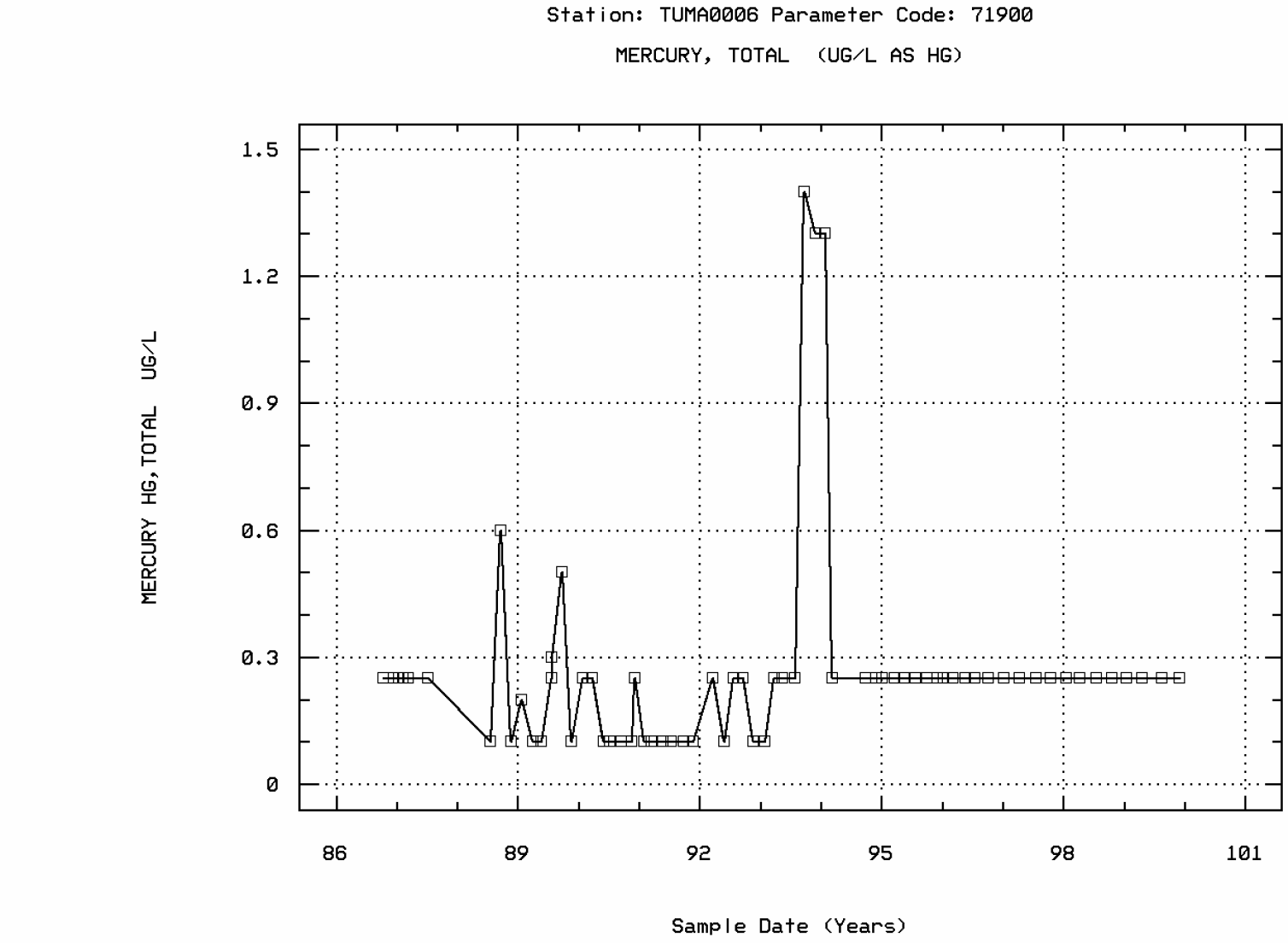
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



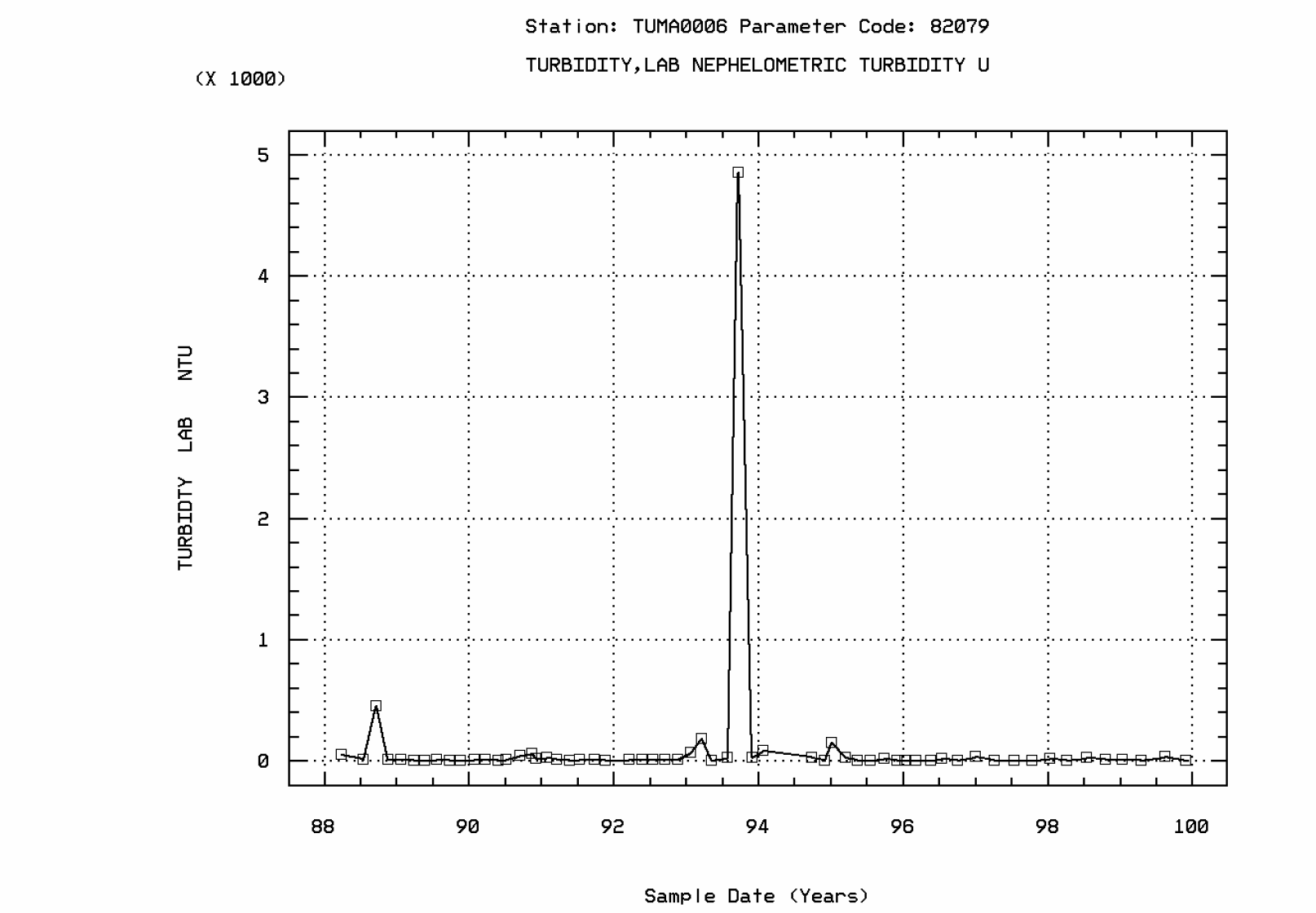
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



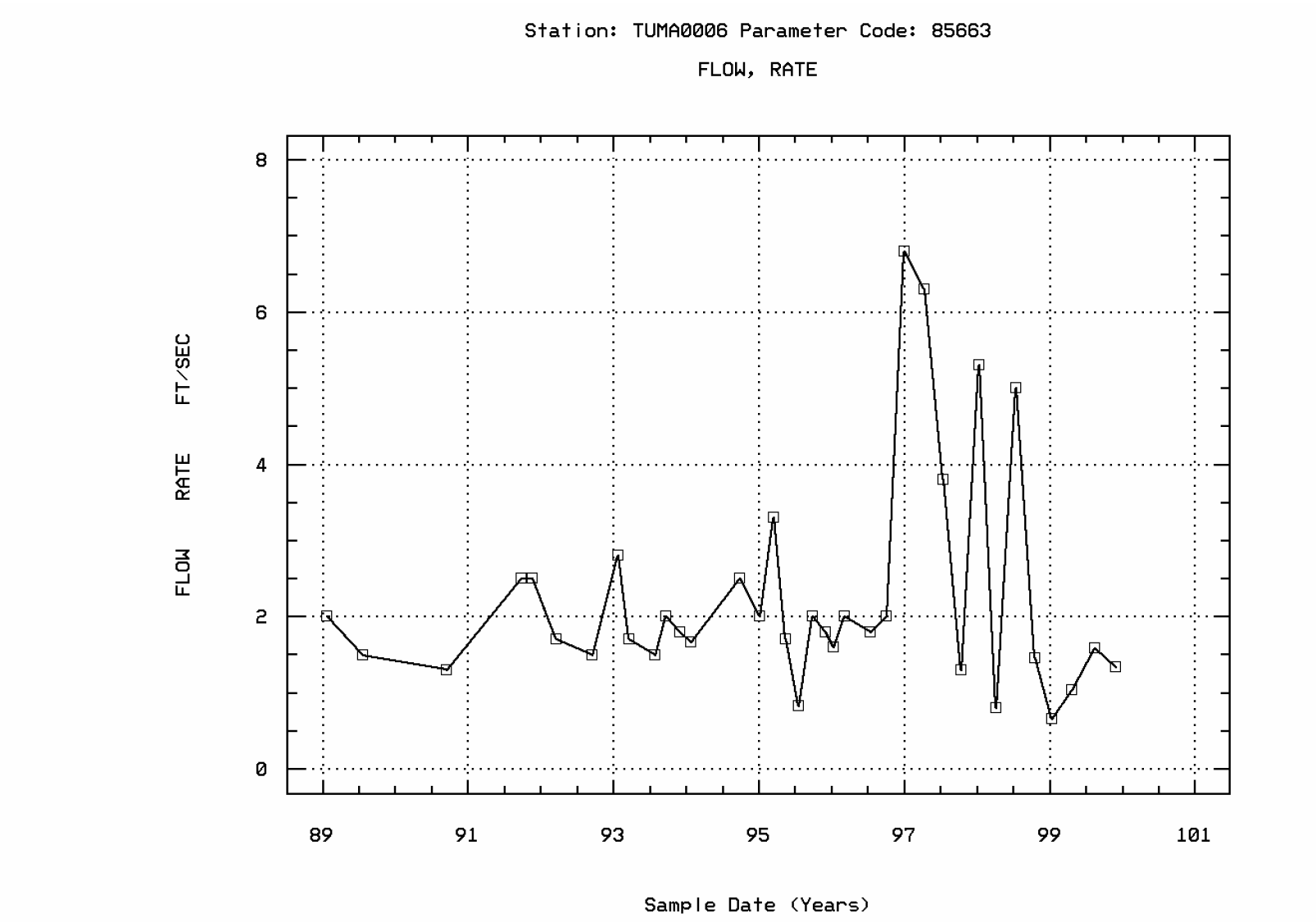
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE

Seasonal Analysis for Season #1: 7/05 to 10/10 - Station TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/24/89-11/29/99	17	14.	12.371	17.	3.	15.422	3.927	5.4	10.	15.	17.
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/15/86-11/29/99	23	23.86	23.703	28.	21.	4.139	2.034	21.24	22.	25.8	26.6
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/15/86-11/29/99	22	30.5	30.572	36.5	24.	11.696	3.42	24.9	27.975	34.	34.904
00064	DEPTH OF STREAM, MEAN (FT)	01/24/89-11/29/99	17	0.3	0.558	5.	0.04	1.325	1.151	0.072	0.22	0.4	1.4
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/15/86-11/29/99	22	519.5	530.409	674.	431.	3428.063	58.55	462.6	490.	563.25	633.4
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	26	547.	550.5	699.	439.	3839.62	61.965	442.7	512.	585.5	631.1
00300p	OXYGEN, DISSOLVED MG/L	12/16/86-11/29/99	22	6.73	6.38	8.49	4.19	1.576	1.256	4.327	5.323	7.18	8.038
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	12/16/86-11/29/99	22	93.35	90.068	117.6	55.5	349.188	18.687	58.74	74.425	103.65	115.82
00403p	PH, LAB, STANDARD UNITS SU	10/15/86-11/29/99	26	8.295	8.131	8.46	7.1	0.128	0.358	7.597	7.875	8.348	8.45
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/15/86-11/29/99	26	8.295	7.938	8.46	7.1	0.167	0.409	7.597	7.875	8.347	8.45
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	26	0.005	0.012	0.079	0.003	0.	0.016	0.004	0.005	0.013	0.025
00406p	PH, FIELD, STANDARD UNITS SU	10/15/86-11/29/99	22	8.06	8.096	8.8	7.62	0.092	0.304	7.686	7.837	8.28	8.544
00406p	CONVERTED PH, FIELD, STANDARD UNITS	10/15/86-11/29/99	22	8.059	8.005	8.8	7.62	0.101	0.318	7.686	7.837	8.28	8.544
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	22	0.009	0.01	0.024	0.002	0.	0.006	0.003	0.005	0.015	0.021
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/15/86-11/29/99	26	208.5	207.615	265.	164.	732.646	27.067	169.9	183.	230.	239.
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	10/15/86-11/29/99	22 ##	1.	1.309	4.3	0.5	1.056	1.028	0.5	0.5	1.25	3.2
00440p	BICARBONATE ION (MG/L AS HCO3)	10/15/86-11/29/99	26	222.	230.692	283.	194.	868.142	29.464	195.7	207.5	245.5	280.
00445p	CARBONATE ION (MG/L AS CO3)	10/15/86-11/29/99	22 ##	1.	1.945	8.	0.5	3.96	1.99	0.5	0.875	2.825	5.14
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10/15/86-11/29/99	26	23.	64.385	574.	2.	12924.566	113.686	2.	5.	98.75	140.
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/15/86-11/29/99	26	0.615	3.174	19.	0.1	28.124	5.303	0.228	0.435	3.115	12.7
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/15/86-11/29/99	25	2.54	2.512	4.84	0.1	2.034	1.426	0.41	1.36	3.89	4.446
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	10/15/86-11/29/99	26	0.56	1.536	6.82	0.05	3.097	1.76	0.284	0.4	2.4	4.9
00916p	CALCIUM, TOTAL (MG/L AS CA)	10/15/86-11/29/99	26	55.1	57.158	107.	24.	253.459	15.92	36.08	52.1	66.125	70.37
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	10/15/86-11/29/99	26	11.3	11.596	18.6	8.2	5.239	2.289	9.14	9.75	12.95	14.68
00929p	SODIUM, TOTAL (MG/L AS NA)	10/15/86-11/29/99	26	41.45	43.535	62.	32.5	69.308	8.325	33.17	36.3	48.6	59.2
00937p	POTASSIUM, TOTAL MG/L AS K)	10/15/86-11/29/99	26	7.345	8.346	28.2	4.92	19.56	4.423	5.279	6.395	8.55	12.02
00940p	CHLORIDE,TOTAL IN WATER MG/L	10/15/86-11/29/99	26	26.6	26.762	34.	18.1	16.179	4.022	20.51	24.225	29.525	32.24
00945p	SULFATE, TOTAL (MG/L AS SO4)	10/15/86-11/29/99	26	39.6	41.046	57.1	22.	94.041	9.697	27.49	32.925	50.5	53.3
00951p	FLUORIDE, TOTAL (MG/L AS F)	10/15/86-11/29/99	26	0.35	0.483	2.9	0.26	0.279	0.528	0.307	0.328	0.383	0.677
01000p	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	14 ##	5.	4.536	6.	2.5	1.287	1.134	2.5	4.375	5.	5.5
01002p	ARSENIC, TOTAL (UG/L AS AS)	10/15/86-11/29/99	26 ##	5.	6.577	37.	2.5	46.194	6.797	2.5	4.375	5.25	11.5
01005p	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	14 ##	50.	61.571	100.	50.	339.187	18.417	50.	50.	76.5	95.
01007p	BARIUM, TOTAL (UG/L AS BA)	10/15/86-11/29/99	26	61.	161.192	960.	50.	64218.402	253.413	50.	50.	122.	645.
01022p	BORON, TOTAL (UG/L AS B)	10/15/86-11/29/99	26 ##	80.	111.731	340.	15.	6725.885	82.011	44.	50.	170.	250.
01025p	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	14 ##	0.5	1.321	4.	0.5	1.446	1.203	0.5	0.5	2.5	3.25
01027p	CADMIUM, TOTAL (UG/L AS CD)	10/15/86-11/29/99	26 ##	1.	2.773	10.	0.5	9.175	3.029	0.5	0.5	5.25	7.9
01030p	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	14 ##	5.	14.214	89.	5.	549.412	23.44	5.	5.	10.	64.5
01034p	CHROMIUM, TOTAL (UG/L AS CR)	10/15/86-11/29/99	26 ##	5.	24.135	250.	2.5	2416.111	49.154	5.	5.	27.75	53.7
01040p	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	14 ##	5.	7.071	24.	5.	26.995	5.196	5.	5.	6.25	17.
01042p	COPPER, TOTAL (UG/L AS CU)	10/15/86-11/29/99	26	12.	17.154	68.	5.	306.135	17.497	5.	5.	21.	51.9
01045p	IRON, TOTAL (UG/L AS FE)	10/15/86-11/29/99	26	693.	7093.231	136000.	110.	713872225.225	26718.387	125.8	205.	1761.5	10971.
01049p	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	14 ##	2.5	2.25	5.	1.	1.106	1.052	1.	1.	2.5	3.75
01051p	LEAD, TOTAL (UG/L AS PB)	10/15/86-11/29/99	26	5.	15.827	120.	1.	846.039	29.087	2.05	2.5	12.	59.8
01055p	MANGANESE, TOTAL (UG/L AS MN)	10/15/86-11/29/99	26	290.	773.808	6500.	5.	1735282.802	1317.301	34.7	142.5	727.75	1881.
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	23 ##	50.	44.348	130.	10.	1002.964	31.67	10.	15.	50.	100.
01075p	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	14 ##	0.5	1.786	5.	0.5	4.451	2.11	0.5	0.5	5.	5.
01077p	SILVER, TOTAL (UG/L AS AG)	10/15/86-11/29/99	26 ##	1.25	2.469	6.	0.5	4.833	2.198	0.5	0.5	5.	5.
01090p	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	14 ##	25.	22.857	53.	5.	147.978	12.165	5.	20.	25.	40.
01092p	ZINC, TOTAL (UG/L AS ZN)	10/15/86-11/29/99	26	25.	87.75	710.	10.	24439.785	156.332	15.5	25.	82.5	237.8
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	23 ##	2.5	7.391	25.	2.5	72.999	8.544	2.5	2.5	10.	25.
01145p	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	14 ##	2.5	2.5	2.5	2.5	0.	0.	2.5	2.5	2.5	2.5
01147p	SELENIUM, TOTAL (UG/L AS SE)	10/15/86-11/29/99	25 ##	2.5	7.64	125.	1.	600.573	24.507	1.3	2.5	2.5	7.
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-11/29/99	14	1550.	2558.536	9000.	0.5	9064725.941	3010.768	0.75	3.5	4610.75	8500.
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	01/26/88-11/29/99	14	3.19	2.357	3.954	-0.301	2.644	1.626	-0.151	0.527	3.663	3.929
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			227.587								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	11	2400.	13077.273	56000.	1.	395705526.418	19892.348	1.2	4.	22100.	53600.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	11	3.38	2.58	4.748	0.	3.507	1.873	0.06	0.602	4.344	4.727
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			380.576								
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/15/86-11/29/99	27	367.	373.148	670.	296.	4713.131	68.652	309.	336.	390.	422.2

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #1: 7/05 to 10/10 - Station TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71890p	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	14 ##	0.25	0.3	1.1	0.1	0.058	0.241	0.1	0.25	0.25	0.75
71900p	MERCURY, TOTAL (UG/L AS HG)	10/15/86-11/29/99	26 ##	0.25	0.348	1.4	0.1	0.1	0.316	0.1	0.25	0.263	1.
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-11/29/99	12	32.2	505.085	5540.	2.78	2517457.048	1586.65	3.365	10.008	72.725	3942.8
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/30/88-11/29/99	23	10.9	242.698	4850.	1.41	1017122.684	1008.525	1.702	5.4	24.	286.4
85663	FLOW, RATE FT/SEC	01/24/89-11/29/99	17	1.58	1.929	5.	0.82	1.157	1.075	0.964	1.15	2.25	4.04

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 10/11 to 12/07 - Station TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/24/89-11/29/99	6	11.5	11.5	15.	7.	10.3	3.209	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/15/86-11/29/99	14	17.65	17.429	20.8	13.8	3.516	1.875	14.65	16.	18.525	20.4
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/15/86-11/29/99	14	20.5	19.936	28.	10.	32.627	5.712	10.5	15.25	24.5	27.05
00064	DEPTH OF STREAM, MEAN (FT)	01/24/89-11/29/99	6	0.23	0.208	0.33	0.08	0.009	0.094	**	**	**	**
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/15/86-11/29/99	13	518.	537.692	660.	455.	3917.064	62.586	461.8	494.	572.	656.
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	14	560.5	569.286	652.	479.	3085.604	55.548	491.5	531.5	622.5	651.
00300p	OXYGEN, DISSOLVED MG/L	12/16/86-11/29/99	12	8.05	7.765	9.21	4.9	1.199	1.095	5.446	7.435	8.295	9.027
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	12/16/86-11/29/99	12	96.25	94.4	110.1	60.	168.433	12.978	67.74	90.6	102.2	109.65
00403p	PH, LAB, STANDARD UNITS SU	10/15/86-11/29/99	14	8.2	8.275	9.3	7.9	0.109	0.33	7.95	8.1	8.363	8.85
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/15/86-11/29/99	14	8.2	8.2	9.3	7.9	0.115	0.339	7.95	8.1	8.362	8.85
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	14	0.006	0.006	0.013	0.001	0.	0.003	0.002	0.004	0.008	0.011
00406p	PH, FIELD, STANDARD UNITS SU	10/15/86-11/29/99	14	8.205	8.169	9.01	7.51	0.13	0.361	7.615	7.885	8.352	8.72
00406p	CONVERTED PH, FIELD, STANDARD UNITS	10/15/86-11/29/99	14	8.205	8.038	9.01	7.51	0.149	0.386	7.615	7.885	8.352	8.72
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	14	0.006	0.009	0.031	0.001	0.	0.008	0.002	0.004	0.013	0.025
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/15/86-11/29/99	15	196.	206.467	263.	176.	816.124	28.568	177.8	180.	232.	256.4
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	10/15/86-11/29/99	13 ##	1.	3.962	38.	0.5	105.061	10.25	0.5	0.75	1.5	24.
00440p	BICARBONATE ION (MG/L AS HCO3)	10/15/86-11/29/99	14	224.5	220.5	263.	124.	1013.346	31.833	162.	217.	232.	257.5
00445p	CARBONATE ION (MG/L AS CO3)	10/15/86-11/29/99	13 ##	1.	4.777	45.	0.5	147.339	12.138	0.5	0.75	2.8	28.6
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10/15/86-11/29/99	15	9.	18.8	100.	2.	611.029	24.719	2.	5.	26.	59.2
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/15/86-11/29/99	13	0.8	0.965	2.87	0.3	0.463	0.68	0.356	0.46	1.25	2.282
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/15/86-11/29/99	15	4.2	4.303	6.5	1.56	1.957	1.399	2.058	3.6	5.44	6.44
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	10/15/86-11/29/99	14	0.5	0.541	1.29	0.08	0.074	0.273	0.215	0.398	0.69	1.005
00916p	CALCIUM, TOTAL (MG/L AS CA)	10/15/86-11/29/99	14	60.95	61.086	72.4	48.9	42.7	6.535	51.6	56.75	64.9	72.3
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	10/15/86-11/29/99	13	11.8	11.808	13.9	10.2	1.357	1.165	10.36	10.85	12.9	13.66
00929p	SODIUM, TOTAL (MG/L AS NA)	10/15/86-11/29/99	14	39.4	41.05	52.6	35.8	23.444	4.842	36.4	37.75	42.825	51.
00937p	POTASSIUM, TOTAL MG/L AS K)	10/15/86-11/29/99	15	6.14	6.405	8.27	4.72	1.017	1.009	5.104	5.6	7.34	8.108
00940p	CHLORIDE,TOTAL IN WATER MG/L	10/15/86-11/29/99	14	25.5	25.764	41.	1.	81.681	9.038	10.5	22.975	31.25	37.5
00945p	SULFATE, TOTAL (MG/L AS SO4)	10/15/86-11/29/99	14	39.2	40.529	62.	33.	58.836	7.67	33.2	34.65	42.25	55.5
00951p	FLUORIDE, TOTAL (MG/L AS F)	10/15/86-11/29/99	14	0.36	0.359	0.42	0.2	0.003	0.055	0.26	0.35	0.403	0.42
01000p	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	7 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01002p	ARSENIC, TOTAL (UG/L AS AS)	10/15/86-11/29/99	14 ##	5.	4.643	10.	2.5	3.709	1.926	2.5	2.5	5.	7.5
01005p	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	7 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01007p	BARIUM, TOTAL (UG/L AS BA)	10/15/86-11/29/99	14 ##	50.	76.143	250.	47.	3183.67	56.424	48.5	50.	77.25	196.5
01022p	BORON, TOTAL (UG/L AS B)	10/15/86-11/29/99	14	100.	96.714	270.	50.	3418.835	58.471	50.	50.	110.	205.
01025p	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	7 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	10/15/86-11/29/99	14 ##	0.5	1.182	3.	0.35	0.96	0.98	0.425	0.5	2.5	2.75
01030p	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	7 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034p	CHROMIUM, TOTAL (UG/L AS CR)	10/15/86-11/29/99	14 ##	5.	7.321	26.	1.5	38.677	6.219	3.25	5.	6.25	20.5
01040p	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**	**
01042p	COPPER, TOTAL (UG/L AS CU)	10/15/86-11/29/99	14 ##	5.	7.714	26.	5.	31.912	5.649	5.	5.	10.	18.
01045p	IRON, TOTAL (UG/L AS FE)	10/15/86-11/29/99	14	403.5	818.643	3080.	130.	678089.478	823.462	155.	253.5	1330.	2325.
01049p	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	7 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	10/15/86-11/29/99	14 ##	5.	7.036	19.	1.	32.556	5.706	1.25	2.5	10.25	17.5
01055p	MANGANESE, TOTAL (UG/L AS MN)	10/15/86-11/29/99	15	586.	652.267	2100.	50.	338266.781	581.607	76.4	228.	850.	1746.
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	12 ##	50.	34.667	50.	2.	412.606	20.313	4.4	10.	50.	50.
01075p	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	7 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 10/11 to 12/07 - Station TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01077p	SILVER, TOTAL (UG/L AS AG)	10/15/86-11/29/99	13 ##	0.5	1.808	5.	0.5	3.731	1.932	0.5	0.5	3.75	5.
01090p	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	7 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	10/15/86-11/29/99	14 ##	25.	25.107	64.	2.5	205.238	14.326	6.25	19.	25.	52.5
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	11 ##	2.5	11.136	30.	2.5	145.455	12.06	2.5	2.5	25.	29.
01145p	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	7 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147p	SELENIUM, TOTAL (UG/L AS SE)	10/15/86-11/29/99	14 ##	2.5	2.429	2.5	1.5	0.071	0.267	2.	2.5	2.5	2.5
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-11/29/99	9	2.	1361.	10680.	1.	12351640.75	3514.49	1.	1.	780.	10680.
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	01/26/88-11/29/99	9	0.301	1.182	4.029	0.	2.534	1.592	0.	0.	2.852	4.029
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			15.197								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	7 ##	2.	2715.571	19000.	1.	51563286.286	7180.758	**	**	**	**
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	7 ##	0.301	0.74	4.279	0.	2.457	1.568	**	**	**	**
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			5.499								
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/15/86-11/29/99	17	350.	366.118	521.	302.	2469.61	49.695	310.8	344.5	382.	445.
71890p	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	7 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
71900p	MERCURY, TOTAL (UG/L AS HG)	10/15/86-11/29/99	15 ##	0.25	0.32	1.3	0.1	0.122	0.349	0.1	0.1	0.25	1.12
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-11/29/99	8	6.415	11.484	39.9	2.81	150.459	12.266	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/30/88-11/29/99	13	6.7	12.123	56.	1.6	229.117	15.137	1.68	2.4	16.5	43.6
85663	FLOW, RATE FT/SEC	01/24/89-11/29/99	6	1.63	1.698	2.5	1.3	0.203	0.45	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/24/89-11/29/99	16	14.8	12.494	18.	6.	16.271	4.034	6.	8.325	15.75	16.6
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/15/86-11/29/99	30	16.445	16.562	25.5	11.3	8.61	2.934	13.05	15.	18.025	19.93
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/15/86-11/29/99	30	20.	18.858	30.	3.5	51.878	7.203	8.15	14.25	25.25	26.95
00064	DEPTH OF STREAM, MEAN (FT)	01/24/89-11/29/99	16	0.225	0.235	0.5	0.08	0.012	0.108	0.094	0.17	0.288	0.43
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/15/86-11/29/99	30	504.	496.533	576.	280.	3858.189	62.114	424.2	485.5	532.75	559.7
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	25	533.	534.96	639.	344.	3968.623	62.997	466.	500.	587.5	621.6
00300p	OXYGEN, DISSOLVED MG/L	12/16/86-11/29/99	26	7.5	7.609	9.39	6.2	0.55	0.742	6.8	7.038	8.165	8.723
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	12/16/86-11/29/99	26	92.	93.208	120.7	72.	116.296	10.784	80.36	86.	98.35	109.59
00403p	PH, LAB, STANDARD UNITS SU	10/15/86-11/29/99	26	8.02	7.992	8.4	7.4	0.069	0.262	7.514	7.875	8.2	8.293
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/15/86-11/29/99	26	8.02	7.907	8.4	7.4	0.076	0.276	7.514	7.875	8.2	8.293
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	26	0.01	0.012	0.04	0.004	0.	0.009	0.005	0.006	0.013	0.031
00406p	PH, FIELD, STANDARD UNITS SU	10/15/86-11/29/99	29	8.04	8.023	8.47	7.56	0.065	0.256	7.67	7.81	8.23	8.31
00406p	CONVERTED PH, FIELD, STANDARD UNITS	10/15/86-11/29/99	29	8.04	7.951	8.47	7.56	0.071	0.266	7.67	7.81	8.23	8.31
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	29	0.009	0.011	0.028	0.003	0.	0.007	0.005	0.006	0.016	0.021
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/15/86-11/29/99	26	190.	197.731	324.	117.	1557.725	39.468	154.	177.75	221.5	237.7
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	10/15/86-11/29/99	19 ##	1.	1.042	3.8	0.5	0.489	0.699	0.5	1.	1.	1.
00440p	BICARBONATE ION (MG/L AS HCO3)	10/15/86-11/29/99	26	220.5	230.346	395.	143.	2295.675	47.913	171.9	208.5	255.25	285.6
00445p	CARBONATE ION (MG/L AS CO3)	10/15/86-11/29/99	20 ##	1.	1.13	4.6	0.5	0.77	0.877	0.5	1.	1.	1.9
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10/15/86-11/29/99	26	24.	67.577	470.	2.	13403.534	115.774	2.	5.75	50.5	266.4
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/15/86-11/29/99	24	0.905	1.715	6.55	0.16	2.434	1.56	0.25	0.678	2.73	3.825
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/15/86-11/29/99	26	3.95	4.022	6.71	2.06	1.357	1.165	2.489	3.225	5.045	5.54
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	10/15/86-11/29/99	25	0.6	0.916	4.3	0.16	0.725	0.851	0.384	0.44	1.12	1.906
00916p	CALCIUM, TOTAL (MG/L AS CA)	10/15/86-11/29/99	26	59.5	62.515	147.	40.7	338.255	18.392	51.78	55.275	64.075	68.91
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	10/15/86-11/29/99	26	11.95	11.881	17.8	8.2	3.554	1.885	9.7	10.6	12.925	13.82
00929p	SODIUM, TOTAL (MG/L AS NA)	10/15/86-11/29/99	26	39.1	40.204	52.9	25.2	30.633	5.535	34.86	37.3	43.6	47.5
00937p	POTASSIUM, TOTAL MG/L AS K)	10/15/86-11/29/99	26	5.985	6.161	11.8	2.92	2.706	1.645	4.782	5.195	6.5	8.305
00940p	CHLORIDE,TOTAL IN WATER MG/L	10/15/86-11/29/99	25	25.8	25.984	45.3	14.7	35.221	5.935	18.82	22.4	29.	31.64
00945p	SULFATE, TOTAL (MG/L AS SO4)	10/15/86-11/29/99	26	38.95	39.192	54.	5.	102.81	10.14	28.82	34.275	46.95	51.71
00951p	FLUORIDE, TOTAL (MG/L AS F)	10/15/86-11/29/99	25	0.35	0.361	0.49	0.29	0.002	0.05	0.306	0.325	0.385	0.434
01000p	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	17 ##	5.	6.265	10.	2.5	5.941	2.437	4.5	5.	9.5	10.
01002p	ARSENIC, TOTAL (UG/L AS AS)	10/15/86-11/29/99	27 ##	5.	6.963	30.	2.5	26.787	5.176	4.5	5.	8.	10.4
01005p	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	17 ##	50.	78.059	250.	49.	4472.934	66.88	49.8	50.	54.	250.
01007p	BARIUM, TOTAL (UG/L AS BA)	10/15/86-11/29/99	27 ##	62.	114.556	860.	5.	25576.256	159.926	50.	50.	110.	250.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01022p	BORON, TOTAL (UG/L AS B)	10/15/86-11/29/99	27 ##	50.	95.704	390.	50.	6396.524	79.978	50.	50.	110.	212.4
01025p	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	15 ##	0.5	0.623	2.5	0.35	0.271	0.521	0.44	0.5	0.5	1.3
01027p	CADMIUM, TOTAL (UG/L AS CD)	10/15/86-11/29/99	27 ##	0.5	1.004	5.	0.25	1.289	1.135	0.47	0.5	1.	2.76
01030p	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	17 ##	5.	4.529	5.	0.5	1.796	1.34	1.3	5.	5.	5.
01034p	CHROMIUM, TOTAL (UG/L AS CR)	10/15/86-11/29/99	27 ##	5.	6.259	17.	0.5	12.834	3.582	4.3	5.	5.	11.
01040p	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	17 ##	5.	10.176	75.	5.	291.029	17.06	5.	5.	5.	30.2
01042p	COPPER, TOTAL (UG/L AS CU)	10/15/86-11/29/99	27	12.	20.444	204.	5.	1478.487	38.451	5.	5.	20.	38.2
01045p	IRON, TOTAL (UG/L AS FE)	10/15/86-11/29/99	27	500.	2039.111	24300.	50.	22656732.487	4759.909	126.	270.	1450.	4734.
01049p	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	17 ##	2.5	6.735	43.	1.	98.066	9.903	2.2	2.5	10.	16.6
01051p	LEAD, TOTAL (UG/L AS PB)	10/15/86-11/29/99	27 ##	5.	18.648	278.	2.5	2777.996	52.707	2.5	2.5	10.	34.2
01055p	MANGANESE, TOTAL (UG/L AS MN)	10/15/86-11/29/99	27	680.	909.333	8000.	25.	2120936.154	1456.343	186.4	310.	950.	1198.
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	21 ##	50.	39.81	50.	2.	289.962	17.028	10.	25.	50.	50.
01075p	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	17 ##	0.5	1.294	5.	0.5	1.658	1.288	0.5	0.5	2.5	3.
01077p	SILVER, TOTAL (UG/L AS AG)	10/15/86-11/29/99	27 ##	0.5	1.519	5.	0.5	2.702	1.644	0.5	0.5	2.5	5.
01090p	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	17 ##	25.	27.294	80.	5.	216.971	14.73	16.2	25.	25.	44.
01092p	ZINC, TOTAL (UG/L AS ZN)	10/15/86-11/29/99	27 ##	25.	50.444	470.	17.	7337.949	85.662	23.8	25.	37.	74.
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	21 ##	2.5	6.19	25.	2.5	64.762	8.047	2.5	2.5	3.75	25.
01145p	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	16 ##	2.5	3.844	25.	1.5	31.891	5.647	2.2	2.5	2.5	9.25
01147p	SELENIUM, TOTAL (UG/L AS SE)	10/15/86-11/29/99	27 ##	2.5	3.667	25.	1.5	20.5	4.528	2.5	2.5	2.5	6.
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-11/29/99	18	255.	5038.111	71600.	0.	279699481.869	16724.218	0.9	1.	1875.	14360.
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	01/26/88-11/29/99	18	2.289	1.915	4.855	0.	2.786	1.669	0.	0.	3.268	3.998
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			82.175								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	12	108.5	995.917	6077.	1.	3341074.265	1827.861	1.	1.25	1292.5	5143.7
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	12	2.02	1.836	3.784	0.	2.041	1.429	0.	0.075	3.099	3.69
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			68.595								
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/15/86-11/29/99	28	344.5	351.714	404.	240.	1299.619	36.05	320.	330.75	386.5	401.2
71890p	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	17 ##	0.25	0.276	1.	0.1	0.037	0.193	0.1	0.25	0.25	0.4
71900p	MERCURY, TOTAL (UG/L AS HG)	10/15/86-11/29/99	26 ##	0.25	0.294	1.3	0.1	0.068	0.261	0.1	0.25	0.25	0.475
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-11/29/99	16	17.35	505.046	6220.	1.51	2388977.689	1545.632	2.497	5.933	195.55	2577.2
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/30/88-11/29/99	21	9.	32.619	178.	0.89	2373.959	48.723	2.16	4.1	41.4	134.4
85663	FLOW, RATE FT/SEC	01/24/89-11/29/99	17	1.7	2.429	6.8	0.65	3.693	1.922	0.65	1.015	3.05	6.4

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0006

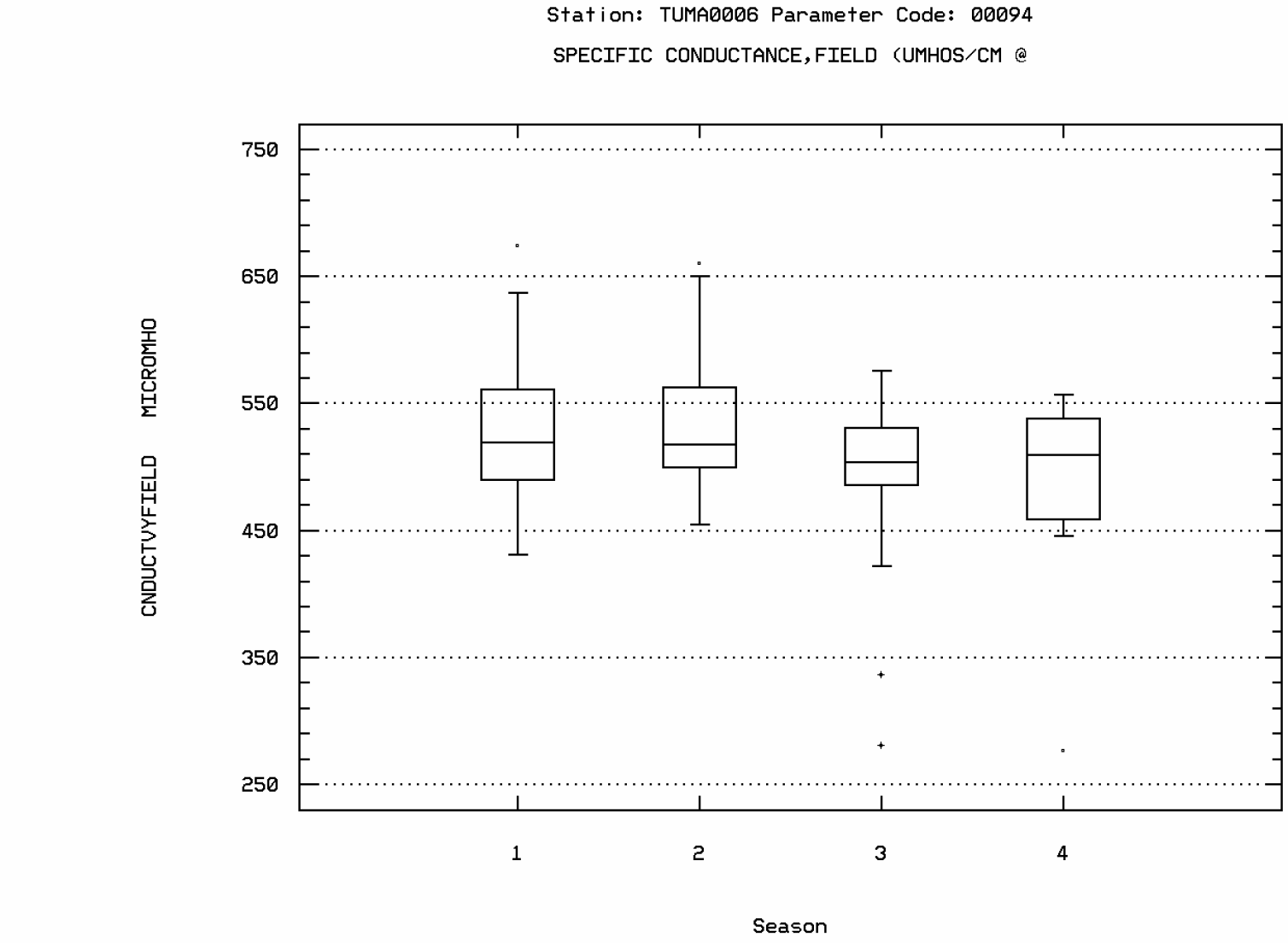
Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/24/89-11/29/99	2	14.	14.	14.	14.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/15/86-11/29/99	11	21.5	21.045	22.5	18.6	1.709	1.307	18.68	20.	22.	22.42
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/15/86-11/29/99	11	32.	30.573	42.	14.5	43.748	6.614	17.16	28.	33.	40.6
00064	DEPTH OF STREAM, MEAN (FT)	01/24/89-11/29/99	2	0.25	0.25	0.3	0.2	0.005	0.071	**	**	**	**
00094p	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	10/15/86-11/29/99	10	509.5	485.5	557.	276.	6614.722	81.331	293.	455.75	539.	555.5
00095p	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-11/29/99	10	525.	530.2	602.	433.	2903.956	53.888	435.5	503.75	575.25	600.9
00300p	OXYGEN, DISSOLVED MG/L	12/16/86-11/29/99	9	7.72	7.22	8.19	5.2	1.236	1.112	5.2	6.26	7.965	8.19
00301p	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	12/16/86-11/29/99	9	99.5	98.044	123.3	70.	308.82	17.573	70.	83.	111.3	123.3
00403p	PH, LAB, STANDARD UNITS SU	10/15/86-11/29/99	10	8.25	8.259	8.6	7.9	0.036	0.189	7.923	8.153	8.4	8.58
00403p	CONVERTED PH, LAB, STANDARD UNITS	10/15/86-11/29/99	10	8.247	8.222	8.6	7.9	0.037	0.193	7.923	8.153	8.4	8.58
00403p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	10	0.006	0.006	0.013	0.003	0.	0.003	0.003	0.004	0.007	0.012
00406p	PH, FIELD, STANDARD UNITS SU	10/15/86-11/29/99	11	8.16	8.196	8.88	7.63	0.102	0.319	7.688	8.05	8.34	8.8
00406p	CONVERTED PH, FIELD, STANDARD UNITS	10/15/86-11/29/99	11	8.16	8.098	8.88	7.63	0.112	0.335	7.688	8.05	8.34	8.8
00406p	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/15/86-11/29/99	11	0.007	0.008	0.023	0.001	0.	0.006	0.002	0.005	0.009	0.021
00410p	ALKALINITY, TOTAL (MG/L AS CACO3)	10/15/86-11/29/99	10	179.	186.3	233.	108.	1586.678	39.833	112.4	165.5	225.5	233.
00415p	ALKALINITY, PHENOLPHTHALEIN (MG/L)	10/15/86-11/29/99	8 ##	1.5	2.113	6.3	0.5	4.364	2.089	**	**	**	**
00440p	BICARBONATE ION (MG/L AS HCO3)	10/15/86-11/29/99	10	204.	193.8	233.	108.	1430.844	37.827	114.2	174.5	222.5	233.
00445p	CARBONATE ION (MG/L AS CO3)	10/15/86-11/29/99	8 ##	2.5	2.875	7.6	0.5	7.056	2.656	**	**	**	**
00530p	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10/15/86-11/29/99	10	15.	16.	48.	2.	177.556	13.325	2.3	5.	20.	45.2
00625p	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/15/86-11/29/99	8	0.29	0.351	0.8	0.11	0.058	0.241	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

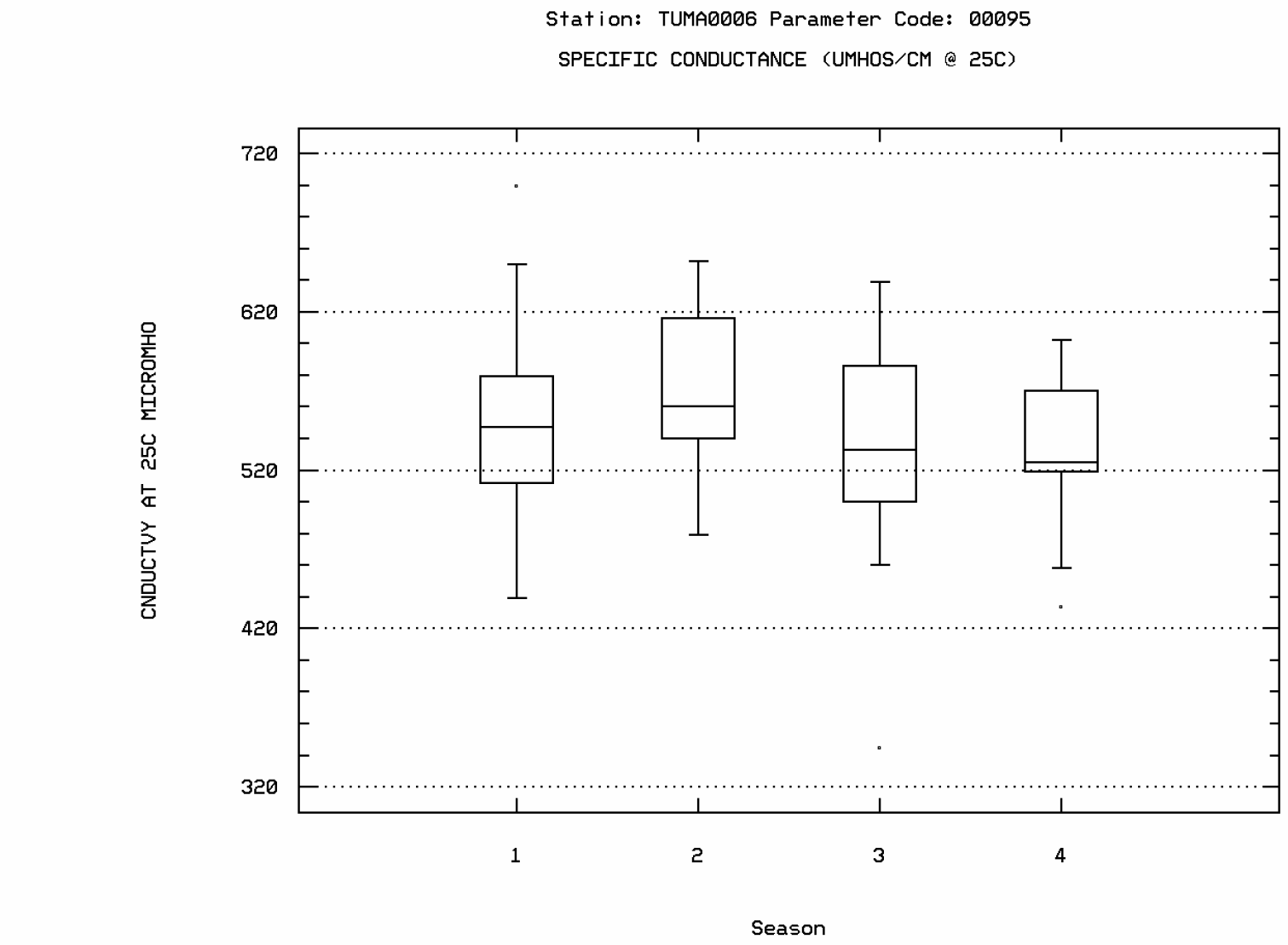
Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0006

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00630p	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/15/86-11/29/99	10	3.73	3.673	5.73	0.09	3.196	1.788	0.291	2.355	5.225	5.717
00665p	PHOSPHORUS, TOTAL (MG/L AS P)	10/15/86-11/29/99	10	0.43	0.579	1.5	0.38	0.122	0.349	0.38	0.38	0.693	1.426
00916p	CALCIUM, TOTAL (MG/L AS CA)	10/15/86-11/29/99	10	60.95	61.31	73.7	48.9	69.039	8.309	49.15	55.	68.35	73.54
00927p	MAGNESIUM, TOTAL (MG/L AS MG)	10/15/86-11/29/99	10	11.4	11.75	14.6	9.8	2.663	1.632	9.81	10.125	12.975	14.52
00929p	SODIUM, TOTAL (MG/L AS NA)	10/15/86-11/29/99	10	39.25	39.92	47.4	34.	25.364	5.036	34.02	34.5	45.45	47.22
00937p	POTASSIUM, TOTAL MG/L AS K)	10/15/86-11/29/99	10	6.15	5.891	6.8	4.6	0.617	0.785	4.619	5.023	6.465	6.78
00940p	CHLORIDE,TOTAL IN WATER MG/L	10/15/86-11/29/99	10	30.	28.52	38.	20.8	28.644	5.352	20.81	23.225	31.25	37.4
00945p	SULFATE, TOTAL (MG/L AS SO4)	10/15/86-11/29/99	10	39.5	35.86	52.	12.	127.012	11.27	13.5	28.05	41.625	51.45
00951p	FLUORIDE, TOTAL (MG/L AS F)	10/15/86-11/29/99	9	0.35	0.336	0.39	0.23	0.003	0.052	0.23	0.3	0.37	0.39
01000p	ARSENIC, DISSOLVED (UG/L AS AS)	12/16/86-11/29/99	7 ##	2.5	2.857	5.	2.5	0.893	0.945	**	**	**	**
01002p	ARSENIC, TOTAL (UG/L AS AS)	10/15/86-11/29/99	10 ##	2.5	3.25	5.	2.5	1.458	1.208	2.5	2.5	5.	5.
01005p	BARIUM, DISSOLVED (UG/L AS BA)	12/16/86-11/29/99	7	54.	63.286	80.	48.	229.571	15.152	**	**	**	**
01007p	BARIUM, TOTAL (UG/L AS BA)	10/15/86-11/29/99	10 ##	53.5	61.5	90.	50.	243.389	15.601	50.	50.	80.	89.
01022p	BORON, TOTAL (UG/L AS B)	10/15/86-11/29/99	10 ##	50.	127.	490.	50.	20356.667	142.677	50.	50.	160.	466.
01025p	CADMIUM, DISSOLVED (UG/L AS CD)	12/16/86-11/29/99	7 ##	2.5	1.929	2.5	0.5	0.619	0.787	**	**	**	**
01027p	CADMIUM, TOTAL (UG/L AS CD)	10/15/86-11/29/99	10 ##	1.7	1.59	2.5	0.5	0.703	0.839	0.5	0.5	2.5	2.5
01030p	CHROMIUM, DISSOLVED (UG/L AS CR)	12/16/86-11/29/99	7 ##	5.	6.429	10.	5.	5.952	2.44	**	**	**	**
01034p	CHROMIUM, TOTAL (UG/L AS CR)	10/15/86-11/29/99	10 ##	5.	8.4	20.	5.	26.711	5.168	5.	5.	11.	19.4
01040p	COPPER, DISSOLVED (UG/L AS CU)	12/16/86-11/29/99	7 ##	5.	5.714	10.	5.	3.571	1.89	**	**	**	**
01042p	COPPER, TOTAL (UG/L AS CU)	10/15/86-11/29/99	10 ##	5.	6.	10.	5.	3.056	1.748	5.	5.	7.5	9.75
01045p	IRON, TOTAL (UG/L AS FE)	10/15/86-11/29/99	10	319.	308.	680.	16.	37287.111	193.099	16.6	200.5	398.5	655.
01049p	LEAD, DISSOLVED (UG/L AS PB)	12/16/86-11/29/99	7 ##	1.	1.857	5.	1.	2.476	1.574	**	**	**	**
01051p	LEAD, TOTAL (UG/L AS PB)	10/15/86-11/29/99	10	6.	6.85	17.	1.	26.114	5.11	1.	2.125	10.5	16.5
01055p	MANGANESE, TOTAL (UG/L AS MN)	10/15/86-11/29/99	10	170.	224.6	580.	16.	43292.267	208.068	16.1	55.25	429.	576.
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-11/29/99	8 ##	15.	26.25	50.	10.	391.071	19.776	**	**	**	**
01075p	SILVER, DISSOLVED (UG/L AS AG)	12/16/86-11/29/99	7 ##	5.	4.357	5.	0.5	2.893	1.701	**	**	**	**
01077p	SILVER, TOTAL (UG/L AS AG)	10/15/86-11/29/99	10 ##	3.25	2.95	5.	0.5	4.803	2.192	0.5	0.5	5.	5.
01090p	ZINC, DISSOLVED (UG/L AS ZN)	12/16/86-11/29/99	7 ##	5.	8.	25.	5.	56.333	7.506	**	**	**	**
01092p	ZINC, TOTAL (UG/L AS ZN)	10/15/86-11/29/99	10 ##	24.5	21.	35.	5.	113.556	10.656	5.	12.5	27.5	35.
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-11/29/99	8 ##	5.	11.563	25.	2.5	124.888	11.175	**	**	**	**
01145p	SELENIUM, DISSOLVED (UG/L AS SE)	12/16/86-11/29/99	7 ##	2.5	3.929	12.5	2.5	14.286	3.78	**	**	**	**
01147p	SELENIUM, TOTAL (UG/L AS SE)	10/15/86-11/29/99	10 ##	2.5	8.2	30.	2.5	101.289	10.064	2.5	2.5	14.875	29.2
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-11/29/99	4 ##	2200.5	2350.5	5000.	1.	7420200.333	2724.004	**	**	**	**
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	01/26/88-11/29/99	4 ##	1.822	1.836	3.699	0.	4.493	2.12	**	**	**	**
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			68.487								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	3 ##	1.	294.	880.	1.	257547.	507.491	**	**	**	**
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-07/15/98	3 ##	0.	0.981	2.944	0.	2.89	1.7	**	**	**	**
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			9.583								
70300p	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/15/86-11/29/99	10	354.	350.6	450.	254.	2911.378	53.957	258.7	305.5	379.5	444.
71890p	MERCURY, DISSOLVED (UG/L AS HG)	12/16/86-11/29/99	6 ##	0.1	0.125	0.25	0.1	0.004	0.061	**	**	**	**
71900p	MERCURY, TOTAL (UG/L AS HG)	10/15/86-11/29/99	10 ##	0.175	0.325	1.	0.1	0.131	0.362	0.1	0.1	0.438	1.
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-11/29/99	4	4.525	6.308	13.	3.18	20.688	4.548	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/30/88-11/29/99	8	2.55	2.869	6.6	0.71	3.761	1.939	**	**	**	**
85663	FLOW, RATE FT/SEC	01/24/89-11/29/99	2	1.35	1.35	1.7	1.	0.245	0.495	**	**	**	**

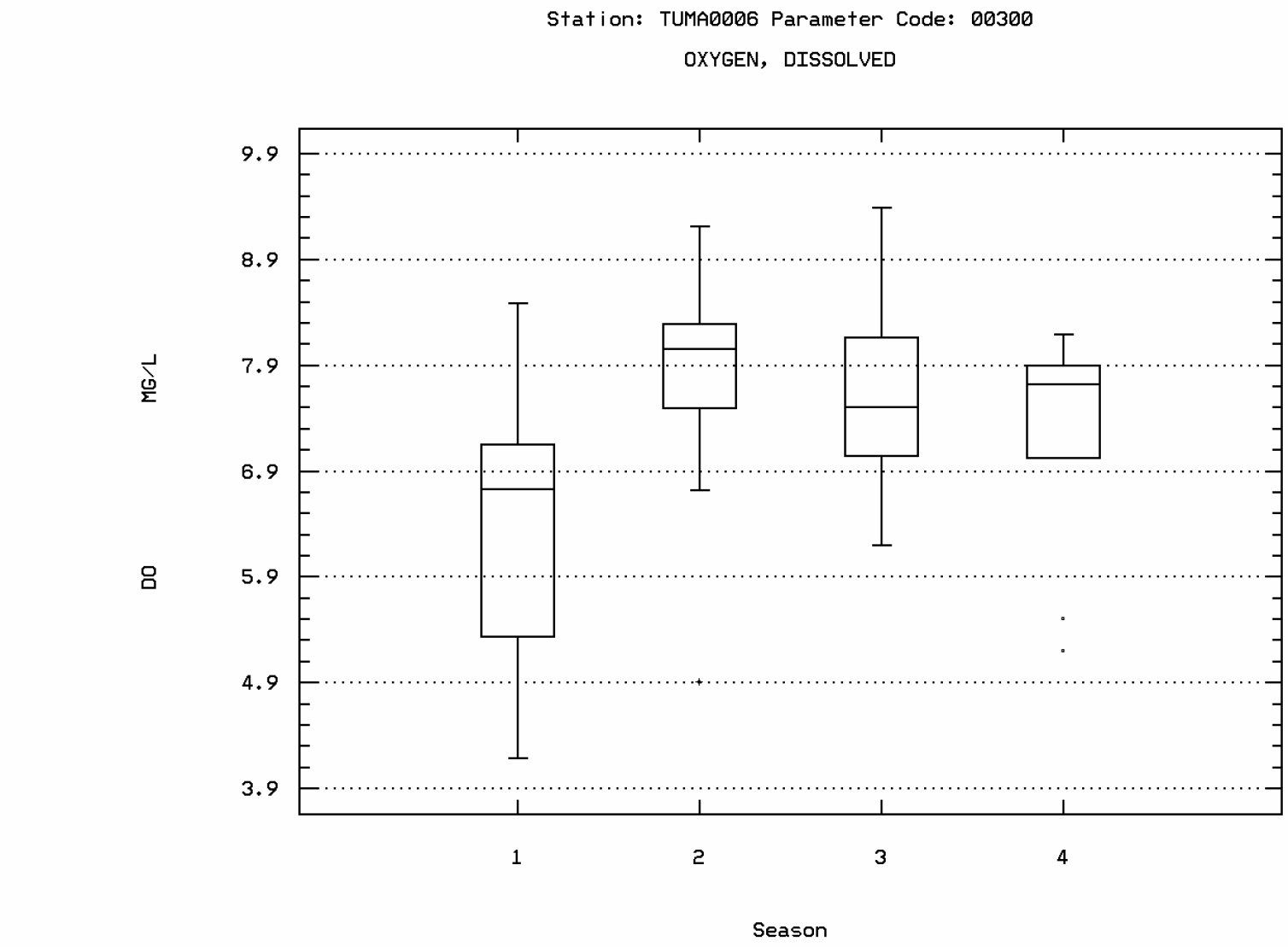
** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot



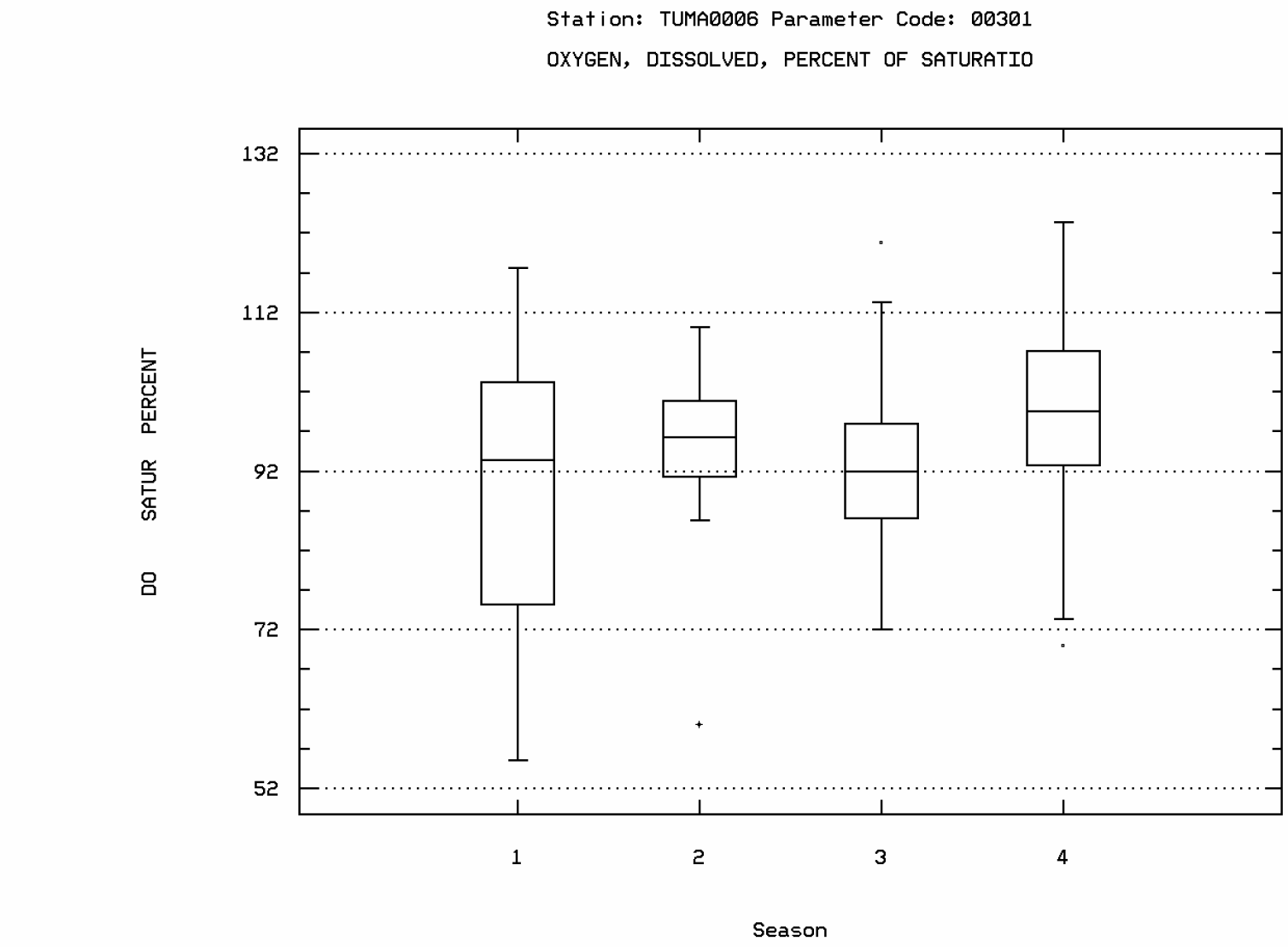
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



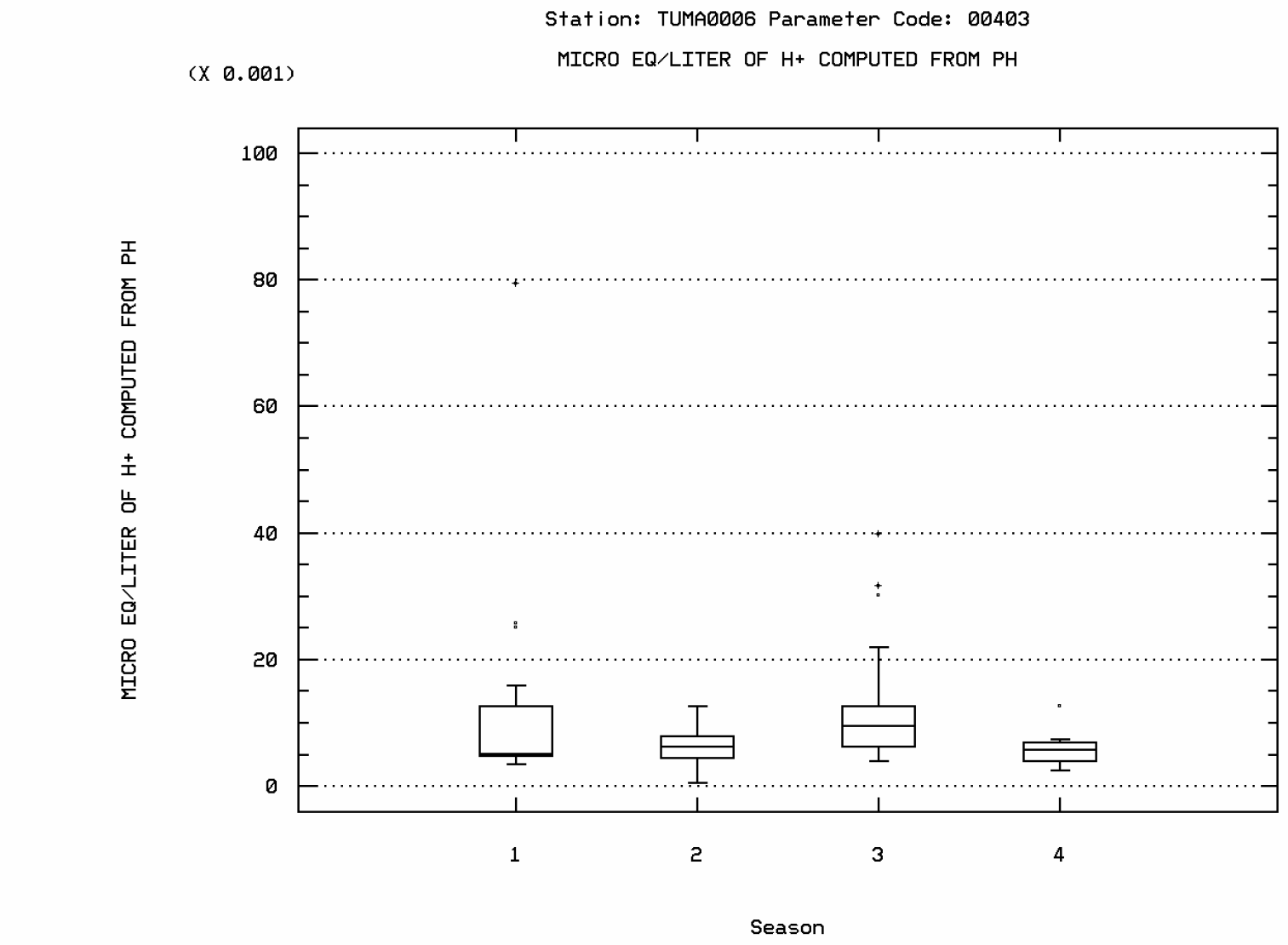
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



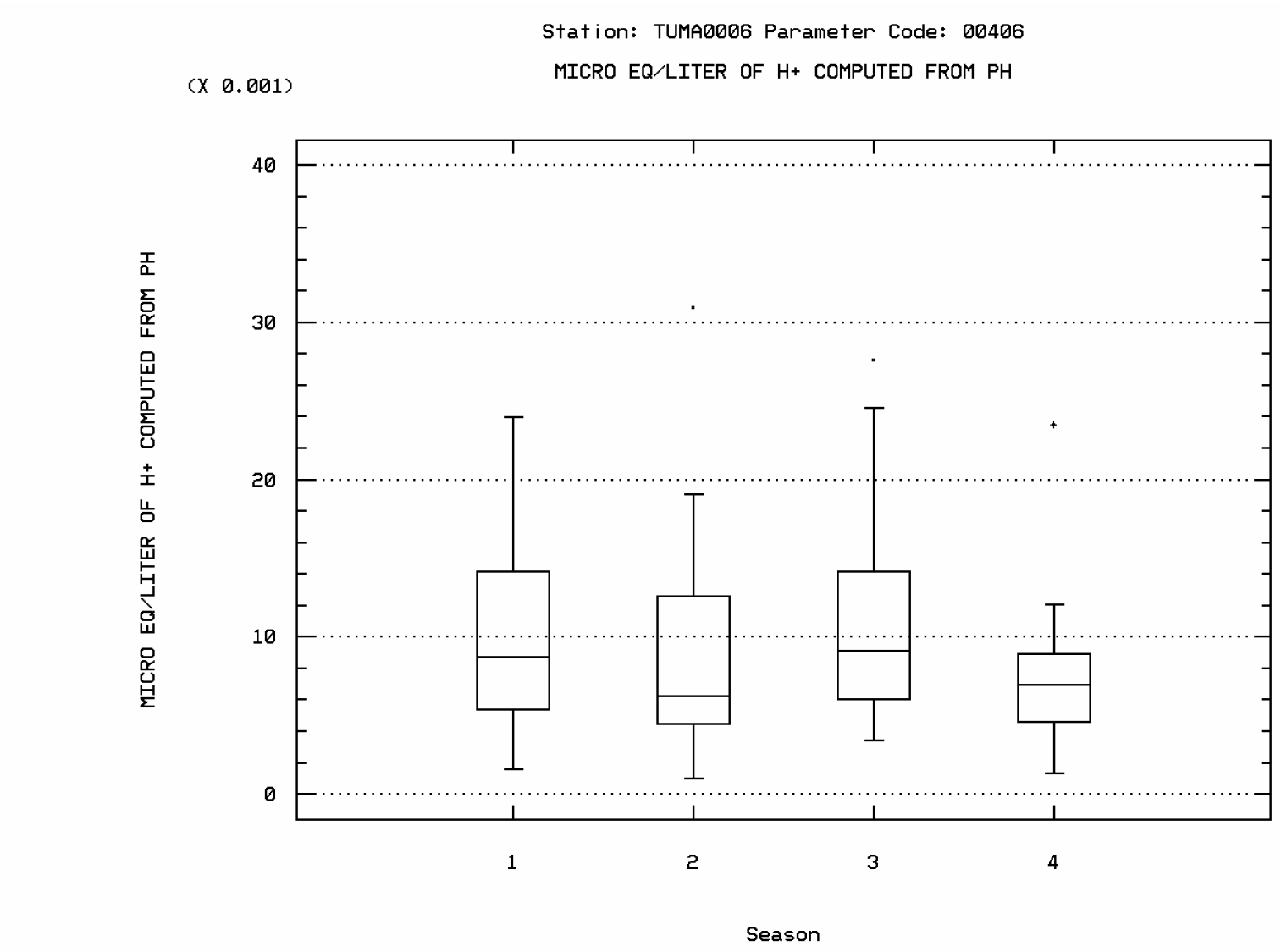
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



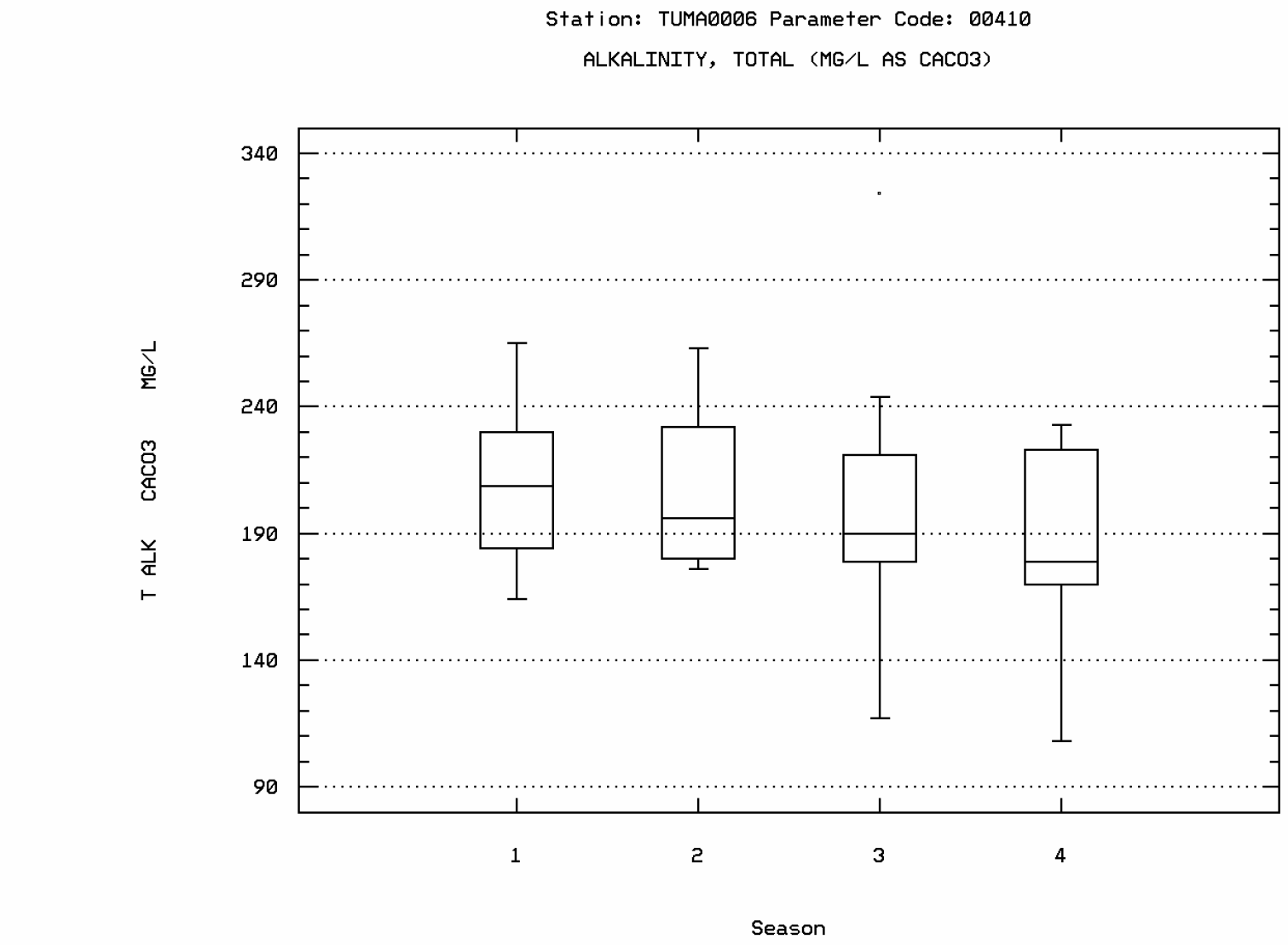
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE



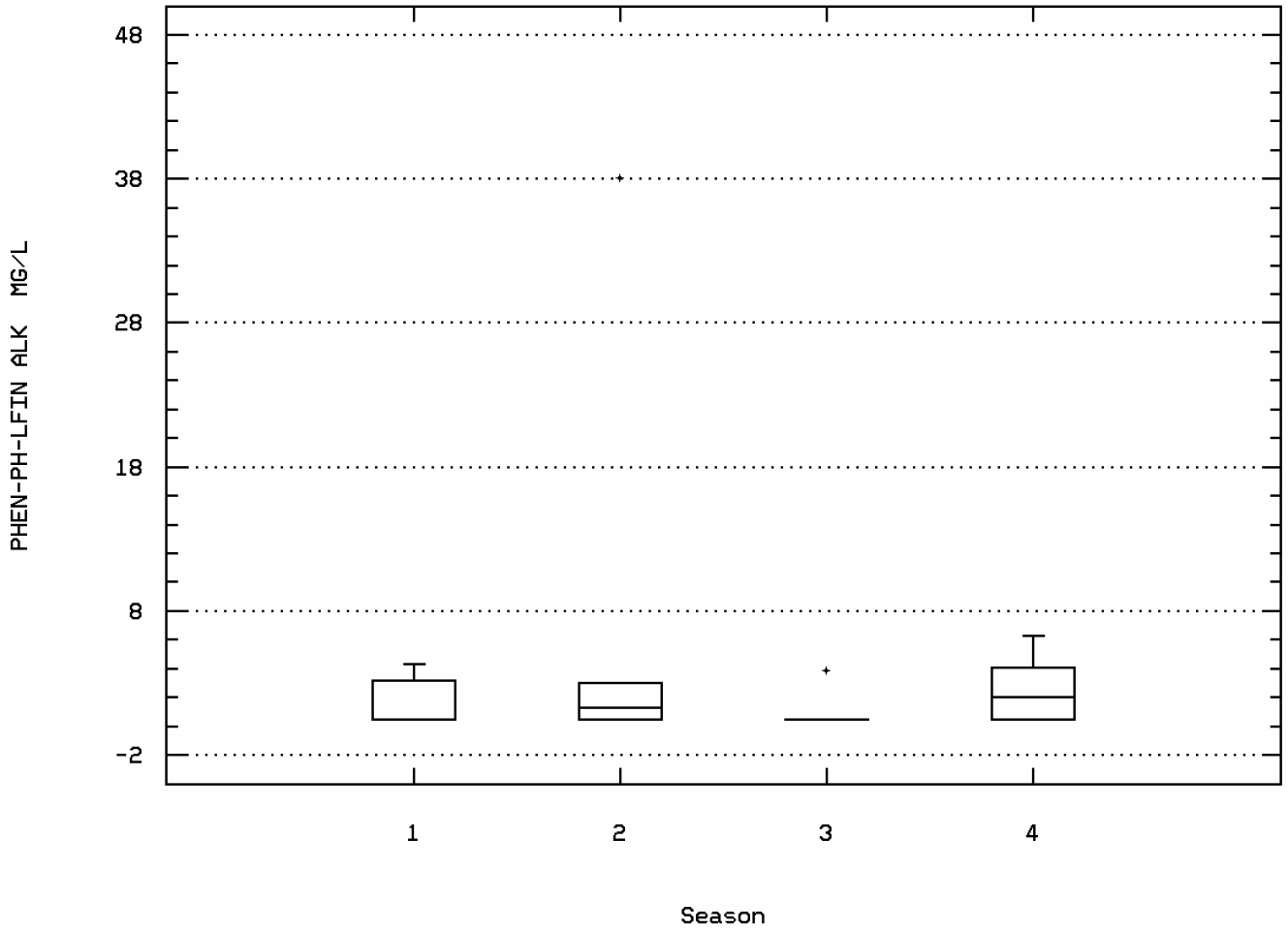
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



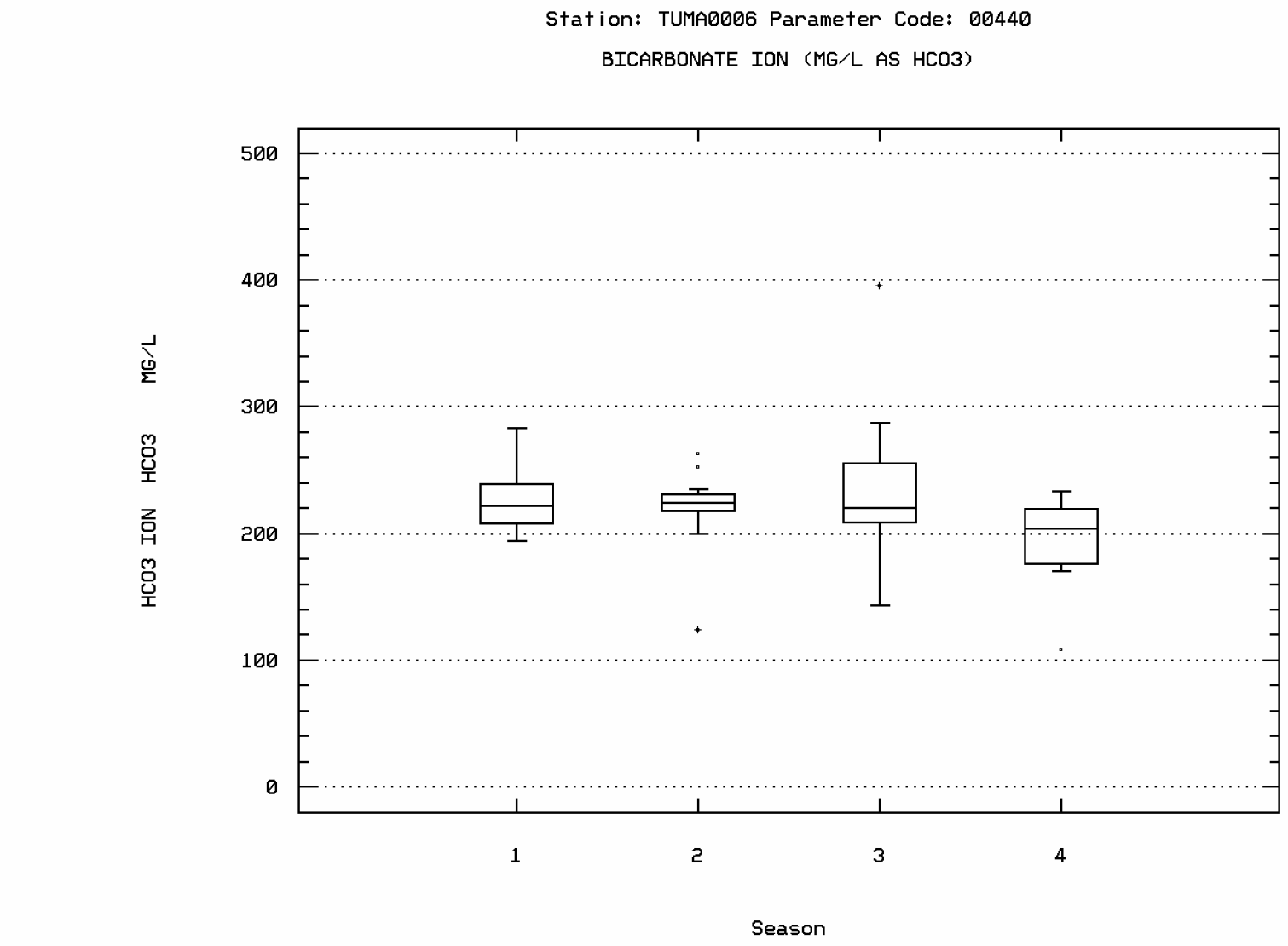
SCNGW004.23 (NOGALES WASH AT MORLEY AVE

Station: TUMA0006 Parameter Code: 00415

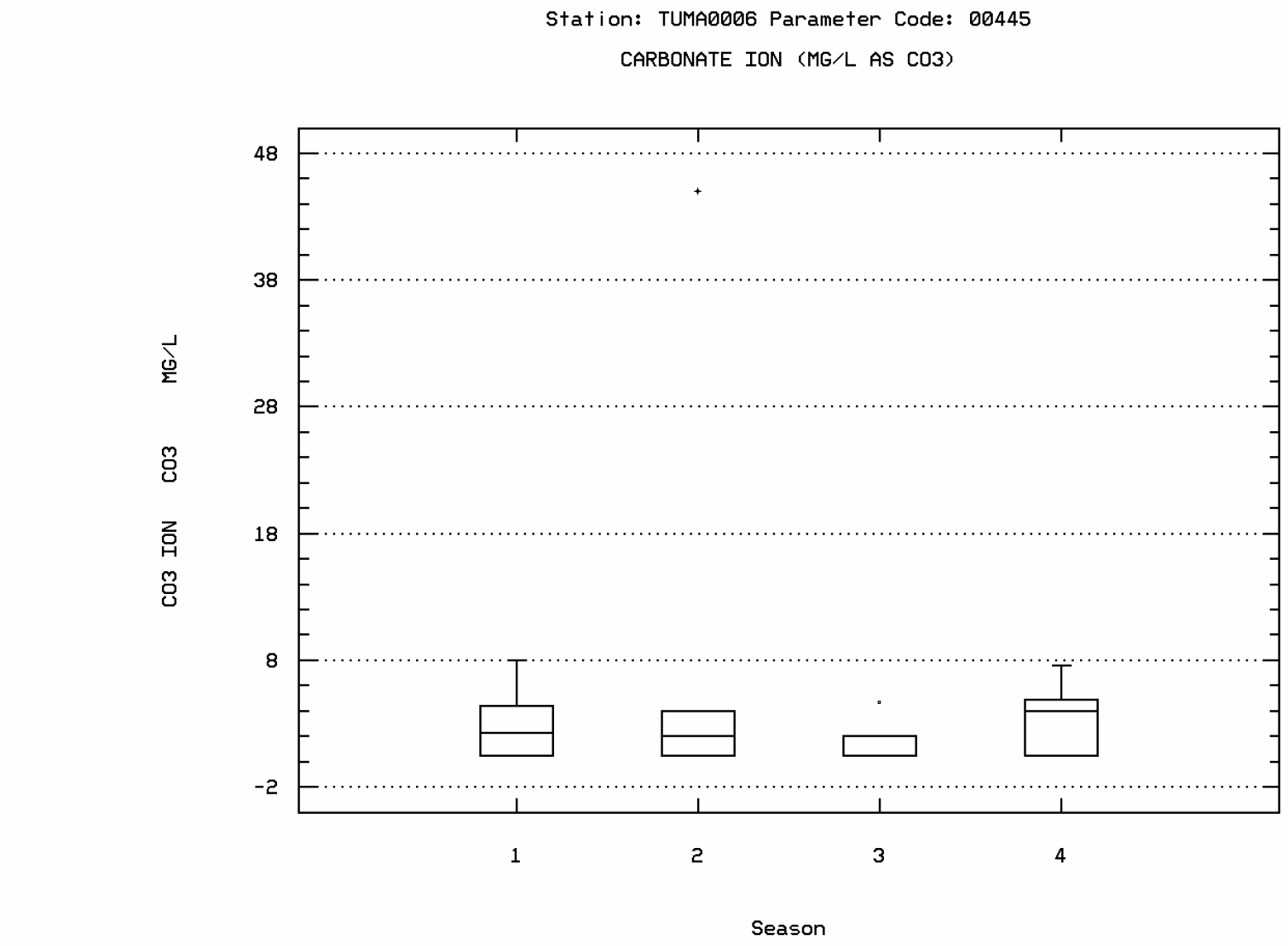
ALKALINITY, PHENOLPHTHALEIN (MG/L)



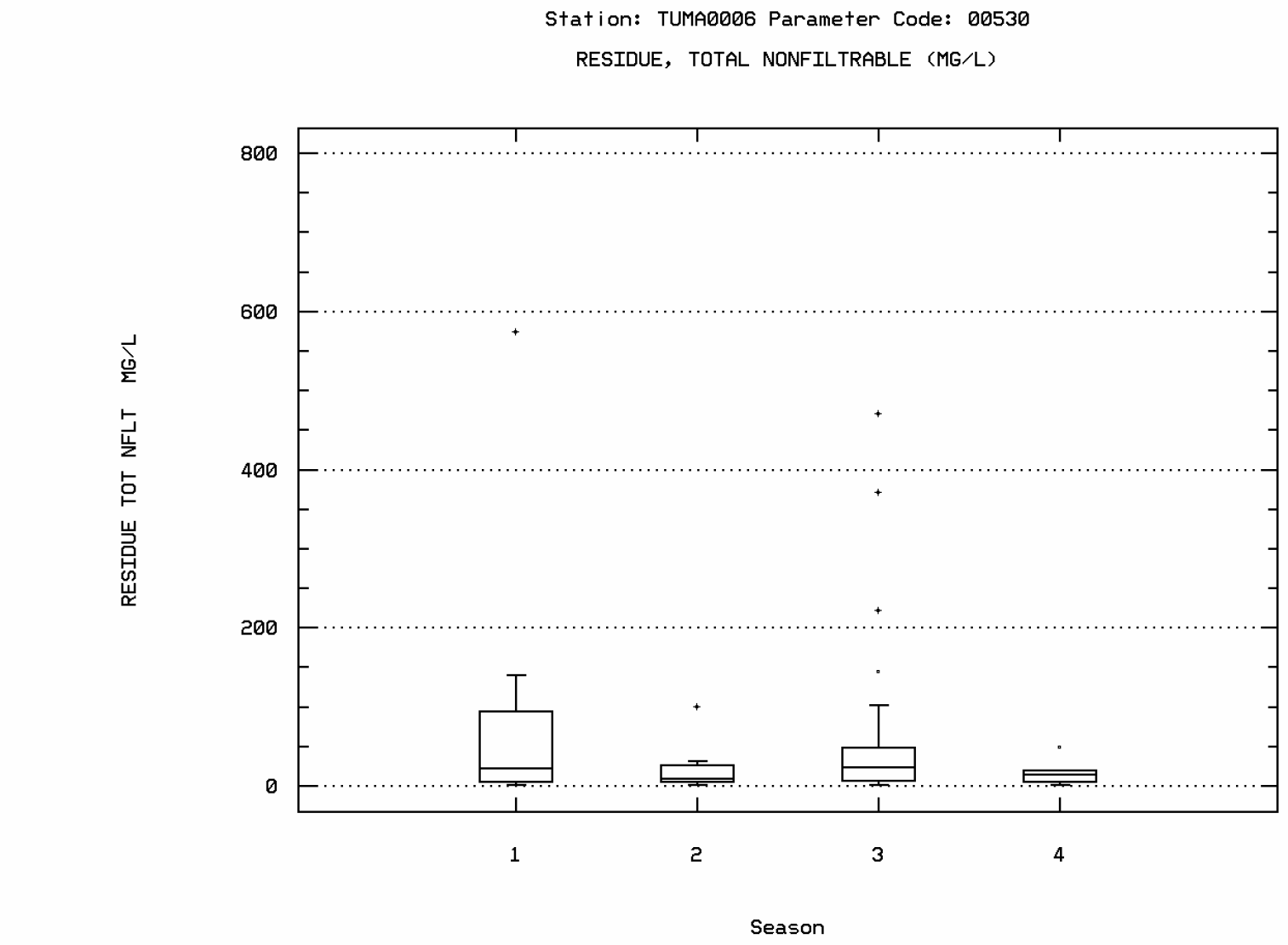
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE



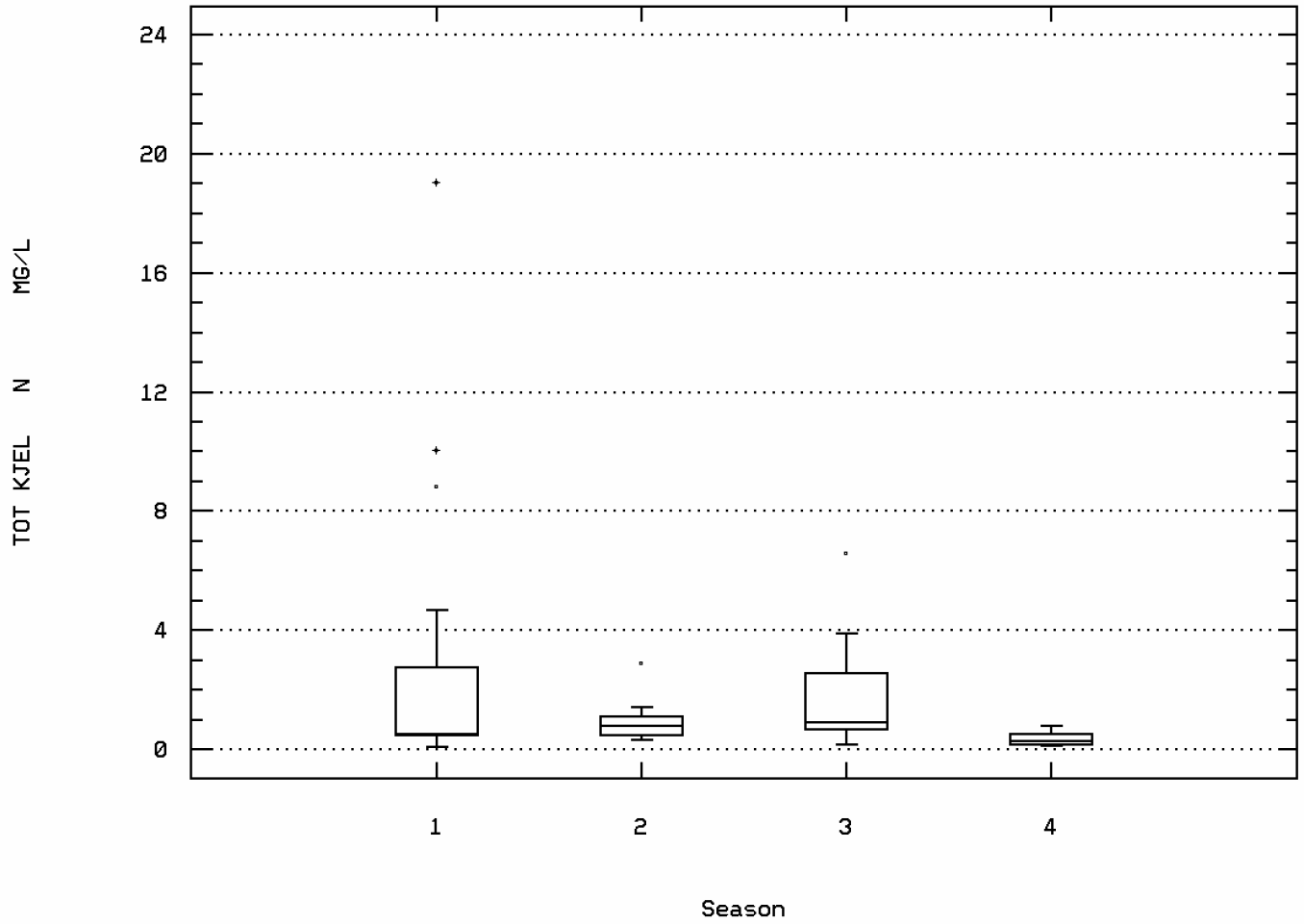
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



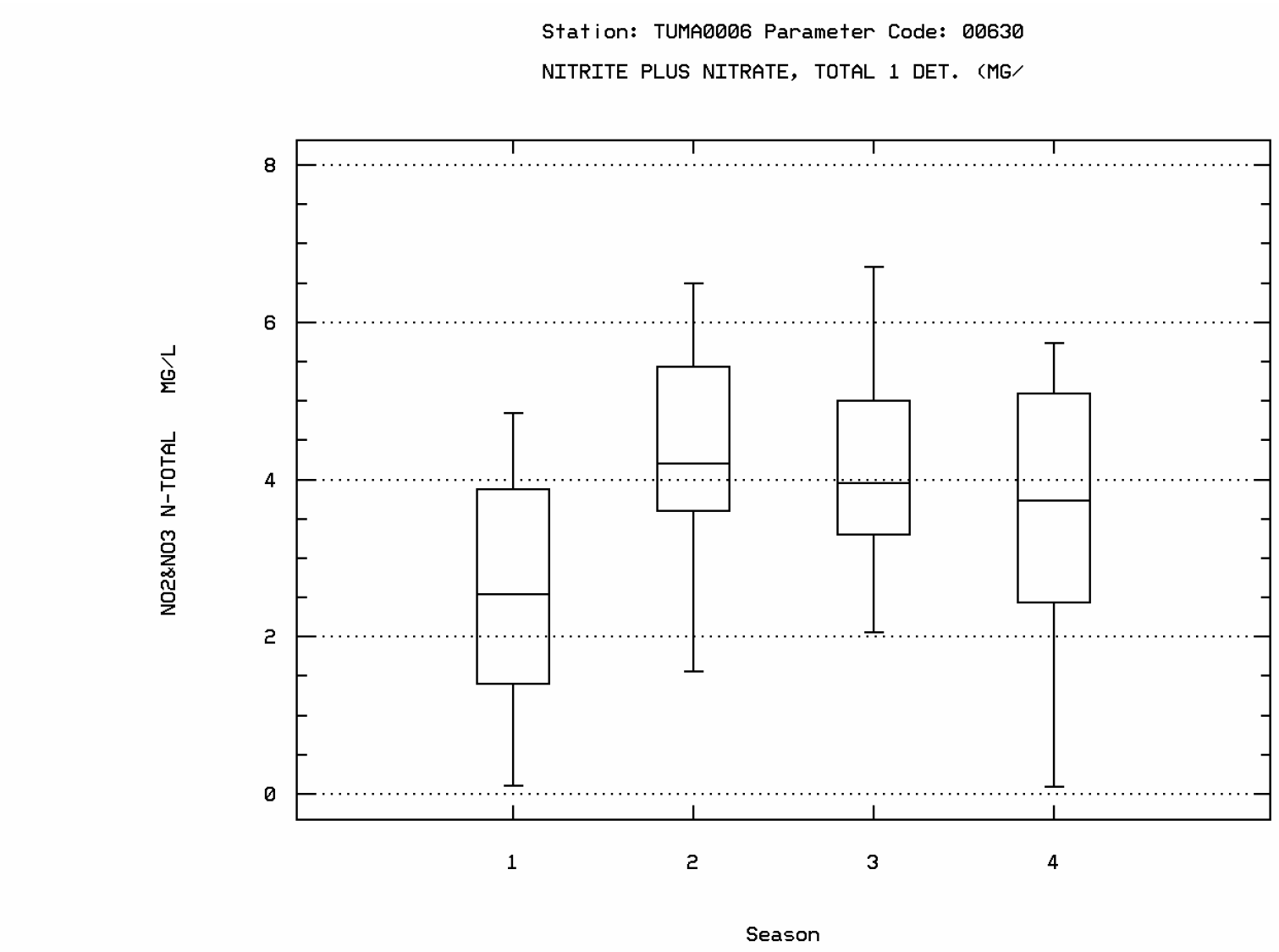
SCNGW004.23 (NOGALES WASH AT MORLEY AVE

Station: TUMA0006 Parameter Code: 00625

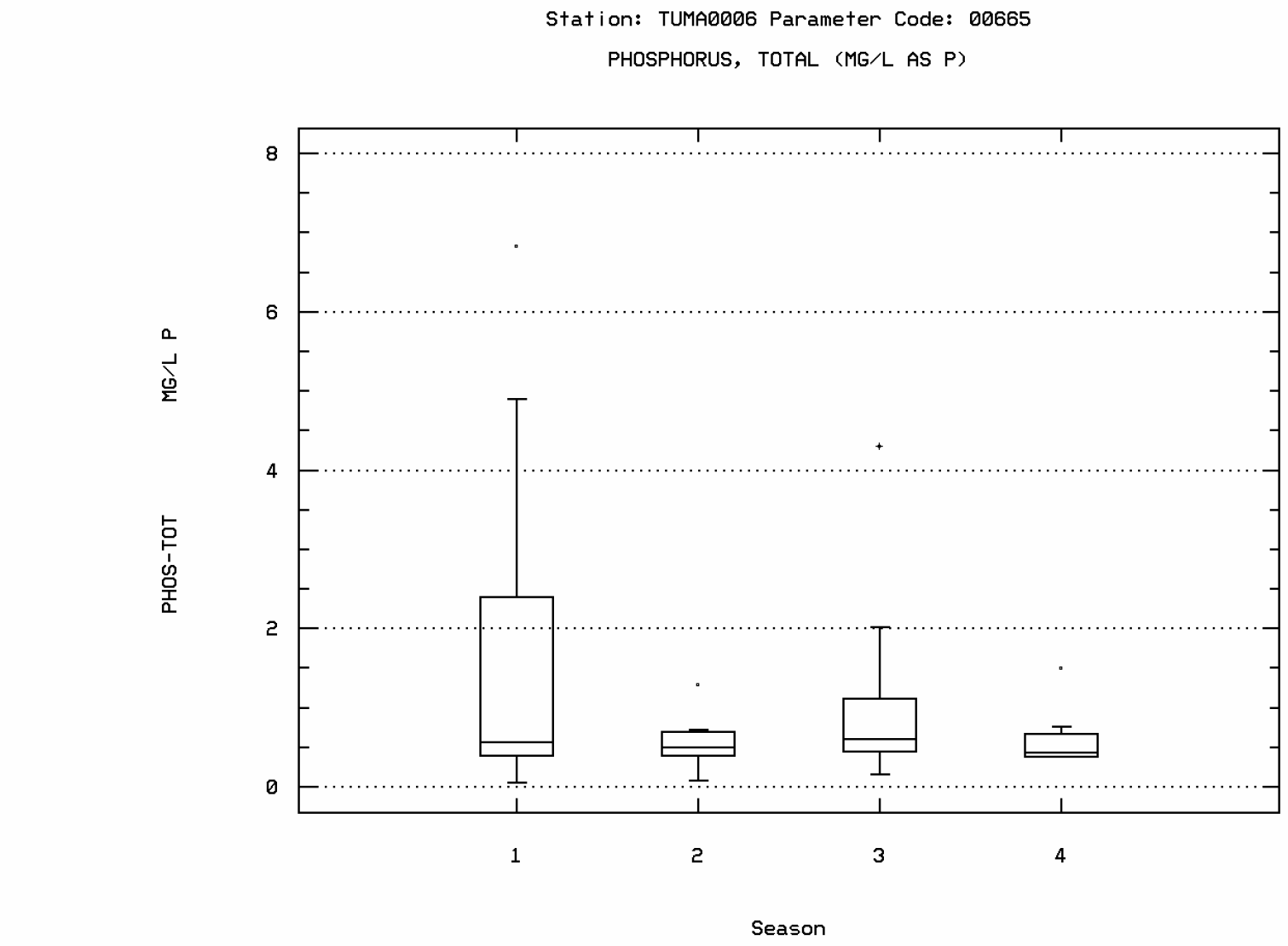
NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)



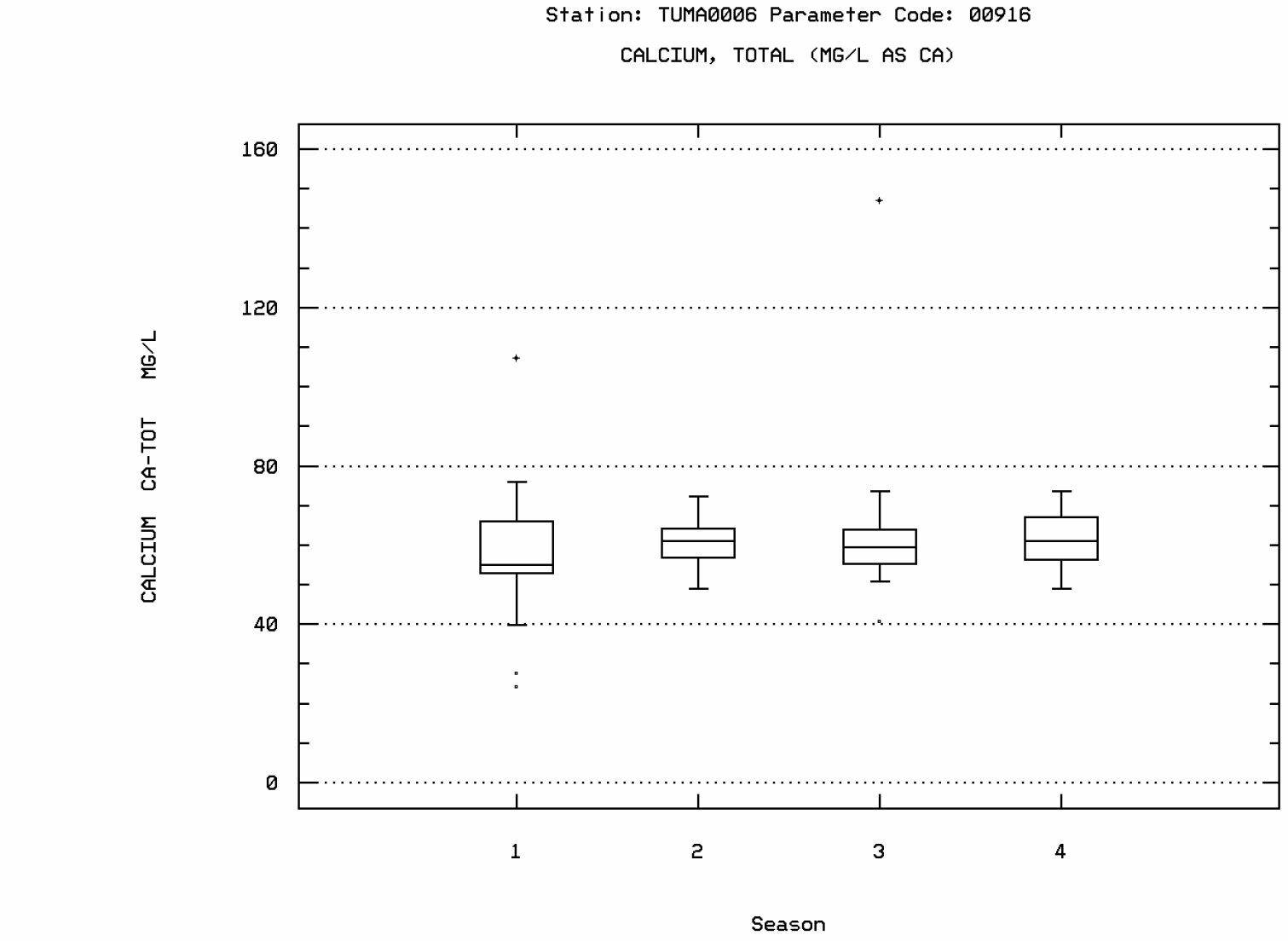
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



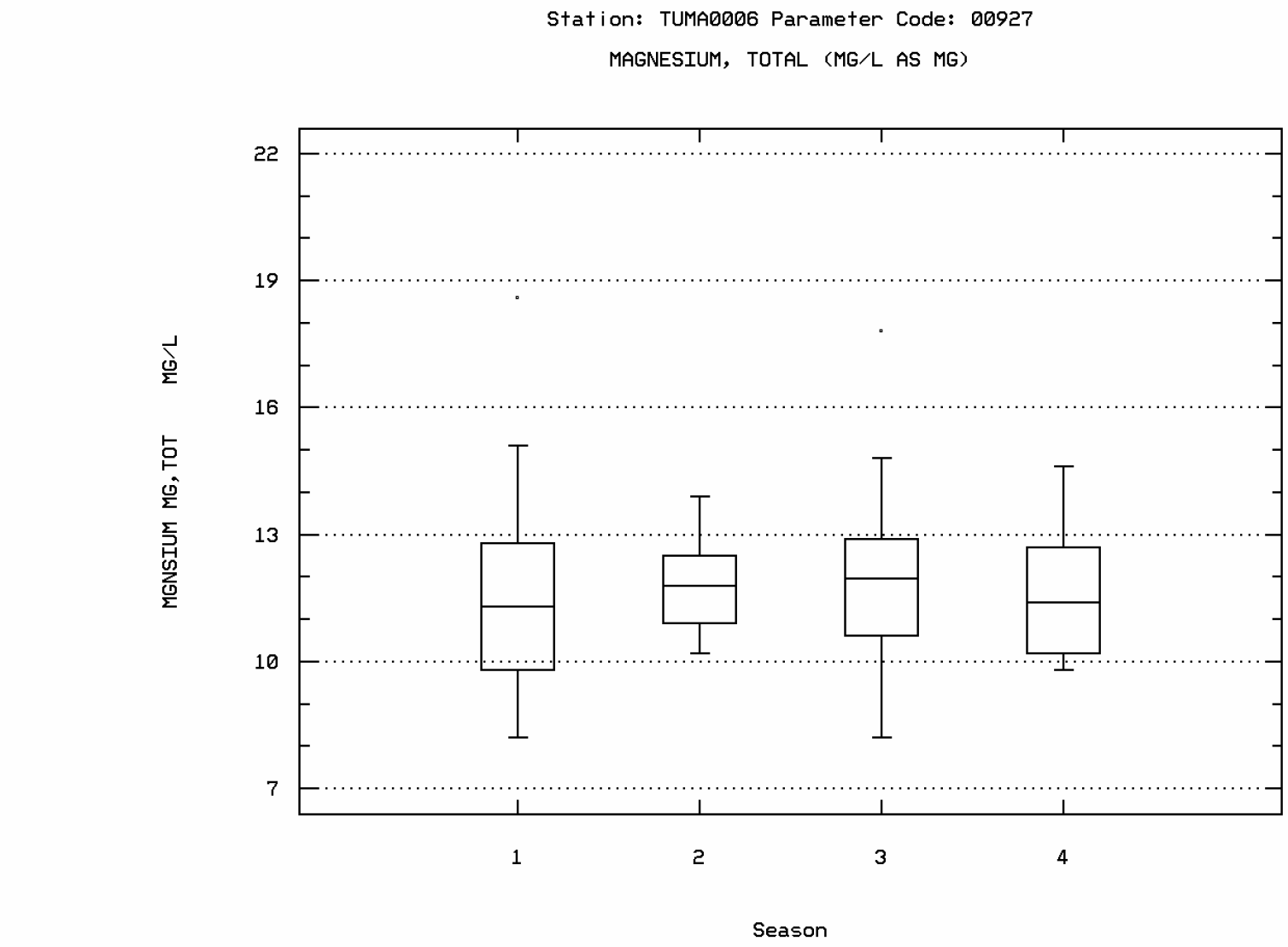
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



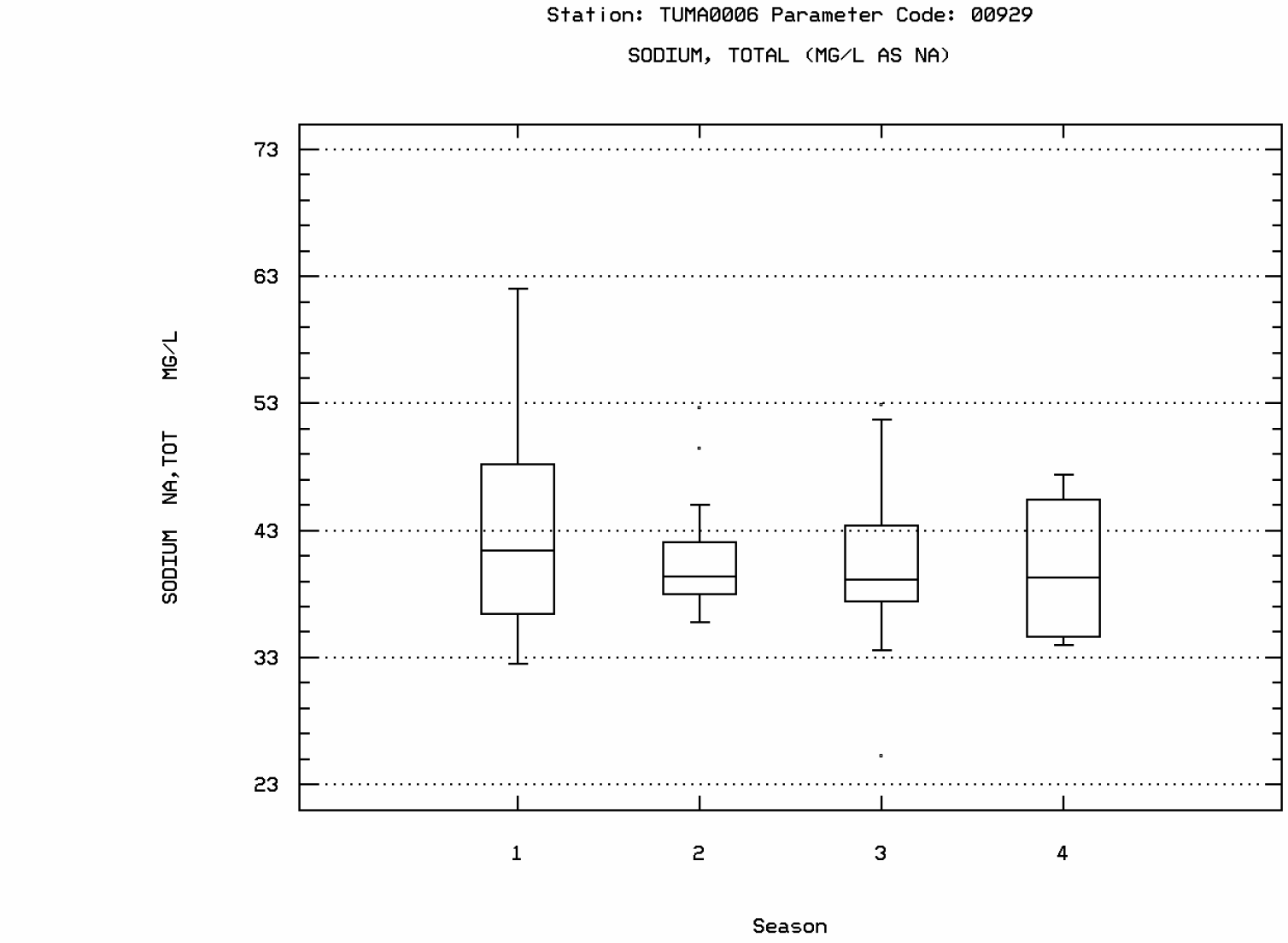
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



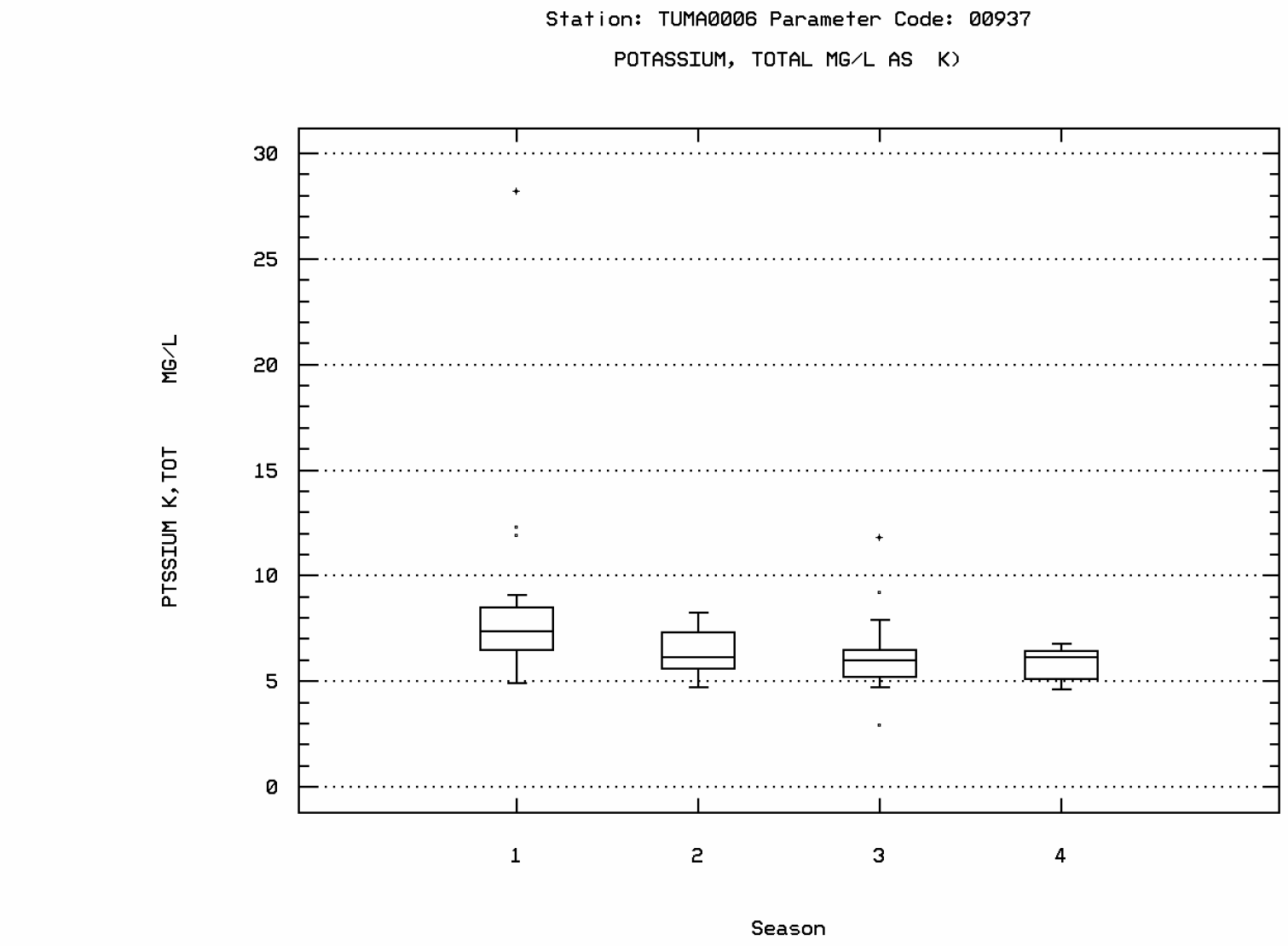
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



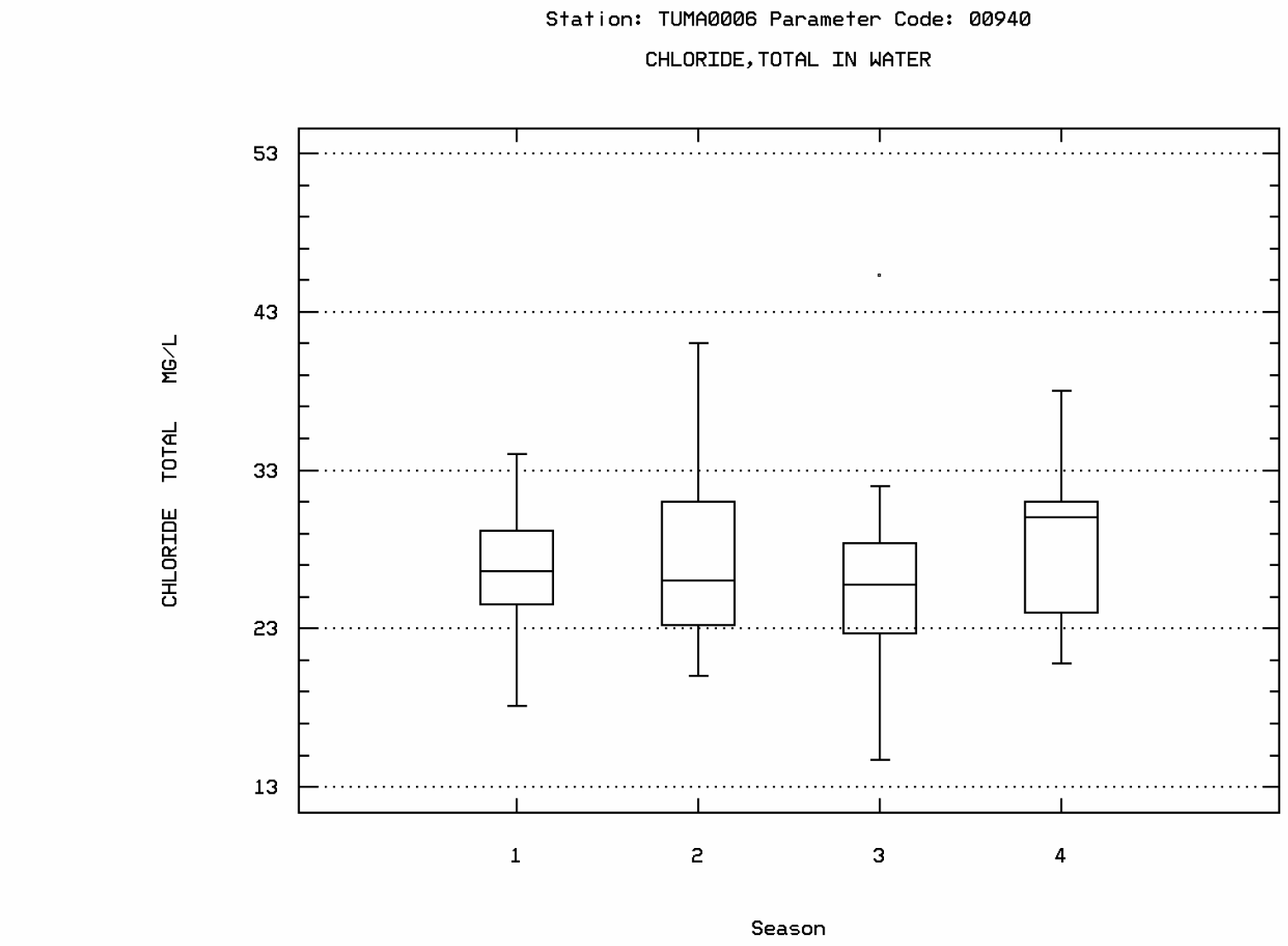
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



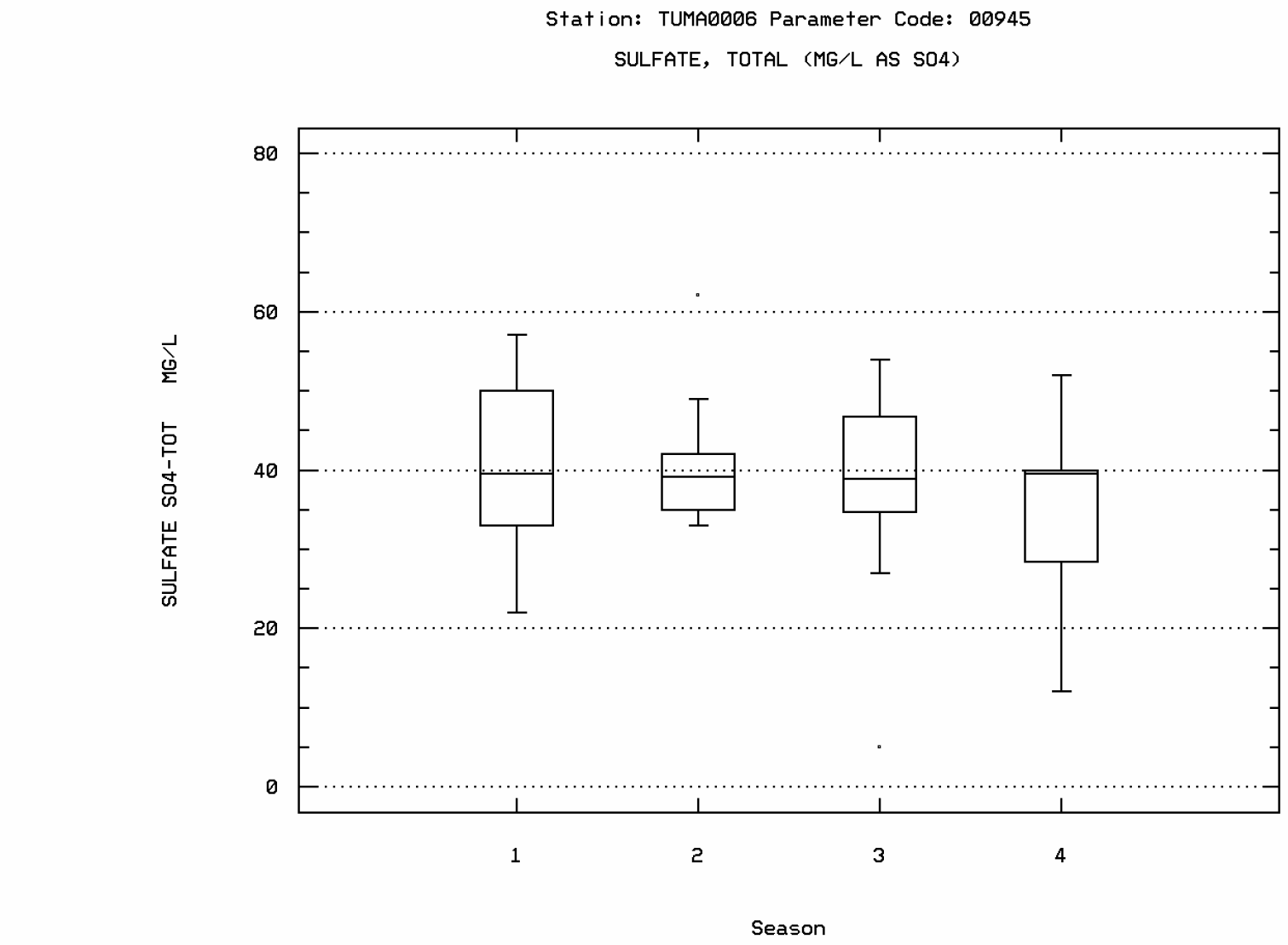
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



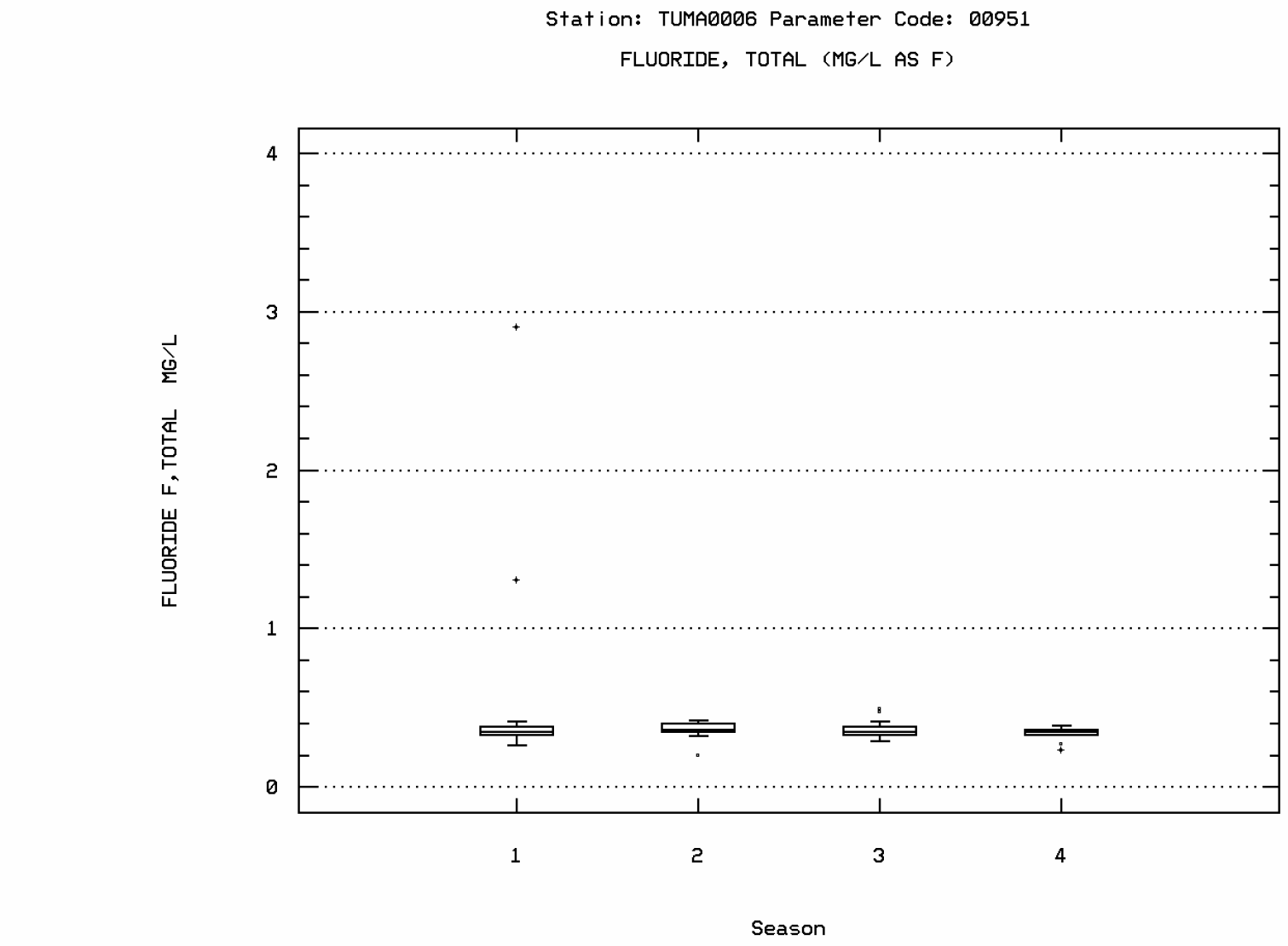
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



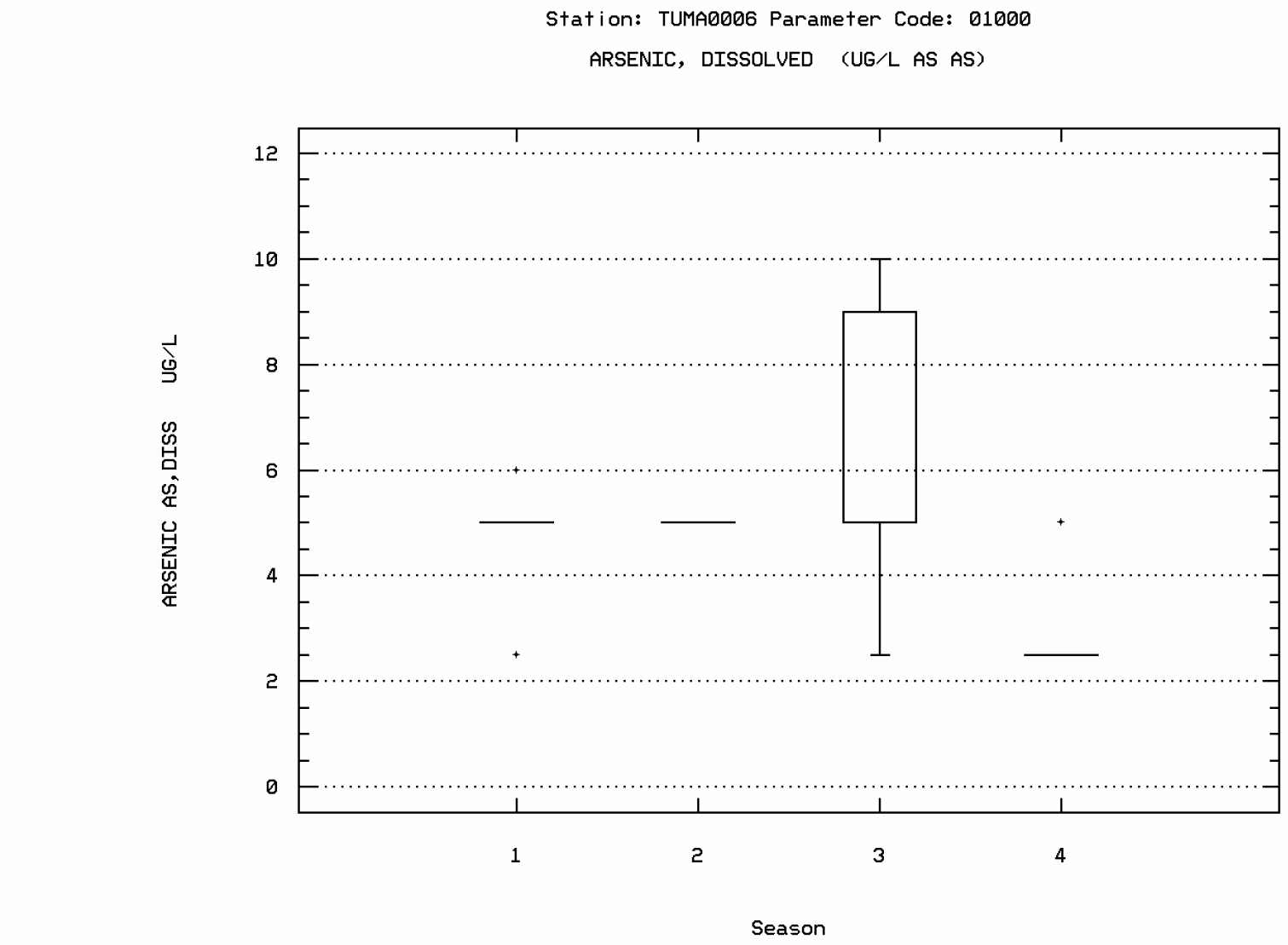
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



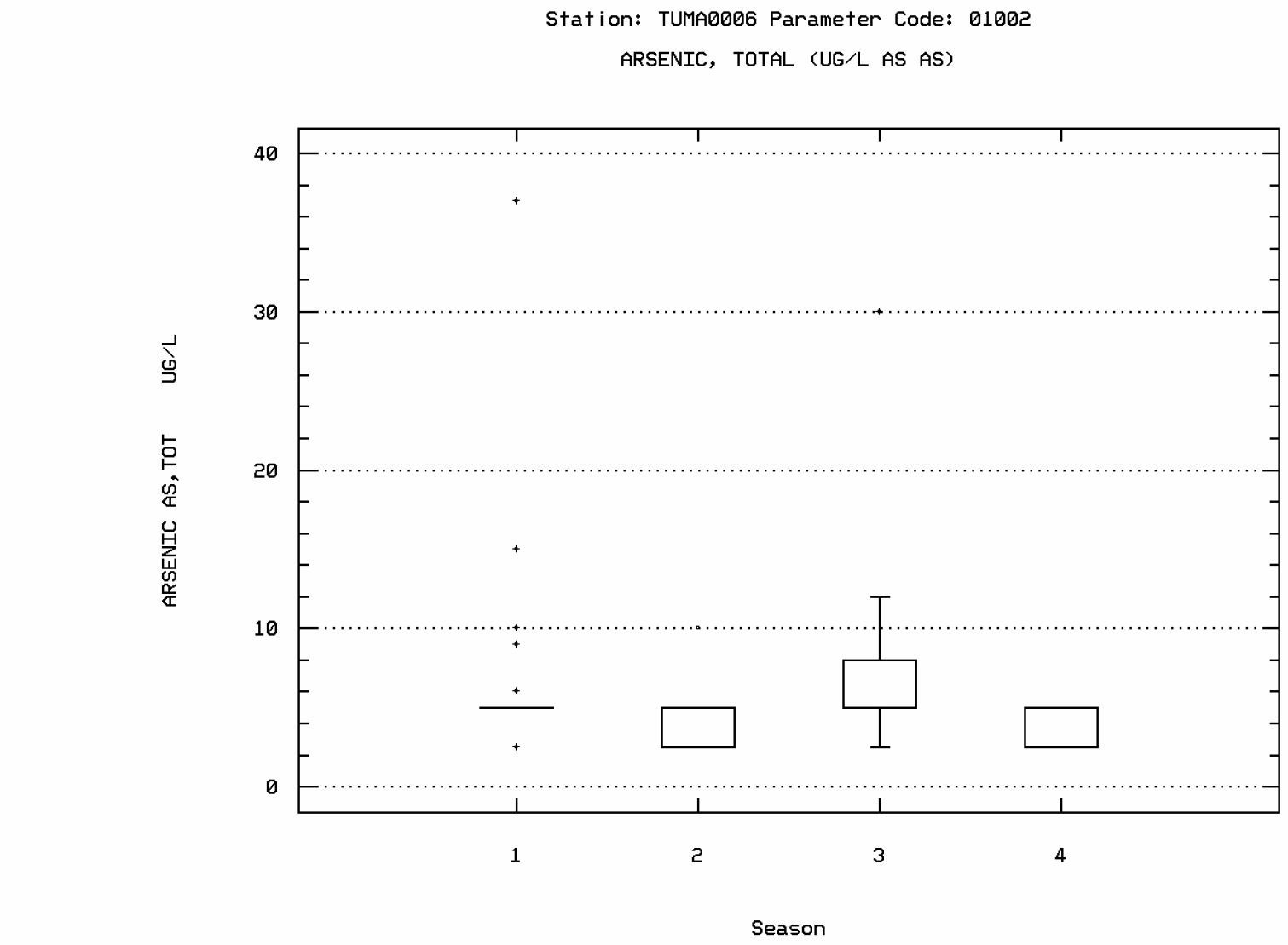
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



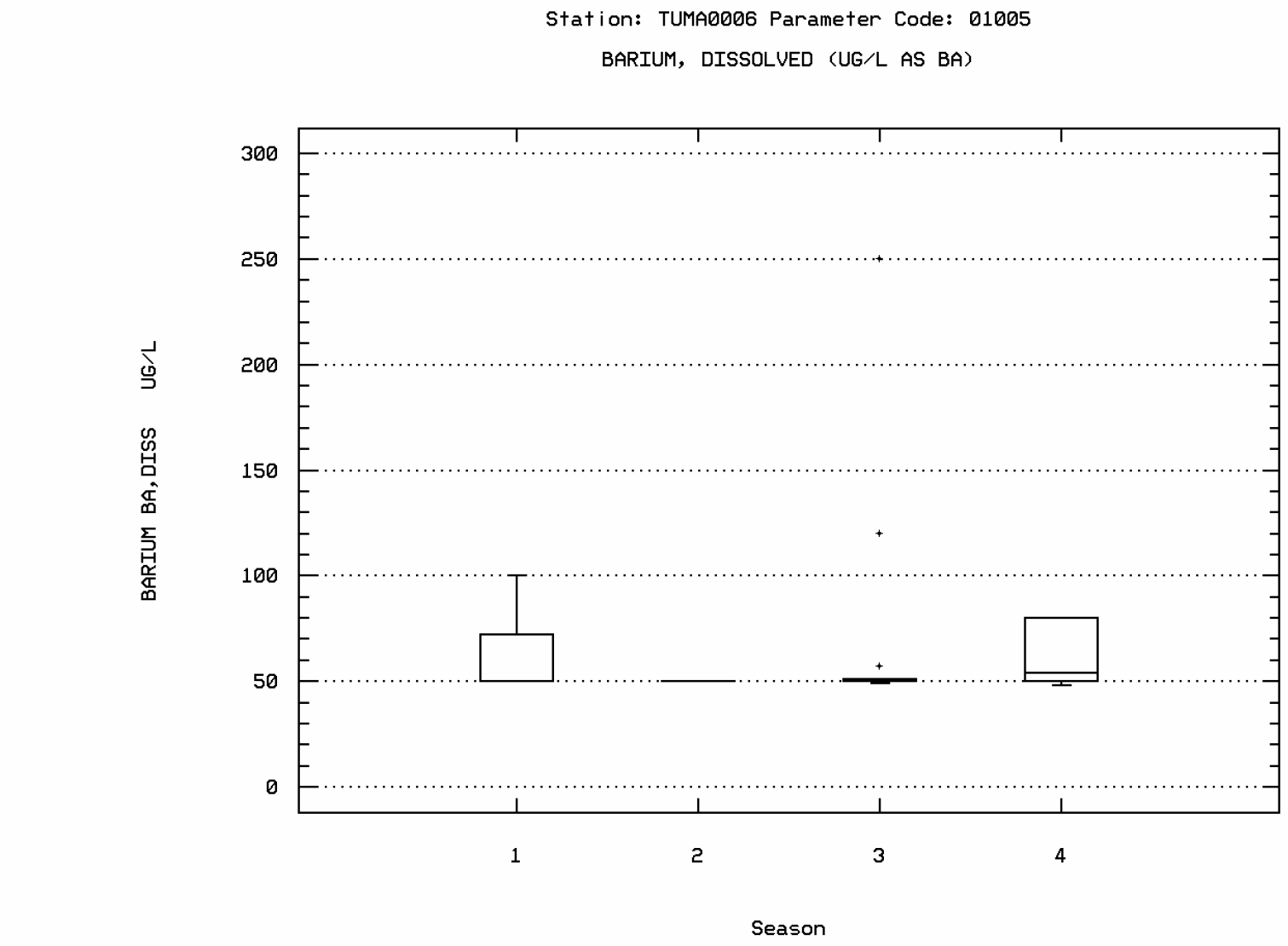
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



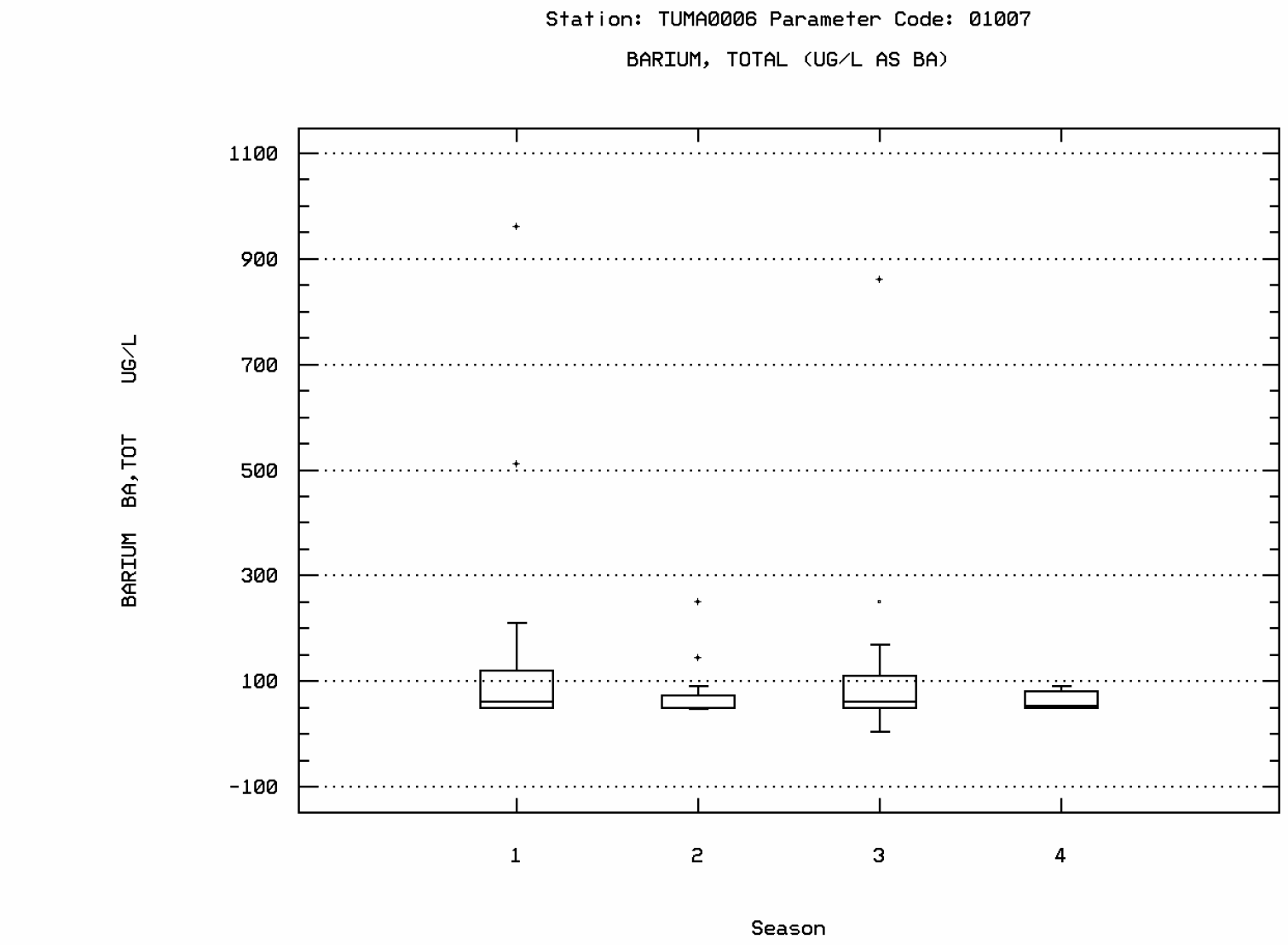
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



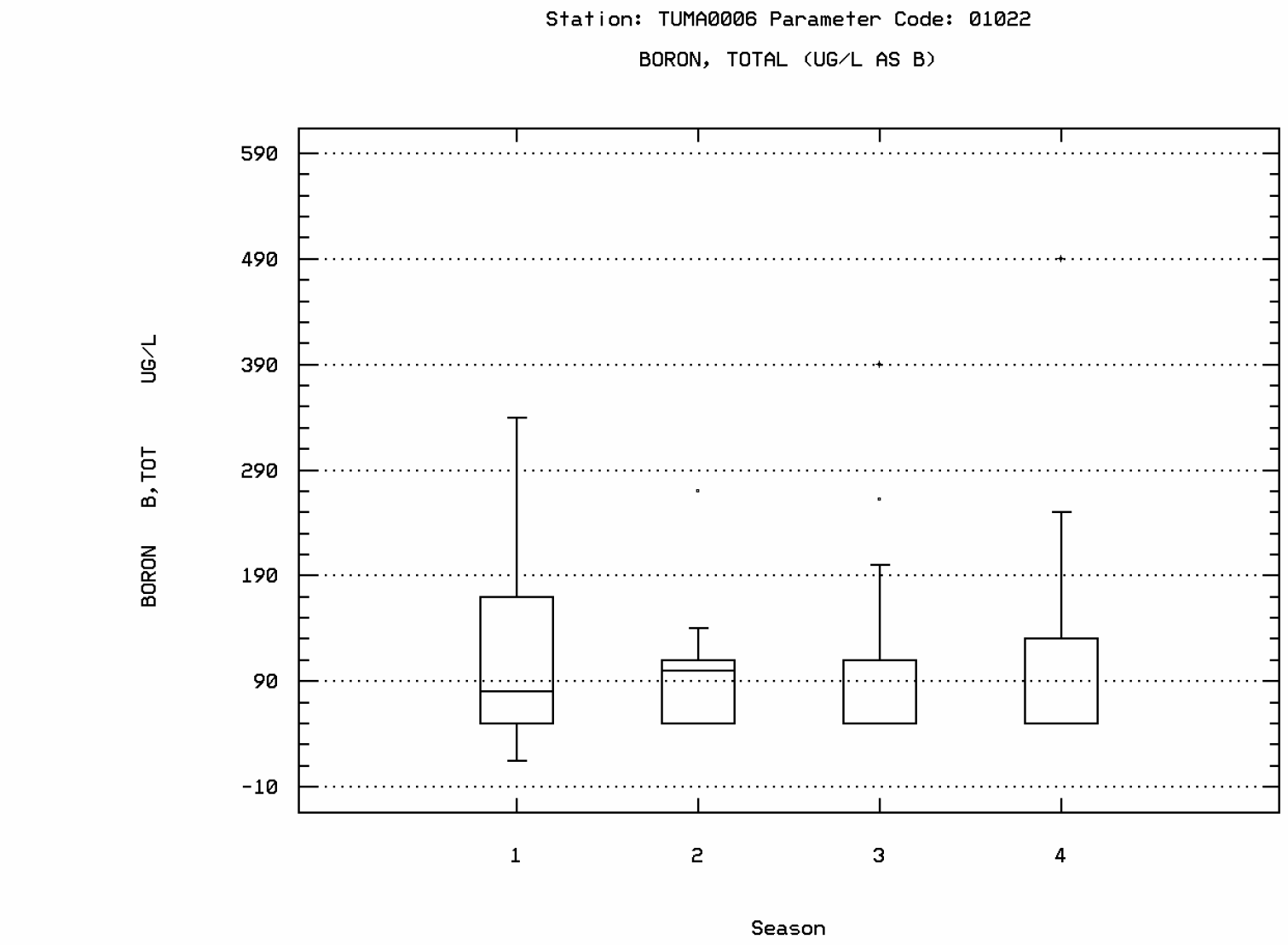
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



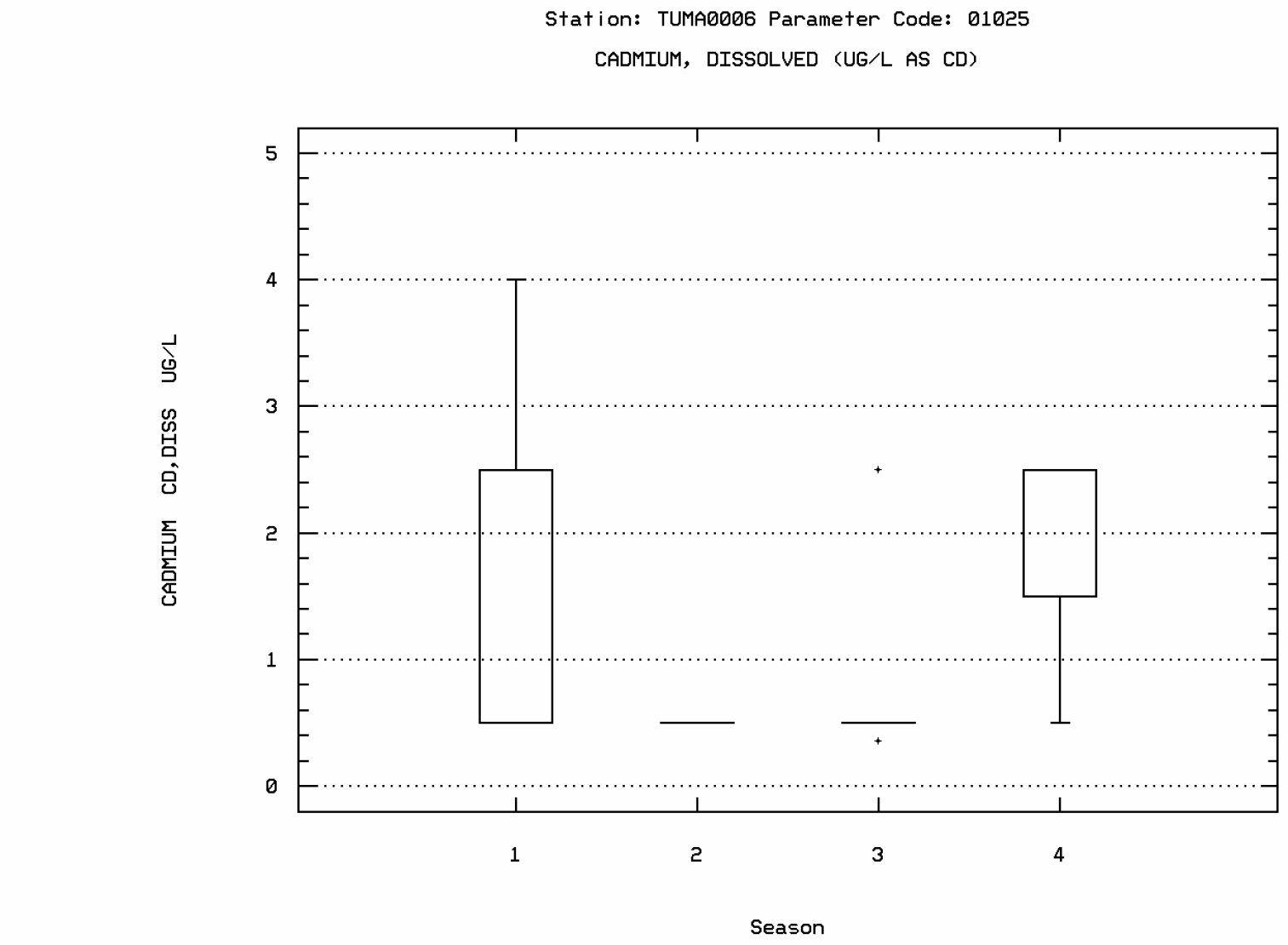
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



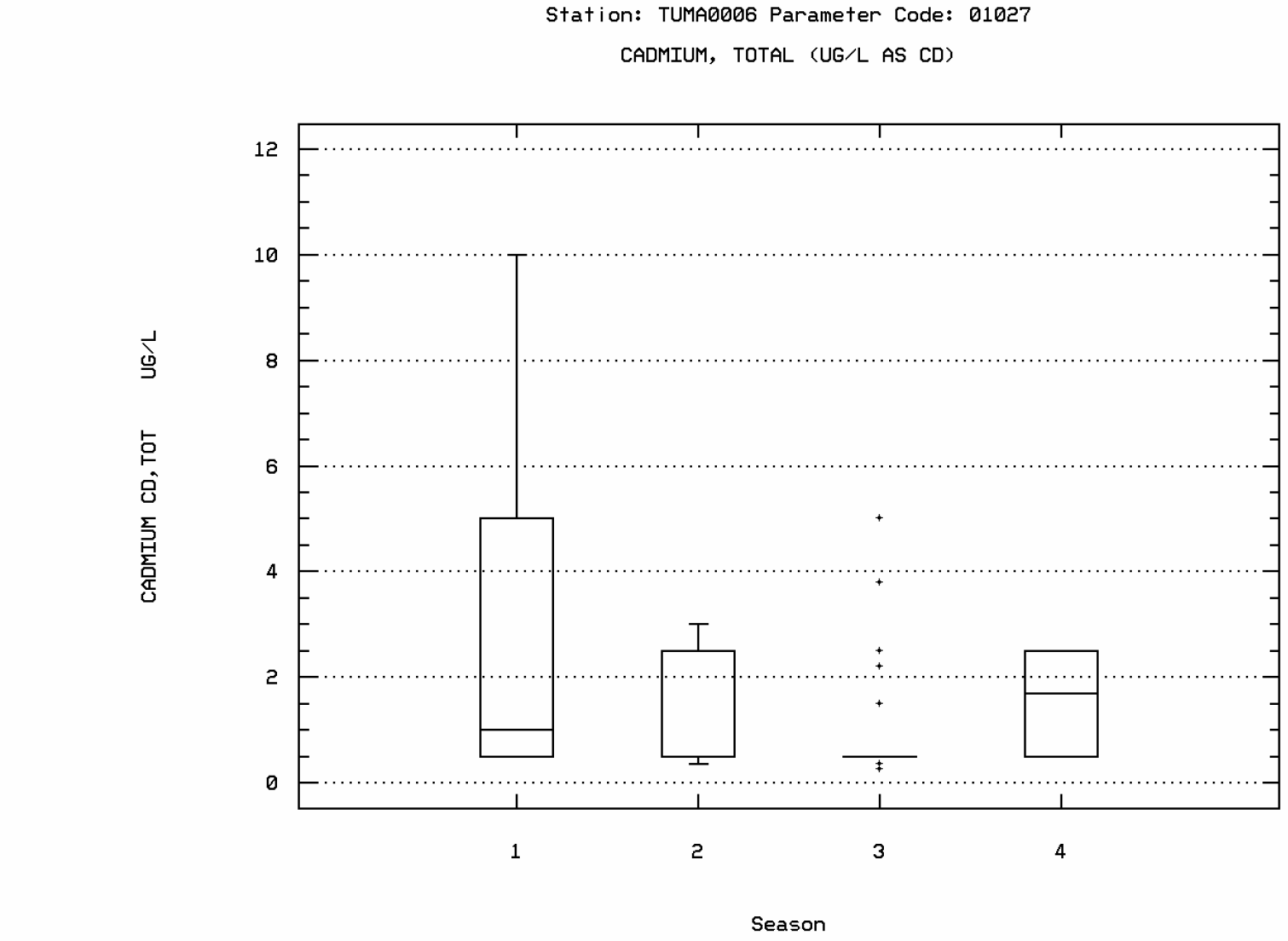
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



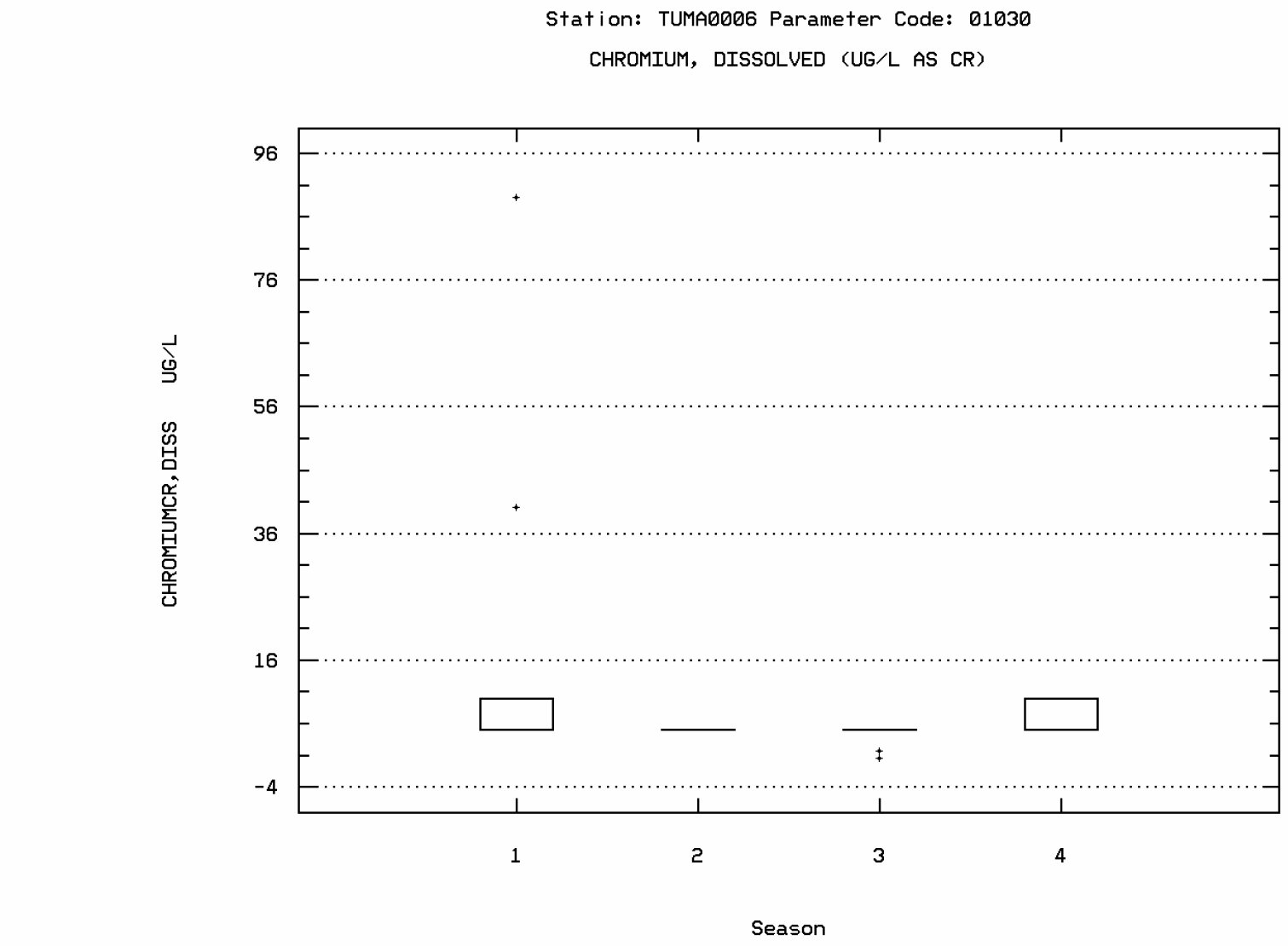
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



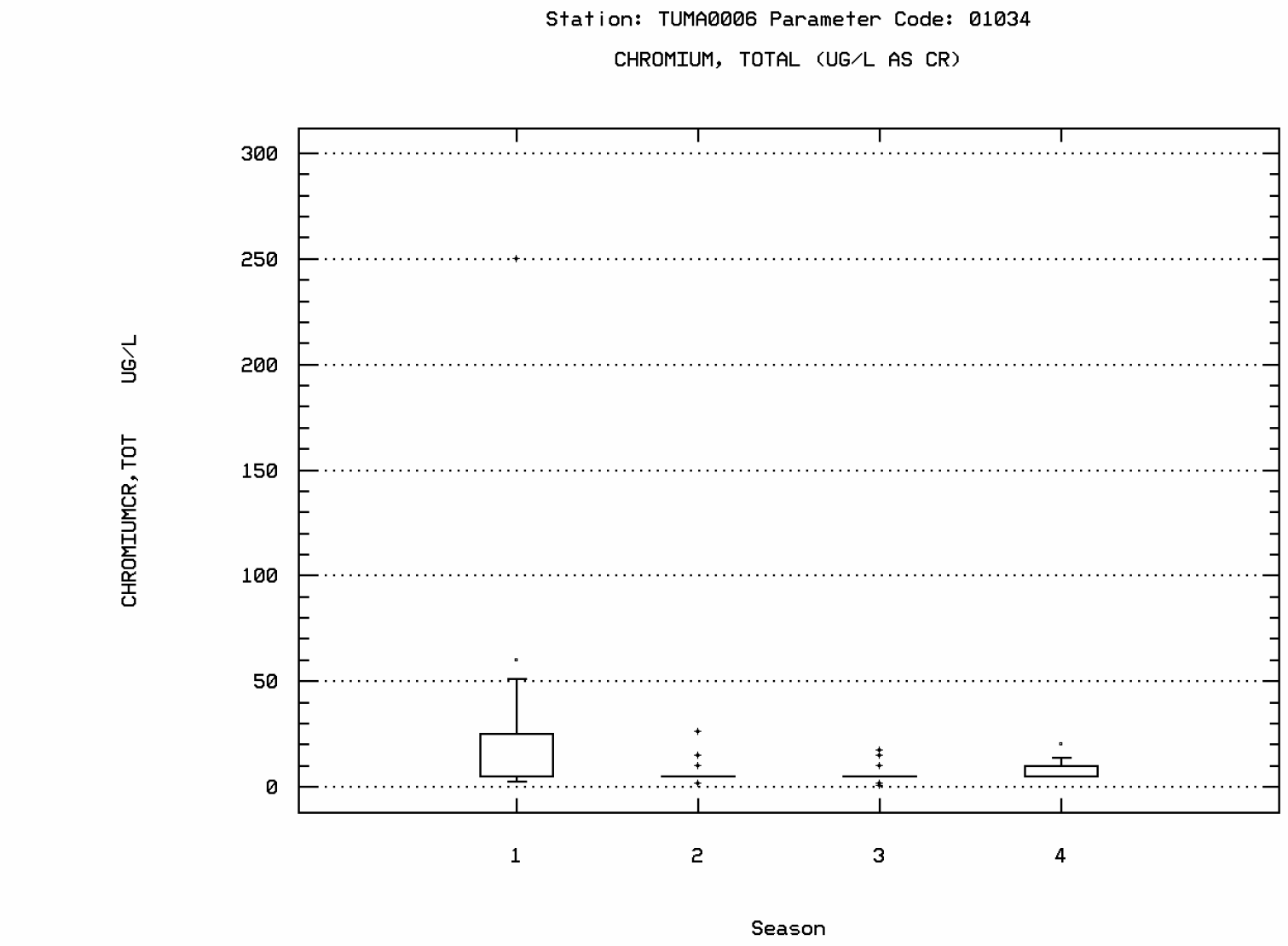
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



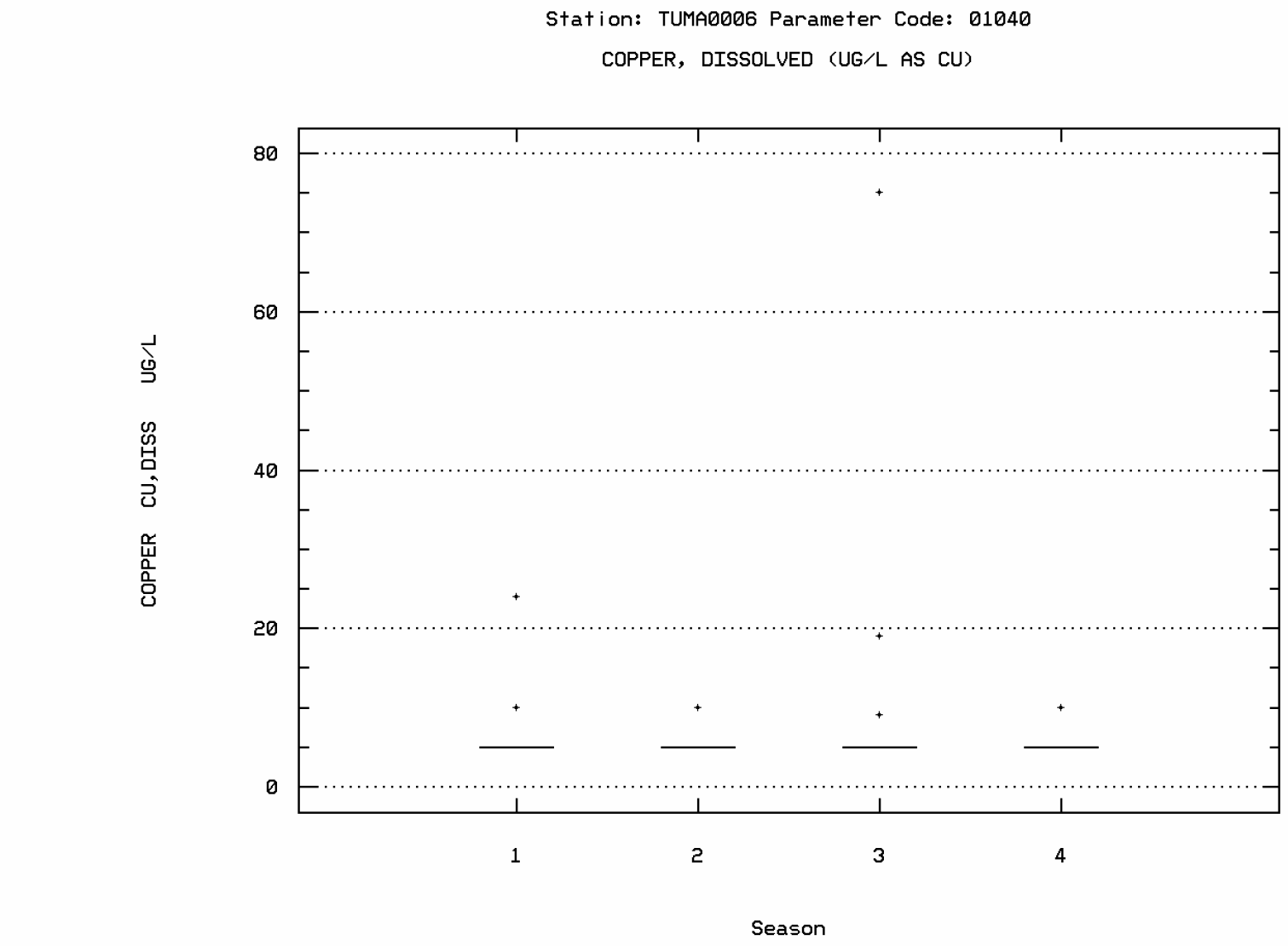
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



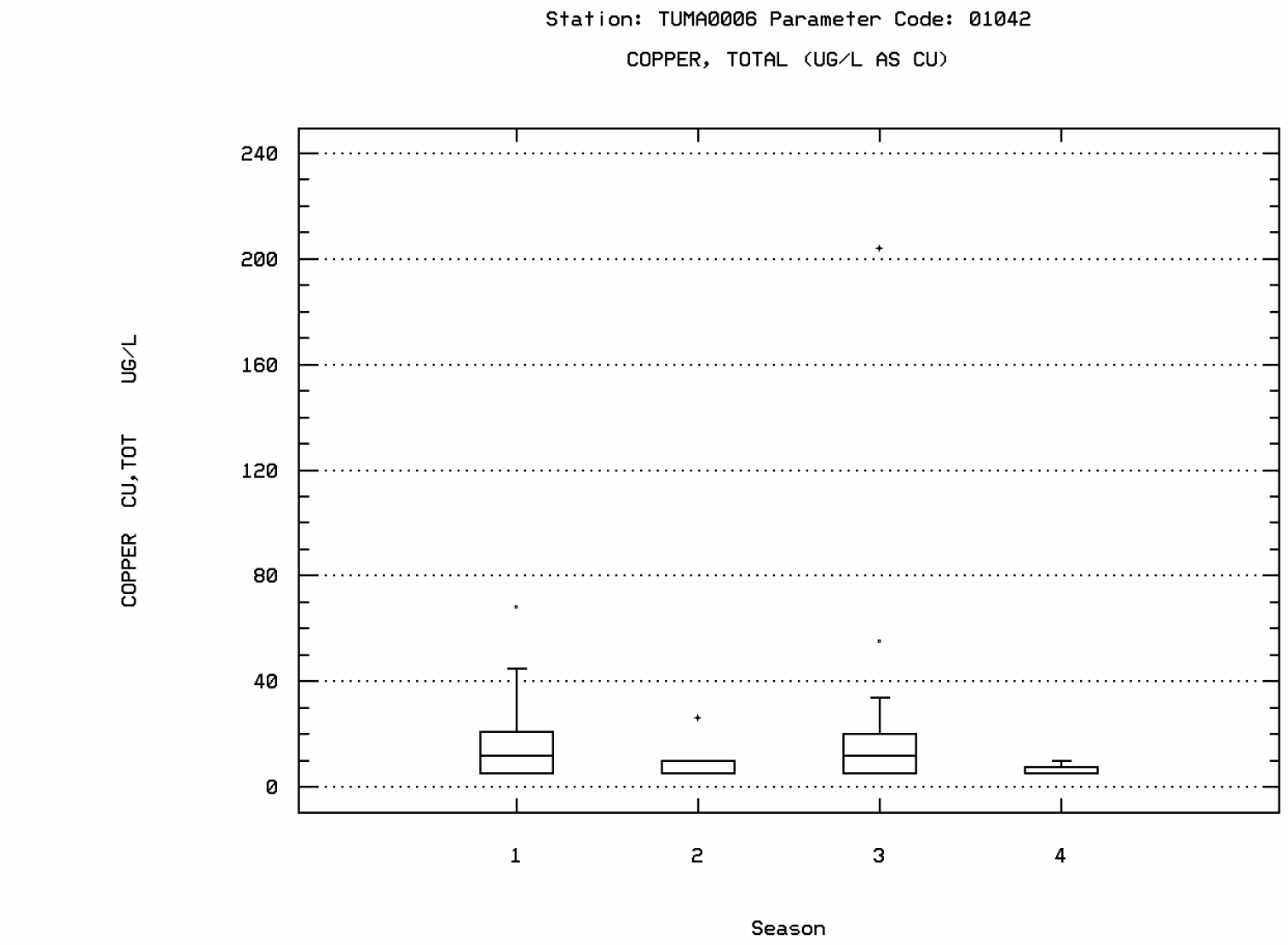
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



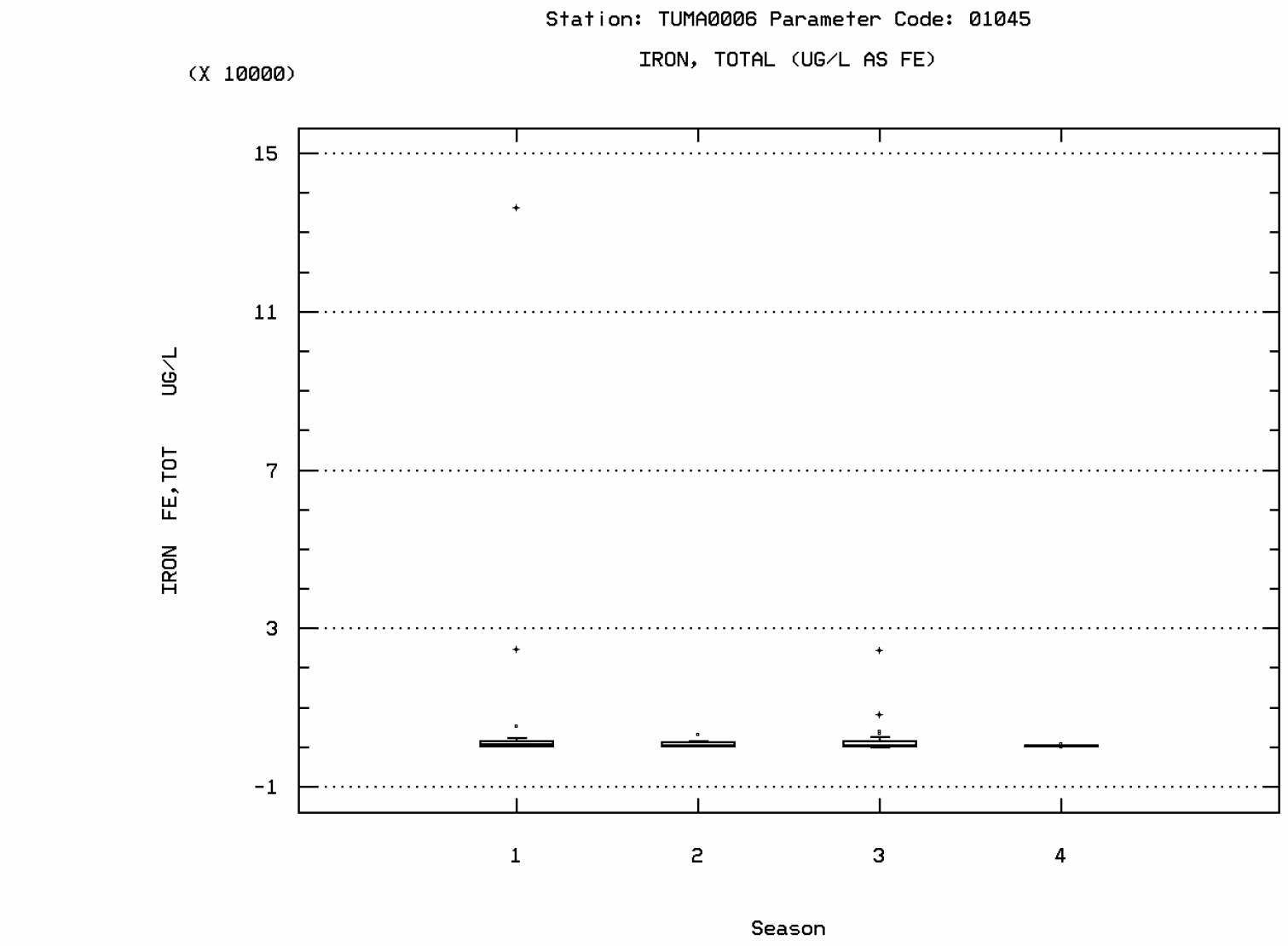
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



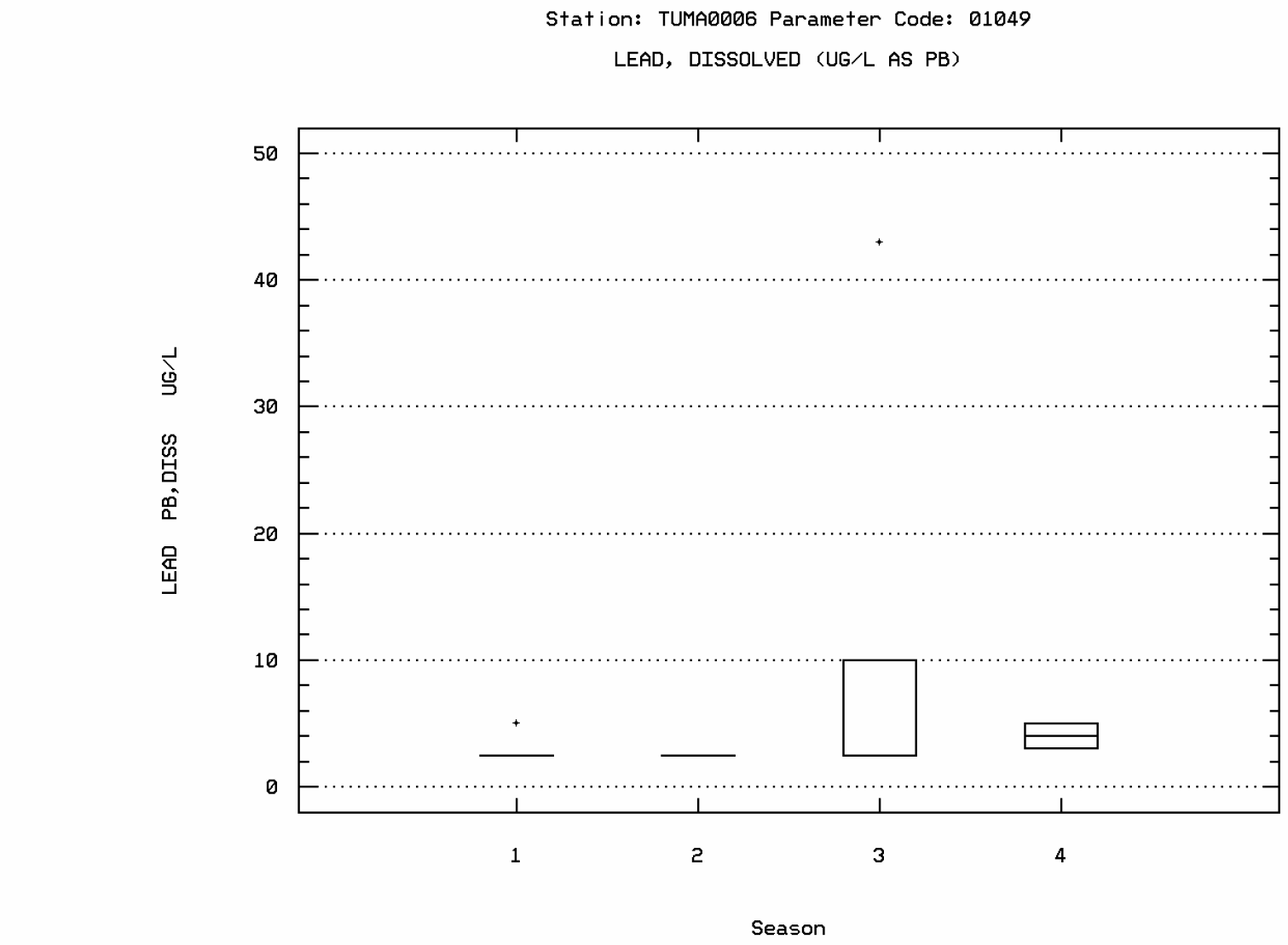
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



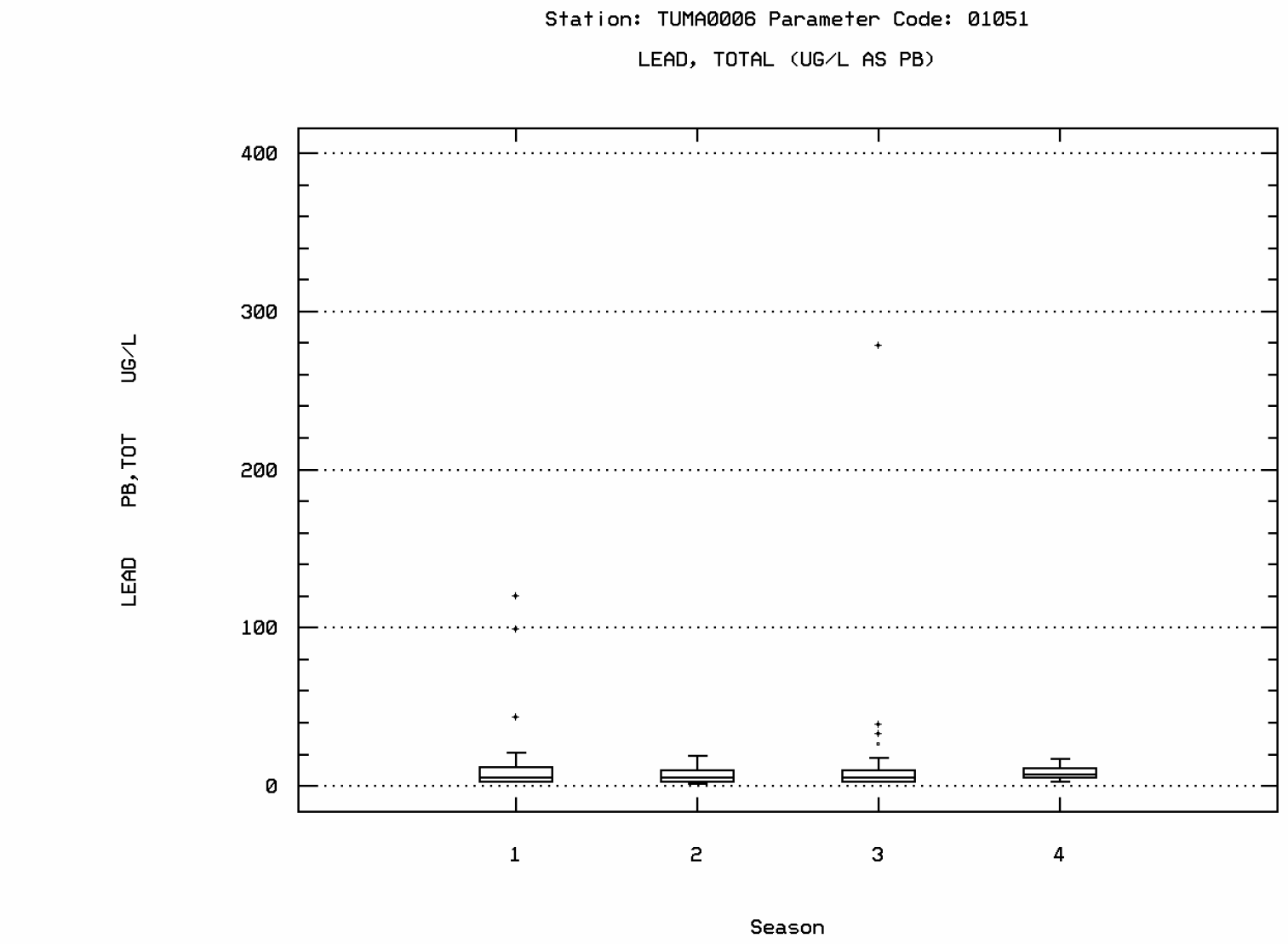
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



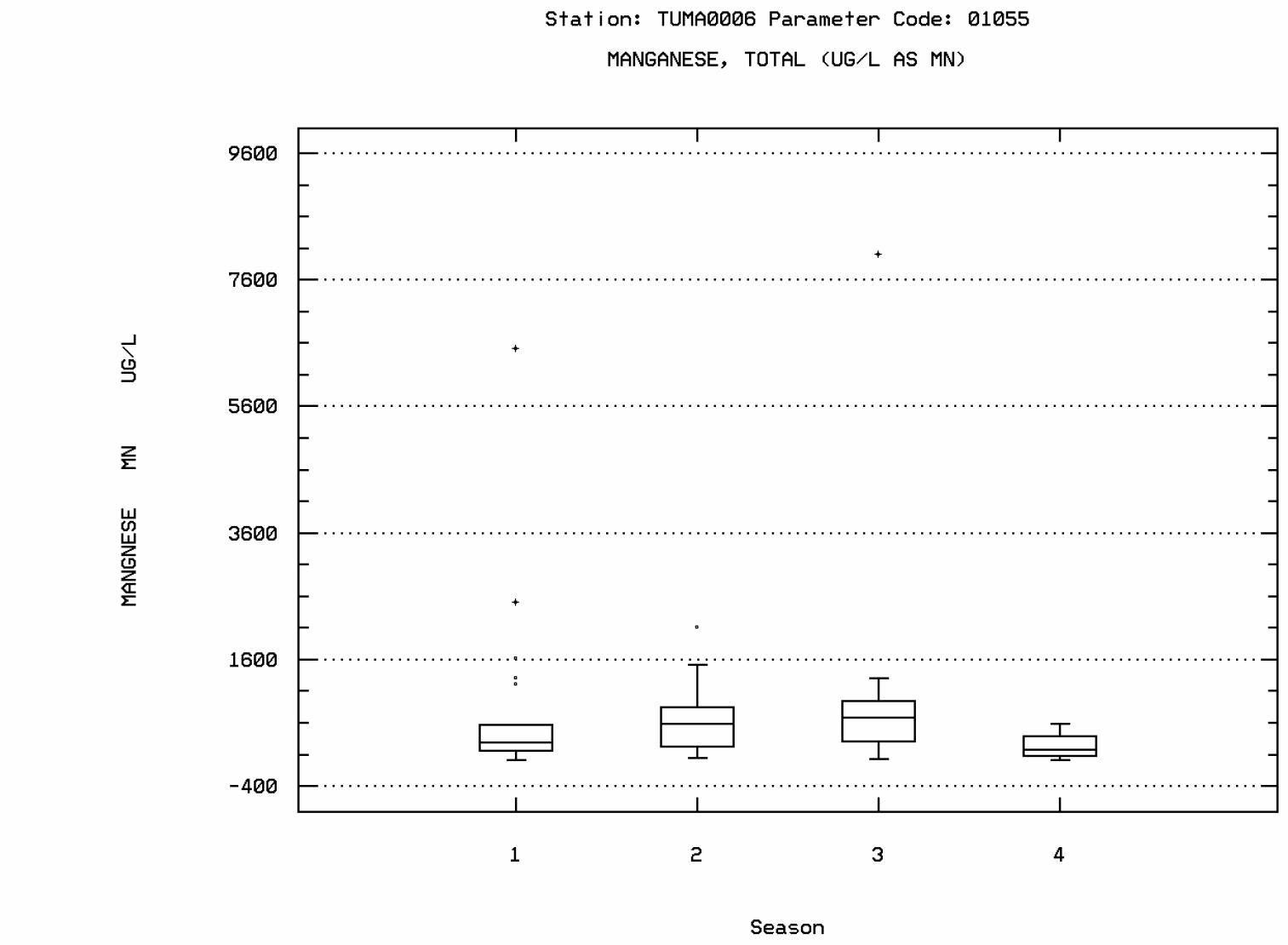
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



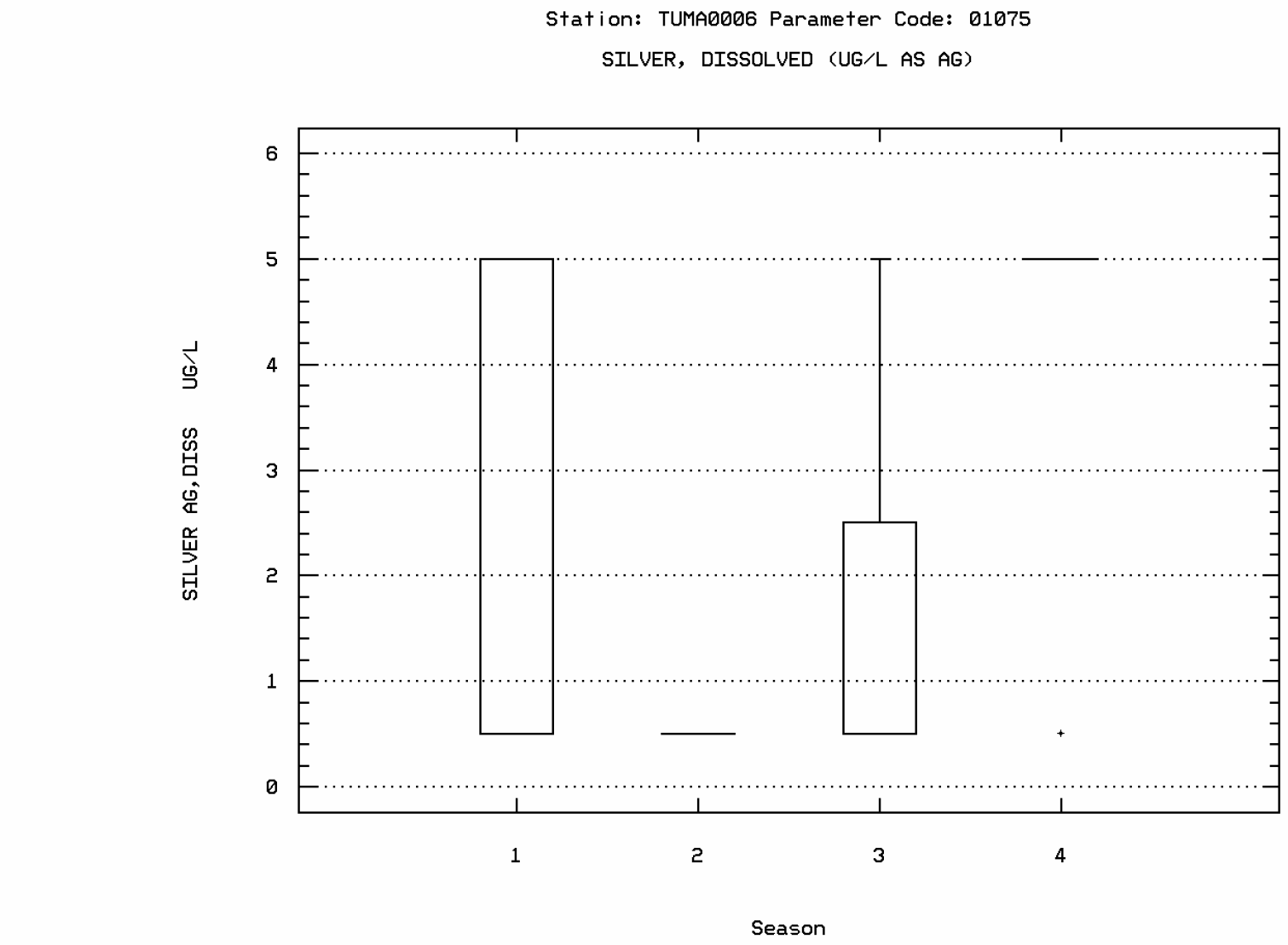
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



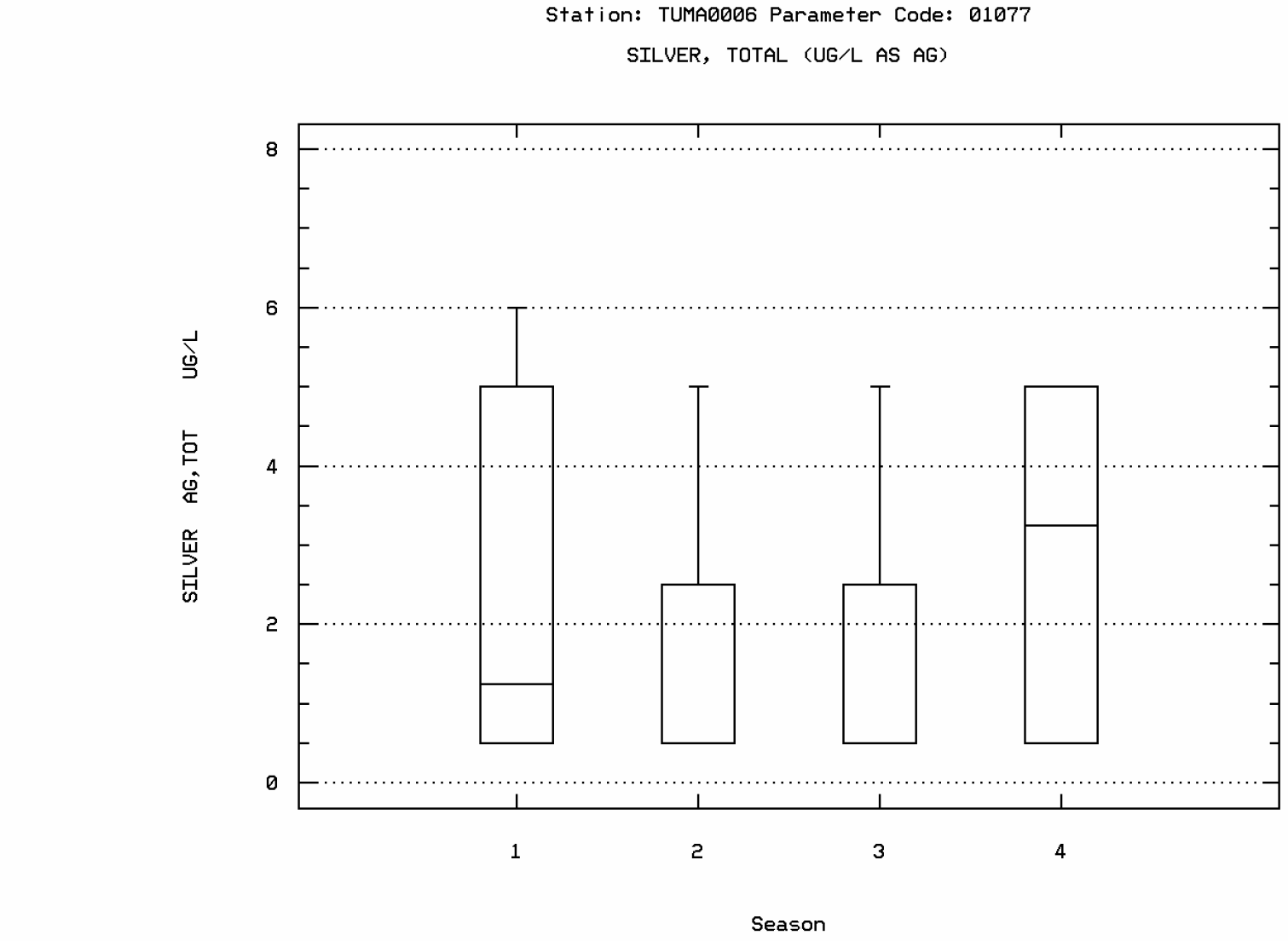
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



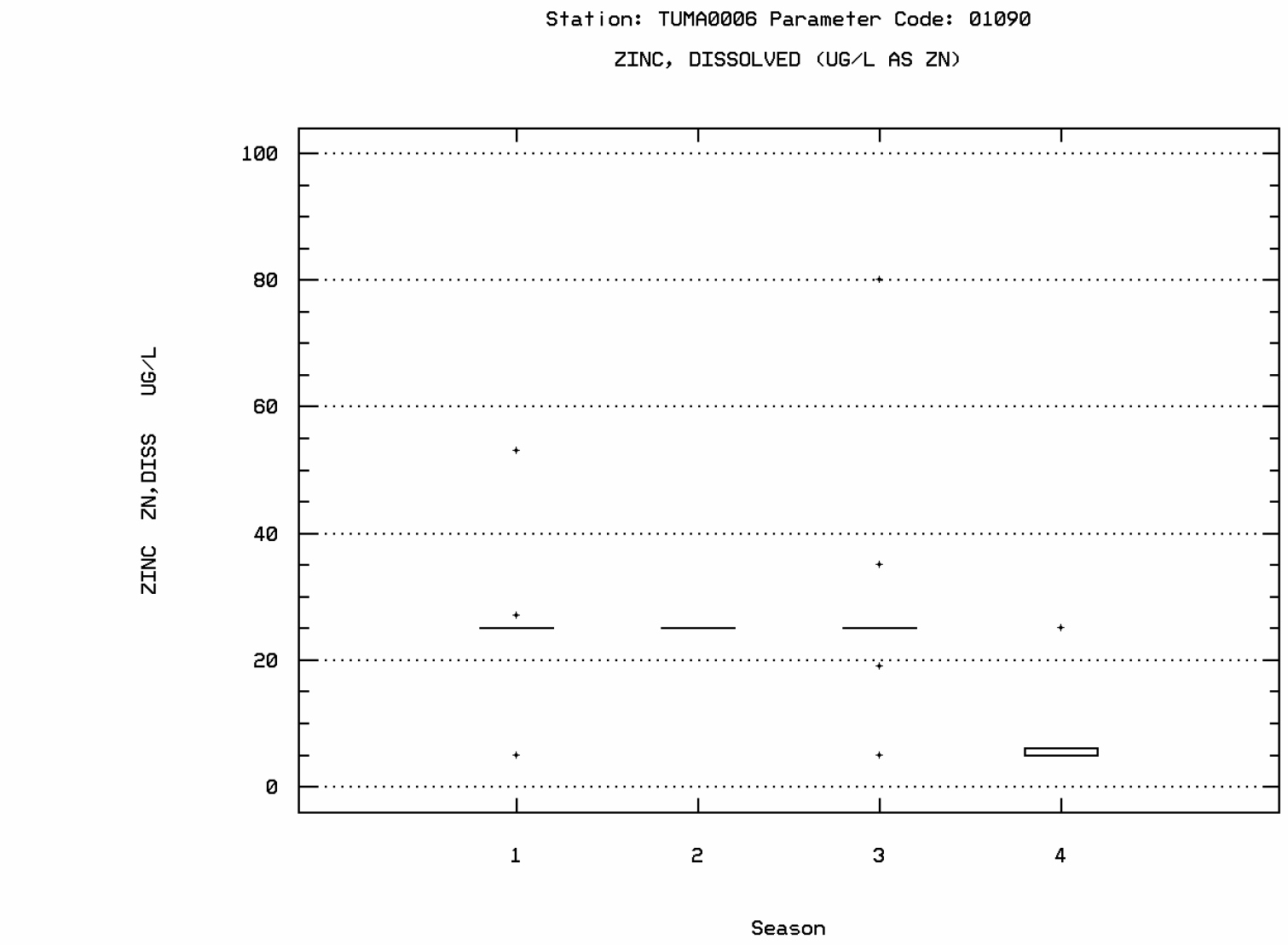
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



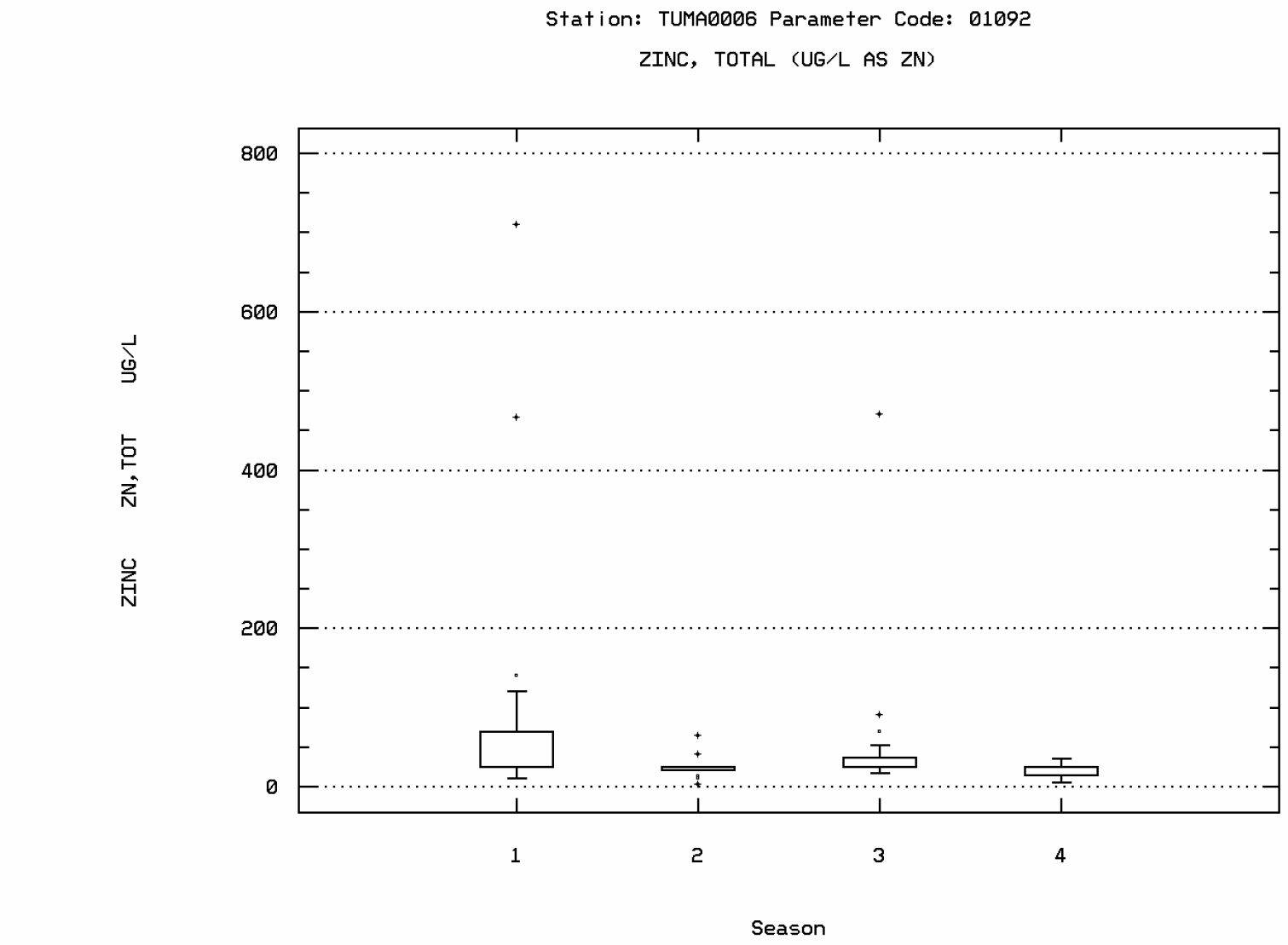
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



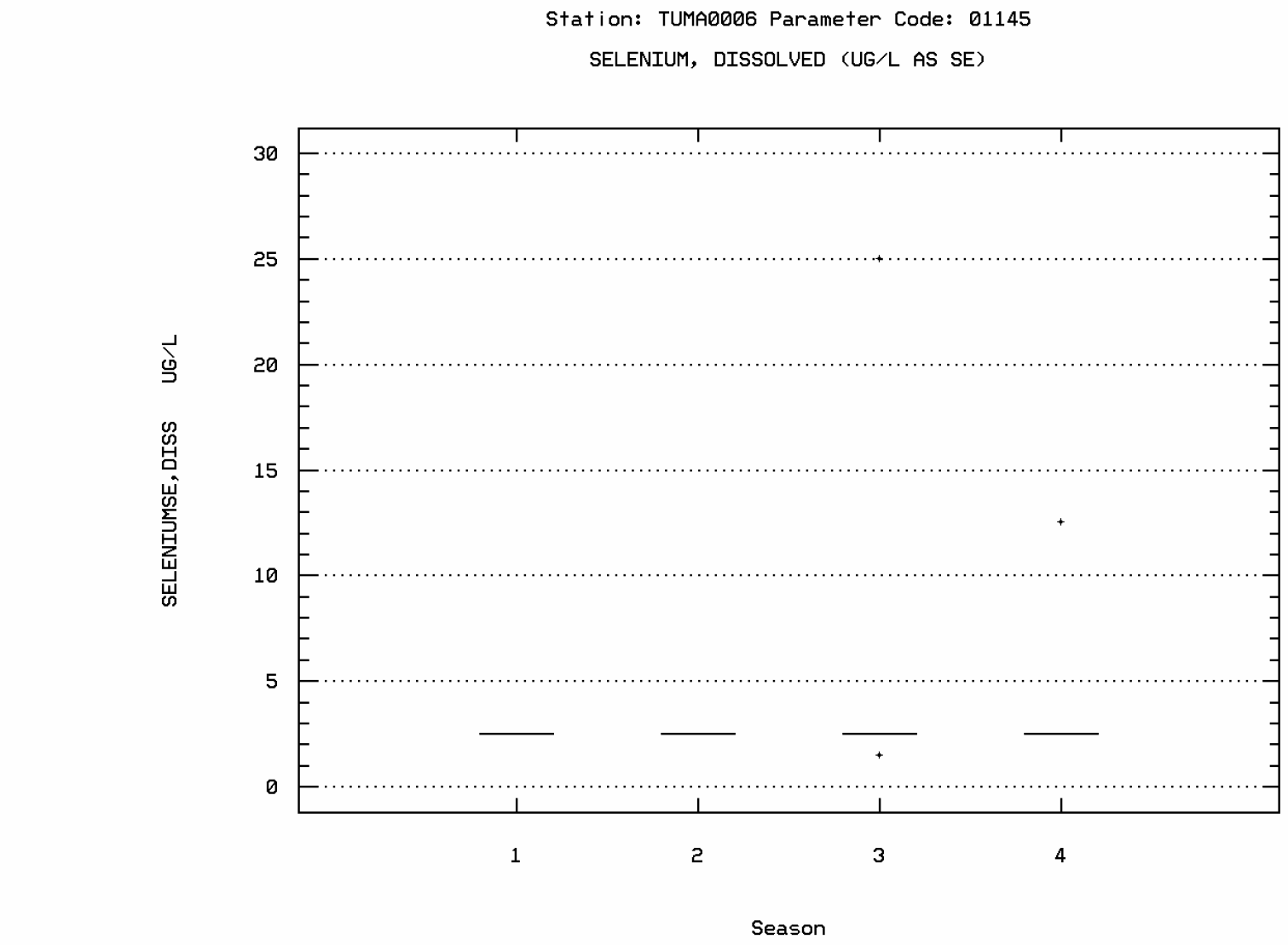
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



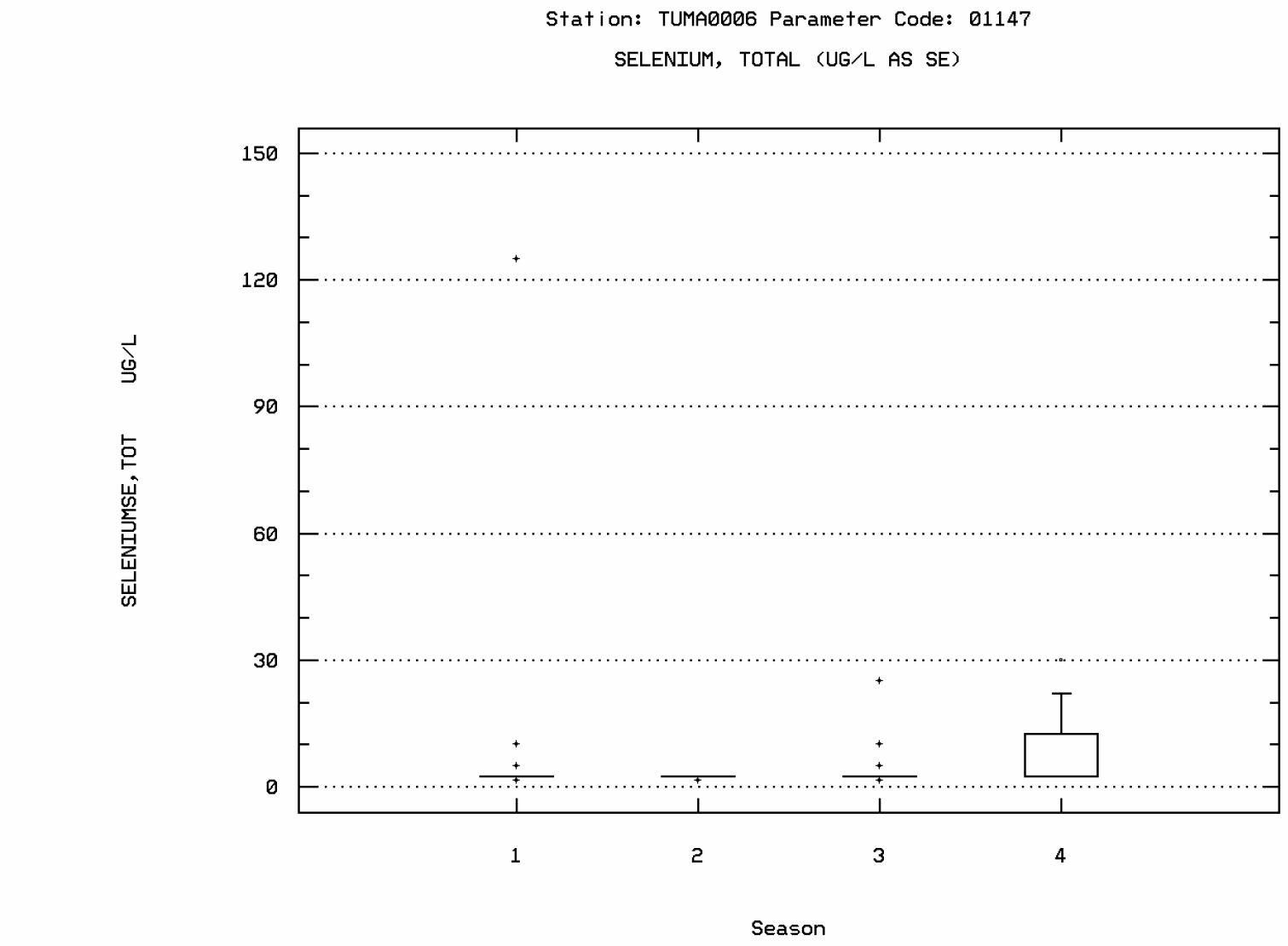
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



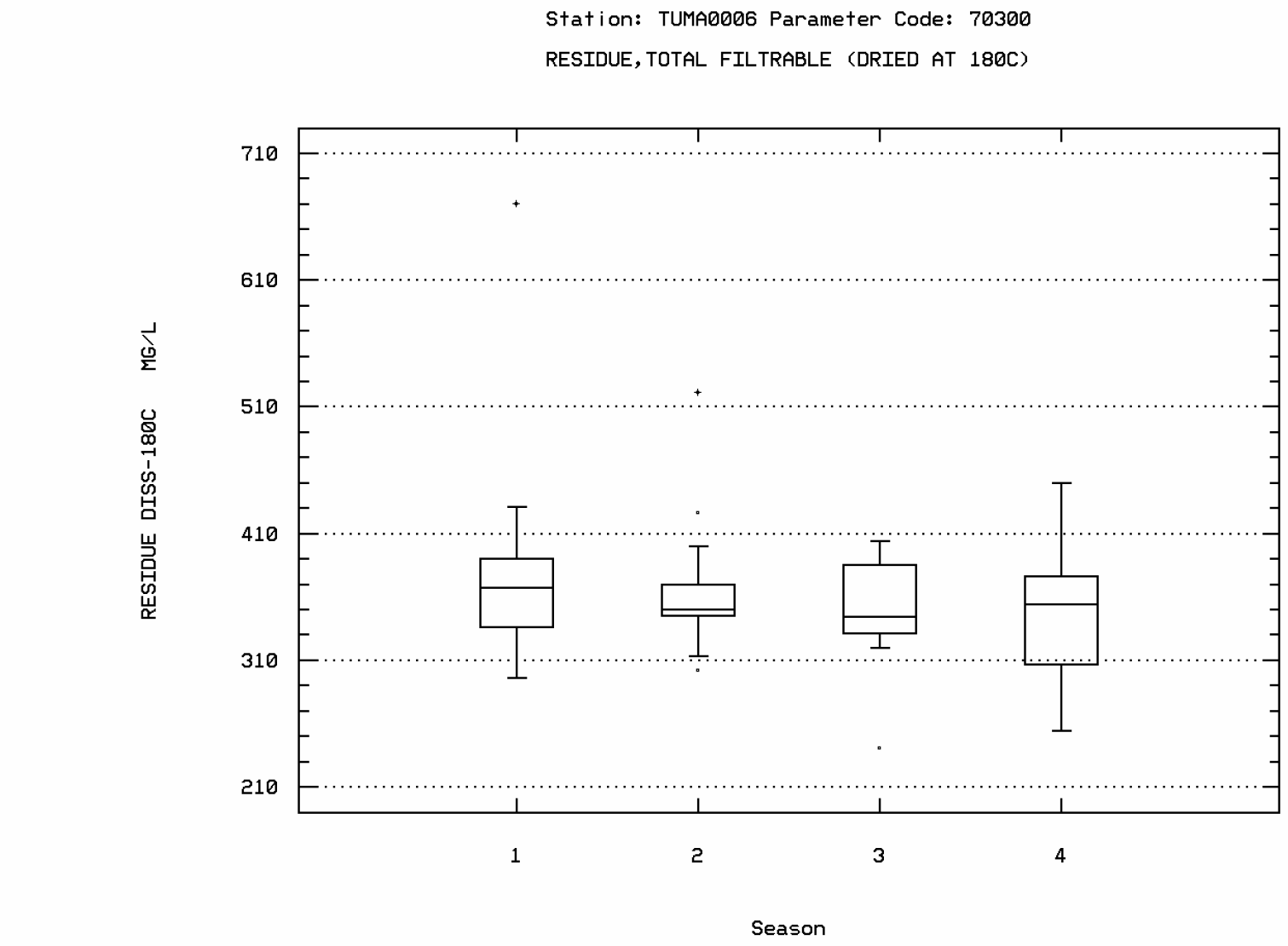
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



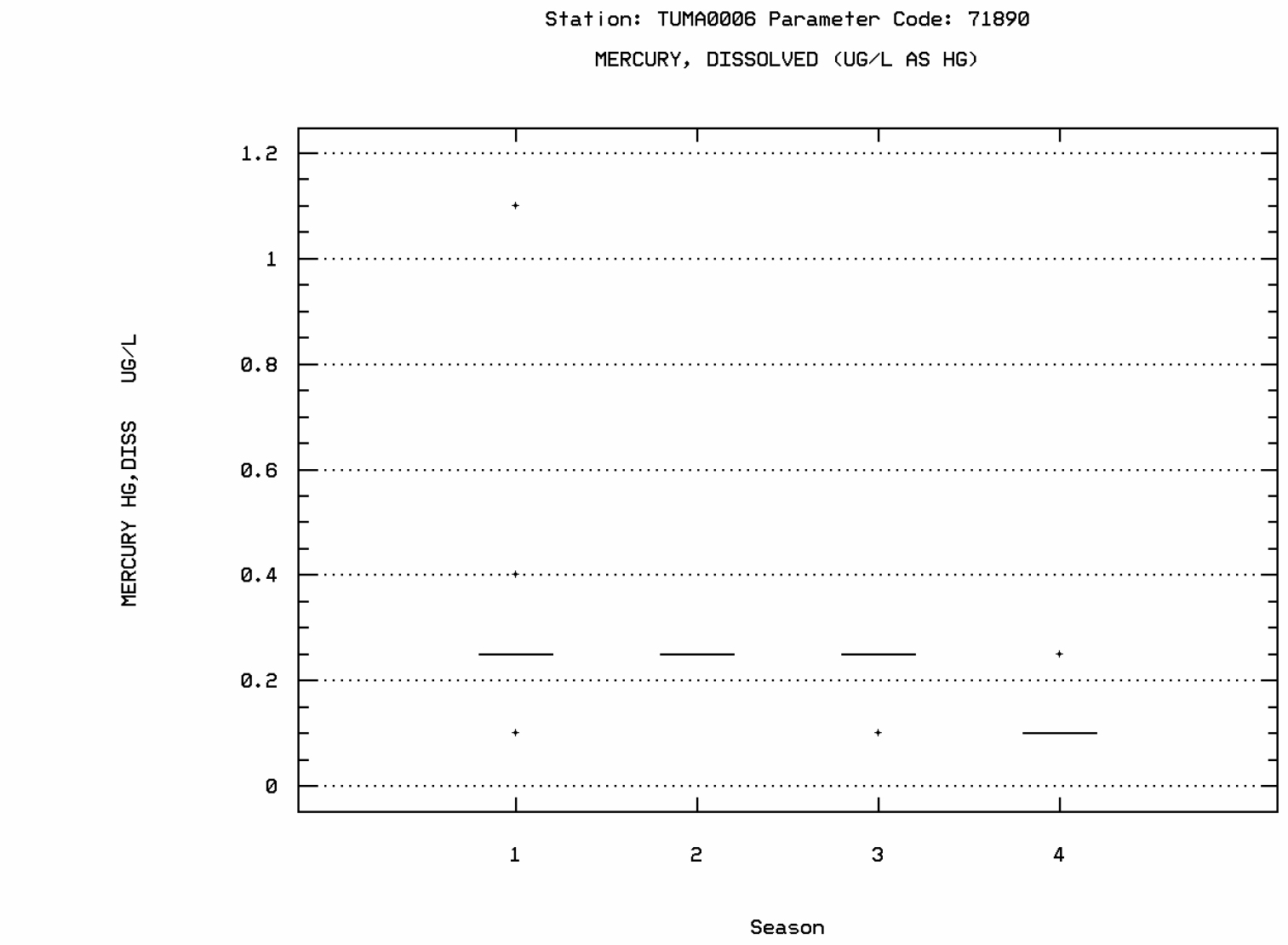
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



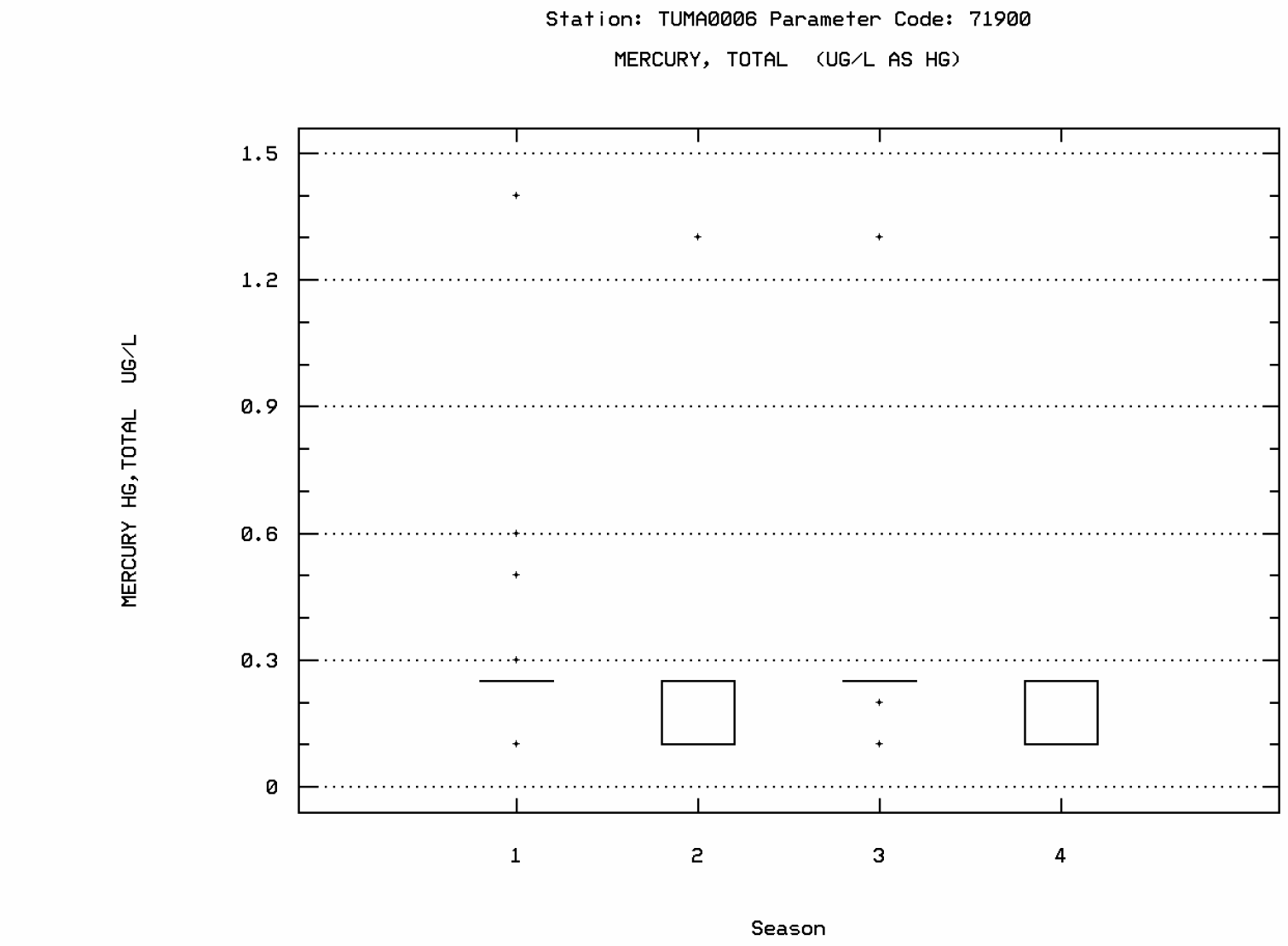
SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE



SCNGW004.23 (NOGALES WASH AT MORLEY AVE

Station Inventory for Station: TUMA0007

NPS Station ID: TUMA0007 LAT/LON: 31.343210/-110.931710 Agency: 11NPSWRD Date Created: 12/31/99
Location: NOGALES WASH AT MORLEY AVENUE BRIDGE FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): TUMA_FOSCR_NW
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
THE SITE IS LOCATED ON THE NOGALES, ARIZ. 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE NOGALES WASH AT MORLEY AVENUE BRIDGE AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. SAMPLING AT THIS STATION WAS CONDUCTED BY THE FRIENDS OF THE SANTA CRUZ RIVER VOLUNTEER ORGANIZATION AND FUNDED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AS A PART OF THE ADEQ SURFACE WATER QUALITY MONITORING PROGRAM. FOR MORE INFORMATION CONTACT MARK LARKIN (520) 398-8099. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS; COLORADO 80525. TEL (970) 225-3516. FAX (970) 225-9965

Parameter Inventory for Station: TUMA0007

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	20	10.	12.2	39.	4.5	58.642	7.658	6.2	8.125	12.	22.
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	14.	13.405	23.	5.	36.89	6.074	5.2	7.25	20.	21.8
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	17.	16.167	30.	2.	79.733	8.929	4.	7.	24.	27.6
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	20	2.88	3.513	13.4	0.19	9.42	3.069	0.568	1.258	5.088	7.32
00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	20	0.26	0.288	0.5	0.1	0.012	0.11	0.2	0.2	0.388	0.45
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/27/98-12/28/99	21	616.	550.857	690.	112.	25659.529	160.186	300.6	499.	659.	684.6
00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	20	8.4	8.325	14.	4.5	5.581	2.362	5.03	6.425	9.475	11.85
00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	18	5.	6.833	22.	0.5	55.647	7.46	0.5	1.	8.	22.
00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	20	7.9	7.853	8.35	7.3	0.06	0.245	7.42	7.7	8.	8.185
00406	CONVERTED PH, FIELD, STANDARD UNITS	01/27/98-12/28/99	20	7.9	7.782	8.35	7.3	0.065	0.256	7.42	7.7	8.	8.185
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/27/98-12/28/99	20	0.013	0.017	0.05	0.004	0.	0.011	0.007	0.01	0.02	0.038
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	18	0.17	0.295	1.28	0.02	0.14	0.374	0.02	0.09	0.325	1.271
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	18	1.05	1.504	5.5	0.23	1.484	1.218	0.383	0.838	2.063	2.89
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	16	265.	4338.75	52200.	0.	165899328.333	12880.191	0.	25.	2630.	19650.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	16	2.419	2.319	4.718	0.	1.834	1.354	0.	1.376	3.403	4.044
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			208.349								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	21	0.	0.017	0.15	0.	0.002	0.043	0.	0.	0.	0.1
50064	CHLORINE, FREE AVAILABLE (MG/L)	12/29/98-10/26/99	9	0.	0.022	0.1	0.	0.002	0.044	0.	0.	0.05	0.1
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	18	1.35	1.625	5.5	0.05	1.97	1.404	0.095	0.3	2.6	3.34
71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	18 ##	0.05	0.186	1.2	0.05	0.088	0.297	0.05	0.05	0.225	0.66
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	13	6.	11.915	62.9	2.3	253.466	15.921	2.38	4.5	13.5	43.62
85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	20	0.655	0.792	1.7	0.2	0.203	0.451	0.3	0.433	1.215	1.503

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0007

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	4	0	0.00
00406	PH, FIELD	Fresh Chronic	9.	20	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	4	0	0.00
		Other-Lo Lim.	6.5	20	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	4	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	21	3	0.14	4	1	0.25	3	1	0.33	10	0	0.00	4	1	0.25
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	9	2	0.22	2	1	0.50	1	0	0.00	4	0	0.00	2	1	0.50
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
71855	NITRITE NITROGEN, TOTAL (AS NO2)	Drinking Water	3.3	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	13	1	0.08	1	0	0.00	1	0	0.00	9	1	0.11	2	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0008

NPS Station ID: TUMA0008 LAT/LON: 31.344167/-110.851388 Agency: 11NPSWRD Date Created: 12/31/99
Location: SANTA CRUZ RIVER NORTH OF INTERNATIONAL BOUNDARY FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): TUMA_USFWS_1
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE KINO SPRINGS 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER NORTH OF INTERNATIONAL BOUNDARY; AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK. DATA FOR THIS SITE ARE FROM "CONTAMINANTS AS A LIMITING FACTOR OF FISH AND WILDLIFE POPULATIONS IN THE SANTA CRUZ RIVER; ARIZONA" BY KING; ZAUN; AND VELASCO. THE STUDY IS PART OF THE U.S. FISH AND WILDLIFE SERVICE (USFWS); REGION 2 CONTAMINANTS PROGRAM AND WAS RELEASED IN OCTOBER 1999. THE STUDY SAMPLED WATER; SEDIMENT; INVERTEBRATES; FISH AND BIRDS FROM TWO SITES ABOVE THE NOGALES INTERNATIONAL WASTEWATER TREATMENT PLANT (NIWWTP) AND FIVE SITES BELOW THE NIWWTP. FOR MORE INFORMATION CONTACT THE USFWS; ARIZONA ECOLOGICAL SERVICES FIELD OFFICE; 2321 W. ROYAL PALM ROAD; SUITE 103; PHEONIX; ARIZONA; 85021. TEL (602) 242-0210. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAKRIDGE DR. SUITE 250 FORT COLLINS; CO; 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0008

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	1	1.68	1.68	1.68	1.68	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	1 ##	0.255	0.255	0.255	0.255	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	4728.	4728.	4728.	4728.	0.	0.	**	**	**	**
50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3.19	3.19	3.19	3.19	0.	0.	**	**	**	**
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	77.3	77.3	77.3	77.3	0.	0.	**	**	**	**
50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.24	0.24	0.24	0.24	0.	0.	**	**	**	**
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.23	0.23	0.23	0.23	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3.04	3.04	3.04	3.04	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	7.88	7.88	7.88	7.88	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3539.	3539.	3539.	3539.	0.	0.	**	**	**	**
50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	1376.	1376.	1376.	1376.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	174.	174.	174.	174.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3.87	3.87	3.87	3.87	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	5.81	5.81	5.81	5.81	0.	0.	**	**	**	**
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	34.5	34.5	34.5	34.5	0.	0.	**	**	**	**
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	9.05	9.05	9.05	9.05	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	25.4	25.4	25.4	25.4	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

********** No EPA Water Quality Criteria exist to compare against the data at this station. **********

Station Inventory for Station: TUMA0009

NPS Station ID: TUMA0009
LAT/LON: 31.344444/-110.850833
Agency: 112WRD
Date Created: / /
Location: SANTA CRUZ RIVER NR. NOGALES, ARIZ.
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 09480500
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3702
Water Body Id:
Minor Basin: GILA RIVER
ECO Region: 54
RF1 Index:
RF1 Mile Point: 0.000
Distance from RF1: 6.40
On/Off RF1:
RF3 Index: 15050301001808.66
RF3 Mile Point: 8.67
Distance from RF3: 0.06
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/27/67-07/31/78	24	22.	22.354	30.	12.	17.402	4.172	17.	20.	25.75	27.25
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/28/69-09/23/70	3	28.	25.667	29.5	19.5	29.083	5.393	**	**	**	**
00060	FLOW, STREAM, MEAN DAILY CFS	12/27/67-09/23/70	22	12.5	29.87	199.	0.1	2162.248	46.5	0.618	3.	36.25	96.1
00061	FLOW, STREAM, INSTANTANEOUS CFS	08/25/76-09/22/81	6	78.5	76.833	150.	10.	2184.967	46.744	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	10/10/77-10/10/77	1	6000.	6000.	6000.	6000.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	08/28/69-10/10/77	6	391.	378.333	440.	278.	3448.267	58.722	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/23/70-09/23/70	1	6.3	6.3	6.3	6.3	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	08/28/69-10/10/77	6	7.85	7.767	7.9	7.4	0.039	0.197	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	08/28/69-10/10/77	6	7.847	7.724	7.9	7.4	0.041	0.202	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/28/69-10/10/77	6	0.014	0.019	0.04	0.013	0.	0.011	**	**	**	**
00405	CARBON DIOXIDE (MG/L AS CO2)	10/10/77-10/10/77	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/28/69-10/10/77	4	134.5	137.5	174.	107.	900.333	30.006	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	08/28/69-10/10/77	4	165.	167.5	210.	130.	1225.	35.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	08/28/69-10/10/77	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	08/28/69-10/10/77	4	135.	129.	150.	96.	550.667	23.466	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	08/28/69-10/10/77	4	0.	5.25	21.	0.	110.25	10.5	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	08/28/69-10/10/77	4	47.	44.25	51.	32.	72.917	8.539	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	08/28/69-10/10/77	4	5.3	5.025	5.6	3.9	0.582	0.763	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	08/28/69-10/10/77	4	20.	22.	31.	17.	38.667	6.218	**	**	**	**
00931	SODIUM ADSORPTION RATIO	08/28/69-10/10/77	4	0.8	0.825	1.	0.7	0.016	0.126	**	**	**	**
00932	SODIUM, PERCENT	08/28/69-10/10/77	4	26.	26.	30.	22.	11.333	3.367	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	08/28/69-10/10/77	4	3.45	3.275	3.7	2.5	0.283	0.532	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	08/28/69-10/10/77	4	7.	7.3	10.	5.2	5.46	2.337	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	08/28/69-10/10/77	4	26.	28.75	41.	22.	70.917	8.421	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	10/10/77-10/10/77	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	10/10/77-10/10/77	1	28.	28.	28.	28.	0.	0.	**	**	**	**
01020	BORON, DISSOLVED (UG/L AS B)	10/10/77-10/10/77	1	50.	50.	50.	50.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	10/10/77-10/10/77	1	50.	50.	50.	50.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	10/10/77-10/10/77	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/28/69-09/23/70	3	249.	235.	271.	185.	1996.	44.677	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	08/28/69-10/10/77	2	186.5	186.5	225.	148.	2964.5	54.447	**	**	**	**
70302	SOLIDS, DISSOLVED-TONS PER DAY	08/28/69-09/23/70	3	14.8	16.273	30.	4.02	170.368	13.053	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	08/28/69-10/10/77	4	0.325	0.318	0.37	0.25	0.003	0.051	**	**	**	**
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	08/11/81-08/11/81	1	100.	100.	100.	100.	0.	0.	**	**	**	**
70337	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .002MM	08/25/76-07/31/78	3	46.	46.	49.	43.	9.	3.	**	**	**	**
70338	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .004MM	08/25/76-07/31/78	3	60.	59.	63.	54.	21.	4.583	**	**	**	**
70340	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .016MM	08/25/76-07/31/78	3	83.	81.333	84.	77.	14.333	3.786	**	**	**	**
70342	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .062MM	08/25/76-07/31/78	3	98.	97.	98.	95.	3.	1.732	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70343	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .125MM	08/25/76-07/31/78	3	99.	99.333	100.	99.	0.333	0.577	**	**	**	**
70344	SUS SED FALL DIA(DISTLD WATER)%FINER THAN .250MM	08/25/76-07/27/78	2	100.	100.	100.	100.	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	12/27/67-09/22/81	23	123.	3444.174	25100.	2.	51650284.514	7186.813	7.2	38.	4020.	18572.
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	12/27/67-09/22/81	23	11.	545.533	3310.	0.	899334.826	948.333	0.012	0.2	762.	2140.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0009

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	1	1.00	1	1	1.00									
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00	1	0	0.00									
00400	PH	Fresh Chronic	9.	6	0	0.00	4	0	0.00	2	0	0.00						
		Other-Lo Lim.	6.5	6	0	0.00	4	0	0.00	2	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00	3	0	0.00	1	0	0.00						
		Drinking Water	250.	4	0	0.00	3	0	0.00	1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	4	0	0.00	3	0	0.00	1	0	0.00						
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00	1	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Seasonal Analysis for Season #1: 7/05 to 10/10 - Station TUMA0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/27/67-07/31/78	10	25.	24.95	30.	21.	8.136	2.852	21.	22.5	27.125	29.75
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	12/27/67-09/22/81	11	4020.	7111.727	25100.	94.	85254945.618	9233.36	103.2	313.	9680.	24980.
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	12/27/67-09/22/81	11	762.	1125.682	3310.	0.2	1267380.142	1125.78	1.02	17.	2110.	3080.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 10/11 to 12/07 - Station TUMA0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/27/67-07/31/78	3	20.	21.333	24.	20.	5.333	2.309	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	12/27/67-09/22/81	1	2.	2.	2.	2.	0.	0.	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	12/27/67-09/22/81	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/27/67-07/31/78	8	18.5	18.375	22.	12.	10.839	3.292	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	12/27/67-09/22/81	8	67.5	115.	450.	12.	19911.143	141.107	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	12/27/67-09/22/81	8	3.5	20.52	132.	0.08	2053.543	45.316	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0009

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	12/27/67-07/31/78	3	27.	25.333	27.	22.	8.333	2.887	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	12/27/67-09/22/81	3	23.	21.667	38.	4.	290.333	17.039	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	12/27/67-09/22/81	3	0.03	0.197	0.56	0.	0.099	0.315	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station Inventory for Station: TUMA0010

NPS Station ID: TUMA0010
LAT/LON: 31.347222/-110.929167
Agency: 21ARIZ
Date Created: / /
Location: EPHRIAM CANYN ABOVE NOGALES WASH
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801005030000000/SC 007
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.40
On/Off RF1:
RF3 Index: 15050301027000.00
RF3 Mile Point: 1.45
Distance from RF3: 0.64
On/Off RF3:
Description:
LAT 31 20'50", LONG 110 55'45", NW1/4 NE1/4, SEC 17, T24S, R14E, SANTA CRUZ CO, 2.1 KM (1.3 MI) NORTH OF INTERNATIONAL BOUNDARY ON US 89 TO BEJARANO AVE, 32 M (33 YDS) LEFT (WEST) ON BEJARANO AVE TO WESTERN AVE. SAMPLED IMMEDIATELY ABOVE WESTERN AVE, SOME SAMPLES COLLECTED AT MOUTH 200 M (218 YDS) DOWNSTREAM OF WESTERN AVE. MOUTH OF EPHRIAM CANYON IS 6.1 KM (3.8 MI) UPSTREAM ON NOGALES WASH FROM CONFLUENCE WITH POTRERO CREEK.

Parameter Inventory for Station: TUMA0010

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/05/73-04/17/73	4	18.25	17.	22.	9.5	35.167	5.93	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/05/73-04/10/73	2	7.9	7.9	8.	7.8	0.02	0.141	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/05/73-04/10/73	2	7.889	7.889	8.	7.8	0.02	0.142	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/05/73-04/10/73	2	0.013	0.013	0.016	0.01	0.	0.004	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/73-04/10/73	2	73.	73.	106.	40.	2178.	46.669	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/10/73	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/05/73-04/10/73	2	0.3	0.3	0.5	0.1	0.08	0.283	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/05/73-04/10/73	2	104.	104.	150.	58.	4232.	65.054	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/05/73-04/10/73	2	30.5	30.5	43.	18.	312.5	17.678	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/05/73-04/10/73	2	6.5	6.5	10.	3.	24.5	4.95	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/05/73-04/10/73	2	17.5	17.5	25.	10.	112.5	10.607	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/05/73-04/10/73	2	10.5	10.5	14.	7.	24.5	4.95	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/05/73-04/10/73	2	40.	40.	60.	20.	800.	28.284	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/05/73-04/05/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/05/73-04/05/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/05/73-04/05/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/05/73-04/05/73	1	200.	200.	200.	200.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/05/73-04/05/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/05/73-04/05/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	2	157.	157.	190.	124.	2178.	46.669	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	2	2.186	2.186	2.279	2.093	0.017	0.131	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			153.493								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/05/73-04/10/73	2	157.	157.	228.	86.	10082.	100.409	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/05/73-04/10/73	2	8.	8.	12.	4.	32.	5.657	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/05/73-04/05/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0010

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00							2	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0011

NPS Station ID: TUMA0011 LAT/LON: 31.348278/-110.927222 Agency: 21ARIZ Date Created: / /
Location: SCNGW003.8 (NOGALES WASH SOUTH OF RT 82 OVRPSS) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100701
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3866 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0011

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	1	0.38	0.38	0.38	0.38	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0011

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0012

NPS Station ID: TUMA0012 LAT/LON: 31.354805/-110.927695 Agency: 21ARIZ Date Created: / /
Location: SCNGW003.4 (NOGALES WASH UPSTRM FRM SCNGW003.2) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100700
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3841 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0012

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	1	0.21	0.21	0.21	0.21	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0012

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0013

NPS Station ID: TUMA0013 LAT/LON: 31.358138/-110.929055 Agency: 21ARIZ Date Created: / /
Location: SCNGW003.15 (NOGALES WASH ACRSS FROM PUBLIC WKS) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100206
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3824 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0013

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	03/23/98-03/23/98	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/23/98-03/23/98	1	25.7	25.7	25.7	25.7	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/23/98-03/23/98	1	28.9	28.9	28.9	28.9	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/23/98-03/23/98	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	03/23/98-03/23/98	1	0.57	0.57	0.57	0.57	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/23/98-03/23/98	1	470.	470.	470.	470.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/23/98-03/23/98	1	480.	480.	480.	480.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/23/98-03/23/98	1	7.59	7.59	7.59	7.59	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/23/98-03/23/98	1	106.4	106.4	106.4	106.4	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/23/98-03/23/98	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/23/98-03/23/98	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/23/98-03/23/98	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	03/23/98-03/23/98	1	7.86	7.86	7.86	7.86	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	03/23/98-03/23/98	1	7.86	7.86	7.86	7.86	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/23/98-03/23/98	1	0.014	0.014	0.014	0.014	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	1	170.	170.	170.	170.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/23/98-03/23/98	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	03/23/98-03/23/98	1	210.	210.	210.	210.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	03/23/98-03/23/98	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/23/98-03/23/98	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/23/98-03/23/98	1	0.17	0.17	0.17	0.17	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/23/98-03/23/98	1	0.84	0.84	0.84	0.84	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/23/98-03/23/98	1	5.1	5.1	5.1	5.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/23/98-03/23/98	1	0.47	0.47	0.47	0.47	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	1	170.	170.	170.	170.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	03/23/98-03/23/98	1	53.	53.	53.	53.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/23/98-03/23/98	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	03/23/98-03/23/98	1	42.	42.	42.	42.	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	03/23/98-03/23/98	1	5.5	5.5	5.5	5.5	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	03/23/98-03/23/98	1	33.	33.	33.	33.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/23/98-03/23/98	1	37.	37.	37.	37.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	03/23/98-03/23/98	1	0.33	0.33	0.33	0.33	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0013

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01020	BORON, DISSOLVED (UG/L AS B)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/23/98-03/23/98	1	13.	13.	13.	13.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	03/23/98-03/23/98	1	320.	320.	320.	320.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/23/98-03/23/98	1	560.	560.	560.	560.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/23/98-03/23/98	1	540.	540.	540.	540.	0.	0.	**	**	**	**
01057	THALLIUM, DISSOLVED (UG/L AS TL)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/23/98-03/23/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/23/98-03/23/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/23/98-03/23/98	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/23/98-03/23/98	1	0.27	0.27	0.27	0.27	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/23/98-03/23/98	1	320.	320.	320.	320.	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	03/23/98-03/23/98	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/23/98-03/23/98	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/23/98-03/23/98	1	5.02	5.02	5.02	5.02	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/23/98-03/23/98	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	03/23/98-03/23/98	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0013

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0013

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0014

NPS Station ID: TUMA0014 LAT/LON: 31.361861/-110.929778 Agency: 21ARIZ Date Created: / /
Location: NOGALES WWTP CITY OF NOGALES DOWNSTREAM SEDIMENT FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM/SOLIDS STORET Station ID(s): 800000000000005/EFFL-PP-27
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 2.60 On/Off RF1:
RF3 Index: 15050301025600.00 RF3 Mile Point: 1.03 Distance from RF3: 0.10 On/Off RF3:
Description:
THIS SAMPLE WAS COLLECTED AS PART OF A SPECIAL STUDY CONDUCTED BY ADHS TO EVALUATE PRIORITY POLLUTANT LEVELS IN EFFLUENT RELEASES FROM WASTE WATER TREATMENT PLANTS ACROSS THE STATE OF ARIZONA. NPDES PERMIT NO. AZ0020150. DAILY MAXIMUM DISCHARGE IS 62,074 M3/DAY. (D-24-14) 8 AAB. NOGALES LAB 23-070190-4.

Parameter Inventory for Station: TUMA0014

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/17/84-05/17/84	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01013	BERYLLIUM IN BOTTOM DEPOSITS(MG/KG AS BE DRY WGT)	05/17/84-05/17/84	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/17/84-05/17/84	1 ##	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/17/84-05/17/84	1	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	05/17/84-05/17/84	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	05/17/84-05/17/84	1	6.1	6.1	6.1	6.1	0.	0.	**	**	**	**
01068	NICKEL, TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	05/17/84-05/17/84	1	2.	2.	2.	2.	0.	0.	**	**	**	**
01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	05/17/84-05/17/84	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	05/17/84-05/17/84	1	13.	13.	13.	13.	0.	0.	**	**	**	**
01098	ANTIMONY IN BOTTOM DEPOSITS (MG/KG AS SB DRY WGT)	05/17/84-05/17/84	1 ##	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34203	ACENAPHTHYLENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34208	ACENAPHTHENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.75	1.75	1.75	1.75	0.	0.	**	**	**	**
34213	ACROLEIN DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34218	ACRYLONITRILE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34233	BENZO(B)FLUORANTHENE,SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34237	BENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34245	BENZO(K)FLUORANTHENE, DRY WT, SEDIMENT UG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34250	BENZO-A-PYRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34257	B-BHC-BETA DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34262	DELTA BENZENE HEXACHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34276	BIS (2-CHLOROETHYL) ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.85	2.85	2.85	2.85	0.	0.	**	**	**	**
34281	BIS (2-CHLOROETHOXY) METHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.65	2.65	2.65	2.65	0.	0.	**	**	**	**
34286	BIS (2-CHLOROISOPROPYL) ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.85	2.85	2.85	2.85	0.	0.	**	**	**	**
34290	BROMOFORM DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34295	N-BUTYL BENZYL PHTHALATE,SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34299	CARBON TETRACHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34304	CHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34309	CHLORODIBROMOMETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34314	CHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34318	CHLOROFORM DRY WGTBOTUG/KG	05/17/84-05/17/84	1	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0014

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34323	CHRYSENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34330	DICHLOROBROMOMETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34339	DIETHYL PHTHALATE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	11.	11.	11.	11.	0.	0.	**	**	**	**
34344	DIMETHYL PHTHALATE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
34349	1,2-DIPHENYLHYDRAZINE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34354	ENDOSULFAN SULFATE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
34359	ENDOSULFAN, BETA DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
34364	ENDOSULFAN, ALPHA DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
34374	ETHYLBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34379	FLUORANTHENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
34384	FLUORENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34389	HEXACHLOROCYCLOPENTADIENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34399	HEXACHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
34406	INDENO (1,2,3-CD) PYRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1	3.7	3.7	3.7	3.7	0.	0.	**	**	**	**
34411	ISOPHORONE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
34416	METHYL BROMIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34421	METHYL CHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34426	METHYLENE CHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34431	N-NITROSODI-N-PROPYLAMINE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34436	N-NITROSODIPHENYLAMINE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34441	N-NITROSODIMETHYLAMINE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34445	NAPHTHALENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
34450	NITROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34455	PARACHLOROMETA CRESOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
34464	PHENANTHRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.7	2.7	2.7	2.7	0.	0.	**	**	**	**
34472	PYRENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34478	TETRACHLOROETHYLENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34480	THALLIUM DRY WGTBOTMG/KG	05/17/84-05/17/84	1 ##	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
34483	TOLUENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34491	TRICHLOROFLUOROMETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34495	VINYL CHLORIDE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34499	1,1-DICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34504	1,1-DICHLOROETHYLENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34509	1,1,1-TRICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34514	1,1,2-TRICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34519	1,1,2,2-TETRACHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34524	BENZO(GHI)PERYLENE1,12-BENZOPERYLENDRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.05	2.05	2.05	2.05	0.	0.	**	**	**	**
34529	BENZO(A)ANTHRACENE1,2-BENZANTHRACENDRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	3.9	3.9	3.9	3.9	0.	0.	**	**	**	**
34534	1,2-DICHLOROETHANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34539	1,2-DICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34544	1,2-DICHLOROPROPANE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34549	TRANS-1,2-DICHLOROETHENE, IN SED. DRY WT. UG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34554	1,2,4-TRICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34559	1,2,5,6-DIBENZANTHRACENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34564	1,3-DICHLOROPROPENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34569	1,3-DICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34574	1,4-DICHLOROBENZENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
34579	2-CHLOROETHYL VINYL ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
34584	2-CHLORONAPHTHALENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34589	2-CHLOROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.65	1.65	1.65	1.65	0.	0.	**	**	**	**
34594	2-NITROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
34599	DI-N-OCTYL PHTHALATE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34604	2,4-DICHLOROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	4.9	4.9	4.9	4.9	0.	0.	**	**	**	**
34609	2,4-DIMETHYLPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	4.7	4.7	4.7	4.7	0.	0.	**	**	**	**
34619	2,4-DINITROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	21.	21.	21.	21.	0.	0.	**	**	**	**
34624	2,4,6-TRICHLOROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.35	1.35	1.35	1.35	0.	0.	**	**	**	**
34629	2,6-DINITROTOLUENE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
34634	3,3'-DICHLOROBENZIDINE DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	3.25	3.25	3.25	3.25	0.	0.	**	**	**	**
34639	4-BROMOPHENYL PHENYL ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
34644	4-CHLOROPHENYL PHENYL ETHER DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	2.1	2.1	2.1	2.1	0.	0.	**	**	**	**
34649	4-NITROPHENOL DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
34660	DNOC (4,6-DINITRO-ORTHO-CRESOL) DRY WGTBOTUG/KG	05/17/84-05/17/84	1 ##	12.	12.	12.	12.	0.	0.	**	**	**	**
34695	PHENOL(C6H5OH)-SINGLE COMPOUND DRY WGTTUG/KG	05/17/84-05/17/84	1 ##	4.	4.	4.	4.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0014

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39061	PCP (PENTACHLOROPHENOL) IN BOT DEPOS DRY SOL UG/KG	05/17/84-05/17/84	1 ##	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
39076	BHC-ALPHA ISOMER, BOTTOM DEPOS (UG/KG DRY SOL)	05/17/84-05/17/84	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
39102	BIS(2-ETHYLHEXYL) PHTHALATE,SEDIMENT,DRY WGT,UG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
39112	DI-N-BUTYL PHTHALATE,SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	1 ##	1.25	1.25	1.25	1.25	0.	0.	**	**	**	**
39121	BENZIDINE IN BOTTOM DEPOS UG/KG DRY SOLIDS	05/17/84-05/17/84	1 ##	22.	22.	22.	22.	0.	0.	**	**	**	**
39301	P,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39306	O,P' DDT IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39311	P,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39316	O,P' DDD IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39321	P,P' DDE IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
39328	O,P'DDE IN BOTTOM DEPOS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/17/84-05/17/84	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	05/17/84-05/17/84	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	05/17/84-05/17/84	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39389	ENDOSULFAN IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	05/17/84-05/17/84	1 ##	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	05/17/84-05/17/84	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	05/17/84-05/17/84	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	05/17/84-05/17/84	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
39481	METHOXYCHLOR IN BOTTOM DEPOSITS (UG/KG DRY SOL.)	05/17/84-05/17/84	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
39491	PCB - 1221 BOT. DEP.,PCB SERIES DRY SOL UG/KG	05/17/84-05/17/84	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
39495	PCB - 1232 BOT. DEP.,PCB-SERIES DRY SOL UG/KG	05/17/84-05/17/84	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
39499	PCB - 1242 BOT. DEP.,PCB-SERIES DRY SOL UG/KG	05/17/84-05/17/84	1 ##	30.	30.	30.	30.	0.	0.	**	**	**	**
39503	PCB - 1248 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	05/17/84-05/17/84	1 ##	15.	15.	15.	15.	0.	0.	**	**	**	**
39507	PCB - 1254 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	05/17/84-05/17/84	1 ##	15.	15.	15.	15.	0.	0.	**	**	**	**
39511	PCB - 1260 IN BOTTOM DEPOS. DRY SOLIDS UG/KG	05/17/84-05/17/84	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
39514	PCB - 1016 IN BOTTOM SEDIMENTS DRY WT UG/KG	05/17/84-05/17/84	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
39701	HEXACHLOROBENZENE IN BOT DEPOS (UG/KG DRY SOLIDS)	05/17/84-05/17/84	1 ##	0.95	0.95	0.95	0.95	0.	0.	**	**	**	**
39705	HEXACHLOROBUTADIENE BOT. DEPOS.(UG/KG DRY WGT)	05/17/84-05/17/84	1 ##	0.45	0.45	0.45	0.45	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/17/84-05/17/84	1	0.031	0.031	0.031	0.031	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

********** No EPA Water Quality Criteria exist to compare against the data at this station. **********

Station Inventory for Station: TUMA0015

NPS Station ID: TUMA0015
LAT/LON: 31.366667/-110.850000
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ RIVER IN KINO SPRINGS
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000030380/SC 002
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 4.40
On/Off RF1:
RF3 Index: 15050301001001.46
RF3 Mile Point: 1.46
Distance from RF3: 0.05
On/Off RF3:
Description:
LAT 31 22'00", LONG 110 51'00", NE1/4 NE1/4, SEC 6, T24S, R15E, SANTA CRUZ CO, 9.1 KM (5.7 MI) NORTHEAST OF INTERNATIONAL BOUNDARY ON AZ 82, SOUTHEAST 3.7 KM (2.3 MI) ON GRAVEL ROAD THROUGH KINO SPRINGS SUBDIVISION TO THE STABLE CROSSING, RIGHT BANK, 2 M (2.2 YDS) ABOVE CROSSING, 4.6 KM (2.9 MI) DOWNSTREAM FROM INTERNATIONAL BOUNDARY, 303.8 KM (188.8 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0015

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	6	17.25	17.583	24.	11.	30.042	5.481	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/04/73-04/26/73	6	26.5	26.687	45.	4.12	203.581	14.268	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/09/73-04/26/73	2	9.85	9.85	11.	8.7	2.645	1.626	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	3	8.5	8.433	8.5	8.3	0.013	0.115	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/26/73	3	8.5	8.423	8.5	8.3	0.014	0.116	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/26/73	3	0.003	0.004	0.005	0.003	0.	0.001	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	142.	141.333	154.	128.	169.333	13.013	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	3	42.	33.333	42.	16.	225.333	15.011	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/06/73-04/06/73	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	3	0.7	0.7	0.8	0.6	0.01	0.1	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	138.	135.333	142.	126.	69.333	8.327	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	3	42.	43.	47.	40.	13.	3.606	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	3	6.	6.667	8.	6.	1.333	1.155	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	3	26.	25.	26.	23.	3.	1.732	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	3	6.	7.	9.	6.	3.	1.732	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	3	32.	30.667	34.	26.	17.333	4.163	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.53	0.53	0.53	0.53	0.	0.	**	**	**	**
00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1	90.	90.	90.	90.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	12.	12.	12.	12.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	1.079	1.079	1.079	1.079	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			12.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	3	200.	198.	204.	190.	52.	7.211	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0015

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0015

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00							2	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00							3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0016

NPS Station ID: TUMA0016 LAT/LON: 31.367222/-110.929055 Agency: 21ARIZ Date Created: / /
Location: SCNGW002.6 (AT EAST CALLE SONORA ROAD BRIDGE) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100699
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3802 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0016

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0016

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0017

NPS Station ID: TUMA0017 LAT/LON: 31.373612/-110.842222 Agency: 21ARIZ Date Created: / /
Location: SCSCR094.91 (SANTA CRUZ R AT KINO SPRINGS BRDG) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100240
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3670 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301010 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	08/11/86-10/15/86	2	55.	55.	70.	40.	450.	21.213	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/15/86	3	27.5	28.833	37.	22.	57.583	7.588	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/15/86	3	28.	30.333	37.	26.	34.333	5.859	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/15/86-10/15/86	1	13.3	13.3	13.3	13.3	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-10/15/86	2	0.4	0.4	0.5	0.3	0.02	0.141	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/15/86	3	350.	342.667	370.	308.	1001.333	31.644	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/15/86	3	6.	6.5	8.1	5.4	2.01	1.418	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/15/86	3	92.	95.333	106.	88.	89.333	9.452	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	08/11/86-10/15/86	3	8.2	8.233	8.3	8.2	0.003	0.058	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-10/15/86	3	8.2	8.231	8.3	8.2	0.003	0.058	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-10/15/86	3	0.006	0.006	0.006	0.005	0.	0.001	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-10/15/86	3	8.08	8.113	8.26	8.	0.018	0.133	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-10/15/86	3	8.08	8.1	8.26	8.	0.018	0.134	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-10/15/86	3	0.008	0.008	0.01	0.005	0.	0.002	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-10/15/86	3	154.	149.667	155.	140.	70.333	8.386	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-10/15/86	3	188.	182.667	189.	171.	102.333	10.116	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-10/15/86	3	36.	53.	100.	23.	1699.	41.219	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-10/15/86	3	0.13	0.578	1.58	0.025	0.755	0.869	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-10/15/86	3	0.12	0.113	0.17	0.05	0.004	0.06	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-10/15/86	3	0.16	0.712	1.95	0.025	1.155	1.075	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-10/15/86	3	48.7	50.033	53.5	47.9	9.173	3.029	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-10/15/86	3	6.5	7.217	9.17	5.98	2.929	1.712	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-10/15/86	3	26.9	27.	27.8	26.3	0.57	0.755	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-10/15/86	3	3.37	6.96	14.5	3.01	42.671	6.532	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-10/15/86	3	7.3	7.267	7.9	6.6	0.423	0.651	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-10/15/86	3	36.2	36.033	40.1	31.8	17.243	4.153	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-10/15/86	3	0.59	0.58	0.6	0.55	0.001	0.026	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-10/15/86	3 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-10/15/86	3 ##	250.	250.	250.	250.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	08/11/86-10/15/86	3 ##	50.	70.	110.	50.	1200.	34.641	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-10/15/86	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-10/15/86	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-10/15/86	3 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-10/15/86	3	810.	7190.	20000.	760.	123072700.	11093.814	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-10/15/86	3 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-10/15/86	3	50.	485.	1380.	25.	600925.	775.194	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-10/15/86	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-10/15/86	3 ##	25.	25.	25.	25.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0017

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-10/15/86	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-10/15/86	3	233.	236.333	276.	200.	1452.333	38.109	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-10/15/86	3 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	10/15/86-10/15/86	1	1.	1.	1.	1.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0017

				Total	Exceed	Prop.	----------7/05-10/10----------			----------10/11-12/07----------			----------12/08-4/30----------			----------5/01-7/04----------		
Parameter		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	3	0	0.00	2	0	0.00	1	0	0.00						
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00	2	0	0.00	1	0	0.00						
		Other-Lo Lim.	6.5	3	0	0.00	2	0	0.00	1	0	0.00						
00406	PH, FIELD	Fresh Chronic	9.	3	0	0.00	2	0	0.00	1	0	0.00						
		Other-Lo Lim.	6.5	3	0	0.00	2	0	0.00	1	0	0.00						
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	3	0	0.00	2	0	0.00	1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	250.	3	0	0.00	2	0	0.00	1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00	2	0	0.00	1	0	0.00						
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	3	0	0.00	2	0	0.00	1	0	0.00						
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	50.	3	0	0.00	2	0	0.00	1	0	0.00						
01007	BARIUM, TOTAL	Drinking Water	2000.	3	0	0.00	2	0	0.00	1	0	0.00						
01027	CADMIUM, TOTAL	Fresh Acute	3.9	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	5.	3	0	0.00	2	0	0.00	1	0	0.00						
01034	CHROMIUM, TOTAL	Drinking Water	100.	3	0	0.00	2	0	0.00	1	0	0.00						
01042	COPPER, TOTAL	Fresh Acute	18.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	1300.	3	0	0.00	2	0	0.00	1	0	0.00						
01051	LEAD, TOTAL	Fresh Acute	82.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	15.	3	0	0.00	2	0	0.00	1	0	0.00						
01077	SILVER, TOTAL	Fresh Acute	4.1	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	100.	3	0	0.00	2	0	0.00	1	0	0.00						
01092	ZINC, TOTAL	Fresh Acute	120.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	5000.	3	0	0.00	2	0	0.00	1	0	0.00						
01147	SELENIUM, TOTAL	Fresh Acute	20.	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	50.	3	0	0.00	2	0	0.00	1	0	0.00						
71900	MERCURY, TOTAL	Fresh Acute	2.4	3	0	0.00	2	0	0.00	1	0	0.00						
		Drinking Water	2.	3	0	0.00	2	0	0.00	1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0018

NPS Station ID: TUMA0018 LAT/LON: 31.373611/-110.842222 Agency: 21ARIZ Date Created: / /
Location: SANTA CRUZ R. AT KINO SPRS.BRIDGE NR US BORDER FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 800000000029990/SC-KS
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 1.60 On/Off RF1:
RF3 Index: 15050301085400.52 RF3 Mile Point: 0.66 Distance from RF3: 0.04 On/Off RF3:
Description:
SANTA CRUZ RIVER AT ROAD BRIDGE JUST EAST OF KINO SPRINGS RESORT, 3.5 DOWNSTREAM (N.) OF THE U.S./MEXICAN BORDER. LOCATED IN T24S R15E AA. ELEVATION 3670 FEET.

Parameter Inventory for Station: TUMA0018

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data at this Station Suitable for Statistical Analysis ********

Station Inventory for Station: TUMA0019

NPS Station ID: TUMA0019 LAT/LON: 31.379000/-110.939638 Agency: 21ARIZ Date Created: / /
Location: SCNGW001.7 (NOGALES WASH AT W PRODUCE ROW BRDG) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100697
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0019

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0019

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0020

NPS Station ID: TUMA0020
LAT/LON: 31.386667/-111.064722
Agency: 21ARIZ
Date Created: / /
Location: WALKER CANYON AT RUBY ROAD XING
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 802501500000320/SC 032
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 2.20
On/Off RF1:
RF3 Index: 15050301048200.01
RF3 Mile Point: 0.00
Distance from RF3: 0.10
On/Off RF3:
Description:
LAT 31 23'12", LONG 111 03'53", SE1/4 NE1/4, SEC 36, T23S, R12E, SANTA CRUZ CO, 13.8 KM (8.2 MI) EAST OF INTERSTATE 19 ON RUBY ROAD, LEFT BANK, DOWNSTREAM SIDE OF CULVERT, 3.2 KM (2 MI) UPSTREAM FROM CONFLUENCE WITH AGUA FRIA CREEK, 13.7 KM (8.5 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0020

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/12/73	4	16.5	16.75	19.	15.	2.917	1.708	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/04/73-04/12/73	4	7.3	7.3	7.4	7.2	0.007	0.082	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/04/73-04/12/73	4	7.3	7.294	7.4	7.2	0.007	0.082	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/04/73-04/12/73	4	0.05	0.051	0.063	0.04	0.	0.01	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	4	33.	33.5	36.	32.	3.667	1.915	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/12/73	3	15.	14.	19.	8.	31.	5.568	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/04/73-04/06/73	2	0.15	0.15	0.2	0.1	0.005	0.071	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	4	47.	47.5	56.	40.	43.667	6.608	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/04/73-04/12/73	4	11.5	11.25	12.	10.	0.917	0.957	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/04/73-04/12/73	4	5.	4.75	6.	3.	1.583	1.258	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/04/73-04/12/73	4	9.5	9.75	11.	9.	0.917	0.957	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/73-04/12/73	4	6.	5.75	7.	4.	2.25	1.5	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/73-04/12/73	4	17.	17.5	22.	14.	11.667	3.416	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1	470.	470.	470.	470.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	279.	279.	506.	52.	103058.	321.026	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	2.21	2.21	2.704	1.716	0.488	0.699	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			162.21								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/04/73-04/12/73	4	68.5	70.	78.	65.	31.333	5.598	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/04/73-04/12/73	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0020

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	4	0	0.00							4	0	0.00			
		Other-Lo Lim.	6.5	4	0	0.00							4	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00							4	0	0.00			
		Drinking Water	250.	4	0	0.00							4	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	4	0	0.00							4	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	1	0.50							2	1	0.50			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	4	0	0.00							4	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0021

NPS Station ID: TUMA0021 LAT/LON: 31.386833/-110.874333 Agency: 21ARIZ Date Created: / /
Location: SANTA CRUZ RIVER AT HWY 82 CROSSING NR KINO SPR FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 800000000030381/SCR01
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 1.80 On/Off RF1:
RF3 Index: 15050301001300.00 RF3 Mile Point: 0.00 Distance from RF3: 0.03 On/Off RF3:
Description:
T23S R14E SEC 36 NW 1/4 SW 1/4 NW1/4 ELEVATION APPROX 3632'

Parameter Inventory for Station: TUMA0021

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/26/84-07/26/84	1	24.	24.	24.	24.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/26/84-07/26/84	1	33.	33.	33.	33.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/26/84-07/26/84	1	315.	315.	315.	315.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/26/84-07/26/84	1	375.	375.	375.	375.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/26/84-07/26/84	1	5.9	5.9	5.9	5.9	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/26/84-07/26/84	1	7.86	7.86	7.86	7.86	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/26/84-07/26/84	1	7.86	7.86	7.86	7.86	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/26/84-07/26/84	1	0.014	0.014	0.014	0.014	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/26/84-07/26/84	1	456.	456.	456.	456.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/26/84-07/26/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/26/84-07/26/84	1	1.09	1.09	1.09	1.09	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/26/84-07/26/84	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/26/84-07/26/84	1	0.17	0.17	0.17	0.17	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/84-07/26/84	1	252.	252.	252.	252.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/26/84-07/26/84	1	1.64	1.64	1.64	1.64	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/26/84-07/26/84	1	170.	170.	170.	170.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0021

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00	1	0	0.00									
00400	PH	Fresh Chronic	9.	1	0	0.00	1	0	0.00									
		Other-Lo Lim.	6.5	1	0	0.00	1	0	0.00									
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00	1	0	0.00									
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00	1	1	1.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0022

NPS Station ID: TUMA0022
LAT/LON: 31.387222/-110.948889
Agency: 112WRD
Date Created: / /
Location: NOGALES WASH NEAR THE NIWTP
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 312314110565601
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3655
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index:
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0022

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/03/97-11/03/97	1	13.7	13.7	13.7	13.7	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/03/97-11/03/97	1	21.	21.	21.	21.	0.	0.	**	**	**	**
00025	BAROMETRIC PRESSURE (MM OF HG)	11/03/97-11/03/97	1	670.	670.	670.	670.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/03/97-11/03/97	1	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/03/97-11/03/97	1	494.	494.	494.	494.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	11/03/97-11/03/97	1	11.6	11.6	11.6	11.6	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/03/97-11/03/97	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/03/97-11/03/97	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/03/97-11/03/97	1	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	11/03/97-11/03/97	1	8.5	8.5	8.5	8.5	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	11/03/97-11/03/97	1	8.5	8.5	8.5	8.5	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/03/97-11/03/97	1	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	11/03/97-11/03/97	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	11/03/97-11/03/97	1	202.	202.	202.	202.	0.	0.	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	1	0.058	0.058	0.058	0.058	0.	0.	**	**	**	**
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	1	0.17	0.17	0.17	0.17	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/03/97-11/03/97	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/03/97-11/03/97	1	4.36	4.36	4.36	4.36	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/03/97-11/03/97	1	0.319	0.319	0.319	0.319	0.	0.	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/03/97-11/03/97	1	0.324	0.324	0.324	0.324	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/03/97-11/03/97	1	0.329	0.329	0.329	0.329	0.	0.	**	**	**	**
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/03/97-11/03/97	1	6.7	6.7	6.7	6.7	0.	0.	**	**	**	**
00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/03/97-11/03/97	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/03/97-11/03/97	1	55.4	55.4	55.4	55.4	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/03/97-11/03/97	1	10.4	10.4	10.4	10.4	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	11/03/97-11/03/97	1	34.8	34.8	34.8	34.8	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/03/97-11/03/97	1	5.36	5.36	5.36	5.36	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	11/03/97-11/03/97	1	24.9	24.9	24.9	24.9	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/03/97-11/03/97	1	32.4	32.4	32.4	32.4	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/03/97-11/03/97	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	11/03/97-11/03/97	1	34.	34.	34.	34.	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/03/97-11/03/97	1	4.	4.	4.	4.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	11/03/97-11/03/97	1	40.8	40.8	40.8	40.8	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/03/97-11/03/97	1	2.4	2.4	2.4	2.4	0.	0.	**	**	**	**
01035	COBALT, DISSOLVED (UG/L AS CO)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0022

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01040	COPPER, DISSOLVED (UG/L AS CU)	11/03/97-11/03/97	1	2.1	2.1	2.1	2.1	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	11/03/97-11/03/97	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/03/97-11/03/97	1	6.6	6.6	6.6	6.6	0.	0.	**	**	**	**
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/03/97-11/03/97	1	1.4	1.4	1.4	1.4	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	11/03/97-11/03/97	1	2.14	2.14	2.14	2.14	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/03/97-11/03/97	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
22703	URANIUM, NATURAL, DISSOLVED	11/03/97-11/03/97	1	2.03	2.03	2.03	2.03	0.	0.	**	**	**	**
30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.105	0.105	0.105	0.105	0.	0.	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34253	A-BHC-ALPHA DISSUG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
34571	1,4-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34653	P,P'-DDE DISSUG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.135	0.135	0.135	0.135	0.	0.	**	**	**	**
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38478	LINURON WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38482	MCPA WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
38487	MCPB WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38501	METHIOCARB WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
38538	PROPOXUR WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38711	BENTAZON WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
38746	2,4-DB WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38811	FLUOMETURON WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38866	OXAMYL WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38933	CHLORPYRIFOS,DISSOLVED UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	11/03/97-11/03/97	1	182.	182.	182.	182.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0022

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39632	ATRAZINE DISSOLVED IN WATER PPB	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/03/97-11/03/97	1	324.	324.	324.	324.	0.	0.	**	**	**	**
71870	BROMIDE (MG/L AS BR)	11/03/97-11/03/97	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	1 ##	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	1 ##	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
77041	CARBON DISULFIDE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**
77128	STYRENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0022

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.095	0.095	0.095	0.095	0.	0.	**	**	**	**
77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.55	0.55	0.55	0.55	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	11/03/97-11/03/97	1	-50.8	-50.8	-50.8	-50.8	0.	0.	**	**	**	**
82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	11/03/97-11/03/97	1	-7.07	-7.07	-7.07	-7.07	0.	0.	**	**	**	**
82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.009	0.009	0.009	0.009	0.	0.	**	**	**	**
82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82680	CARBARYL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/03/97-11/03/97	1	501.	501.	501.	501.	0.	0.	**	**	**	**
90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/03/97-11/03/97	1	183.	183.	183.	183.	0.	0.	**	**	**	**
91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/03/97-11/03/97	1	92.	92.	92.	92.	0.	0.	**	**	**	**
91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	1	100.	100.	100.	100.	0.	0.	**	**	**	**
91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	1	73.	73.	73.	73.	0.	0.	**	**	**	**
99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	1	105.	105.	105.	105.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0022

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	1	97.	97.	97.	97.	0.	0.	**	**	**	**
99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	1	83.	83.	83.	83.	0.	0.	**	**	**	**
99835	BDMC, SURROGATE WATER, UNFILTERED, RECOVERABLE %	11/03/97-11/03/97	1	85.	85.	85.	85.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0022

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00						
00400	PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	1	0	0.00				1	0	0.00						
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
		Drinking Water	250.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00				1	0	0.00						
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00				1	0	0.00						
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00				1	0	0.00						
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00				1	0	0.00						
		Drinking Water	4.	1	0	0.00				1	0	0.00						
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00				1	0	0.00						
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00				1	0	0.00						
		Drinking Water	1300.	1	0	0.00				1	0	0.00						
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00				1	0	0.00						
		Drinking Water	15.	1	0	0.00				1	0	0.00						
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00				1	0	0.00						
		Drinking Water	5000.	1	0	0.00				1	0	0.00						
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	1	0	0.00				1	0	0.00						
		Drinking Water	6.	1	0	0.00				1	0	0.00						
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVE	Drinking Water	4.	1	0	0.00				1	0	0.00						
22703	URANIUM, NATURAL DISSOLVED	Drinking Water	20.	1	0	0.00				1	0	0.00						
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00				1	0	0.00						
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00				1	0	0.00						
		Drinking Water	700.	1	0	0.00				1	0	0.00						
34396	HEXACHLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00				1	0	0.00						
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34475	TETRACHLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0022

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00				1	0	0.00						
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00				1	0	0.00						
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00				1	0	0.00						
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00				1	0	0.00						
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00				1	0	0.00						
34653	P,P'-DDE, DISSOLVED	Fresh Acute	1050.	1	0	0.00				1	0	0.00						
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00				1	0	0.00						
38866	OXAMYL, DISSOLVED	Drinking Water	200.	1	0	0.00				1	0	0.00						
38933	CHLORPYRIFOS, DISSOLVED	Fresh Acute	0.083	1	0	0.00				1	0	0.00						
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00				1	0	0.00						
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
39341	GAMMA-BHC(LINDANE), DISSOLVED	Fresh Acute	2.	1	0	0.00				1	0	0.00						
		Drinking Water	0.2	1	0	0.00				1	0	0.00						
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	2.5	1	0	0.00				1	0	0.00						
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	0.065	1	0	0.00				1	0	0.00						
39632	ATRAZINE DISSOLVED IN WATER	Drinking Water	3.	1	0	0.00				1	0	0.00						
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	1	0	0.00				1	0	0.00						
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	70.	1	0	0.00				1	0	0.00						
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	50.	1	0	0.00				1	0	0.00						
46342	ALACHLOR (LASSO), WATER, DISSOLVED	Drinking Water	2.	1	0	0.00				1	0	0.00						
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	1	0	0.00				1	0	0.00						
77128	STYRENE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
77651	1,2-DIBROMOETHANE, WHOLE WATER	Drinking Water	0.05	1	0	0.00				1	0	0.00						
82625	DIBROMOCHLOROPROPANE, WATER, TOTAL RECOV	Drinking Water	0.2	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0023

NPS Station ID: TUMA0023
LAT/LON: 31.387500/-110.873056
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ R AT AZ 82
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000029800/SC 003
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 1.60
On/Off RF1:
RF3 Index: 15050301001000.61
RF3 Mile Point: 0.61
Distance from RF3: 0.00
On/Off RF3:
Description:
LAT 31 23'15", LONG 110 52'23", SW1/4 NW1/4, SEC 36, T23S, R14E, SANTA CRUZ CO, 9.1 KM (5.7 MI) NORTHEAST OF INTERNATIONAL BOUNDARY ON AZ 82, LEFT BANK, 4 M (4.4 YDS) UPSTREAM FROM BRIDGE, 10.4 KM (6.5 MI) DOWN- STREAM FROM INTERNATIONAL BOUNDARY, 298.0 KM (185.2 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0023

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	7	16.	18.143	24.5	12.	24.06	4.905	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/04/73-04/13/73	6	23.	22.897	45.	0.38	209.12	14.461	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/09/73	2	10.	10.	10.	10.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	3	8.3	8.3	8.6	8.	0.09	0.3	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/26/73	3	8.3	8.233	8.6	8.	0.097	0.311	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/26/73	3	0.005	0.006	0.01	0.003	0.	0.004	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	154.	153.333	166.	140.	169.333	13.013	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	3	32.	27.667	49.	2.	566.333	23.798	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/06/73-04/06/73	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/06/73-04/06/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	3	0.5	0.5	0.6	0.4	0.01	0.1	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	148.	146.	158.	132.	172.	13.115	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	3	46.	46.667	52.	42.	25.333	5.033	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	3	6.	6.667	8.	6.	1.333	1.155	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	3	25.	25.333	27.	24.	2.333	1.528	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	3	7.	7.	8.	6.	1.	1.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	3	37.	39.	46.	34.	39.	6.245	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.57	0.57	0.57	0.57	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/26/73-04/26/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/26/73-04/26/73	1	60.	60.	60.	60.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/26/73-04/26/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	40.	40.	40.	40.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	1.602	1.602	1.602	1.602	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			40.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	3	218.	217.667	228.	207.	110.333	10.504	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0023

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00							2	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00							3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0024

NPS Station ID: TUMA0024 LAT/LON: 31.387900/-111.091200 Agency: 11NPSWRD Date Created: 12/31/99
Location: PENA BLANCA SPGS S OF LAKE IN PENA BLANCA CANYON FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/SPRING STORET Station ID(s): TUMA_NURE_SP1
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
THE SITE IS LOCATED ON THE TUBAC, ARIZ. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS AT AN UNNAMED SPRING AT THE HEAD OF A SANTA CRUZ TRIBUTARY IN ROCK CORRAL CANYON AND IS OUTSIDE THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. DATA ARE FROM THE "U.S. GEOLOGICAL SURVEY NATIONAL GEOCHEMICAL DATABASE: NATIONAL URANIUM RESOURCE EVALUATION DATA FOR THE CONTERMINOUS UNITED STATES" 1994 CD-ROM BY J.D. HOFFMAN AND K. BUTTLEMAN (USGS DIGITAL DATA SERIES DDS-18-A). THE DATA BASE INCLUDES SEDIMENT; SOIL; SURFACE WATER; AND GROUND WATER DATA. THE "UNIQID" FIELD ENTRY WAS USED TO CREATE THE SECONDARY STATION NAME. THE "LASLID" (LOS ALAMOS SCIENTIFIC LABORATORY SAMPLE NUMBER) FIELD ENTRY WAS USED TO CREATE THE STATION LOCATION. THE SAMPLES WERE ANALYZED BY LOS ALAMOS SCIENTIFIC LABORATORY. DATA WERE PROCESED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0024

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/15/80-03/15/80	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/15/80-03/15/80	1	120.	120.	120.	120.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	03/15/80-03/15/80	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/15/80-03/15/80	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/15/80-03/15/80	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/15/80-03/15/80	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/15/80-03/15/80	1	23.	23.	23.	23.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	03/15/80-03/15/80	1	1.4	1.4	1.4	1.4	0.	0.	**	**	**	**
50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/15/80-03/15/80	1	101.	101.	101.	101.	0.	0.	**	**	**	**
50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/15/80-03/15/80	1	36.6	36.6	36.6	36.6	0.	0.	**	**	**	**
82039	DISSOLVED-SODIUM UG/L (AS NA)	03/15/80-03/15/80	1	9260.	9260.	9260.	9260.	0.	0.	**	**	**	**
82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/15/80-03/15/80	1	6500.	6500.	6500.	6500.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0024

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400 PH	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
	Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0025

NPS Station ID: TUMA0025
LAT/LON: 31.389167/-111.091667
Agency: 112WRD
Date Created: / /
Location: D-23-12 35BBD
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/SPRING
STORET Station ID(s): 312318111052101
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3890
Water Body Id:
Minor Basin: GILA RIVER
ECO Region: 00
RF1 Index:
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301036900.00
RF3 Mile Point: 5.43
Distance from RF3: 0.11
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0025

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/10/41-07/11/85	3	20.	20.833	22.5	20.	2.083	1.443	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/10/41-07/11/85	4	151.	151.25	166.	137.	142.917	11.955	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/11/85-07/11/85	1	5.8	5.8	5.8	5.8	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	06/22/82-07/11/85	2	6.95	6.95	7.1	6.8	0.045	0.212	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/22/82-07/11/85	2	6.925	6.925	7.1	6.8	0.046	0.215	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/22/82-07/11/85	2	0.119	0.119	0.158	0.079	0.003	0.056	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	06/22/82-07/11/85	2	7.5	7.5	7.7	7.3	0.08	0.283	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	06/22/82-07/11/85	2	7.455	7.455	7.7	7.3	0.084	0.29	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/22/82-07/11/85	2	0.035	0.035	0.05	0.02	0.	0.021	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/10/41-07/11/85	3	66.	67.	75.	60.	57.	7.55	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	10/10/41-04/17/46	2	86.	86.	92.	80.	72.	8.485	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	10/10/41-04/17/46	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	04/17/46-04/17/46	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	06/22/82-07/11/85	2	0.305	0.305	0.32	0.29	0.	0.021	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/11/85-07/11/85	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/10/41-06/22/82	3	46.	51.667	68.	41.	206.333	14.364	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	10/10/41-04/17/46	2	1.	1.	2.	0.	2.	1.414	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/10/41-07/11/85	4	15.	15.5	18.	14.	3.667	1.915	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/10/41-07/11/85	4	1.5	2.475	5.5	1.4	4.069	2.017	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	06/22/82-07/11/85	2	14.	14.	14.	14.	0.	0.	**	**	**	**
00931	SODIUM ADSORPTION RATIO	06/22/82-06/22/82	1	0.9	0.9	0.9	0.9	0.	0.	**	**	**	**
00933	SODIUM,PLUS POTASSIUM (MG/L)	10/10/41-04/17/46	2	15.7	15.7	22.	9.4	79.38	8.91	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	07/11/85-07/11/85	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	10/10/41-07/11/85	4	5.8	6.025	7.	5.5	0.469	0.685	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	10/10/41-07/11/85	4	2.4	4.625	12.	1.7	24.289	4.928	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/17/46-07/11/85	2	0.4	0.4	0.6	0.2	0.08	0.283	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	06/22/82-07/11/85	2	52.5	52.5	53.	52.	0.5	0.707	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	06/22/82-06/22/82	1	7.	7.	7.	7.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	06/22/82-06/22/82	1	12.	12.	12.	12.	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	06/22/82-06/22/82	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
01020	BORON, DISSOLVED (UG/L AS B)	07/11/85-07/11/85	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	06/22/82-06/22/82	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	06/22/82-06/22/82	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01035	COBALT, DISSOLVED (UG/L AS CO)	06/22/82-06/22/82	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	06/22/82-06/22/82	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	06/22/82-06/22/82	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	06/22/82-06/22/82	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	06/22/82-07/11/85	2	2.5	2.5	3.	2.	0.5	0.707	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0025

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	06/22/82-06/22/82	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	06/22/82-06/22/82	1	13.	13.	13.	13.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	06/22/82-06/22/82	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	06/22/82-06/22/82	1	84.	84.	84.	84.	0.	0.	**	**	**	**
01130	LITHIUM, DISSOLVED (UG/L AS LI)	06/22/82-06/22/82	1	8.	8.	8.	8.	0.	0.	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	10/10/41-04/17/46	2	91.5	91.5	92.	91.	0.5	0.707	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	04/17/46-04/17/46	1	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	04/17/46-04/17/46	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	06/22/82-07/11/85	2	141.5	141.5	143.	140.	4.5	2.121	**	**	**	**
90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	07/11/85-07/11/85	1	57.	57.	57.	57.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0025

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00	1	0	0.00									
00400	PH	Fresh Chronic	9.	2	0	0.00	1	0	0.00							1	0	0.00
		Other-Lo Lim.	6.5	2	0	0.00	1	0	0.00							1	0	0.00
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00	1	0	0.00							1	0	0.00
		Other-Lo Lim.	6.5	2	0	0.00	1	0	0.00							1	0	0.00
00618	NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	1	0	0.00							1	0	0.00			
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	2	0	0.00	1	0	0.00							1	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00	2	0	0.00				1	0	0.00	1	0	0.00
		Drinking Water	250.	4	0	0.00	2	0	0.00				1	0	0.00	1	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	4	0	0.00	2	0	0.00				1	0	0.00	1	0	0.00
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	2	0	0.00	1	0	0.00				1	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00										1	0	0.00
		Drinking Water	50.	1	0	0.00										1	0	0.00
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00										1	0	0.00
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00										1	0	0.00
		Drinking Water	4.	1	0	0.00										1	0	0.00
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00										1	0	0.00
		Drinking Water	5.	1	0	0.00										1	0	0.00
01032	CHROMIUM, HEXAVALENT	Fresh Acute	16.	1	0	0.00										1	0	0.00
		Drinking Water	100.	1	0	0.00										1	0	0.00
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00										1	0	0.00
		Drinking Water	1300.	1	0	0.00										1	0	0.00
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00										1	0	0.00
		Drinking Water	15.	1	0	0.00										1	0	0.00
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00										1	0	0.00
		Drinking Water	5000.	1	0	0.00										1	0	0.00
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0026

NPS Station ID: TUMA0026
LAT/LON: 31.391667/-110.950000
Agency: 21ARIZ
Date Created: / /
Location: NOGALES WASH ABOVE POTRERO WASH
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801005000000100/SC 009
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 1.20
On/Off RF1:
RF3 Index: 15050301050003.88
RF3 Mile Point: 3.95
Distance from RF3: 0.05
On/Off RF3:
Description:
LAT 31 23'30", LONG 110 57'00", SE1/4 SW1/4, SEC 30, T23S, R14E, SANTA CRUZ CO, 6.9 KM (4.3 MI) NORTHWEST OF INTERNATIONAL BOUNDARY ON US 89, 1.1 KM (0.7 MI) NORTH ON OLD TUCSON HIGHWAY, LEFT BANK, 1 KM (0.6 MI) UPSTREAM FROM CONFLUENCE WITH POTRERO CREEK, 6.8 KM (4.2 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0026

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/10/73-04/27/73	4	22.5	22.	25.	18.	12.667	3.559	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/27/73-04/27/73	2	2.83	2.83	2.83	2.83	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/27/73-04/27/73	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	1	4.5	4.5	4.5	4.5	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/10/73-04/27/73	2	8.25	8.25	8.3	8.2	0.005	0.071	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/10/73-04/27/73	2	8.247	8.247	8.3	8.2	0.005	0.071	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/10/73-04/27/73	2	0.006	0.006	0.006	0.005	0.	0.001	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	2	176.	176.	178.	174.	8.	2.828	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/27/73	2	21.5	21.5	22.	21.	0.5	0.707	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/27/73-04/27/73	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/10/73-04/27/73	2	1.25	1.25	1.5	1.	0.125	0.354	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	2	233.	233.	240.	226.	98.	9.899	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/10/73-04/27/73	2	77.	77.	82.	72.	50.	7.071	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/10/73-04/27/73	2	10.	10.	11.	9.	2.	1.414	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/10/73-04/27/73	2	36.5	36.5	37.	36.	0.5	0.707	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/10/73-04/27/73	2	32.	32.	33.	31.	2.	1.414	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/10/73-04/27/73	2	51.5	51.5	52.	51.	0.5	0.707	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	3	430.	426.667	450.	400.	633.333	25.166	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	3	2.633	2.63	2.653	2.602	0.001	0.026	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			426.167								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/27/73	2	338.	338.	348.	328.	200.	14.142	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/10/73-04/27/73	2	25.5	25.5	39.	12.	364.5	19.092	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0026

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	3	3	1.00							3	3	1.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00							2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0027

NPS Station ID: TUMA0027
LAT/LON: 31.391667/-111.089722
Agency: 21ARIZ
Date Created: / /
Location: PENA BLANCA CR ABV PENA BLANCA L
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 802503000000660/SC 030
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301048502.67
RF3 Mile Point: 5.51
Distance from RF3: 0.06
On/Off RF3:
Description:
LAT 31 23'30", LONG 111 05'23", NW1/4 NW1/4, SEC 35, T23S, R12E, SANTA CRUZ CO, 17.2 KM (10.3 MI) WEST OF INTERSTATE 19 ON RUBY ROAD, 0.5 KM (0.3 MI) UPSTREAM FROM PENA BLANCA LAKE AT CONCRETE LINED BEND IN CREEK, AT MIDSTREAM, 2.5 KM (1.5 MI) UPSTREAM FROM PENA BLANCA DAM, 6.6 KM (4.1 MI) UPSTREAM FROM CONFLUENCE WITH AGUA FRIA CREEK, 15.6 KM (9.7 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0027

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/12/73	4	15.5	15.625	17.5	14.	2.229	1.493	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/04/73-04/12/73	4	7.85	7.85	8.	7.7	0.03	0.173	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/04/73-04/12/73	4	7.825	7.825	8.	7.7	0.031	0.176	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/04/73-04/12/73	4	0.015	0.015	0.02	0.01	0.	0.006	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	4	40.	42.	52.	36.	58.667	7.659	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/12/73	3	14.	41.	100.	9.	2617.	51.157	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/10/73-04/10/73	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/04/73-04/10/73	3 ##	0.025	0.117	0.3	0.025	0.025	0.159	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/73-04/12/73	4	61.	60.	64.	54.	18.667	4.32	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/04/73-04/12/73	4	15.	15.25	17.	14.	2.25	1.5	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/04/73-04/12/73	4	5.	5.	6.	4.	0.667	0.816	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/04/73-04/12/73	4	9.5	9.75	11.	9.	0.917	0.957	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/73-04/12/73	4	7.	7.	8.	6.	1.333	1.155	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/73-04/12/73	4	20.	20.75	24.	19.	4.917	2.217	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1	120.	120.	120.	120.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1 ##	0.301	0.301	0.301	0.301	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			2.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/04/73-04/12/73	4	82.	84.	94.	78.	50.667	7.118	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/04/73-04/12/73	4 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0027

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	4	0	0.00							4	0	0.00			
		Other-Lo Lim.	6.5	4	0	0.00							4	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00							4	0	0.00			
		Drinking Water	250.	4	0	0.00							4	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	4	0	0.00							4	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	4	0	0.00							4	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0028

NPS Station ID: TUMA0028 LAT/LON: 31.397500/-110.952222 Agency: 21ARIZ Date Created: / /
Location: SCPOT003.78 (NOGALES WASH NEAR FIRE STATION #B) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100250
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3610 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0028

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	09/15/86-09/01/87	11	7.	7.164	11.2	1.3	7.013	2.648	2.24	6.	9.3	10.96
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-01/26/88	15	24.	23.8	29.	17.	19.171	4.379	17.6	19.	28.	29.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-01/26/88	15	28.	29.	37.	24.	20.429	4.52	24.	25.	33.	36.4
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/15/86-09/01/87	10	2.69	3.769	8.78	1.44	5.971	2.444	1.486	1.975	5.985	8.568
00064	DEPTH OF STREAM, MEAN (FT)	09/15/86-09/01/87	11	0.4	0.455	0.8	0.2	0.033	0.181	0.22	0.3	0.6	0.78
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-01/26/88	15	512.	511.733	618.	440.	1755.638	41.9	458.	481.	530.	577.8
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-07/19/88	10	559.	588.7	742.	509.	5914.9	76.908	509.2	543.25	640.5	737.7
00300	OXYGEN, DISSOLVED MG/L	08/11/86-09/01/87	13	8.3	8.531	11.8	5.5	3.809	1.952	5.7	7.	10.1	11.64
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-09/01/87	13	112.	117.615	170.	82.	761.59	27.597	84.4	92.5	145.	163.2
00403	PH, LAB, STANDARD UNITS SU	08/11/86-07/19/88	15	8.2	8.251	8.9	7.7	0.107	0.328	7.76	8.1	8.5	8.78
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-07/19/88	15	8.2	8.143	8.9	7.7	0.12	0.346	7.76	8.1	8.5	8.78
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-07/19/88	15	0.006	0.007	0.02	0.001	0.	0.005	0.002	0.003	0.008	0.017
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-01/26/88	15	7.85	8.044	8.91	7.41	0.235	0.484	7.458	7.66	8.48	8.82
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-01/26/88	15	7.85	7.845	8.91	7.41	0.277	0.526	7.458	7.66	8.48	8.82
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-01/26/88	15	0.014	0.014	0.039	0.001	0.	0.012	0.002	0.003	0.022	0.035
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-07/19/88	15	213.	209.467	258.	98.	1152.695	33.951	158.	206.	223.	241.8
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	08/11/86-07/19/88	4	5.15	6.95	17.	0.5	49.71	7.051	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-07/19/88	15	213.	225.133	282.	98.	2472.838	49.728	145.4	198.	266.	277.2
00445	CARBONATE ION (MG/L AS CO3)	08/11/86-07/19/88	4	6.2	8.475	21.	0.5	76.969	8.773	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-07/19/88	14	11.5	18.071	64.	2.	425.148	20.619	3.	4.	19.5	64.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/19/88-07/19/88	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-07/19/88	12	0.305	0.423	1.	0.14	0.074	0.272	0.146	0.27	0.665	0.937
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/01/87	14	2.84	2.756	5.46	0.1	1.578	1.256	0.79	2.015	3.378	4.84
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-07/19/88	15	0.63	0.687	1.5	0.13	0.11	0.332	0.262	0.51	0.79	1.284
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-07/19/88	1	157.	157.	157.	157.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-07/19/88	15	68.9	65.687	76.6	40.	116.847	10.81	40.42	66.9	71.2	74.8
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-07/19/88	15	11.5	11.553	13.8	10.2	1.113	1.055	10.2	10.4	12.	13.38
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-07/19/88	15	40.2	38.92	43.8	30.2	18.733	4.328	30.86	34.6	41.9	43.32
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-07/19/88	15	3.69	4.632	11.	2.7	5.863	2.421	2.808	3.2	4.99	9.26
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-07/19/88	14	25.4	26.086	35.	19.6	12.501	3.536	21.3	24.725	27.1	32.6
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-07/19/88	15	45.3	43.293	54.6	14.	93.934	9.692	26.6	41.1	49.3	54.24
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-07/19/88	13	0.37	0.618	2.6	0.24	0.457	0.676	0.276	0.345	0.415	2.16
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/15/86-04/13/87	5	## 10.	10.2	11.	10.	0.2	0.447	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-07/19/88	15	## 10.	9.367	16.	2.5	10.017	3.165	4.	8.	10.	14.2
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/15/86-04/13/87	5	## 63.	132.6	250.	50.	11513.8	107.302	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-07/19/88	15	## 55.	133.333	250.	25.	10098.81	100.493	40.	50.	250.	250.
01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-07/19/88	1	## 2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	08/11/86-07/19/88	15	## 50.	140.667	400.	30.	16006.667	126.517	42.	50.	250.	394.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0028

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/15/86-05/19/87	5 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-07/19/88	15 ##	0.5	0.8	4.	0.5	0.85	0.922	0.5	0.5	0.5	2.5
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/15/86-04/13/87	5 ##	5.	4.1	5.	0.5	4.05	2.012	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-07/19/88	15 ##	5.	12.5	59.	0.5	295.964	17.204	3.2	5.	14.	52.4
01040	COPPER, DISSOLVED (UG/L AS CU)	12/15/86-04/13/87	5 ##	5.	19.	75.	5.	980.	31.305	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-07/19/88	15 ##	5.	12.467	45.	5.	196.088	14.003	5.	5.	17.	45.
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-07/19/88	15 ##	75.	441.733	2246.	50.	507738.638	712.558	50.	50.	410.	1900.4
01049	LEAD, DISSOLVED (UG/L AS PB)	12/15/86-04/13/87	5 ##	10.	8.6	10.	3.	9.8	3.13	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-07/19/88	15 ##	10.	7.967	10.	1.5	8.302	2.881	3.	5.	10.	10.
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-07/19/88	15	25.	109.867	840.	12.	43950.695	209.644	13.2	25.	100.	458.4
01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-07/19/88	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-07/19/88	1 ##	15.	15.	15.	15.	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	12/15/86-04/13/87	5 ##	2.5	2.3	2.5	1.5	0.2	0.447	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-07/19/88	15 ##	2.5	2.4	5.	1.5	0.686	0.828	1.5	2.	2.5	3.5
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/15/86-04/13/87	5 ##	25.	27.	35.	25.	20.	4.472	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-07/19/88	15 ##	25.	33.933	80.	25.	250.638	15.832	25.	25.	35.	67.4
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-07/19/88	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/15/86-04/13/87	5 ##	2.5	2.3	2.5	1.5	0.2	0.447	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-07/19/88	15 ##	2.5	5.467	41.	1.5	99.195	9.96	1.5	2.5	2.5	21.2
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	01/26/88-01/26/88	1	800.	800.	800.	800.	0.	0.	**	**	**	**
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	01/26/88-01/26/88	1	2.903	2.903	2.903	2.903	0.	0.	**	**	**	**
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			800.								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-01/26/88	1	9999.	9999.	9999.	9999.	0.	0.	**	**	**	**
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/26/88-01/26/88	1	4.	4.	4.	4.	0.	0.	**	**	**	**
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			9999.								
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-07/19/88	15	373.	363.333	394.	258.	1540.952	39.255	276.	357.	388.	394.
71830	HYDROXIDE ION (MG/L AS OH)	07/19/88-07/19/88	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/19/88-07/19/88	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	07/19/88-07/19/88	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	12/15/86-04/13/87	5 ##	0.25	0.4	1.	0.25	0.113	0.335	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-07/19/88	15 ##	0.25	0.49	1.	0.1	0.141	0.375	0.19	0.25	1.	1.
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/19/88-07/19/88	1	9.1	9.1	9.1	9.1	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	10/15/86-09/01/87	10	1.	0.92	1.2	0.4	0.044	0.21	0.44	0.875	1.	1.18

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0028

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------7/05-10/10----------			----------10/11-12/07----------			----------12/08-4/30----------			----------5/01-7/04----------		
							Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	13	0	0.00	5	0	0.00	2	0	0.00	4	0	0.00	2	0	0.00
00403	PH, LAB	Fresh Chronic	9.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
		Other-Lo Lim.	6.5	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
00406	PH, FIELD	Fresh Chronic	9.	15	0	0.00	5	0	0.00	2	0	0.00	6	0	0.00	2	0	0.00
		Other-Lo Lim.	6.5	15	0	0.00	5	0	0.00	2	0	0.00	6	0	0.00	2	0	0.00
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	14	0	0.00	5	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	14	0	0.00	6	0	0.00	2	0	0.00	4	0	0.00	2	0	0.00
		Drinking Water	250.	14	0	0.00	6	0	0.00	2	0	0.00	4	0	0.00	2	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	13	0	0.00	6	0	0.00	2	0	0.00	4	0	0.00	1	0	0.00
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	5	0	0.00							5	0	0.00			
		Drinking Water	50.	5	0	0.00							5	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
		Drinking Water	50.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01005	BARIUM, DISSOLVED	Drinking Water	2000.	5	0	0.00							5	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00	1	0	0.00									
		Drinking Water	4.	1	0	0.00	1	0	0.00									
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	5	0	0.00							4	0	0.00	1	0	0.00
		Drinking Water	5.	5	0	0.00							4	0	0.00	1	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0028

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01027	CADMIUM, TOTAL	Fresh Acute	3.9	15	1	0.07	6	1	0.17	2	0	0.00	5	0	0.00	2	0	0.00
		Drinking Water	5.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	5	0	0.00							5	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01040	COPPER, DISSOLVED	Fresh Acute	18.	4 &	0	0.00							4	0	0.00			
		Drinking Water	1300.	5	0	0.00							5	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	15	3	0.20	6	2	0.33	2	0	0.00	5	1	0.20	2	0	0.00
		Drinking Water	1300.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01049	LEAD, DISSOLVED	Fresh Acute	82.	5	0	0.00							5	0	0.00			
		Drinking Water	15.	5	0	0.00							5	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
		Drinking Water	15.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00	1	0	0.00									
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00	1	0	0.00									
		Drinking Water	100.	1	0	0.00	1	0	0.00									
01075	SILVER, DISSOLVED	Fresh Acute	4.1	5	0	0.00							5	0	0.00			
		Drinking Water	100.	5	0	0.00							5	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	14 &	0	0.00	5	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
		Drinking Water	100.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01090	ZINC, DISSOLVED	Fresh Acute	120.	5	0	0.00							5	0	0.00			
		Drinking Water	5000.	5	0	0.00							5	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
		Drinking Water	5000.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00	1	0	0.00									
		Drinking Water	6.	0 &	0	0.00												
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	5	0	0.00							5	0	0.00			
		Drinking Water	50.	5	0	0.00							5	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	15	1	0.07	6	0	0.00	2	0	0.00	5	0	0.00	2	1	0.50
		Drinking Water	50.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	1	1	1.00							1	1	1.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00	1	0	0.00									
71856	NITRITE NITROGEN, DISSOLVED (AS NO2)	Drinking Water	3.3	1	0	0.00	1	0	0.00									
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	5	0	0.00							5	0	0.00			
		Drinking Water	2.	5	0	0.00							5	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
		Drinking Water	2.	15	0	0.00	6	0	0.00	2	0	0.00	5	0	0.00	2	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00	1	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0029

NPS Station ID: TUMA0029 LAT/LON: 31.397500/-110.952222 Agency: 21ARIZ Date Created: / /
Location: NOGALES WASH @ NOGALES, AZ FIRESTATION B FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 801005000000050/SC-NW-1
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301011 RF1 Mile Point: 0.300 Distance from RF1: 0.00 On/Off RF1: ON
RF3 Index: 15050301051903.47 RF3 Mile Point: 3.47 Distance from RF3: 0.06 On/Off RF3:
Description:
NOGALES WASH(TRIBUTARY OF SANTA CRUZ R.) ACROSS FROM NOGALES FIRE STATION B ON THE OLD TUCSON HIGHWAY. SITE IS 5.2 MILESUPSTREAM (NORTH) OF U.S./MEXICAN BORDER. LOCATED IN T23S R14E SEC. 30CAA. ELEVATION 3610 FEET MSL. REFERENCE FILE SWMS-175.700.050.

Parameter Inventory for Station: TUMA0029

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data at this Station Suitable for Statistical Analysis ********

Station Inventory for Station: TUMA0030

NPS Station ID: TUMA0030
LAT/LON: 31.401111/-110.954444
Agency: 21ARIZ
Date Created: / /
Location: POTRERO WASH ABOVE NOGALES WASH
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801000000000590/SC 005
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.90
On/Off RF1:
RF3 Index: 15050301050000.00
RF3 Mile Point: 0.00
Distance from RF3: 0.09
On/Off RF3:
Description:
LAT 31 24'04", LONG 110 57'16", SW1/4 NW1/4, SEC 30, T23S, R14E, SANTA CRUZ CO, 3 KM (1.9 MI) SOUTH OF RUBY ROAD EXIT ON ACCESS ROAD I-19, 560 M (610 YDS) EAST ON HARD SURFACE ROAD TO CONCRETE FORD, MIDSTREAM IMMEDIATELY UPSTREAM OF FORD, 5.9 KM (3.7 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/05/73-04/27/73	5	17.	16.3	19.5	11.	11.95	3.457	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/27/73-04/27/73	2	5.19	5.19	5.19	5.19	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/27/73-04/27/73	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/12/73	1	4.	4.	4.	4.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/05/73-04/27/73	3	8.	8.067	8.3	7.9	0.043	0.208	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/05/73-04/27/73	3	8.	8.036	8.3	7.9	0.045	0.211	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/05/73-04/27/73	3	0.01	0.009	0.013	0.005	0.	0.004	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/05/73-04/27/73	3	50.	52.667	62.	46.	69.333	8.327	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/27/73	2	20.	20.	26.	14.	72.	8.485	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/10/73-04/10/73	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/10/73-04/27/73	2 ##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/05/73-04/27/73	3	0.4	0.3	0.4	0.1	0.03	0.173	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/05/73-04/27/73	3	60.	60.	62.	58.	4.	2.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/05/73-04/27/73	3	15.	16.	18.	15.	3.	1.732	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/05/73-04/27/73	3	5.	6.333	10.	4.	10.333	3.215	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/05/73-04/27/73	3	15.	14.667	16.	13.	2.333	1.528	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/05/73-04/27/73	3	7.	6.333	9.	3.	9.333	3.055	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/05/73-04/27/73	3	19.	20.	22.	19.	3.	1.732	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/05/73-04/05/73	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**
00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/05/73-04/05/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/05/73-04/05/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/05/73-04/05/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/05/73-04/05/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/05/73-04/05/73	1	140.	140.	140.	140.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/05/73-04/05/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/05/73-04/05/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	3	44.	78.667	168.	24.	6085.333	78.009	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/17/73	3	1.643	1.75	2.225	1.38	0.187	0.432	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			56.19								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/05/73-04/27/73	3	101.	97.	104.	86.	93.	9.644	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0030

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/05/73-04/27/73	3 ##	0.5	1.667	4.	0.5	4.083	2.021	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/05/73-04/05/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0030

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00							3	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00							3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	3	0	0.00							3	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0031

NPS Station ID: TUMA0031
LAT/LON: 31.402222/-111.085833
Agency: 21AZG&F
Date Created: / /
Location: PENA BLANCA LAKE
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): PBL 1
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301036700.00
RF3 Mile Point: 3.71
Distance from RF3: 0.05
On/Off RF3:
Description:
MIDLAKE

Parameter Inventory for Station: TUMA0031

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00070	TURBIDITY, (JACKSON CANDLE UNITS)	10/21/75-10/21/75	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	10/21/75-10/21/75	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	10/21/75-10/21/75	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/21/75-10/21/75	1	0.013	0.013	0.013	0.013	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/21/75-10/21/75	1	116.	116.	116.	116.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/21/75-10/21/75	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/21/75-10/21/75	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	10/21/75-10/21/75	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/21/75-10/21/75	1	84.	84.	84.	84.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	10/21/75-10/21/75	1	11.	11.	11.	11.	0.	0.	**	**	**	**
70304	SOLIDS, TOTAL DISSOLVED-COND. METER (MG/L)	10/21/75-10/21/75	1	126.	126.	126.	126.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0031

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	1	0	0.00				1	0	0.00						
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0032

NPS Station ID: TUMA0032 LAT/LON: 31.402472/-110.952695 Agency: 21ARIZ Date Created: / /
Location: SCPOT003.5 (POTRERO CREEK 0.3 MI N OF FIRE ST B) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100705
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3651 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0032

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060 CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0032

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
50060 CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0033

NPS Station ID: TUMA0033
LAT/LON: 31.402778/-111.086111
Agency: 113FORS3
Date Created: 10/07/77
Location: PENA BLANCA LAKE AT BOAT DOCK
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): 050206
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301048500.70
RF3 Mile Point: 4.43
Distance from RF3: 0.04
On/Off RF3:
Description:
STATION ESTABLISHED 1969. DISCONTINUED 1972 (AT END OF COMMERCIAL BOAT DOCK). STATION REESTABLISHED 9/1/75. STN LOCATED AT THE END OF PENA BLANCA LAKE BOAT DOCK, T23S, R12E, SEC26, NW1/4, CORONADO NATIONAL FOREST, SANTA CRUZ CO., ARIZONA. ELEVATION 1292M (4239FT). DRAINAGE AREA 35.30 SQ KM (13.63 SQ MI). PURPOSE: ESTABLISH BASELINE DATA. GRAB SAMPLE COLLECTED MONTHLY. ANALYSIS IN FIELD BY HACH DR-EL. CHEMICAL ANALYSIS BY UNIVERSITY OF ARIZONA LAB. LAKE IS RECREATIONAL WATER. RECORDS MAINTAINED BY HYDROLOGIST AT SUPERVISORS OFFICE IN TUCSON, ARIZONA. 602/792-6710

Parameter Inventory for Station: TUMA0033

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data at this Station Suitable for Statistical Analysis ********

Station Inventory for Station: TUMA0034

NPS Station ID: TUMA0034 LAT/LON: 31.403167/-110.954138 Agency: 21ARIZ Date Created: / /
Location: SCPOT003.38 (POTRERO CREEK N OF FIRE STATION B) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100207
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3647 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0034

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	03/23/98-03/23/98	1	19.1	19.1	19.1	19.1	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/23/98-03/23/98	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/23/98-03/23/98	1	29.4	29.4	29.4	29.4	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/23/98-03/23/98	1	6.67	6.67	6.67	6.67	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	03/23/98-03/23/98	1	0.27	0.27	0.27	0.27	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/23/98-03/23/98	1	444.	444.	444.	444.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/23/98-03/23/98	1	470.	470.	470.	470.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/23/98-03/23/98	1	9.55	9.55	9.55	9.55	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/23/98-03/23/98	1	107.9	107.9	107.9	107.9	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/23/98-03/23/98	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/23/98-03/23/98	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/23/98-03/23/98	1	0.006	0.006	0.006	0.006	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	03/23/98-03/23/98	1	8.05	8.05	8.05	8.05	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	03/23/98-03/23/98	1	8.05	8.05	8.05	8.05	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/23/98-03/23/98	1	0.009	0.009	0.009	0.009	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	1	180.	180.	180.	180.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/23/98-03/23/98	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	03/23/98-03/23/98	1	220.	220.	220.	220.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	03/23/98-03/23/98	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/23/98-03/23/98	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/23/98-03/23/98	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/23/98-03/23/98	1	0.47	0.47	0.47	0.47	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/23/98-03/23/98	1	3.1	3.1	3.1	3.1	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/23/98-03/23/98	1	0.36	0.36	0.36	0.36	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/23/98-03/23/98	1	170.	170.	170.	170.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	03/23/98-03/23/98	1	54.	54.	54.	54.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/23/98-03/23/98	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	03/23/98-03/23/98	1	38.	38.	38.	38.	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	03/23/98-03/23/98	1	4.9	4.9	4.9	4.9	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	03/23/98-03/23/98	1	33.	33.	33.	33.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/23/98-03/23/98	1	36.	36.	36.	36.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	03/23/98-03/23/98	1	0.34	0.34	0.34	0.34	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0034

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01020	BORON, DISSOLVED (UG/L AS B)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	03/23/98-03/23/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/23/98-03/23/98	1	22.	22.	22.	22.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	03/23/98-03/23/98	1	300.	300.	300.	300.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/23/98-03/23/98	1	61.	61.	61.	61.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/23/98-03/23/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01057	THALLIUM, DISSOLVED (UG/L AS TL)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	03/23/98-03/23/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	03/23/98-03/23/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/23/98-03/23/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/23/98-03/23/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/23/98-03/23/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/23/98-03/23/98	1	310.	310.	310.	310.	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	03/23/98-03/23/98	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/23/98-03/23/98	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/23/98-03/23/98	1	4.19	4.19	4.19	4.19	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/23/98-03/23/98	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	03/23/98-03/23/98	1	1.06	1.06	1.06	1.06	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0034

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------7/05-10/10---------- Obs	Exceed	Prop.	----------10/11-12/07---------- Obs	Exceed	Prop.	----------12/08-4/30---------- Obs	Exceed	Prop.	----------5/01-7/04---------- Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0034

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	1	1.00							1	1	1.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0035

NPS Station ID: TUMA0035
LAT/LON: 31.408568/-111.084512
Agency: 21ARIZ
Date Created: / /
Location: SCPEN-C
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): 100066
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0035

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/25/95-05/25/95	5	18.83	18.82	20.21	17.22	1.608	1.268	**	**	**	**
00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	05/25/95-05/25/95	5	270.	230.2	322.	-13.	19088.2	138.16	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/25/95-05/25/95	5	110.	111.2	115.	109.	5.7	2.387	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	05/25/95-05/25/95	5	5.01	4.75	9.21	0.18	15.003	3.873	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/25/95-05/25/95	5	53.8	51.86	101.8	1.8	1841.318	42.911	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0035

			Total	Exceed	Prop.	7/05-10/10			10/11-12/07			12/08-4/30			5/01-7/04		
Parameter	Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300 OXYGEN, DISSOLVED	Other-Lo Lim.	4.	5	2	0.40										5	2	0.40

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0036

NPS Station ID: TUMA0036
LAT/LON: 31.408568/-111.084512
Agency: 21ARIZ
Date Created: / /
Location: SCPEN-B
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): 100065
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0036

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/25/95-05/25/95	9	16.02	15.722	19.83	10.14	17.452	4.178	10.14	11.345	19.775	19.83
00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	05/25/95-05/25/95	9	325.	155.556	356.	-130.	45048.278	212.246	0.	-64.5	342.5	-130.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	05/25/95-05/25/95	9	112.	111.444	115.	109.	6.028	2.455	109.	109.	113.5	115.
00300	OXYGEN, DISSOLVED MG/L	05/25/95-05/25/95	9	0.21	3.514	7.98	0.04	16.556	4.069	0.04	0.055	7.96	7.98
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/25/95-05/25/95	9	2.2	38.444	87.5	0.4	1990.06	44.61	0.4	0.5	87.2	87.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/25/95-05/25/95	5	0.25	0.246	0.26	0.23	0.	0.011	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/25/95-05/25/95	5	0.88	0.874	0.93	0.79	0.003	0.057	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/25/95-05/25/95	5	0.02	0.023	0.05	0.005	0.	0.016	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/25/95-05/25/95	5	0.025	0.032	0.064	0.016	0.	0.019	**	**	**	**
32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	05/25/95-05/25/95	1	0.32	0.32	0.32	0.32	0.	0.	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	05/25/95-05/25/95	1	2.63	2.63	2.63	2.63	0.	0.	**	**	**	**
46460	CHLOROPHYLL-A, SPECTRO,CORRECT FOR PHEOPHYTIN UG/L	05/25/95-05/25/95	1	6.17	6.17	6.17	6.17	0.	0.	**	**	**	**
70956	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-SPECTRO	05/25/95-05/25/95	1	0.16	0.16	0.16	0.16	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0036

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	9	5	0.56										9	5	0.56
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	5	0	0.00							1	0	0.00	4	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0037

NPS Station ID: TUMA0037
LAT/LON: 31.408568/-111.084512
Agency: 21ARIZ
Date Created: / /
Location: SCPEN-A
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): 100064
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/92-05/19/98	66	9.79	12.238	24.	8.15	22.309	4.723	8.264	8.945	16.348	20.119
00078	TRANSPARENCY, SECCHI DISC (METERS)	04/29/92-05/19/98	4	1.4	1.325	1.7	0.8	0.169	0.411	**	**	**	**
00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	04/30/92-05/19/98	34	378.5	264.471	499.	-454.	46648.378	215.982	128.	181.5	493.25	197.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/30/92-05/19/98	66	113.	123.258	192.	96.	575.825	23.996	100.	104.75	143.	159.
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/29/92-05/19/98	14	115.	127.214	180.	94.	695.72	26.377	97.	110.	147.25	175.
00300	OXYGEN, DISSOLVED MG/L	04/30/92-05/19/98	55	1.4	3.506	10.15	0.03	13.662	3.696	0.056	0.19	8.15	8.894
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	05/17/94-05/19/98	44	12.45	39.209	115.4	0.3	2043.658	45.207	0.45	0.925	93.6	113.
00403	PH, LAB, STANDARD UNITS SU	04/29/92-05/19/98	14	7.3	7.155	8.56	6.	0.454	0.674	6.1	6.6	7.41	8.28
00403	CONVERTED PH, LAB, STANDARD UNITS	04/29/92-05/19/98	14	7.3	6.729	8.56	6.	0.649	0.805	6.1	6.6	7.41	8.28
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/29/92-05/19/98	14	0.05	0.186	1.	0.003	0.082	0.287	0.006	0.039	0.251	0.815
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/92-05/19/98	14	43.	47.854	79.	6.66	375.845	19.387	20.33	38.	65.325	79.
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	05/17/94-05/19/98	11 ##	1.	1.	1.	1.	0.	0.	1.	1.	1.	1.
00440	BICARBONATE ION (MG/L AS HCO3)	04/29/92-05/19/98	14	55.	63.471	96.	41.	374.747	19.358	43.5	47.5	81.575	96.
00445	CARBONATE ION (MG/L AS CO3)	04/29/92-05/19/98	14 ##	1.	0.85	1.	0.3	0.089	0.298	0.3	0.825	1.	1.
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	04/29/92-05/19/98	14	110.	108.643	120.	94.	84.247	9.179	95.	99.5	120.	120.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/92-05/19/98	14 ##	2.5	5.321	31.	1.	63.331	7.958	1.	1.	5.	21.5
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/92-05/19/98	14	0.145	0.213	0.59	0.03	0.031	0.175	0.04	0.088	0.318	0.545
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/92-05/19/98	14	0.535	0.613	1.44	0.2	0.12	0.346	0.25	0.345	0.778	1.28
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	05/17/94-05/19/98	11	0.04	0.102	0.47	0.005	0.021	0.146	0.005	0.005	0.14	0.43
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/92-05/19/98	14	0.04	0.057	0.148	0.015	0.002	0.04	0.016	0.026	0.09	0.128
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/29/92-05/19/98	14	46.	48.8	68.	38.	95.083	9.751	38.1	40.75	54.	67.5
00916	CALCIUM, TOTAL (MG/L AS CA)	04/29/92-05/19/98	14	15.	15.486	22.	12.	10.594	3.255	12.	13.	17.3	22.
00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/29/92-05/19/98	14	2.35	2.5	3.5	2.	0.249	0.499	2.	2.075	2.825	3.45
00929	SODIUM, TOTAL (MG/L AS NA)	04/29/92-05/19/98	14	8.65	9.064	12.	7.6	1.846	1.359	7.6	8.	10.175	11.5
00937	POTASSIUM, TOTAL MG/L AS K)	04/29/92-05/19/98	14	1.9	2.04	2.7	1.53	0.171	0.413	1.565	1.675	2.503	2.65
00940	CHLORIDE,TOTAL IN WATER MG/L	04/29/92-05/19/98	14	5.1	4.779	6.8	3.1	1.66	1.289	3.1	3.475	5.75	6.6
00945	SULFATE, TOTAL (MG/L AS SO4)	04/29/92-05/19/98	14 ##	5.	5.857	10.	5.	3.055	1.748	5.	5.	5.75	9.5
00951	FLUORIDE, TOTAL (MG/L AS F)	04/29/92-05/19/98	14 ##	0.1	0.099	0.1	0.09	0.	0.004	0.09	0.1	0.1	0.1
01002	ARSENIC, TOTAL (UG/L AS AS)	05/17/94-05/19/98	11 ##	5.	5.	5.	5.	0.	0.	5.	5.	5.	5.
01007	BARIUM, TOTAL (UG/L AS BA)	04/29/92-05/19/98	14 ##	50.	46.214	50.	28.	59.72	7.728	30.	46.75	50.	50.
01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/29/92-05/19/98	11 ##	0.25	0.455	1.	0.25	0.123	0.35	0.25	0.25	1.	1.
01027	CADMIUM, TOTAL (UG/L AS CD)	04/29/92-05/19/98	14 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/29/92-05/19/98	14 ##	5.	4.464	5.	2.5	1.133	1.065	2.5	4.375	5.	5.
01051	LEAD, TOTAL (UG/L AS PB)	04/29/92-05/19/98	14 ##	2.5	2.25	2.5	1.	0.298	0.546	1.	2.375	2.5	2.5
01059	THALLIUM, TOTAL (UG/L AS TL)	04/29/92-04/29/92	3 ##	200.	200.	200.	200.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/29/92-04/29/92	3 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/29/92-05/19/98	14 ##	0.5	1.464	5.	0.5	3.672	1.916	0.5	0.5	1.625	5.
01097	ANTIMONY, TOTAL (UG/L AS SB)	04/29/92-04/29/92	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01147	SELENIUM, TOTAL (UG/L AS SE)	04/29/92-05/19/98	13 ##	0.5	0.846	2.	0.5	0.433	0.658	0.5	0.5	1.25	2.
32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	04/29/92-05/19/98	4	0.715	0.94	1.96	0.37	0.509	0.714	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	12/16/97-05/19/98	3	2.4	2.213	3.84	0.4	2.985	1.728	**	**	**	**
46460	CHLOROPHYLL-A, SPECTRO,CORRECT FOR PHEOPHYTIN UG/L	04/29/92-05/19/98	4	5.455	5.378	9.6	1.	16.687	4.085	**	**	**	**
47004	SOLIDS,TOTAL DISSOLVED (ELECT-CONDUCTIVITY) MG/L	12/16/97-05/19/98	41	70.	78.293	123.	62.	315.462	17.761	64.	65.	102.	102.
70956	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-SPECTRO	04/29/92-05/19/98	4	0.55	0.675	1.33	0.27	0.235	0.485	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/29/92-05/19/98	14 ##	0.025	0.073	0.25	0.025	0.009	0.096	0.025	0.025	0.081	0.25
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	05/19/98-05/19/98	18	5.65	5.144	8.4	1.4	4.936	2.222	1.49	3.5	6.6	7.95
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/29/92-05/19/98	14	8.2	8.016	23.	0.61	43.814	6.619	0.8	1.215	12.5	19.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0037

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	55	34	0.62							25	15	0.60	30	19	0.63
00403	PH, LAB	Fresh Chronic	9.	14	0	0.00							8	0	0.00	6	0	0.00
		Other-Lo Lim.	6.5	14	2	0.14							8	0	0.00	6	2	0.33
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	11	0	0.00							5	0	0.00	6	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	14	0	0.00							8	0	0.00	6	0	0.00
		Drinking Water	250.	14	0	0.00							8	0	0.00	6	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	14	0	0.00							8	0	0.00	6	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	14	0	0.00							8	0	0.00	6	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	11	0	0.00							5	0	0.00	6	0	0.00
		Drinking Water	50.	11	0	0.00							5	0	0.00	6	0	0.00
01007	BARIUM, TOTAL	Drinking Water	2000.	14	0	0.00							8	0	0.00	6	0	0.00
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	11	0	0.00							8	0	0.00	3	0	0.00
		Drinking Water	4.	11	0	0.00							8	0	0.00	3	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	14	0	0.00							8	0	0.00	6	0	0.00
		Drinking Water	5.	14	0	0.00							8	0	0.00	6	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	14	0	0.00							8	0	0.00	6	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	14	0	0.00							8	0	0.00	6	0	0.00
		Drinking Water	15.	14	0	0.00							8	0	0.00	6	0	0.00
01059	THALLIUM, TOTAL	Fresh Acute	1400.	3	0	0.00							3	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	3	0	0.00							3	0	0.00			
		Drinking Water	100.	3	0	0.00							3	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	11 &	0	0.00							5	0	0.00	6	0	0.00
		Drinking Water	100.	14	0	0.00							8	0	0.00	6	0	0.00
01097	ANTIMONY, TOTAL	Fresh Acute	88.	3	0	0.00							3	0	0.00			
		Drinking Water	6.	3	0	0.00							3	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	13	0	0.00							7	0	0.00	6	0	0.00
		Drinking Water	50.	13	0	0.00							7	0	0.00	6	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	14	0	0.00							8	0	0.00	6	0	0.00
		Drinking Water	2.	14	0	0.00							8	0	0.00	6	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	18	0	0.00										18	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	14	0	0.00							8	0	0.00	6	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/92-05/19/98	36	9.315	11.191	24.	8.15	14.819	3.85	8.243	9.043	12.52	16.716
00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	04/30/92-05/19/98	21	184.	286.667	499.	71.	28768.233	169.612	110.4	171.5	493.5	497.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/30/92-05/19/98	36	107.	118.472	159.	96.	541.342	23.267	99.7	102.	130.25	159.
00300	OXYGEN, DISSOLVED MG/L	04/30/92-05/19/98	25	2.45	3.744	10.15	0.03	12.932	3.596	0.054	0.685	7.44	9.596

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0037

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/30/92-05/19/98	30	10.5	13.495	22.33	8.21	29.123	5.397	8.256	8.475	19.915	21.733
00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	04/30/92-05/19/98	13	397.	228.615	417.	-454.	78081.09	279.43	239.2	376.	156.	-323.6
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/30/92-05/19/98	30	119.5	129.	192.	100.	574.759	23.974	106.	110.	143.	168.4
00300	OXYGEN, DISSOLVED MG/L	04/30/92-05/19/98	30	1.125	3.308	8.9	0.04	14.649	3.827	0.051	0.105	8.57	8.886

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station Inventory for Station: TUMA0038

NPS Station ID: TUMA0038
LAT/LON: 31.410000/-111.083333
Agency: 21ARIZ
Date Created: / /
Location: PENA BLANCA LAKE AT SPILLWAY
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 802503000000260/SC 031
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301048306.23
RF3 Mile Point: 7.81
Distance from RF3: 0.04
On/Off RF3:
Description:
LAT 31 24'36", LONG 111 05'00", NW1/4 SE1/4, SEC 23, T23S, R12E, SANTA CRUZ CO, 17.4 KM (10.5 MI) WEST OF INTERSTATE 19 ON RUBY ROAD TO PENA BLANCA LODGE 1.8 KM (1.3 MI) DOWNSTREAM BY BOAT TO SPILLWAY, 2.6 KM (1.6 MI) UPSTREAM FROM CONFLUENCE WITH AGUA FRIA CREEK, 11.6 KM (7.2 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0038

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/06/73	2	12.	12.	13.	11.	2.	1.414	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/04/73-04/06/73	2	7.45	7.45	7.5	7.4	0.005	0.071	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/04/73-04/06/73	2	7.447	7.447	7.5	7.4	0.005	0.071	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/04/73-04/06/73	2	0.036	0.036	0.04	0.032	0.	0.006	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/73-04/06/73	2	32.	32.	32.	32.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/06/73	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/04/73-04/06/73	2 ##	0.063	0.063	0.1	0.025	0.003	0.053	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/73-04/06/73	2	44.	44.	44.	44.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/04/73-04/06/73	2	11.5	11.5	12.	11.	0.5	0.707	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/04/73-04/06/73	2	3.5	3.5	4.	3.	0.5	0.707	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/04/73-04/06/73	2	7.	7.	7.	7.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/73-04/06/73	2	5.	5.	5.	5.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/73-04/06/73	2	15.	15.	16.	14.	2.	1.414	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1	710.	710.	710.	710.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1 ##	0.301	0.301	0.301	0.301	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			2.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/04/73-04/06/73	2	62.	62.	63.	61.	2.	1.414	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/04/73-04/06/73	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0038

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00							2	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	0 &	0	0.00												
		Drinking Water	2.	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0039

NPS Station ID: TUMA0039 | LAT/LON: 31.411111/-111.083333 | Agency: 113FORS3 | Date Created: 10/07/77
Location: PENA BLANCA LAKE (RED ROCK AREA) | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE | STORET Station ID(s): 050205
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301032300.00 | RF3 Mile Point: 1.76 | Distance from RF3: 0.35 | On/Off RF3:
Description:
STATION ESTABLISHED 9/1/75. STN LOCATED NEXT TO RED ROCK PICNIC AREA T23S, R12E, SEC26, NW1/4, CORONADO NATIONAL FOREST, SANTA CRUZ CO., ARIZONA. ELEVATION 1292 M (4239 FT). DRAINAGE AREA 35.30 SQ KM (13.63 SQ MI). PURPOSE: ESTABLISH BASELINE DATA. GRAB SAMPLE COLLECTED MONTHLY ONE FOOT UNDER SURFACE. CHEMICAL ANALYSIS BY UNIVERSITY OF ARIZONA LAB. LAKE IS RECREATIONAL WATER. RECORDS MAINTAINED BY HYDROLOGIST AT SUPERVISORS OFFICE IN TUCSON, ARIZONA. 602/792-6710

Parameter Inventory for Station: TUMA0039

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/04/80-01/04/80	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/04/80-01/04/80	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/04/80-01/04/80	1	13.8	13.8	13.8	13.8	0.	0.	**	**	**	**
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	01/04/80-01/04/80	1	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/06/76-01/04/80	1	100.	100.	100.	100.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	01/04/80-01/04/80	1	11.6	11.6	11.6	11.6	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	10/07/75-01/04/80	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	10/07/75-01/04/80	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/07/75-01/04/80	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/04/80-01/04/80	1	65.	65.	65.	65.	0.	0.	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	08/03/76-01/04/80	1	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/07/75-01/04/80	1	55.	55.	55.	55.	0.	0.	**	**	**	**
70299	SOLIDS, SUSP. - RESIDUE ON EVAP. AT 180 C (MG/L)	01/04/80-01/04/80	1	121.	121.	121.	121.	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	01/04/80-01/04/80	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0039

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00400	PH	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0040

NPS Station ID: TUMA0040 LAT/LON: 31.423470/-110.911830 Agency: 11NPSWRD Date Created: 12/31/99
Location: CREEK DRAINING GUEVAVI CANYON AT RUBY RD BRIDGE FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): TUMA_FOSCR_GC
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
THE SITE IS LOCATED ON THE RIO RICO, ARIZ. 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE CREEK DRAINING GUEVAVI CANYON AT RUBY RD BRIDGE AND IS OUTSIDE THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. SAMPLING AT THIS STATION WAS CONDUCTED BY THE FRIENDS OF THE SANTA CRUZ RIVER VOLUNTEER ORGANIZATION AND FUNDED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AS A PART OF THE ADEQ SURFACE WATER QUALITY MONITORING PROGRAM. FOR MORE INFORMATION CONTACT MARK LARKIN (520) 398-8099. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS; COLORADO 80525. TEL (970) 225-3516. FAX (970) 225-9965

Parameter Inventory for Station: TUMA0040

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	02/24/98-12/28/99	5	8.	11.3	24.5	5.	60.95	7.807	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	02/24/98-12/28/99	6	11.	13.	24.	8.	35.2	5.933	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	02/24/98-12/28/99	6	16.5	15.667	27.	7.	55.067	7.421	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	02/24/98-12/28/99	5	0.58	2.686	10.92	0.5	21.219	4.606	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	02/24/98-12/28/99	5	0.2	0.184	0.32	0.1	0.008	0.091	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	02/24/98-12/28/99	5	620.	451.4	738.	52.	96113.8	310.022	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	6	9.5	9.567	12.4	6.9	3.491	1.868	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	02/24/98-12/28/99	6 ##	6.5	8.667	22.	1.	73.867	8.595	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	02/24/98-12/28/99	6	7.85	7.817	8.	7.4	0.05	0.223	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	02/24/98-12/28/99	6	7.847	7.761	8.	7.4	0.053	0.231	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/24/98-12/28/99	6	0.014	0.017	0.04	0.01	0.	0.011	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/24/98-12/28/99	6	0.215	0.418	1.35	0.16	0.215	0.464	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	02/24/98-12/28/99	6	0.535	1.307	3.7	0.37	1.923	1.387	**	**	**	**
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	02/24/98-12/28/99	6	175.	275.	800.	0.	99750.	315.832	**	**	**	**
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	02/24/98-12/28/99	6	2.239	1.68	2.903	0.	1.762	1.327	**	**	**	**
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			47.848								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	02/24/98-12/28/99	5	0.	0.	0.	0.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	02/24/98-12/28/99	6	0.65	0.8	1.8	0.1	0.46	0.678	**	**	**	**
71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	02/24/98-12/28/99	6 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	02/24/98-12/28/99	2	175.	175.	200.	150.	1250.	35.355	**	**	**	**
85663	FLOW, RATE FT/SEC	02/24/98-12/28/99	5	0.6	0.58	1.	0.3	0.072	0.268	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0040

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00			
		Other-Lo Lim.	6.5	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	5	0	0.00	1	0	0.00	2	0	0.00	2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00			
71855	NITRITE NITROGEN, TOTAL (AS NO2)	Drinking Water	3.3	6	0	0.00	1	0	0.00	2	0	0.00	3	0	0.00			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	2	2	1.00							2	2	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0041

NPS Station ID: TUMA0041 LAT/LON: 31.423833/-110.959055 Agency: 21ARIZ Date Created: / /
Location: SCPOT001.9 (POTRERO CREEK AT OLD TUCSON RD BRDG) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100703
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0041

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0041

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0042

NPS Station ID: TUMA0042
LAT/LON: 31.427222/-110.923056
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ R ABOVE POTRERO WASH
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000029040/SC 004
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 1.90
On/Off RF1:
RF3 Index: 15050301001300.00
RF3 Mile Point: 0.00
Distance from RF3: 0.07
On/Off RF3:
Description:
LAT 31 25'38", LONG 110 55'23", NW1/4 SW1/4, SEC 16, T23S, R14E, SANTA CRUZ CO, 6.6 KM (4.1 MI) NORTHWEST OF AZ 82 ON GRAVEL ROAD WHICH PARALLELS WEST SIDE OF RIVER. LEFT BANK, 17.9 KM (11.2 MI) DOWNSTREAM FROM INTERNATIONAL BOUNDARY, 290.4 KM (180.5 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0042

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	7	17.5	19.257	31.8	11.	53.48	7.313	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	2	2.95	2.95	2.95	2.95	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/20/73	3	8.7	9.433	12.	7.6	5.243	2.29	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/20/73	3	0.8	1.	1.7	0.5	0.39	0.624	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	4	8.25	8.175	8.3	7.9	0.036	0.189	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/26/73	4	8.247	8.141	8.3	7.9	0.037	0.193	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/26/73	4	0.006	0.007	0.013	0.005	0.	0.004	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	4	142.	145.	162.	134.	153.333	12.383	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	4	29.	36.75	66.	23.	394.25	19.856	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-04/19/73	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-04/26/73	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	4	0.6	0.825	1.8	0.3	0.443	0.665	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	4	149.	153.5	172.	144.	158.333	12.583	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	4	49.	49.5	54.	46.	13.667	3.697	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	4	7.	7.25	9.	6.	1.583	1.258	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	4	28.5	35.25	58.	26.	232.917	15.262	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	4	7.5	7.5	9.	6.	1.667	1.291	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	4	38.	39.	43.	37.	8.	2.828	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	16.	16.	16.	16.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	1.204	1.204	1.204	1.204	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			16.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	4	215.5	226.75	263.	213.	585.583	24.199	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	4 ##	0.5	0.875	2.	0.5	0.563	0.75	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0042

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	3	0	0.00							3	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	4	0	0.00							4	0	0.00			
		Other-Lo Lim.	6.5	4	0	0.00							4	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00							4	0	0.00			
		Drinking Water	250.	4	0	0.00							4	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	4	0	0.00							4	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	4	0	0.00							4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0043

NPS Station ID: TUMA0043 | LAT/LON: 31.429722/-110.960555 | Agency: 11NPSWRD | Date Created: 12/31/99
Location: NOGALES WASH SOUTH OF RUBY ROAD | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): TUMA_USFWS_2
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301056100.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.00 | On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE RIO RICO 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE NOGALES WASH SOUTH OF RUBY ROAD; AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK. DATA FOR THIS SITE ARE FROM "CONTAMINANTS AS A LIMITING FACTOR OF FISH AND WILDLIFE POPULATIONS IN THE SANTA CRUZ RIVER; ARIZONA" BY K.A. KING; B.J. ZAUN; AND A.L. VELASCO. THE STUDY IS PART OF THE U.S. FISH AND WILDLIFE SERVICE (USFWS); REGION 2 CONTAMINANTS PROGRAM AND WAS RELEASED IN OCTOBER 1999. THE STUDY SAMPLED WATER; SEDIMENT; INVERTEBRATES; FISH AND BIRDS FROM TWO SITES ABOVE THE NOGALES INTERNATIONAL WASTEWATER TREATMENT PLANT (NIWWTP) AND FIVE SITES BELOW THE NIWWTP. FOR MORE INFORMATION CONTACT THE USFWS; ARIZONA ECOLOGICAL SERVICES FIELD OFFICE; 2321 W. ROYAL PALM ROAD; SUITE 103; PHEONIX; ARIZONA; 85021. TEL (602) 242-0210. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAKRIDGE DR. SUITE 250 FORT COLLINS; CO; 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0043

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	1	20.5	20.5	20.5	20.5	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/30/97-05/30/97	1	0.013	0.013	0.013	0.013	0.	0.	**	**	**	**
00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	1	6.12	6.12	6.12	6.12	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	1 ##	0.255	0.255	0.255	0.255	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	2402.	2402.	2402.	2402.	0.	0.	**	**	**	**
50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	5.22	5.22	5.22	5.22	0.	0.	**	**	**	**
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	61.9	61.9	61.9	61.9	0.	0.	**	**	**	**
50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	149.	149.	149.	149.	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	6.42	6.42	6.42	6.42	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	4502.	4502.	4502.	4502.	0.	0.	**	**	**	**
50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	722.	722.	722.	722.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	374.	374.	374.	374.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.59	0.59	0.59	0.59	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0043

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	11.3	11.3	11.3	11.3	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	7.63	7.63	7.63	7.63	0.	0.	**	**	**	**
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	18.6	18.6	18.6	18.6	0.	0.	**	**	**	**
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	7.39	7.39	7.39	7.39	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	19.5	19.5	19.5	19.5	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0043

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	1	0	0.00										1	0	0.00
		Other-Lo Lim.	6.5	1	0	0.00										1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0044

NPS Station ID: TUMA0044 LAT/LON: 31.429833/-110.960195 Agency: 21ARIZ Date Created: / /
Location: SCPOT001.53 (POTRERO CREEK AT RUBY ROAD) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100571
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0044

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	12/29/98-12/29/98	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	12/29/98-12/29/98	1	0.74	0.74	0.74	0.74	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	12/29/98-12/29/98	1	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0044

				Total	Exceed	Prop.	7/05-10/10			10/11-12/07			12/08-4/30			5/01-7/04		
Parameter		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0045

NPS Station ID: TUMA0045 LAT/LON: 31.430556/-110.729167 Agency: 21ARIZ Date Created: / /
Location: SPRING BY MINE DUMP ENDLESS CHAIN MINE FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 801502731000218/HC01S
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301002505.60 RF3 Mile Point: 8.57 Distance from RF3: 0.00 On/Off RF3:
Description:
NE1/4,SW1/4,NE1/4,SEC 17,T23S,R16E, CORONADO NATIONAL FOREST, AN UNNAMED SPRING FLOWING FROM CAVED IN TUNNEL ON EAST SIDE OF MINE DUMP, THIS DUMP LIES AT END OF ROAD TRAVELING FROM FOREST ROAD 49, ALONG A HARSHAW CREEK TRIBUTARY PAST ENDLESS CHAIN MINE.SAMPLE WAS TAKEN FROM WATER FLOWING IN SMALL CHANNEL ABOVE PIPE.

Parameter Inventory for Station: TUMA0045

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/07/80-01/13/81	2	14.5	14.5	18.	11.	24.5	4.95	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/13/81-01/13/81	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/07/80-01/13/81	2	3923.	3923.	4000.	3846.	11858.	108.894	**	**	**	**
00400	PH (STANDARD UNITS)	09/07/80-01/13/81	2	6.7	6.7	6.8	6.6	0.02	0.141	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/07/80-01/13/81	2	6.689	6.689	6.8	6.6	0.02	0.142	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/07/80-01/13/81	2	0.205	0.205	0.251	0.158	0.004	0.066	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	01/13/81-01/13/81	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	01/13/81-01/13/81	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/13/81-01/13/81	1	0.079	0.079	0.079	0.079	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/07/80-01/13/81	2	249.	249.	268.	230.	722.	26.87	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/07/80-01/13/81	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/07/80-01/13/81	2	3643.5	3643.5	3694.	3593.	5100.5	71.418	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/07/80-01/13/81	2	68.5	68.5	104.	33.	2520.5	50.205	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	01/13/81-01/13/81	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/07/80-01/13/81	2 ##	0.017	0.017	0.029	0.005	0.	0.017	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	09/07/80-01/13/81	2	868.	868.	1120.	616.	127008.	356.382	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/07/80-01/13/81	2	239.5	239.5	269.	210.	1740.5	41.719	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	09/07/80-01/13/81	2	54.	54.	55.	53.	2.	1.414	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	09/07/80-01/13/81	2	26.5	26.5	27.	26.	0.5	0.707	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	09/07/80-01/13/81	2	2208.	2208.	2216.	2200.	128.	11.314	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	09/07/80-01/13/81	2	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	09/07/80-01/13/81	2	6.5	6.5	8.	5.	4.5	2.121	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	09/07/80-09/07/80	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	09/07/80-01/13/81	2 ##	4.25	4.25	6.	2.5	6.125	2.475	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	09/07/80-01/13/81	2 ##	15.	15.	25.	5.	200.	14.142	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	09/07/80-01/13/81	2	1110.	1110.	1400.	820.	168200.	410.122	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	09/07/80-01/13/81	2	1035.	1035.	1890.	180.	1462050.	1209.153	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	09/07/80-01/13/81	2 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	09/07/80-01/13/81	2	95500.	95500.	101000.	90000.	60500000.	7778.175	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	09/07/80-01/13/81	2 ##	15.	15.	25.	5.	200.	14.142	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	09/07/80-01/13/81	2	53500.	53500.	62000.	45000.	144500000.	12020.815	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0045

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01147	SELENIUM, TOTAL (UG/L AS SE)	09/07/80-01/13/81	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/07/80-01/13/81	2	1.55	1.55	3.	0.1	4.205	2.051	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	09/07/80-01/13/81	2 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/07/80-09/07/80	1	6.	6.	6.	6.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0045

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	2	0	0.00	1	0	0.00				1	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00	1	0	0.00				1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	250.	2	0	0.00	1	0	0.00				1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	2	1.00	1	1	1.00				1	1	1.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	2	0	0.00	1	0	0.00				1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	50.	2	0	0.00	1	0	0.00				1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00	1	0	0.00									
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2	1	0.50	1	0	0.00				1	1	1.00			
		Drinking Water	5.	2	1	0.50	1	0	0.00				1	1	1.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	2	0	0.00	1	0	0.00				1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	2	2	1.00	1	1	1.00				1	1	1.00			
		Drinking Water	1300.	2	1	0.50	1	0	0.00				1	1	1.00			
01051	LEAD, TOTAL	Fresh Acute	82.	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	15.	2	0	0.00	1	0	0.00				1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	2	0	0.00	1	0	0.00				1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	2	2	1.00	1	1	1.00				1	1	1.00			
		Drinking Water	5000.	2	2	1.00	1	1	1.00				1	1	1.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	50.	2	0	0.00	1	0	0.00				1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00	1	0	0.00				1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	2	0	0.00	1	0	0.00				1	0	0.00			
		Drinking Water	2.	2	0	0.00	1	0	0.00				1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00	1	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0046

NPS Station ID: TUMA0046 LAT/LON: 31.431944/-110.730000 Agency: 21ARIZ Date Created: / /
Location: ABOVE ENDLESS CHAIN MINE IN HARSHAW CREEK FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 801527340000103/HC09
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301002505.60 RF3 Mile Point: 8.41 Distance from RF3: 0.04 On/Off RF3:
Description:
NE1/4, NW1/4, SEC 17, R16E, T23S, CORONADO NATIONAL FOREST, PATAGONIA MOUNTAINS. STATION IS REACHED BY JEEP TRAIL THAT TURNS WEST OFF THE SIDE ROAD WHICH TURNS SOUTHWEST FROM HARSHAW ROAD (FOREST ROAD 49) PAST ENDLESS CHAIN MINE. SAMPLE IS TAKEN APPROXIMATELY 50 FEET UPSTREAM FROM CEMENT DAM, ON NORTH SIDE OF JEEP TRAIL.

Parameter Inventory for Station: TUMA0046

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/07/80-03/07/81	3	12.	12.	18.	6.	36.	6.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/06/81-03/07/81	2	9.25	9.25	12.	6.5	15.125	3.889	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/07/80-03/07/81	3	102.	79.667	110.	27.	2096.333	45.786	**	**	**	**
00400	PH (STANDARD UNITS)	09/07/80-03/07/81	3	7.1	7.133	7.3	7.	0.023	0.153	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/07/80-03/07/81	3	7.1	7.116	7.3	7.	0.024	0.154	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/07/80-03/07/81	3	0.079	0.077	0.1	0.05	0.001	0.025	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	09/07/80-03/07/81	3	5.5	5.867	6.8	5.3	0.663	0.814	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/07/80-03/07/81	3	5.5	5.556	6.8	5.3	0.808	0.899	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/07/80-03/07/81	3	3.162	2.778	5.012	0.158	6.	2.449	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/07/80-03/07/81	3	2.	2.	4.	0.	4.	2.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/07/80-03/07/81	3	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/07/80-03/07/81	3	116.	493.667	1250.	115.	429030.333	655.004	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/07/80-03/07/81	3	228.	5548.333	16416.	1.	88592516.333	9412.36	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/06/81-03/07/81	2 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/06/81-03/07/81	2 ##	0.058	0.058	0.09	0.025	0.002	0.046	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/07/80-09/07/80	1	352.	352.	352.	352.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	09/07/80-03/07/81	3	6.	24.667	65.	3.	1222.333	34.962	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/07/80-03/07/81	3	3.	14.667	39.	2.	444.333	21.079	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	09/07/80-03/07/81	3	6.	5.333	8.	2.	9.333	3.055	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	09/07/80-03/07/81	3	5.	5.333	7.	4.	2.333	1.528	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	09/07/80-03/07/81	3	55.	94.667	200.	29.	8490.333	92.143	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	09/07/80-03/07/81	3	0.05	0.097	0.2	0.04	0.008	0.09	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	09/07/80-03/07/81	3	7.	7.833	14.	2.5	33.583	5.795	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	09/07/80-09/07/80	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	09/07/80-03/07/81	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	09/07/80-03/07/81	3 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	09/07/80-03/07/81	3 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	09/07/80-03/07/81	3	130.	3651.667	10800.	25.	38326758.333	6190.861	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	09/07/80-03/07/81	3 ##	10.	23.333	50.	10.	533.333	23.094	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	09/07/80-03/07/81	3 ##	30.	1785.	5300.	25.	9266425.	3044.08	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	09/07/80-03/07/81	3 ##	25.	18.333	25.	5.	133.333	11.547	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0046

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01092	ZINC, TOTAL (UG/L AS ZN)	09/07/80-03/07/81	3 ##	25.	116.667	300.	25.	25208.333	158.771	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	09/07/80-03/07/81	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/07/80-03/07/81	3	1.	1.083	2.	0.25	0.771	0.878	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	09/07/80-03/07/81	3 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/07/80-09/07/80	1	3000.	3000.	3000.	3000.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0046

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	3	0	0.00	1	0	0.00				2	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00	1	0	0.00				2	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00	1	0	0.00				2	0	0.00			
		Other-Lo Lim.	6.5	3	2	0.67	1	0	0.00				2	2	1.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	250.	3	0	0.00	1	0	0.00				2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00	1	0	0.00				2	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	3	0	0.00	1	0	0.00				2	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	50.	3	0	0.00	1	0	0.00				2	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00	1	0	0.00									
01027	CADMIUM, TOTAL	Fresh Acute	3.9	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	5.	3	0	0.00	1	0	0.00				2	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	3	0	0.00	1	0	0.00				2	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	3	0	0.00	1	0	0.00				2	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	15.	3	1	0.33	1	1	1.00				2	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	3	0	0.00	1	0	0.00				2	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	3	1	0.33	1	1	1.00				2	0	0.00			
		Drinking Water	5000.	3	0	0.00	1	0	0.00				2	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	50.	3	0	0.00	1	0	0.00				2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00	1	0	0.00				2	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	3	0	0.00	1	0	0.00				2	0	0.00			
		Drinking Water	2.	3	0	0.00	1	0	0.00				2	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00	1	1	1.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0047

NPS Station ID: TUMA0047 LAT/LON: 31.432500/-110.731389 Agency: 21ARIZ Date Created: / /
Location: TRIBUTARY OF HARSHAW CREEK ABOVE MINES FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 801527360000126/HC10
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 22.80 On/Off RF1:
RF3 Index: 15050301002505.60 RF3 Mile Point: 10.28 Distance from RF3: 0.43 On/Off RF3:
Description:
NE1/4,NW1/4, SEC 17, T23S, R16E, CORONADO NATIONAL FOREST, PATAGONIA MOUNTAINS. STATION IS REACHED THE SIDE ROAD THAT TURNS SOUTHWEST OFF HARSHAW CREEK ROAD (FOREST ROAD 49). SIDE ROAD TRAVELS PAST ENDLESS CHAIN MINE AND TURNS WEST ONTO JEEP TRAIL. SAMPLE IS TAKEN UPSTREAM FROM CEMENT DAM, 10 FEET ABOVE THE CONFLUENCE OF TWO TRIBUTARIES, FROM THE NORTHERN CHANNEL FARTHER AWAY FROM THE ROAD.

Parameter Inventory for Station: TUMA0047

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/07/81-03/07/81	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/07/81-03/07/81	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/06/81-03/07/81	2	101.5	101.5	102.	101.	0.5	0.707	**	**	**	**
00400	PH (STANDARD UNITS)	03/06/81-03/07/81	2	6.9	6.9	7.	6.8	0.02	0.141	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/06/81-03/07/81	2	6.889	6.889	7.	6.8	0.02	0.142	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/06/81-03/07/81	2	0.129	0.129	0.158	0.1	0.002	0.041	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/06/81-03/07/81	2	5.1	5.1	5.1	5.1	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/06/81-03/07/81	2	5.1	5.1	5.1	5.1	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/06/81-03/07/81	2	7.943	7.943	7.943	7.943	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/06/81-03/07/81	2	2.	2.	4.	0.	8.	2.828	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/06/81-03/07/81	2	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	03/06/81-03/07/81	2	106.5	106.5	111.	102.	40.5	6.364	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/06/81-03/07/81	2	5.	5.	6.	4.	2.	1.414	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	03/06/81-03/07/81	2 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/06/81-03/07/81	2 ##	0.018	0.018	0.025	0.01	0.	0.011	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	03/06/81-03/07/81	2	5.5	5.5	7.	4.	4.5	2.121	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/06/81-03/07/81	2	3.5	3.5	4.	3.	0.5	0.707	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	03/06/81-03/07/81	2	7.	7.	8.	6.	2.	1.414	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	03/06/81-03/07/81	2	6.	6.	8.	4.	8.	2.828	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/06/81-03/07/81	2	24.5	24.5	27.	22.	12.5	3.536	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	03/06/81-03/06/81	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/06/81-03/07/81	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	03/06/81-03/07/81	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/06/81-03/07/81	2 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/06/81-03/07/81	2 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	03/06/81-03/07/81	2 ##	452.5	452.5	880.	25.	365512.5	604.576	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/06/81-03/07/81	2 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/06/81-03/07/81	2 ##	112.5	112.5	200.	25.	15312.5	123.744	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	03/06/81-03/07/81	2 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/06/81-03/07/81	2 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/06/81-03/07/81	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0047

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	03/06/81-03/07/81	2 ##	0.425	0.425	0.6	0.25	0.061	0.247	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/06/81-03/07/81	2 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0047

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	2	1.00							2	2	1.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	2	0	0.00							2	0	0.00			
		Drinking Water	50.	2	0	0.00							2	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2	0	0.00							2	0	0.00			
		Drinking Water	5.	2	0	0.00							2	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	2	0	0.00							2	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	2	0	0.00							2	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	2	0	0.00							2	0	0.00			
		Drinking Water	15.	2	0	0.00							2	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	2	0	0.00							2	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	2	0	0.00							2	0	0.00			
		Drinking Water	5000.	2	0	0.00							2	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	2	0	0.00							2	0	0.00			
		Drinking Water	50.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00							2	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	2	0	0.00							2	0	0.00			
		Drinking Water	2.	2	0	0.00							2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0048

NPS Station ID: TUMA0048 LAT/LON: 31.434722/-110.725480 Agency: 21ARIZ Date Created: / /
Location: ENDLESS CHAIN MINE TRIBUTARY OF HARSHAW CREEK FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 801502733000034
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 22.00 On/Off RF1:
RF3 Index: 15050301002505.60 RF3 Mile Point: 10.28 Distance from RF3: 0.32 On/Off RF3:
Description:
NE1/4,NE1/4,SEC 17, T23S, R16E, CORONADO NATIONAL FOREST, PATAGONIA MOUNTAINS, IN UPPER WESTERN TRIBUTARY OF HARSHAW CREEK. STATION IS ON SIDE ROAD THAT TURNS WEST OFF THE HARSHAW ROAD (FOREST ROAD 49) APPROX. SOUTH OF WINDMILL. SAMPLE TAKEN ABOUT 1/4 MILE FROM HARSHAW ROAD AT WATER LEVEL RECORDER HOUSING BELOW FILL BANK (CONCRETE WALL) OF SIDE ROAD.

Parameter Inventory for Station: TUMA0048

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/07/80-03/07/81	3	9.	10.	17.	4.	43.	6.557	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	02/07/81-03/07/81	2	7.5	7.5	8.	7.	0.5	0.707	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/07/80-09/07/80	1	430.	430.	430.	430.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/07/80-03/07/81	4	733.5	982.5	1818.	645.	314937.667	561.193	**	**	**	**
00400	PH (STANDARD UNITS)	09/07/80-03/07/81	4	3.95	3.85	4.1	3.4	0.097	0.311	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	09/07/80-03/07/81	4	3.947	3.755	4.1	3.4	0.109	0.33	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/07/80-03/07/81	4	112.946	175.858	398.107	79.433	22314.497	149.38	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	09/07/80-03/07/81	4	3.6	3.625	4.5	2.8	0.489	0.699	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/07/80-03/07/81	4	3.589	3.273	4.5	2.8	0.654	0.809	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/07/80-03/07/81	4	257.877	533.067	1584.893	31.623	505351.115	710.881	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/07/80-03/07/81	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/07/80-03/07/81	4	0.	0.	0.	0.	0.	0.	**	**	**	**
00500	RESIDUE, TOTAL (MG/L)	09/07/80-03/07/81	4	535.5	709.25	1402.	364.	221663.583	470.812	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/07/80-03/07/81	4	376.	3479.25	12976.	189.	40094524.917	6332.024	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	02/07/81-03/07/81	3 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/07/80-03/07/81	4 ##	0.025	0.026	0.03	0.025	0.	0.002	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	09/07/80-03/07/81	4	78.	82.75	120.	55.	800.917	28.3	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/07/80-03/07/81	4	18.	18.5	26.	12.	35.667	5.972	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	09/07/80-03/07/81	4	5.5	6.	9.	4.	4.667	2.16	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	09/07/80-03/07/81	4	4.	4.5	7.	3.	3.667	1.915	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	09/07/80-03/07/81	3	308.	311.667	394.	233.	6490.333	80.563	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	09/07/80-03/07/81	4	0.245	0.27	0.51	0.08	0.036	0.191	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	09/07/80-03/07/81	4	12.5	20.125	53.	2.5	510.729	22.599	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	09/07/80-03/07/81	4	6.75	25.5	86.	2.5	1631.167	40.388	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	09/07/80-03/07/81	4 ##	25.	20.	25.	5.	100.	10.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	09/07/80-03/07/81	4	1575.	4125.	13000.	350.	35344166.667	5945.096	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	09/07/80-03/07/81	4	23900.	63950.	192000.	16000.	7311476666.667	85507.173	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	09/07/80-03/07/81	4	85.	80.	110.	40.	1000.	31.623	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	09/07/80-03/07/81	4	6950.	6275.	8900.	2300.	8602500.	2933.002	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	09/07/80-03/07/81	4 ##	25.	20.	25.	5.	100.	10.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	09/07/80-03/07/81	4	11080.	12365.	26000.	1300.	156927566.667	12527.073	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0048

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01147	SELENIUM, TOTAL (UG/L AS SE)	09/07/80-03/07/81	4 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/07/80-03/07/81	4	0.9	0.913	1.6	0.25	0.311	0.557	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	09/07/80-03/07/81	4 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/07/80-09/07/80	1	2250.	2250.	2250.	2250.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0048

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	4	0	0.00	1	0	0.00				3	0	0.00			
		Other-Lo Lim.	6.5	4	4	1.00	1	1	1.00				3	3	1.00			
00403	PH, LAB	Fresh Chronic	9.	4	0	0.00	1	0	0.00				3	0	0.00			
		Other-Lo Lim.	6.5	4	4	1.00	1	1	1.00				3	3	1.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00	1	0	0.00				3	0	0.00			
		Drinking Water	250.	4	0	0.00	1	0	0.00				3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	2	0.67	1	1	1.00				2	1	0.50			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	4	0	0.00	1	0	0.00				3	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	4	0	0.00	1	0	0.00				3	0	0.00			
		Drinking Water	50.	4	1	0.25	1	0	0.00				3	1	0.33			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	4	3	0.75	1	1	1.00				3	2	0.67			
		Drinking Water	5.	4	3	0.75	1	1	1.00				3	2	0.67			
01034	CHROMIUM, TOTAL	Drinking Water	100.	4	0	0.00	1	0	0.00				3	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	4	4	1.00	1	1	1.00				3	3	1.00			
		Drinking Water	1300.	4	3	0.75	1	0	0.00				3	3	1.00			
01051	LEAD, TOTAL	Fresh Acute	82.	4	2	0.50	1	1	1.00				3	1	0.33			
		Drinking Water	15.	4	4	1.00	1	1	1.00				3	3	1.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	4	0	0.00	1	0	0.00				3	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	4	4	1.00	1	1	1.00				3	3	1.00			
		Drinking Water	5000.	4	2	0.50	1	0	0.00				3	2	0.67			
01147	SELENIUM, TOTAL	Fresh Acute	20.	4	0	0.00	1	0	0.00				3	0	0.00			
		Drinking Water	50.	4	0	0.00	1	0	0.00				3	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	4	0	0.00	1	0	0.00				3	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	4	0	0.00	1	0	0.00				3	0	0.00			
		Drinking Water	2.	4	0	0.00	1	0	0.00				3	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00	1	1	1.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0049

NPS Station ID: TUMA0049 | LAT/LON: 31.436111/-110.941666 | Agency: 11NPSWRD | Date Created: 12/31/99
Location: SANTA CRUZ RIVER AT RIO RICO BRIDGE | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): TUMA_USFWS_3
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301056100.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.00 | On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE RIO RICO 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER AT RIO RICO BRIDGE; AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK. DATA FOR THIS SITE ARE FROM "CONTAMINANTS AS A LIMITING FACTOR OF FISH AND WILDLIFE POPULATIONS IN THE SANTA CRUZ RIVER; ARIZONA" BY K.A. KING; B.J. ZAUN; AND A.L. VELASCO. THE STUDY IS PART OF THE U.S. FISH AND WILDLIFE SERVICE (USFWS); REGION 2 CONTAMINANTS PROGRAM AND WAS RELEASED IN OCTOBER 1999. THE STUDY SAMPLED WATER; SEDIMENT; INVERTEBRATES; FISH AND BIRDS FROM TWO SITES ABOVE THE NOGALES INTERNATIONAL WASTEWATER TREATMENT PLANT (NIWWTP) AND FIVE SITES BELOW THE NIWWTP. FOR MORE INFORMATION CONTACT THE USFWS; ARIZONA ECOLOGICAL SERVICES FIELD OFFICE; 2321 W. ROYAL PALM ROAD; SUITE 103; PHEONIX; ARIZONA; 85021. TEL (602) 242-0210. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAKRIDGE DR. SUITE 250 FORT COLLINS; CO; 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0049

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	1	23.3	23.3	23.3	23.3	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/30/97-05/30/97	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	1	0.49	0.49	0.49	0.49	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	1	3.2	3.2	3.2	3.2	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	1 ##	0.255	0.255	0.255	0.255	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3417.	3417.	3417.	3417.	0.	0.	**	**	**	**
50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3.64	3.64	3.64	3.64	0.	0.	**	**	**	**
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	52.4	52.4	52.4	52.4	0.	0.	**	**	**	**
50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.29	0.29	0.29	0.29	0.	0.	**	**	**	**
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	61.2	61.2	61.2	61.2	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	16.	16.	16.	16.	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	5393.	5393.	5393.	5393.	0.	0.	**	**	**	**
50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	1576.	1576.	1576.	1576.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	193.	193.	193.	193.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0049

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	8.38	8.38	8.38	8.38	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	11.2	11.2	11.2	11.2	0.	0.	**	**	**	**
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	22.3	22.3	22.3	22.3	0.	0.	**	**	**	**
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	9.95	9.95	9.95	9.95	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	40.3	40.3	40.3	40.3	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0049

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	1	0	0.00										1	0	0.00
		Other-Lo Lim.	6.5	1	0	0.00										1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0050

NPS Station ID: TUMA0050 LAT/LON: 31.441667/-110.962833 Agency: 21ARIZ Date Created: / /
Location: SCPOT000.72 (POTRERO CREEK UPSTREAM OF WWTP) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100208
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3495 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0050

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	03/23/98-03/23/98	1	14.5	14.5	14.5	14.5	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/23/98-03/23/98	1	24.3	24.3	24.3	24.3	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/23/98-03/23/98	1	27.8	27.8	27.8	27.8	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/23/98-03/23/98	1	6.66	6.66	6.66	6.66	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	03/23/98-03/23/98	1	0.26	0.26	0.26	0.26	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/23/98-03/23/98	1	453.	453.	453.	453.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/24/98-03/24/98	1	470.	470.	470.	470.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/23/98-03/23/98	1	8.96	8.96	8.96	8.96	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/23/98-03/23/98	1	106.1	106.1	106.1	106.1	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/24/98-03/24/98	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/24/98-03/24/98	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/24/98-03/24/98	1	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	03/23/98-03/23/98	1	8.92	8.92	8.92	8.92	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	03/23/98-03/23/98	1	8.92	8.92	8.92	8.92	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/23/98-03/23/98	1	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/24/98-03/24/98	1	190.	190.	190.	190.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/24/98-03/24/98	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	03/24/98-03/24/98	1	200.	200.	200.	200.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	03/24/98-03/24/98	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/24/98-03/24/98	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/24/98-03/24/98	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/24/98-03/24/98	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/24/98-03/24/98	1	1.4	1.4	1.4	1.4	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/24/98-03/24/98	1	0.43	0.43	0.43	0.43	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/24/98-03/24/98	1	160.	160.	160.	160.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	03/24/98-03/24/98	1	54.	54.	54.	54.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/24/98-03/24/98	1	9.4	9.4	9.4	9.4	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	03/24/98-03/24/98	1	40.	40.	40.	40.	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	03/24/98-03/24/98	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	03/24/98-03/24/98	1	28.	28.	28.	28.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/24/98-03/24/98	1	40.	40.	40.	40.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	03/24/98-03/24/98	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	03/24/98-03/24/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/24/98-03/24/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	03/24/98-03/24/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	03/24/98-03/24/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0050

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01020	BORON, DISSOLVED (UG/L AS B)	03/24/98-03/24/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	03/24/98-03/24/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	03/24/98-03/24/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	03/24/98-03/24/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	03/24/98-03/24/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/24/98-03/24/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	03/24/98-03/24/98	1	17.	17.	17.	17.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/24/98-03/24/98	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	03/24/98-03/24/98	1	180.	180.	180.	180.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	03/24/98-03/24/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/24/98-03/24/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/24/98-03/24/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01057	THALLIUM, DISSOLVED (UG/L AS TL)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	03/24/98-03/24/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	03/24/98-03/24/98	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	03/24/98-03/24/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	03/24/98-03/24/98	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	03/24/98-03/24/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/24/98-03/24/98	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/24/98-03/24/98	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/23/98-03/23/98	1	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/23/98-03/23/98	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/24/98-03/24/98	1	320.	320.	320.	320.	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	03/24/98-03/24/98	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/24/98-03/24/98	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/23/98-03/23/98	1	3.48	3.48	3.48	3.48	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/24/98-03/24/98	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	03/23/98-03/23/98	1	1.37	1.37	1.37	1.37	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0050

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0050

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0051

NPS Station ID: TUMA0051
LAT/LON: 31.444444/-110.868889
Agency: 21ARIZ
Date Created: / /
Location: SONOITA CR-PATAGONIA DAM SPILLWY
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801500000001440/SC 024
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 1.30
On/Off RF1:
RF3 Index: 15050301001303.12
RF3 Mile Point: 3.32
Distance from RF3: 0.01
On/Off RF3:
Description:
LAT 31 26'40", LONG 110 52'08", NE1/4 SW1/4, SEC 25, T22S, R14E, SANTA CRUZ CO, 10.4 KM (6.5 MI) SOUTHWEST OF PATAGONIA ON AZ 82, 8.0 KM (5.0 MI) NORTHWEST ON GRAVEL ROAD TO MARINA, 1.9 KM (1.2 MI) DOWNSTREAM BY BOAT TO SPILLWAY, CENTER OF SPILLWAY, 14.4 KM (9 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0051

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/06/73	2	19.75	19.75	21.5	18.	6.125	2.475	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/06/73	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/06/73	1	8.	8.	8.	8.	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/06/73	1	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/06/73	1	92.	92.	92.	92.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/06/73	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/06/73	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/06/73	1	288.	288.	288.	288.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/06/73	1	84.	84.	84.	84.	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/06/73	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/06/73	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/06/73	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/06/73	1	220.	220.	220.	220.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	44.	44.	44.	44.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	1.643	1.643	1.643	1.643	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			44.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/06/73	1	405.	405.	405.	405.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/06/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0051

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0051

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0052

NPS Station ID: TUMA0052 | LAT/LON: 31.446667/-110.960556 | Agency: 21ARIZ | Date Created: / /
Location: POTRERO WASH ABOVE SANTA CRUZ R | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): 801000000000000/SC 010
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301036700.00 | RF3 Mile Point: 3.71 | Distance from RF3: 0.05 | On/Off RF3:
Description:
LAT 31 26'48", LONG 110 57'38", NE1/4 NE1/4, SEC 12, T23S, R13E, SANTA CRUZ CO, 13.4 KM (8.3 MI) NORTH OF NOGALES, AZ, ON INTERSTATE 19 AND ACCESS ROADS TO NOGALES SEWAGE TREATMENT PLANT, NEAR SOUTHEAST CORNER OF PLANT, ON LEFT BANK 150 M (165 YDS) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER, 285.9 KM (177.7 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0052

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	8	15.75	16.625	22.	11.	17.625	4.198	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/20/73-04/26/73	4	11.435	11.435	11.63	11.24	0.051	0.225	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/26/73	4	9.8	10.325	13.	8.7	3.449	1.857	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/12/73-04/20/73	3	2.2	2.267	2.9	1.7	0.363	0.603	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	3	8.2	8.067	8.2	7.8	0.053	0.231	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/26/73	3	8.2	8.023	8.2	7.8	0.056	0.237	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/26/73	3	0.006	0.009	0.016	0.006	0.	0.006	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	4	128.	138.5	178.	120.	731.667	27.049	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	4	33.	31.	40.	18.	92.	9.592	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/10/73-04/10/73	1	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/10/73-04/26/73	2 ##	0.275	0.275	0.5	0.05	0.101	0.318	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	3	0.7	0.7	1.	0.4	0.09	0.3	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	4	153.	155.5	176.	140.	225.	15.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	4	46.	48.25	57.	44.	34.917	5.909	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	4	9.	8.5	10.	6.	3.667	1.915	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	4	26.	26.25	29.	24.	6.917	2.63	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	4	20.5	22.	27.	20.	11.333	3.367	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	4	37.5	37.	45.	28.	76.667	8.756	**	**	**	**
00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/17/73	4	161.	167.	256.	90.	7814.667	88.401	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/17/73	4	2.163	2.172	2.408	1.954	0.061	0.247	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			148.593								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	4	241.5	236.25	257.	205.	487.583	22.081	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	4	8.5	11.25	22.	6.	56.917	7.544	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0052

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	4	0	0.00							4	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00							3	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00							4	0	0.00			
		Drinking Water	250.	4	0	0.00							4	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	4	0	0.00							4	0	0.00			
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	4	2	0.50							4	2	0.50			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	4	0	0.00							4	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0053

NPS Station ID: TUMA0053 LAT/LON: 31.447639/-110.960972 Agency: 21ARIZ Date Created: / /
Location: NOGALES WASH BEHND NOGALES WWTP FACILITY FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 800000000000002/SCR02C
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056700.81 RF3 Mile Point: 1.50 Distance from RF3: 0.06 On/Off RF3:
Description:
T23S R13E SEC 12 NE1/4NE1/4NE1/4

Parameter Inventory for Station: TUMA0053

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/26/84-07/26/84	1	27.5	27.5	27.5	27.5	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/26/84-07/26/84	1	550.	550.	550.	550.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/26/84-07/26/84	1	571.	571.	571.	571.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/26/84-07/26/84	1	5.8	5.8	5.8	5.8	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/26/84-07/26/84	1	8.03	8.03	8.03	8.03	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/26/84-07/26/84	1	8.03	8.03	8.03	8.03	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/26/84-07/26/84	1	0.009	0.009	0.009	0.009	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/26/84-07/26/84	1	180.	180.	180.	180.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/26/84-07/26/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/26/84-07/26/84	1	1.11	1.11	1.11	1.11	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/26/84-07/26/84	1	0.85	0.85	0.85	0.85	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/26/84-07/26/84	1	0.41	0.41	0.41	0.41	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/84-07/26/84	1	368.	368.	368.	368.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/26/84-07/26/84	1	30.6	30.6	30.6	30.6	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/26/84-07/26/84	1	62.	62.	62.	62.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0053

Parameter				Total	Exceed	Prop.	7/05-10/10			10/11-12/07			12/08-4/30			5/01-7/04		
		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00	1	0	0.00									
00400	PH	Fresh Chronic	9.	1	0	0.00	1	0	0.00									
		Other-Lo Lim.	6.5	1	0	0.00	1	0	0.00									
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00	1	0	0.00									
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00	1	1	1.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0054

NPS Station ID: TUMA0054 LAT/LON: 31.450305/-110.960500 Agency: 21ARIZ Date Created: / /
Location: SCPOT000.1 (AT INTERSECTION WITH SANTA CRUZ R) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100702
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3510 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0054

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	03/24/98-03/24/98	1	0.8	0.8	0.8	0.8	0.	0.	**	**	**	**
50064	CHLORINE, FREE AVAILABLE (MG/L)	03/24/98-03/24/98	1	0.12	0.12	0.12	0.12	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0054

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	1	1	1.00							1	1	1.00			
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0055

NPS Station ID: TUMA0055
LAT/LON: 31.458333/-110.966667
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ R ABOVE NOGALES STP
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000028450/SC 011
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 1.40
On/Off RF1:
RF3 Index: 15050301001300.45
RF3 Mile Point: 0.45
Distance from RF3: 0.02
On/Off RF3:
Description:
LAT 31 27'30", LONG 110 58'00", NW1/4 SE1/4, SEC 1, T23S, R13E, SANTA CRUZ CO, 13.4 KM (8.3 MI) NORTH OF NOGALES, AZ, ON INTERSTATE 19 AND ACCESS ROADS TO NOGALES SEWAGE TREATMENT PLANT NEAR NORTHEAST CORNER OF PLANT, LEFT BANK, 25 M (27 YDS) UPSTREAM FROM PLANT EFFLUENT OUTFALL, 24.0 KM (14.9 MI) DOWNSTREAM FROM INTERNATIONAL BOUNDARY, 284.5 KM (176.8 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0055

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/26/73-06/28/84	2	29.	29.	33.	25.	32.	5.657	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	06/28/84-07/26/84	2	32.6	32.6	35.2	30.	13.52	3.677	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/28/84-07/26/84	2	440.	440.	500.	380.	7200.	84.853	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/28/84-07/26/84	2	471.5	471.5	495.	448.	1104.5	33.234	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/20/73-07/26/84	4	6.85	7.075	8.8	5.8	1.943	1.394	**	**	**	**
00400	PH (STANDARD UNITS)	06/28/84-07/26/84	2	8.395	8.395	8.68	8.11	0.162	0.403	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/28/84-07/26/84	2	8.308	8.308	8.68	8.11	0.178	0.422	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/84-07/26/84	2	0.005	0.005	0.008	0.002	0.	0.004	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/26/73-04/26/73	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/26/73-04/26/73	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/26/73-04/26/73	1	0.006	0.006	0.006	0.006	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	1	126.	126.	126.	126.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/26/73-07/26/84	3	588.	463.333	666.	136.	81881.333	286.149	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	06/28/84-07/26/84	2 ##	0.09	0.09	0.13	0.05	0.003	0.057	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/26/73-07/26/84	3	1.32	1.273	2.	0.5	0.564	0.751	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/26/73-04/26/73	1	0.9	0.9	0.9	0.9	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/28/84-07/26/84	2	0.885	0.885	0.9	0.87	0.	0.021	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	06/28/84-07/26/84	2	0.225	0.225	0.25	0.2	0.001	0.035	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	1	150.	150.	150.	150.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/26/73-04/26/73	1	50.	50.	50.	50.	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/26/73-04/26/73	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/26/73-04/26/73	1	25.	25.	25.	25.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/26/73-04/26/73	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/26/73-04/26/73	1	31.	31.	31.	31.	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	06/28/84-07/26/84	2	352.	352.	380.	324.	1568.	39.598	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/26/73-04/26/73	1	209.	209.	209.	209.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/26/73-07/26/84	3	4.	3.77	4.56	2.75	0.859	0.927	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	06/28/84-07/26/84	2	261.5	261.5	350.	173.	15664.5	125.158	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0055

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	4	0	0.00	1	0	0.00				2	0	0.00	1	0	0.00
00400	PH	Fresh Chronic	9.	2	0	0.00	1	0	0.00							1	0	0.00
		Other-Lo Lim.	6.5	2	0	0.00	1	0	0.00							1	0	0.00
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00	1	0	0.00				1	0	0.00	1	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	2	2	1.00	1	1	1.00							1	1	1.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0056

NPS Station ID: TUMA0056
LAT/LON: 31.458611/-110.960833
Agency: 112WRD
Date Created: / /
Location: SANTA CRUZ RIVER NEAR NOGALES WWTP
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 312731110573901
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3430
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index:
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0056

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34790	SURFACTANTS, AS CTAS, WATER MG/L	05/09/96-05/09/96	1	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
34795	ANTIMONY,SED,BOT,	05/09/96-05/09/96	1	6.	6.	6.	6.	0.	0.	**	**	**	**
34800	ARSENIC,SED,BOT,WET SIEVE,	05/09/96-05/09/96	1	27.	27.	27.	27.	0.	0.	**	**	**	**
34805	BARIUM,SED,BOT,	05/09/96-05/09/96	1	800.	800.	800.	800.	0.	0.	**	**	**	**
34810	BERYLLIUM,SED,BOT,WET SIEVE,	05/09/96-05/09/96	1	2.	2.	2.	2.	0.	0.	**	**	**	**
34816	BISMUTH,SED,BOT,WET SIEVE,	05/09/96-05/09/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
34825	CADMIUM,SED,BOT,	05/09/96-05/09/96	1	5.1	5.1	5.1	5.1	0.	0.	**	**	**	**
34830	CALCIUM,SED,BOT,	05/09/96-05/09/96	1	2.3	2.3	2.3	2.3	0.	0.	**	**	**	**
34835	CERIUM,SED,BOT,	05/09/96-05/09/96	1	120.	120.	120.	120.	0.	0.	**	**	**	**
34840	CHROMIUM,SED,BOT,	05/09/96-05/09/96	1	120.	120.	120.	120.	0.	0.	**	**	**	**
34845	COBALT,SED,BOT,	05/09/96-05/09/96	1	11.	11.	11.	11.	0.	0.	**	**	**	**
34850	COPPER,SED,BOT,	05/09/96-05/09/96	1	190.	190.	190.	190.	0.	0.	**	**	**	**
34855	EUROPIUM,SED,BOT,	05/09/96-05/09/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34860	GALLIUM,SED,BOT,	05/09/96-05/09/96	1	17.	17.	17.	17.	0.	0.	**	**	**	**
34870	GOLD,SED,BOT,	05/09/96-05/09/96	1 ##	4.	4.	4.	4.	0.	0.	**	**	**	**
34875	HOLMIUM,SED,BOT,	05/09/96-05/09/96	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
34880	IRON,SED,BOT,	05/09/96-05/09/96	1	3.4	3.4	3.4	3.4	0.	0.	**	**	**	**
34885	LANTHANUM,SED,BOT,	05/09/96-05/09/96	1	70.	70.	70.	70.	0.	0.	**	**	**	**
34890	LEAD,SED,BOT,	05/09/96-05/09/96	1	86.	86.	86.	86.	0.	0.	**	**	**	**
34895	LITHIUM,SED,BOT,	05/09/96-05/09/96	1	50.	50.	50.	50.	0.	0.	**	**	**	**
34900	MAGNESIUM,SED,BOT,	05/09/96-05/09/96	1	0.91	0.91	0.91	0.91	0.	0.	**	**	**	**
34905	MANGANESE,SED,BOT,	05/09/96-05/09/96	1	510.	510.	510.	510.	0.	0.	**	**	**	**
34910	MERCURY,SED,BOT,	05/09/96-05/09/96	1	1.	1.	1.	1.	0.	0.	**	**	**	**
34915	MOLYBDENUM,SED,BOT,	05/09/96-05/09/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34920	NEODYMIUM,SED,BOT,	05/09/96-05/09/96	1	54.	54.	54.	54.	0.	0.	**	**	**	**
34925	NICKEL,SED,BOT,	05/09/96-05/09/96	1	49.	49.	49.	49.	0.	0.	**	**	**	**
34930	NIOBIUM,SED,BOT,	05/09/96-05/09/96	1	16.	16.	16.	16.	0.	0.	**	**	**	**
34935	PHOSPHORUS,SED,BOT,	05/09/96-05/09/96	1	0.51	0.51	0.51	0.51	0.	0.	**	**	**	**
34940	POTASSIUM,SED,BOT,	05/09/96-05/09/96	1	2.2	2.2	2.2	2.2	0.	0.	**	**	**	**
34945	SCANDIUM,SED,BOT,	05/09/96-05/09/96	1	12.	12.	12.	12.	0.	0.	**	**	**	**
34950	SELENIUM,SED,BOT,	05/09/96-05/09/96	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
34955	SILVER,SED,BOT,	05/09/96-05/09/96	1	9.8	9.8	9.8	9.8	0.	0.	**	**	**	**
34960	SODIUM,SED,BOT,	05/09/96-05/09/96	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
34965	STRONTIUM,SED,BOT,	05/09/96-05/09/96	1	250.	250.	250.	250.	0.	0.	**	**	**	**
34970	SULFUR,SED,BOT,	05/09/96-05/09/96	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
34975	TANTALUM,SED,BOT,	05/09/96-05/09/96	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
34980	THORIUM,SED,BOT,	05/09/96-05/09/96	1	27.	27.	27.	27.	0.	0.	**	**	**	**
34985	TIN,SED,BOT,	05/09/96-05/09/96	1	46.	46.	46.	46.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0056

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
35000	URANIUM,SED,BOT,	05/09/96-05/09/96	1	10.	10.	10.	10.	0.	0.	**	**	**	**
35005	VANADIUM,SED,BOT,	05/09/96-05/09/96	1	64.	64.	64.	64.	0.	0.	**	**	**	**
35010	YTTRIUM,SED,BOT,	05/09/96-05/09/96	1	37.	37.	37.	37.	0.	0.	**	**	**	**
35015	YTTERBIUM,SED,BOT,	05/09/96-05/09/96	1	3.	3.	3.	3.	0.	0.	**	**	**	**
35020	ZINC,SED,BOT,	05/09/96-05/09/96	1	520.	520.	520.	520.	0.	0.	**	**	**	**
49266	CARBON,ORGANIC,DRY WEIGHT,SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**	**
49267	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/09/96-05/09/96	1	6.8	6.8	6.8	6.8	0.	0.	**	**	**	**
49269	CARBON,INORGANIC, DRY WT, SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	1	0.22	0.22	0.22	0.22	0.	0.	**	**	**	**
49270	CARBON,INORGANIC, DRY WT,SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
49271	CARBON,ORGANIC,DRY WT,SEDIMENT,RECV,SIEVE	05/09/96-05/09/96	1	44.	44.	44.	44.	0.	0.	**	**	**	**
49272	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/09/96-05/09/96	1	45.	45.	45.	45.	0.	0.	**	**	**	**
49274	TITANIUM, DRY WT, SIEVE	05/09/96-05/09/96	1	0.32	0.32	0.32	0.32	0.	0.	**	**	**	**
49275	ALPHA-BHC,D6, DRY WT,SIEVE	05/09/96-05/09/96	1	53.	53.	53.	53.	0.	0.	**	**	**	**
49276	OCTACHLOROBIPHENYL,DRY WT,SIEVE	05/09/96-05/09/96	1	52.	52.	52.	52.	0.	0.	**	**	**	**
49277	BIPHENYL,3,5-DICHLORO-,DRY WT,SIEVE	05/09/96-05/09/96	1	68.	68.	68.	68.	0.	0.	**	**	**	**
49280	BENZENE,NITRO-,D5,DRY WT,SIEVE	05/09/96-05/09/96	1	93.	93.	93.	93.	0.	0.	**	**	**	**
49316	NONACHLOR,CIS-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49317	NONACHLOR,TRANS-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1	3.	3.	3.	3.	0.	0.	**	**	**	**
49318	OXYCHLORDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49319	ALDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49320	CHLORDANE, CIS-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1	3.	3.	3.	3.	0.	0.	**	**	**	**
49321	CHLORDANE,TRANS-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1	4.	4.	4.	4.	0.	0.	**	**	**	**
49322	CHLORONEB,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
49324	DCPA,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49325	DDD,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49327	DDE,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49328	DDE,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1	8.	8.	8.	8.	0.	0.	**	**	**	**
49329	DDT,O,P'-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
49330	DDT,P,P'-,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
49331	DIELDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49332	ENDOSULFAN I,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49335	ENDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
49338	ALPHA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49339	BETA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49341	HEPTACHLOR,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49342	HEPTACHLOR EPOXIDE,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49343	HEXACHLOROBENZENE,DRY WT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49344	ISODRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49345	LINDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49346	METHOXYCHLOR,P,P'-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49347	METHOXYCHLOR,O,P'-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49348	MIREX,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49349	PERMETHRIN,CIS-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	6.	6.	6.	6.	0.	0.	**	**	**	**
49350	PERMETHRIN,TRANS-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49351	TOXAPHENE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	100.	100.	100.	100.	0.	0.	**	**	**	**
49381	DIBUTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49382	DIOCTYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49383	DIETHYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49387	PYRENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49388	METHYLPYRENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49389	METHYLBENZO(A)PYRENE,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49390	METHYLINDENO(1,2,3-CD)PYRENE,DRY WT,SEV	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49391	BIQUINOLINE,2,2'-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49392	QUINOLINE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49393	PHENANTHRIDINE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49394	ISOQUINOLINE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49395	TOLUENE, 2,4-DINITRO-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49396	TOLUENE, 2,6-DINITRO-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49397	BENZO(K)FLUORANTHENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49398	METHYL-9H-FLUORENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49399	FLUORENE,9H-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49400	ISOPHORONE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49401	METHANE, BIS(2-CHLOROETHOXY),DRY WT,SEV	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0056

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
49403	NAPHTHALENE, 1,2-DIMETHYL-,DRY WT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49404	NAPHTHALENE, 1,6-DIMETHYL-,DRY WT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49406	NAPHTHALENE, 2,6-DIMETHYL-,DRY WT,SIEVE	05/09/96-05/09/96	1	240.	240.	240.	240.	0.	0.	**	**	**	**
49407	NAPHTHALENE, 2-CHLORO-,DRY WT,SIEVE	05/09/96-05/09/96	1	190.	190.	190.	190.	0.	0.	**	**	**	**
49408	BENZO(G,H,I)PERYLENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49409	PHENANTHRENE,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49410	METHYLPHENANTHRENE,DRY WT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49411	CYCLOPENTA(DEF)PHENANTHRENE, 4H-,DRY WT,SEV	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49413	PHENOL,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1	1400.	1400.	1400.	1400.	0.	0.	**	**	**	**
49421	XYLENOL, 3,5-,DRY WEIGHT,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49422	M-CRESOL, 4-CHLORO-,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49424	PHENOL, C8-ALKYL-,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49427	PHTHALATE, BUTYL BENZYL, DRY WT,SED,SEV	05/09/96-05/09/96	1 ##	600.	600.	600.	600.	0.	0.	**	**	**	**
49428	ACENAPHTHYLENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49429	ACENAPHTHENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49430	ACRIDINE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49431	N-NITROSO-DIPROPYLAMINE,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49433	N-NITROSO-DIPHENYLAMINE,DRY WT,SED,SEV	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49434	ANTHRACENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49435	ANTHRACENE, 2-METHYL-,DRY WEIGHT,SED,SEV	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49436	BENZ(A)ANTHRACENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49437	ANTHRAQUINONE, 9, 10-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49438	BENZENE, 1,2,4-TRICHLORO-,DRY WT,SED,SEV	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49439	BENZENE, O-DICHLORO-,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49441	BENZENE, M-DICHLORO-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49442	BENZENE, P-DICHLORO-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49443	AZOBENZENE,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49444	BENZENE, NITRO-,DRY WT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49446	BENZENE,PENTACHLORONITRO-,DRY WT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49449	CARBAZOLE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49450	CHRYSENE,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49451	P-CRESOL,DRY WEIGHT,SEDIMENT,SIEVE	05/09/96-05/09/96	1	17000.	17000.	17000.	17000.	0.	0.	**	**	**	**
49452	DIBENZOTHIOPHENE,DRY WEIGHT,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49454	BROMOPHENYL, 4-PHENYL ETHER,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49455	CHLOROPHENYL,4-PHENYL ETHER,SED,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49458	BENZO(B)FLUORANTHENE,DRY WT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49459	PCB,DRY WEIGHT,BED MATERIAL,SIEVE	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49460	PENTACHLOROANISOLE,DRY WT,BED MAT,SIEVE	05/09/96-05/09/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49461	DIBENZ(A,H)ANTHRACENE,DRY WT,SIEVE	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49466	FLUORANTHENE,SED,BED MAT,WET SIEV	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49467	PHENOL, O-CHLORO,SED,BED MAT,WETSEV	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49468	BENZO(C)CINNOLINE,SED,BED MAT,WETSEV	05/09/96-05/09/96	1 ##	500.	500.	500.	500.	0.	0.	**	**	**	**
49948	NAPHTHALENE,2-ETHYL-,BEDMAT,WETSIEV,	05/09/96-05/09/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
50280	PURPOSE, SITE VISIT CODE	05/09/96-05/09/96	1	3001.	3001.	3001.	3001.	0.	0.	**	**	**	**
80164	BED MATERIAL SIEVE DIAMETER,% FINER THAN .062MM	05/09/96-05/09/96	1	27.	27.	27.	27.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

********** No EPA Water Quality Criteria exist to compare against the data at this station. **********

Station Inventory for Station: TUMA0057

NPS Station ID: TUMA0057 LAT/LON: 31.459194/-110.969167 Agency: 21ARIZ Date Created: / /
Location: SANTA CRUZ R. 100 FT UPSTRM OF SONOITA CREEK FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 800000000005310/SCR03
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 1.30 On/Off RF1:
RF3 Index: 15050301050000.00 RF3 Mile Point: 0.00 Distance from RF3: 0.03 On/Off RF3:
Description:
T23S R13E SEC 1 NW1/4 SE1/4 SE1/4 ELEVATION APPROX 3437' SANTA CRUZ RIVER BELOW CONFLUENCE OF SONOITA CREEK, OFF HWY 89

Parameter Inventory for Station: TUMA0057

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/28/85-06/28/85	1	25.6	25.6	25.6	25.6	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	06/28/85-06/28/85	1	33.	33.	33.	33.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/28/85-06/28/85	1	510.	510.	510.	510.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	06/28/85-06/28/85	1	820.	820.	820.	820.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	06/28/85-06/28/85	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	06/28/85-06/28/85	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	06/28/85-06/28/85	1	8.7	8.7	8.7	8.7	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/28/85-06/28/85	1	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	06/28/85-06/28/85	1	84.	84.	84.	84.	0.	0.	**	**	**	**
00612	AMMONIA, UNIONZED (MG/L AS N)	06/28/85-06/28/85	1	12.4	12.4	12.4	12.4	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	06/28/85-06/28/85	1	18.6	18.6	18.6	18.6	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	06/28/85-06/28/85	1	6.68	6.68	6.68	6.68	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	06/28/85-06/28/85	1	4.04	4.04	4.04	4.04	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	06/28/85-06/28/85	1	503.	503.	503.	503.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	06/28/85-06/28/85	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	06/28/85-06/28/85	1	25.	25.	25.	25.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0057

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00										1	0	0.00
00400	PH	Fresh Chronic	9.	1	0	0.00										1	0	0.00
		Other-Lo Lim.	6.5	1	0	0.00										1	0	0.00
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00										1	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00										1	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0058

NPS Station ID: TUMA0058
LAT/LON: 31.461667/-110.979167
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ R ABOVE RIO RICO STP
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000028320/SC 026
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 3.00
On/Off RF1:
RF3 Index: 15050301021300.00
RF3 Mile Point: 0.14
Distance from RF3: 0.02
On/Off RF3:
Description:
LAT 31 27'42", LONG 110 58'45", NE1/4 NE1/4, SEC 2, T23S, R13E, SANTA CRUZ CO, 1 KM (0.6 MI) EAST OF INTERSTATE 19 ON DIRT ROAD THROUGH SOUTHERN PART OF RIO RICO DEVELOPMENT, PAST SEWAGE TREATMENT PLANT TO FORD, 20 M (22 YDS) UPSTREAM FROM FORD, 400 M (440 YDS) UPSTREAM FROM SEWAGE TREATMENT PLANT OUTFALL INTO RIVER, 2 KM (1.2 MI) DOWNSTREAM FROM NOGALES SEWAGE TREATMENT PLANT EFFLUENT, 25.3 KM (15.7 MI) DOWNSTREAM FROM INTERNATIONAL BOUNDARY, 283.2 KM (176 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0058

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/10/73-04/27/73	5	24.	23.4	29.	16.	29.8	5.459	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/19/73-04/24/73	2	5.695	5.695	8.	3.39	10.626	3.26	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/27/73-04/27/73	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/20/73	3	20.	23.667	35.	16.	100.333	10.017	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/10/73-04/27/73	2	7.9	7.9	8.9	6.9	2.	1.414	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/10/73-04/27/73	2	7.197	7.197	8.9	6.9	2.989	1.729	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/10/73-04/27/73	2	0.064	0.064	0.126	0.001	0.008	0.088	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	2	175.	175.	200.	150.	1250.	35.355	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/27/73	2	144.	144.	206.	82.	7688.	87.681	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/10/73-04/27/73	2	110.	110.	168.	52.	6728.	82.024	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/10/73-04/10/73	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/10/73-04/27/73	2	10.3	10.3	15.	5.6	44.18	6.647	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/10/73-04/27/73	2	14.9	14.9	18.8	11.	30.42	5.515	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/10/73-04/27/73	2	154.	154.	158.	150.	32.	5.657	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/10/73-04/27/73	2	47.	47.	48.	46.	2.	1.414	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/10/73-04/27/73	2	8.5	8.5	9.	8.	0.5	0.707	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/10/73-04/27/73	2	42.	42.	45.	39.	18.	4.243	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/10/73-04/27/73	2	30.5	30.5	35.	26.	40.5	6.364	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/10/73-04/27/73	2	43.	43.	44.	42.	2.	1.414	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/11/73	2	20.	20.	32.	8.	288.	16.971	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/11/73	2	1.204	1.204	1.505	0.903	0.181	0.426	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			16.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/27/73	2	277.	277.	300.	254.	1058.	32.527	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/10/73-04/27/73	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0058

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	1	1.00							1	1	1.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00							2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0059

NPS Station ID: TUMA0059
LAT/LON: 31.466667/-110.989722
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ R BELOW RIO RICO STP
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000028190/SC 029
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.70
On/Off RF1:
RF3 Index: 150503010008l1.84
RF3 Mile Point: 12.36
Distance from RF3: 0.06
On/Off RF3:
Description:
LAT 31 28'00", LONG 110 59'23", NW1/4 SW1/4, SEC 35, T22S, R13E, SANTA CRUZ CO, 1 KM (0.6 MI) NORTHEAST OF INTERSTATE 19 ON MAIN ROAD THROUGH RIO RICO DEVELOPMENT, 150 M (165 YDS) DOWNSTREAM FROM BRIDGE ON LEFT BANK, 1.0 KM (0.6 MI) DOWNSTREAM FROM RIO RICO SEWAGE TREATMENT PLANT, 26.5 KM (16.5 MI) DOWNSTREAM FROM INTERNATIONAL BOUNDARY, 281.9 KM (175.2 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0059

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-07/26/84	7	22.	22.371	28.	15.	22.366	4.729	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/26/84-07/26/84	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	1	2.95	2.95	2.95	2.95	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/26/84-07/26/84	1	382.	382.	382.	382.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/26/84-07/26/84	1	439.	439.	439.	439.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-07/26/84	2	7.9	7.9	10.	5.8	8.82	2.97	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/20/73	3	25.	22.333	26.	16.	30.333	5.508	**	**	**	**
00400	PH (STANDARD UNITS)	07/26/84-07/26/84	1	7.81	7.81	7.81	7.81	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/26/84-07/26/84	1	7.81	7.81	7.81	7.81	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/26/84-07/26/84	1	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/27/73	2	7.3	7.3	7.4	7.2	0.02	0.141	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/27/73	2	7.289	7.289	7.4	7.2	0.02	0.142	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/27/73	2	0.051	0.051	0.063	0.04	0.	0.016	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	2	158.	158.	158.	158.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-07/26/84	3	138.	283.667	656.	57.	105614.333	324.984	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	1	23.	23.	23.	23.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/26/84-07/26/84	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/06/73-07/26/84	3	1.77	1.265	2.	0.025	1.166	1.08	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/27/73-04/27/73	1	2.4	2.4	2.4	2.4	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/26/84-07/26/84	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/26/84-07/26/84	1	0.38	0.38	0.38	0.38	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	2	184.	184.	196.	172.	288.	16.971	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/27/73	2	62.5	62.5	63.	62.	0.5	0.707	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/27/73	2	6.5	6.5	9.	4.	12.5	3.536	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/27/73	2	40.	40.	44.	36.	32.	5.657	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/27/73	2	31.5	31.5	37.	26.	60.5	7.778	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/27/73	2	57.	57.	58.	56.	2.	1.414	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/11/73	2 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/11/73	2 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			10.								

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0059

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/84-07/26/84	1	304.	304.	304.	304.	0.	0.	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/27/73	2	293.	293.	305.	281.	288.	16.971	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-07/26/84	3 ##	0.5	0.997	1.99	0.5	0.74	0.86	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/26/84-07/26/84	1	230.	230.	230.	230.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0059

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00	1	0	0.00				1	0	0.00			
00400	PH	Fresh Chronic	9.	1	0	0.00	1	0	0.00									
		Other-Lo Lim.	6.5	1	0	0.00	1	0	0.00									
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00	1	0	0.00				2	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00	1	1	1.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0060

NPS Station ID: TUMA0060
LAT/LON: 31.469167/-110.991111
Agency: 112WRD
Date Created: / /
Location: SANTA CRUZ RIVER NR RIO RICO, ARIZONA
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 312809110592801
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3420
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index:
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/03/97-11/03/97	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/03/97-11/03/97	1	20.6	20.6	20.6	20.6	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/03/97-11/03/97	1	26.5	26.5	26.5	26.5	0.	0.	**	**	**	**
00025	BAROMETRIC PRESSURE (MM OF HG)	11/03/97-11/03/97	1	676.	676.	676.	676.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/03/97-11/03/97	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/03/97-11/03/97	1	737.	737.	737.	737.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	11/03/97-11/03/97	1	6.	6.	6.	6.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/03/97-11/03/97	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/03/97-11/03/97	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/03/97-11/03/97	1	0.013	0.013	0.013	0.013	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	11/03/97-11/03/97	1	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	11/03/97-11/03/97	1	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/03/97-11/03/97	1	0.063	0.063	0.063	0.063	0.	0.	**	**	**	**
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	11/03/97-11/03/97	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	11/03/97-11/03/97	1	306.	306.	306.	306.	0.	0.	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	1	20.6	20.6	20.6	20.6	0.	0.	**	**	**	**
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	1	0.875	0.875	0.875	0.875	0.	0.	**	**	**	**
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/03/97-11/03/97	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/03/97-11/03/97	1	26.	26.	26.	26.	0.	0.	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/03/97-11/03/97	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/03/97-11/03/97	1	6.94	6.94	6.94	6.94	0.	0.	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/03/97-11/03/97	1	5.13	5.13	5.13	5.13	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/03/97-11/03/97	1	5.47	5.47	5.47	5.47	0.	0.	**	**	**	**
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/03/97-11/03/97	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/03/97-11/03/97	1	9.4	9.4	9.4	9.4	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/03/97-11/03/97	1	50.7	50.7	50.7	50.7	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/03/97-11/03/97	1	8.07	8.07	8.07	8.07	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	11/03/97-11/03/97	1	67.7	67.7	67.7	67.7	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/03/97-11/03/97	1	9.91	9.91	9.91	9.91	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	11/03/97-11/03/97	1	37.5	37.5	37.5	37.5	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/03/97-11/03/97	1	52.1	52.1	52.1	52.1	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/03/97-11/03/97	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	11/03/97-11/03/97	1	39.4	39.4	39.4	39.4	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/03/97-11/03/97	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	11/03/97-11/03/97	1	22.6	22.6	22.6	22.6	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/03/97-11/03/97	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01035	COBALT, DISSOLVED (UG/L AS CO)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	11/03/97-11/03/97	1	4.1	4.1	4.1	4.1	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	11/03/97-11/03/97	1	90.	90.	90.	90.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/03/97-11/03/97	1	102.	102.	102.	102.	0.	0.	**	**	**	**
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/03/97-11/03/97	1	3.	3.	3.	3.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	11/03/97-11/03/97	1	38.7	38.7	38.7	38.7	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	11/03/97-11/03/97	1	23.	23.	23.	23.	0.	0.	**	**	**	**
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/03/97-11/03/97	1	14.	14.	14.	14.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/03/97-11/03/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
04037	PROMETON, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.009	0.009	0.009	0.009	0.	0.	**	**	**	**
04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
22703	URANIUM, NATURAL, DISSOLVED	11/03/97-11/03/97	1	3.63	3.63	3.63	3.63	0.	0.	**	**	**	**
30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.105	0.105	0.105	0.105	0.	0.	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34253	A-BHC-ALPHA DISSUG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
34653	P,P'-DDE DISSUG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.135	0.135	0.135	0.135	0.	0.	**	**	**	**
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38478	LINURON WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38482	MCPA WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
38487	MCPB WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38501	METHIOCARB WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
38538	PROPOXUR WATER,DISSUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38711	BENTAZON WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
38746	2,4-DB WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38811	FLUOMETURON WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
38866	OXAMYL WATER, DISUG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38933	CHLORPYRIFOS,DISSOLVED UG/L	11/03/97-11/03/97	1	0.06	0.06	0.06	0.06	0.	0.	**	**	**	**
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	11/03/97-11/03/97	1	251.	251.	251.	251.	0.	0.	**	**	**	**
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/03/97-11/03/97	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1	0.018	0.018	0.018	0.018	0.	0.	**	**	**	**
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1	0.241	0.241	0.241	0.241	0.	0.	**	**	**	**
39632	ATRAZINE DISSOLVED IN WATER PPB	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/03/97-11/03/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/03/97-11/03/97	1	403.	403.	403.	403.	0.	0.	**	**	**	**
71870	BROMIDE (MG/L AS BR)	11/03/97-11/03/97	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	1 ##	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	1 ##	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
77041	CARBON DISULFIDE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**
77128	STYRENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.095	0.095	0.095	0.095	0.	0.	**	**	**	**
77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.55	0.55	0.55	0.55	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	11/03/97-11/03/97	1	-50.1	-50.1	-50.1	-50.1	0.	0.	**	**	**	**
82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	11/03/97-11/03/97	1	-6.89	-6.89	-6.89	-6.89	0.	0.	**	**	**	**
82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.009	0.009	0.009	0.009	0.	0.	**	**	**	**
82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/03/97-11/03/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/03/97-11/03/97	1	754.	754.	754.	754.	0.	0.	**	**	**	**
90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/03/97-11/03/97	1	216.	216.	216.	216.	0.	0.	**	**	**	**
91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/03/97-11/03/97	1	120.	120.	120.	120.	0.	0.	**	**	**	**
91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	1	116.	116.	116.	116.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0060

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/03/97-11/03/97	1	94.	94.	94.	94.	0.	0.	**	**	**	**
99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	1	102.	102.	102.	102.	0.	0.	**	**	**	**
99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	1	97.	97.	97.	97.	0.	0.	**	**	**	**
99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	1	83.	83.	83.	83.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0060

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00						
00400	PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	1	0	0.00				1	0	0.00						
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
		Drinking Water	250.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00				1	0	0.00						
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00				1	0	0.00						
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00				1	0	0.00						
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00				1	0	0.00						
		Drinking Water	4.	1	0	0.00				1	0	0.00						
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00				1	0	0.00						
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00				1	0	0.00						
		Drinking Water	1300.	1	0	0.00				1	0	0.00						
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00				1	0	0.00						
		Drinking Water	15.	1	0	0.00				1	0	0.00						
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00				1	0	0.00						
		Drinking Water	5000.	1	0	0.00				1	0	0.00						
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	1	0	0.00				1	0	0.00						
		Drinking Water	6.	1	0	0.00				1	0	0.00						
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVE	Drinking Water	4.	1	0	0.00				1	0	0.00						
22703	URANIUM, NATURAL DISSOLVED	Drinking Water	20.	1	0	0.00				1	0	0.00						
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE E	Fresh Acute	17500.	1	0	0.00				1	0	0.00						
		Drinking Water	1000.	1	0	0.00				1	0	0.00						
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00				1	0	0.00						
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00				1	0	0.00						
		Drinking Water	700.	1	0	0.00				1	0	0.00						
34396	HEXACHLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0060

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34475	TETRACHLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00				1	0	0.00						
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00				1	0	0.00						
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00				1	0	0.00						
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00				1	0	0.00						
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34653	P,P'-DDE, DISSOLVED	Fresh Acute	1050.	1	0	0.00				1	0	0.00						
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00				1	0	0.00						
38866	OXAMYL, DISSOLVED	Drinking Water	200.	1	0	0.00				1	0	0.00						
38933	CHLORPYRIFOS, DISSOLVED	Fresh Acute	0.083	1	0	0.00				1	0	0.00						
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00				1	0	0.00						
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
39341	GAMMA-BHC(LINDANE), DISSOLVED	Fresh Acute	2.	1	0	0.00				1	0	0.00						
		Drinking Water	0.2	1	0	0.00				1	0	0.00						
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	2.5	1	0	0.00				1	0	0.00						
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	0.065	1	0	0.00				1	0	0.00						
39632	ATRAZINE DISSOLVED IN WATER	Drinking Water	3.	1	0	0.00				1	0	0.00						
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	1	0	0.00				1	0	0.00						
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	70.	1	0	0.00				1	0	0.00						
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	50.	1	0	0.00				1	0	0.00						
46342	ALACHLOR (LASSO), WATER, DISSOLVED	Drinking Water	2.	1	0	0.00				1	0	0.00						
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	1	0	0.00				1	0	0.00						
77128	STYRENE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
77651	1,2-DIBROMOETHANE, WHOLE WATER	Drinking Water	0.05	1	0	0.00				1	0	0.00						
82625	DIBROMOCHLOROPROPANE, WATER, TOTAL RECOV	Drinking Water	0.2	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0061

NPS Station ID: TUMA0061 | LAT/LON: 31.469444/-110.992500 | Agency: 11NPSWRD | Date Created: 12/31/99
Location: SANTA CRUZ RIVER AT RIO RICO NORTH | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): TUMA_USFWS_4
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301056100.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.00 | On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE RIO RICO 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER AT RIO RICO NORTH; AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK. DATA FOR THIS SITE ARE FROM "CONTAMINANTS AS A LIMITING FACTOR OF FISH AND WILDLIFE POPULATIONS IN THE SANTA CRUZ RIVER; ARIZONA" BY K.A. KING; B.J. ZAUN; AND A.L. VELASCO. THE STUDY IS PART OF THE U.S. FISH AND WILDLIFE SERVICE (USFWS); REGION 2 CONTAMINANTS PROGRAM AND WAS RELEASED IN OCTOBER 1999. THE STUDY SAMPLED WATER; SEDIMENT; INVERTEBRATES; FISH AND BIRDS FROM TWO SITES ABOVE THE NOGALES INTERNATIONAL WASTEWATER TREATMENT PLANT (NIWWTP) AND FIVE SITES BELOW THE NIWWTP. FOR MORE INFORMATION CONTACT THE USFWS; ARIZONA ECOLOGICAL SERVICES FIELD OFFICE; 2321 W. ROYAL PALM ROAD; SUITE 103; PHEONIX; ARIZONA; 85021. TEL (602) 242-0210. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAKRIDGE DR. SUITE 250 FORT COLLINS; CO; 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0061

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	1	23.8	23.8	23.8	23.8	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/30/97-05/30/97	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	1	0.23	0.23	0.23	0.23	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0061

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	1	0	0.00										1	0	0.00
		Other-Lo Lim.	6.5	1	0	0.00										1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0062

NPS Station ID: TUMA0062 LAT/LON: 31.470000/-110.991667 Agency: 21ARIZ Date Created: / /
Location: SCSCR087.08 (SANTA CRUZ RIVER AT RIO RICO) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100238
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3403 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301009 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	08/11/86-09/19/92	45	22.	29.096	84.	10.	336.633	18.348	13.52	15.25	38.9	54.08
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/09/92	51	24.	22.943	34.5	9.	45.177	6.721	13.	18.5	28.	31.9
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/09/92	51	25.	25.373	39.	9.	41.908	6.474	16.5	22.	30.	33.4
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/14/86-09/19/92	46	11.67	17.025	135.16	4.16	469.578	21.67	6.209	8.026	15.158	32.323
00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-09/19/92	45	0.4	0.402	0.72	0.22	0.014	0.117	0.258	0.3	0.5	0.514
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/09/92	51	616.	598.882	810.	270.	10141.866	100.707	462.4	540.	660.	702.8
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/12/87-09/19/92	41	713.	687.78	932.	404.	11209.526	105.875	544.8	613.5	752.5	799.4
00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/09/92	47	6.1	6.354	12.	2.95	4.765	2.183	3.526	4.7	8.	9.16
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/09/92	47	83.6	82.138	138.	37.3	513.855	22.668	46.9	69.2	96.	117.14
00403	PH, LAB, STANDARD UNITS SU	08/11/86-09/19/92	46	7.8	7.801	8.8	7.1	0.112	0.334	7.4	7.575	8.	8.2
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-09/19/92	46	7.8	7.684	8.8	7.1	0.125	0.354	7.4	7.575	8.	8.2
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	46	0.016	0.021	0.079	0.002	0.	0.016	0.006	0.01	0.027	0.04
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-09/19/92	50	7.955	7.956	8.72	7.35	0.12	0.346	7.53	7.63	8.243	8.457
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-09/19/92	50	7.955	7.836	8.72	7.35	0.135	0.367	7.53	7.63	8.242	8.457
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	50	0.011	0.015	0.045	0.002	0.	0.01	0.004	0.006	0.023	0.03
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-09/19/92	46	228.	226.848	308.	118.	1669.021	40.854	171.3	207.5	257.5	277.9
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	11/23/87-09/19/92	29 ##	0.5	1.121	15.	0.5	7.172	2.678	0.5	0.5	1.	1.
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-09/19/92	45	239.	242.222	341.	118.	2665.359	51.627	170.4	217.	278.	316.4
00445	CARBONATE ION (MG/L AS CO3)	11/23/87-09/19/92	28 ##	0.5	1.696	31.	0.5	33.025	5.747	0.5	0.5	0.875	1.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-09/19/92	46	40.	88.239	860.	2.	34605.697	186.026	10.	20.	56.25	149.6
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/20/88-09/19/92	29	13.	12.6	20.8	1.25	28.846	5.371	4.77	7.845	17.	20.5
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-09/19/92	39	14.3	14.438	38.	0.5	66.951	8.182	1.96	8.4	20.	23.
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/19/92	43	0.62	0.832	4.47	0.01	0.715	0.846	0.05	0.23	1.15	1.752
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-09/19/92	44	4.83	4.717	10.8	0.61	4.164	2.041	1.91	3.04	6.175	7.045
00900	HARDNESS, TOTAL (MG/L AS CACO3)	07/19/88-09/19/92	28	172.5	167.607	195.	89.	569.21	23.858	140.	160.5	182.5	192.3
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-09/19/92	45	54.3	52.571	63.8	21.	87.211	9.339	39.92	51.05	58.	61.04
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-09/19/92	45	9.26	9.183	15.	5.8	1.929	1.389	7.56	8.5	9.81	10.2
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-09/19/92	45	62.	62.809	108.	28.	216.149	14.702	44.76	53.7	70.4	81.28
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-09/19/92	46	10.1	10.551	19.5	5.4	7.83	2.798	7.267	8.85	12.35	13.64
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-09/19/92	44	37.55	37.173	63.	9.4	103.342	10.166	24.65	31.35	42.15	51.
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-09/19/92	44	61.15	62.03	88.3	38.	144.856	12.036	46.5	53.25	70.075	79.85
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-09/19/92	43	0.57	0.659	3.2	0.42	0.185	0.43	0.464	0.52	0.65	0.78
01000	ARSENIC, DISSOLVED (UG/L AS AS)	12/15/86-09/19/92	15 ##	7.	7.1	15.	2.5	12.257	3.501	2.5	5.	10.	12.
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-09/19/92	51 ##	8.	8.441	30.	2.5	31.206	5.586	2.5	5.	10.	16.6
01005	BARIUM, DISSOLVED (UG/L AS BA)	12/15/86-09/19/92	15	50.	73.533	250.	29.	5250.695	72.462	29.6	37.	56.	250.
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-09/19/92	45	60.	96.244	275.	40.	5710.78	75.57	46.4	50.	120.	250.
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	05/22/89-09/19/92	10 ##	2.5	2.05	2.5	0.25	0.9	0.949	0.25	1.938	2.5	2.5
01012	BERYLLIUM, TOTAL (UG/L AS BE)	07/19/88-09/19/92	34 ##	2.5	2.103	2.5	0.25	0.758	0.871	0.25	2.5	2.5	2.5

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01020	BORON, DISSOLVED (UG/L AS B)	05/22/89-09/19/92	10 ##	50.	70.	180.	50.	1977.778	44.472	50.	50.	67.5	174.
01022	BORON, TOTAL (UG/L AS B)	08/11/86-09/19/92	45	120.	135.	430.	15.	10456.818	102.259	50.	50.	180.	298.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	12/15/86-09/19/92	14 ##	2.5	1.643	2.5	0.5	1.055	1.027	0.5	0.5	2.5	2.5
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-09/19/92	51 ##	1.5	2.038	9.	0.25	3.568	1.889	0.5	0.5	2.5	5.6
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	12/15/86-09/19/92	15 ##	5.	9.033	60.	0.5	203.66	14.271	3.2	5.	5.	30.
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-09/19/92	51 ##	5.	9.902	63.	1.	102.97	10.147	5.	5.	10.	21.
01040	COPPER, DISSOLVED (UG/L AS CU)	12/15/86-09/19/92	15 ##	5.	12.	75.	5.	316.286	17.784	5.	5.	12.	39.
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-09/19/92	51	10.	14.725	60.	5.	188.353	13.724	5.	5.	16.	42.
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-09/19/92	45	406.	1540.8	19700.	160.	15994111.209	3999.264	226.4	279.5	792.	2621.6
01046	IRON, DISSOLVED (UG/L AS FE)	05/22/89-09/19/92	10	50.	76.5	297.	28.	6568.722	81.048	28.1	29.75	82.25	276.5
01049	LEAD, DISSOLVED (UG/L AS PB)	12/15/86-09/19/92	15 ##	3.	4.333	10.	1.	14.952	3.867	1.	1.	10.	10.
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-09/19/92	51 ##	3.	6.951	65.	1.	142.943	11.956	1.	1.	8.	10.
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-09/19/92	46	415.	486.978	1140.	130.	58151.711	241.147	230.	310.	661.5	844.3
01056	MANGANESE, DISSOLVED (UG/L AS MN)	05/22/89-09/19/92	10	342.5	470.	990.	39.	139522.889	373.528	45.1	148.	857.5	982.
01057	THALLIUM, DISSOLVED (UG/L AS TL)	05/22/89-09/19/92	10 ##	2.5	2.5	2.5	2.5	0.	0.	2.5	2.5	2.5	2.5
01059	THALLIUM, TOTAL (UG/L AS TL)	07/19/88-09/19/92	34 ##	2.5	2.5	2.5	2.5	0.	0.	2.5	2.5	2.5	2.5
01065	NICKEL, DISSOLVED (UG/L AS NI)	05/22/89-09/19/92	10 ##	12.5	18.5	50.	10.	172.5	13.134	10.	10.	26.25	48.
01067	NICKEL, TOTAL (UG/L AS NI)	07/19/88-09/19/92	34 ##	10.	20.412	51.	10.	226.128	15.038	10.	10.	31.	50.
01075	SILVER, DISSOLVED (UG/L AS AG)	12/15/86-09/19/92	15 ##	5.	3.5	5.	0.5	3.143	1.773	0.5	2.5	5.	5.
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-09/19/92	50 ##	5.	3.71	16.	0.5	6.154	2.481	0.5	2.	5.	5.
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	05/22/89-09/19/92	10	262.	261.3	300.	225.	497.122	22.296	225.5	247.25	278.25	297.9
01082	STRONTIUM, TOTAL (UG/L AS SR)	11/21/88-09/19/92	25	273.	275.16	320.	220.	668.557	25.856	238.	254.5	291.5	310.
01090	ZINC, DISSOLVED (UG/L AS ZN)	12/15/86-09/19/92	15 ##	15.	18.567	50.	2.5	158.96	12.608	4.	12.	25.	41.
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-09/19/92	51	27.	38.922	120.	9.	580.354	24.091	19.	23.	50.	73.
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	05/22/89-09/19/92	10 ##	25.	16.5	25.	2.5	121.111	11.005	2.5	4.375	25.	25.
01097	ANTIMONY, TOTAL (UG/L AS SB)	07/19/88-09/19/92	33 ##	25.	17.121	25.	2.5	102.	10.1	2.5	5.	25.	25.
01145	SELENIUM, DISSOLVED (UG/L AS SE)	12/15/86-09/19/92	15 ##	2.5	3.267	12.5	1.5	7.031	2.652	2.1	2.5	2.5	8.
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-09/19/92	51 ##	2.5	6.098	97.	1.	265.33	16.289	2.5	2.5	2.5	5.
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	03/30/88-07/21/92	15	112.	935.533	8000.	2.	4256490.695	2063.126	2.	14.	640.	4640.
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	03/30/88-07/21/92	15	2.049	2.067	3.903	0.301	1.207	1.099	0.301	1.146	2.806	3.589
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			116.554								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	07/24/89-07/21/92	12	135.	638.417	5200.	2.	2137132.629	1461.894	2.9	24.	502.5	3910.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	07/24/89-07/21/92	12	2.073	2.018	3.716	0.301	0.933	0.966	0.42	1.365	2.686	3.487
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			104.136								
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-09/19/92	46	405.5	410.152	536.	290.	4013.421	63.352	314.	370.	448.5	510.2
71830	HYDROXIDE ION (MG/L AS OH)	09/20/88-05/28/92	21 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
71890	MERCURY, DISSOLVED (UG/L AS HG)	12/15/86-09/19/92	15 ##	0.25	0.337	1.	0.1	0.092	0.304	0.1	0.1	0.7	0.88
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-09/19/92	51 ##	0.1	0.262	1.	0.1	0.079	0.281	0.1	0.1	0.25	1.
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/19/91-09/19/92	5	10.7	12.422	19.	8.5	17.604	4.196	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/20/88-09/19/92	31	16.	23.768	160.	4.2	756.248	27.5	9.92	14.	26.	30.4
85663	FLOW, RATE FT/SEC	10/14/86-09/19/92	44	1.245	1.245	2.25	0.39	0.14	0.374	0.75	1.	1.483	1.755

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0062

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------7/05-10/10---------- Obs	Exceed	Prop.	----------10/11-12/07---------- Obs	Exceed	Prop.	----------12/08-4/30---------- Obs	Exceed	Prop.	----------5/01-7/04---------- Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	47	6	0.13	18	5	0.28	8	0	0.00	12	0	0.00	9	1	0.11
00403	PH, LAB	Fresh Chronic	9.	46	0	0.00	15	0	0.00	9	0	0.00	15	0	0.00	7	0	0.00
		Other-Lo Lim.	6.5	46	0	0.00	15	0	0.00	9	0	0.00	15	0	0.00	7	0	0.00
00406	PH, FIELD	Fresh Chronic	9.	50	0	0.00	19	0	0.00	8	0	0.00	14	0	0.00	9	0	0.00
		Other-Lo Lim.	6.5	50	0	0.00	19	0	0.00	8	0	0.00	14	0	0.00	9	0	0.00
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	43	0	0.00	15	0	0.00	8	0	0.00	13	0	0.00	7	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	44	0	0.00	15	0	0.00	8	0	0.00	14	0	0.00	7	0	0.00
		Drinking Water	250.	44	0	0.00	15	0	0.00	8	0	0.00	14	0	0.00	7	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	44	0	0.00	15	0	0.00	8	0	0.00	14	0	0.00	7	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	43	0	0.00	15	0	0.00	8	0	0.00	14	0	0.00	6	0	0.00
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
		Drinking Water	50.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0062

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01002	ARSENIC, TOTAL	Fresh Acute	360.	51	0	0.00	19	0	0.00	8	0	0.00	15	0	0.00	9	0	0.00
		Drinking Water	50.	51	0	0.00	19	0	0.00	8	0	0.00	15	0	0.00	9	0	0.00
01005	BARIUM, DISSOLVED	Drinking Water	2000.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
01007	BARIUM, TOTAL	Drinking Water	2000.	45	0	0.00	15	0	0.00	8	0	0.00	15	0	0.00	7	0	0.00
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	10	0	0.00	3	0	0.00				2	0	0.00	5	0	0.00
		Drinking Water	4.	10	0	0.00	3	0	0.00				2	0	0.00	5	0	0.00
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	34	0	0.00	14	0	0.00	5	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	4.	34	0	0.00	14	0	0.00	5	0	0.00	8	0	0.00	7	0	0.00
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	14	0	0.00	3	0	0.00				6	0	0.00	5	0	0.00
		Drinking Water	5.	14	0	0.00	3	0	0.00				6	0	0.00	5	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	51	6	0.12	19	4	0.21	8	0	0.00	15	2	0.13	9	0	0.00
		Drinking Water	5.	51	5	0.10	19	4	0.21	8	0	0.00	15	1	0.07	9	0	0.00
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	51	0	0.00	19	0	0.00	8	0	0.00	15	0	0.00	9	0	0.00
01040	COPPER, DISSOLVED	Fresh Acute	18.	14 &	0	0.00	3	0	0.00				6	0	0.00	5	0	0.00
		Drinking Water	1300.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
01042	COPPER, TOTAL	Fresh Acute	18.	51	12	0.24	19	5	0.26	8	1	0.13	15	6	0.40	9	0	0.00
		Drinking Water	1300.	51	0	0.00	19	0	0.00	8	0	0.00	15	0	0.00	9	0	0.00
01049	LEAD, DISSOLVED	Fresh Acute	82.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
		Drinking Water	15.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	51	0	0.00	19	0	0.00	8	0	0.00	15	0	0.00	9	0	0.00
		Drinking Water	15.	51	3	0.06	19	3	0.16	8	0	0.00	15	0	0.00	9	0	0.00
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	10	0	0.00	3	0	0.00				2	0	0.00	5	0	0.00
		Drinking Water	2.	0 &	0	0.00												
01059	THALLIUM, TOTAL	Fresh Acute	1400.	34	0	0.00	14	0	0.00	5	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	10	0	0.00	3	0	0.00				2	0	0.00	5	0	0.00
		Drinking Water	100.	10	0	0.00	3	0	0.00				2	0	0.00	5	0	0.00
01067	NICKEL, TOTAL	Fresh Acute	1400.	34	0	0.00	14	0	0.00	5	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	100.	34	0	0.00	14	0	0.00	5	0	0.00	8	0	0.00	7	0	0.00
01075	SILVER, DISSOLVED	Fresh Acute	4.1	7 &	0	0.00	1	0	0.00				6	0	0.00			
		Drinking Water	100.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
01077	SILVER, TOTAL	Fresh Acute	4.1	24 &	1	0.04	7	0	0.00	4	1	0.25	11	0	0.00	2	0	0.00
		Drinking Water	100.	50	0	0.00	19	0	0.00	7	0	0.00	15	0	0.00	9	0	0.00
01090	ZINC, DISSOLVED	Fresh Acute	120.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
		Drinking Water	5000.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	51	1	0.02	19	1	0.05	8	0	0.00	15	0	0.00	9	0	0.00
		Drinking Water	5000.	51	0	0.00	19	0	0.00	8	0	0.00	15	0	0.00	9	0	0.00
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	10	0	0.00	3	0	0.00				2	0	0.00	5	0	0.00
		Drinking Water	6.	4 &	0	0.00	2	0	0.00				1	0	0.00	1	0	0.00
01097	ANTIMONY, TOTAL	Fresh Acute	88.	33	0	0.00	14	0	0.00	4	0	0.00	8	0	0.00	7	0	0.00
		Drinking Water	6.	10 &	0	0.00	4	0	0.00				5	0	0.00	1	0	0.00
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
		Drinking Water	50.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
01147	SELENIUM, TOTAL	Fresh Acute	20.	51	2	0.04	19	0	0.00	8	0	0.00	15	0	0.00	9	2	0.22
		Drinking Water	50.	51	2	0.04	19	0	0.00	8	0	0.00	15	0	0.00	9	2	0.22
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	15	7	0.47	4	4	1.00	5	1	0.20	5	1	0.20	1	1	1.00
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
		Drinking Water	2.	15	0	0.00	3	0	0.00				7	0	0.00	5	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	51	0	0.00	19	0	0.00	9	0	0.00	14	0	0.00	9	0	0.00
		Drinking Water	2.	51	0	0.00	19	0	0.00	9	0	0.00	14	0	0.00	9	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	5	0	0.00	2	0	0.00	1	0	0.00	1	0	0.00	1	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	31	2	0.06	10	2	0.20	6	0	0.00	10	0	0.00	5	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Seasonal Analysis for Season #1: 7/05 to 10/10 - Station TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	08/11/86-09/19/92	17	22.	26.665	80.5	10.4	339.056	18.413	12.8	14.15	33.8	60.9
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/09/92	20	29.	28.14	34.5	21.3	14.96	3.868	21.55	25.125	31.375	32.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/09/92	20	29.5	29.45	37.	22.5	15.024	3.876	23.1	27.125	32.375	33.95
00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-09/19/92	17	0.36	0.397	0.72	0.23	0.016	0.125	0.238	0.3	0.5	0.56
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/09/92	20	616.	595.55	810.	270.	13736.155	117.201	460.3	538.5	665.75	751.3
00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/09/92	18	4.62	4.757	8.	3.02	1.609	1.268	3.182	3.825	5.7	6.515
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/09/92	18	64.8	68.6	120.	39.	401.795	20.045	44.04	54.625	84.2	92.1
00403	PH, LAB, STANDARD UNITS SU	08/11/86-09/19/92	15	7.9	7.823	8.35	7.3	0.086	0.294	7.36	7.6	8.	8.26
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-09/19/92	15	7.9	7.731	8.35	7.3	0.096	0.309	7.36	7.6	8.	8.26
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	15	0.013	0.019	0.05	0.004	0.	0.013	0.006	0.01	0.025	0.044
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-09/19/92	19	7.81	7.871	8.34	7.45	0.105	0.324	7.51	7.54	8.24	8.33
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-09/19/92	19	7.81	7.768	8.34	7.45	0.116	0.341	7.51	7.54	8.24	8.33
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	19	0.015	0.017	0.035	0.005	0.	0.011	0.005	0.006	0.029	0.031
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-09/19/92	15	226.	222.6	290.	118.	1610.686	40.133	155.2	210.	242.	284.6
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-09/19/92	15	230.	234.133	290.	118.	1531.695	39.137	176.8	224.	256.	284.6
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-09/19/92	15	43.	196.2	860.	5.	91750.886	302.904	8.6	30.	172.	854.
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-09/19/92	15	11.1	10.704	21.	0.5	54.108	7.356	0.8	1.96	18.	20.04
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/19/92	15	1.	0.823	1.68	0.08	0.256	0.506	0.164	0.29	1.15	1.524
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-09/19/92	15	4.26	4.445	8.6	1.6	3.97	1.993	1.714	2.8	6.1	7.832
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-09/19/92	15	54.3	48.827	63.3	21.	182.348	13.504	21.66	46.6	57.4	61.38
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-09/19/92	15	9.1	9.425	15.	6.5	3.787	1.946	7.16	8.6	9.9	12.9
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-09/19/92	15	60.3	61.087	92.5	28.	257.068	16.033	39.94	53.2	72.9	85.84
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-09/19/92	15	11.7	11.773	19.5	5.5	12.119	3.481	7.42	9.31	13.2	17.64
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-09/19/92	15	37.1	38.4	56.	24.3	75.491	8.689	26.64	33.	44.	54.2
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-09/19/92	15	57.5	59.633	88.3	38.	167.785	12.953	41.	50.	69.1	78.52
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-09/19/92	15	0.57	0.792	3.2	0.42	0.507	0.712	0.462	0.52	0.61	2.18
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-09/19/92	19	10.	8.5	19.	2.5	20.778	4.558	2.5	5.	10.	18.
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-09/19/92	15	84.	117.533	275.	40.	7535.695	86.808	41.8	50.	220.	260.
01022	BORON, TOTAL (UG/L AS B)	08/11/86-09/19/92	15	120.	131.	290.	15.	7165.	84.646	24.	50.	200.	272.
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-09/19/92	19 ##	2.5	2.447	7.	0.5	4.83	2.198	0.5	0.5	2.5	6.
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-09/19/92	19 ##	5.	11.211	63.	3.	216.953	14.729	5.	5.	10.	38.
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-09/19/92	19 ##	10.	17.737	60.	5.	379.538	19.482	5.	5.	30.	55.
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-09/19/92	15	380.	3486.867	19700.	160.	43731736.124	6612.998	172.	240.	2864.	19280.
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-09/19/92	19 ##	4.	11.289	65.	1.	344.592	18.563	1.	1.	10.	53.
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-09/19/92	15	400.	529.	1140.	130.	100360.714	316.798	188.2	287.	805.	1050.
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-09/19/92	19 ##	5.	3.816	5.	0.5	2.811	1.677	0.5	2.5	5.	5.
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-09/19/92	19	25.	38.579	120.	11.	959.48	30.975	13.	21.	57.	97.
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-09/19/92	19 ##	2.5	2.632	5.	1.	0.857	0.926	1.5	2.5	2.5	5.
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-09/19/92	15	394.	400.533	520.	290.	5201.267	72.12	296.	357.	440.	511.6
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-09/19/92	19 ##	0.1	0.25	1.	0.1	0.075	0.274	0.1	0.1	0.25	1.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 10/11 to 12/07 - Station TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	08/11/86-09/19/92	8	25.2	26.638	39.2	17.5	62.543	7.908	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/09/92	8	18.25	17.563	27.	11.	26.96	5.192	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/09/92	8	21.	22.063	30.	16.5	21.746	4.663	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-09/19/92	8	0.405	0.396	0.5	0.27	0.007	0.083	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/09/92	8	579.	578.75	690.	461.	4705.929	68.6	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/09/92	8	7.275	7.738	12.	5.2	4.408	2.099	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/09/92	8	85.55	92.563	130.	73.9	415.774	20.391	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	08/11/86-09/19/92	9	7.8	7.877	8.8	7.4	0.194	0.441	7.4	7.5	8.1	8.8
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-09/19/92	9	7.8	7.727	8.8	7.4	0.219	0.468	7.4	7.5	8.1	8.8
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	9	0.016	0.019	0.04	0.002	0.	0.014	0.002	0.008	0.032	0.04
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-09/19/92	8	7.93	7.998	8.57	7.69	0.095	0.308	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #2: 10/11 to 12/07 - Station TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-09/19/92	8	7.916	7.918	8.57	7.69	0.102	0.319	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	8	0.012	0.012	0.02	0.003	0.	0.007	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-09/19/92	9	227.	222.444	261.	165.	673.028	25.943	165.	215.	236.	261.
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-09/19/92	8	222.5	226.	279.	165.	1305.143	36.127	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-09/19/92	9	20.	24.778	71.	2.	434.444	20.843	2.	11.	34.	71.
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-09/19/92	7	14.3	15.679	23.	9.65	28.222	5.312	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/19/92	8	1.1	1.445	4.47	0.42	1.749	1.322	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-09/19/92	8	5.08	4.779	6.2	0.61	3.101	1.761	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-09/19/92	8	51.95	52.25	57.6	47.2	12.489	3.534	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-09/19/92	8	9.45	9.063	9.9	7.5	0.774	0.88	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-09/19/92	8	65.45	65.925	108.	46.4	376.836	19.412	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-09/19/92	9	9.03	9.314	12.1	7.6	1.814	1.347	7.6	8.25	9.95	12.1
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-09/19/92	8	33.55	32.063	40.	9.4	96.288	9.813	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-09/19/92	8	60.85	61.538	70.8	52.	39.723	6.303	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-09/19/92	8	0.57	0.6	0.8	0.52	0.008	0.09	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-09/19/92	8 ##	7.	6.625	10.	2.5	8.482	2.912	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-09/19/92	8	61.	111.	250.	44.	8136.	90.2	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	08/11/86-09/19/92	8	135.	136.25	330.	50.	7712.5	87.821	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-09/19/92	8 ##	2.5	1.813	3.	0.5	1.21	1.1	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-09/19/92	8 ##	7.5	11.375	23.	5.	60.554	7.782	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-09/19/92	8 ##	10.	11.125	24.	5.	36.125	6.01	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-09/19/92	8	477.5	693.	2460.	260.	530127.143	728.098	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-09/19/92	8 ##	2.25	4.	10.	1.	14.071	3.751	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-09/19/92	9	430.	471.667	758.	180.	47673.75	218.343	180.	258.5	674.5	758.
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-09/19/92	7 ##	5.	5.429	16.	2.	23.536	4.851	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-09/19/92	8	25.5	24.5	30.	9.	42.857	6.547	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-09/19/92	8 ##	2.5	2.375	2.5	1.5	0.125	0.354	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-09/19/92	9	400.	414.889	454.	380.	875.111	29.582	380.	388.	447.	454.
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-09/19/92	9 ##	0.1	0.25	1.	0.1	0.084	0.29	0.1	0.1	0.25	1.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	08/11/86-09/19/92	13	24.	32.692	84.	10.	544.701	23.339	12.	15.65	46.55	78.68
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/09/92	14	16.5	16.7	26.	9.	22.806	4.776	9.75	12.75	20.25	23.65
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/09/92	14	22.5	19.964	28.	9.	39.133	6.256	9.5	15.	24.625	27.
00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-09/19/92	13	0.49	0.456	0.7	0.24	0.015	0.121	0.268	0.37	0.5	0.66
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/09/92	14	622.	572.429	706.	377.	10244.879	101.217	401.5	499.5	652.5	686.
00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/09/92	12	8.625	8.509	11.	6.1	2.293	1.514	6.28	7.06	9.325	10.91
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/09/92	12	95.55	99.225	138.	78.	261.286	16.164	78.72	91.175	105.425	131.7
00403	PH, LAB, STANDARD UNITS SU	08/11/86-09/19/92	15	7.8	7.839	8.2	7.5	0.045	0.213	7.5	7.7	7.99	8.2
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-09/19/92	15	7.8	7.792	8.2	7.5	0.048	0.219	7.5	7.7	7.99	8.2
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	15	0.016	0.016	0.032	0.006	0.	0.008	0.006	0.01	0.02	0.032
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-09/19/92	14	8.025	8.092	8.72	7.35	0.158	0.397	7.43	7.893	8.387	8.695
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-09/19/92	14	8.025	7.925	8.72	7.35	0.188	0.434	7.43	7.892	8.387	8.695
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	14	0.009	0.012	0.045	0.002	0.	0.012	0.002	0.004	0.013	0.038
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-09/19/92	15	257.	241.467	280.	174.	1335.41	36.543	174.	200.	265.	278.2
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-09/19/92	15	277.	273.867	341.	174.	2753.124	52.47	189.6	235.	317.	338.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-09/19/92	15	44.	43.6	80.	5.	326.4	18.067	14.6	37.	55.	69.2
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-09/19/92	12	13.9	14.29	27.6	4.48	59.091	7.687	4.516	6.95	21.75	26.16
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/19/92	13	0.15	0.678	2.39	0.05	0.789	0.888	0.05	0.05	1.32	2.33
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-09/19/92	14	4.53	4.533	7.2	1.5	4.003	2.001	1.765	2.755	6.495	7.045
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-09/19/92	15	54.3	54.213	63.8	36.2	50.068	7.076	39.92	52.2	59.2	62.18
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-09/19/92	15	9.1	8.87	10.1	5.8	1.465	1.21	6.46	8.3	9.82	10.1
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-09/19/92	15	65.	61.36	79.8	39.3	161.874	12.723	39.78	54.1	70.	77.82

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #3: 12/08 to 4/30 - Station TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-09/19/92	15	10.2	10.142	14.2	5.4	7.309	2.704	5.52	8.54	12.9	13.72
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-09/19/92	14	38.6	35.507	46.8	19.	81.345	9.019	19.85	26.95	42.275	46.2
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-09/19/92	14	69.8	67.036	81.6	45.	129.002	11.358	46.5	59.675	75.55	81.
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-09/19/92	14	0.58	0.589	0.81	0.43	0.011	0.103	0.445	0.493	0.65	0.755
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-09/19/92	15 ##	8.	7.867	20.	2.5	19.517	4.418	2.5	5.	10.	14.
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-09/19/92	15 ##	50.	85.667	250.	50.	4801.381	69.292	50.	50.	80.	250.
01022	BORON, TOTAL (UG/L AS B)	08/11/86-09/19/92	15 ##	50.	127.333	430.	50.	13992.381	118.289	50.	50.	160.	358.
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-09/19/92	15 ##	0.5	1.563	9.	0.25	5.239	2.289	0.4	0.5	1.5	6.
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-09/19/92	15 ##	5.	6.533	15.	1.	12.838	3.583	3.4	5.	10.	13.2
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-09/19/92	15	15.	16.267	45.	5.	113.352	10.647	5.	10.	22.	34.8
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-09/19/92	15	450.	583.333	1550.	240.	141120.238	375.66	246.	315.	770.	1268.
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-09/19/92	15 ##	5.	5.633	10.	1.	12.017	3.467	1.	2.5	10.	10.
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-09/19/92	15	380.	405.	666.	230.	18755.286	136.95	236.	310.	520.	626.4
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-09/19/92	15 ##	2.5	2.467	5.	0.5	3.16	1.778	0.5	0.5	5.	5.
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-09/19/92	15	43.	44.933	73.	20.	319.638	17.878	23.	25.	63.	71.2
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-09/19/92	15 ##	2.5	2.6	5.	1.5	0.507	0.712	2.1	2.5	2.5	3.5
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-09/19/92	15	433.	410.267	536.	297.	5845.21	76.454	298.8	340.	467.	526.4
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-09/19/92	14 ##	0.25	0.261	1.	0.1	0.05	0.224	0.1	0.1	0.25	0.625

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	08/11/86-09/19/92	7	20.5	31.129	52.8	11.	344.472	18.56	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	08/11/86-10/09/92	9	26.5	25.889	32.	20.5	11.736	3.426	20.5	23.25	28.	32.
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	08/11/86-10/09/92	9	25.	27.667	39.	21.	34.	5.831	21.	24.	32.	39.
00064	DEPTH OF STREAM, MEAN (FT)	08/11/86-09/19/92	7	0.3	0.323	0.47	0.22	0.007	0.084	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	08/11/86-10/09/92	9	656.	665.333	763.	606.	3372.25	58.071	606.	613.	710.5	763.
00300	OXYGEN, DISSOLVED MG/L	08/11/86-10/09/92	9	5.42	5.442	6.8	2.95	1.416	1.19	2.95	4.83	6.5	6.8
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	08/11/86-10/09/92	9	71.3	77.167	100.	37.3	390.983	19.773	37.3	69.95	97.5	100.
00403	PH, LAB, STANDARD UNITS SU	08/11/86-09/19/92	7	7.4	7.571	8.4	7.1	0.196	0.442	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	08/11/86-09/19/92	7	7.4	7.427	8.4	7.1	0.22	0.469	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	7	0.04	0.037	0.079	0.004	0.001	0.027	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	08/11/86-09/19/92	9	7.92	7.889	8.47	7.53	0.102	0.32	7.53	7.62	8.125	8.47
00406	CONVERTED PH, FIELD, STANDARD UNITS	08/11/86-09/19/92	9	7.92	7.8	8.47	7.53	0.111	0.333	7.53	7.62	8.125	8.47
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	08/11/86-09/19/92	9	0.012	0.016	0.03	0.003	0.	0.009	0.003	0.008	0.024	0.03
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	08/11/86-09/19/92	7	224.	210.286	308.	121.	3817.571	61.786	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	08/11/86-09/19/92	7	224.	210.286	308.	121.	3817.571	61.786	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	08/11/86-09/19/92	7	30.	34.143	80.	10.	540.81	23.255	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	08/11/86-09/19/92	5	22.	24.26	38.	17.	66.188	8.136	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	08/11/86-09/19/92	7	0.51	0.436	0.66	0.01	0.054	0.233	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	08/11/86-09/19/92	7	4.6	5.6	10.8	2.9	7.11	2.666	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	08/11/86-09/19/92	7	56.6	57.443	61.3	51.9	13.05	3.612	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	08/11/86-09/19/92	7	9.4	9.474	10.4	8.5	0.479	0.692	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	08/11/86-09/19/92	7	62.	66.043	81.4	53.5	130.106	11.406	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	08/11/86-09/19/92	7	11.2	10.4	12.9	7.3	4.507	2.123	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	08/11/86-09/19/92	7	40.	43.714	63.	28.	180.905	13.45	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	08/11/86-09/19/92	7	54.	57.714	86.	38.	225.905	15.03	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	08/11/86-09/19/92	6	0.525	0.568	0.75	0.44	0.015	0.123	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	08/11/86-09/19/92	9	7.	10.889	30.	2.5	96.049	9.8	2.5	4.25	17.5	30.
01007	BARIUM, TOTAL (UG/L AS BA)	08/11/86-09/19/92	7	54.	56.429	64.	50.	47.952	6.925	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	08/11/86-09/19/92	7	130.	158.571	400.	50.	17480.952	132.216	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	08/11/86-09/19/92	9 ##	2.5	2.167	2.5	1.	0.312	0.559	1.	1.75	2.5	2.5
01034	CHROMIUM, TOTAL (UG/L AS CR)	08/11/86-09/19/92	9 ##	10.	11.444	22.	5.	49.778	7.055	5.	5.	18.5	22.
01042	COPPER, TOTAL (UG/L AS CU)	08/11/86-09/19/92	9 ##	7.5	9.	16.	5.	17.438	4.176	5.	5.	12.5	16.
01045	IRON, TOTAL (UG/L AS FE)	08/11/86-09/19/92	7	344.	391.286	814.	202.	41907.571	204.713	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Seasonal Analysis for Season #4: 5/01 to 7/04 - Station TUMA0062

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01051	LEAD, TOTAL (UG/L AS PB)	08/11/86-09/19/92	9 ##	1.	2.611	8.	1.	6.861	2.619	1.	1.	4.5	8.
01055	MANGANESE, TOTAL (UG/L AS MN)	08/11/86-09/19/92	7	524.	592.286	936.	350.	60130.238	245.215	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	08/11/86-09/19/92	9 ##	5.	4.222	5.	1.5	2.382	1.543	1.5	3.25	5.	5.
01092	ZINC, TOTAL (UG/L AS ZN)	08/11/86-09/19/92	9	35.	42.444	90.	19.	581.528	24.115	19.	20.5	61.5	90.
01147	SELENIUM, TOTAL (UG/L AS SE)	08/11/86-09/19/92	9 ##	2.5	22.556	97.	2.5	1285.34	35.852	2.5	2.5	42.25	97.
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	08/11/86-09/19/92	7	420.	424.429	523.	370.	2655.952	51.536	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	08/11/86-09/19/92	9 ##	0.1	0.3	1.	0.1	0.158	0.397	0.1	0.1	0.55	1.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding box-and-whisker plot

Station Inventory for Station: TUMA0063

NPS Station ID: TUMA0063 LAT/LON: 31.470000/-110.991667 Agency: 21ARIZ Date Created: / /
Location: SANTA CRUZ R. IN RIO RICO AT CALABASAS RD.BRIDGE FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 800000000028170/D22-13-35CBC/SC-RR-01
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301009 RF1 Mile Point: 5.300 Distance from RF1: 0.00 On/Off RF1: ON
RF3 Index: 15050301049600.01 RF3 Mile Point: 0.13 Distance from RF3: 0.12 On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE SANTA CRUZ RIVER IN RIO RICO, 100 FEET DOWNSTREAM OF THE CALABASSES ROAD BRIDGE. THE SITE IS LOCATED 1.0 RIVER MILES DOWNSTREAM OF THE CONFLUENCE OF THE SANTA CRUZ AND SONOITA CREEK. THE SITE IS LOCATED IN T22S, R13E, SECTION 35CBC, AT AN ELEVATION OF 3403 FEET MSL. THE SITE IS FOUND ON THE "RIO RICO" 7.5 MINUTE USGS QUADRANGLE MAP AND IS IN SANTA CRUZ COUNTY. THE SITE IS SAMPLED MONTHLY AS PART OF THE ADHS FIXED STATION MONITORING NETWORK. SAMPLES HAVE BEEN COLLECTED REGULARLY HERE SINCE 8/86.

Parameter Inventory for Station: TUMA0063

Parameter	Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th

******** No Parameter Data at this Station Suitable for Statistical Analysis ********

Station Inventory for Station: TUMA0064

NPS Station ID: TUMA0064
LAT/LON: 31.470278/-110.991667
Agency: 112WRD
Date Created: / /
Location: SANTA CRUZ RIVER AT RIO RICO, ARIZ.
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 09481710
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index:
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301032300.00
RF3 Mile Point: 1.81
Distance from RF3: 0.01
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/30/76-05/07/79	26	23.5	22.923	29.	13.	17.574	4.192	15.4	20.375	26.	27.65
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/28/78-05/07/79	2	20.25	20.25	26.	14.5	66.125	8.132	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/30/76-09/20/79	8	17.5	23.963	64.	9.7	320.354	17.898	**	**	**	**
00070	TURBIDITY, (JACKSON CANDLE UNITS)	01/30/76-12/02/77	22	21.5	480.182	3500.	15.	1060685.013	1029.896	15.	15.	215.	2780.
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	11/04/77-05/07/79	5	160.	443.2	1800.	6.	580201.2	761.709	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/30/76-05/07/79	26	752.5	723.269	880.	430.	17805.885	133.439	503.	640.	832.5	866.
00300	OXYGEN, DISSOLVED MG/L	06/21/76-11/28/78	20	7.25	7.315	10.3	5.	1.634	1.278	5.92	6.625	7.75	10.1
00340	COD, .25N K2CR2O7 MG/L	04/29/76-06/21/76	2	61.5	61.5	120.	3.	6844.5	82.731	**	**	**	**
00400	PH (STANDARD UNITS)	01/30/76-05/07/79	26	8.15	8.138	8.6	7.6	0.044	0.21	7.84	8.	8.3	8.4
00400	CONVERTED PH (STANDARD UNITS)	01/30/76-05/07/79	26	8.147	8.085	8.6	7.6	0.047	0.217	7.84	8.	8.3	8.4
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/30/76-05/07/79	26	0.007	0.008	0.025	0.003	0.	0.005	0.004	0.005	0.01	0.015
00405	CARBON DIOXIDE (MG/L AS CO2)	01/30/76-12/02/77	23	2.7	3.587	14.	1.	8.804	2.967	1.24	1.9	3.6	8.28
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/30/76-05/07/79	26	201.	209.692	290.	100.	2331.342	48.284	158.	173.	257.	271.8
00440	BICARBONATE ION (MG/L AS HCO3)	01/30/76-12/02/77	23	250.	263.043	350.	120.	3249.407	57.004	210.	220.	310.	336.
00445	CARBONATE ION (MG/L AS CO3)	01/30/76-12/02/77	23	0.	0.043	1.	0.	0.043	0.209	0.	0.	0.	0.
00572	BIOMASS, PERIPHYTON (GRAMS PER SQUARE METER)	10/28/76-10/28/76	1	13.5	13.5	13.5	13.5	0.	0.	**	**	**	**
00573	BIOMASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	10/28/76-10/28/76	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00600	NITROGEN, TOTAL (MG/L AS N)	01/30/76-05/07/79	23	18.	19.774	40.	6.2	101.277	10.064	6.84	11.	27.	36.4
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	01/26/78-05/07/79	2	3.45	3.45	5.7	1.2	10.125	3.182	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	11/04/77-05/07/79	4	1.37	1.395	2.8	0.04	2.45	1.565	**	**	**	**
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	12/02/76-12/29/76	2	0.175	0.175	0.26	0.09	0.014	0.12	**	**	**	**
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	12/02/76-12/29/76	2	0.345	0.345	0.56	0.13	0.092	0.304	**	**	**	**
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/04/77-05/07/79	4	1.835	1.955	3.8	0.35	3.434	1.853	**	**	**	**
00624	NITROGEN, KJELDAHL, SUSPENDED (MG/L AS N)	01/26/78-05/07/79	2	2.65	2.65	4.7	0.6	8.405	2.899	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	01/30/76-05/07/79	23	17.	18.587	40.	3.9	114.768	10.713	5.2	8.5	27.	36.
00626	NITROGEN,ORG. KJEL.,BOT. DEPOS. (MG/KG-N DRY WGT)	06/21/76-05/07/79	3	230.	176.667	280.	20.	19033.333	137.961	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	01/30/76-05/07/79	24	0.75	1.485	3.9	0.05	1.716	1.31	0.1	0.4	2.775	3.5
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	01/30/76-12/02/77	21	0.48	1.552	10.	0.01	5.624	2.371	0.042	0.11	2.4	4.54
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	11/28/78-05/07/79	2	4.6	4.6	5.8	3.4	2.88	1.697	**	**	**	**
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	01/30/76-12/02/77	21	11.	10.762	23.	0.4	43.151	6.569	1.9	4.9	15.5	20.4
00665	PHOSPHORUS, TOTAL (MG/L AS P)	01/30/76-05/07/79	26	6.1	5.465	11.	1.1	6.597	2.568	1.75	3.15	7.05	8.9
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/04/77-05/07/79	5	0.75	0.928	1.5	0.53	0.198	0.445	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	01/30/76-12/02/77	21	3.7	3.498	7.5	0.13	4.568	2.137	0.622	1.6	5.05	6.7
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	01/30/76-05/07/79	23	25.	31.565	92.	7.1	410.603	20.263	9.34	22.	42.	63.2
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	02/23/76-01/26/78	22	0.02	0.015	0.04	0.	0.	0.012	0.	0.	0.02	0.03
00721	CYANIDE IN BOTTOM DEPOSITS (MG/KG AS CN DRY WGT)	06/21/76-05/07/79	3	0.	0.	0.	0.	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	01/30/76-05/07/79	26	180.	176.538	220.	130.	535.538	23.142	137.	160.	190.	203.
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	01/30/76-05/07/79	26	0.	7.615	61.	0.	280.086	16.736	0.	0.	0.	38.

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00915	CALCIUM, DISSOLVED (MG/L AS CA)	01/30/76-05/07/79	26	56.	55.038	69.	40.	51.718	7.192	41.	50.75	60.	63.6
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	01/30/76-05/07/79	26	9.45	9.496	11.	7.3	1.217	1.103	7.81	8.775	10.25	11.
00930	SODIUM, DISSOLVED (MG/L AS NA)	01/30/76-05/07/79	26	73.	69.346	93.	16.	334.635	18.293	39.7	62.75	80.	87.3
00931	SODIUM ADSORPTION RATIO	01/30/76-05/07/79	26	2.	2.173	3.	0.5	0.459	0.677	1.	2.	3.	3.
00932	SODIUM, PERCENT	01/30/76-05/07/79	26	45.5	43.385	53.	17.	66.806	8.174	30.4	44.75	48.	50.3
00933	SODIUM,PLUS POTASSIUM (MG/L)	11/28/78-05/07/79	2	47.	47.	57.	37.	200.	14.142	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	01/30/76-05/07/79	26	12.	11.488	16.	4.6	13.15	3.626	5.75	8.	14.25	16.
00940	CHLORIDE,TOTAL IN WATER MG/L	01/30/76-05/07/79	26	47.	42.715	59.	6.6	152.234	12.338	25.	37.	50.	55.6
00945	SULFATE, TOTAL (MG/L AS SO4)	01/30/76-05/07/79	26	77.	77.808	100.	54.	99.842	9.992	65.4	72.	86.25	90.8
00950	FLUORIDE, DISSOLVED (MG/L AS F)	01/30/76-05/07/79	26	0.5	0.512	0.7	0.4	0.011	0.103	0.4	0.4	0.6	0.7
00955	SILICA, DISSOLVED (MG/L AS SI02)	01/30/76-05/07/79	26	37.	36.385	43.	14.	36.726	6.06	30.2	34.	40.	43.
01002	ARSENIC, TOTAL (UG/L AS AS)	01/30/76-05/07/79	25	5.	15.	150.	2.	921.167	30.351	3.	4.	8.5	43.4
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	06/21/76-05/07/79	3	2.	2.	2.	2.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	01/30/76-05/07/79	25 ##	50.	356.	2500.	50.	400900.	633.167	50.	50.	350.	1400.
01020	BORON, DISSOLVED (UG/L AS B)	01/30/76-12/02/77	22	170.	163.182	220.	50.	2070.346	45.501	90.	147.5	195.	210.
01022	BORON, TOTAL (UG/L AS B)	01/30/76-05/07/79	26	200.	191.923	280.	110.	1824.154	42.71	117.	160.	220.	246.
01025	CADMIUM, DISSOLVED (UG/L AS CD)	01/30/76-01/30/76	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01026	CADMIUM, SUSPENDED (UG/L AS CD)	01/30/76-02/23/76	2 ##	7.	7.	9.	5.	8.	2.828	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	01/30/76-05/07/79	25 ##	10.	10.72	60.	1.	114.543	10.702	1.6	10.	10.	10.
01028	CADMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/21/76-05/07/79	3	0.5	0.5	1.	0.	0.25	0.5	**	**	**	**
01029	CHROMIUM,TOTAL IN BOTTOM DEPOSITS (MG/KG,DRY WGT)	06/21/76-05/07/79	3	2.	2.333	4.	1.	2.333	1.528	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/25/76-11/28/78	11	30.	41.818	160.	10.	1936.364	44.004	10.	10.	60.	142.
01042	COPPER, TOTAL (UG/L AS CU)	01/30/76-05/07/79	25	20.	84.4	920.	6.	35716.583	188.988	10.	10.	57.5	248.
01043	COPPER IN BOTTOM DEPOSITS (MG/KG AS CU DRY WGT)	06/21/76-05/07/79	3	8.	8.333	10.	7.	2.333	1.528	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	01/30/76-05/07/79	25	600.	18600.8	230000.	190.	2439482974.333	49391.122	236.	390.	8150.	67600.
01046	IRON, DISSOLVED (UG/L AS FE)	01/30/76-12/02/77	23	30.	36.087	170.	5.	1202.174	34.672	5.	20.	40.	72.
01051	LEAD, TOTAL (UG/L AS PB)	01/30/76-05/07/79	25 ##	100.	163.8	900.	6.	47956.333	218.989	27.2	100.	100.	560.
01052	LEAD IN BOTTOM DEPOSITS (MG/KG AS PB DRY WGT)	06/21/76-05/07/79	3	6.	5.333	10.	0.	25.333	5.033	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	01/30/76-05/07/79	25	120.	1286.8	13000.	60.	8371889.333	2893.422	66.	100.	835.	4480.
01056	MANGANESE, DISSOLVED (UG/L AS MN)	01/30/76-12/02/77	23	20.	61.522	610.	5.	15648.715	125.095	5.	5.	60.	120.
01077	SILVER, TOTAL (UG/L AS AG)	01/30/76-12/02/77	22 ##	10.	10.182	20.	2.	15.584	3.948	4.4	10.	10.	17.
01078	SILVER IN BOTTOM DEPOSITS (MG/KG AS AG DRY WGT)	05/26/77-05/07/79	2 ##	0.25	0.25	0.5	0.	0.125	0.354	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	01/30/76-05/07/79	25	40.	226.8	1600.	20.	182064.333	426.69	20.	30.	260.	1002.
01093	ZINC IN BOTTOM DEPOSITS (MG/KG AS ZN DRY WGT)	06/21/76-05/07/79	3	20.	16.333	20.	9.	40.333	6.351	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	01/30/76-05/07/79	23 ##	0.5	0.717	3.	0.5	0.292	0.54	0.5	0.5	1.	1.
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	06/21/76-05/07/79	3	0.	0.333	1.	0.	0.333	0.577	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	01/30/76-09/30/76	9	230.	3273.278	14000.	0.5	28683069.757	5355.658	0.5	0.5	6600.	14000.
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	01/30/76-09/30/76	9	2.362	1.971	4.146	-0.301	3.573	1.89	-0.301	-0.301	3.692	4.146
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			93.487								
31625	FECAL COLIFORM, MF,M-FC, 0.7 UM	10/28/76-05/07/79	11	730.	44179.091	310000.	90.	8468550709.091	92024.729	106.	200.	48000.	263200.
31625	LOG FECAL COLIFORM, MF,M-FC, 0.7 UM	10/28/76-05/07/79	11	2.863	3.433	5.491	1.954	1.662	1.289	2.009	2.301	4.681	5.369
31625	GM FECAL COLIFORM, MF,M-FC, 0.7 UM	GEOMETRIC MEAN =			2707.599								
32226	CHLOROPHYLL B, PERIPHYTON, SPECTRO, MG/M2	10/28/76-10/28/76	1	3.25	3.25	3.25	3.25	0.	0.	**	**	**	**
32228	CHLOROPHYLL A, PERIPHYTON, SPECTRO, MG/M2	10/28/76-10/28/76	1	20.	20.	20.	20.	0.	0.	**	**	**	**
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	02/23/76-05/07/79	23	5.	7.739	40.	0.	77.929	8.828	0.8	3.	10.	18.
39333	ALDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39343	GAMMA-BHC(LINDANE),SEDIMENTS,DRY WGT,UG/KG	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39351	CHLORDANE(TECH MIX&METABS),SEDIMENTS,DRY WGT,UG/KG	06/21/76-06/21/76	1	12.	12.	12.	12.	0.	0.	**	**	**	**
39363	DDD IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39368	DDE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39373	DDT IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39383	DIELDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39393	ENDRIN IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39399	ETHION IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39403	TOXAPHENE IN BOTTOM DEPOS. (UG/KILOGRAM DRY SOL.)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39413	HEPTACHLOR IN BOT. DEP. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39423	HEPTACHLOR EPOXIDE IN BOT. DEP. (UG/KG DRY SOL.)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39519	PCBS IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39531	MALATHION IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39541	PARATHION IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39571	DIAZINON IN BOT. DEPOS. (UG/KILOGRAM DRY SOLIDS)	06/21/76-06/21/76	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
39601	METHYL PARATHION IN BOT. DEPOS.(UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39731	2,4-D IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0064

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
39741	2,4,5-T IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39761	SILVEX IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39787	TRITHION IN BOTTOM DEPOSITS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
39791	METHYL TRITHION IN BOT DEPOS (UG/KG DRY SOLIDS)	06/21/76-06/21/76	1	0.	0.	0.	0.	0.	0.	**	**	**	**
60050	ALGAE, TOTAL (CELLS/ML)	06/21/76-05/07/79	2	42550.	42550.	83000.	2100.	3272405000.	57204.939	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	01/30/76-05/07/79	26	455.5	427.808	541.	252.	6484.482	80.526	279.5	366.5	481.5	521.8
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	01/30/76-05/07/79	26	459.5	443.077	555.	263.	5334.554	73.038	340.6	384.75	497.5	521.4
70302	SOLIDS, DISSOLVED-TONS PER DAY	01/30/76-05/07/79	20	5.485	11.471	49.2	3.72	151.359	12.303	3.828	4.248	17.025	31.99
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	01/30/76-05/07/79	26	0.615	0.581	0.74	0.34	0.012	0.109	0.381	0.498	0.653	0.709
71845	NITROGEN, AMMONIA, TOTAL (MG/L AS NH4)	05/07/79-05/07/79	1	3.3	3.3	3.3	3.3	0.	0.	**	**	**	**
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	12/02/76-12/29/76	2	1.54	1.54	2.5	0.58	1.843	1.358	**	**	**	**
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	12/02/76-12/29/76	2	0.575	0.575	0.85	0.3	0.151	0.389	**	**	**	**
71886	PHOSPHORUS, TOTAL, AS PO4 - MG/L	11/28/78-05/07/79	2	4.6	4.6	5.8	3.4	2.88	1.697	**	**	**	**
71887	NITROGEN, TOTAL, AS NO3 - MG/L	01/30/76-05/07/79	23	78.	87.826	180.	27.	2029.15	45.046	30.2	50.	120.	162.
71900	MERCURY, TOTAL (UG/L AS HG)	01/30/76-05/07/79	26 ##	0.25	0.556	3.9	0.05	0.741	0.861	0.155	0.25	0.263	1.69
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	06/21/76-05/07/79	3	0.01	0.073	0.2	0.01	0.012	0.11	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/28/78-09/20/79	5	319.	591.	2100.	76.	728617.5	853.591	**	**	**	**
80155	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	11/28/78-09/20/79	5	8.4	78.86	360.	2.5	24723.268	157.236	**	**	**	**
95200	TOTAL COUNT (CELLS/ML)	06/21/76-05/07/79	3	83000.	321700.	880000.	2100.	235410370000.	485191.065	**	**	**	**
96014	CHLAMYDOMONAS (4) USGS, ACL-74	05/07/79-05/07/79	1	94.	94.	94.	94.	0.	0.	**	**	**	**
96190	SCHROEDERIA (4) USGS, ACL-74	06/21/76-06/21/76	1	320.	320.	320.	320.	0.	0.	**	**	**	**
96200	COELASTRUM (4) USGS, ACL-74	06/21/76-05/07/79	2	4285.	4285.	8300.	270.	32240450.	5678.067	**	**	**	**
96202	ANKISTRODESMUS (4) USGS, ACL-74	06/21/76-05/07/79	3	1800.	1389.	2300.	67.	1373263.	1171.863	**	**	**	**
96215	KIRCHNERIELLA (4) USGS, ACL-74	06/21/76-06/21/76	1	320.	320.	320.	320.	0.	0.	**	**	**	**
96218	OOCYSTIS (4) USGS, ACL-74	05/07/79-05/07/79	1	1100.	1100.	1100.	1100.	0.	0.	**	**	**	**
96238	ACTINASTRUM (4) USGS, ACL-74	03/31/77-03/31/77	1	1500.	1500.	1500.	1500.	0.	0.	**	**	**	**
96243	SCENEDESMUS (4) USGS, ACL-74	06/21/76-05/07/79	3	2300.	5820.	15000.	160.	64349200.	8021.795	**	**	**	**
96254	MICRACTINIUM (4) USGS, ACL-74	06/21/76-03/31/77	2	446500.	446500.	840000.	53000.	309684500000.	556493.037	**	**	**	**
96387	EUGLENA (4) USGS, ACL-74	03/31/77-05/07/79	2	16033.5	16033.5	32000.	67.	509858244.5	22580.041	**	**	**	**
96706	CYCLOTELLA (4) USGS, ACL-74	06/21/76-05/07/79	2	806.5	806.5	1600.	13.	1259284.5	1122.178	**	**	**	**
96777	ACHNANTHES (4) USGS, ACL-74	06/21/76-06/21/76	1	480.	480.	480.	480.	0.	0.	**	**	**	**
96778	COCCONEIS (4) USGS, ACL-74	06/21/76-06/21/76	1	320.	320.	320.	320.	0.	0.	**	**	**	**
96791	NAVICULA (4) USGS, ACL-74	03/31/77-05/07/79	2	393.5	393.5	760.	27.	268644.5	518.309	**	**	**	**
96793	PINNULARIA (4) USGS, ACL-74	03/31/77-03/31/77	1	380.	380.	380.	380.	0.	0.	**	**	**	**
96802	GOMPHONEMA (4) USGS, ACL-74	05/07/79-05/07/79	1	27.	27.	27.	27.	0.	0.	**	**	**	**
96806	CYMBELLA (4) USGS, ACL-74	05/07/79-05/07/79	1	13.	13.	13.	13.	0.	0.	**	**	**	**
96812	NITZSCHIA (4) USGS, ACL-74	06/21/76-05/07/79	2	300.	300.	480.	120.	64800.	254.558	**	**	**	**
98082	ANACYSTIS (4) MENEGH, 1837 -98066	06/21/76-05/07/79	2	1213.5	1213.5	2400.	27.	2815564.5	1677.964	**	**	**	**
98165	ANABAENA (4) USGS, ACL-74	05/07/79-05/07/79	1	130.	130.	130.	130.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0064

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	22	6	0.27	6	4	0.67	4	2	0.50	8	0	0.00	4	0	0.00
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	5	4	0.80				3	3	1.00	1	1	1.00	1	0	0.00
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	0	0.00	6	0	0.00	5	0	0.00	6	0	0.00	3	0	0.00
00400	PH	Fresh Chronic	9.	26	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	5	0	0.00
		Other-Lo Lim.	6.5	26	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	5	0	0.00
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	2	0	0.00				1	0	0.00	1	0	0.00			
00618	NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	2	0	0.00				1	0	0.00	1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	24	0	0.00	6	0	0.00	4	0	0.00	9	0	0.00	5	0	0.00
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	21	1	0.05	5	0	0.00	4	0	0.00	9	1	0.11	3	0	0.00
00720	CYANIDE, TOTAL	Fresh Acute	0.022	22	3	0.14	6	0	0.00	4	0	0.00	9	3	0.33	3	0	0.00
		Drinking Water	0.2	22	0	0.00	6	0	0.00	4	0	0.00	9	0	0.00	3	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	26	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	5	0	0.00
		Drinking Water	250.	26	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	5	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	26	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	5	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0064

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	26	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	5	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	25	0	0.00	5	0	0.00	5	0	0.00	10	0	0.00	5	0	0.00
		Drinking Water	50.	25	2	0.08	5	2	0.40	5	0	0.00	10	0	0.00	5	0	0.00
01007	BARIUM, TOTAL	Drinking Water	2000.	25	2	0.08	6	2	0.33	5	0	0.00	10	0	0.00	4	0	0.00
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01026	CADMIUM, SUSPENDED	Fresh Acute	3.9	1 &	1	1.00							1	1	1.00			
		Drinking Water	5.	1 &	1	1.00							1	1	1.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	5 &	2	0.40	1	1	1.00	2	0	0.00	1	1	1.00	1	0	0.00
		Drinking Water	5.	5 &	1	0.20	1	1	1.00	2	0	0.00	1	0	0.00	1	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	11	1	0.09	5	1	0.20	3	0	0.00	3	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	25	13	0.52	6	4	0.67	5	4	0.80	10	4	0.40	4	1	0.25
		Drinking Water	1300.	25	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	9 &	5	0.56	4	4	1.00	3	1	0.33	1	0	0.00	1	0	0.00
		Drinking Water	15.	9 &	8	0.89	4	4	1.00	3	3	1.00	1	1	1.00	1	0	0.00
01077	SILVER, TOTAL	Fresh Acute	4.1	4 &	2	0.50	2	2	1.00	2	0	0.00						
		Drinking Water	100.	22	0	0.00	6	0	0.00	4	0	0.00	9	0	0.00	3	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	25	8	0.32	6	4	0.67	5	2	0.40	10	2	0.20	4	0	0.00
		Drinking Water	5000.	25	0	0.00	6	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
01147	SELENIUM, TOTAL	Fresh Acute	20.	23	0	0.00	5	0	0.00	4	0	0.00	9	0	0.00	5	0	0.00
		Drinking Water	50.	23	0	0.00	5	0	0.00	4	0	0.00	9	0	0.00	5	0	0.00
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	9	5	0.56	3	3	1.00				4	0	0.00	2	2	1.00
31625	FECAL COLIFORM, MF	Other-Hi Lim.	200.	11	9	0.82	3	3	1.00	4	2	0.50	1	1	1.00	3	3	1.00
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	2	0	0.00				1	0	0.00	1	0	0.00			
71856	NITRITE NITROGEN, DISSOLVED (AS NO2)	Drinking Water	3.3	2	0	0.00				1	0	0.00	1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	26	2	0.08	6	1	0.17	5	0	0.00	10	1	0.10	5	0	0.00
		Drinking Water	2.	26	2	0.08	6	1	0.17	5	0	0.00	10	1	0.10	5	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0065

NPS Station ID: TUMA0065 | LAT/LON: 31.470210/-110.992150 | Agency: 11NPSWRD | Date Created: 12/31/99
Location: SANTA CRUZ RIVER AT RIO RICO | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): TUMA_FOSCR_RR
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301056100.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.00 | On/Off RF3:
Description:
THE SITE IS LOCATED ON THE RIO RICO, ARIZ. 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER AT RIO RICO AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. SAMPLING AT THIS STATION WAS CONDUCTED BY THE FRIENDS OF THE SANTA CRUZ RIVER VOLUNTEER ORGANIZATION AND FUNDED BY THE ARIZONA DEPARTMENT OF ENVIRONMENAL QUALITY (ADEQ) AS A PART OF THE ADEQ SURFACE WATER QUALITY MONITORING PROGRAM. FOR MORE INFORMATION CONTACT MARK LARKIN LARKIN (520) 398-8099. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS; COLORADO 80525. TEL (970) 225-3516. FAX (970) 225-9965

Parameter Inventory for Station: TUMA0065

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	19	31.	30.895	49.	19.	60.349	7.768	20.	26.	35.	43.
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	15.	15.	24.	5.	35.6	5.967	7.2	9.5	21.	23.6
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	18.	15.143	27.	0.	74.929	8.656	4.	5.	23.	25.
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	19	14.4	16.905	69.8	5.2	184.948	13.6	5.58	11.82	17.86	21.74
00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	19	0.4	0.385	0.7	0.2	0.01	0.101	0.25	0.34	0.4	0.45
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/27/98-12/28/99	21	865.	769.143	1040.	90.	77664.229	278.683	323.	583.5	998.	1024.8
00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	20	5.8	6.01	9.7	2.5	3.185	1.785	3.32	5.125	7.25	8.9
00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	18	30.	33.944	85.	19.	274.644	16.572	21.7	22.	39.25	58.9
00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	20	7.6	7.595	7.9	7.2	0.042	0.206	7.215	7.5	7.738	7.9
00406	CONVERTED PH, FIELD, STANDARD UNITS	01/27/98-12/28/99	20	7.6	7.547	7.9	7.2	0.045	0.212	7.215	7.5	7.737	7.9
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/27/98-12/28/99	20	0.025	0.028	0.063	0.013	0.	0.015	0.013	0.018	0.032	0.061
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	18	14.905	13.003	19.6	1.27	34.207	5.849	2.872	8.12	17.358	19.375
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	18	15.8	63.419	819.2	4.57	35950.158	189.605	5.137	10.583	20.43	165.35
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	17	205.	2614.647	35800.	2.	73699027.243	8584.814	8.4	73.5	1200.	9400.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	17	2.312	2.378	4.554	0.301	0.935	0.967	0.86	1.866	3.078	3.669
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			238.747								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	19	0.	0.008	0.15	0.	0.001	0.034	0.	0.	0.	0.
50064	CHLORINE, FREE AVAILABLE (MG/L)	07/28/98-08/31/99	8	0.	0.025	0.2	0.	0.005	0.071	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	18	0.1	0.544	2.9	0.05	0.824	0.908	0.05	0.088	0.5	2.9
71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	18	0.3	0.367	1.2	0.05	0.08	0.282	0.05	0.175	0.5	0.75
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	13	35.5	42.485	150.	20.	1088.92	32.999	22.4	30.	41.	107.92
85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	19	1.	1.018	2.3	0.4	0.197	0.443	0.4	0.72	1.21	1.5

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0065

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	2	0.10	4	0	0.00	3	0	0.00	9	0	0.00	4	2	0.50
00406	PH, FIELD	Fresh Chronic	9.	20	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	4	0	0.00
		Other-Lo Lim.	6.5	20	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	4	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	19	1	0.05	3	1	0.33	3	0	0.00	9	0	0.00	4	0	0.00
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	8	1	0.13	2	1	0.50				4	0	0.00	2	0	0.00
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
71855	NITRITE NITROGEN, TOTAL (AS NO2)	Drinking Water	3.3	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	13	1	0.08	1	0	0.00	1	0	0.00	9	1	0.11	2	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0066

NPS Station ID: TUMA0066
LAT/LON: 31.476667/-111.000000
Agency: 21ARIZ
Date Created: / /
Location: AGUA FRIA CR AT INTERSTATE 19
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 802500000000100/SC 033
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 2.20
On/Off RF1:
RF3 Index: 15050301000905.50
RF3 Mile Point: 5.50
Distance from RF3: 0.03
On/Off RF3:
Description:
LAT 31 28'36", LONG 111 00'00", SW1/4 SE1/4, SEC 27, T22S, R13E, SANTA CRUZ CO, 2 KM (1.2 MI) NORTHWEST OF RIO RICO DEVELOPMENT ON INTERSTATE 19, RIGHT BANK, ON DOWNSTREAM SIDE OF BRIDGE, 1 KM (0.6 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER, 280.8 KM (174.5 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0066

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/13/73	5	20.	19.8	21.5	18.	2.325	1.525	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/10/73	2	7.75	7.75	8.	7.5	0.125	0.354	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/10/73	2	7.682	7.682	8.	7.5	0.134	0.367	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/10/73	2	0.021	0.021	0.032	0.01	0.	0.015	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/10/73	2	53.	53.	54.	52.	2.	1.414	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/10/73	2	16.	16.	19.	13.	18.	4.243	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/10/73	2	0.45	0.45	0.6	0.3	0.045	0.212	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/10/73	2	77.	77.	78.	76.	2.	1.414	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/10/73	2	25.	25.	28.	22.	18.	4.243	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/10/73	2	4.	4.	5.	3.	2.	1.414	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/10/73	2	8.5	8.5	9.	8.	0.5	0.707	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/10/73	2	6.	6.	7.	5.	2.	1.414	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/10/73	2	16.	16.	18.	14.	8.	2.828	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	70.	70.	96.	44.	1352.	36.77	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	1.813	1.813	1.982	1.643	0.057	0.24	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			64.992								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/10/73	1	102.	102.	102.	102.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/10/73	2	10.5	10.5	12.	9.	4.5	2.121	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0066

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00							2	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0067

NPS Station ID: TUMA0067 | LAT/LON: 31.481667/-110.939722 | Agency: 21ARIZ | Date Created: / /
Location: SONOITA CREEK ABOVE SANTA CRUZ R | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): 801500000000530/SC 025
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 2.60 | On/Off RF1:
RF3 Index: 15050301004300.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.03 | On/Off RF3:
Description:
LAT 31 28'54", LONG 110 56'23", NW1/4 NW1/4, SEC 32, T22S, R14E, SANTA CRUZ CO, 4.8 KM (3 MI) NORTHEAST OF RIO RICO DEVELOPMENT ON DIRT ROADS TO OLD RAILROAD BRIDGE CROSSING CREEK ABOUT 0.4 KM (0.25 MI) UPSTREAM FROM END OF SURFACE FLOW, 5.3 KM (3.3 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER, 289.4 KM (179.9 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0067

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/20/73-04/20/73	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/20/73-04/20/73	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/20/73-04/20/73	1	8.5	8.5	8.5	8.5	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/20/73-04/20/73	1	8.3	8.3	8.3	8.3	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/20/73-04/20/73	1	8.3	8.3	8.3	8.3	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/20/73-04/20/73	1	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/20/73-04/20/73	1	152.	152.	152.	152.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/20/73-04/20/73	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/20/73-04/20/73	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/20/73-04/20/73	1	388.	388.	388.	388.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/20/73-04/20/73	1	125.	125.	125.	125.	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/20/73-04/20/73	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/20/73-04/20/73	1	22.	22.	22.	22.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/20/73-04/20/73	1	9.	9.	9.	9.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/20/73-04/20/73	1	250.	250.	250.	250.	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/20/73-04/20/73	1	0.42	0.42	0.42	0.42	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/20/73-04/20/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/20/73-04/20/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/20/73-04/20/73	1	516.	516.	516.	516.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/20/73-04/20/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0067

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0067

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	1	1.00							1	1	1.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0068

NPS Station ID: TUMA0068
LAT/LON: 31.492820/-110.868078
Agency: 21ARIZ
Date Created: / /
Location: SCPAT-B
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): 100327
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0068

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/29/92-04/29/92	6	20.35	20.067	22.6	16.9	4.503	2.122	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/29/92-04/29/92	6	607.	609.833	631.	599.	119.767	10.944	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/29/92-04/29/92	2	595.	595.	600.	590.	50.	7.071	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/29/92-04/29/92	6	8.5	7.433	9.5	3.	5.907	2.43	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/29/92-04/29/92	2	8.	8.	8.3	7.7	0.18	0.424	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/29/92-04/29/92	2	7.904	7.904	8.3	7.7	0.199	0.446	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/29/92-04/29/92	2	0.012	0.012	0.02	0.005	0.	0.011	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/92-04/29/92	2	125.	125.	130.	120.	50.	7.071	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	04/29/92-04/29/92	2	155.	155.	160.	150.	50.	7.071	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	04/29/92-04/29/92	2 ##	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	04/29/92-04/29/92	2	410.	410.	420.	400.	200.	14.142	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/92-04/29/92	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/92-04/29/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/92-04/29/92	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/92-04/29/92	2 ##	0.082	0.082	0.15	0.015	0.009	0.095	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/29/92-04/29/92	2	302.	302.	312.	292.	200.	14.142	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	04/29/92-04/29/92	2	88.5	88.5	91.	86.	12.5	3.536	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/29/92-04/29/92	2	20.	20.	20.	20.	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	04/29/92-04/29/92	2	18.	18.	18.	18.	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	04/29/92-04/29/92	2	3.5	3.5	3.5	3.5	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/29/92-04/29/92	2	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/29/92-04/29/92	2	140.	140.	140.	140.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	04/29/92-04/29/92	2	0.385	0.385	0.39	0.38	0.	0.007	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	04/29/92-04/29/92	2 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	04/29/92-04/29/92	2	61.5	61.5	66.	57.	40.5	6.364	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/29/92-04/29/92	2 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/29/92-04/29/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/29/92-04/29/92	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/29/92-04/29/92	2 ##	2.	2.	3.	1.	2.	1.414	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	04/29/92-04/29/92	2 ##	200.	200.	200.	200.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/29/92-04/29/92	2 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/29/92-04/29/92	2 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	04/29/92-04/29/92	2 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	04/29/92-04/29/92	2 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/29/92-04/29/92	2 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/29/92-04/29/92	2	2.2	2.2	3.	1.4	1.28	1.131	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0068

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	6	1	0.17							6	1	0.17			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	2	0	0.00							2	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	2	0	0.00							2	0	0.00			
		Drinking Water	50.	2	0	0.00							2	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	2	0	0.00							2	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	2	0	0.00							2	0	0.00			
		Drinking Water	4.	2	0	0.00							2	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2	0	0.00							2	0	0.00			
		Drinking Water	5.	2	0	0.00							2	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	2	0	0.00							2	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	2	0	0.00							2	0	0.00			
		Drinking Water	15.	2	0	0.00							2	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	2	0	0.00							2	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	2	0	0.00							2	0	0.00			
		Drinking Water	100.	2	0	0.00							2	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	2	0	0.00							2	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	2	0	0.00							2	0	0.00			
		Drinking Water	6.	2	0	0.00							2	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	2	0	0.00							2	0	0.00			
		Drinking Water	50.	2	0	0.00							2	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	2	0	0.00							2	0	0.00			
		Drinking Water	2.	2	0	0.00							2	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	2	0	0.00							2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0069

NPS Station ID: TUMA0069
LAT/LON: 31.492820/-110.868078
Agency: 21ARIZ
Date Created: / /
Location: SCPAT-A
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): 100060
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/29/92-05/20/98	55	13.1	13.7	20.5	9.54	11.448	3.384	9.576	10.85	15.5	19.286
00078	TRANSPARENCY, SECCHI DISC (METERS)	12/17/97-05/20/98	3	1.4	1.567	2.1	1.2	0.223	0.473	**	**	**	**
00090	OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)	12/17/97-05/20/98	29	-108.	8.69	484.	-464.	154951.722	393.639	478.	481.5	-383.	-454.
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/29/92-05/20/98	55	657.	659.236	776.	584.	2067.443	45.469	602.8	629.	684.	724.6
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/29/92-05/20/98	11	660.	651.818	710.	580.	1996.364	44.681	582.	630.	700.	710.
00300	OXYGEN, DISSOLVED MG/L	04/29/92-05/20/98	44	3.29	4.197	9.5	0.02	14.243	3.774	0.05	0.448	8.21	9.455
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/14/98-05/20/98	29	56.1	54.328	104.9	0.2	1846.618	42.972	0.3	4.8	94.05	104.7
00403	PH, LAB, STANDARD UNITS SU	04/29/92-05/20/98	11	7.8	7.664	8.2	6.8	0.163	0.403	6.9	7.3	7.9	8.16
00403	CONVERTED PH, LAB, STANDARD UNITS	04/29/92-05/20/98	11	7.8	7.461	8.2	6.8	0.208	0.456	6.9	7.3	7.9	8.16
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/29/92-05/20/98	11	0.016	0.035	0.158	0.006	0.002	0.044	0.007	0.013	0.05	0.137
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/29/92-05/20/98	11	150.	151.818	180.	120.	376.364	19.4	120.	150.	160.	180.
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	12/17/97-05/20/98	8 ##	1.	1.125	2.	1.	0.125	0.354	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	04/29/92-05/20/98	11	180.	178.182	220.	100.	1216.364	34.876	110.	150.	200.	220.
00445	CARBONATE ION (MG/L AS CO3)	04/29/92-05/20/98	11 ##	1.	0.809	1.	0.3	0.107	0.327	0.3	0.3	1.	1.
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C),MG/L	04/29/92-05/20/98	11	470.	459.091	500.	390.	1329.091	36.457	392.	450.	480.	500.
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/29/92-05/20/98	11 ##	2.5	3.5	12.	1.	13.9	3.728	1.	1.	5.	11.4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/29/92-05/20/98	10	0.13	0.16	0.34	0.05	0.014	0.117	0.05	0.05	0.303	0.337
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/29/92-05/20/98	11	0.6	0.51	0.8	0.05	0.065	0.255	0.08	0.2	0.68	0.792
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	12/17/97-05/20/98	8	0.05	0.092	0.4	0.005	0.018	0.134	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/29/92-05/20/98	11	0.028	0.05	0.19	0.02	0.002	0.049	0.02	0.025	0.06	0.164
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/29/92-05/20/98	11	320.	326.273	369.	298.	497.618	22.307	298.8	310.	350.	365.2
00916	CALCIUM, TOTAL (MG/L AS CA)	04/29/92-05/20/98	11	94.	95.727	110.	88.	36.818	6.068	88.4	92.	100.	108.
00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/29/92-05/20/98	11	24.	23.727	28.	19.	7.418	2.724	19.2	23.	24.	28.
00929	SODIUM, TOTAL (MG/L AS NA)	04/29/92-05/20/98	11	20.	19.818	22.	18.	1.964	1.401	18.	19.	21.	22.
00937	POTASSIUM, TOTAL MG/L AS K)	04/29/92-05/20/98	11	4.2	4.3	5.5	3.4	0.472	0.687	3.4	4.	4.4	5.5
00940	CHLORIDE,TOTAL IN WATER MG/L	04/29/92-05/20/98	11	9.5	9.464	11.	7.7	1.667	1.291	7.7	7.7	11.	11.
00945	SULFATE, TOTAL (MG/L AS SO4)	04/29/92-05/20/98	11	200.	192.727	210.	160.	361.818	19.022	160.	180.	210.	210.
00951	FLUORIDE, TOTAL (MG/L AS F)	04/29/92-05/20/98	11	0.41	0.399	0.43	0.37	0.001	0.023	0.37	0.38	0.42	0.428
01002	ARSENIC, TOTAL (UG/L AS AS)	04/29/92-05/20/98	10 ##	5.	4.2	5.	1.	2.844	1.687	1.	4.	5.	5.
01007	BARIUM, TOTAL (UG/L AS BA)	04/29/92-05/20/98	11 ##	50.	53.182	74.	50.	52.564	7.25	50.	50.	55.	70.4
01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/29/92-05/20/98	11 ##	0.25	0.455	1.	0.25	0.123	0.35	0.25	0.25	1.	1.
01027	CADMIUM, TOTAL (UG/L AS CD)	04/29/92-05/20/98	11 ##	0.5	0.5	0.5	0.5	0.	0.	0.5	0.5	0.5	0.5
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/29/92-05/20/98	11 ##	5.	4.318	5.	2.5	1.364	1.168	2.5	2.5	5.	5.
01051	LEAD, TOTAL (UG/L AS PB)	04/29/92-05/20/98	11 ##	2.5	2.091	2.5	1.	0.491	0.701	1.	1.	2.5	2.5
01059	THALLIUM, TOTAL (UG/L AS TL)	04/29/92-04/29/92	3 ##	200.	200.	200.	200.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/29/92-04/29/92	3 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/29/92-05/20/98	11 ##	0.5	14.	50.	0.5	534.6	23.121	0.5	0.5	50.	50.
01097	ANTIMONY, TOTAL (UG/L AS SB)	04/29/92-04/29/92	3 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0069

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01147	SELENIUM, TOTAL (UG/L AS SE)	04/29/92-05/20/98	11 ##	0.5	0.909	2.	0.5	0.491	0.701	0.5	0.5	2.	2.
32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	04/29/92-05/20/98	4	2.76	2.545	3.26	1.4	0.779	0.883	**	**	**	**
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	04/29/92-05/20/98	4	3.42	3.248	5.31	0.84	4.639	2.154	**	**	**	**
46460	CHLOROPHYLL-A, SPECTRO,CORRECT FOR PHEOPHYTIN UG/L	04/29/92-05/20/98	4	12.15	11.225	15.	5.6	16.469	4.058	**	**	**	**
47004	SOLIDS,TOTAL DISSOLVED (ELECT-CONDUCTIVITY) MG/L	12/17/97-05/20/98	40	416.	418.35	438.	391.	264.438	16.262	396.3	403.	437.	437.9
70956	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-SPECTRO	04/29/92-05/20/98	4	0.955	1.106	2.51	0.005	1.297	1.139	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/29/92-05/20/98	11 ##	0.025	0.086	0.25	0.025	0.011	0.105	0.025	0.025	0.25	0.25
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	05/20/98-05/20/98	18	1.05	1.189	3.9	0.1	0.676	0.822	0.28	0.7	1.4	2.1
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/29/92-05/20/98	11	2.1	1.773	2.5	0.9	0.332	0.576	0.94	1.3	2.3	2.48

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0069

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	----------7/05-10/10---------- Obs	Exceed	Prop.	----------10/11-12/07---------- Obs	Exceed	Prop.	----------12/08-4/30---------- Obs	Exceed	Prop.	----------5/01-7/04---------- Obs	Exceed	Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	44	24	0.55							26	13	0.50	18	11	0.61
00403	PH, LAB	Fresh Chronic	9.	11	0	0.00							8	0	0.00	3	0	0.00
		Other-Lo Lim.	6.5	11	0	0.00							8	0	0.00	3	0	0.00
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	8	0	0.00							5	0	0.00	3	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	11	0	0.00							8	0	0.00	3	0	0.00
		Drinking Water	250.	11	0	0.00							8	0	0.00	3	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	11	0	0.00							8	0	0.00	3	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	11	0	0.00							8	0	0.00	3	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	10	0	0.00							7	0	0.00	3	0	0.00
		Drinking Water	50.	10	0	0.00							7	0	0.00	3	0	0.00
01007	BARIUM, TOTAL	Drinking Water	2000.	11	0	0.00							8	0	0.00	3	0	0.00
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	11	0	0.00							8	0	0.00	3	0	0.00
		Drinking Water	4.	11	0	0.00							8	0	0.00	3	0	0.00
01027	CADMIUM, TOTAL	Fresh Acute	3.9	11	0	0.00							8	0	0.00	3	0	0.00
		Drinking Water	5.	11	0	0.00							8	0	0.00	3	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	11	0	0.00							8	0	0.00	3	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	11	0	0.00							8	0	0.00	3	0	0.00
		Drinking Water	15.	11	0	0.00							8	0	0.00	3	0	0.00
01059	THALLIUM, TOTAL	Fresh Acute	1400.	3	0	0.00							3	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	3	0	0.00							3	0	0.00			
		Drinking Water	100.	3	0	0.00							3	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	8 &	0	0.00							5	0	0.00	3	0	0.00
		Drinking Water	100.	11	0	0.00							8	0	0.00	3	0	0.00
01097	ANTIMONY, TOTAL	Fresh Acute	88.	3	0	0.00							3	0	0.00			
		Drinking Water	6.	3	0	0.00							3	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	11	0	0.00							8	0	0.00	3	0	0.00
		Drinking Water	50.	11	0	0.00							8	0	0.00	3	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	11	0	0.00							8	0	0.00	3	0	0.00
		Drinking Water	2.	11	0	0.00							8	0	0.00	3	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	18	0	0.00										18	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	11	0	0.00							8	0	0.00	3	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0070

NPS Station ID: TUMA0070
LAT/LON: 31.493139/-110.865556
Agency: 21AZG&F
Date Created: / /
Location: PATAGONIA LAKE
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE
STORET Station ID(s): PAL 1
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301013
RF1 Mile Point: 9.240
Distance from RF1: 2.10
On/Off RF1: OFF
RF3 Index: 15050301001300.00
RF3 Mile Point: 0.00
Distance from RF3: 0.05
On/Off RF3:
Description:
SW 1/4, NE 1/4, SEC 25, T22S, R14E, SANTA CRUZ CO., MIDLAKE EAST OF DAM

Parameter Inventory for Station: TUMA0070

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/22/75-09/27/80	17	13.3	15.676	26.	10.	28.417	5.331	10.	10.	21.	22.8
00070	TURBIDITY, (JACKSON CANDLE UNITS)	10/22/75-09/27/80	17	5.	5.412	10.	1.	7.507	2.74	2.6	3.	8.	10.
00078	TRANSPARENCY, SECCHI DISC (METERS)	09/27/79-03/24/80	2	1.64	1.64	2.15	1.13	0.52	0.721	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/26/78-09/27/80	16	9.35	8.888	11.5	5.9	3.76	1.939	6.11	6.625	10.85	11.15
00310	BOD, 5 DAY, 20 DEG C MG/L	09/27/79-09/27/80	15	1.6	1.573	2.5	0.5	0.464	0.681	0.62	0.9	2.2	2.5
00400	PH (STANDARD UNITS)	10/22/75-09/27/80	17	8.	8.106	8.5	7.8	0.058	0.241	7.8	7.9	8.35	8.5
00400	CONVERTED PH (STANDARD UNITS)	10/22/75-09/27/80	17	8.	8.049	8.5	7.8	0.062	0.248	7.8	7.9	8.35	8.5
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/22/75-09/27/80	17	0.01	0.009	0.016	0.003	0.	0.004	0.003	0.004	0.013	0.016
00403	PH, LAB, STANDARD UNITS SU	07/26/78-07/26/78	1	8.4	8.4	8.4	8.4	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	07/26/78-07/26/78	1	8.4	8.4	8.4	8.4	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/26/78-07/26/78	1	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
00405	CARBON DIOXIDE (MG/L AS CO2)	07/26/78-07/26/78	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	10/22/75-09/27/80	17	124.	127.412	154.	84.	317.382	17.815	104.8	118.	143.	154.
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	09/27/79-09/27/80	15	460.	446.667	480.	380.	966.667	31.091	398.	430.	480.	480.
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/22/75-09/27/80	17	0.23	0.241	0.54	0.	0.021	0.143	0.024	0.17	0.31	0.476
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	10/22/75-07/26/78	2	0.105	0.105	0.2	0.01	0.018	0.134	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	10/22/75-09/27/80	17	0.2	0.252	0.68	0.12	0.025	0.159	0.128	0.14	0.32	0.568
00900	HARDNESS, TOTAL (MG/L AS CACO3)	10/22/75-09/27/80	17	408.	472.118	1250.	340.	45162.235	212.514	349.6	382.	450.	771.6
00916	CALCIUM, TOTAL (MG/L AS CA)	09/27/79-09/27/80	15	20.	35.533	100.	9.7	1043.422	32.302	9.88	10.	60.	97.
00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/27/79-09/27/80	15	24.	44.08	97.1	16.	1239.036	35.2	16.	17.	88.3	95.96
00929	SODIUM, TOTAL (MG/L AS NA)	09/27/79-09/27/80	15	14.	14.867	21.	10.	12.981	3.603	10.	12.	18.	19.8
00937	POTASSIUM, TOTAL MG/L AS K)	09/27/79-09/27/80	15	4.	9.067	60.	3.	208.924	14.454	3.	3.	10.	31.2
00940	CHLORIDE,TOTAL IN WATER MG/L	07/26/78-09/27/80	16	10.6	20.313	176.	5.3	1732.726	41.626	5.3	7.2	12.42	62.74
00945	SULFATE, TOTAL (MG/L AS SO4)	10/22/75-09/27/80	17	272.	277.647	452.	206.	3716.618	60.964	207.6	234.	294.	381.6
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/26/78-07/26/78	1	420.	420.	420.	420.	0.	0.	**	**	**	**
70304	SOLIDS, TOTAL DISSOLVED-COND. METER (MG/L)	09/27/79-09/27/80	10	695.	681.	780.	600.	5965.556	77.237	600.	600.	745.	778.
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	09/27/79-09/27/80	15	0.25	0.254	0.35	0.18	0.003	0.05	0.192	0.22	0.3	0.332

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0070

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	17	0	0.00	6	0	0.00	1	0	0.00	10	0	0.00			
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	16	0	0.00	6	0	0.00				10	0	0.00			
00400	PH	Fresh Chronic	9.	17	0	0.00	6	0	0.00	1	0	0.00	10	0	0.00			
		Other-Lo Lim.	6.5	17	0	0.00	6	0	0.00	1	0	0.00	10	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00	1	0	0.00									
		Other-Lo Lim.	6.5	1	0	0.00	1	0	0.00									
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	2	0	0.00	1	0	0.00	1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	16	0	0.00	6	0	0.00				10	0	0.00			
		Drinking Water	250.	16	0	0.00	6	0	0.00				10	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	17	12	0.71	6	5	0.83	1	0	0.00	10	7	0.70			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	15	0	0.00	5	0	0.00				10	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0071

NPS Station ID: TUMA0071 LAT/LON: 31.494250/-110.861528 Agency: 21ARIZ Date Created: / /
Location: PATAGONIA LAKE AT BEACH (STATE PARKS) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/LAKE STORET Station ID(s): 801503000003080/PATAGONIA-01
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 3.70 On/Off RF1:
RF3 Index: 15050301025600.00 RF3 Mile Point: 1.02 Distance from RF3: 0.16 On/Off RF3:
Description:
T22S R15E SEC 30 NW1/4 SW1/4

Parameter Inventory for Station: TUMA0071

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	06/10/86-08/13/86	5	64.	69.6	78.	64.	58.8	7.668	**	**	**	**
00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	06/10/86-08/13/86	5	66.	70.	76.	66.	30.	5.477	**	**	**	**
31505	COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506)	06/10/86-08/13/86	5	80.	278.	900.	30.	131820.	363.07	**	**	**	**
31505	LOG COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 3150	06/10/86-08/13/86	5	1.903	2.143	2.954	1.477	0.332	0.576	**	**	**	**
31505	GM COLIFORM,TOT,MPN,CONFIRMED TEST,35C (TUBE 31506	GEOMETRIC MEAN =			138.974								
31615	FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/10/86-08/13/86	5	50.	60.6	130.	13.	2126.8	46.117	**	**	**	**
31615	LOG FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	06/10/86-08/13/86	5	1.699	1.661	2.114	1.114	0.15	0.387	**	**	**	**
31615	GM FECAL COLIFORM,MPN,EC MED,44.5C (TUBE 31614)	GEOMETRIC MEAN =			45.858								

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0071

				Total	Exceed	Prop.	7/05-10/10			10/11-12/07			12/08-4/30			5/01-7/04		
Parameter		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	5	0	0.00	2	0	0.00							3	0	0.00
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	5	0	0.00	2	0	0.00							3	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0072

NPS Station ID: TUMA0072 LAT/LON: 31.501900/-111.099800 Agency: 11NPSWRD Date Created: 12/31/99
Location: MESQUITE SEEP AT 4WD RD IN FRESNO CANYON FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/SPRING STORET Station ID(s): TUMA_NURE_SP3
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
THE SITE IS LOCATED ON THE TUBAC, ARIZ. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS AT ALISO SPRINGS AT THE HEAD OF ALISO CANYON IN THE TUMACACORI MOUNTAINS AND IS OUTSIDE THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. DATA ARE FROM THE "U.S. GEOLOGICAL SURVEY NATIONAL GEOCHEMICAL DATABASE: NATIONAL URANIUM RESOURCE EVALUATION DATA FOR THE CONTERMINOUS UNITED STATES" 1994 CD-ROM BY J.D. HOFFMAN AND K. BUTTLEMAN (USGS DIGITAL DATA SERIES DDS-18-A). THE DATA BASE INCLUDES SEDIMENT; SOIL; SURFACE WATER; AND GROUND WATER DATA. THE "UNIQID" FIELD ENTRY WAS USED TO CREATE THE SECONDARY STATION NAME. THE "LASLID" (LOS ALAMOS SCIENTIFIC LABORATORY SAMPLE NUMBER) FIELD ENTRY WAS USED TO CREATE THE STATION LOCATION. THE SAMPLES WERE ANALYZED BY LOS ALAMOS SCIENTIFIC LABORATORY. DATA WERE PROCESED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0072

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/10/80-03/10/80	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/10/80-03/10/80	1	440.	440.	440.	440.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	03/10/80-03/10/80	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/10/80-03/10/80	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/10/80-03/10/80	1	0.013	0.013	0.013	0.013	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/10/80-03/10/80	1	5.	5.	5.	5.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/10/80-03/10/80	1	35.	35.	35.	35.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	03/10/80-03/10/80	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/10/80-03/10/80	1	301.	301.	301.	301.	0.	0.	**	**	**	**
50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/10/80-03/10/80	1	22.7	22.7	22.7	22.7	0.	0.	**	**	**	**
82037	MAGNESIUM - DISSOLVED UG/L (AS MG)	03/10/80-03/10/80	1	4310.	4310.	4310.	4310.	0.	0.	**	**	**	**
82039	DISSOLVED-SODIUM UG/L (AS NA)	03/10/80-03/10/80	1	22590.	22590.	22590.	22590.	0.	0.	**	**	**	**
82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/10/80-03/10/80	1	8200.	8200.	8200.	8200.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0072

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400 PH	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
	Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0073

NPS Station ID: TUMA0073
LAT/LON: 31.506389/-110.808333
Agency: 21ARIZ
Date Created: / /
Location: SONOITA CR ABOVE CIRCLE Z RANCH
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801500000002180/SC 023
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 28.20
On/Off RF1:
RF3 Index: 15050301054300.00
RF3 Mile Point: 1.90
Distance from RF3: 0.12
On/Off RF3:
Description:
LAT 31 30'23", LONG 110 48'30", NE1/4 SE1/4, SEC 21, T22S, R15E, SANTA CRUZ CO, 6.0 KM (3.7 MI) SOUTHWEST OF PATAGONIA ON AZ 82, 10 M (11 YDS) NORTHWEST OF HIGHWAY ON FOOT PATH, LEFT BANK, 1.6 KM (1 MI) UPSTREAM FROM USGS GAGING STATION NO 09481500, 21.8 KM (13.6 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0073

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/06/73-04/26/73	5	23.	22.1	24.	18.5	4.55	2.133	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/09/73	2	9.	9.	9.	9.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/11/73	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/09/73-04/26/73	2	8.15	8.15	8.2	8.1	0.005	0.071	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/09/73-04/26/73	2	8.147	8.147	8.2	8.1	0.005	0.071	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/09/73-04/26/73	2	0.007	0.007	0.008	0.006	0.	0.001	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	154.	156.667	164.	152.	41.333	6.429	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	3	10.	13.333	23.	7.	72.333	8.505	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/26/73-04/26/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	3	0.2	0.233	0.3	0.2	0.003	0.058	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	464.	464.	484.	444.	400.	20.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	3	136.	142.667	160.	132.	229.333	15.144	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	3	28.	26.	30.	20.	28.	5.292	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	3	21.	20.667	22.	19.	2.333	1.528	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	3	7.	7.667	9.	7.	1.333	1.155	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	3	290.	300.	320.	290.	300.	17.321	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.74	0.74	0.74	0.74	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/11/73-04/11/73	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/11/73-04/11/73	1 ##	0.301	0.301	0.301	0.301	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			2.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	3	597.	591.667	598.	580.	102.333	10.116	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0073

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00							2	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	3	1.00							3	3	1.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	1	1.00							1	1	1.00			
		Drinking Water	5.	1	1	1.00							1	1	1.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0074

NPS Station ID: TUMA0074
LAT/LON: 31.510278/-111.015833
Agency: 21ARIZ
Date Created: / /
Location: SCPCK000.23 (PECK CANYON CREEK)
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 100236
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3360
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0074

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	04/04/91-04/04/91	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/91-04/04/91	1	23.	23.	23.	23.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	04/04/91-04/04/91	1	27.	27.	27.	27.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/04/91-04/04/91	1	1.42	1.42	1.42	1.42	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	04/04/91-04/04/91	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	04/04/91-04/04/91	1	114.	114.	114.	114.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	04/04/91-04/04/91	1	131.	131.	131.	131.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/04/91-04/04/91	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	04/04/91-04/04/91	1	146.	146.	146.	146.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/04/91-04/04/91	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/04/91-04/04/91	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/04/91-04/04/91	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	04/04/91-04/04/91	1	7.75	7.75	7.75	7.75	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	04/04/91-04/04/91	1	7.75	7.75	7.75	7.75	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/04/91-04/04/91	1	0.018	0.018	0.018	0.018	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/04/91-04/04/91	1	34.	34.	34.	34.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	04/04/91-04/04/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	04/04/91-04/04/91	1	34.	34.	34.	34.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	04/04/91-04/04/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/04/91-04/04/91	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	04/04/91-04/04/91	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/04/91-04/04/91	1	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	04/04/91-04/04/91	1	0.57	0.57	0.57	0.57	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	04/04/91-04/04/91	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/04/91-04/04/91	1	43.3	43.3	43.3	43.3	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	04/04/91-04/04/91	1	12.4	12.4	12.4	12.4	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	04/04/91-04/04/91	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	04/04/91-04/04/91	1	9.4	9.4	9.4	9.4	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	04/04/91-04/04/91	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/04/91-04/04/91	1	6.6	6.6	6.6	6.6	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/04/91-04/04/91	1	13.	13.	13.	13.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	04/04/91-04/04/91	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	04/04/91-04/04/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	04/04/91-04/04/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	04/04/91-04/04/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	04/04/91-04/04/91	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/04/91-04/04/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/04/91-04/04/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0074

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01042	COPPER, TOTAL (UG/L AS CU)	04/04/91-04/04/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/04/91-04/04/91	1	626.	626.	626.	626.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/04/91-04/04/91	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/04/91-04/04/91	1	11.	11.	11.	11.	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	04/04/91-04/04/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	04/04/91-04/04/91	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/04/91-04/04/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	04/04/91-04/04/91	1	69.	69.	69.	69.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/04/91-04/04/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	04/04/91-04/04/91	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	04/04/91-04/04/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	04/04/91-04/04/91	1	2.	2.	2.	2.	0.	0.	**	**	**	**
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	04/04/91-04/04/91	1	0.301	0.301	0.301	0.301	0.	0.	**	**	**	**
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			2.								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	04/04/91-04/04/91	1	80.	80.	80.	80.	0.	0.	**	**	**	**
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	04/04/91-04/04/91	1	1.903	1.903	1.903	1.903	0.	0.	**	**	**	**
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			80.								
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	04/04/91-04/04/91	1	110.	110.	110.	110.	0.	0.	**	**	**	**
71830	HYDROXIDE ION (MG/L AS OH)	04/04/91-04/04/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/04/91-04/04/91	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	04/04/91-04/04/91	1	15.	15.	15.	15.	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	04/04/91-04/04/91	1	0.24	0.24	0.24	0.24	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0074

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0074

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0075

NPS Station ID: TUMA0075
LAT/LON: 31.512222/-111.015000
Agency: 21ARIZ
Date Created: / /
Location: PECK CANYON CR AT INTERSTATE 19
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 803000000000000/SC 034
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301080800.00
RF3 Mile Point: 0.00
Distance from RF3: 0.08
On/Off RF3:
Description:
LAT 31 30'44", LONG 111 00'54", NE1/4 SE1/4, SEC 16, T22S, R13E, SANTA CRUZ CO, 3.2 KM (2.0 MI) NORTHWEST OF KINO SPRINGS SUBDIVISION ON INTERSTATE 19, RIGHT BANK, ON DOWNSTREAM SIDE OF BRIDGE 200 M (220 YDS) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER, 276.7 KM (172 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0075

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/27/73	6	19.25	19.667	21.5	18.	1.767	1.329	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	1	1.58	1.58	1.58	1.58	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	1	5.3	5.3	5.3	5.3	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/27/73	3	7.3	7.	7.5	6.2	0.49	0.7	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/27/73	3	7.3	6.624	7.5	6.2	0.702	0.838	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/27/73	3	0.05	0.238	0.631	0.032	0.116	0.341	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	3	42.	42.667	44.	42.	1.333	1.155	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/27/73	3	9.	13.	22.	8.	61.	7.81	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	1	2.	2.	2.	2.	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/27/73-04/27/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/27/73	3	0.5	0.433	0.5	0.3	0.013	0.115	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	3	66.	70.	80.	64.	76.	8.718	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/27/73	3	20.	20.333	21.	20.	0.333	0.577	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/27/73	3	4.	4.667	7.	3.	4.333	2.082	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/27/73	3	10.	10.333	11.	10.	0.333	0.577	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/27/73	3	7.	7.	8.	6.	1.	1.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/27/73	3	22.	22.333	24.	21.	2.333	1.528	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/06/73	1	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/27/73	2 ##	15.	15.	25.	5.	200.	14.142	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/27/73	2 ##	47.5	47.5	70.	25.	1012.5	31.82	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	88.	88.	104.	72.	512.	22.627	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	1.937	1.937	2.017	1.857	0.013	0.113	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			86.533								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/10/73	2	100.	100.	103.	97.	18.	4.243	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/27/73	3	8.	8.333	12.	5.	12.333	3.512	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0075

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	1	0.33							3	1	0.33			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00							3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1 &	0	0.00							1	0	0.00			
		Drinking Water	1300.	2	0	0.00							2	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0076

NPS Station ID: TUMA0076
LAT/LON: 31.515000/-110.784445
Agency: 21ARIZ
Date Created: / /
Location: SCALG000.07 (ALUM GULCH)
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 100259
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3918
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0076

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/28/92-03/28/92	1	11.5	11.5	11.5	11.5	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/28/92-03/28/92	1	10.5	10.5	10.5	10.5	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/28/92-03/28/92	1	110.	110.	110.	110.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/28/92-03/28/92	1	382.	382.	382.	382.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/28/92-03/28/92	1	4.09	4.09	4.09	4.09	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/28/92-03/28/92	1	4.09	4.09	4.09	4.09	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/28/92-03/28/92	1	81.283	81.283	81.283	81.283	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/28/92-03/28/92	1	1660.	1660.	1660.	1660.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/28/92-03/28/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/28/92-03/28/92	1	0.32	0.32	0.32	0.32	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/28/92-03/28/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/28/92-03/28/92	1	0.33	0.33	0.33	0.33	0.	0.	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	03/28/92-03/28/92	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	1	161.	161.	161.	161.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	03/28/92-03/28/92	1	27.	27.	27.	27.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/28/92-03/28/92	1	13.2	13.2	13.2	13.2	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	03/28/92-03/28/92	1	6.39	6.39	6.39	6.39	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	03/28/92-03/28/92	1	5.64	5.64	5.64	5.64	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	03/28/92-03/28/92	1	3.4	3.4	3.4	3.4	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/28/92-03/28/92	1	190.	190.	190.	190.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	03/28/92-03/28/92	1	0.38	0.38	0.38	0.38	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/28/92-03/28/92	1	54.	54.	54.	54.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	03/28/92-03/28/92	1	240.	240.	240.	240.	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/28/92-03/28/92	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	03/28/92-03/28/92	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	03/28/92-03/28/92	1	23.	23.	23.	23.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/28/92-03/28/92	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/28/92-03/28/92	1	621.	621.	621.	621.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	03/28/92-03/28/92	1	35700.	35700.	35700.	35700.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/28/92-03/28/92	1	850.	850.	850.	850.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/28/92-03/28/92	1	7460.	7460.	7460.	7460.	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	03/28/92-03/28/92	1	8.	8.	8.	8.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0076

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01082	STRONTIUM, TOTAL (UG/L AS SR)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/28/92-03/28/92	1	5340.	5340.	5340.	5340.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/28/92-03/28/92	1	243.	243.	243.	243.	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/28/92-03/28/92	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/28/92-03/28/92	1	480.	480.	480.	480.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0076

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	1	1.00							1	1	1.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	1	1.00							1	1	1.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	1	1.00							1	1	1.00			
		Drinking Water	5.	1	1	1.00							1	1	1.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	1	1.00							1	1	1.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	1	1.00							1	1	1.00			
		Drinking Water	15.	1	1	1.00							1	1	1.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	1	1.00							1	1	1.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	1	1.00							1	1	1.00			
		Drinking Water	5000.	1	1	1.00							1	1	1.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0077

NPS Station ID: TUMA0077
LAT/LON: 31.515833/-110.792222
Agency: 21ARIZ
Date Created: / /
Location: SCSON007.64 (SONOITA CREEK NEAR PATAGONIA)
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 100257
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3942
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301013
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0077

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	03/04/93-03/04/93	1	18.8	18.8	18.8	18.8	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/28/92-03/04/93	2	12.25	12.25	14.5	10.	10.125	3.182	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/28/92-03/04/93	2	12.75	12.75	15.	10.5	10.125	3.182	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/28/92-03/04/93	2	367.	367.	700.	34.	221778.	470.933	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	03/04/93-03/04/93	1	0.63	0.63	0.63	0.63	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/04/93-03/04/93	1	775.	775.	775.	775.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/28/92-03/28/92	1	268.	268.	268.	268.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/04/93-03/04/93	1	8.05	8.05	8.05	8.05	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/04/93-03/04/93	1	92.	92.	92.	92.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/28/92-03/28/92	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/28/92-03/28/92	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/28/92-03/28/92	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	03/04/93-03/04/93	1	7.58	7.58	7.58	7.58	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	03/04/93-03/04/93	1	7.58	7.58	7.58	7.58	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/04/93-03/04/93	1	0.026	0.026	0.026	0.026	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	1	83.1	83.1	83.1	83.1	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	03/28/92-03/28/92	1	101.	101.	101.	101.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/28/92-03/04/93	2	1946.	1946.	3860.	32.	7326792.	2706.805	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/28/92-03/04/93	2 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/28/92-03/04/93	2	0.36	0.36	0.45	0.27	0.016	0.127	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/28/92-03/04/93	2	0.385	0.385	0.64	0.13	0.13	0.361	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/28/92-03/04/93	2 ##	1.08	1.08	2.11	0.05	2.122	1.457	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	03/28/92-03/28/92	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	1	250.	250.	250.	250.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	03/28/92-03/28/92	1	72.1	72.1	72.1	72.1	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/28/92-03/28/92	1	16.9	16.9	16.9	16.9	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	03/28/92-03/28/92	1	9.68	9.68	9.68	9.68	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	03/28/92-03/28/92	1	10.3	10.3	10.3	10.3	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	03/28/92-03/28/92	1	3.3	3.3	3.3	3.3	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/28/92-03/28/92	1	72.4	72.4	72.4	72.4	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	03/28/92-03/28/92	1	0.28	0.28	0.28	0.28	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/28/92-03/28/92	1	30.	30.	30.	30.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	03/28/92-03/28/92	1	920.	920.	920.	920.	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/28/92-03/28/92	1	3.3	3.3	3.3	3.3	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	03/28/92-03/28/92	1	140.	140.	140.	140.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	03/28/92-03/28/92	1	6.	6.	6.	6.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0077

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/28/92-03/28/92	1	13.	13.	13.	13.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/28/92-03/28/92	1	398.	398.	398.	398.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	03/28/92-03/28/92	1	50400.	50400.	50400.	50400.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/28/92-03/28/92	1	320.	320.	320.	320.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/28/92-03/28/92	1	5390.	5390.	5390.	5390.	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	03/28/92-03/28/92	1	2.	2.	2.	2.	0.	0.	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/28/92-03/28/92	1	1170.	1170.	1170.	1170.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/28/92-03/04/93	2	445.5	445.5	571.	320.	31500.5	177.484	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/28/92-03/28/92	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/28/92-03/04/93	2	791.55	791.55	1560.	23.1	1181030.805	1086.752	**	**	**	**
85663	FLOW, RATE FT/SEC	03/04/93-03/04/93	1	2.68	2.68	2.68	2.68	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0077

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	2	0	0.00							2	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	1	1.00							1	1	1.00			
		Drinking Water	5.	1	1	1.00							1	1	1.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	1	1.00							1	1	1.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	1	1.00							1	1	1.00			
		Drinking Water	15.	1	1	1.00							1	1	1.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	1	1.00							1	1	1.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0077

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
82079 TURBIDITY, LAB	Other-Hi Lim.	50.	2	1	0.50							2	1	0.50			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0078

NPS Station ID: TUMA0078
LAT/LON: 31.515833/-110.791667
Agency: 21ARIZ
Date Created: / /
Location: SONOITA CREEK BELOW ALUM CREEK
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801500000002420/SC 022
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 1.70
On/Off RF1:
RF3 Index: 15050301001312.72
RF3 Mile Point: 13.14
Distance from RF3: 0.02
On/Off RF3:
Description:
LAT 31 30'57", LONG 110 47'30", SE1/4 SE1/4, SEC 15, T22S, R15E, SANTA CRUZ CO, 4.4 KM (2.7 MI) SOUTHWEST OF PATAGONIA ON AZ 82, 100 M (110 YDS) NORTHWEST ON GRAVEL ROAD, LEFT BANK, 5 M (5.5 YDS) DOWNSTREAM FROM FORD, 24.2 KM (15.1 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0078

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	2	19.75	19.75	22.	17.5	10.125	3.182	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/26/73-04/26/73	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/26/73-04/26/73	1	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/26/73-04/26/73	1	0.006	0.006	0.006	0.006	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	1	170.	170.	170.	170.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/26/73-04/26/73	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/26/73-04/26/73	1	12.	12.	12.	12.	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/26/73-04/26/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/26/73-04/26/73	1	3.6	3.6	3.6	3.6	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/26/73-04/26/73	1	496.	496.	496.	496.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/26/73-04/26/73	1	147.	147.	147.	147.	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/26/73-04/26/73	1	31.	31.	31.	31.	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/26/73-04/26/73	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/26/73-04/26/73	1	7.	7.	7.	7.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/26/73-04/26/73	1	260.	260.	260.	260.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	4.	4.	4.	4.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/04/73	1	0.602	0.602	0.602	0.602	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			4.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/26/73-04/26/73	1	568.	568.	568.	568.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/26/73-04/26/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0078

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0078

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	1	1.00							1	1	1.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0079

NPS Station ID: TUMA0079
LAT/LON: 31.516667/-110.785556
Agency: 21ARIZ
Date Created: / /
Location: ALUM CREEK AT MOUTH
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801506000000000/SC 021
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 2.00
On/Off RF1:
RF3 Index: 15050301001315.43
RF3 Mile Point: 15.76
Distance from RF3: 0.00
On/Off RF3:
Description:
LAT 31 31'00", LONG 110 47'08", SE1/4 SW1/4, SEC 14, T22S, R15E, SANTA CRUZ CO, 3.7 KM (2.3 MI) SOUTHWEST OF PATAGONIA ON AZ 82, RIGHT BANK 5M (5.5 YDS) DOWNSTREAM OF BRIDGE, 45 M (50 YDS) UPSTREAM FROM CONFLUENCE WITH SONOITA CREEK, 25 KM (15.6 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0079

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/26/73	6	19.25	19.167	21.	17.	2.867	1.693	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	1	0.79	0.79	0.79	0.79	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/26/73	3	9.8	9.6	10.	9.	0.28	0.529	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/26/73	3	4.	4.067	4.2	4.	0.013	0.115	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/26/73	3	4.	4.057	4.2	4.	0.013	0.116	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/26/73	3	100.	87.699	100.	63.096	453.975	21.307	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	0.	0.	0.	0.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/26/73	3	5.	5.667	10.	2.	16.333	4.041	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/26/73	3	0.2	0.233	0.4	0.1	0.023	0.153	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/26/73	3	672.	680.	720.	648.	1344.	36.661	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/26/73	3	152.	156.	164.	152.	48.	6.928	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/26/73	3	64.	69.333	82.	62.	121.333	11.015	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/26/73	3	24.	24.333	26.	23.	2.333	1.528	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/26/73	3	7.	7.333	10.	5.	6.333	2.517	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/26/73	3	750.	596.667	900.	140.	162033.333	402.534	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/06/73-04/26/73	2	0.95	0.95	1.1	0.8	0.045	0.212	**	**	**	**
00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/06/73-04/26/73	2	1450.	1450.	1500.	1400.	5000.	70.711	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/06/73-04/26/73	2	60.	60.	60.	60.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	04/26/73-04/26/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/06/73-04/06/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/06/73-04/06/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/13/73	2 ##	1.25	1.25	2.	0.5	1.125	1.061	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/13/73	2 ##	0.	0.	0.301	-0.301	0.181	0.426	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			1.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/26/73	3	1000.	854.667	1163.	401.	161002.333	401.251	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/26/73	3 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/06/73-04/06/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0079

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	3	0	0.00							3	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	3	1.00							3	3	1.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	2	0.67							3	2	0.67			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	2	0	0.00							2	0	0.00			
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	2	2	1.00							2	2	1.00			
		Drinking Water	1300.	2	2	1.00							2	2	1.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0080

NPS Station ID: TUMA0080
LAT/LON: 31.525000/-110.777222
Agency: 21ARIZ
Date Created: / /
Location: SONOITA CR JUST ABOVE TEMPORAI W
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801500000002600/SC 019
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 2.80
On/Off RF1:
RF3 Index: 15050301001314.29
RF3 Mile Point: 14.29
Distance from RF3: 0.04
On/Off RF3:
Description:
LAT 31 31'30", LONG 110 46'38", SE1/4 NW1/4, SEC 14, T22S, R15E, SANTA CRUZ CO, 4.3 KM (2.7 MI) SOUTHWEST OF PATAGONIA, ON GRAVEL ROAD LOCATED ON NORTH SIDE OF CREEK, 200 M (220 YDS) SOUTH ON UNIMPROVED ROAD, IMMEDIATELY UPSTREAM FROM TEMPORAI WASH, 26 KM (16.3 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0080

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/17/73-04/26/73	3	20.	20.	21.	19.	1.	1.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	1	4.08	4.08	4.08	4.08	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-04/26/73	2	9.25	9.25	10.9	7.6	5.445	2.333	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/19/73-04/19/73	1	1.96	1.96	1.96	1.96	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/19/73-04/26/73	2	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/19/73-04/26/73	2	8.2	8.2	8.2	8.2	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/19/73-04/26/73	2	0.006	0.006	0.006	0.006	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/19/73-04/26/73	2	215.	215.	216.	214.	2.	1.414	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/19/73-04/26/73	2	12.5	12.5	18.	7.	60.5	7.778	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/19/73-04/26/73	2	9.	9.	15.	3.	72.	8.485	**	**	**	**
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	04/19/73-04/19/73	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/19/73-04/26/73	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/19/73-04/26/73	2	0.55	0.55	0.7	0.4	0.045	0.212	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/19/73-04/26/73	2	508.	508.	516.	500.	128.	11.314	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/19/73-04/26/73	2	152.	152.	158.	146.	72.	8.485	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/19/73-04/26/73	2	55.	55.	81.	29.	1352.	36.77	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/19/73-04/26/73	2	18.	18.	18.	18.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/19/73-04/26/73	2	6.5	6.5	7.	6.	0.5	0.707	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/19/73-04/26/73	2	220.	220.	230.	210.	200.	14.142	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/17/73-04/17/73	1	30.	30.	30.	30.	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/17/73-04/17/73	1	1.477	1.477	1.477	1.477	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			30.								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/19/73-04/26/73	2	581.5	581.5	591.	572.	180.5	13.435	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/19/73-04/26/73	2 ##	0.75	0.75	1.	0.5	0.125	0.354	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0080

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00							2	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00							2	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00							2	0	0.00			
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00							2	0	0.00			
		Drinking Water	250.	2	0	0.00							2	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00							2	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	2	0	0.00							2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0081

NPS Station ID: TUMA0081 LAT/LON: 31.525000/-110.777500 Agency: 21ARIZ Date Created: / /
Location: SCSON008.41 (SONOITA CREEK NEAR PATAGONIA) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100256
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3953 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301013 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	09/19/91-03/04/93	6	8.6	10.55	18.1	5.4	28.583	5.346	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/19/91-03/04/93	6	17.5	17.75	21.	16.	3.175	1.782	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/19/91-03/04/93	6	20.5	19.083	25.	11.5	26.742	5.171	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/19/91-03/04/93	6	6.95	9.157	22.35	4.86	42.757	6.539	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	09/19/91-03/04/93	6	0.52	0.52	0.78	0.31	0.024	0.156	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/19/91-03/04/93	6	837.5	931.	1422.	809.	58235.2	241.32	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/19/91-09/19/91	1	866.	866.	866.	866.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/19/91-03/04/93	6	7.3	7.235	7.5	6.85	0.056	0.236	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	09/19/91-03/04/93	6	88.35	86.533	92.2	73.5	43.903	6.626	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	09/19/91-09/19/91	1	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/19/91-09/19/91	1	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/19/91-09/19/91	1	0.008	0.008	0.008	0.008	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	09/19/91-03/04/93	6	7.665	7.688	7.96	7.43	0.032	0.179	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	09/19/91-03/04/93	6	7.665	7.658	7.96	7.43	0.033	0.182	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/19/91-03/04/93	6	0.022	0.022	0.037	0.011	0.	0.009	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/19/91-09/19/91	1	232.	232.	232.	232.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/19/91-09/19/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	09/19/91-09/19/91	1	232.	232.	232.	232.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	09/19/91-09/19/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/19/91-03/04/93	6 ##	5.	17.333	60.	2.	551.067	23.475	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/19/91-03/04/93	6 ##	0.055	0.073	0.16	0.015	0.003	0.051	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/19/91-03/04/93	5	0.3	0.282	0.33	0.23	0.002	0.044	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/19/91-03/04/93	6	0.645	0.622	0.75	0.38	0.018	0.134	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/91-03/04/93	6	0.155	0.142	0.2	0.05	0.003	0.056	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/19/91-09/19/91	1	486.	486.	486.	486.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	09/19/91-09/19/91	1	148.	148.	148.	148.	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/19/91-09/19/91	1	28.3	28.3	28.3	28.3	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	09/19/91-09/19/91	1	18.5	18.5	18.5	18.5	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	09/19/91-09/19/91	1	3.	3.	3.	3.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	09/19/91-09/19/91	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	09/19/91-09/19/91	1	250.	250.	250.	250.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	09/19/91-09/19/91	1	0.29	0.29	0.29	0.29	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	09/19/91-09/19/91	1	93.	93.	93.	93.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	09/19/91-09/19/91	1	99.	99.	99.	99.	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0081

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01020	BORON, DISSOLVED (UG/L AS B)	09/19/91-09/19/91	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	09/19/91-09/19/91	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	09/19/91-09/19/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	09/19/91-09/19/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	09/19/91-09/19/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	09/19/91-09/19/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	09/19/91-09/19/91	1	824.	824.	824.	824.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	09/19/91-09/19/91	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	09/19/91-09/19/91	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	09/19/91-09/19/91	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	09/19/91-09/19/91	1	62.	62.	62.	62.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	09/19/91-09/19/91	1	15.	15.	15.	15.	0.	0.	**	**	**	**
01057	THALLIUM, DISSOLVED (UG/L AS TL)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	09/19/91-09/19/91	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	09/19/91-09/19/91	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	09/19/91-09/19/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	09/19/91-09/19/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	09/19/91-09/19/91	1	126.	126.	126.	126.	0.	0.	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	09/19/91-09/19/91	1	127.	127.	127.	127.	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	09/19/91-09/19/91	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	09/19/91-09/19/91	1	18.	18.	18.	18.	0.	0.	**	**	**	**
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	09/19/91-09/19/91	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	09/19/91-09/19/91	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	09/19/91-09/19/91	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	09/19/91-03/04/93	6	636.	627.5	680.	569.	1484.7	38.532	**	**	**	**
71830	HYDROXIDE ION (MG/L AS OH)	09/19/91-09/19/91	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	09/19/91-09/19/91	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	09/19/91-09/19/91	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	12/05/91-03/04/93	5	1.5	10.446	46.8	0.63	413.246	20.328	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/19/91-02/26/92	2	7.405	7.405	14.	0.81	86.988	9.327	**	**	**	**
85663	FLOW, RATE FT/SEC	09/19/91-03/04/93	6	1.47	1.567	2.5	1.11	0.257	0.507	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0081

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	6	0	0.00	1	0	0.00	1	0	0.00	3	0	0.00	1	0	0.00
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00	1	0	0.00									
		Other-Lo Lim.	6.5	1	0	0.00	1	0	0.00									
00406	PH, FIELD	Fresh Chronic	9.	6	0	0.00	1	0	0.00	1	0	0.00	3	0	0.00	1	0	0.00
		Other-Lo Lim.	6.5	6	0	0.00	1	0	0.00	1	0	0.00	3	0	0.00	1	0	0.00
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	6	0	0.00	1	0	0.00	1	0	0.00	3	0	0.00	1	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00	1	0	0.00									
		Drinking Water	250.	1	0	0.00	1	0	0.00									
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	1	1.00	1	1	1.00									
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00	1	0	0.00									
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00	1	0	0.00									
		Drinking Water	50.	1	0	0.00	1	0	0.00									
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00	1	0	0.00									
		Drinking Water	50.	1	0	0.00	1	0	0.00									
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00	1	0	0.00									
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00	1	0	0.00									
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00	1	0	0.00									
		Drinking Water	4.	1	0	0.00	1	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0081

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00	1	0	0.00									
		Drinking Water	4.	1	0	0.00	1	0	0.00									
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00	1	0	0.00									
		Drinking Water	5.	1	0	0.00	1	0	0.00									
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00	1	0	0.00									
		Drinking Water	5.	1	0	0.00	1	0	0.00									
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00	1	0	0.00									
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00	1	0	0.00									
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00	1	0	0.00									
		Drinking Water	1300.	1	0	0.00	1	0	0.00									
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00	1	0	0.00									
		Drinking Water	1300.	1	0	0.00	1	0	0.00									
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00	1	0	0.00									
		Drinking Water	15.	1	0	0.00	1	0	0.00									
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00	1	0	0.00									
		Drinking Water	15.	1	0	0.00	1	0	0.00									
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	1	0	0.00	1	0	0.00									
		Drinking Water	2.	0 &	0	0.00												
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00	1	0	0.00									
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00	1	0	0.00									
		Drinking Water	100.	1	0	0.00	1	0	0.00									
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00	1	0	0.00									
		Drinking Water	100.	1	0	0.00	1	0	0.00									
01075	SILVER, DISSOLVED	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00	1	0	0.00									
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00	1	0	0.00									
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00	1	0	0.00									
		Drinking Water	5000.	1	0	0.00	1	0	0.00									
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00	1	0	0.00									
		Drinking Water	5000.	1	0	0.00	1	0	0.00									
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	1	0	0.00	1	0	0.00									
		Drinking Water	6.	0 &	0	0.00												
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00	1	0	0.00									
		Drinking Water	6.	0 &	0	0.00												
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00	1	0	0.00									
		Drinking Water	50.	1	0	0.00	1	0	0.00									
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00	1	0	0.00									
		Drinking Water	50.	1	0	0.00	1	0	0.00									
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	1	0	0.00	1	0	0.00									
		Drinking Water	2.	1	0	0.00	1	0	0.00									
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00	1	0	0.00									
		Drinking Water	2.	1	0	0.00	1	0	0.00									
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	5	0	0.00				1	0	0.00	3	0	0.00	1	0	0.00
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	2	0	0.00	1	0	0.00				1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0082

NPS Station ID: TUMA0082
LAT/LON: 31.525000/-110.777222
Agency: 21ARIZ
Date Created: / /
Location: TEMPORAI WASH ABOVE SONOITA CR
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 801504500000000/SC 020
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 2.00
On/Off RF1:
RF3 Index: 15050301001316.52
RF3 Mile Point: 17.08
Distance from RF3: 0.07
On/Off RF3:
Description:
LAT 31 31'30", LONG 110 46'38", SE1/4 NW1/4, SEC 14, T22S, R15E, SANTA CRUZ CO, 2.7 KM (4.3 MI) SOUTHWEST OF PATAGONIA, ON GRAVEL ROAD LOCATED ON NORTH SIDE OF SONOITA CREEK, 200 M (220 YDS) SOUTH ON UNIMPROVED ROAD, LEFT BANK, IMMEDIATELY UPSTREAM FROM CONFLUENCE WITH SONOITA CREEK, 26 KM (16.3 MI) UPSTREAM FROM CONFLUENCE WITH SANTA CRUZ RIVER.

Parameter Inventory for Station: TUMA0082

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/10/73-04/26/73	3	23.	21.667	23.5	18.5	7.583	2.754	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/26/73-04/26/73	2	0.38	0.38	0.38	0.38	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/26/73-04/26/73	1	6.5	6.5	6.5	6.5	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/11/73-04/11/73	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/10/73-04/26/73	3	8.2	8.2	8.3	8.1	0.01	0.1	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/10/73-04/26/73	3	8.2	8.192	8.3	8.1	0.01	0.1	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/10/73-04/26/73	3	0.006	0.006	0.008	0.005	0.	0.001	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/10/73-04/26/73	3	82.	108.667	170.	74.	2837.333	53.267	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/10/73-04/26/73	3	13.	14.333	20.	10.	26.333	5.132	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/10/73-04/26/73	2	0.25	0.25	0.3	0.2	0.005	0.071	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/10/73-04/26/73	3	218.	219.333	236.	204.	257.333	16.042	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/10/73-04/26/73	3	65.	65.667	72.	60.	36.333	6.028	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/10/73-04/26/73	3	13.	13.	13.	13.	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/10/73-04/26/73	3	18.	17.667	18.	17.	0.333	0.577	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/10/73-04/26/73	3	10.	9.	10.	7.	3.	1.732	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/10/73-04/26/73	3	110.	100.667	132.	60.	1361.333	36.896	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	04/10/73-04/10/73	1	0.39	0.39	0.39	0.39	0.	0.	**	**	**	**
00997	ARSENIC, INORGANIC TOT (UG/L AS AS)	04/10/73-04/10/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	04/10/73-04/10/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	04/10/73-04/10/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	04/10/73-04/10/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	04/10/73-04/10/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	04/10/73-04/10/73	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	04/10/73-04/10/73	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	04/10/73-04/10/73	1	80.	80.	80.	80.	0.	0.	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/11/73	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/10/73-04/11/73	2 ##	-0.301	-0.301	-0.301	-0.301	0.	0.	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			0.5								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/10/73-04/26/73	3	281.	273.	323.	215.	2964.	54.443	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/10/73-04/26/73	3 ##	0.5	1.667	4.	0.5	4.083	2.021	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	04/10/73-04/10/73	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0082

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00							3	0	0.00			
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	0 &	0	0.00												
		Drinking Water	5.	0 &	0	0.00												
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	0 &	0	0.00												
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	0 &	0	0.00												
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0083

NPS Station ID: TUMA0083 LAT/LON: 31.525833/-110.778612 Agency: 21ARIZ Date Created: / /
Location: SCTMG000.20 (TEMPORAL GULCH NR PATAGONIA WWTP) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100258
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3963 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0083

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/28/92-03/28/92	1	10.5	10.5	10.5	10.5	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/28/92-03/28/92	1	11.5	11.5	11.5	11.5	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/28/92-03/28/92	1	200.	200.	200.	200.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/28/92-03/28/92	1	204.	204.	204.	204.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	03/28/92-03/28/92	1	7.49	7.49	7.49	7.49	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	03/28/92-03/28/92	1	7.49	7.49	7.49	7.49	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/28/92-03/28/92	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	1	35.4	35.4	35.4	35.4	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	03/28/92-03/28/92	1	43.2	43.2	43.2	43.2	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	03/28/92-03/28/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	03/28/92-03/28/92	1	212.	212.	212.	212.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	03/28/92-03/28/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	03/28/92-03/28/92	1	0.24	0.24	0.24	0.24	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	03/28/92-03/28/92	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	03/28/92-03/28/92	1	0.18	0.18	0.18	0.18	0.	0.	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	03/28/92-03/28/92	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	03/28/92-03/28/92	1	97.	97.	97.	97.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	03/28/92-03/28/92	1	24.6	24.6	24.6	24.6	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	03/28/92-03/28/92	1	5.7	5.7	5.7	5.7	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	03/28/92-03/28/92	1	7.33	7.33	7.33	7.33	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	03/28/92-03/28/92	1	3.81	3.81	3.81	3.81	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	03/28/92-03/28/92	1	3.6	3.6	3.6	3.6	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	03/28/92-03/28/92	1	59.7	59.7	59.7	59.7	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	03/28/92-03/28/92	1	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	03/28/92-03/28/92	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	03/28/92-03/28/92	1	0.6	0.6	0.6	0.6	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	03/28/92-03/28/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	03/28/92-03/28/92	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	03/28/92-03/28/92	1	16.	16.	16.	16.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	03/28/92-03/28/92	1	5720.	5720.	5720.	5720.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	03/28/92-03/28/92	1	31.	31.	31.	31.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	03/28/92-03/28/92	1	480.	480.	480.	480.	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	03/28/92-03/28/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0083

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01082	STRONTIUM, TOTAL (UG/L AS SR)	03/28/92-03/28/92	1 ##	50.	50.	50.	50.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	03/28/92-03/28/92	1	130.	130.	130.	130.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	03/28/92-03/28/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	03/28/92-03/28/92	1	155.	155.	155.	155.	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	03/28/92-03/28/92	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	03/28/92-03/28/92	1	138.	138.	138.	138.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0083

				Total	Exceed	Prop.	7/05-10/10			10/11-12/07			12/08-4/30			5/01-7/04		
Parameter		Std. Type	Std. Value	Obs	Standard	Exceeding	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.	Obs	Exceed	Prop.
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1	0	0.00							1	0	0.00			
		Drinking Water	0.2	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	1	1.00							1	1	1.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	1	1.00							1	1	1.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00							1	1	1.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0084

NPS Station ID: TUMA0084
LAT/LON: 31.536389/-111.021944
Agency: 11NPSWRD
Date Created: 12/31/99
Location: SANTA CRUZ RIVER AT SANTA GERTRUDIS
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): TUMA_USFWS_5
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE TUBAC 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER AT SANTA GERTRUDIS; AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK. DATA FOR THIS SITE ARE FROM "CONTAMINANTS AS A LIMITING FACTOR OF FISH AND WILDLIFE POPULATIONS IN THE SANTA CRUZ RIVER; ARIZONA" BY K.A. KING; B.J. ZAUN; AND A.L. VELASCO. THE STUDY IS PART OF THE U.S. FISH AND WILDLIFE SERVICE (USFWS); REGION 2 CONTAMINANTS PROGRAM AND WAS RELEASED IN OCTOBER 1999. THE STUDY SAMPLED WATER; SEDIMENT; INVERTEBRATES; FISH AND BIRDS FROM TWO SITES ABOVE THE NOGALES INTERNATIONAL WASTEWATER TREATMENT PLANT (NIWWTP) AND FIVE SITES BELOW THE NIWWTP. FOR MORE INFORMATION CONTACT THE USFWS; ARIZONA ECOLOGICAL SERVICES FIELD OFFICE; 2321 W. ROYAL PALM ROAD; SUITE 103; PHEONIX; ARIZONA; 85021. TEL (602) 242-0210. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAKRIDGE DR. SUITE 250 FORT COLLINS; CO; 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0084

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	1	23.8	23.8	23.8	23.8	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/30/97-05/30/97	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	1	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	1	13.1	13.1	13.1	13.1	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	1 ##	0.255	0.255	0.255	0.255	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	13940.	13940.	13940.	13940.	0.	0.	**	**	**	**
50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	10.5	10.5	10.5	10.5	0.	0.	**	**	**	**
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	210.	210.	210.	210.	0.	0.	**	**	**	**
50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	1.29	1.29	1.29	1.29	0.	0.	**	**	**	**
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	1.18	1.18	1.18	1.18	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	16.7	16.7	16.7	16.7	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	48.8	48.8	48.8	48.8	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	18460.	18460.	18460.	18460.	0.	0.	**	**	**	**
50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3939.	3939.	3939.	3939.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	944.	944.	944.	944.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.77	0.77	0.77	0.77	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0084

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	14.2	14.2	14.2	14.2	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	35.3	35.3	35.3	35.3	0.	0.	**	**	**	**
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	96.6	96.6	96.6	96.6	0.	0.	**	**	**	**
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	18.6	18.6	18.6	18.6	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	115.	115.	115.	115.	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	1	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0084

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	1	0	0.00										1	0	0.00
		Other-Lo Lim.	6.5	1	0	0.00										1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0085

NPS Station ID: TUMA0085 LAT/LON: 31.543056/-111.027778 Agency: 112WRD Date Created: / /
Location: "NO INFO IN THE STATION HEADER FILE."-USGS-2 FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 313235111014001
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: RF1 Mile Point: 0.000 Distance from RF1: 0.90 On/Off RF1:
RF3 Index: 15050301000902.06 RF3 Mile Point: 2.05 Distance from RF3: 0.09 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0085

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00403	PH, LAB, STANDARD UNITS SU	11/28/80-11/28/80	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	11/28/80-11/28/80	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/28/80-11/28/80	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/28/80-11/28/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	11/28/80-11/28/80	1	0.43	0.43	0.43	0.43	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/28/80-11/28/80	1	0.14	0.14	0.14	0.14	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	11/28/80-11/28/80	1	350.	350.	350.	350.	0.	0.	**	**	**	**
00902	HARDNESS, NON-CARBONATE (MG/L AS CACO3)	11/28/80-11/28/80	1	100.	100.	100.	100.	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/28/80-11/28/80	1	110.	110.	110.	110.	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/28/80-11/28/80	1	19.	19.	19.	19.	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	11/28/80-11/28/80	1	43.	43.	43.	43.	0.	0.	**	**	**	**
00931	SODIUM ADSORPTION RATIO	11/28/80-11/28/80	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00932	SODIUM, PERCENT	11/28/80-11/28/80	1	21.	21.	21.	21.	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/28/80-11/28/80	1	5.8	5.8	5.8	5.8	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	11/28/80-11/28/80	1	30.	30.	30.	30.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/28/80-11/28/80	1	140.	140.	140.	140.	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/28/80-11/28/80	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	11/28/80-11/28/80	1	37.	37.	37.	37.	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/28/80-11/28/80	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	11/28/80-11/28/80	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/28/80-11/28/80	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01020	BORON, DISSOLVED (UG/L AS B)	11/28/80-11/28/80	1	120.	120.	120.	120.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/28/80-11/28/80	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	11/28/80-11/28/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
01035	COBALT, DISSOLVED (UG/L AS CO)	11/28/80-11/28/80	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	11/28/80-11/28/80	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	11/28/80-11/28/80	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	11/28/80-11/28/80	1	23.	23.	23.	23.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/28/80-11/28/80	1	400.	400.	400.	400.	0.	0.	**	**	**	**
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/28/80-11/28/80	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	11/28/80-11/28/80	1	750.	750.	750.	750.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	11/28/80-11/28/80	1 ##	3.	3.	3.	3.	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	11/28/80-11/28/80	1	5.	5.	5.	5.	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/28/80-11/28/80	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01130	LITHIUM, DISSOLVED (UG/L AS LI)	11/28/80-11/28/80	1	7.	7.	7.	7.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/28/80-11/28/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	11/28/80-11/28/80	1	537.	537.	537.	537.	0.	0.	**	**	**	**
70303	SOLIDS, DISSOLVED-TONS PER ACRE-FT	11/28/80-11/28/80	1	0.73	0.73	0.73	0.73	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0085

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
71890	MERCURY, DISSOLVED (UG/L AS HG)	11/28/80-11/28/80	1	0.	0.	0.	0.	0.	0.	**	**	**	**
90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/28/80-11/28/80	1	828.	828.	828.	828.	0.	0.	**	**	**	**
90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/28/80-11/28/80	1	250.	250.	250.	250.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0085

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
		Drinking Water	250.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00				1	0	0.00						
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00				1	0	0.00						
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00				1	0	0.00						
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00				1	0	0.00						
		Drinking Water	4.	1	0	0.00				1	0	0.00						
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
01032	CHROMIUM, HEXAVALENT	Fresh Acute	16.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00				1	0	0.00						
		Drinking Water	1300.	1	0	0.00				1	0	0.00						
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00				1	0	0.00						
		Drinking Water	15.	1	1	1.00				1	1	1.00						
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00				1	0	0.00						
		Drinking Water	5000.	1	0	0.00				1	0	0.00						
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	1	0	0.00				1	0	0.00						
		Drinking Water	2.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0086

NPS Station ID: TUMA0086 | LAT/LON: 31.545000/-111.104299 | Agency: 11NPSWRD | Date Created: 12/31/99
Location: SPRING AT HEAD OF TRIB IN ROCK CORRAL CANYON | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/SPRING | STORET Station ID(s): TUMA_NURE_SP4
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301056100.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.00 | On/Off RF3:
Description:
THE SITE IS LOCATED ON THE TUBAC, ARIZ. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS AT MESQUITE SEEP AT THE 4WD ROAD IN FRESNO CANYON IN THE TUMACACORI MOUNTAINS AND OUTSIDE THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. DATA ARE FROM THE "U.S. GEOLOGICAL SURVEY NATIONAL GEOCHEMICAL DATABASE: NATIONAL URANIUM RESOURCE EVALUATION DATA FOR THE CONTERMINOUS UNITED STATES" 1994 CD-ROM BY J.D. HOFFMAN AND K. BUTTLEMAN (USGS DIGITAL DATA SERIES DDS-18-A). THE DATA BASE INCLUDES SEDIMENT; SOIL; SURFACE WATER; AND GROUND WATER DATA. THE "UNIQID" FIELD ENTRY WAS USED TO CREATE THE SECONDARY STATION NAME. THE "LASLID" (LOS ALAMOS SCIENTIFIC LABORATORY SAMPLE NUMBER) FIELD ENTRY WAS USED TO CREATE THE STATION LOCATION. THE SAMPLES WERE ANALYZED BY LOS ALAMOS SCIENTIFIC LABORATORY. DATA WERE PROCESED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0086

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/07/80-03/07/80	1	15.	15.	15.	15.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/07/80-03/07/80	1	320.	320.	320.	320.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	03/07/80-03/07/80	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/07/80-03/07/80	1	7.6	7.6	7.6	7.6	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/07/80-03/07/80	1	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/07/80-03/07/80	1	2.1	2.1	2.1	2.1	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/07/80-03/07/80	1	16.	16.	16.	16.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	03/07/80-03/07/80	1	3.1	3.1	3.1	3.1	0.	0.	**	**	**	**
50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	1	114.	114.	114.	114.	0.	0.	**	**	**	**
50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	1	79.7	79.7	79.7	79.7	0.	0.	**	**	**	**
82037	MAGNESIUM - DISSOLVED UG/L (AS MG)	03/07/80-03/07/80	1	7390.	7390.	7390.	7390.	0.	0.	**	**	**	**
82039	DISSOLVED-SODIUM UG/L (AS NA)	03/07/80-03/07/80	1	25880.	25880.	25880.	25880.	0.	0.	**	**	**	**
82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/07/80-03/07/80	1	6400.	6400.	6400.	6400.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0086

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400 PH	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
	Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0087

NPS Station ID: TUMA0087 | LAT/LON: 31.558333/-111.045833 | Agency: 21ARIZ | Date Created: / /
Location: SANTA CRUZ R-SANTA GERTRUDIS RD | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): 800000000026870/SC 035
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 1.40 | On/Off RF1:
RF3 Index: 15050301000807.34 | RF3 Mile Point: 7.64 | Distance from RF3: 0.03 | On/Off RF3:
Description:
LAT 31 33'30", LONG 111 02'45", SE1/4 NE1/4, SEC 31, T21S, R13E, SANTA CRUZ CO, 0.8 KM (0.5 MI) SOUTH OF TUMACACORI NATIONAL MONUMENT ON INTERSTATE 19, 0.7 KM (0.4 MI) EAST ON SANTA GERTRUDIS RANCH ROAD, RIGHT BANK, IMMEDIATELY UPSTREAM FROM CROSSING, 39.7 KM (24.7 MI) DOWNSTREAM FROM INTERNATIONAL BOUNDARY, 268.7 KM (167 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0087

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/19/73-04/27/73	3	18.	19.567	25.5	15.2	28.363	5.326	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	04/24/73-04/24/73	2	6.46	6.46	6.46	6.46	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/19/73-04/20/73	2	6.5	6.5	8.5	4.5	8.	2.828	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/19/73-04/19/73	1	9.7	9.7	9.7	9.7	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/18/73-04/27/73	4	7.7	7.65	7.8	7.4	0.037	0.191	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/18/73-04/27/73	4	7.689	7.617	7.8	7.4	0.038	0.195	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/18/73-04/27/73	4	0.02	0.024	0.04	0.016	0.	0.011	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/18/73-04/27/73	4	180.	182.	196.	172.	112.	10.583	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/18/73-04/27/73	4	45.	39.75	61.	8.	521.583	22.838	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/18/73-04/27/73	4	20.5	18.5	30.	3.	131.	11.446	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/18/73-04/27/73	4 ##	0.5	0.875	2.	0.5	0.563	0.75	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/18/73-04/27/73	4	1.75	1.825	2.7	1.1	0.436	0.66	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/18/73-04/27/73	4	237.	239.5	262.	222.	281.	16.763	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/18/73-04/27/73	4	79.	79.	86.	72.	35.333	5.944	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/18/73-04/27/73	4	9.	9.75	14.	7.	11.583	3.403	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/18/73-04/27/73	4	29.	28.5	32.	24.	11.	3.317	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/18/73-04/27/73	4	21.	21.	21.	21.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/18/73-04/27/73	4	64.	66.25	79.	58.	90.917	9.535	**	**	**	**
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/18/73-04/27/73	4	307.5	316.	348.	301.	484.667	22.015	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/18/73-04/27/73	4	2.	2.125	4.	0.5	2.063	1.436	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0087

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00							2	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0087

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00403	PH, LAB	Fresh Chronic	9.	4	0	0.00							4	0	0.00			
		Other-Lo Lim.	6.5	4	0	0.00							4	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	4	0	0.00							4	0	0.00			
		Drinking Water	250.	4	0	0.00							4	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	4	0	0.00							4	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	4	0	0.00							4	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0088

NPS Station ID: TUMA0088 LAT/LON: 31.561112/-111.045555 Agency: 21ARIZ Date Created: / /
Location: SCSCR080.50 (SANTA CRUZ R AT SANTA GERTRUDIS LN) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100247
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3250 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301008 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
ELEVATION 3250 FEET MSL. USGS 7.5' QUAD MAP "TUBAC". T21S R13E SEC. NOT DEFINED. SITE IS LOCATED IN SANTA CRUZ COUNTY ON THE SANTA CRUZ RIVER, SOUTH-SOUTHEAST OF TUMACACORI, AZ. IT IS 200 FEET NORTH OF SANTA GERTRUDIS LANE CROSSING. THE SITE IS PART OF THE SANTA CRUZ RIV INTENSIVE STUDY RUNNING FROM NOV. 1992 THROUGH OCTOBER 1993. IT IS AN ALTERNATE TO SITE SC18 WHICH WAS DESTROYED IN JAN. 1993 FLOODS. SC20 IS ON AN EFFLUENT-DOMINATED PORTION OF THE RIVER. SITE ESTABLISHED ON 930223.
REFERENCE FILE WQMS-175.700.310.

Parameter Inventory for Station: TUMA0088

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	03/30/93-11/25/97	2	96.	96.	170.	22.	10952.	104.652	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/30/93-11/25/97	2	14.75	14.75	20.5	9.	66.125	8.132	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	03/30/93-11/25/97	2	12.5	12.5	21.	4.	144.5	12.021	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	03/30/93-11/25/97	2	62.12	62.12	114.03	10.21	5389.296	73.412	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	03/30/93-11/25/97	2	0.445	0.445	0.47	0.42	0.001	0.035	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	03/30/93-11/25/97	2	336.5	336.5	493.	180.	48984.5	221.324	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	02/23/93-02/23/93	1	403.	403.	403.	403.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	03/30/93-11/25/97	2	6.8	6.8	7.5	6.1	0.98	0.99	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	03/30/93-03/30/93	1	94.8	94.8	94.8	94.8	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	02/23/93-02/23/93	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	02/23/93-02/23/93	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	02/23/93-02/23/93	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	03/30/93-11/25/97	2	7.59	7.59	7.78	7.4	0.072	0.269	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	03/30/93-11/25/97	2	7.55	7.55	7.78	7.4	0.075	0.275	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/30/93-11/25/97	2	0.028	0.028	0.04	0.017	0.	0.016	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	02/23/93-02/23/93	1	107.	107.	107.	107.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	02/23/93-02/23/93	1	150.	150.	150.	150.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	02/23/93-02/23/93	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	02/23/93-02/23/93	1	255.	255.	255.	255.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	02/23/93-02/23/93	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	02/23/93-02/23/93	1	0.67	0.67	0.67	0.67	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	02/23/93-02/23/93	1	1.15	1.15	1.15	1.15	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	02/23/93-02/23/93	1	0.62	0.62	0.62	0.62	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	02/23/93-02/23/93	1	148.	148.	148.	148.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	02/23/93-02/23/93	1	52.5	52.5	52.5	52.5	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	02/23/93-02/23/93	1	9.65	9.65	9.65	9.65	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0088

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00929	SODIUM, TOTAL (MG/L AS NA)	02/23/93-02/23/93	1	25.4	25.4	25.4	25.4	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	02/23/93-02/23/93	1	4.17	4.17	4.17	4.17	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	02/23/93-02/23/93	1	13.8	13.8	13.8	13.8	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	02/23/93-02/23/93	1	54.8	54.8	54.8	54.8	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	02/23/93-02/23/93	1	0.42	0.42	0.42	0.42	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	02/23/93-02/23/93	1	5.	5.	5.	5.	0.	0.	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	02/23/93-02/23/93	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	02/23/93-02/23/93	1	26.	26.	26.	26.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	02/23/93-02/23/93	1	83.	83.	83.	83.	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	02/23/93-02/23/93	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	02/23/93-02/23/93	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
01020	BORON, DISSOLVED (UG/L AS B)	02/23/93-02/23/93	1	31.	31.	31.	31.	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	02/23/93-02/23/93	1	42.	42.	42.	42.	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	02/23/93-02/23/93	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	02/23/93-02/23/93	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	02/23/93-02/23/93	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	02/23/93-02/23/93	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	02/23/93-02/23/93	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	02/23/93-02/23/93	1	14.	14.	14.	14.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	02/23/93-02/23/93	1	4390.	4390.	4390.	4390.	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	02/23/93-02/23/93	1	27.	27.	27.	27.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	02/23/93-02/23/93	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	02/23/93-02/23/93	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	02/23/93-02/23/93	1	236.	236.	236.	236.	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	02/23/93-02/23/93	1	15.	15.	15.	15.	0.	0.	**	**	**	**
01057	THALLIUM, DISSOLVED (UG/L AS TL)	02/23/93-02/23/93	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	02/23/93-02/23/93	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	02/23/93-02/23/93	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	02/23/93-02/23/93	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	02/23/93-02/23/93	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	02/23/93-02/23/93	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	02/23/93-02/23/93	1	83.	83.	83.	83.	0.	0.	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	02/23/93-02/23/93	1	87.	87.	87.	87.	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	02/23/93-02/23/93	1	9.	9.	9.	9.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	02/23/93-02/23/93	1	33.	33.	33.	33.	0.	0.	**	**	**	**
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	02/23/93-02/23/93	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	02/23/93-02/23/93	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	02/23/93-02/23/93	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	02/23/93-02/23/93	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	02/23/93-02/23/93	1	20.	20.	20.	20.	0.	0.	**	**	**	**
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	02/23/93-02/23/93	1	1.301	1.301	1.301	1.301	0.	0.	**	**	**	**
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			20.								
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	02/23/93-02/23/93	1	10.	10.	10.	10.	0.	0.	**	**	**	**
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	02/23/93-02/23/93	1	1.	1.	1.	1.	0.	0.	**	**	**	**
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			10.								
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	02/23/93-02/23/93	1	243.	243.	243.	243.	0.	0.	**	**	**	**
71830	HYDROXIDE ION (MG/L AS OH)	02/23/93-02/23/93	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	02/23/93-02/23/93	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	02/23/93-02/23/93	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	03/30/93-11/25/97	2	31.4	31.4	38.5	24.3	100.82	10.041	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	02/23/93-02/23/93	1	30.	30.	30.	30.	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	03/30/93-11/25/97	2	1.225	1.225	1.5	0.95	0.151	0.389	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0088

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00				1	0	0.00	1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0088

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	2	0	0.00				1	0	0.00	1	0	0.00			
		Other-Lo Lim.	6.5	2	0	0.00				1	0	0.00	1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	0 &	0	0.00												
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	0 &	0	0.00												
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0088

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	2	0	0.00				1	0	0.00	1	0	0.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0089

NPS Station ID: TUMA0089
LAT/LON: 31.561820/-111.045530
Agency: 11NPSWRD
Date Created: 12/31/99
Location: SANTA CRUZ RIVER AT SANTA GERTRUDIS
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): TUMA_FOSCR_SG
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:
THE SITE IS LOCATED ON THE TUBAC, ARIZ. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER AT SANTA GERTRUDIS AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. SAMPLING AT THIS STATION WAS CONDUCTED BY THE FRIENDS OF THE SANTA CRUZ RIVER VOLUNTEER ORGANIZATION AND FUNDED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AS A PART OF THE ADEQ SURFACE WATER QUALITY MONITORING PROGRAM. FOR MORE INFORMATION CONTACT MARK LARKIN (520) 398-8099. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS; COLORADO 80525. TEL (970) 225-3516. FAX (970) 225-9965

Parameter Inventory for Station: TUMA0089

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	20	24.	26.	37.	18.	23.789	4.877	22.	23.	28.5	35.6
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	12.	12.31	20.	5.	24.162	4.915	6.	7.5	17.5	19.8
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	16.	12.976	25.	-1.	78.912	8.883	0.1	6.	20.5	24.
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	19	20.82	24.51	73.42	5.	329.239	18.145	5.9	16.63	21.68	71.9
00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	19	0.6	0.653	1.6	0.3	0.081	0.284	0.3	0.5	0.7	1.02
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/27/98-12/28/99	21	812.	740.286	1245.	101.	78140.914	279.537	289.6	523.5	943.	971.
00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	20	5.4	5.825	10.3	3.	3.096	1.759	3.58	4.575	7.225	7.98
00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	18	39.	48.	215.	17.	1999.294	44.713	21.5	22.	52.25	88.1
00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	19	7.5	7.497	7.8	7.1	0.038	0.195	7.1	7.4	7.6	7.7
00406	CONVERTED PH, FIELD, STANDARD UNITS	01/27/98-12/28/99	19	7.5	7.452	7.8	7.1	0.04	0.2	7.1	7.4	7.6	7.7
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/27/98-12/28/99	19	0.032	0.035	0.079	0.016	0.	0.019	0.02	0.025	0.04	0.079
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	18	7.865	6.815	12.44	1.22	14.472	3.804	1.31	2.588	9.593	12.062
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	18	9.67	24.527	264.	2.1	3661.225	60.508	2.334	4.945	12.225	67.26
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	16	200.	2206.219	27100.	2.5	44919405.766	6702.194	4.25	25.	600.	10160.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	16	2.301	2.21	4.433	0.398	1.171	1.082	0.609	1.376	2.778	3.754
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			162.29								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	20	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
50064	CHLORINE, FREE AVAILABLE (MG/L)	12/29/98-08/31/99	8	0.	0.	0.	0.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	18	1.4	1.589	3.5	0.4	0.774	0.88	0.58	0.875	2.2	2.96
71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	18	0.2	0.338	1.8	0.1	0.154	0.393	0.1	0.123	0.4	0.72
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	14	31.5	55.571	200.	12.	2906.264	53.91	20.5	30.	62.25	175.
85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	19	1.2	1.259	2.38	0.3	0.232	0.482	0.4	1.06	1.42	2.1

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0089

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	2	0.10	4	0	0.00	3	0	0.00	9	1	0.11	4	1	0.25
00406	PH, FIELD	Fresh Chronic	9.	19	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	3	0	0.00
		Other-Lo Lim.	6.5	19	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	3	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	20	0	0.00	3	0	0.00	3	0	0.00	10	0	0.00	4	0	0.00
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	8	0	0.00	1	0	0.00				5	0	0.00	2	0	0.00
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
71855	NITRITE NITROGEN, TOTAL (AS NO2)	Drinking Water	3.3	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	14	4	0.29	1	0	0.00	1	0	0.00	9	3	0.33	3	1	0.33

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0090

NPS Station ID: TUMA0090 LAT/LON: 31.561944/-111.046389 Agency: 112WRD Date Created: / /
Location: SANTA CRUZ RIVER AT SANTA GERTRUDIS LANE FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 313343110024701
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3265 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0090

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/04/97-11/04/97	1	10.	10.	10.	10.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/04/97-11/04/97	1	14.5	14.5	14.5	14.5	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/04/97-11/04/97	1	20.1	20.1	20.1	20.1	0.	0.	**	**	**	**
00025	BAROMETRIC PRESSURE (MM OF HG)	11/04/97-11/04/97	1	681.	681.	681.	681.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/04/97-11/04/97	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	11/04/97-11/04/97	1	705.	705.	705.	705.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	11/04/97-11/04/97	1	6.4	6.4	6.4	6.4	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	11/04/97-11/04/97	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	11/04/97-11/04/97	1	7.9	7.9	7.9	7.9	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/04/97-11/04/97	1	0.013	0.013	0.013	0.013	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	11/04/97-11/04/97	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	11/04/97-11/04/97	1	7.1	7.1	7.1	7.1	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/04/97-11/04/97	1	0.079	0.079	0.079	0.079	0.	0.	**	**	**	**
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	11/04/97-11/04/97	1	0.	0.	0.	0.	0.	0.	**	**	**	**
00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	11/04/97-11/04/97	1	288.	288.	288.	288.	0.	0.	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	11/04/97-11/04/97	1	9.19	9.19	9.19	9.19	0.	0.	**	**	**	**
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	11/04/97-11/04/97	1	0.188	0.188	0.188	0.188	0.	0.	**	**	**	**
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	11/04/97-11/04/97	1	8.6	8.6	8.6	8.6	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	11/04/97-11/04/97	1	9.8	9.8	9.8	9.8	0.	0.	**	**	**	**
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	11/04/97-11/04/97	1	1.45	1.45	1.45	1.45	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	11/04/97-11/04/97	1	3.13	3.13	3.13	3.13	0.	0.	**	**	**	**
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	11/04/97-11/04/97	1	2.79	2.79	2.79	2.79	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	11/04/97-11/04/97	1	3.01	3.01	3.01	3.01	0.	0.	**	**	**	**
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/04/97-11/04/97	1	4.7	4.7	4.7	4.7	0.	0.	**	**	**	**
00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/04/97-11/04/97	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	11/04/97-11/04/97	1	64.3	64.3	64.3	64.3	0.	0.	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	11/04/97-11/04/97	1	10.7	10.7	10.7	10.7	0.	0.	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	11/04/97-11/04/97	1	54.3	54.3	54.3	54.3	0.	0.	**	**	**	**
00935	POTASSIUM, DISSOLVED (MG/L AS K)	11/04/97-11/04/97	1	7.22	7.22	7.22	7.22	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	11/04/97-11/04/97	1	33.7	33.7	33.7	33.7	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	11/04/97-11/04/97	1	71.5	71.5	71.5	71.5	0.	0.	**	**	**	**
00950	FLUORIDE, DISSOLVED (MG/L AS F)	11/04/97-11/04/97	1	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00955	SILICA, DISSOLVED (MG/L AS SI02)	11/04/97-11/04/97	1	35.8	35.8	35.8	35.8	0.	0.	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/04/97-11/04/97	1	7.	7.	7.	7.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	11/04/97-11/04/97	1	42.9	42.9	42.9	42.9	0.	0.	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/04/97-11/04/97	1	4.	4.	4.	4.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0090

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01035	COBALT, DISSOLVED (UG/L AS CO)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	11/04/97-11/04/97	1	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	11/04/97-11/04/97	1	60.	60.	60.	60.	0.	0.	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	11/04/97-11/04/97	1	139.	139.	139.	139.	0.	0.	**	**	**	**
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/04/97-11/04/97	1	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	11/04/97-11/04/97	1	19.5	19.5	19.5	19.5	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	11/04/97-11/04/97	1	10.	10.	10.	10.	0.	0.	**	**	**	**
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/04/97-11/04/97	1	7.	7.	7.	7.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
22703	URANIUM, NATURAL, DISSOLVED	11/04/97-11/04/97	1	4.87	4.87	4.87	4.87	0.	0.	**	**	**	**
30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.105	0.105	0.105	0.105	0.	0.	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
32106	CHLOROFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34253	A-BHC-ALPHA DISSUG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
34418	METHYL CHLORIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
34571	1,4-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34653	P,P'-DDE DISSUG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.135	0.135	0.135	0.135	0.	0.	**	**	**	**
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38478	LINURON WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38482	MCPA WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
38487	MCPB WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38501	METHIOCARB WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
38538	PROPOXUR WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38711	BENTAZON WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0090

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
38746	2,4-DB WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38811	FLUOMETURON WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38866	OXAMYL WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38933	CHLORPYRIFOS,DISSOLVED UG/L	11/04/97-11/04/97	1	0.023	0.023	0.023	0.023	0.	0.	**	**	**	**
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	11/04/97-11/04/97	1	236.	236.	236.	236.	0.	0.	**	**	**	**
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/04/97-11/04/97	1	0.013	0.013	0.013	0.013	0.	0.	**	**	**	**
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1	0.008	0.008	0.008	0.008	0.	0.	**	**	**	**
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1	0.107	0.107	0.107	0.107	0.	0.	**	**	**	**
39632	ATRAZINE DISSOLVED IN WATER PPB	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	11/04/97-11/04/97	1	426.	426.	426.	426.	0.	0.	**	**	**	**
71870	BROMIDE (MG/L AS BR)	11/04/97-11/04/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	1 ##	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	1 ##	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**
77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0090

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.095	0.095	0.095	0.095	0.	0.	**	**	**	**
77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	11/04/97-11/04/97	1	37.	37.	37.	37.	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.55	0.55	0.55	0.55	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	11/04/97-11/04/97	1	-51.5	-51.5	-51.5	-51.5	0.	0.	**	**	**	**
82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	11/04/97-11/04/97	1	-7.06	-7.06	-7.06	-7.06	0.	0.	**	**	**	**
82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.009	0.009	0.009	0.009	0.	0.	**	**	**	**
82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	11/04/97-11/04/97	1	689.	689.	689.	689.	0.	0.	**	**	**	**
90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	11/04/97-11/04/97	1	176.	176.	176.	176.	0.	0.	**	**	**	**
91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/04/97-11/04/97	1	113.	113.	113.	113.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0090

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	1	125.	125.	125.	125.	0.	0.	**	**	**	**
91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	1	94.	94.	94.	94.	0.	0.	**	**	**	**
99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	1	106.	106.	106.	106.	0.	0.	**	**	**	**
99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	1	90.	90.	90.	90.	0.	0.	**	**	**	**
99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	1	76.	76.	76.	76.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0090

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00				1	0	0.00						
00400	PH	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	1	0	0.00				1	0	0.00						
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00				1	0	0.00						
		Drinking Water	250.	1	0	0.00				1	0	0.00						
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00				1	0	0.00						
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	1	0	0.00				1	0	0.00						
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00				1	0	0.00						
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00				1	0	0.00						
		Drinking Water	4.	1	0	0.00				1	0	0.00						
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00				1	0	0.00						
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00				1	0	0.00						
		Drinking Water	1300.	1	0	0.00				1	0	0.00						
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00				1	0	0.00						
		Drinking Water	15.	1	0	0.00				1	0	0.00						
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00				1	0	0.00						
		Drinking Water	5000.	1	0	0.00				1	0	0.00						
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	1	0	0.00				1	0	0.00						
		Drinking Water	6.	1	0	0.00				1	0	0.00						
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVE	Drinking Water	4.	1	0	0.00				1	0	0.00						
22703	URANIUM, NATURAL DISSOLVED	Drinking Water	20.	1	0	0.00				1	0	0.00						
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE E	Fresh Acute	17500.	1	0	0.00				1	0	0.00						
		Drinking Water	1000.	1	0	0.00				1	0	0.00						
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00				1	0	0.00						
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0090

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00				1	0	0.00						
		Drinking Water	700.	1	0	0.00				1	0	0.00						
34396	HEXACHLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00				1	0	0.00						
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34475	TETRACHLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00				1	0	0.00						
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00				1	0	0.00						
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00				1	0	0.00						
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00				1	0	0.00						
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00				1	0	0.00						
34653	P,P'-DDE, DISSOLVED	Fresh Acute	1050.	1	0	0.00				1	0	0.00						
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00				1	0	0.00						
38866	OXAMYL, DISSOLVED	Drinking Water	200.	1	0	0.00				1	0	0.00						
38933	CHLORPYRIFOS, DISSOLVED	Fresh Acute	0.083	1	0	0.00				1	0	0.00						
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00				1	0	0.00						
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
39341	GAMMA-BHC(LINDANE), DISSOLVED	Fresh Acute	2.	1	0	0.00				1	0	0.00						
		Drinking Water	0.2	1	0	0.00				1	0	0.00						
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	2.5	1	0	0.00				1	0	0.00						
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	0.065	1	0	0.00				1	0	0.00						
39632	ATRAZINE DISSOLVED IN WATER	Drinking Water	3.	1	0	0.00				1	0	0.00						
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	1	0	0.00				1	0	0.00						
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	70.	1	0	0.00				1	0	0.00						
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	50.	1	0	0.00				1	0	0.00						
46342	ALACHLOR (LASSO), WATER, DISSOLVED	Drinking Water	2.	1	0	0.00				1	0	0.00						
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	1	0	0.00				1	0	0.00						
77651	1,2-DIBROMOETHANE, WHOLE WATER	Drinking Water	0.05	1	0	0.00				1	0	0.00						
82625	DIBROMOCHLOROPROPANE, WATER, TOTAL RECOV	Drinking Water	0.2	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0091

NPS Station ID: TUMA0091 | LAT/LON: 31.576389/-111.046666 | Agency: 11NPSWRD | Date Created: 12/31/99
Location: SANTA CRUZ RIVER AT TUBAC | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM | STORET Station ID(s): TUMA_USFWS_6
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301056100.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.00 | On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE TUBAC 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER AT TUBAC; AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK. DATA FOR THIS SITE ARE FROM "CONTAMINANTS AS A LIMITING FACTOR OF FISH AND WILDLIFE POPULATIONS IN THE SANTA CRUZ RIVER; ARIZONA" BY K.A. KING; B.J. ZAUN; AND A.L. VELASCO. THE STUDY IS PART OF THE U.S. FISH AND WILDLIFE SERVICE (USFWS); REGION 2 CONTAMINANTS PROGRAM AND WAS RELEASED IN OCTOBER 1999. THE STUDY SAMPLED WATER; SEDIMENT; INVERTEBRATES; FISH AND BIRDS FROM TWO SITES ABOVE THE NOGALES INTERNATIONAL WASTEWATER TREATMENT PLANT (NIWWTP) AND FIVE SITES BELOW THE NIWWTP. FOR MORE INFORMATION CONTACT THE USFWS; ARIZONA ECOLOGICAL SERVICES FIELD OFFICE; 2321 W. ROYAL PALM ROAD; SUITE 103; PHEONIX; ARIZONA; 85021. TEL (602) 242-0210. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAKRIDGE DR. SUITE 250 FORT COLLINS; CO; 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0091

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	05/30/97-05/30/97	1	23.8	23.8	23.8	23.8	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	05/30/97-05/30/97	1	7.4	7.4	7.4	7.4	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	05/30/97-05/30/97	1	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
00612	AMMONIA, UNIONZED (MG/L AS N)	05/30/97-05/30/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	1	12.1	12.1	12.1	12.1	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	1 ##	0.255	0.255	0.255	0.255	0.	0.	**	**	**	**
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	05/30/97-05/30/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	9874.	9874.	9874.	9874.	0.	0.	**	**	**	**
50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	8.51	8.51	8.51	8.51	0.	0.	**	**	**	**
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	138.	138.	138.	138.	0.	0.	**	**	**	**
50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.97	0.97	0.97	0.97	0.	0.	**	**	**	**
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	1.06	1.06	1.06	1.06	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	38.6	38.6	38.6	38.6	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	45.4	45.4	45.4	45.4	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	15690.	15690.	15690.	15690.	0.	0.	**	**	**	**
50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3237.	3237.	3237.	3237.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	531.	531.	531.	531.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.87	0.87	0.87	0.87	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0091

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	12.4	12.4	12.4	12.4	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	32.4	32.4	32.4	32.4	0.	0.	**	**	**	**
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	61.	61.	61.	61.	0.	0.	**	**	**	**
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	19.2	19.2	19.2	19.2	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	98.1	98.1	98.1	98.1	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0091

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400	PH	Fresh Chronic	9.	1	0	0.00										1	0	0.00
		Other-Lo Lim.	6.5	1	0	0.00										1	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0092

NPS Station ID: TUMA0092 | LAT/LON: 31.583000/-111.099999 | Agency: 11NPSWRD | Date Created: 12/31/99
Location: ALISO SPRINGS AT HEAD OF ALISO CANYON | FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/SPRING | STORET Station ID(s): TUMA_NURE_SP5
RMI-Indexes: | Within Park Boundary: No
RMI-Miles:
HUC: 15050301 | Depth of Water: 0 | Aquifer:
Major Basin: COLORADO RIVER | Elevation: 0 | Water Body Id:
Minor Basin: GILA RIVER | ECO Region:
RF1 Index: 15050301 | RF1 Mile Point: 0.000 | Distance from RF1: 0.00 | On/Off RF1:
RF3 Index: 15050301056100.00 | RF3 Mile Point: 0.00 | Distance from RF3: 0.00 | On/Off RF3:
Description:
THE SITE IS LOCATED ON THE PENA BLANCA LAKE, ARIZ. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS AT PENA BLANCA SPRINGS AT RUBY ROAD SOUTH OF LAKE IN PENA BLANCA CANYON AND IS OUTSIDE THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. DATA ARE FROM THE "U.S. GEOLOGICAL SURVEY NATIONAL GEOCHEMICAL DATABASE: NATIONAL URANIUM RESOURCE EVALUATION DATA FOR THE CONTERMINOUS UNITED STATES" 1994 CD-ROM BY J.D. HOFFMAN AND K. BUTTLEMAN (USGS DIGITAL DATA SERIES DDS-18-A). THE DATA BASE INCLUDES SEDIMENT; SOIL; SURFACE WATER; AND GROUND WATER DATA. THE "UNIQID" FIELD ENTRY WAS USED TO CREATE THE SECONDARY STATION NAME. THE "LASLID" (LOS ALAMOS SCIENTIFIC LABORATORY SAMPLE NUMBER) FIELD ENTRY WAS USED TO CREATE THE STATION LOCATION. THE SAMPLES WERE ANALYZED BY LOS ALAMOS SCIENTIFIC LABORATORY. DATA WERE PROCESED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS CO 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0092

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	03/07/80-03/07/80	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	03/07/80-03/07/80	1	330.	330.	330.	330.	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	03/07/80-03/07/80	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	03/07/80-03/07/80	1	7.5	7.5	7.5	7.5	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	03/07/80-03/07/80	1	0.032	0.032	0.032	0.032	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	03/07/80-03/07/80	1	3.3	3.3	3.3	3.3	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	03/07/80-03/07/80	1	37.	37.	37.	37.	0.	0.	**	**	**	**
01085	VANADIUM, DISSOLVED (UG/L AS V)	03/07/80-03/07/80	1	5.2	5.2	5.2	5.2	0.	0.	**	**	**	**
50700	FLUORINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	1	208.	208.	208.	208.	0.	0.	**	**	**	**
50761	BROMINE, DISSOLVED, FILTERED WATER SAMPLE UG/L	03/07/80-03/07/80	1	56.2	56.2	56.2	56.2	0.	0.	**	**	**	**
82039	DISSOLVED-SODIUM UG/L (AS NA)	03/07/80-03/07/80	1	32180.	32180.	32180.	32180.	0.	0.	**	**	**	**
82041	HELIUM, DISSOLVED IN WATER (UG/L AS HE)	03/07/80-03/07/80	1	6100.	6100.	6100.	6100.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0092

Parameter	Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00400 PH	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
	Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0093

NPS Station ID: TUMA0093
LAT/LON: 31.612056/-111.040028
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ RIVER AT TUBAC
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000023883/SC05 /SC0S /D-21-13 8C
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 0.60
On/Off RF1:
RF3 Index: 15050301000806.05
RF3 Mile Point: 6.05
Distance from RF3: 0.08
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0093

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	07/27/84-07/27/84	1	25.	25.	25.	25.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	07/27/84-07/27/84	1	27.5	27.5	27.5	27.5	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	07/27/84-07/27/84	1	495.	495.	495.	495.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	07/27/84-07/27/84	1	546.	546.	546.	546.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	07/27/84-07/27/84	1	6.6	6.6	6.6	6.6	0.	0.	**	**	**	**
00400	PH (STANDARD UNITS)	07/27/84-07/27/84	1	7.81	7.81	7.81	7.81	0.	0.	**	**	**	**
00400	CONVERTED PH (STANDARD UNITS)	07/27/84-07/27/84	1	7.81	7.81	7.81	7.81	0.	0.	**	**	**	**
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	07/27/84-07/27/84	1	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	07/27/84-07/27/84	1	516.	516.	516.	516.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	07/27/84-07/27/84	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	07/27/84-07/27/84	1	1.47	1.47	1.47	1.47	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	07/27/84-07/27/84	1	1.4	1.4	1.4	1.4	0.	0.	**	**	**	**
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	07/27/84-07/27/84	1	0.44	0.44	0.44	0.44	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	07/27/84-07/27/84	1	372.	372.	372.	372.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	07/27/84-07/27/84	1	3.85	3.85	3.85	3.85	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	07/27/84-07/27/84	1	170.	170.	170.	170.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0093

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00	1	0	0.00									
00400	PH	Fresh Chronic	9.	1	0	0.00	1	0	0.00									
		Other-Lo Lim.	6.5	1	0	0.00	1	0	0.00									
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	1	0	0.00	1	0	0.00									
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	1	1.00	1	1	1.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0094

NPS Station ID: TUMA0094
LAT/LON: 31.612778/-111.040833
Agency: 112WRD
Date Created: / /
Location: SANTA CRUZ RIVER AT TUBAC, AZ.
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 09481740
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 3180
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index:
RF1 Mile Point: 0.000
Distance from RF1: 0.00
On/Off RF1:
RF3 Index: 15050301056100.00
RF3 Mile Point: 0.00
Distance from RF3: 0.00
On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	10/11/95-09/10/97	26	20.	29.846	230.	5.	2338.275	48.356	7.95	10.75	22.25	62.4
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	10/11/95-11/04/97	26	22.1	20.792	26.5	12.2	16.941	4.116	14.14	17.1	24.15	25.69
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	10/11/95-11/04/97	23	26.3	25.543	33.5	9.5	37.864	6.153	13.6	25.	29.	32.26
00025	BAROMETRIC PRESSURE (MM OF HG)	10/11/95-11/04/97	26	679.	679.423	685.	675.	5.054	2.248	677.	678.	681.	682.3
00061	FLOW, STREAM, INSTANTANEOUS CFS	10/11/95-11/04/97	27	15.	23.947	182.	0.42	1260.317	35.501	2.57	8.3	24.	49.2
00065	STAGE, STREAM (FEET)	10/11/95-09/10/97	26	16.645	16.327	18.25	3.68	6.88	2.623	16.315	16.473	17.12	17.63
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	10/11/95-11/04/97	27	674.	632.704	743.	170.	20152.217	141.959	383.4	653.	699.	714.6
00300	OXYGEN, DISSOLVED MG/L	10/11/95-11/04/97	26	5.3	5.519	9.6	3.9	1.445	1.202	4.21	4.7	6.025	6.86
00400	PH (STANDARD UNITS)	10/11/95-11/04/97	27	7.8	7.83	8.1	7.3	0.024	0.154	7.7	7.8	7.9	8.02
00400	CONVERTED PH (STANDARD UNITS)	10/11/95-11/04/97	27	7.8	7.799	8.1	7.3	0.025	0.157	7.7	7.8	7.9	8.02
00400	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/11/95-11/04/97	27	0.016	0.016	0.05	0.008	0.	0.008	0.01	0.013	0.016	0.02
00403	PH, LAB, STANDARD UNITS SU	10/11/95-11/04/97	26	7.5	7.535	8.2	7.	0.112	0.335	7.	7.2	7.8	7.9
00403	CONVERTED PH, LAB, STANDARD UNITS	10/11/95-11/04/97	26	7.5	7.412	8.2	7.	0.128	0.357	7.	7.2	7.8	7.9
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	10/11/95-11/04/97	26	0.032	0.039	0.1	0.006	0.001	0.03	0.013	0.016	0.063	0.1
00452	CARBONATE,WATER,DISS,INCR TIT, FIELD, AS CO3, MG/L	10/11/95-11/04/97	27	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
00453	BICARBONATE,WATER,DISS,INCR TIT,FIELD,AS HCO3,MG/L	10/11/95-11/04/97	27	255.	240.407	289.	61.	3063.174	55.346	134.8	244.	266.	282.4
00572	BIOMASS, PERIPHYTON (GRAMS PER SQUARE METER)	01/17/96-01/17/96	1	198.6	198.6	198.6	198.6	0.	0.	**	**	**	**
00573	BIOMASS, PERIPHYTON,DRY WEIGHT TOTAL (G/M2)	01/17/96-01/17/96	1	241.3	241.3	241.3	241.3	0.	0.	**	**	**	**
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	10/11/95-11/04/97	26	1.005	1.6	6.1	0.02	3.173	1.781	0.042	0.11	2.18	4.774
00613	NITRITE NITROGEN, DISSOLVED (MG/L AS N)	10/11/95-11/04/97	26	0.175	0.203	0.535	0.005	0.026	0.16	0.01	0.064	0.305	0.469
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	10/11/95-11/04/97	26	1.9	2.222	6.5	0.1	3.808	1.951	0.1	0.245	3.425	5.46
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	10/11/95-11/04/97	25	2.9	3.738	21.	0.1	19.123	4.373	0.1	0.5	5.4	7.6
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	10/11/95-11/04/97	26	2.26	2.148	3.71	0.247	0.983	0.991	0.414	1.518	2.825	3.391
00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/11/95-11/04/97	25	1.4	1.737	6.43	0.15	2.294	1.515	0.175	0.705	2.15	3.9
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	10/11/95-11/04/97	26	1.05	1.077	2.2	0.14	0.433	0.658	0.175	0.545	1.62	2.123
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	10/11/95-11/04/97	26	0.86	0.931	2.	0.12	0.381	0.617	0.14	0.373	1.41	1.944
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	11/07/95-11/04/97	24	2.7	3.242	7.4	1.	3.361	1.833	1.15	1.825	3.9	6.85
00689	CARBON, SUSPENDED ORGANIC (MG/L AS C)	11/07/95-11/04/97	14	3.85	4.886	14.	1.3	12.881	3.589	1.4	2.45	7.275	11.7
00915	CALCIUM, DISSOLVED (MG/L AS CA)	10/11/95-11/04/97	26	71.	69.085	85.	19.	179.504	13.398	54.82	67.6	76.625	82.37
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	10/11/95-11/04/97	26	13.	12.687	16.7	2.9	7.876	2.806	9.755	12.	14.	16.06
00930	SODIUM, DISSOLVED (MG/L AS NA)	10/11/95-11/04/97	26	46.	44.515	55.	9.8	76.031	8.72	37.1	43.	49.25	52.15
00935	POTASSIUM, DISSOLVED (MG/L AS K)	10/11/95-11/04/97	26	4.95	4.951	7.5	2.9	1.373	1.172	3.17	4.225	5.668	6.646
00940	CHLORIDE,TOTAL IN WATER MG/L	10/11/95-11/04/97	26	25.55	25.562	32.4	3.5	32.511	5.702	21.05	24.	29.7	31.03
00945	SULFATE, TOTAL (MG/L AS SO4)	10/11/95-11/04/97	26	85.5	84.269	111.	12.	419.973	20.493	60.66	80.75	93.9	110.
00950	FLUORIDE, DISSOLVED (MG/L AS F)	10/11/95-11/04/97	26	0.6	0.562	0.7	0.2	0.01	0.098	0.4	0.575	0.6	0.6
00955	SILICA, DISSOLVED (MG/L AS SI02)	10/11/95-11/04/97	26	35.	33.488	37.2	14.	24.635	4.963	28.76	33.75	35.4	37.
01000	ARSENIC, DISSOLVED (UG/L AS AS)	11/04/97-11/04/97	1	7.	7.	7.	7.	0.	0.	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	11/04/97-11/04/97	1	52.9	52.9	52.9	52.9	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	11/04/97-11/04/97	1	2.9	2.9	2.9	2.9	0.	0.	**	**	**	**
01035	COBALT, DISSOLVED (UG/L AS CO)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	11/04/97-11/04/97	1	2.1	2.1	2.1	2.1	0.	0.	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	11/07/95-11/04/97	21	10.	16.071	40.	1.5	154.357	12.424	1.5	5.75	25.	38.
01049	LEAD, DISSOLVED (UG/L AS PB)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	10/11/95-11/04/97	26	37.	40.696	200.	0.5	1477.384	38.437	2.95	16.725	53.175	66.2
01060	MOLYBDENUM, DISSOLVED (UG/L AS MO)	11/04/97-11/04/97	1	6.8	6.8	6.8	6.8	0.	0.	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	11/04/97-11/04/97	1	13.7	13.7	13.7	13.7	0.	0.	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	11/04/97-11/04/97	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	11/04/97-11/04/97	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	11/04/97-11/04/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
04024	PROPACHLOR,DISSOLVED,WATER,TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
04028	BUTYLATE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04029	BROMACIL, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
04040	DEETHYL ATRAZINE,DISSOLVED,WATER,TOT REC UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
04041	CYANAZINE,DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
04095	FONOFOS, DISSOLVED, WATER, TOTAL RECOVERABLE UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
22703	URANIUM, NATURAL, DISSOLVED	11/04/97-11/04/97	1	6.72	6.72	6.72	6.72	0.	0.	**	**	**	**
30217	DIBROMOMETHANE, WATER, WHOLE, RECOVERABLE UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32101	BROMODICHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
32102	CARBON TETRACHLORIDE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
32103	1,2-DICHLOROETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
32104	BROMOFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.105	0.105	0.105	0.105	0.	0.	**	**	**	**
32105	DIBROMOCHLOROMETHANE,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
32106	CHLOROFORM,WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.(UG/L)	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34215	ACRYLONITRILE TOTWUG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34253	A-BHC-ALPHA DISSUG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
34301	CHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34311	CHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34371	ETHYLBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34396	HEXACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
34413	METHYL BROMIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
34418	METHYL CHLORIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34423	METHYLENE CHLORIDE TOTWUG/L	11/14/97-11/14/97	1 ##	0.4	0.4	0.4	0.4	0.	0.	**	**	**	**
34475	TETRACHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34488	TRICHLOROFLUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
34496	1,1-DICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34501	1,1-DICHLOROETHYLENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
34506	1,1,1-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34511	1,1,2-TRICHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
34516	1,1,2,2-TETRACHLOROETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.13	0.13	0.13	0.13	0.	0.	**	**	**	**
34536	1,2-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34541	1,2-DICHLOROPROPANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
34551	1,2,4-TRICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
34566	1,3-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
34571	1,4-DICHLOROBENZENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
34653	P,P'-DDE DISSUG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
34668	DICHLORODIFUOROMETHANE TOTWUG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
34696	NAPHTHALENE TOTWUG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
34699	TRANS-1,3-DICHLOROPROPENETOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.135	0.135	0.135	0.135	0.	0.	**	**	**	**
34704	CIS-1,3-DICHLOROPROPENE TOTAL IN WATER UG/L	11/14/97-11/14/97	1 ##	0.09	0.09	0.09	0.09	0.	0.	**	**	**	**
34790	SURFACTANTS, AS CTAS, WATER MG/L	05/07/96-05/07/96	1	8.6	8.6	8.6	8.6	0.	0.	**	**	**	**
34795	ANTIMONY,SED,BOT,	05/07/96-05/07/96	1	5.	5.	5.	5.	0.	0.	**	**	**	**
34800	ARSENIC,SED,BOT,WET SIEVE,	05/07/96-05/07/96	1	31.	31.	31.	31.	0.	0.	**	**	**	**
34805	BARIUM,SED,BOT,	05/07/96-05/07/96	1	690.	690.	690.	690.	0.	0.	**	**	**	**
34810	BERYLLIUM,SED,BOT,WET SIEVE,	05/07/96-05/07/96	1	3.	3.	3.	3.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
34816	BISMUTH,SED,BOT,WET SIEVE,	05/07/96-05/07/96	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
34825	CADMIUM,SED,BOT,	05/07/96-05/07/96	1	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
34830	CALCIUM,SED,BOT,	05/07/96-05/07/96	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
34835	CERIUM,SED,BOT,	05/07/96-05/07/96	1	150.	150.	150.	150.	0.	0.	**	**	**	**
34840	CHROMIUM,SED,BOT,	05/07/96-05/07/96	1	42.	42.	42.	42.	0.	0.	**	**	**	**
34845	COBALT,SED,BOT,	05/07/96-05/07/96	1	14.	14.	14.	14.	0.	0.	**	**	**	**
34850	COPPER,SED,BOT,	05/07/96-05/07/96	1	98.	98.	98.	98.	0.	0.	**	**	**	**
34855	EUROPIUM,SED,BOT,	05/07/96-05/07/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
34860	GALLIUM,SED,BOT,	05/07/96-05/07/96	1	22.	22.	22.	22.	0.	0.	**	**	**	**
34870	GOLD,SED,BOT,	05/07/96-05/07/96	1 ##	4.	4.	4.	4.	0.	0.	**	**	**	**
34875	HOLMIUM,SED,BOT,	05/07/96-05/07/96	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
34880	IRON,SED,BOT,	05/07/96-05/07/96	1	3.8	3.8	3.8	3.8	0.	0.	**	**	**	**
34885	LANTHANUM,SED,BOT,	05/07/96-05/07/96	1	87.	87.	87.	87.	0.	0.	**	**	**	**
34890	LEAD,SED,BOT,	05/07/96-05/07/96	1	85.	85.	85.	85.	0.	0.	**	**	**	**
34895	LITHIUM,SED,BOT,	05/07/96-05/07/96	1	60.	60.	60.	60.	0.	0.	**	**	**	**
34900	MAGNESIUM,SED,BOT,	05/07/96-05/07/96	1	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
34905	MANGANESE,SED,BOT,	05/07/96-05/07/96	1	760.	760.	760.	760.	0.	0.	**	**	**	**
34910	MERCURY,SED,BOT,	05/07/96-05/07/96	1	0.33	0.33	0.33	0.33	0.	0.	**	**	**	**
34915	MOLYBDENUM,SED,BOT,	05/07/96-05/07/96	1	2.	2.	2.	2.	0.	0.	**	**	**	**
34920	NEODYMIUM,SED,BOT,	05/07/96-05/07/96	1	65.	65.	65.	65.	0.	0.	**	**	**	**
34925	NICKEL,SED,BOT,	05/07/96-05/07/96	1	28.	28.	28.	28.	0.	0.	**	**	**	**
34930	NIOBIUM,SED,BOT,	05/07/96-05/07/96	1	20.	20.	20.	20.	0.	0.	**	**	**	**
34935	PHOSPHORUS,SED,BOT,	05/07/96-05/07/96	1	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
34940	POTASSIUM,SED,BOT,	05/07/96-05/07/96	1	2.	2.	2.	2.	0.	0.	**	**	**	**
34945	SCANDIUM,SED,BOT,	05/07/96-05/07/96	1	15.	15.	15.	15.	0.	0.	**	**	**	**
34950	SELENIUM,SED,BOT,	05/07/96-05/07/96	1	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
34955	SILVER,SED,BOT,	05/07/96-05/07/96	1	1.9	1.9	1.9	1.9	0.	0.	**	**	**	**
34960	SODIUM,SED,BOT,	05/07/96-05/07/96	1	1.2	1.2	1.2	1.2	0.	0.	**	**	**	**
34965	STRONTIUM,SED,BOT,	05/07/96-05/07/96	1	220.	220.	220.	220.	0.	0.	**	**	**	**
34970	SULFUR,SED,BOT,	05/07/96-05/07/96	1	0.26	0.26	0.26	0.26	0.	0.	**	**	**	**
34975	TANTALUM,SED,BOT,	05/07/96-05/07/96	1 ##	20.	20.	20.	20.	0.	0.	**	**	**	**
34980	THORIUM,SED,BOT,	05/07/96-05/07/96	1	33.	33.	33.	33.	0.	0.	**	**	**	**
34985	TIN,SED,BOT,	05/07/96-05/07/96	1	5.	5.	5.	5.	0.	0.	**	**	**	**
35000	URANIUM,SED,BOT,	05/07/96-05/07/96	1	8.	8.	8.	8.	0.	0.	**	**	**	**
35005	VANADIUM,SED,BOT,	05/07/96-05/07/96	1	66.	66.	66.	66.	0.	0.	**	**	**	**
35010	YTTRIUM,SED,BOT,	05/07/96-05/07/96	1	43.	43.	43.	43.	0.	0.	**	**	**	**
35015	YTTERBIUM,SED,BOT,	05/07/96-05/07/96	1	4.	4.	4.	4.	0.	0.	**	**	**	**
35020	ZINC,SED,BOT,	05/07/96-05/07/96	1	250.	250.	250.	250.	0.	0.	**	**	**	**
38442	DICAMBA (BANVEL) WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38478	LINURON WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38482	MCPA WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
38487	MCPB WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38501	METHIOCARB WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
38538	PROPOXUR WATER,DISSUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38711	BENTAZON WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
38746	2,4-DB WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38811	FLUOMETURON WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
38866	OXAMYL WATER, DISUG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
38933	CHLORPYRIFOS,DISSOLVED UG/L	11/04/97-11/04/97	1	0.014	0.014	0.014	0.014	0.	0.	**	**	**	**
39086	ALKALINITY,WATER,DISS,INCR TIT,FIELD,AS CACO3,MG/L	10/11/95-11/04/97	27	209.	197.111	237.	50.	2058.795	45.374	110.4	200.	218.	231.4
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE-UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
39341	GAMMA-BHC(LINDANE),DISSOLVED,UG/L	11/04/97-11/04/97	1	0.006	0.006	0.006	0.006	0.	0.	**	**	**	**
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39415	METOLACHLOR, WATER, DISSOLVED UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39532	MALATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1	0.006	0.006	0.006	0.006	0.	0.	**	**	**	**
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
39572	DIAZINON IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1	0.07	0.07	0.07	0.07	0.	0.	**	**	**	**
39632	ATRAZINE DISSOLVED IN WATER PPB	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE(UG/L)	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39742	2,4,5-T IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
46342	ALACHLOR (LASSO), WATER, DISSOLVED UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49235	TRICLOPYR,RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49236	PROPHAM, RECOVERABLE,WATER,FILTER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49237	ALUMINUM, DRY WEIGHT, TISSUE/BIOTA,RECV UG/G	05/07/96-05/07/96	2	242.5	242.5	470.	15.	103512.5	321.734	**	**	**	**
49238	BARIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	8.55	8.55	12.	5.1	23.805	4.879	**	**	**	**
49239	BORON, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	1.4	1.4	1.6	1.2	0.08	0.283	**	**	**	**
49240	CHROMIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	1.8	1.8	2.1	1.5	0.18	0.424	**	**	**	**
49241	COPPER, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	3.45	3.45	4.2	2.7	1.125	1.061	**	**	**	**
49242	IRON, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	294.5	294.5	500.	89.	84460.5	290.621	**	**	**	**
49243	MANGANESE, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	45.5	45.5	62.	29.	544.5	23.335	**	**	**	**
49244	STRONTIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	54.	54.	66.	42.	288.	16.971	**	**	**	**
49245	ZINC, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	102.5	102.5	130.	75.	1512.5	38.891	**	**	**	**
49246	ANTIMONY, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
49247	ARSENIC, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	0.85	0.85	1.1	0.6	0.125	0.354	**	**	**	**
49248	BERYLLIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
49249	CADMIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
49250	COBALT, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	0.25	0.25	0.3	0.2	0.005	0.071	**	**	**	**
49251	LEAD, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	1.	1.	1.4	0.6	0.32	0.566	**	**	**	**
49252	MOLYBDENUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2 ##	0.15	0.15	0.2	0.1	0.005	0.071	**	**	**	**
49253	NICKEL, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	1.2	1.2	1.4	1.	0.08	0.283	**	**	**	**
49254	SELENIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	1.8	1.8	2.3	1.3	0.5	0.707	**	**	**	**
49255	SILVER, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
49257	URANIUM, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2 ##	0.15	0.15	0.2	0.1	0.005	0.071	**	**	**	**
49258	MERCURY, DRY WEIGHT, TISSUE/BIOTA, RECV UG/G	05/07/96-05/07/96	2	0.5	0.5	0.6	0.4	0.02	0.141	**	**	**	**
49260	ACETOCHLOR, RECOVERABLE, WATER, FILTERED UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
49261	ALPHA-BHC,D6, WET WT.,TISSUE,WHOLE ORG,RECV %	05/07/96-05/07/96	1	76.	76.	76.	76.	0.	0.	**	**	**	**
49264	BIPHENYL,3,5-DICHLORO-,WET WT,TISS,WHL ORG,RECV %	05/07/96-05/07/96	1	64.	64.	64.	64.	0.	0.	**	**	**	**
49266	CARBON,ORGANIC,DRY WEIGHT,SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	1	2.9	2.9	2.9	2.9	0.	0.	**	**	**	**
49267	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/07/96-05/07/96	1	3.2	3.2	3.2	3.2	0.	0.	**	**	**	**
49269	CARBON,INORGANIC, DRY WT, SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	1	0.38	0.38	0.38	0.38	0.	0.	**	**	**	**
49270	CARBON,INORGANIC, DRY WT,SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
49271	CARBON,ORGANIC,DRY WT,SEDIMENT,RECV,SIEVE	05/07/96-05/07/96	1	6.9	6.9	6.9	6.9	0.	0.	**	**	**	**
49272	CARBON,ORGANIC+INORGANIC,DRYWT,RECV,SIEVE	05/07/96-05/07/96	1	7.2	7.2	7.2	7.2	0.	0.	**	**	**	**
49273	WATER PRESENT,DRY WT,TISSUE/BIOTA,LIVER,RECV UG/G	05/07/96-05/07/96	2	74.5	74.5	76.	73.	4.5	2.121	**	**	**	**
49274	TITANIUM, DRY WT, SIEVE	05/07/96-05/07/96	1	0.32	0.32	0.32	0.32	0.	0.	**	**	**	**
49275	ALPHA-BHC,D6, DRY WT,SIEVE	05/07/96-05/07/96	1	50.	50.	50.	50.	0.	0.	**	**	**	**
49276	OCTACHLOROBIPHENYL,DRY WT,SIEVE	05/07/96-05/07/96	1	46.	46.	46.	46.	0.	0.	**	**	**	**
49277	BIPHENYL,3,5-DICHLORO-,DRY WT,SIEVE	05/07/96-05/07/96	1	56.	56.	56.	56.	0.	0.	**	**	**	**
49278	TERPHENYL,D14-,DRY WT,SIEVE	05/07/96-05/07/96	1	95.	95.	95.	95.	0.	0.	**	**	**	**
49279	BIPHENYL, 2-FLUORO,DRY WT,SIEVE	05/07/96-05/07/96	1	78.	78.	78.	78.	0.	0.	**	**	**	**
49280	BENZENE,NITRO-,D5,DRY WT,SIEVE	05/07/96-05/07/96	1	120.	120.	120.	120.	0.	0.	**	**	**	**
49289	LIPIDS, WET WEIGHT, TISSUE, WHOLE ORGANISM,RECV %	05/07/96-05/07/96	1	12.	12.	12.	12.	0.	0.	**	**	**	**
49291	PICLORAM,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49292	ORYZALIN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49293	NORFLURAZON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49294	NEBURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49296	METHOMYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49297	FENURON,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49299	CRESOL,O-,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49300	DIURON, RECV,FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49301	DINOSEB, RECV, FILTERED, WATER, GF, 0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49302	DICHLORPROP,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49303	DICHLOBENIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49304	DACTHAL, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49305	CLOPYRALID,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
49306	CHLOROTHALONIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49308	HYDROXYCARBOFURAN,3-,RECV,FILT,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49309	CARBOFURAN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.015	0.015	0.015	0.015	0.	0.	**	**	**	**
49310	CARBARYL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
49311	BROMOXYNIL,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49312	ALDICARB, RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49313	ALDICARB SULFONE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**
49314	ALDICARB SULFOXIDE,RECV,FILTERED,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.01	0.01	0.01	0.01	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
49315	ACIFLUORFEN,RECV,FILTERED,WATER,GF,0.7U UG/L	11/04/97-11/04/97	1 ##	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
49316	NONACHLOR,CIS-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49317	NONACHLOR,TRANS-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49318	OXYCHLORDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49319	ALDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49320	CHLORDANE, CIS-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49321	CHLORDANE,TRANS-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49322	CHLORONEB,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49324	DCPA,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49325	DDD,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49326	DDD,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49327	DDE,O,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49328	DDE,P,P'-,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1	1.	1.	1.	1.	0.	0.	**	**	**	**
49329	DDT,O,P'-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
49330	DDT,P,P'-,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
49331	DIELDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49332	ENDOSULFAN I,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49335	ENDRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
49338	ALPHA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49339	BETA-BHC,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49341	HEPTACHLOR,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49342	HEPTACHLOR EPOXIDE,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49343	HEXACHLOROBENZENE,DRY WT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49344	ISODRIN,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49345	LINDANE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49346	METHOXYCHLOR,P,P'-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49347	METHOXYCHLOR,O,P'-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49348	MIREX,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49349	PERMETHRIN,CIS-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49350	PERMETHRIN,TRANS-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49351	TOXAPHENE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	100.	100.	100.	100.	0.	0.	**	**	**	**
49353	ALDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49354	PCB, WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1	120.	120.	120.	120.	0.	0.	**	**	**	**
49355	TOXAPHENE, WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	100.	100.	100.	100.	0.	0.	**	**	**	**
49356	PENTACHLOROANISOLE,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49357	OXYCHLORDANE,WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49358	NONACHLOR,TRANS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1	23.	23.	23.	23.	0.	0.	**	**	**	**
49359	NONACHLOR,CIS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49360	MIREX,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49361	METHOXYCHLOR,P,P'-,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49362	METHOXYCHLOR,O,P'-,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49363	LINDANE,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49364	DELTA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49365	BETA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49366	ALPHA-BHC,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49367	HEXACHLOROBENZENE,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49368	HEPTACHLOR EPOXIDE,WET WT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49369	HEPTACHLOR,WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49370	ENDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	4.5	4.5	4.5	4.5	0.	0.	**	**	**	**
49371	DIELDRIN,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49372	DDE,P,P',WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1	46.	46.	46.	46.	0.	0.	**	**	**	**
49373	DDE,O,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49374	DDD,O,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49375	DDD,P,P'-,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1	20.	20.	20.	20.	0.	0.	**	**	**	**
49376	DDT,P,P',WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49377	DDT,O,P',WET WT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49378	DCPA,WET WEIGHT,TISSUE,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49379	CHLORDANE,TRANS-,WET WT,TISS,WHOLE ORG,RECV UG/KG	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49380	CHLORDANE,CIS-,WET WEIGHT,TISS,WHOLE ORG,RECVUG/KG	05/07/96-05/07/96	1	12.	12.	12.	12.	0.	0.	**	**	**	**
49384	DIMETHYLPHTHALATE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49390	METHYLINDENO(1,2,3-CD)PYRENE,DRY WT,SEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49391	BIQUINOLINE,2,2'-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49392	QUINOLINE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
49393	PHENANTHRIDINE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49394	ISOQUINOLINE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49395	TOLUENE, 2,4-DINITRO-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49396	TOLUENE, 2,6-DINITRO-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49398	METHYL-9H-FLUORENE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49399	FLUORENE,9H-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49400	ISOPHORONE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49401	METHANE, BIS(2-CHLOROETHOXY),DRY WT,SEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49402	NAPHTHALENE, DRY WEIGHT, SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49403	NAPHTHALENE, 1,2-DIMETHYL-,DRY WT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49404	NAPHTHALENE, 1,6-DIMETHYL-,DRY WT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49405	NAPHTHALENE, 2,3,6-TRIMETHYL-,DRY WT,SEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49407	NAPHTHALENE, 2-CHLORO-,DRY WT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49408	BENZO(G,H,I)PERYLENE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49409	PHENANTHRENE,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
49410	METHYLPHENANTHRENE,DRY WT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49411	CYCLOPENTA(DEF)PHENANTHRENE, 4H-,DRY WT,SEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49421	XYLENOL, 3,5-,DRY WEIGHT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49422	M-CRESOL, 4-CHLORO-,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49424	PHENOL, C8-ALKYL-,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49428	ACENAPHTHYLENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49429	ACENAPHTHENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49430	ACRIDINE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49431	N-NITROSO-DIPROPYLAMINE,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49433	N-NITROSO-DIPHENYLAMINE,DRY WT,SED,SEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49434	ANTHRACENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49437	ANTHRAQUINONE, 9, 10-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49438	BENZENE, 1,2,4-TRICHLORO-,DRY WT,SED,SEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49439	BENZENE, O-DICHLORO-,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49441	BENZENE, M-DICHLORO-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49442	BENZENE, P-DICHLORO-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49443	AZOBENZENE,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49444	BENZENE, NITRO-,DRY WT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49446	BENZENE,PENTACHLORONITRO-,DRY WT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49449	CARBAZOLE,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49451	P-CRESOL,DRY WEIGHT,SEDIMENT,SIEVE	05/07/96-05/07/96	1	570.	570.	570.	570.	0.	0.	**	**	**	**
49452	DIBENZOTHIOPHENE,DRY WEIGHT,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49454	BROMOPHENYL, 4-PHENYL ETHER,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49455	CHLOROPHENYL,4-PHENYL ETHER,SED,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49459	PCB,DRY WEIGHT,BED MATERIAL,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49460	PENTACHLOROANISOLE,DRY WT,BED MAT,SIEVE	05/07/96-05/07/96	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49461	DIBENZ(A,H)ANTHRACENE,DRY WT,SIEVE	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49465	VANADIUM,BIOTA,TISSUE,LIVER,DRY WEIGHT,RECV UG/G	05/07/96-05/07/96	2	1.15	1.15	1.8	0.5	0.845	0.919	**	**	**	**
49467	PHENOL, O-CHLORO,SED,BED MAT,WETSEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49468	BENZO(C)CINNOLINE,SED,BED MAT,WETSEV	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49948	NAPHTHALENE,2-ETHYL-,BEDMAT,WETSIEV,	05/07/96-05/07/96	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
49991	METHYL ACRYLATE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
49999	PREHNITENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50000	ISODURENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50002	BROMOETHENE, TOTAL RECOVERABLE, WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50004	PROPANE,2-ETHOXY-2-METHYL-, TOTALRECOV,WATER UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
50005	BUTANE,2-METHOXY-2-METHYL-, TOTAL RECV,WATER UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
50280	PURPOSE, SITE VISIT CODE	10/11/95-09/10/97	30	1001.	1204.367	3001.	1001.	371340.24	609.377	1001.	1001.	1001.25	2810.8
61188	CHLORAMBEN, METHYL ESTER, WATER FILT. RECOVER UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	10/11/95-11/04/97	26	436.	421.808	489.	132.	5078.002	71.26	368.7	420.25	451.	469.3
70331	SUSPENDED SED SIEVE DIAMETER,% FINER THAN .062MM	10/17/96-02/26/97	4	100.	100.	100.	100.	0.	0.	**	**	**	**
70957	CHLOROPHYLL-A,PERIPHYTON UG/L,CHROMO-FLUORO	01/17/96-01/17/96	1	300.	300.	300.	300.	0.	0.	**	**	**	**
70958	CHLOROPHYLL-B,PERIPHYTON UG/L,CHROMO-FLUORO	01/17/96-01/17/96	1	36.	36.	36.	36.	0.	0.	**	**	**	**
71870	BROMIDE (MG/L AS BR)	02/20/96-11/04/97	8	0.1	0.103	0.13	0.08	0.	0.018	**	**	**	**
73547	2-BUTENE, 1,4-DICHLORO- TOTWUG/L	11/14/97-11/14/97	1 ##	0.7	0.7	0.7	0.7	0.	0.	**	**	**	**
73570	2-PROPENOIC ACID, 2-METHYL-, ETHYL ESTER TOTWUG/L	11/14/97-11/14/97	1 ##	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
77093	CIS-1,2-DICHLOROETHYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77103	2-HEXANONE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.75	0.75	0.75	0.75	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
77135	O-XYLENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
77168	1,1-DICHLOROPROPENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
77170	2,2-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.08	0.08	0.08	0.08	0.	0.	**	**	**	**
77173	1,3-DICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77220	1-METHYL-2-ETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77221	1,2,3-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77222	1,2,4-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77223	ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
77224	N-PROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77226	1,3,5-TRIMETHYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77275	1-METHYL-2-CHLOROBENZENE (O-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.04	0.04	0.04	0.04	0.	0.	**	**	**	**
77277	1-METHYL-4-CHLOROBENZENE (P-CHLOR*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.055	0.055	0.055	0.055	0.	0.	**	**	**	**
77297	CHLOROBROMOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77342	N-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
77350	SEC-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77353	TERT-BUTYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.095	0.095	0.095	0.095	0.	0.	**	**	**	**
77356	1-METHYL-4-ISOPROPYLBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.11	0.11	0.11	0.11	0.	0.	**	**	**	**
77424	IODOMETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
77443	1,2,3-TRICHLOROPROPANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
77562	1,1,1,2-TETRACHLOROETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.045	0.045	0.045	0.045	0.	0.	**	**	**	**
77613	1,2,3-TRICHLOROBENZENE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
77651	1,2-DIBROMOETHANE WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
77652	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET*WHOLE WATER,UG/L	11/14/97-11/14/97	1 ##	0.03	0.03	0.03	0.03	0.	0.	**	**	**	**
78032	PROPANE, 2-METHOXY-2-METHYL- , WATER, WHOLE, UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
78109	ALLYLCHLORIDE,TOTAL,WHOLE WATER SAMPLE UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
78133	4-METHYL-2-PENTANONE IN WATER UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
80154	SUSP. SEDIMENT CONCENTRATION-EVAP. AT 110C (MG/L)	10/11/95-11/04/97	25	40.	350.76	6410.	1.	1620588.357	1273.023	6.8	18.	100.	526.4
80164	BED MATERIAL SIEVE DIAMETER,% FINER THAN .062MM	05/07/96-05/07/96	1	2.	2.	2.	2.	0.	0.	**	**	**	**
81552	ACETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
81555	BROMOBENZENE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.035	0.035	0.035	0.035	0.	0.	**	**	**	**
81576	DIETHYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.15	0.15	0.15	0.15	0.	0.	**	**	**	**
81577	DIISOPROPYL ETHER WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
81593	METHACRYLONITRILE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.55	0.55	0.55	0.55	0.	0.	**	**	**	**
81595	METHYL ETHYL KETONE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.5	1.5	1.5	1.5	0.	0.	**	**	**	**
81597	METHYL METHACRYLATE WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
81607	TETRAHYDROFURAN WHL WATER SMPL UG/L	11/14/97-11/14/97	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
82082	DEUTERIUM/PROTIUM (H-2/H-1) STABLE ISOTOPE RATIO	12/12/95-11/04/97	9	-54.3	-46.067	-14.8	-56.9	308.165	17.555	-14.8	-33.8	-55.75	-56.9
82085	OXYGEN-18/OXYGEN-16 STABLE ISOTOPE RATIO PER MIL	12/12/95-11/04/97	9	-7.52	-6.466	-2.95	-7.66	3.993	1.998	-2.95	-5.	-7.565	-7.66
82625	DIBROMOCHLOROPROPANE, WATER,TOTAL RECOVERABLE,UG/L	11/14/97-11/14/97	1 ##	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
82630	METRIBUZIN (SENCOR), WATER, DISSOLVED UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82660	DIETHYLANILINE, 2, 6-,0.7UM FILT,TOT RECV,WTR UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82661	TRIFLURALINE, 0.7UM FILT,TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82663	ETHALFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82664	PHORATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82665	TERBACIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.004	0.004	0.004	0.004	0.	0.	**	**	**	**
82666	LINURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82667	METHYL PARATHION,0.7 UM FILT,TOT RECV,WATER UG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
82668	EPTC, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82669	PEBULATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82670	TEBUTHIURON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.005	0.005	0.005	0.005	0.	0.	**	**	**	**
82671	MOLINATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82672	ETHOPROP, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82673	BENFLURALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82674	CARBOFURAN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82675	TERBUFOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82676	PRONAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82677	DISULFOTON, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.009	0.009	0.009	0.009	0.	0.	**	**	**	**
82678	TRIALLATE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82679	PROPANIL, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82681	THIOBENCARB, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82682	DCPA, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82683	PENDIMETHALIN, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**
82684	NAPROPAMIDE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.002	0.002	0.002	0.002	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0094

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
82685	PROPARGITE, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.007	0.007	0.007	0.007	0.	0.	**	**	**	**
82686	METHYL AZINPHOS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.001	0.001	0.001	0.001	0.	0.	**	**	**	**
82687	PERMETHRIN, CIS, 0.7 UM FILT, TOT RECV, WATER UG/L	11/04/97-11/04/97	1 ##	0.003	0.003	0.003	0.003	0.	0.	**	**	**	**
85795	XYLENE, META & PARA, WATER, WHOLE UG/L	11/14/97-11/14/97	1 ##	0.065	0.065	0.065	0.065	0.	0.	**	**	**	**
90095	SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEG C	10/11/95-11/04/97	26	665.5	640.038	721.	244.	9625.718	98.111	554.	633.75	691.	704.9
90410	ACID NEUTRALIZING CAPACITY (ANC), MG/L AS CACO3	10/11/95-11/04/97	26	197.	198.231	242.	99.	924.985	30.414	164.8	191.5	216.25	231.7
91063	DIAZINON D10, SURROGATE, WATER, FILTERED RECOVER %	11/04/97-11/04/97	1	109.	109.	109.	109.	0.	0.	**	**	**	**
91064	TERBUTHYLAZINE, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	1	120.	120.	120.	120.	0.	0.	**	**	**	**
91065	HCH, ALPHA D6, SURROGATE, WATER, FILT., RECOVER %	11/04/97-11/04/97	1	93.	93.	93.	93.	0.	0.	**	**	**	**
99832	ETHANE 1,2-DICHLORO,D4-,SURROGATE,VOC,UNFILT., %	11/14/97-11/14/97	1	106.	106.	106.	106.	0.	0.	**	**	**	**
99833	TOLUENE, D8, SURROGATE, VOC SCHEDULES, UNFILT., %	11/14/97-11/14/97	1	91.	91.	91.	91.	0.	0.	**	**	**	**
99834	BENZENE, 1,4-BROMO FLUORO-,VOC SCHED., UNFILT., %	11/14/97-11/14/97	1	78.	78.	78.	78.	0.	0.	**	**	**	**
99835	BDMC, SURROGATE WATER, UNFILTERED, RECOVERABLE %	11/04/97-11/04/97	1	114.	114.	114.	114.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0094

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	26	2	0.08	7	0	0.00	5	0	0.00	10	2	0.20	4	0	0.00
00400	PH	Fresh Chronic	9.	27	0	0.00	8	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
		Other-Lo Lim.	6.5	27	0	0.00	8	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
00403	PH, LAB	Fresh Chronic	9.	26	0	0.00	7	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
		Other-Lo Lim.	6.5	26	0	0.00	7	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	26	0	0.00	8	0	0.00	5	0	0.00	9	0	0.00	4	0	0.00
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	26	0	0.00	8	0	0.00	5	0	0.00	9	0	0.00	4	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	26	0	0.00	7	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
		Drinking Water	250.	26	0	0.00	7	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	26	0	0.00	7	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	26	0	0.00	7	0	0.00	5	0	0.00	10	0	0.00	4	0	0.00
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
01005	BARIUM, DISSOLVED	Drinking Water	2000.	1	0	0.00				1	0	0.00						
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	1	0	0.00				1	0	0.00						
		Drinking Water	4.	1	0	0.00				1	0	0.00						
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	1	0	0.00				1	0	0.00						
01040	COPPER, DISSOLVED	Fresh Acute	18.	1	0	0.00				1	0	0.00						
		Drinking Water	1300.	1	0	0.00				1	0	0.00						
01049	LEAD, DISSOLVED	Fresh Acute	82.	1	0	0.00				1	0	0.00						
		Drinking Water	15.	1	0	0.00				1	0	0.00						
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01075	SILVER, DISSOLVED	Fresh Acute	4.1	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
01090	ZINC, DISSOLVED	Fresh Acute	120.	1	0	0.00				1	0	0.00						
		Drinking Water	5000.	1	0	0.00				1	0	0.00						
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	1	0	0.00				1	0	0.00						
		Drinking Water	6.	1	0	0.00				1	0	0.00						
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1	0	0.00				1	0	0.00						
		Drinking Water	50.	1	0	0.00				1	0	0.00						
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVE	Drinking Water	4.	1	0	0.00				1	0	0.00						
22703	URANIUM, NATURAL DISSOLVED	Drinking Water	20.	1	0	0.00				1	0	0.00						
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0094

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	1	0	0.00				1	0	0.00						
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	1	0	0.00				1	0	0.00						
		Drinking Water	100.	1	0	0.00				1	0	0.00						
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	1	0	0.00				1	0	0.00						
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	1	0	0.00				1	0	0.00						
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	1	0	0.00				1	0	0.00						
		Drinking Water	700.	1	0	0.00				1	0	0.00						
34396	HEXACHLOROETHANE, TOTAL	Fresh Acute	980.	1	0	0.00				1	0	0.00						
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34475	TETRACHLOROETHYLENE, TOTAL	Fresh Acute	5280.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	1	0	0.00				1	0	0.00						
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	1	0	0.00				1	0	0.00						
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	1	0	0.00				1	0	0.00						
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	1	0	0.00				1	0	0.00						
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	1	0	0.00				1	0	0.00						
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	1	0	0.00				1	0	0.00						
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	1	0	0.00				1	0	0.00						
34653	P,P'-DDE, DISSOLVED	Fresh Acute	1050.	1	0	0.00				1	0	0.00						
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	1	0	0.00				1	0	0.00						
38866	OXAMYL, DISSOLVED	Drinking Water	200.	1	0	0.00				1	0	0.00						
38933	CHLORPYRIFOS, DISSOLVED	Fresh Acute	0.083	1	0	0.00				1	0	0.00						
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	2.	1	0	0.00				1	0	0.00						
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	1	0	0.00				1	0	0.00						
		Drinking Water	5.	1	0	0.00				1	0	0.00						
39341	GAMMA-BHC(LINDANE), DISSOLVED	Fresh Acute	2.	1	0	0.00				1	0	0.00						
		Drinking Water	0.2	1	0	0.00				1	0	0.00						
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	2.5	1	0	0.00				1	0	0.00						
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	0.065	1	0	0.00				1	0	0.00						
39632	ATRAZINE DISSOLVED IN WATER	Drinking Water	3.	1	0	0.00				1	0	0.00						
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	1	0	0.00				1	0	0.00						
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	70.	1	0	0.00				1	0	0.00						
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	50.	1	0	0.00				1	0	0.00						
46342	ALACHLOR (LASSO), WATER, DISSOLVED	Drinking Water	2.	1	0	0.00				1	0	0.00						
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	1	0	0.00				1	0	0.00						
77651	1,2-DIBROMOETHANE, WHOLE WATER	Drinking Water	0.05	1	0	0.00				1	0	0.00						
82625	DIBROMOCHLOROPROPANE, WATER, TOTAL RECOV	Drinking Water	0.2	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0095

NPS Station ID: TUMA0095
LAT/LON: 31.613056/-111.040833
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ RIVER AT TUBAC BRIDGE
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): SC16 /D21-13-08ccd/GR-SC16
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301008
RF1 Mile Point: 9.200
Distance from RF1: 0.00
On/Off RF1: ON
RF3 Index: 15050301036700.00
RF3 Mile Point: 3.71
Distance from RF3: 0.05
On/Off RF3:
Description:
ELEVATION 3178 FEET MSL. SITE IS LOCATED AT TUBAC BRIDGE, LEFT BANK, IMMEDIATELY D.S. OF BRIDGE. THIS STRETCH OF THE RIVER IS NOT EFFLUENT DOMINATED. T21S R13E SEC 08 ccd. "TUBAC QUADRANGLE" 7.5 MINUTE QUAD MAP. REFERENCE FILE WQMS-175.700.270.

Parameter Inventory for Station: TUMA0095

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/05/92-01/05/92	1	15.5	15.5	15.5	15.5	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/05/92-01/05/92	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00055	VELOCITY, STREAM FT/SEC	01/05/92-01/05/92	1	1.8	1.8	1.8	1.8	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/05/92-01/05/92	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	01/05/92-01/05/92	1	0.3	0.3	0.3	0.3	0.	0.	**	**	**	**
00065	STAGE, STREAM (FEET)	01/05/92-01/05/92	1	20.	20.	20.	20.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/05/92-01/05/92	1	622.	622.	622.	622.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	01/05/92-01/05/92	1	639.	639.	639.	639.	0.	0.	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	01/05/92-01/05/92	1	5.7	5.7	5.7	5.7	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	01/05/92-01/05/92	1	64.9	64.9	64.9	64.9	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	01/05/92-01/05/92	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	01/05/92-01/05/92	1	7.7	7.7	7.7	7.7	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/05/92-01/05/92	1	0.02	0.02	0.02	0.02	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	01/05/92-01/05/92	1	7.76	7.76	7.76	7.76	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	01/05/92-01/05/92	1	7.76	7.76	7.76	7.76	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/05/92-01/05/92	1	0.017	0.017	0.017	0.017	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	01/05/92-01/05/92	1	210.	210.	210.	210.	0.	0.	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	01/05/92-01/05/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	01/05/92-01/05/92	1	210.	210.	210.	210.	0.	0.	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	01/05/92-01/05/92	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	01/05/92-01/05/92	1	80.	80.	80.	80.	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/05/92-01/05/92	1	0.98	0.98	0.98	0.98	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	01/05/92-01/05/92	1	2.6	2.6	2.6	2.6	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	01/05/92-01/05/92	1	2.11	2.11	2.11	2.11	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	01/05/92-01/05/92	1	1.3	1.3	1.3	1.3	0.	0.	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	01/05/92-01/05/92	1	261.	261.	261.	261.	0.	0.	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	01/05/92-01/05/92	1	81.1	81.1	81.1	81.1	0.	0.	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	01/05/92-01/05/92	1	14.3	14.3	14.3	14.3	0.	0.	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	01/05/92-01/05/92	1	47.2	47.2	47.2	47.2	0.	0.	**	**	**	**
00937	POTASSIUM, TOTAL MG/L AS K)	01/05/92-01/05/92	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	01/05/92-01/05/92	1	29.	29.	29.	29.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	01/05/92-01/05/92	1	89.	89.	89.	89.	0.	0.	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	01/05/92-01/05/92	1	0.51	0.51	0.51	0.51	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0095

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01002	ARSENIC, TOTAL (UG/L AS AS)	01/05/92-01/05/92	1	7.	7.	7.	7.	0.	0.	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	01/05/92-01/05/92	1	93.	93.	93.	93.	0.	0.	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	01/05/92-01/05/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	01/05/92-01/05/92	1	100.	100.	100.	100.	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	01/05/92-01/05/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	01/05/92-01/05/92	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	01/05/92-01/05/92	1	12.	12.	12.	12.	0.	0.	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	01/05/92-01/05/92	1	2740.	2740.	2740.	2740.	0.	0.	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	01/05/92-01/05/92	1	6.	6.	6.	6.	0.	0.	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	01/05/92-01/05/92	1	202.	202.	202.	202.	0.	0.	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	01/05/92-01/05/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	01/05/92-01/05/92	1 ##	10.	10.	10.	10.	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	01/05/92-01/05/92	1 ##	5.	5.	5.	5.	0.	0.	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	01/05/92-01/05/92	1	498.	498.	498.	498.	0.	0.	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	01/05/92-01/05/92	1	28.	28.	28.	28.	0.	0.	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	01/05/92-01/05/92	1 ##	25.	25.	25.	25.	0.	0.	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	01/05/92-01/05/92	1 ##	2.5	2.5	2.5	2.5	0.	0.	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	01/05/92-01/05/92	1	420.	420.	420.	420.	0.	0.	**	**	**	**
71830	HYDROXIDE ION (MG/L AS OH)	01/05/92-01/05/92	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	01/05/92-01/05/92	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/05/92-01/05/92	1	72.	72.	72.	72.	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	01/05/92-01/05/92	1	34.	34.	34.	34.	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0095

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00							1	0	0.00			
		Other-Lo Lim.	6.5	1	0	0.00							1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00							1	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	1	0	0.00							1	0	0.00			
		Drinking Water	250.	1	0	0.00							1	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	1	0	0.00							1	0	0.00			
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	1	0	0.00							1	0	0.00			
01002	ARSENIC, TOTAL	Fresh Acute	360.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
01007	BARIUM, TOTAL	Drinking Water	2000.	1	0	0.00							1	0	0.00			
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	1	0	0.00							1	0	0.00			
		Drinking Water	4.	1	0	0.00							1	0	0.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	1	0	0.00							1	0	0.00			
		Drinking Water	5.	1	0	0.00							1	0	0.00			
01034	CHROMIUM, TOTAL	Drinking Water	100.	1	0	0.00							1	0	0.00			
01042	COPPER, TOTAL	Fresh Acute	18.	1	0	0.00							1	0	0.00			
		Drinking Water	1300.	1	0	0.00							1	0	0.00			
01051	LEAD, TOTAL	Fresh Acute	82.	1	0	0.00							1	0	0.00			
		Drinking Water	15.	1	0	0.00							1	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	2.	0 &	0	0.00												
01067	NICKEL, TOTAL	Fresh Acute	1400.	1	0	0.00							1	0	0.00			
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01077	SILVER, TOTAL	Fresh Acute	4.1	0 &	0	0.00												
		Drinking Water	100.	1	0	0.00							1	0	0.00			
01092	ZINC, TOTAL	Fresh Acute	120.	1	0	0.00							1	0	0.00			
		Drinking Water	5000.	1	0	0.00							1	0	0.00			
01097	ANTIMONY, TOTAL	Fresh Acute	88.	1	0	0.00							1	0	0.00			
		Drinking Water	6.	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0095

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01147	SELENIUM, TOTAL	Fresh Acute	20.	1	0	0.00							1	0	0.00			
		Drinking Water	50.	1	0	0.00							1	0	0.00			
71900	MERCURY, TOTAL	Fresh Acute	2.4	1	0	0.00							1	0	0.00			
		Drinking Water	2.	1	0	0.00							1	0	0.00			
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	1	1	1.00							1	1	1.00			
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	1	0	0.00							1	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0096

NPS Station ID: TUMA0096 LAT/LON: 31.613055/-111.040833 Agency: 21ARIZ Date Created: / /
Location: SCSCR077.06 (SANTA CRUZ R AT TUBAC BRIDGE) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100243
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3178 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301008 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0096

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	06/04/96-06/04/96	1	14.	14.	14.	14.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	06/04/96-06/04/96	1	16.	16.	16.	16.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	06/04/96-06/04/96	1	17.	17.	17.	17.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	06/04/96-06/04/96	1	4.19	4.19	4.19	4.19	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	06/04/96-06/04/96	1	0.35	0.35	0.35	0.35	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	06/04/96-06/04/96	1	677.	677.	677.	677.	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	06/04/96-06/04/96	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	06/04/96-06/04/96	1	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	06/04/96-06/04/96	1	0.05	0.05	0.05	0.05	0.	0.	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	10/24/95-10/24/95	1 ##	0.025	0.025	0.025	0.025	0.	0.	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	10/24/95-10/24/95	1	1.6	1.6	1.6	1.6	0.	0.	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	10/24/95-10/24/95	1	0.55	0.55	0.55	0.55	0.	0.	**	**	**	**
31613	FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24HR	10/24/95-10/24/95	1	290.	290.	290.	290.	0.	0.	**	**	**	**
31613	LOG FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24	10/24/95-10/24/95	1	2.462	2.462	2.462	2.462	0.	0.	**	**	**	**
31613	GM FECAL COLIFORM,MEMBR FILTER,M-FC AGAR,44.5C,24H	GEOMETRIC MEAN =			290.								
85663	FLOW, RATE FT/SEC	06/04/96-06/04/96	1	0.62	0.62	0.62	0.62	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0096

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00										1	0	0.00
		Other-Lo Lim.	6.5	1	0	0.00										1	0	0.00
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	1	0	0.00				1	0	0.00						
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	1	1	1.00				1	1	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0097

NPS Station ID: TUMA0097
LAT/LON: 31.626667/-111.040000
Agency: 21ARIZ
Date Created: / /
Location: SANTA CRUZ R-AT TUBAC COUNTRY CL
FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM
STORET Station ID(s): 800000000026390/SC 036
RMI-Indexes:
Within Park Boundary: No
RMI-Miles:
HUC: 15050301
Depth of Water: 0
Aquifer:
Major Basin: COLORADO RIVER
Elevation: 0
Water Body Id:
Minor Basin: GILA RIVER
ECO Region:
RF1 Index: 15050301
RF1 Mile Point: 0.000
Distance from RF1: 1.50
On/Off RF1:
RF3 Index: 15050301050000.00
RF3 Mile Point: 0.00
Distance from RF3: 0.01
On/Off RF3:
Description:
LAT 31 37'36", LONG 111 02'24", SW1/4 SW1/4, SEC 5, T21S, R13E, SANTA CRUZ CO, 1.3 KM (0.8 MI) NORTH OF TUBAC ON INTERSTATE 19, 1.5 KM (0.9 MI) EAST ON ROAD THROUGH DEVELOPMENT TO RIVER, AT OLD FORD, 5O M (55 YDS) UPSTREAM FROM GOLF CART BRIDGE, 44.6 KM (27.7 MI) DOWNSTREAM FROM INTERNATIONAL BOUNDARY, 263.9 KM (164 MI) UPSTREAM FROM CONFLUENCE WITH GILA RIVER.

Parameter Inventory for Station: TUMA0097

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	04/04/73-04/27/73	6	21.	21.667	26.	17.	10.167	3.189	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	04/06/73-04/06/73	1	11.	11.	11.	11.	0.	0.	**	**	**	**
00310	BOD, 5 DAY, 20 DEG C MG/L	04/13/73-04/13/73	1	18.	18.	18.	18.	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	04/06/73-04/27/73	3	7.8	7.9	8.3	7.6	0.13	0.361	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	04/06/73-04/27/73	3	7.8	7.815	8.3	7.6	0.141	0.375	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	04/06/73-04/27/73	3	0.016	0.015	0.025	0.005	0.	0.01	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	3	198.	191.333	212.	164.	609.333	24.685	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	04/06/73-04/27/73	3	36.	31.	51.	6.	525.	22.913	**	**	**	**
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	04/27/73-04/27/73	1	1.	1.	1.	1.	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	04/27/73-04/27/73	1 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	04/06/73-04/27/73	3	0.6	0.8	1.2	0.6	0.12	0.346	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	04/06/73-04/27/73	3	284.	312.	380.	272.	3504.	59.195	**	**	**	**
00915	CALCIUM, DISSOLVED (MG/L AS CA)	04/06/73-04/27/73	3	98.	102.667	129.	81.	592.333	24.338	**	**	**	**
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	04/06/73-04/27/73	3	14.	13.333	17.	9.	16.333	4.041	**	**	**	**
00930	SODIUM, DISSOLVED (MG/L AS NA)	04/06/73-04/27/73	3	44.	44.	48.	40.	16.	4.	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	04/06/73-04/27/73	3	21.	22.	24.	21.	3.	1.732	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	04/06/73-04/27/73	3	150.	140.667	178.	94.	1829.333	42.771	**	**	**	**
31616	FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	74.	74.	136.	12.	7688.	87.681	**	**	**	**
31616	LOG FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	04/04/73-04/10/73	2	1.606	1.606	2.134	1.079	0.556	0.746	**	**	**	**
31616	GM FECAL COLIFORM,MEMBR FILTER,M-FC BROTH,44.5 C	GEOMETRIC MEAN =			40.398								
70301	SOLIDS, DISSOLVED-SUM OF CONSTITUENTS (MG/L)	04/06/73-04/27/73	3	412.	441.	521.	390.	4921.	70.15	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	04/06/73-04/27/73	3	4.	3.5	6.	0.5	7.75	2.784	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0097

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	1	0	0.00							1	0	0.00			
00403	PH, LAB	Fresh Chronic	9.	3	0	0.00							3	0	0.00			
		Other-Lo Lim.	6.5	3	0	0.00							3	0	0.00			
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	3	0	0.00							3	0	0.00			
		Drinking Water	250.	3	0	0.00							3	0	0.00			
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	3	0	0.00							3	0	0.00			
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	2	0	0.00							2	0	0.00			
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	3	0	0.00							3	0	0.00			

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0098

NPS Station ID: TUMA0098 LAT/LON: 31.639167/-111.048333 Agency: 21ARIZ Date Created: / /
Location: SANTA CRUZ RIVER NORTH OF CHAVES SIDING ROAD FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): SC17 /D20-13-31aca/GR-SCR-SC17
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301008 RF1 Mile Point: 5.600 Distance from RF1: 0.00 On/Off RF1: ON
RF3 Index: 15050301046200.00 RF3 Mile Point: 0.23 Distance from RF3: 0.05 On/Off RF3:
Description:
ELEVATION 3140 FEET MSL. T21S R13E SEC 31aca. "TUBAC, ARIZ." 7.5 MINUTE USGS QUAD MAP. THIS SAMPLING SITE IS IN SANTA CRUZ COUNTY, ON THE SANTA CRUZ RIVER, DUE EAST OF TUBAC, ARIZONA. IT IS 800 FEET NORTH OF CHAVES ROAD. THE SITE IS PART OF THE SANTA CRUZ RIVER INTENSIVE STUDY RUNNING FROM 11/92 TO 10/93. REFERENCE FILE WQMS-175.700.280.

Parameter Inventory for Station: TUMA0098

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	09/19/92-09/19/92	2	21.5	21.5	21.5	21.5	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	09/19/92-09/19/92	2	24.5	24.5	24.5	24.5	0.	0.	**	**	**	**
00055	VELOCITY, STREAM FT/SEC	09/19/92-09/19/92	2	1.1	1.1	1.1	1.1	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	09/19/92-09/19/92	2	30.	30.	30.	30.	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	09/19/92-09/19/92	2	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
00065	STAGE, STREAM (FEET)	09/19/92-09/19/92	2	55.	55.	55.	55.	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	09/19/92-09/19/92	2	653.	653.	653.	653.	0.	0.	**	**	**	**
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	09/19/92-09/19/92	2	670.5	670.5	683.	658.	312.5	17.678	**	**	**	**
00300	OXYGEN, DISSOLVED MG/L	09/19/92-09/19/92	2	7.3	7.3	7.3	7.3	0.	0.	**	**	**	**
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION %	09/19/92-09/19/92	2	93.4	93.4	93.4	93.4	0.	0.	**	**	**	**
00403	PH, LAB, STANDARD UNITS SU	09/19/92-09/19/92	2	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
00403	CONVERTED PH, LAB, STANDARD UNITS	09/19/92-09/19/92	2	8.1	8.1	8.1	8.1	0.	0.	**	**	**	**
00403	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/19/92-09/19/92	2	0.008	0.008	0.008	0.008	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	09/19/92-09/19/92	2	7.92	7.92	7.92	7.92	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	09/19/92-09/19/92	2	7.92	7.92	7.92	7.92	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	09/19/92-09/19/92	2	0.012	0.012	0.012	0.012	0.	0.	**	**	**	**
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	09/19/92-09/19/92	2	207.5	207.5	211.	204.	24.5	4.95	**	**	**	**
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	09/19/92-09/19/92	1 ##	1.	1.	1.	1.	0.	0.	**	**	**	**
00440	BICARBONATE ION (MG/L AS HCO3)	09/19/92-09/19/92	2	259.5	259.5	262.	257.	12.5	3.536	**	**	**	**
00445	CARBONATE ION (MG/L AS CO3)	09/19/92-09/19/92	2	1.5	1.5	2.	1.	0.5	0.707	**	**	**	**
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	09/19/92-09/19/92	2	17.	17.	19.	15.	8.	2.828	**	**	**	**
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	09/19/92-09/19/92	2 ##	0.075	0.075	0.1	0.05	0.001	0.035	**	**	**	**
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	09/19/92-09/19/92	1	0.88	0.88	0.88	0.88	0.	0.	**	**	**	**
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	09/19/92-09/19/92	2 ##	0.77	0.77	1.04	0.5	0.146	0.382	**	**	**	**
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	09/19/92-09/19/92	2	1.	1.	1.12	0.88	0.029	0.17	**	**	**	**
00665	PHOSPHORUS, TOTAL (MG/L AS P)	09/19/92-09/19/92	2	1.05	1.05	1.06	1.04	0.	0.014	**	**	**	**
00720	CYANIDE, TOTAL (MG/L AS CN) MG/L	09/19/92-09/19/92	2 ##	0.015	0.015	0.025	0.005	0.	0.014	**	**	**	**
00900	HARDNESS, TOTAL (MG/L AS CACO3)	09/19/92-09/19/92	2	253.5	253.5	256.	251.	12.5	3.536	**	**	**	**
00916	CALCIUM, TOTAL (MG/L AS CA)	09/19/92-09/19/92	2	78.95	78.95	82.7	75.2	28.125	5.303	**	**	**	**
00927	MAGNESIUM, TOTAL (MG/L AS MG)	09/19/92-09/19/92	2	15.75	15.75	17.3	14.2	4.805	2.192	**	**	**	**
00929	SODIUM, TOTAL (MG/L AS NA)	09/19/92-09/19/92	2	45.	45.	47.2	42.8	9.68	3.111	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

Parameter Inventory for Station: TUMA0098

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00937	POTASSIUM, TOTAL MG/L AS K)	09/19/92-09/19/92	2	5.82	5.82	6.19	5.45	0.274	0.523	**	**	**	**
00940	CHLORIDE,TOTAL IN WATER MG/L	09/19/92-09/19/92	2	26.	26.	26.	26.	0.	0.	**	**	**	**
00945	SULFATE, TOTAL (MG/L AS SO4)	09/19/92-09/19/92	2	108.	108.	112.	104.	32.	5.657	**	**	**	**
00951	FLUORIDE, TOTAL (MG/L AS F)	09/19/92-09/19/92	2	0.555	0.555	0.59	0.52	0.002	0.049	**	**	**	**
01000	ARSENIC, DISSOLVED (UG/L AS AS)	09/19/92-09/19/92	2 ##	5.5	5.5	6.	5.	0.5	0.707	**	**	**	**
01002	ARSENIC, TOTAL (UG/L AS AS)	09/19/92-09/19/92	2 ##	6.5	6.5	8.	5.	4.5	2.121	**	**	**	**
01005	BARIUM, DISSOLVED (UG/L AS BA)	09/19/92-09/19/92	2 ##	44.	44.	50.	38.	72.	8.485	**	**	**	**
01007	BARIUM, TOTAL (UG/L AS BA)	09/19/92-09/19/92	2 ##	49.5	49.5	50.	49.	0.5	0.707	**	**	**	**
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	09/19/92-09/19/92	2 ##	0.15	0.15	0.25	0.05	0.02	0.141	**	**	**	**
01012	BERYLLIUM, TOTAL (UG/L AS BE)	09/19/92-09/19/92	2 ##	0.15	0.15	0.25	0.05	0.02	0.141	**	**	**	**
01020	BORON, DISSOLVED (UG/L AS B)	09/19/92-09/19/92	2 ##	68.5	68.5	87.	50.	684.5	26.163	**	**	**	**
01022	BORON, TOTAL (UG/L AS B)	09/19/92-09/19/92	2 ##	76.	76.	102.	50.	1352.	36.77	**	**	**	**
01025	CADMIUM, DISSOLVED (UG/L AS CD)	09/19/92-09/19/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01027	CADMIUM, TOTAL (UG/L AS CD)	09/19/92-09/19/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	09/19/92-09/19/92	2 ##	3.25	3.25	5.	1.5	6.125	2.475	**	**	**	**
01034	CHROMIUM, TOTAL (UG/L AS CR)	09/19/92-09/19/92	2 ##	3.25	3.25	5.	1.5	6.125	2.475	**	**	**	**
01040	COPPER, DISSOLVED (UG/L AS CU)	09/19/92-09/19/92	2 ##	3.5	3.5	5.	2.	4.5	2.121	**	**	**	**
01042	COPPER, TOTAL (UG/L AS CU)	09/19/92-09/19/92	2 ##	4.5	4.5	5.	4.	0.5	0.707	**	**	**	**
01045	IRON, TOTAL (UG/L AS FE)	09/19/92-09/19/92	2	402.5	402.5	420.	385.	612.5	24.749	**	**	**	**
01046	IRON, DISSOLVED (UG/L AS FE)	09/19/92-09/19/92	2 ##	30.5	30.5	50.	11.	760.5	27.577	**	**	**	**
01049	LEAD, DISSOLVED (UG/L AS PB)	09/19/92-09/19/92	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01051	LEAD, TOTAL (UG/L AS PB)	09/19/92-09/19/92	2 ##	7.5	7.5	10.	5.	12.5	3.536	**	**	**	**
01055	MANGANESE, TOTAL (UG/L AS MN)	09/19/92-09/19/92	2	70.	70.	80.	60.	200.	14.142	**	**	**	**
01056	MANGANESE, DISSOLVED (UG/L AS MN)	09/19/92-09/19/92	2 ##	23.	23.	25.	21.	8.	2.828	**	**	**	**
01057	THALLIUM, DISSOLVED (UG/L AS TL)	09/19/92-09/19/92	2 ##	16.25	16.25	30.	2.5	378.125	19.445	**	**	**	**
01059	THALLIUM, TOTAL (UG/L AS TL)	09/19/92-09/19/92	2 ##	16.25	16.25	30.	2.5	378.125	19.445	**	**	**	**
01065	NICKEL, DISSOLVED (UG/L AS NI)	09/19/92-09/19/92	2 ##	26.	26.	50.	2.	1152.	33.941	**	**	**	**
01067	NICKEL, TOTAL (UG/L AS NI)	09/19/92-09/19/92	2 ##	26.	26.	50.	2.	1152.	33.941	**	**	**	**
01075	SILVER, DISSOLVED (UG/L AS AG)	09/19/92-09/19/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01077	SILVER, TOTAL (UG/L AS AG)	09/19/92-09/19/92	2 ##	0.5	0.5	0.5	0.5	0.	0.	**	**	**	**
01080	STRONTIUM, DISSOLVED (UG/L AS SR)	09/19/92-09/19/92	2	405.	405.	430.	380.	1250.	35.355	**	**	**	**
01082	STRONTIUM, TOTAL (UG/L AS SR)	09/19/92-09/19/92	2	388.	388.	450.	326.	7688.	87.681	**	**	**	**
01090	ZINC, DISSOLVED (UG/L AS ZN)	09/19/92-09/19/92	2 ##	13.75	13.75	25.	2.5	253.125	15.91	**	**	**	**
01092	ZINC, TOTAL (UG/L AS ZN)	09/19/92-09/19/92	2 ##	13.75	13.75	25.	2.5	253.125	15.91	**	**	**	**
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	09/19/92-09/19/92	2 ##	16.25	16.25	30.	2.5	378.125	19.445	**	**	**	**
01097	ANTIMONY, TOTAL (UG/L AS SB)	09/19/92-09/19/92	2 ##	16.25	16.25	30.	2.5	378.125	19.445	**	**	**	**
01145	SELENIUM, DISSOLVED (UG/L AS SE)	09/19/92-09/19/92	2 ##	13.75	13.75	25.	2.5	253.125	15.91	**	**	**	**
01147	SELENIUM, TOTAL (UG/L AS SE)	09/19/92-09/19/92	2 ##	13.75	13.75	25.	2.5	253.125	15.91	**	**	**	**
70300	RESIDUE,TOTAL FILTRABLE (DRIED AT 180C),MG/L	09/19/92-09/19/92	2	440.	440.	449.	431.	162.	12.728	**	**	**	**
71830	HYDROXIDE ION (MG/L AS OH)	09/19/92-09/19/92	1 ##	2.	2.	2.	2.	0.	0.	**	**	**	**
71890	MERCURY, DISSOLVED (UG/L AS HG)	09/19/92-09/19/92	2 ##	0.175	0.175	0.25	0.1	0.011	0.106	**	**	**	**
71900	MERCURY, TOTAL (UG/L AS HG)	09/19/92-09/19/92	2 ##	0.175	0.175	0.25	0.1	0.011	0.106	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	09/19/92-09/19/92	2	14.5	14.5	14.5	14.5	0.	0.	**	**	**	**
82079	TURBIDITY,LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	09/19/92-09/19/92	2	9.15	9.15	10.2	8.1	2.205	1.485	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0098

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	2	0	0.00	2	0	0.00									
00403	PH, LAB	Fresh Chronic	9.	2	0	0.00	2	0	0.00									
		Other-Lo Lim.	6.5	2	0	0.00	2	0	0.00									
00406	PH, FIELD	Fresh Chronic	9.	2	0	0.00	2	0	0.00									
		Other-Lo Lim.	6.5	2	0	0.00	2	0	0.00									
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	1	0	0.00	1	0	0.00									
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	2	0	0.00	2	0	0.00									
00720	CYANIDE, TOTAL	Fresh Acute	0.022	1 &	0	0.00	1	0	0.00									
		Drinking Water	0.2	2	0	0.00	2	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Station: TUMA0098

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	2	0	0.00	2	0	0.00									
		Drinking Water	250.	2	0	0.00	2	0	0.00									
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	2	0	0.00	2	0	0.00									
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	2	0	0.00	2	0	0.00									
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	2	0	0.00	2	0	0.00									
		Drinking Water	50.	2	0	0.00	2	0	0.00									
01002	ARSENIC, TOTAL	Fresh Acute	360.	2	0	0.00	2	0	0.00									
		Drinking Water	50.	2	0	0.00	2	0	0.00									
01005	BARIUM, DISSOLVED	Drinking Water	2000.	2	0	0.00	2	0	0.00									
01007	BARIUM, TOTAL	Drinking Water	2000.	2	0	0.00	2	0	0.00									
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	2	0	0.00	2	0	0.00									
		Drinking Water	4.	2	0	0.00	2	0	0.00									
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	2	0	0.00	2	0	0.00									
		Drinking Water	4.	2	0	0.00	2	0	0.00									
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	2	0	0.00	2	0	0.00									
		Drinking Water	5.	2	0	0.00	2	0	0.00									
01027	CADMIUM, TOTAL	Fresh Acute	3.9	2	0	0.00	2	0	0.00									
		Drinking Water	5.	2	0	0.00	2	0	0.00									
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	2	0	0.00	2	0	0.00									
01034	CHROMIUM, TOTAL	Drinking Water	100.	2	0	0.00	2	0	0.00									
01040	COPPER, DISSOLVED	Fresh Acute	18.	2	0	0.00	2	0	0.00									
		Drinking Water	1300.	2	0	0.00	2	0	0.00									
01042	COPPER, TOTAL	Fresh Acute	18.	2	0	0.00	2	0	0.00									
		Drinking Water	1300.	2	0	0.00	2	0	0.00									
01049	LEAD, DISSOLVED	Fresh Acute	82.	2	0	0.00	2	0	0.00									
		Drinking Water	15.	2	0	0.00	2	0	0.00									
01051	LEAD, TOTAL	Fresh Acute	82.	2	0	0.00	2	0	0.00									
		Drinking Water	15.	2	0	0.00	2	0	0.00									
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	2	0	0.00	2	0	0.00									
		Drinking Water	2.	0 &	0	0.00												
01059	THALLIUM, TOTAL	Fresh Acute	1400.	2	0	0.00	2	0	0.00									
		Drinking Water	2.	0 &	0	0.00												
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	2	0	0.00	2	0	0.00									
		Drinking Water	100.	2	0	0.00	2	0	0.00									
01067	NICKEL, TOTAL	Fresh Acute	1400.	2	0	0.00	2	0	0.00									
		Drinking Water	100.	2	0	0.00	2	0	0.00									
01075	SILVER, DISSOLVED	Fresh Acute	4.1	2	0	0.00	2	0	0.00									
		Drinking Water	100.	2	0	0.00	2	0	0.00									
01077	SILVER, TOTAL	Fresh Acute	4.1	2	0	0.00	2	0	0.00									
		Drinking Water	100.	2	0	0.00	2	0	0.00									
01090	ZINC, DISSOLVED	Fresh Acute	120.	2	0	0.00	2	0	0.00									
		Drinking Water	5000.	2	0	0.00	2	0	0.00									
01092	ZINC, TOTAL	Fresh Acute	120.	2	0	0.00	2	0	0.00									
		Drinking Water	5000.	2	0	0.00	2	0	0.00									
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	2	0	0.00	2	0	0.00									
		Drinking Water	6.	1 &	0	0.00	1	0	0.00									
01097	ANTIMONY, TOTAL	Fresh Acute	88.	2	0	0.00	2	0	0.00									
		Drinking Water	6.	1 &	0	0.00	1	0	0.00									
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	1 &	0	0.00	1	0	0.00									
		Drinking Water	50.	2	0	0.00	2	0	0.00									
01147	SELENIUM, TOTAL	Fresh Acute	20.	1 &	0	0.00	1	0	0.00									
		Drinking Water	50.	2	0	0.00	2	0	0.00									
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	2	0	0.00	2	0	0.00									
		Drinking Water	2.	2	0	0.00	2	0	0.00									
71900	MERCURY, TOTAL	Fresh Acute	2.4	2	0	0.00	2	0	0.00									
		Drinking Water	2.	2	0	0.00	2	0	0.00									
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	2	0	0.00	2	0	0.00									
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	2	0	0.00	2	0	0.00									

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0099

NPS Station ID: TUMA0099 LAT/LON: 31.641667/-111.042500 Agency: 11NPSWRD Date Created: 12/31/99
Location: SANTA CRUZ RIVER DOWNSTREAM OF CHAVES SIDING RD FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): TUMA_USFWS_7
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
THIS SITE IS LOCATED ON THE TUBAC 7.5 MINUTE SERIES (TOPO.) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER DOWNSTREAM OF CHAVES SIDING RD; AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK. DATA FOR THIS SITE ARE FROM "CONTAMINANTS AS A LIMITING FACTOR OF FISH AND WILDLIFE POPULATIONS IN THE SANTA CRUZ RIVER; ARIZONA" BY K.A. KING; B.J. ZAUN; AND A.L. VELASCO. THE STUDY IS PART OF THE U.S. FISH AND WILDLIFE SERVICE (USFWS); REGION 2 CONTAMINANTS PROGRAM AND WAS RELEASED IN OCTOBER 1999. THE STUDY SAMPLED WATER; SEDIMENT; INVERTEBRATES; FISH AND BIRDS FROM TWO SITES ABOVE THE NOGALES INTERNATIONAL WASTEWATER TREATMENT PLANT (NIWWTP) AND FIVE SITES BELOW THE NIWWTP. FOR MORE INFORMATION CONTACT THE USFWS; ARIZONA ECOLOGICAL SERVICES FIELD OFFICE; 2321 W. ROYAL PALM ROAD; SUITE 103; PHEONIX; ARIZONA; 85021. TEL (602) 242-0210. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAKRIDGE DR. SUITE 250 FORT COLLINS; CO; 80525. TEL (970) 225-3516.

Parameter Inventory for Station: TUMA0099

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
01003	ARSENIC IN BOTTOM DEPOSITS (MG/KG AS AS DRY WGT)	05/30/97-05/30/97	1	3.4	3.4	3.4	3.4	0.	0.	**	**	**	**
01148	SELENIUM IN BOTTOM DEPOSITS (MG/KG AS SE DRY WGT)	05/30/97-05/30/97	1 ##	0.255	0.255	0.255	0.255	0.	0.	**	**	**	**
50119	ALUMINUM, ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	3359.	3359.	3359.	3359.	0.	0.	**	**	**	**
50121	BORON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	4.4	4.4	4.4	4.4	0.	0.	**	**	**	**
50122	BARIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	80.3	80.3	80.3	80.3	0.	0.	**	**	**	**
50123	BERYLLIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.25	0.25	0.25	0.25	0.	0.	**	**	**	**
50125	CADMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
50127	CHROMIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	37.6	37.6	37.6	37.6	0.	0.	**	**	**	**
50128	COPPER,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	9.39	9.39	9.39	9.39	0.	0.	**	**	**	**
50129	IRON,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	4745.	4745.	4745.	4745.	0.	0.	**	**	**	**
50131	MAGNESIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	1384.	1384.	1384.	1384.	0.	0.	**	**	**	**
50132	MANGANESE,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	363.	363.	363.	363.	0.	0.	**	**	**	**
50133	MOLYBDENUM,ICAP TEST METHOD,SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1 ##	0.255	0.255	0.255	0.255	0.	0.	**	**	**	**
50135	NICKEL,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	8.16	8.16	8.16	8.16	0.	0.	**	**	**	**
50136	LEAD,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	9.99	9.99	9.99	9.99	0.	0.	**	**	**	**
50140	STRONTIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	32.6	32.6	32.6	32.6	0.	0.	**	**	**	**
50142	VANADIUM,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	9.58	9.58	9.58	9.58	0.	0.	**	**	**	**
50143	ZINC,ICAP TEST METHOD, SEDIMENT,TOTAL MG/KG	05/30/97-05/30/97	1	23.8	23.8	23.8	23.8	0.	0.	**	**	**	**
71921	MERCURY,TOT. IN BOT. DEPOS. (MG/KG AS HG DRY WGT)	05/30/97-05/30/97	1 ##	0.1	0.1	0.1	0.1	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

********** No EPA Water Quality Criteria exist to compare against the data at this station. **********

Station Inventory for Station: TUMA0100

NPS Station ID: TUMA0100 LAT/LON: 31.646280/-111.047910 Agency: 11NPSWRD Date Created: 12/31/99
Location: SANTA CRUZ RIVER AT CHAVES SIDING ROAD FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): TUMA_FOSCR_CS
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 0 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:
THE SITE IS LOCATED ON THE AMADO, ARIZ. 7.5 MINUTE SERIES (TOPOGRAPHIC) QUADRANGLE. THE SITE IS LOCATED IN THE SANTA CRUZ RIVER AT CHAVES SIDING ROAD AND IS OUTSIDE OF THE TUMACACORI NATIONAL HISTORICAL PARK BOUNDARIES. SAMPLING AT THIS STATION WAS CONDUCTED BY THE FRIENDS OF THE SANTA CRUZ RIVER VOLUNTEER ORGANIZATION AND FUNDED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AS A PART OF THE ADEQ SURFACE WATER QUALITY MONITORING PROGRAM. FOR MORE INFORMATION CONTACT MARK LARKIN (520) 398-8099. DATA WERE PROCESSED AND UPLOADED TO STORET BY CLINT BASSETT AT NPS-WRD; 1201 OAK RIDGE DRIVE SUITE 250; FORT COLLINS; COLORADO 80525. TEL (970) 225-3516. FAX (970) 225-9965

Parameter Inventory for Station: TUMA0100

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	01/27/98-12/28/99	19	29.	33.737	76.	16.	201.066	14.18	18.	25.	43.	53.
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	12.	12.262	21.	5.	24.69	4.969	6.2	7.5	17.	20.2
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	01/27/98-12/28/99	21	12.	12.119	25.	-1.	66.698	8.167	0.4	7.5	19.5	22.4
00061	FLOW, STREAM, INSTANTANEOUS CFS	01/27/98-12/28/99	19	17.04	21.082	83.6	3.9	385.76	19.641	4.23	7.44	21.22	58.
00064	DEPTH OF STREAM, MEAN (FT)	01/27/98-12/28/99	19	0.46	0.472	0.87	0.2	0.027	0.163	0.26	0.38	0.55	0.77
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	01/27/98-12/28/99	21	779.	734.048	1271.	172.	70489.748	265.499	250.8	582.5	908.5	972.4
00300	OXYGEN, DISSOLVED MG/L	02/24/98-12/28/99	20	6.65	6.435	8.	2.	1.887	1.374	4.87	5.925	7.5	7.97
00310	BOD, 5 DAY, 20 DEG C MG/L	01/27/98-12/28/99	18	23.	36.611	119.	1.	917.546	30.291	5.5	21.5	56.25	89.3
00406	PH, FIELD, STANDARD UNITS SU	01/27/98-12/28/99	19	7.6	7.521	8.	7.	0.063	0.251	7.1	7.3	7.7	7.8
00406	CONVERTED PH, FIELD, STANDARD UNITS	01/27/98-12/28/99	19	7.6	7.45	8.	7.	0.068	0.261	7.1	7.3	7.7	7.8
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	01/27/98-12/28/99	19	0.025	0.036	0.1	0.01	0.001	0.023	0.016	0.02	0.05	0.079
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	01/27/98-12/28/99	18	3.575	3.776	8.4	0.05	7.776	2.789	0.212	1.035	6.668	7.599
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	01/27/98-12/28/99	18	8.215	19.967	212.	0.9	2318.146	48.147	1.62	6.893	12.075	39.2
31673	FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	16	100.	3264.531	49200.	0.	150173781.849	12254.541	0.	6.25	353.75	15740.
31673	LOG FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	01/27/98-12/28/99	16	2.	1.794	4.692	0.	1.504	1.226	0.	0.774	2.535	3.61
31673	GM FECAL STREPTOCOCCI, MBR FILT,KF AGAR,35C,48HR	GEOMETRIC MEAN =			62.249								
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	01/27/98-12/28/99	20	0.	0.003	0.05	0.	0.	0.011	0.	0.	0.	0.
50064	CHLORINE, FREE AVAILABLE (MG/L)	12/29/98-08/31/99	8	0.	0.	0.	0.	0.	0.	**	**	**	**
71850	NITRATE NITROGEN,TOTAL (MG/L AS NO3)	01/27/98-12/28/99	18	2.9	3.239	6.8	0.1	2.703	1.644	1.63	1.975	4.6	5.99
71855	NITRITE NITROGEN,TOTAL (MG/L AS NO2)	01/27/98-12/28/99	18	0.1	0.154	0.5	0.02	0.016	0.128	0.047	0.088	0.2	0.41
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	01/27/98-12/28/99	14	32.	62.621	200.	15.	3823.822	61.837	17.5	25.75	99.75	182.1
85663	FLOW, RATE FT/SEC	01/27/98-12/28/99	19	0.925	0.966	1.6	0.3	0.163	0.403	0.3	0.7	1.3	1.53

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0100

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	20	1	0.05	4	0	0.00	3	0	0.00	9	0	0.00	4	1	0.25
00406	PH, FIELD	Fresh Chronic	9.	19	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	3	0	0.00
		Other-Lo Lim.	6.5	19	0	0.00	4	0	0.00	3	0	0.00	9	0	0.00	3	0	0.00
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	20	1	0.05	3	0	0.00	3	0	0.00	10	1	0.10	4	0	0.00
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	8	0	0.00	1	0	0.00				5	0	0.00	2	0	0.00
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
71855	NITRITE NITROGEN, TOTAL (AS NO2)	Drinking Water	3.3	18	0	0.00	4	0	0.00	3	0	0.00	8	0	0.00	3	0	0.00
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	14	4	0.29	1	0	0.00	1	0	0.00	9	3	0.33	3	1	0.33

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

Station Inventory for Station: TUMA0101

NPS Station ID: TUMA0101 LAT/LON: 31.648333/-111.048612 Agency: 21ARIZ Date Created: / /
Location: SCSCR081.34 (SANTA CRUZ R N OF CHAVES SIDING RD) FIPS State/County: 04023 ARIZONA/SANTA CRUZ
Station Type: /TYPA/AMBNT/STREAM STORET Station ID(s): 100244
RMI-Indexes: Within Park Boundary: No
RMI-Miles:
HUC: 15050301 Depth of Water: 0 Aquifer:
Major Basin: COLORADO RIVER Elevation: 3208 Water Body Id:
Minor Basin: GILA RIVER ECO Region:
RF1 Index: 15050301008 RF1 Mile Point: 0.000 Distance from RF1: 0.00 On/Off RF1:
RF3 Index: 15050301056100.00 RF3 Mile Point: 0.00 Distance from RF3: 0.00 On/Off RF3:
Description:

Parameter Inventory for Station: TUMA0101

Parameter		Period of Record	Obs	Median	Mean	Maximum	Minimum	Variance	Std. Dev.	10th	25th	75th	90th
00004	STREAM WIDTH (FEET)	11/28/95-11/28/95	1	46.	46.	46.	46.	0.	0.	**	**	**	**
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	11/28/95-11/28/95	1	5.	5.	5.	5.	0.	0.	**	**	**	**
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	11/28/95-11/28/95	1	-2.	-2.	-2.	-2.	0.	0.	**	**	**	**
00061	FLOW, STREAM, INSTANTANEOUS CFS	11/28/95-11/28/95	1	9.95	9.95	9.95	9.95	0.	0.	**	**	**	**
00064	DEPTH OF STREAM, MEAN (FT)	11/28/95-11/28/95	1	0.2	0.2	0.2	0.2	0.	0.	**	**	**	**
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	11/28/95-11/28/95	1	604.	604.	604.	604.	0.	0.	**	**	**	**
00406	PH, FIELD, STANDARD UNITS SU	11/28/95-11/28/95	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00406	CONVERTED PH, FIELD, STANDARD UNITS	11/28/95-11/28/95	1	7.8	7.8	7.8	7.8	0.	0.	**	**	**	**
00406	MICRO EQUIVALENTS/LITER OF H+ COMPUTED FROM PH	11/28/95-11/28/95	1	0.016	0.016	0.016	0.016	0.	0.	**	**	**	**
82078	TURBIDITY,FIELD NEPHELOMETRIC TURBIDITY UNITS,NTU	11/28/95-11/28/95	1	60.	60.	60.	60.	0.	0.	**	**	**	**
85663	FLOW, RATE FT/SEC	11/28/95-11/28/95	1	0.53	0.53	0.53	0.53	0.	0.	**	**	**	**

** - Less than 9 observations ## - Computed with 50% or more of the total observations as values that were half the detection limit p - Has a corresponding time series plot

EPA Water Quality Criteria Analysis for Station: TUMA0101

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00406	PH, FIELD	Fresh Chronic	9.	1	0	0.00				1	0	0.00						
		Other-Lo Lim.	6.5	1	0	0.00				1	0	0.00						
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	1	1	1.00				1	1	1.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Entire TUMA Study Area

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
00070	TURBIDITY, JACKSON CANDLE UNITS	Other-Hi Lim.	50.	40	6	0.15	12	4	0.33	6	2	0.33	18	0	0.00	4	0	0.00
00076	TURBIDITY, HACH TURBIDIMETER	Other-Hi Lim.	50.	7	5	0.71	1	1	1.00	3	3	1.00	2	1	0.50	1	0	0.00
00300	OXYGEN, DISSOLVED	Other-Lo Lim.	4.	519	79	0.15	105	5	0.05	61	0	0.00	233	32	0.14	120	42	0.35
00400	PH	Fresh Chronic	9.	109	0	0.00	33	0	0.00	16	0	0.00	43	0	0.00	17	0	0.00
		Other-Lo Lim.	6.5	109	4	0.04	33	1	0.03	16	0	0.00	43	3	0.07	17	0	0.00
00403	PH, LAB	Fresh Chronic	9.	343	1	0.00	76	0	0.00	46	1	0.02	176	0	0.00	45	0	0.00
		Other-Lo Lim.	6.5	343	15	0.04	76	1	0.01	46	0	0.00	176	12	0.07	45	2	0.04
00406	PH, FIELD	Fresh Chronic	9.	302	1	0.00	81	0	0.00	52	1	0.02	119	0	0.00	50	0	0.00
		Other-Lo Lim.	6.5	302	0	0.00	81	0	0.00	52	0	0.00	119	0	0.00	50	0	0.00
00613	NITRITE NITROGEN, DISSOLVED AS N	Drinking Water	1.	31	0	0.00	8	0	0.00	9	0	0.00	10	0	0.00	4	0	0.00
00615	NITRITE NITROGEN, TOTAL AS N	Drinking Water	1.	16	2	0.13							15	2	0.13	1	0	0.00
00618	NITRATE NITROGEN, DISSOLVED AS N	Drinking Water	10.	3	0	0.00				1	0	0.00	2	0	0.00			
00620	NITRATE NITROGEN, TOTAL AS N	Drinking Water	10.	5	0	0.00	2	0	0.00	2	0	0.00	1	0	0.00			
00630	NITRITE PLUS NITRATE, TOTAL 1 DET.	Drinking Water	10.	259	0	0.00	68	0	0.00	42	0	0.00	99	0	0.00	50	0	0.00
00631	NITRITE PLUS NITRATE, DISS. 1 DET.	Drinking Water	10.	53	1	0.02	14	0	0.00	13	0	0.00	18	1	0.06	8	0	0.00
00720	CYANIDE, TOTAL	Fresh Acute	0.022	27 &	4	0.15	8	1	0.13	4	0	0.00	12	3	0.25	3	0	0.00
		Drinking Water	0.2	28	0	0.00	9	0	0.00	4	0	0.00	12	0	0.00	3	0	0.00
00940	CHLORIDE,TOTAL IN WATER	Fresh Acute	860.	387	0	0.00	92	0	0.00	50	0	0.00	195	0	0.00	50	0	0.00
		Drinking Water	250.	387	0	0.00	92	0	0.00	50	0	0.00	195	0	0.00	50	0	0.00
00945	SULFATE, TOTAL (AS SO4)	Drinking Water	250.	391	24	0.06	92	8	0.09	52	0	0.00	197	16	0.08	50	0	0.00
00950	FLUORIDE, DISSOLVED AS F	Drinking Water	4.	73	0	0.00	15	0	0.00	14	0	0.00	35	0	0.00	9	0	0.00
00951	FLUORIDE, TOTAL AS F	Drinking Water	4.	237	1	0.00	68	1	0.01	35	0	0.00	98	0	0.00	36	0	0.00
00997	ARSENIC, INORGANIC TOT	Fresh Acute	360.	5	0	0.00							5	0	0.00			
		Drinking Water	50.	5	0	0.00							5	0	0.00			
01000	ARSENIC, DISSOLVED	Fresh Acute	360.	104	0	0.00	23	0	0.00	15	0	0.00	46	0	0.00	20	0	0.00
		Drinking Water	50.	104	0	0.00	23	0	0.00	15	0	0.00	46	0	0.00	20	0	0.00
01002	ARSENIC, TOTAL	Fresh Acute	360.	275	0	0.00	78	0	0.00	40	0	0.00	109	0	0.00	48	0	0.00
		Drinking Water	50.	275	4	0.01	78	2	0.03	40	0	0.00	109	2	0.02	48	0	0.00
01005	BARIUM, DISSOLVED	Drinking Water	2000.	104	0	0.00	23	0	0.00	15	0	0.00	46	0	0.00	20	0	0.00
01007	BARIUM, TOTAL	Drinking Water	2000.	262	2	0.01	73	2	0.03	40	0	0.00	105	0	0.00	44	0	0.00
01010	BERYLLIUM, DISSOLVED	Fresh Acute	130.	84	0	0.00	23	0	0.00	15	0	0.00	26	0	0.00	20	0	0.00
		Drinking Water	4.	84	0	0.00	23	0	0.00	15	0	0.00	26	0	0.00	20	0	0.00
01012	BERYLLIUM, TOTAL	Fresh Acute	130.	177	0	0.00	51	0	0.00	24	0	0.00	70	0	0.00	32	0	0.00
		Drinking Water	4.	177	2	0.01	51	1	0.02	24	0	0.00	70	1	0.01	32	0	0.00
01025	CADMIUM, DISSOLVED	Fresh Acute	3.9	101	1	0.01	23	1	0.04	15	0	0.00	42	0	0.00	21	0	0.00
		Drinking Water	5.	101	0	0.00	23	0	0.00	15	0	0.00	42	0	0.00	21	0	0.00
01026	CADMIUM, SUSPENDED	Fresh Acute	3.9	1 &	1	1.00							1	1	1.00			
		Drinking Water	5.	1 &	1	1.00							1	1	1.00			
01027	CADMIUM, TOTAL	Fresh Acute	3.9	260 &	26	0.10	74	15	0.20	37	0	0.00	105	11	0.10	44	0	0.00
		Drinking Water	5.	260 &	22	0.08	74	13	0.18	37	0	0.00	105	9	0.09	44	0	0.00
01030	CHROMIUM, DISSOLVED	Drinking Water	100.	102	0	0.00	23	0	0.00	14	0	0.00	46	0	0.00	19	0	0.00
01032	CHROMIUM, HEXAVALENT	Fresh Acute	16.	2	0	0.00				1	0	0.00				1	0	0.00
		Drinking Water	100.	2	0	0.00				1	0	0.00				1	0	0.00
01034	CHROMIUM, TOTAL	Drinking Water	100.	272	2	0.01	78	2	0.03	38	0	0.00	113	0	0.00	43	0	0.00
01040	COPPER, DISSOLVED	Fresh Acute	18.	100 &	2	0.02	23	1	0.04	15	0	0.00	42	1	0.02	20	0	0.00
		Drinking Water	1300.	104	0	0.00	23	0	0.00	15	0	0.00	46	0	0.00	20	0	0.00
01042	COPPER, TOTAL	Fresh Acute	18.	250 &	61	0.24	78	24	0.31	40	6	0.15	94	30	0.32	38	1	0.03
		Drinking Water	1300.	268	6	0.02	79	0	0.00	40	0	0.00	111	6	0.05	38	0	0.00
01049	LEAD, DISSOLVED	Fresh Acute	82.	104	0	0.00	23	0	0.00	15	0	0.00	46	0	0.00	20	0	0.00
		Drinking Water	15.	104	3	0.03	23	0	0.00	15	1	0.07	46	2	0.04	20	0	0.00
01051	LEAD, TOTAL	Fresh Acute	82.	276 &	12	0.04	77	7	0.09	38	1	0.03	117	4	0.03	44	0	0.00
		Drinking Water	15.	264 &	35	0.13	77	15	0.19	38	6	0.16	105	13	0.12	44	1	0.02
01057	THALLIUM, DISSOLVED	Fresh Acute	1400.	78	0	0.00	23	0	0.00	10	0	0.00	26	0	0.00	19	0	0.00
		Drinking Water	2.	7 &	0	0.00	1	0	0.00	4	0	0.00	2	0	0.00			
01059	THALLIUM, TOTAL	Fresh Acute	1400.	160	0	0.00	51	0	0.00	24	0	0.00	59	0	0.00	26	0	0.00
		Drinking Water	2.	10 &	0	0.00	4	0	0.00	4	0	0.00	2	0	0.00			
01065	NICKEL, DISSOLVED	Fresh Acute	1400.	82	0	0.00	23	0	0.00	14	0	0.00	26	0	0.00	19	0	0.00
		Drinking Water	100.	82	0	0.00	23	0	0.00	14	0	0.00	26	0	0.00	19	0	0.00
01067	NICKEL, TOTAL	Fresh Acute	1400.	161	0	0.00	51	0	0.00	24	0	0.00	60	0	0.00	26	0	0.00
		Drinking Water	100.	161	3	0.02	51	3	0.06	24	0	0.00	60	0	0.00	26	0	0.00
01075	SILVER, DISSOLVED	Fresh Acute	4.1	74 &	0	0.00	15	0	0.00	14	0	0.00	43	0	0.00	2	0	0.00
		Drinking Water	100.	102	0	0.00	23	0	0.00	14	0	0.00	46	0	0.00	19	0	0.00

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Entire TUMA Study Area

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
01077	SILVER, TOTAL	Fresh Acute	4.1	166 &	5	0.03	44	3	0.07	26	1	0.04	72	1	0.01	24	0	0.00
		Drinking Water	100.	277	0	0.00	79	0	0.00	36	0	0.00	116	0	0.00	46	0	0.00
01090	ZINC, DISSOLVED	Fresh Acute	120.	104	0	0.00	23	0	0.00	15	0	0.00	46	0	0.00	20	0	0.00
		Drinking Water	5000.	104	0	0.00	23	0	0.00	15	0	0.00	46	0	0.00	20	0	0.00
01092	ZINC, TOTAL	Fresh Acute	120.	264	29	0.11	79	17	0.22	40	2	0.05	107	10	0.09	38	0	0.00
		Drinking Water	5000.	264	5	0.02	79	1	0.01	40	0	0.00	107	4	0.04	38	0	0.00
01095	ANTIMONY, DISSOLVED	Fresh Acute	88.	79	0	0.00	23	0	0.00	14	0	0.00	23	0	0.00	19	0	0.00
		Drinking Water	6.	53 &	0	0.00	17	0	0.00	14	0	0.00	16	0	0.00	6	0	0.00
01097	ANTIMONY, TOTAL	Fresh Acute	88.	154	0	0.00	50	0	0.00	21	0	0.00	57	0	0.00	26	0	0.00
		Drinking Water	6.	91 &	0	0.00	27	0	0.00	10	0	0.00	43	0	0.00	11	0	0.00
01145	SELENIUM, DISSOLVED	Fresh Acute	20.	100 &	0	0.00	22	0	0.00	15	0	0.00	44	0	0.00	19	0	0.00
		Drinking Water	50.	102	0	0.00	23	0	0.00	15	0	0.00	45	0	0.00	19	0	0.00
01147	SELENIUM, TOTAL	Fresh Acute	20.	270 &	7	0.03	75	0	0.00	39	0	0.00	109	0	0.00	47	7	0.15
		Drinking Water	50.	274 &	2	0.01	76	0	0.00	39	0	0.00	111	0	0.00	48	2	0.04
04035	SIMAZINE, DISSOLVED, WATER, TOTAL RECOVE	Drinking Water	4.	4	0	0.00				4	0	0.00						
22703	URANIUM, NATURAL DISSOLVED	Drinking Water	20.	4	0	0.00				4	0	0.00						
31505	COLIFORM, TOTAL, MPN, CONF. TEST, 35C	Other-Hi Lim.	1000.	5	0	0.00	2	0	0.00							3	0	0.00
31613	FECAL COLIFORM, MEMBRANE FILTER, AGAR	Other-Hi Lim.	200.	85	37	0.44	22	14	0.64	19	6	0.32	36	12	0.33	8	5	0.63
31615	FECAL COLIFORM, MPN	Other-Hi Lim.	200.	5	0	0.00	2	0	0.00							3	0	0.00
31616	FECAL COLIFORM, MEMBRANE FILTER, BROTH	Other-Hi Lim.	200.	50	15	0.30	3	3	1.00				45	10	0.22	2	2	1.00
31625	FECAL COLIFORM, MF	Other-Hi Lim.	200.	11	9	0.82	3	3	1.00	4	2	0.50	1	1	1.00	3	3	1.00
31648	E. COLI, MTEC, MF	Other-Hi Lim.	126.	27	8	0.30	7	4	0.57	5	1	0.20	11	2	0.18	4	1	0.25
32101	BROMODICHLOROMETHANE, WHOLE WATER	Drinking Water	100.	5	0	0.00	1	0	0.00	4	0	0.00						
32102	CARBON TETRACHLORIDE, WHOLE WATER	Fresh Acute	35200.	5	0	0.00	1	0	0.00	4	0	0.00						
		Drinking Water	5.	5	0	0.00	1	0	0.00	4	0	0.00						
32103	1,2-DICHLOROETHANE,WHOLE WATER	Fresh Acute	118000.	4	0	0.00				4	0	0.00						
		Drinking Water	5.	4	0	0.00				4	0	0.00						
32104	BROMOFORM, WHOLE WATER	Drinking Water	100.	5	0	0.00	1	0	0.00	4	0	0.00						
32105	DIBROMOCHLOROMETHANE, WHOLE WATER	Drinking Water	100.	5	0	0.00	1	0	0.00	4	0	0.00						
32106	CHLOROFORM, WHOLE WATER	Fresh Acute	28900.	3	0	0.00	1	0	0.00	2	0	0.00						
		Drinking Water	100.	3	0	0.00	1	0	0.00	2	0	0.00						
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE E	Fresh Acute	17500.	3	0	0.00	1	0	0.00	2	0	0.00						
		Drinking Water	1000.	3	0	0.00	1	0	0.00	2	0	0.00						
34215	ACRYLONITRILE, TOTAL	Fresh Acute	7550.	4	0	0.00				4	0	0.00						
34301	CHLOROBENZENE, TOTAL	Drinking Water	100.	5	0	0.00	1	0	0.00	4	0	0.00						
34371	ETHYLBENZENE, TOTAL	Fresh Acute	32000.	5	0	0.00	1	0	0.00	4	0	0.00						
		Drinking Water	700.	5	0	0.00	1	0	0.00	4	0	0.00						
34396	HEXACHLOROETHANE, TOTAL	Fresh Acute	980.	4	0	0.00				4	0	0.00						
34423	METHYLENE CHLORIDE, TOTAL	Drinking Water	5.	4	0	0.00				4	0	0.00						
34475	TETRACHLOROETHYLENE, TOTAL	Fresh Acute	5280.	4	0	0.00				4	0	0.00						
		Drinking Water	5.	4	0	0.00				4	0	0.00						
34501	1,1-DICHLOROETHYLENE, TOTAL	Drinking Water	7.	5	0	0.00	1	0	0.00	4	0	0.00						
34506	1,1,1-TRICHLOROETHANE, TOTAL	Drinking Water	200.	5	0	0.00	1	0	0.00	4	0	0.00						
34511	1,1,2-TRICHLOROETHANE, TOTAL	Drinking Water	5.	5	0	0.00	1	0	0.00	4	0	0.00						
34531	1,2-DICHLOROETHANE, TOTAL	Fresh Acute	118000.	1	0	0.00	1	0	0.00									
		Drinking Water	5.	1	0	0.00	1	0	0.00									
34536	1,2-DICHLOROBENZENE, TOTAL	Drinking Water	600.	5	0	0.00	1	0	0.00	4	0	0.00						
34541	1,2-DICHLOROPROPANE, TOTAL	Drinking Water	5.	5	0	0.00	1	0	0.00	4	0	0.00						
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATE	Drinking Water	100.	5	0	0.00	1	0	0.00	4	0	0.00						
34551	1,2,4-TRICHLOROBENZENE, TOTAL	Drinking Water	70.	5	0	0.00	1	0	0.00	4	0	0.00						
34566	1,3-DICHLOROBENZENE, TOTAL	Drinking Water	600.	5	0	0.00	1	0	0.00	4	0	0.00						
34571	1,4-DICHLOROBENZENE, TOTAL	Drinking Water	75.	4	0	0.00	1	0	0.00	3	0	0.00						
34653	P,P'-DDE, DISSOLVED	Fresh Acute	1050.	4	0	0.00				4	0	0.00						
34696	NAPHTHALENE, TOTAL	Fresh Acute	2300.	5	0	0.00	1	0	0.00	4	0	0.00						
38866	OXAMYL, DISSOLVED	Drinking Water	200.	4	0	0.00				4	0	0.00						
38933	CHLORPYRIFOS, DISSOLVED	Fresh Acute	0.083	4	0	0.00				4	0	0.00						
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE	Drinking Water	2.	4	0	0.00				4	0	0.00						
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE	Fresh Acute	45000.	4	0	0.00				4	0	0.00						
		Drinking Water	5.	4	0	0.00				4	0	0.00						
39341	GAMMA-BHC(LINDANE), DISSOLVED	Fresh Acute	2.	4	0	0.00				4	0	0.00						
		Drinking Water	0.2	4	0	0.00				4	0	0.00						

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

EPA Water Quality Criteria Analysis for Entire TUMA Study Area

Parameter		Std. Type	Std. Value	Total Obs	Exceed Standard	Prop. Exceeding	7/05-10/10 Obs	7/05-10/10 Exceed	7/05-10/10 Prop.	10/11-12/07 Obs	10/11-12/07 Exceed	10/11-12/07 Prop.	12/08-4/30 Obs	12/08-4/30 Exceed	12/08-4/30 Prop.	5/01-7/04 Obs	5/01-7/04 Exceed	5/01-7/04 Prop.
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	2.5	4	0	0.00				4	0	0.00						
39542	PARATHION IN FILT. FRAC. OF WATER SAMPLE	Fresh Acute	0.065	4	0	0.00				4	0	0.00						
39632	ATRAZINE DISSOLVED IN WATER	Drinking Water	3.	4	0	0.00				4	0	0.00						
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPL	Fresh Acute	90.	5	0	0.00	1	0	0.00	4	0	0.00						
39732	2,4-D IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	70.	4	0	0.00				4	0	0.00						
39762	SILVEX IN FILT. FRAC. OF WATER SAMPLE	Drinking Water	50.	4	0	0.00				4	0	0.00						
46342	ALACHLOR (LASSO), WATER, DISSOLVED	Drinking Water	2.	4	0	0.00				4	0	0.00						
50060	CHLORINE, TOTAL RESIDUAL	Fresh Acute	0.019	113 &	33	0.29	20	8	0.40	18	5	0.28	58	18	0.31	17	2	0.12
50064	CHLORINE, FREE AVAILABLE	Fresh Acute	0.019	60	30	0.50	12	8	0.67	5	4	0.80	34	16	0.47	9	2	0.22
71850	NITRATE NITROGEN, TOTAL (AS NO3)	Drinking Water	44.	195	1	0.01	36	0	0.00	18	0	0.00	125	1	0.01	16	0	0.00
71851	NITRATE NITROGEN, DISSOLVED (AS NO3)	Drinking Water	44.	3	0	0.00				1	0	0.00	2	0	0.00			
71855	NITRITE NITROGEN, TOTAL (AS NO2)	Drinking Water	3.3	78	0	0.00	17	0	0.00	14	0	0.00	35	0	0.00	12	0	0.00
71856	NITRITE NITROGEN, DISSOLVED (AS NO2)	Drinking Water	3.3	16	0	0.00	6	0	0.00	4	0	0.00	6	0	0.00			
71890	MERCURY, DISSOLVED	Fresh Acute	2.4	98	0	0.00	23	0	0.00	11	0	0.00	46	0	0.00	18	0	0.00
		Drinking Water	2.	98	0	0.00	23	0	0.00	11	0	0.00	46	0	0.00	18	0	0.00
71900	MERCURY, TOTAL	Fresh Acute	2.4	290 &	2	0.01	79	1	0.01	42	0	0.00	121	1	0.01	48	0	0.00
		Drinking Water	2.	290 &	2	0.01	79	1	0.01	42	0	0.00	121	1	0.01	48	0	0.00
77093	CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	Drinking Water	70.	5	0	0.00	1	0	0.00	4	0	0.00						
77128	STYRENE, WHOLE WATER	Drinking Water	100.	2	0	0.00				2	0	0.00						
77651	1,2-DIBROMOETHANE, WHOLE WATER	Drinking Water	0.05	4	0	0.00				4	0	0.00						
82078	TURBIDITY, FIELD	Other-Hi Lim.	50.	169	25	0.15	24	5	0.21	20	1	0.05	70	17	0.24	55	2	0.04
82079	TURBIDITY, LAB	Other-Hi Lim.	50.	193	24	0.12	55	12	0.22	26	1	0.04	77	10	0.13	35	1	0.03
82625	DIBROMOCHLOROPROPANE, WATER, TOTAL RECOV	Drinking Water	0.2	0 &	0	0.00												

& - Below detection limit observations, for which half the detection limit exceeded the criterion, were excluded from the criterion comparison for this parameter

NPS Servicewide Inventory and Monitoring Program Level I

Water Quality Parameter Inventory Data Evaluation and Analysis:

Missing Level I Groups

There are STORET Data for Every Level I I&M Parameter Group Within the TUMA Study Area

NPS Servicewide Inventory and Monitoring Program Level I

Water Quality Parameter Inventory Data Evaluation and Analysis:

Present Level I Groups

STORET Data Within the TUMA Study Area Exist for These Groups:

Alkalinity		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	375	238	61	76	60
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	179	162	11	6	21
00440	BICARBONATE ION (MG/L AS HCO3)	268	235	28	5	25
00445	CARBONATE ION (MG/L AS CO3)	207	174	28	5	23
		1029	809	128	92	129 (60)[!]

pH		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00400	PH (STANDARD UNITS)	159	37	111	11	29
00403	PH, LAB (STANDARD UNITS)	343	266	14	63	57
00406	PH, FIELD (STANDARD UNITS)	302	302	0	0	22
		804	605	125	74	108 (81)[!]

Conductivity		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	455	448	7	0	34
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	310	249	54	7	41
		765	697	61	7	75 (52)[!]

Dissolved Oxygen		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00300	OXYGEN, DISSOLVED (MG/L)	524	437	43	44	62
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION	351	287	22	42	49
		875	724	65	86	111 (62)[!]

Water Temperature		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	701	496	66	139	82
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	11	5	0	6	2
		712	501	66	145	84 (82)[!]

Flow		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00060	FLOW, STREAM, MEAN DAILY CFS	22	0	0	22	1
00061	FLOW, STREAM, INSTANTANEOUS CFS	368	296	36	36	46
00065	STAGE, STREAM (FEET)	29	29	0	0	3
74069	FLOW, ESTIMATED STREAM, CFS	2	2	0	0	1
		421	327	36	58	51 (46)[!]

[!]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Clarity/Turbidity		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00070	TURBIDITY, (JACKSON CANDLE UNITS)	44	0	40	4	4
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	7	0	7	0	3
00078	TRANSPARENCY, SECCHI DISC (METERS)	9	7	2	0	3
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	320	243	17	60	53
82078	TURBIDITY, FIELD NEPHELOMETRIC TURBIDITY UNITS NTU	191	191	0	0	18
82079	TURBIDITY, LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	193	184	9	0	27
		764	625	75	64	108 (65)[1]

Nitrate/Nitrogen		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00600	NITROGEN, TOTAL (MG/L AS N)	23	0	23	0	1
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	2	0	2	0	1
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	29	29	0	0	4
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	291	263	28	0	34
00612	AMMONIA, UNIONZED (MG/L AS N)	31	9	22	0	14
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	3	0	2	1	2
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	14	1	10	3	5
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	33	29	4	0	5
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)	310	255	29	26	46
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	259	235	24	0	23
00631	NITRITE PLUS NITRATE, DISS. 1 DET. (MG/L AS N)	53	30	23	0	7
71845	NITROGEN, AMMONIA, TOTAL (MG/L AS NH4)	1	0	1	0	1
71850	NITRATE NITROGEN, TOTAL (MG/L AS NO3)	239	98	76	65	44
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	3	0	2	1	2
71855	NITRITE NITROGEN, TOTAL (MG/L AS NO2)	78	78	0	0	5
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	16	14	2	0	4
		1385	1041	248	96	198 (77)[1]

Phosphate/Phosphorus		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	157	78	20	59	33
00655	PHOSPHATE, POLY (MG/L AS PO4)	3	0	0	3	1
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	69	0	66	3	4
00665	PHOSPHORUS, TOTAL (MG/L AS P)	316	274	42	0	38
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	34	29	5	0	5
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	59	31	28	0	13
		638	412	161	65	94 (72)[1]

Chlorophyll		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
32228	CHLOROPHYLL A (MG/M2) PERIPHYTON SPECTRO.	1	0	1	0	1
		1	0	1	0	1 (1)[1]

Sulfates/Total Dissolved Solids/Hardness		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
00900	HARDNESS, TOTAL (MG/L AS CACO3)	341	172	93	76	52
00945	SULFATE, TOTAL (MG/L AS SO4)	439	264	101	74	61
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	289	253	33	3	30
		1069	689	227	153	143 (65)[1]

[1]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Bacteria		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
31501	COLIFORM, TOT, MEMBRANE FILTER,IMMED.M-ENDOMED,35C	4	0	0	4	1
31505	COLIFORM, TOT, MPN, CONFIRMED TEST,35C(TUBE 31506)	5	5	0	0	1
31613	FECAL COLIFORM, MEMBR, FILTER,M-FC AGAR,44.5C,24HR	98	85	11	2	9
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	5	5	0	0	1
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5C	71	0	30	41	25
31625	FECAL COLIFORM, MF, M-FC, 0.7 UM	17	0	17	0	1
31648	E. COLI - MTEC-MF	27	27	0	0	2
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	137	136	1	0	12
		364	258	59	47	52 (38)[1]

[1]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Toxic Elements		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	79	79	0	0	10
01097	ANTIMONY, TOTAL (UG/L AS SB)	154	154	0	0	15
00997	ARSENIC, INORGANIC TOTAL (UG/L AS AS)	5	0	0	5	5
01000	ARSENIC, DISSOLVED (UG/L AS AS)	104	102	2	0	16
01002	ARSENIC, TOTAL (UG/L AS AS)	275	239	36	0	25
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	84	82	2	0	15
01012	BERYLLIUM, TOTAL (UG/L AS BE)	177	177	0	0	18
01025	CADMIUM, DISSOLVED (UG/L AS CD)	101	98	3	0	17
01026	CADMIUM, SUSPENDED (UG/L AS CD)	2	0	2	0	1
01027	CADMIUM, TOTAL (UG/L AS CD)	287	243	36	8	33
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	102	102	0	0	14
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	4	0	2	2	3
01034	CHROMIUM, TOTAL (UG/L AS CR)	272	243	22	7	32
01040	COPPER, DISSOLVED (UG/L AS CU)	104	102	2	0	16
01042	COPPER, TOTAL (UG/L AS CU)	273	216	36	21	37
01049	LEAD, DISSOLVED (UG/L AS PB)	104	102	2	0	16
01051	LEAD, TOTAL (UG/L AS PB)	292	243	36	13	38
71890	MERCURY, DISSOLVED (UG/L AS HG)	98	97	1	0	11
71900	MERCURY, TOTAL (UG/L AS HG)	292	242	37	13	38
01065	NICKEL, DISSOLVED (UG/L AS NI)	82	82	0	0	13
01067	NICKEL, TOTAL (UG/L AS NI)	161	161	0	0	18
01145	SELENIUM, DISSOLVED (UG/L AS SE)	102	101	1	0	15
01147	SELENIUM, TOTAL (UG/L AS SE)	275	241	34	0	25
01075	SILVER, DISSOLVED (UG/L AS AG)	102	102	0	0	14
01077	SILVER, TOTAL (UG/L AS AG)	277	240	33	4	29
01057	THALLIUM, DISSOLVED (UG/L AS TL)	78	78	0	0	9
01059	THALLIUM, TOTAL (UG/L AS TL)	160	160	0	0	18
01090	ZINC, DISSOLVED (UG/L AS ZN)	104	102	2	0	16
01092	ZINC, TOTAL (UG/L AS ZN)	264	216	36	12	34
00720	CYANIDE, TOTAL (MG/L AS CN)	28	6	22	0	6
34215	ACRYLONITRILE, TOTAL (UG/L)	4	4	0	0	4
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	5	5	0	0	5
32104	BROMOFORM, WHOLE WATER, (UG/L)	5	5	0	0	5
32102	CARBON TETRACHLORIDE, WHOLE WATER, (UG/L)	5	5	0	0	5
34301	CHLOROBENZENE, TOTAL (UG/L)	5	5	0	0	5
32105	DIBROMOCHLOROMETHANE, WHOLE WATER, (UG/L)	5	5	0	0	5
34311	CHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
32106	CHLOROFORM, WHOLE WATER (UG/L)	5	5	0	0	5
32101	BROMODICHLOROMETHANE, WHOLE WATER (UG/L)	5	5	0	0	5
34496	1,1-DICHLOROETHANE, TOTAL (UG/L)	5	5	0	0	5
32103	1,2-DICHLOROETHANE, WHOLE WATER (UG/L)	4	4	0	0	4
34531	1,2-DICHLOROETHANE, TOTAL (UG/L)	1	1	0	0	1
34501	1,1-DICHLOROETHYLENE, TOTAL (UG/L)	5	5	0	0	5
34541	1,2-DICHLOROPROPANE, TOTAL (UG/L)	5	5	0	0	5
77163	1,3-DICHLOROPROPENE-1, WHOLE WATER (UG/L)	1	1	0	0	1
34371	ETHYLBENZENE, TOTAL (UG/L)	5	5	0	0	5
34413	METHYL BROMIDE, TOTAL (UG/L)	5	5	0	0	5
34418	METHYL CHLORIDE, TOTAL (UG/L)	4	4	0	0	4
34423	METHYLENE CHLORIDE, TOTAL (UG/L)	4	4	0	0	4
34506	1,1,1-TRICHLOROETHANE, TOTAL (UG/L)	5	5	0	0	5
34475	TETRACHLOROETHYLENE, TOTAL (UG/L)	4	4	0	0	4
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	5	5	0	0	5
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER (UG/L)	5	5	0	0	5
34516	1,1,2,2-TETRACHLOROETHANE, TOTAL (UG/L)	5	5	0	0	5
34511	1,1,2-TRICHLOROETHANE, TOTAL (UG/L)	5	5	0	0	5

[1]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

Toxic Elements - Continued ...		Total Obs.	01/01/85 to 12/28/99	01/01/75 to 12/31/84	Before 01/01/75	Total Stations
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE (UG/L)	4	4	0	0	4
34536	1,2-DICHLOROBENZENE, TOTAL (UG/L)	5	5	0	0	5
34566	1,3-DICHLOROBENZENE, TOTAL (UG/L)	5	5	0	0	5
34571	1,4-DICHLOROBENZENE, TOTAL (UG/L)	5	5	0	0	5
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE (UG/L)	5	5	0	0	5
34396	HEXACHLOROETHANE, TOTAL (UG/L)	4	4	0	0	4
34696	NAPHTHALENE, TOTAL (UG/L)	5	5	0	0	5
34551	1,2,4-TRICHLOROBENZENE, TOTAL (UG/L)	5	5	0	0	5
34253	A-BHC-ALPHA, DISSOLVED (UG/L)	4	4	0	0	4
39341	GAMMA-BHC(LINDANE), DISSOLVED (UG/L)	4	4	0	0	4
34653	P,P'-DDE, DISSOLVED (UG/L)	4	4	0	0	4
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	4	4	0	0	4
		4611	4179	347	85	726 (47)[1]

[1]Since a station can have data for more than one of the parameters in the parameter group, the number in the parenthesis is the number of unique stations having data for this parameter group.

NPS Servicewide Inventory and Monitoring Program Level I

Water Quality Parameter Inventory Data Evaluation and Analysis:

Park Summary: Level I Group Currentness and Distribution

Parameter Group	Total Obs.	Obs. Since 1985	% Obs. Since 1985	Stations Measuring This Group	% of Total Stations Measuring This Group	Obs. Per Station Measuring This Group	Period of Record For This Group	Observations Per Year of Period of Record
Alkalinity	1029	809	78.6	60	59.4	17.2	10/10/41-11/29/99	17.7
pH	804	605	75.2	81	80.2	9.9	08/28/69-12/28/99	26.5
Conductivity	765	697	91.1	52	51.5	14.7	10/10/41-12/28/99	13.1
Dissolved Oxygen	875	724	82.7	62	61.4	14.1	10/17/69-12/28/99	29.0
Water Temperature	712	501	70.4	82	81.2	8.7	10/10/41-12/28/99	12.2
Flow	421	327	77.7	46	45.5	9.2	12/27/67-12/28/99	13.2
Clarity/Turbidity	764	625	81.8	65	64.4	11.8	10/17/69-12/28/99	25.3
Nitrate/Nitrogen	1385	1041	75.2	77	76.2	18.0	04/17/46-12/28/99	25.8
Phosphate/Phosphorus	638	412	64.6	72	71.3	8.9	12/07/70-12/28/99	22.0
Chlorophyll	1	0	0.0	1	1.0	1.0	10/28/76-10/28/76	1.0[!]
Sulfates/Total Dissolved Solids/Hardness	1069	689	64.5	65	64.4	16.4	10/10/41-11/29/99	18.4
Bacteria	364	258	70.9	38	37.6	9.6	12/07/70-12/28/99	12.5
Toxic Elements	4611	4179	90.6	47	46.5	98.1	10/17/69-11/29/99	153.1

[!]Period of record for this parameter group was less than one year. Value shown is the total observations.

Water Quality Observations
Outside STORET Edit Criteria for TUMA

(Disposition: X = Discarded, Blank = Retained)

NPS Station ID	Parameter		Date	Time	Parameter Value	Agency	STORET Station ID	Disposition
TUMA0003	71900	MERCURY, TOTAL (UG/L AS HG)	950317		10.5000000	21ARIZ	100239	
TUMA0006	01045	IRON, TOTAL (UG/L AS FE)	930924		136000.0000000	21ARIZ	100251	
TUMA0006	01055	MANGANESE, TOTAL (UG/L AS MN)	930924		6500.0000000	21ARIZ	100251	
TUMA0006	01055	MANGANESE, TOTAL (UG/L AS MN)	940125		8000.0000000	21ARIZ	100251	
TUMA0009	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	771010	0950	6000.0000000	112WRD	09480500	
TUMA0038	71900	MERCURY, TOTAL (UG/L AS HG)	730406	1045	50.0000000	21ARIZ	802503000000260	
TUMA0045	00916	CALCIUM, TOTAL (MG/L AS CA)	810113	1345	1120.0000000	21ARIZ	801502731000218	
TUMA0045	01055	MANGANESE, TOTAL (UG/L AS MN)	810113	1345	90000.0000000	21ARIZ	801502731000218	
TUMA0045	01055	MANGANESE, TOTAL (UG/L AS MN)	800907	1110	101000.0000000	21ARIZ	801502731000218	
TUMA0045	01092	ZINC, TOTAL (UG/L AS ZN)	810113	1345	45000.0000000	21ARIZ	801502731000218	
TUMA0045	01092	ZINC, TOTAL (UG/L AS ZN)	800907	1110	62000.0000000	21ARIZ	801502731000218	
TUMA0046	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	800907	1530	16416.0000000	21ARIZ	801527340000103	
TUMA0046	01055	MANGANESE, TOTAL (UG/L AS MN)	800907	1530	5300.0000000	21ARIZ	801527340000103	
TUMA0048	00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	800907	1545	12976.0000000	21ARIZ	801502733000034	
TUMA0048	01042	COPPER, TOTAL (UG/L AS CU)	810302	1720	13000.0000000	21ARIZ	801502733000034	
TUMA0048	01045	IRON, TOTAL (UG/L AS FE)	810302	1720	192000.0000000	21ARIZ	801502733000034	
TUMA0048	01055	MANGANESE, TOTAL (UG/L AS MN)	810302	1720	8000.0000000	21ARIZ	801502733000034	
TUMA0048	01055	MANGANESE, TOTAL (UG/L AS MN)	800907	1545	8900.0000000	21ARIZ	801502733000034	
TUMA0048	01055	MANGANESE, TOTAL (UG/L AS MN)	810207	1620	5900.0000000	21ARIZ	801502733000034	
TUMA0048	01092	ZINC, TOTAL (UG/L AS ZN)	810207	1620	26000.0000000	21ARIZ	801502733000034	
TUMA0062	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	900129		20.5000000	21ARIZ	100238	
TUMA0062	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	900326		20.7000000	21ARIZ	100238	
TUMA0062	00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	900529		20.8000000	21ARIZ	100238	
TUMA0062	00665	PHOSPHORUS, TOTAL (MG/L AS P)	900529		10.8000000	21ARIZ	100238	
TUMA0064	00070	TURBIDITY, (JACKSON CANDLE UNITS)	770720	1500	3200.0000000	112WRD	09481710	
TUMA0064	00070	TURBIDITY, (JACKSON CANDLE UNITS)	771104	1300	1800.0000000	112WRD	09481710	
TUMA0064	00070	TURBIDITY, (JACKSON CANDLE UNITS)	760729	1500	3500.0000000	112WRD	09481710	
TUMA0064	00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	771104	1300	1800.0000000	112WRD	09481710	
TUMA0064	00665	PHOSPHORUS, TOTAL (MG/L AS P)	770818	1500	11.0000000	112WRD	09481710	
TUMA0064	01007	BARIUM, TOTAL (UG/L AS BA)	760729	1500	2500.0000000	112WRD	09481710	
TUMA0064	01045	IRON, TOTAL (UG/L AS FE)	770720	1500	100000.0000000	112WRD	09481710	
TUMA0064	01045	IRON, TOTAL (UG/L AS FE)	760729	1500	230000.0000000	112WRD	09481710	
TUMA0064	01055	MANGANESE, TOTAL (UG/L AS MN)	770720	1500	7000.0000000	112WRD	09481710	
TUMA0064	01055	MANGANESE, TOTAL (UG/L AS MN)	760729	1500	13000.0000000	112WRD	09481710	
TUMA0065	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	990223		819.2000000	11NPSWRD	TUMA_FOSCR_RR	
TUMA0065	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	980331		92.7000000	11NPSWRD	TUMA_FOSCR_RR	
TUMA0076	01055	MANGANESE, TOTAL (UG/L AS MN)	920328		7460.0000000	21ARIZ	100259	
TUMA0077	01055	MANGANESE, TOTAL (UG/L AS MN)	920328		5390.0000000	21ARIZ	100257	
TUMA0089	00310	BOD, 5 DAY, 20 DEG C MG/L	990126		215.0000000	11NPSWRD	TUMA_FOSCR_SG	
TUMA0089	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	990223		264.0000000	11NPSWRD	TUMA_FOSCR_SG	
TUMA0089	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	980331		45.4000000	11NPSWRD	TUMA_FOSCR_SG	

Water Quality Observations
Outside STORET Edit Criteria for TUMA

(Disposition: X = Discarded, Blank = Retained)

NPS Station ID	Parameter		Date	Time	Parameter Value	Agency	STORET Station ID	Disposition
TUMA0100	00650	PHOSPHATE, TOTAL (MG/L AS PO4)	990223		212.0000000	11NPSWRD	TUMA_FOSCR_CS	

APPENDICES

Appendix A

Computer Files Transmitted With

Park Baseline Water Quality Data Inventory and Analysis

Computer disk(s) accompanying this report include up to seven (depending on the presence or absence of certain data elements) compressed (ZIP) files containing digital copies of nearly all the tables, figures, and other materials used to produce this report. To decompress these files, you must use the commonly available shareware program PKUNZIP. The command to type at the DOS prompt is:

PKUNZIP -E *COMPRESS.ZIP FILENAME.EXT*

where COMPRESS.ZIP is the name of one of the seven compressed (ZIP) files listed below and FILENAME.EXT is the name of the file you wish to extract. If you want to decompress all of the files in COMPRESS.ZIP, simply omit the FILENAME.EXT. To obtain a listing of all the files compressed into a particular ZIP file, type the following:

PKUNZIP -V *COMPRESS.ZIP* |MORE

where COMPRESS.ZIP is the name of one of the seven compressed ZIP files listed below. If a ZIP file spans multiple disks, use the last disk of the series (span) when obtaining a listing of all the files compressed into a particular ZIP file. Once you see the file you wish to obtain, substitute this file name for FILENAME.EXT in the first command line above to extract and decompress this particular file.

Included on one of the disk(s) accompanying this report is a program named PRINTZIP. This program will decompress ZIP files which don't span multiple disks and print certain files to a Hewlett-Packard (or compatible) Laser Printer. To use PRINTZIP, however, you must still have a copy of PKUNZIP in a directory listed in your path or in the same directory as the PRINTZIP program. PRINTZIP provides an easy, menu-driven interface for using PKUNZIP to decompress files and then send them to the printer. PRINTZIP allows you to send individual files, groups of files, or all files to the printer. PRINTZIP will not work with ZIP files that span multiple disks.

The following compressed (ZIP) files are included on the disk(s) accompanying this report:

(1) TUMATABS.ZIP

This compressed file contains all the tables presented in the report. The files compressed into this file include:

(a) TUMASITE.DOC - Descriptive listing of select fields from the industrial facilities discharges, drinking water intakes, and EPA-USGS stream gages databases.

(b) TUMAAGNC.DOC - Contacts for agencies whose data were retrieved within the study area.

(c) TUMAAGNQ.DOC - Number of stations, observations, and parameters retrieved by agency code within the study area and park.

(d) TUMAOV0.DOC - Overview of park and retrieved data.

(e) TUMAOV1.DOC - Station period of record table.

(f) TUMAOV2.DOC - Parameter period of record table.

(g) TUMAOV3.DOC - Station/parameter period of record table.

(h) TUMAINV.DOC - Station by station descriptive statistics over the entire period of record and comparison against EPA Water Quality Criteria for each station.

(i) TUMASEAN.DOC - Seasonal and annual water quality descriptive statistics at stations with water quality data meeting the default seasonal and annual criteria.

(j) TUMAEPAS.DOC - EPA Water Quality Criteria comparison for data at all stations combined within the study area.

(k) TUMAIDEA.DOC - Comparison of downloaded STORET data with NPS Servicewide Inventory and Monitoring Program "Level I" water quality parameters.

(l) TUMABAD.DOC - Water quality observation values that were outside the range of one of 190 STORET edit criteria and were either discarded or retained.

All these compressed document files are in ASCII format and contain printer codes appropriate to Hewlett-Packard (or compatible) Laser Printers. While at the DOS prompt, any of these document files may be printed directly to a Hewlett-Packard (or compatible) Laser Printer by using the PRINT command. For example, if the document TUMAOV1.DOC is in the subdirectory C:\WATER, you could type: PRINT C:\WATER\TUMAOV1.DOC. This will print the file to your local or networked Hewlett-Packard (or compatible) Laser Printer attached to parallel port one (LPT1:). Alternatively, you can use the PRINTZIP program to decompress and print any of these files provided the ZIP file doesn't span multiple disks. These ASCII files can also be imported into word-processed documents, but the printer codes will then have to be removed.

(2) TUMAFIGS.ZIP

This compressed file contains graphics files for all the statistical figures (time series plots; annual box and whiskers plots; seasonal box and whiskers plots) in the report in two different formats: Computer Graphic Metafile (CGM) and Hewlett-Packard Printer Control Language (PCL). The files are named with the last three digits of the Station Name followed by the five digit STORET code. The file name extension begins with either a 1 (time series), 2 (annual), or 3 (seasonal) and then either GM for CGM or CL for PCL. For example, 00100300.2GM would denote the file contains an annual box and whiskers plot in CGM format for parameter 00300 (dissolved oxygen) at station TUMA0001. While at the DOS prompt, any PCL file can be printed directly to a Hewlett-Packard (or compatible) Laser Printer by using the COPY command. For example, if the graphic 00100300.2CL (an annual box and whiskers plot of parameter 00300, dissolved oxygen, at station TUMA0001) is in the subirectory C:\WATER, you would type: COPY C:\WATER\00100300.2CL LPT1: /B. This will print the file to your local or networked Hewlett-Packard (or compatible) Laser Printer attached to parallel port one (LPT1:). The /B is necessary because the PCL file is in a binary format. Alternatively, you can use the PRINTZIP program to decompress and print any of the PCL files provided the ZIP file doesn't span multiple disks. The CGM files can be imported and/or edited in most graphics packages, including WordPerfect.

(3) TUMAPARM.ZIP

This file compresses TUMAPARM.DBF which contains all the actual values (raw data) of all the water quality data downloaded from STORET and summarized in the report. The detailed database structure for this file is contained in Appendix B.

(4) TUMASITE.ZIP

This compressed file contains up to five geo-referenced, DBASE III+ compatible site (point location) files documenting the location in the study area of water quality monitoring stations, industrial facilities discharges, drinking water intakes, water gages, and water impoundments. These files include:

(a) TUMAWQ.DBF - All water quality monitoring station locations within the project's study area downloaded from STORET.

(b) TUMAIFD.DBF - All municipal and industrial facility discharges within the project's study area downloaded from the IFD database.

(c) TUMADRIN.DBF - All drinking water intakes within the project's study area downloaded from the DRINKS database.

(d) TUMAGAGE.DBF - All water gages within the project's study area downloaded from the GAGES database.

(e) TUMADAMS.DBF - All water impoundments within the project's study area downloaded from the DAMS database.

The absence of any of these files indicates that none of the particular sites were found within the study area. Detailed database structures for each of these files are contained in Appendix B.

(5) TUMAMISC.ZIP

This compressed file contains a variety of graphic and document files that are contained in the report. They are grouped into this miscellaneous compressed (ZIP) file because they don't fit neatly into any of the other compressed files. The files contained in this compressed file include:

(a) TUMAEXEC.DOC - WordPerfect Ver. 5.1 copy of the Executive Summary in the report.

(b) TUMATOC.DOC - WordPerfect Ver. 5.1 copy of the report's Table of Contents.

(c) INTRO.DOC - WordPerfect Ver. 5.1 copy of all the text in the report from the Introduction through the Interpretive Guide to Water Quality Results.

(d) APPENDIX.DOC - WordPerfect Ver. 5.1 copy of all the Appendices in the report.

(e) TUMAREGI - PCL and CLP (Windows Clipboard) copies of map displaying the regional location of the park and study area.

(f) TUMAWQ - PCL and CLP (Windows Clipboard) copies of park maps displaying water quality station locations within the park's study area. If, due to scaling and aesthetic concerns, multiple maps were needed, these files will have alphabetically ordered suffixes (TUMAWQA, TUMAWQB, TUMAWQC, etc.) and the index map name will end with an ampersand (&).

(g) TUMAIDG - PCL and CLP (Windows Clipboard) copies of park maps displaying locations of industrial facilities discharges, drinking water intakes, and stream gages within the park's study area. If, due to scaling and aesthetic concerns, multiple maps were needed, these files will have alphabetically ordered suffixes (TUMAIDGA, TUMAIDGB, TUMAIDGC, etc.) and the index map name will end with an ampersand (&). If no industrial facilities discharges, drinking water intakes, water gages, or water impoundments exist within the park's study area, these files will not be in the compressed (ZIP) file.

(h) TUMASEHY - PCL and CLP (Windows Clipboard) copies of the hydrographs or other materials used by WRD staff as the basis for a first attempt at a seasonal analysis of the park's water quality data.

Other materials may also be included in this miscellaneous compressed (ZIP) file as warranted by conditions at the park. As with TUMAFIGS.ZIP and TUMATABS.ZIP, you can use the PRINTZIP program to print any of the PCL files in TUMAMISC.ZIP provided the ZIP file doesn't span multiple disks. You should not, however, use PRINTZIP to print the WordPerfect document files. The CLP (Windows Clipboard) files can be imported (pasted) and/or edited in most Windows-based word processors and graphics packages.

(6) TUMARF3.ZIP

This compressed file contains the Environmental Protection Agency's River Reach File Ver. 3.0 provisional data for the USGS catalog unit(s) encompassing the study area. The attribute data exist in both ASCII and DBASE III+ format, while the geographic traces exist in ASCII format. This compressed file contains four files for each catalog unit that touches the study area. Catalog units are identified by unique 8-character numeric names which identify the region, subregion, accounting unit, and catalog unit. Examples (your 8-character numeric names will be different) of the file types included in this compressed file are:

(a) 12345678.RF3 - ASCII formatted attribute file from the River Reach File for all hydrographic traces within the catalog unit.

(b) 12345678.DBF - DBASE III+ formatted attribute file from the River Reach File for all hydrographic traces within the catalog unit.

(c) 12345678.TRC - ASCII formatted geographic file from the River Reach File containing digital, geo-referenced descriptions of all hydrographic traces within the catalog unit at a scale of 1:100,000 suitable for import into a geographic information system.

(d) 12345678.CUB - ASCII formatted geographic file from the River Reach File containing a digital, geo-referenced description of the catalog unit boundary suitable for import into a geographic information system.

Detailed database structures for RF3-related files are contained in Appendix B.

(7) TUMAWQMW.ZIP

Between 2000 and 2002, all Baseline Water Quality Data Inventory and Analysis Reports were compiled or re-compiled in Microsoft Word 2000 (Ver. 9.0) format. This complete, digital version of the report will be made available through various means, including the Internet. Although the reports can be opened in Microsoft Word 1997 (Ver. 8.0), the time series and annual and seasonal box-plots may not be centered appropriately on a page due to discrepancies with how Word 2000 formats pictures and how Word 1997 formatted pictures. Consequently, Word 2000 is the recommended software for viewing the report. Prior to printing the report from Word, be sure to enable "Print Text as Graphics" or "Print True Type Font as Graphics" in the Printer Properties. This ensures a more faithful reproduction of the maps included in the Word document.

The Microsoft Word version of the Baseline Water Quality Data Inventory and Analysis Report may differ slightly from the original analog version. Reports issued during 1994-1996 didn't have as many "bells-and-whistles" as subsequent reports. In compiling digital Microsoft Word versions of these earlier reports, attempts were made to bring these 1994-1996 reports up to the current standard wherever feasible and practicable. Unfortunately, some changes were not feasible or practicable. For example, water quality criteria screens were added or modified over time when newer criteria became available. The digital Microsoft Word version of Appendix F presents the latest criteria screening parameters and values. Some of these parameters and/or values may not have been screened against in the EPA water quality criteria analyses for each station and the entire study area in the 1994-1996 analog versions of the report. Similarly, the Introduction, Methodology, and Interpretive Guide to Water Quality Results may mention certain features that aren't included in the 1994-1996 reports. Additionally, to prepare a Microsoft Word version of this report, data were processed through different versions of software than used originally. Consequently, some results presented in the Overview and Executive Summary may differ slightly from those presented in the analog report (eg. # of In Park and Longer Term Stations).

Appendix B

Water Quality Database File Structures

The following table provides the DBASE III+ database field structure for all the water quality parameter data downloaded from STORET. This data will allow parks or other interested parties to replicate the statistical analyses and graphics contained in this report; perform more sophisticated analyses; or to establish a baseline park water quality database.

Parameter Data File: TUMAPARM.DBF in TUMAPARM.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
NPSSTATID	1	8	8	NPS Station ID (NPS park code + 4 digit sequence number)
BEGDATE	9	14	6	Measurement Start Date [yymmdd]
BEGTIME	15	18	4	Measurement Start Time [hhmm]
PARMCODE	19	23	5	STORET Parameter Code
PARMVALU	24	39	16.7	Parameter Value
REMARK	40	40	1	Parameter Remark Value
				A=Value is Mean of 2 or More Determinations
				B=Results Based Upon Colony Counts Outside Acceptable Range
				C=Value Calculated
				D=Field Measurement
				E=Extra Sample Taken in Compositing Process
				F=Female Species
				G=Maximum of 2 or More Determinations
				H=Based on Field Kit Determination
				I=Value is Less Than Practical Quantitation Limit and Greater Than or Equal to the Method Detection Limit
				J=Estimated, Not the Result of Analytic Measurement
				K=Off-scale Low, Actual Value Not Known, But Known to be Less Than Value Shown
				L=Off-scale High, Actual Value Not Known, But Known to be Greater Than Value Shown

Parameter Data File: TUMAPARM.DBF in TUMAPARM.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
				M=Presence Verified, But Not Quantified, Below Quantification Limit; For Species, Male; For Oxygen Reduction Potential, Indicates a Negative Value
				N=Presumptive Evidence of Presence
				O=Analysis Lost
				P=Too Numerous to Count
				Q=Exceeded Normal Holding Time
				R=Significant Rain in Last 48 Hours
				S=Laboratory test
				T=Less Than Detection Criteria
				U=Analyzed For But Not Detected, Value is Detection Limit For Process Used; If Species, Undetermined
				V=Analyte was Detected in Sample and Method Blank
				W=Less Than Lowest Value Reportable Under Remark "T"
				X=Quasi Vertically-Integrated Sample
				Y=Analysis of Unpreserved Sample
				Z=Too Many Colonies Were Present to Count (TNTC), Value Represents Filtration Value
				$=Calculated By Retrieval Software
MEDIA	41	46	6	Sample Media
DEPTH	47	55	9.3	Depth of Sample [in feet]
ENDDATE	56	61	6	Measurement End Date [yymmdd] [all composite samples]
ENDTIME	62	65	4	Measurement End Time [hhmm] [all composite samples]
SAMPTYPE	66	69	4	Type of Sample ["sophisticated" composite samples]
				C=Continuous Collection
				G=Collection of Individual Grab Samples
				GNxx=xx is the Number of Individual Grab Samples
				B=N/A

Parameter Data File: TUMAPARM.DBF in TUMAPARM.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
COMPTYPE	70	70	1	Composite Value Type ["sophisticated" composite samples]
				A=Average
				H=Maximum
				L=Minimum
				N=Number of Observations
				#=Number of Observations
				S=Standard Deviation
				U=Sum of Squares
				V=Variance
				C=Coefficient of Error
				X=Coefficient of Variance
				E=Skewness
				F=Kurtosis
				Z=Number of Observations That Exceed an Established Limit
				%=Precision
				$=Accuracy
				B=N/A
				D=Indicates Replicate Sample
COMPST	71	71	1	Composite Space/Time Indicator
				S=Space
				T=Time
				B=Space and Time
				F=Flow Proportional
				1-9=Replicate Number

Note: DBASE III+ record lengths will be one greater than the last stop column displayed (71 here) because DBASE III+ reserves the first space/column of every record for a deletion flag. Hence, DBASE III+ will display a record length of 72 for this database.

The following table provides the DBASE III+ database field structure for all the water quality station locations downloaded from STORET. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Water Quality Station Data File: TUMAWQ.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
NPSSTATID	1	8	8	NPS Station ID (NPS park code + 4 digit sequence number)
AGENCY	9	16	8	Agency Code of Station Owner
STORIDP	17	31	15	STORET Primary Station Code
STORIDS1	32	43	12	STORET First Secondary Station Code
STORIDS2	44	55	12	STORET Second Secondary Station Code
STORIDS3	56	65	10	STORET Third Secondary Station Code
LATITUDE	66	73	8	Station Latitude [degrees:minutes:seconds]
LONGITUDE	74	82	9	Station Longitude [degrees:minutes:seconds]
LAT	83	93	11.6	Station Latitude [decimal degrees, (-) below equator]
LON	94	104	11.6	Station Longitude [decimal degrees, (-) western hemisphere]
LLPREC	105	105	1	Latitude/Longitude Precision Code
RMI	106	329	224	River Mile Index
STATLOC	330	377	48	Station Location Description
CNTYCODE	378	382	5	FIPS State/County Code
STNAME	383	398	16	State Name
CNTYNAME	399	418	20	County Name
HYDUNIT	419	426	8	Hydrologic Unit Code (MAJ/MIN/SUB = Catalog Unit)
MAJBASN	427	450	24	Major Basin Name
MINBASN	451	490	40	Minor Basin Name
STATTYPE	491	550	60	Station Type
STORDATE	551	556	6	Date Station was Stored in STORET
RF1INDEX	557	567	11	RF1 Reach Number Location [2]
RF1MILE	568	575	8.3	Mile Point on RF1 Reach [2]
RF1LOC	576	578	3	Indicates the Location as ON or OFF RF1 Reach [2]
RF1DIST	579	584	6.2	Distance From RF1 Reach

Water Quality Station Data File: TUMAWQ.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
RF3INDEX	585	601	17	RF3 Reach Number Location [3]
RF3MILE	602	607	6.2	Mile point on RF3 Reach [3]
RF3LOC	608	610	3	Indicates the Location as ON or OFF RF3 Reach [2]
RF3DIST	611	616	6.2	Distance From RF3 Reach
DEPH2O	617	620	4	Depth of Water at Station Location [in feet]
ELEV	621	625	5	Station Elevation
ECOREG	626	628	3	ECO Region
H2OBODY	629	678	50	Waterbody ID
AQUIFERS	679	718	40	Aquifer Description
STATDESC1	719	790	72	Station Sentence Description
STATDESC2	791	862	72	Station Sentence Description
STATDESC3	863	934	72	Station Sentence Description
STATDESC4	935	1006	72	Station Sentence Description
STATDESC5	1007	1078	72	Station Sentence Description
STATDESC6	1079	1150	72	Station Sentence Description
STATDESC7	1151	1222	72	Station Sentence Description
STATDESC8	1223	1294	72	Station Sentence Description
STATDESC9	1295	1366	72	Station Sentence Description
STATDESC10	1367	1438	72	Station Sentence Description
STATDESC11	1439	1510	72	Station Sentence Description
STATDESC12	1511	1582	72	Station Sentence Description
STATDESC13	1583	1654	72	Station Sentence Description
STATDESC14	1655	1726	72	Station Sentence Description
STATDESC15	1727	1798	72	Station Sentence Description
STATLOCKED	1799	1799	1	Station Locked (Logical) True/False

The following table provides the DBASE III+ database field structures for the EPA Industrial Facilities Discharge database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Industrial Facilities Discharges File: TUMAIFD.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	9	9	Site Identifier (NPDES Number)
LATITUDE	10	17	8	Facility Latitude (Degrees:Minutes:Seconds)
LONGITUDE	18	26	9	Facility Longitude (Degrees:Minutes:Seconds)
LAT	27	37	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	38	48	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	49	59	11	RF1 Reach Number Location
RF1MILE	60	65	6.2	Mile Point on RF1 Reach
RF1DIST	66	71	6.2	Distance From RF1 Reach
RF3INDEX	72	88	17	RF3 Reach Number Location
RF3MILE	89	94	6.2	Mile Point on RF3 Reach
RF3DIST	95	100	6.2	Distance From RF3 Reach
ADR	101	125	25	Address
BFL	126	132	7.2	Total Direct Combined C&P Flow (1000 GPD)
CCFLG	133	133	1	Coastal County Flag "Y"/"N"/"E"=Estuary
CC1	134	138	5	City Code #1 (EPA Code)
CFL	139	145	7.2	Total Direct Cooling Flow (1000 GPD)
CNC	146	148	3	County Code (FIPS)
CTY	149	168	20	City Name
CZIP	169	177	9	Canadian Zip Code
DNB	178	186	9	Dunn & Bradstreet Number
DNBFLG	187	187	1	Dunn & Bradstreet PCS Source Flag
EGF	188	202	15.4	Flow From Effluent Guidelines (1000 GPD)
EGS	203	208	6	Effluent Guidelines Subcategory
EXPDT	209	216	8	Expiration Date (mm/dd/yy)
E308SN	217	220	4	Effluent Guidelines Survey Number
FAC	221	229	9	SCS Facility Identifier (Cross-Reference)
FDS	230	232	3	Facility Data Source

Industrial Facilities Discharges File: TUMAIFD.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
FFL	233	239	7.2	Total Facility Flow (1000 GPD)
FHF	240	240	1	Fac. Hit Flag (Reach File) V=Versar Assumed
FLOTYP	241	243	3	I=Blow Down, R=Bottom Ash, S=Fly Ash
FLR	244	250	7.2	Flow Recvd-Industrial (1000 GPD) Permit Data
FRDS	251	259	9	FRDS ID# - XREF To Water Supply
FRW	260	289	30	Facility Receiving Water Name
FS1	290	293	4	Facility SIC Code (From PCS)
FS2	294	297	4	Facility SIC Code #1
FS3	298	301	4	Facility SIC Code #2
FS4	302	305	4	Facility SIC Code #3
FS5	306	309	4	Facility SIC Code #4
FUD	310	317	8	Facility Level Last Date Updated (mm/dd/yy)
IACC	318	318	1	Inactive/Active Indicator ("I" or "A")
ICAT	319	320	2	WQAB Industrial Category
ICAT2	321	322	2	WQAB Industrial Category 2
ICAT3	323	324	2	WQAB Industrial Category 3
IFL	325	331	7	Total Indirect Flow (1000 GPD)
IFT	332	332	1	Illinois Facility Type (A thru Z)
IG1	333	334	2	Facility Industrial Group #1
IG2	335	336	2	Facility Industrial Group #2
IJCN	337	346	10	Canadian Record Identifier
INACT	347	353	7	Inactive/Rescinded P=Based on Permit;A=Actual
INDCNT	354	357	4	Computed Number of Indirect Dischargers
LATLON	358	372	15	Polygon Retrieval Lat/Long.
MAJ	373	373	1	Major-Minor Flag (From PCS)
MAPID	374	377	4	Map Identifier
MJMN	378	381	4	Major/Minor Basin (EPA-STORET)
NAM	382	441	60	Facility Name
NDC	442	444	3	Number of Discharges (Pipes)

Industrial Facilities Discharges File: TUMAIFD.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
NDSFLO	445	451	7.2	NEEDS Flow (1000 GPD)
NDSIFLO	452	458	7.2	NEEDS Industrial Flow (1000 GPD)
NID	459	462	4	Number of Indirect Dischargers
NPC	463	463	1	NEEDS Pre-Treatment Code "Y"=Yes, "N"=No
NPS	464	464	1	NPDES Facility Source/Status
NSN	465	473	9	NEEDS Survey Number
NTC	474	474	1	NEEDS Treatment Code
OCP	475	480	6	Organic Chemical Producers ID Number
ODESCC	481	481	1	ODES Coastal County "Y"=Yes; "N"=No
OFL	482	488	7.2	Total Non-Direct Other Flow (1000 GPD)
OWN	489	491	3	Ownership Code
PFL	492	498	7.2	Total Direct Process Flow (1000 GPD)
REG	499	500	2	EPA Region
REGKEY	501	504	4	Region Key
RSLOFLO	505	511	7.2	Receiving Stream Low Flow
RSMNFLO	512	518	7.2	Receiving Stream Mean Flow
STA	519	520	2	State Postal Abbreviation
STAID	521	535	15	State Identifier
STC	536	537	2	State Code (FIPS)
STCITY	538	544	7	State/City Code
TFLOW	545	551	7.2	Type Flow (1000 GPD)
UFL	552	558	7.2	Total Direct Undefined Flow (1000 GPD)
XEGS	559	561	3	Effluent Guidelines Subcat Index
XKEY	562	562	1	"1","2","3","4","5","6","7","8","9"
XNME	563	565	3	GLP,DIR,F2C,ENF,CET,LAG,PPB,M85,M86
ZIP	566	570	5	Zip Code

The following table provides the DBASE III+ database field structures for drinking water intakes from the EPA DRINKS database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Drinking Water Intakes File: TUMADRIN.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	20	20	Site Identifier
LATITUDE	21	28	8	Facility Latitude (Degrees:Minutes:Seconds)
LONGITUDE	29	37	9	Facility Longitude (Degrees:Minutes:Seconds)
LAT	38	48	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	49	59	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	60	70	11	RF1 Reach Number Location
RF1MILE	71	76	6.2	Mile Point on RF1 Reach
RF1DIST	77	82	6.2	Distance From RF1 Reach
RF3INDEX	83	99	17	RF3 Reach Number Location
RF3MILE	100	105	6.2	Mile Point on RF3 Reach
RF3DIST	106	111	6.2	Distance From RF3 Reach
AQCD	112	115	4	Aquifer Code
ASC	116	138	23	STORET Agency/Station Code
AVGD	139	142	4	Average Depth
BUY	143	143	1	Purchase Code
CC1	144	148	5	City Code #1 (EPA Code)
CNC	149	151	3	County Code (FIPS)
CNME	152	166	15	Contact Name
CNN	167	186	20	County Name
CTITLE	187	201	15	Contact Title
CTY	202	221	20	City Name
DUD	222	229	8	Date of Update
FRDS	230	238	9	FRDS ID# - Cross-Reference
GEOAG	239	258	20	Geologic Age
GEOCDE	259	261	3	Geologic Age Code
IDAT	262	269	8	Date (mm/dd/yy)

Drinking Water Intakes File: TUMADRIN.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
INTAKET	270	270	1	Type Source G/S/B
INTRVWR	271	285	15	Interviewer
MAXD	286	289	4	Maximum Depth
MILES	290	296	7.2	Miles
MIND	297	300	4	Minimum Depth
NAME	301	320	20	Name
NPD	321	329	9	NPDES# XREF to IFD Database
NWLS	330	332	3	Number of Wells
OWN	333	335	3	Ownership
PAVGF	336	342	7.2	Production Avg. Daily (Gal/Day)
PCTSUP	343	345	3	%Surface / %Ground
PHONE	346	355	10	Telephone Number
PMAXF	356	362	7.2	Production Max. Daily (Gal/Day)
POPSV	363	371	9	Population Served
REG	372	373	2	EPA Region
SHLAT	374	379	6	Sitehelp Latitude (DDMMSS)
SHLNG	380	386	7	Sitehelp Longitude (DDDMMSS)
SHMILES	387	393	7.2	Sitehelp Miles
SHNME	394	403	10	Sitehelp Source Name
SHPCT	404	410	7.2	Sitehelp Percent of Reach Miles
SRC	411	413	3	Sitehelp Source Code
STA	414	415	2	State Abbreviation
STC	416	417	2	State Code (FIPS)
TUF	418	424	7.2	Total Utility Flow
TYPCDE	425	425	1	Type Code
UHF	426	426	1	Utility Hit Flag (Reach File)
VCDE	427	427	1	Versar Code='V'=>25K; '*'=<25K POPSVD
WFPC	428	428	1	Wellfield Precision Code
WFTYP	429	429	1	Well Type (Cassing,Artesian,Infiltration,etc.)

Drinking Water Intakes File: TUMADRIN.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
WUN	430	449	20	Water Utility Name

The following table provides the DBASE III+ database field structures for the Water Gage database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Water Gage File: TUMAGAGE.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	20	20	Site Identifier
LATITUDE	21	28	8	Facility Latitude (DDMMSS)
LONGITUDE	29	37	9	Facility Longitude (DDDMMSS)
LAT	38	48	11.6	Facility Latitude (decimal degrees, (-) below equator)
LON	49	59	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
RF1INDEX	60	70	11	RF1 Reach Number Location
RF1MILE	71	76	6.2	Mile Point on RF1 Reach
RF1DIST	77	82	6.2	Distance From RF1 Reach
RF3INDEX	83	99	17	RF3 Reach Number Location
RF3MILE	100	105	6.2	Mile Point on RF3 Reach
RF3DIST	106	111	6.2	Distance From RF3 Reach
JAN	112	118	7.2	Monthly Flow - January
FEB	119	125	7.2	Monthly Flow - February
MAR	126	132	7.2	Monthly Flow - March
APR	133	139	7.2	Monthly Flow - April
MAY	140	146	7.2	Monthly Flow - May
JUN	147	153	7.2	Monthly Flow - June
JUL	154	160	7.2	Monthly Flow - July
AUG	161	167	7.2	Monthly Flow - August
SEP	168	174	7.2	Monthly Flow - September
OCT	175	181	7.2	Monthly Flow - October
NOV	182	188	7.2	Monthly Flow - November
DEC	189	195	7.2	Monthly Flow - December
RGN	196	197	2	Region Code
AREA	198	204	7.2	Drainage Area (SQ.MI.)
DUD	205	212	8	Date of Update

Water Gage File: TUMAGAGE.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
FBCF	213	213	1	Flag - Basic Characteristic File ('Y')
FDFF	214	214	1	Flag - Daily Flows File ('Y')
FQMINV	215	224	10	IHS Pt. Files Index
GHF	225	225	1	Hit Flag (Reach File)
ICDE	226	226	1	Integrity Code
LFVEL	227	233	7.2	Low Flow Velocity
METHOD	234	236	3	Calculation Method Code
MFVEL	237	243	7.2	Mean Flow Velocity
MNFLO	244	250	7.2	USGS Mean Annual Flow
NME	251	298	48	Station Name
SHLAT	299	304	6	Sitehelp Latitude (DDMMSS)
SHLNG	305	311	7	Sitehelp Longitude (DDDMMSS)
SHMILES	312	318	7.2	Sitehelp Miles
SHNME	319	328	10	Sitehelp Source Name
SHPCT	329	335	7.2	Sitehelp Percent of Reach Miles
SITE	336	337	2	Site Location
SRC	338	340	3	Sitehelp Source Code
STCTY	341	345	5	State/County Numeric Code
SVTEN	346	352	7.2	USGS 7-10 Year Flow
BEG_WYR	353	356	4	Beginning Water Year
END_WYR	357	359	4	Ending Water Year
ELEV	361	368	8.2	Elevation (Feet)
WELL_DP	369	376	8.2	Well Depth (Feet)

The following table provides the DBASE III+ database field structures for the Water Impoundment database. As this file is geo-referenced, it should import easily into the park's Geographic Information System.

Water Impoundment File: TUMADAMS.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
SITEID	1	7	7	Site Identifier
SOURCE	8	10	3	Source of Data
ST1	11	12	2	Primary State Code Abbreviation
STCTY1	13	17	5	State/County Numeric Code
NAME	18	47	30	Official Name of Dam
LATITUDE	48	53	6	Facility Latitude (DDMMSS)
LONGITUDE	54	60	7	Facility Longitude (DDDMMSS)
LAT	61	70	10.6	Facility Latitude (decimal degrees, (-) below equator)
LON	71	81	11.6	Facility Longitude (decimal degrees, (-) west. hem.)
INME	82	111	30	Impoundment Name
RNME	112	139	28	River, Stream, or Tributary Name on Which Dam Built
CUSEGMI	140	149	10	Catalog Unit, Segment, and Segment Length
REGN	150	151	2	Water Resources Council Region Code
RGBSN	152	155	4	Water Resources Region/Basin Code
CU	156	163	8	Catalog Unit
SEG	164	166	3	Reach Segment of Dam
SEGL	167	171	5.2	Reach Segment Length
PURP	172	172	1	Major Purpose of Dam
				I=Irrigation
				H=Hydroelectric
				N=Navigation
				S=Water Supply
				R=Recreation
				P=Stock/Farm Pond
				D=Debris Control
				F=Flood Control

Water Impoundment File: TUMADAMS.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
				O=Other
FRF3	173	189	17	RF3 Reach Number Location
FRF3MI	190	194	5	Mile Point on RF3 Reach
PURPKEY	195	195	1	Purpose Key
PUR2	196	196	1	Purpose of Dam 2 (See Above)
PUR3	197	197	1	Purpose of Dam 3 (See Above)
PUR4	198	198	1	Purpose of Dam 4 (See Above)
PUR5	199	199	1	Purpose of Dam 5 (See Above)
PUR6	200	200	1	Purpose of Dam 6 (See Above)
PUR7	201	201	1	Purpose of Dam 7 (See Above)
PUR8	202	202	1	Purpose of Dam 8 (See Above)
PUR9	203	203	1	Purpose of Dam 9 (See Above)
PUR10	204	204	1	Purpose of Dam 10 (See Above)
TYPDAM	205	206	2	Major Dam Portion Type
				RE=Earth
				VA=Vaulted Arch
				CD=Buttress
				PG=Gravity
				ER=Rockfill
				MV=Multi-Arch
				OT=Other
YRCMP	207	210	4	Year Dam Completed
SHGT	211	214	4	Structural Height (Feet)
HHGT	215	218	4	Hydraulic Height (Feet)
VNORM	219	236	8	Normal Storage of Impoundment (Acre-Feet)
VMAX	227	234	8	Maximum Storage of Impoundment (Acre-Feet)
LCRST	235	239	5	Crest Length of Dam (Feet)
TSPL	240	240	1	Spillway Type
				C=Controlled

Water Impoundment File: TUMADAMS.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
				U=Uncontrolled
				N=None
				X=Unknown
WSPL	241	244	4	Dam Spillway Width (Feet)
QMAX	245	251	7	Maximum Spillway Discharge (CFS)
PINS	252	258	7.2	Quantity of Installed Power (Megawatts)
PPRO	259	265	7.2	Quantity of Proposed Power (Megawatts)
LOCK	266	266	1	Number of Navigational Locks
OWNR	267	290	24	Name of Impoundment Owner
PFOWN	291	291	1	Ownership Code
				N=Non-Federal
				G=Federal Government Agency
				C=Corps of Engineers
				X=Unknown
FEDR	292	292	1	Federally Regulated (Y=Yes, N=No, X=Unknown)
FLND	293	293	1	Private Dam on Federal Land (Y=Yes, N=No, X=Unknown)
SCSA	294	294	1	Type of Soil Conservation Service Assistance
				N=No Assistance
				T=Technical Assistance
				F=Financial Assistance
				B=Both Technical and Financial Assistance
				X=Unknown
DHAZ	295	295	1	Degree of Downstream Hazard
				1=High (More than a Few Lives Lost; Excessive Economic Loss)
				2=Significant (A Few Lives Lost; Appreciable Economic Loss)
				3=Low (No Lives Expected Lost; Minimal Economic Loss)
DCITY	296	319	24	Nearest Downstream City

Water Impoundment File: TUMADAMS.DBF in TUMASITE.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
POP	320	326	7	Population of Downstream City
DMILE	327	331	5.2	Distance of Downstream City From Dam (Miles)
RET	332	342	11.2	Retention Coefficient (Dimensionless)
MIX	343	353	11.2	Mixing Coefficient (Dimensionless)
SAREA	354	361	8	Surface Area of Impoundment (Acres)
SAFLG	362	362	1	Surface Area Flag (C=Calc., M=Measured, O=Other)
ILNTH	363	367	5	Length of Impoundment (Feet)
ILFLG	368	368	1	Impoundment Length Flag (C=Calc., M=Measured, O=Other)
UPKEY	369	374	6	Update Key (YYMMDD)

The following table provides the ASCII and DBASE III+ database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) attributes. The actual numeric file names will vary depending on the catalog unit(s). This information can be readily incorporated into the park's Geographic Information System.

RF3 Structure File: 12345678.RF3 and 12345678.DBF in TUMARF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
CATUNIT	1	8	8	Cataloging Unit (CU)
SEGM	9	12	4	Segment Number (SEG)
MI	13	17	5.2	Mile Point (MI)
UPMI	18	22	5.2	Upstream Mile Pt.
SEQNO	23	33	11.6	Hydro Sequence No.
RFLAG	34	34	1	Reach Flag (0,1)
OWFLAG	35	35	1	Open Water Flag (0,1)
TFLAG	36	36	1	Terminal Flag (0,1)
SFLAG	37	37	1	Start Flag (0,1)
RCHTYPE	38	38	1	Reach Type Code
LEV	39	40	2	Stream Level
JUNC	41	42	2	Level of Downstream Reach
DIVERGENCE	43	43	1	Divergence Code
STARTCU	44	51	8	Start CU
STRTSG	52	55	4	Start SEG
STOPCU	56	63	8	Stop CU
STOPSG	64	67	4	Stop SEG
USDIR	68	68	1	Upstream Direction
TERMID	69	73	5	Terminal Stream ID
TRMBLV	74	74	1	Terminal Base Level
PNAME	75	104	30	Primary Name
PNMCD	105	115	11	Primary Name Code
CNAME	116	145	30	Complement Name
CNMCD	146	156	11	Complement Name Code

RF3 Structure File: 12345678.RF3 and 12345678.DBF in TUMARF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
OWNAME	157	186	30	Open Water Name
OWNMCD	187	197	11	Open Water Name Code
DSCU	198	205	8	Downstream CU
DSSEG	206	209	4	Downstream SEG
DSMI	210	214	5.2	Downstream MI
CCU	215	222	8	Complement CU
CSEG	223	226	4	Complement SEG
CMILE	227	231	5.2	Complement MI
CDIR	232	232	1	Complement Direction
ULCU	233	240	8	Upstream Left CU
ULSEG	241	244	4	Upstream Left SEG
ULMI	245	249	5.2	Upstream Left MI
URCU	250	257	8	Upstream Right CU
URSEG	258	261	4	Upstream Right SEG
URMI	262	266	5.2	Upstream Right MI
SEGL	267	272	6.2	Reach Length (Miles)
RFORGFLAG	273	273	1	RF Orgin flag(1,2,3)
ALTPNMCD	274	281	8	Alt. Primary Name Code
ALTOWNMC	282	289	8	Alt. OW Name Code
DLAT	290	297	8.4	Downstream Latitude
DLONG	298	305	8.4	Downstream Longitude
ULAT	306	313	8.4	Upstream Latitude
ULONG	314	321	8.4	Upstream Longitude
MINLAT	322	329	8.4	Minimum Latitude
MINLONG	330	337	8.4	Minimum Longitude
MAXLAT	338	345	8.4	Maximum Latitude
MAXLONG	346	353	8.4	Maximum Longitude
NDLGREC	354	357	4	No. of DLG Records
LL1KEY1	358	367	10	Starting DLG LL Key1

RF3 Structure File: 12345678.RF3 and 12345678.DBF in TUMARF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
LL2KEY1	368	377	10	Ending DLG LL Key1
LL1KEY2	378	387	10	Starting DLG LL Key2
LL2KEY2	388	497	10	Ending DLG LL Key2
LL1KEY3	398	407	10	Starting DLG LL Key3
LL2KEY3	408	417	10	Ending DLG LL Key3
LL1KEY4	418	427	10	Starting DLG LL Key4
LL2KEY4	428	437	10	Ending DLG LL Key4
LL1KEY5	438	447	10	Starting DLG LL Key5
LL2KEY5	448	457	10	Ending DLG LL Key5
LL1KEY6	458	467	10	Starting DLG LL Key6
LL2KEY6	468	477	10	Ending DLG LL Key6
LL1KEY7	478	487	10	Starting DLG LL Key7
LL2KEY7	488	597	10	Ending DLG LL Key7
LL1KEY8	498	507	10	Starting DLG LL Key8
LL2KEY8	508	517	10	Ending DLG LL Key8
LL1KEY9	518	527	10	Starting DLG LL Key9
LL2KEY9	528	537	10	Ending DLG LL Key9
LL1KEY10	538	547	10	Start DLG LL Key 10
LL2KEY10	548	557	10	Ending DLG LL Key10
LN1AT2	558	561	4	DLG Line Attr. 1
LN2AT2	562	565	4	DLG Line Attr. 2
AREA1	566	569	4	DLG Area ID 1
AREA2	570	573	4	DLG Area ID 2
AR1AT2	574	577	4	DLG Area Attribute
AR1AT4	578	581	4	DLG Area Attribute
AR2AT2	582	585	4	DLG Area Attribute
AR2AT4	586	589	4	DLG Area Attribute
UPDATE1	590	595	6	Update Date #1 (mmddyy)
UPDTCD1	596	603	8	Update Type Code #1

RF3 Structure File: 12345678.RF3 and 12345678.DBF in TUMARF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
UPDTSRC1	604	611	8	Update Source #1
UPDATE2	612	617	6	Update Date #2 (mmddyy)
UPDTCD2	618	625	8	Update Type Code#2
UPDTSRC2	626	633	8	Update Source #2
UPDATE3	634	639	6	Update Date #3 (mmddyy)
UPDTCD3	640	647	8	Update Type Code #3
UPDTSRC3	648	655	8	Update Source #3
DIVCU	656	663	8	Divergent CU
DIVSEG	664	667	4	Divergent SEG
DIVMILE	668	672	5.2	Divergent MI
DLGID	673	678	6	DLG Number Special Use For Internal State Codes
FILLER	678	685	7	Filler: Future Use

Note: The structure for the .DBF file varies slightly from the RF3 structure displayed here in that the fields UPDATE1, UPDATE2, and UPDATE3 have a width of 8 and the last two fields, DLGID and FILLER, have been replaced with a field named ID of length 17. This ID field combines the CATUNIT, SEGM, and MI fields.

The following table provides the ASCII database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) traces. The actual numeric file names will vary depending on the catalog unit(s). This file contains the actual hydrographic network and is suitable for conversion into a variety of Geographic Information System formats.

RF3 Trace File: 12345678.TRC in TUMARF3.ZIP				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
(Header Record)				
CATUNIT	1	8	8	Cataloging Unit
SEGM	9	12	4	Segment Number
MI	13	17	5.2	Mile Point
NPTS	18	21	4	Number of Lat/Lon Coordinates
(Coordinate Record)				
LATITUDE	1	8	8.4	Latitude in Decimal
LONGITUDE	9	16	8.4	Longitude in Decimal
FILLER	17	21	5	

The following table provides the ASCII database field structures for the EPA River Reach File Ver. 3.0 (1:100,000 scale hydrography) catalog unit boundary file. The actual numeric file names will vary depending on the catalog unit(s). This file contains the actual catalog unit boundary and is suitable for conversion into a variety of Geographic Information System formats.

Catalog Unit Boundary File: 12345678.CUB in TUMARF3.ZIP
First Line = Catalog Unit Number (8 Characters)
Subsequent Lines:
L=DDMMSS,L=DDDMMSS,L=DDMMSS,L=DDDMMSS,L=DDMMSS,L=DDDMMSS, ...
Example:
02070010
L=391259,L=0770809,L=391220,L=0770749,L=391147,L=0770715,L=391120,L=0770633,
L=391058,L=0770535,L=391042,L=0770520,L=391016,L=0770427,L=390948,L=0770416,
L=390526,L=0765331,L=390500,L=0765149,L=390456,L=0765139,L=390357,L=0765123,
...
L=390744,L=0771007,L=390826,L=0771022,L=390910,L=0771022,L=390950,L=0771003,
L=391107,L=0770922,
There can be as many as four latitude/longitude pairs per line.

The following table provides the DBASE III+ database field structure of the Water Resources Division's "encyclopedia" file that documents the minimum and maximum parameter values found and the park(s) where they occurred. This file is intended for Water Resources Division internal use, but will be available to anyone upon request after Baseline Water Quality Data Inventory and Analysis reports have been completed for all parks.

Encyclopedia File: WRD File For Internal Use Only				
Field Name	**Start**	**Stop**	**Length**	**Field Description**
PARM	1	5	5	STORET Parameter Code
PARMNAME	6	45	40	Parameter Name
MINVAL	46	61	16.7	Minimum Value
MINVALPARK	62	65	4	Park Unit with Minimum Value
MAXVAL	66	71	16.7	Maximum Value
MAXVALPARK	72	75	4	Park Unit with Maximum Value

Appendix C

STORET Water Quality Control/Edit Checking

The following table provides the high and low values used by STORET since November 1983 for 190 common water quality parameters to screen or error check data. Data entered into STORET prior to November 1983, however, were not subjected to this edit/bounds check. Additionally, data from the USGS WATSTORE system that is loaded into STORET is never subjected to these edit criteria and agencies entering data in STORET can override these edit criteria to enter data values that fall outside a range. As a consequence, all data downloaded from STORET for the purposes of this project were filtered through these edit criteria to document values outside the generally accepted ranges. Decisions were then made on a case-by-case basis to retain or discard obviously incorrect data. Refer to the Water Quality Observations Outside STORET Edit Criteria section of the Interpretive Guide To Water Quality Results chapter for more information on this subject.

STORET Code	STORET Parameter Description	High Value	Low Value
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	37.0	-2.0
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	98.0	31.0
00020	TEMPERATURE, AIR (DEGREES CENTIGRADE)	52.0	-40.0
00021	TEMPERATURE, AIR (DEGREES FAHRENHEIT)	125.0	-40.0
00026	TOXICS-IDENTIFY DATA COLLECTION BY EPA DIRECTIVE	1990.9	1977.0
00032	CLOUD COVER (PERCENT)	101.0	0.0
00035	WIND VELOCITY (MILES PER HOUR)	85.0	0.0
00036	WIND DIRECTION IN DEGREES FROM TRUE N (CLOCKWISE)	361.0	0.0
00045	PRECIPITATION, TOTAL (INCHES PER DAY)	15.0	0.0
00070	TURBIDITY, (JACKSON CANDLE UNITS)	1500.0	0.0
00074	TURBIDITY, TRANSMISSOMETER, PERCENT TRANSMISSION	101.0	0.0
00075	TURBIDITY, HELLIGE (PPM AS SILICON DIOXIDE)	500.0	0.0
00076	TURBIDITY,HACH TURBIDIMETER (FORMAZIN TURB UNIT)	1000.0	0.0
00077	TRANSPARENCY, SECCHI DISC (INCHES)	600.0	0.0
00080	COLOR (PLATINUM-COBALT UNITS)	500.0	0.0
00081	COLOR,APPARENT(UNFILTERED SAMPLE) PLAT-COB UNITS	500.0	0.0
00085	ODOR (THRESHOLD NUMBER AT ROOM TEMPERATURE)	250.0	0.0
00094	SPECIFIC CONDUCTANCE,FIELD (UMHOS/CM @ 25C)	60000.0	1.0
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	60000.0	1.0
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	30.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
00300	OXYGEN, DISSOLVED (MG/L)	30.0	0.0
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION%	200.0	0.0
00310	BOD, 5 DAY, 20 DEG C (MG/L)	150.0	0.0
00335	COD, .025N K2CR2O7 (MG/L)	1000.0	0.0
00340	COD, .25N K2CR2O7 (MG/L)	1000.0	0.0
00365	CHLORINE DEMAND, 15 MINUTE (MG/L)	15.0	0.0
00400	PH (STANDARD UNITS)	12.0	0.9
00403	PH, LAB, STANDARD UNITS, (STANDARD UNITS)	12.0	0.9
00405	CARBON DIOXIDE (MG/L AS CO2)	100.0	0.0
00406	PH, FIELD (STANDARD UNITS)	12.0	0.9
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	1000.0	0.0
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	750.0	0.0
00435	ACIDITY, TOTAL (MG/L AS CACO3)	1000.0	0.0
00436	ACIDITY, MINERAL (METHYL ORANGE) (MG/L AS CACO3)	1000.0	0.0
00437	ACIDITY, CO2 (PHENOLPHTHALEIN) (MG/L AS CACO3)	750.0	0.0
00440	BICARBONATE ION (MG/L AS HCO3)	450.0	0.0
00445	CARBONATE ION (MG/L AS CO3)	100.0	0.0
00480	SALINITY - PARTS PER THOUSAND	40.0	0.0
00500	RESIDUE, TOTAL (MG/L)	15000.0	0.0
00505	RESIDUE, TOTAL VOLATILE (MG/L)	10000.0	0.0
00510	RESIDUE, TOTAL FIXED (MG/L)	10000.0	0.0
00515	RESIDUE, TOTAL FILTRABLE (DRIED AT 105C), (MG/L)	20000.0	0.0
00520	RESIDUE, VOLATILE FILTRABLE (MG/L)	10000.0	0.0
00525	RESIDUE, FIXED FILTRABLE (MG/L)	10000.0	0.0
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	10000.0	0.0
00535	RESIDUE, VOLATILE NONFILTRABLE (MG/L)	10000.0	0.0
00540	RESIDUE, FIXED NONFILTRABLE (MG/L)	10000.0	0.0
00545	RESIDUE, SETTLEABLE (ML/L)	1000.0	0.0
00546	RESIDUE, SETTLEABLE (MG/L)	1000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
00550	OIL & GREASE (SOXHLET EXTRACTION) TOTAL,REC., (MG/L)	250.0	0.0
00600	NITROGEN, TOTAL (MG/L AS N)	100.0	0.0
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	15.0	0.0
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	25.0	0.0
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	20.0	0.0
00615	NITRITE NITROGEN, TOTAL (MG/L AS N)	5.0	0.0
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	50.0	0.0
00625	NITROGEN, KJELDAHL, TOTAL, (MG/L AS N)	50.0	0.0
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	55.0	0.0
00635	NITROGEN, AMMONIA & ORG., TOTAL 1 DET (MG/L AS N)	70.0	0.0
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	30.0	0.0
00653	PHOSPHATE, TOTAL SOLUBLE (MG/L)	30.0	0.0
00655	PHOSPHATE, POLY (MG/L AS PO4)	30.0	0.0
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	30.0	0.0
00665	PHOSPHORUS, TOTAL (MG/L AS P)	10.0	0.0
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	10.0	0.0
00680	CARBON, TOTAL ORGANIC (MG/L AS C)	100.0	0.0
00681	CARBON, DISSOLVED ORGANIC (MG/L AS C)	100.0	0.0
00685	CARBON, TOTAL INORGANIC (MG/L AS C)	100.0	0.0
00690	CARBON, TOTAL (MG/L AS C)	150.0	0.0
00720	CYANIDE, TOTAL (MG/L AS CN)	10.0	0.0
00745	SULFIDE, TOTAL (MG/L AS S)	1500.0	0.0
00746	SULFIDE, DISSOLVED (MG/L AS S)	1500.0	0.0
00760	SULFITE WASTE LIQUOR, PEARL BENSON INDEX (MG/L)	150.0	0.0
00900	HARDNESS, TOTAL (MG/L AS CACO3)	5000.0	0.0
00910	CALCIUM (MG/L AS CACO3)	3000.0	0.0
00915	CALCIUM, DISSOLVED (MG/L AS CA)	1000.0	0.0
00916	CALCIUM, TOTAL (MG/L AS CA)	1000.0	0.0
00920	MAGNESIUM (MG/L AS CACO3)	3000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
00925	MAGNESIUM, DISSOLVED (MG/L AS MG)	1000.0	0.0
00927	MAGNESIUM, TOTAL (MG/L AS MG)	1000.0	0.0
00929	SODIUM, TOTAL (MG/L AS NA)	5000.0	0.0
00930	SODIUM, DISSOLVED (MG/L AS NA)	5000.0	0.0
00931	SODIUM ADSORPTION RATIO	50.0	0.0
00935	POTASSIUM, DISSOLVED (MG/L AS K)	175.0	0.0
00937	POTASSIUM, TOTAL MG/L AS K)	175.0	0.0
00940	CHLORIDE, TOTAL IN WATER, (MG/L)	22000.0	0.0
00945	SULFATE, TOTAL (MG/L AS SO4)	2500.0	0.0
00946	SULFATE, DISSOLVED (MG/L AS SO4)	2500.0	0.0
00950	FLUORIDE, DISSOLVED (MG/L AS F)	15.0	0.0
00951	FLUORIDE, TOTAL (MG/L AS F)	15.0	0.0
00955	SILICA, DISSOLVED (MG/L AS SI02)	2000.0	0.0
00956	SILICA, TOTAL (MG/L AS SI02)	2000.0	0.0
01000	ARSENIC, DISSOLVED (UG/L AS AS)	5000.0	0.0
01002	ARSENIC, TOTAL (UG/L AS AS)	5000.0	0.0
01005	BARIUM, DISSOLVED (UG/L AS BA)	2000.0	0.0
01007	BARIUM, TOTAL (UG/L AS BA)	2000.0	0.0
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	2000.0	0.0
01012	BERYLLIUM, TOTAL (UG/L AS BE)	2000.0	0.0
01020	BORON, DISSOLVED (UG/L AS B)	5000.0	0.0
01022	BORON, TOTAL (UG/L AS B)	5000.0	0.0
01025	CADMIUM, DISSOLVED (UG/L AS CD)	500.0	0.0
01027	CADMIUM, TOTAL (UG/L AS CD)	500.0	0.0
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	2000.0	0.0
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	2000.0	0.0
01033	CHROMIUM, TRI-VAL (UG/L AS CR)	2000.0	0.0
01034	CHROMIUM, TOTAL (UG/L AS CR)	2000.0	0.0
01040	COPPER, DISSOLVED (UG/L AS CU)	2000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
01042	COPPER, TOTAL (UG/L AS CU)	5000.0	0.0
01045	IRON, TOTAL (UG/L AS FE)	56000.0	0.0
01046	IRON, DISSOLVED (UG/L AS FE)	56000.0	0.0
01047	IRON, FERROUS (UG/L AS FE)	56000.0	0.0
01049	LEAD, DISSOLVED (UG/L AS PB)	1000.0	0.0
01051	LEAD, TOTAL (UG/L AS PB)	1000.0	0.0
01055	MANGANESE, TOTAL (UG/L AS MN)	5000.0	0.0
01056	MANGANESE, DISSOLVED (UG/L AS MN)	5000.0	0.0
01065	NICKEL, DISSOLVED (UG/L AS NI)	2000.0	0.0
01067	NICKEL, TOTAL (UG/L AS NI)	2000.0	0.0
01075	SILVER, DISSOLVED (UG/L AS AG)	5000.0	0.0
01077	SILVER, TOTAL (UG/L AS AG)	5000.0	0.0
01090	ZINC, DISSOLVED (UG/L AS ZN)	25000.0	0.0
01092	ZINC, TOTAL (UG/L AS ZN)	25000.0	0.0
01105	ALUMINUM, TOTAL (UG/L AS AL)	20000.0	0.0
01106	ALUMINUM, DISSOLVED (UG/L AS AL)	20000.0	0.0
01145	SELENIUM, DISSOLVED (UG/L AS SE)	100.0	0.0
01501	ALPHA, TOTAL	200.0	0.0
01503	ALPHA, DISSOLVED	75.0	0.0
01505	ALPHA, SUSPENDED	150.0	0.0
03501	BETA, TOTAL	3500.0	0.0
03503	BETA, DISSOLVED	3000.0	0.0
03505	BETA, SUSPENDED	1500.0	0.0
09503	RADIUM 226, DISSOLVED	500.0	0.0
13501	STRONTIUM 90, TOTAL	500.0	0.0
22703	URANIUM, NATURAL, DISSOLVED	500.0	0.0
31501	COLIFORM, TOT,MEMBRANE FILTER,IMMED.M-ENDO MED, 35C	24000000.0	0.0
31502	COLIFORM, TOTAL, 10/ML	24000000.0	0.0
31503	COLIFORM, TOT,MEMBR FILTER, DELAYED,M-ENDO MED, 35C	24000000.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
31504	COLIFORM, TOT,MEMBR FILTER,IMMED,LES ENDO AGAR, 35C	24000000.0	0.0
31613	FECAL COLIFORM, MEMBR FILTER, M-FC AGAR,44.5C, 24HR	10000000.0	0.0
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	10000000.0	0.0
31616	FECAL COLIFORM, MEMBR FILTER,M-FC BROTH, 44.5C	10000000.0	0.0
31672	FECAL STREPTOCOCCI,PLATE COUNT M-ENTER AGAR,35C48HR	500000.0	0.0
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	500000.0	0.0
31677	FECAL STREPTOCOCCI,MPN,AD-EVA, 35C (TUBE 31678)	500000.0	0.0
31679	FECAL STREPTOCOCCI, MF M-ENTEROCOCCUS AGAR,35C,48H	500000.0	0.0
31749	PLATE COUNT, TOTAL, TPC AGAR, 20C, 48 HRS	99999999.0	0.0
31751	PLATE COUNT, TOTAL, TPC AGAR, 35C, 24 HRS	99999999.0	0.0
32210	CHLOROPHYLL-A UG/L TRICHROMATIC UNCORRECTED	500.0	0.0
32211	CHLOROPHYLL-A UG/L SPECTROPHOTOMETRIC ACID. METH.	750.0	0.0
32212	CHLOROPHYLL-B UG/L TRICHROMATIC UNCORRECTED	1000.0	0.0
32214	CHLOROPHYLL-C UG/L TRICHROMATIC UNCORRECTED	200.0	0.0
32217	CHLOROPHYLL A UG/L FLUOROMETRIC UNCORRECTED	500.0	0.0
32218	PHEOPHYTIN-A UG/L SPECTROPHOTOMETRIC ACID. METH.	200.0	0.0
32219	PHEOPHYTIN RATIO(OD 663)SPECTRO,BEFORE/AFTER ACID	2.0	0.0
32221	CHLOROPHYLL A,% OF(PHEOPHYTIN A+CHL A),SPEC-ACID.	101.0	0.0
32230	CHLOROPHYLL A (MG/L)	0.5	0.0
32231	CHLOROPHYLL B (MG/L)	0.8	0.0
32232	CHLOROPHYLL C (MG/L)	0.2	0.0
32234	CHLOROPHYLL, TOTAL (A+B+C) (MG/L)	1.0	0.0
32270	CHLOROFORM EXTRACTABLES TOTAL IN MG PER LITER	5.0	0.0
32730	PHENOLICS, TOTAL, RECOVERABLE (UG/L)	1500.0	0.0
38260	METHYLENE BLUE ACTIVE SUBST. (DETERGENTS, ETC.)	10.0	0.0
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39340	GAMMA-BHC(LINDANE),WHOLE WATER, (UG/L)	20.0	0.0
39350	CHLORDANE(TECH MIX & METABS),WHOLE WATER, (UG/L)	20.0	0.0
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0

STORET Code	STORET Parameter Description	High Value	Low Value
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39480	METHOXYCHLOR IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39516	PCBS IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39530	MALATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39540	PARATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39600	METHYL PARATHION IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
39782	LINDANE IN WHOLE WATER SAMPLE (UG/L)	20.0	0.0
50060	CHLORINE, TOTAL RESIDUAL (MG/L)	5.0	0.0
60050	ALGAE, TOTAL (CELLS/ML)	700000.0	0.0
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	4000.0	0.0
70505	PHOSPHATE, TOTAL,COLORIMETRIC METHOD (MG/L AS P)	10.0	0.0
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	10.0	0.0
71850	NITRATE NITROGEN, TOTAL (MG/L AS NO3)	65.0	0.0
71886	PHOSPHORUS, TOTAL, AS PO4 - (MG/L)	30.0	0.0
71890	MERCURY, DISSOLVED (UG/L AS HG)	10.0	0.0
71895	MERCURY, SUSPENDED (UG/L AS HG)	10.0	0.0
71900	MERCURY, TOTAL (UG/L AS HG)	10.0	0.0
74010	IRON, TOTAL (MG/L AS FE)	56000.0	0.0

Appendix D

STORET Administrative Parameters

STORET Code	Description of STORET Administrative Parameters
00022	LENGTH OF EXPOSURE OF SAMPLE OR TEST - DAYS
00026	TOXICS-IDENTIFY DATA COLLECTION BY EPA DIRECTIVE
00027	CODE NO FOR AGENCY COLLECTING SAMPLE
00028	CODE NO FOR AGENCY ANALYZING SAMPLE
00029	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE
00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION
00073	SAMPLE LOC CODE DEFINED BY THERMAL STRUCT & DEPTH
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI
00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)
00116	INTENSIVE SURVEY IDENTIFICATION NUMBER
00145	TOTAL PRODUCTION OF PRODUCT MANUFACTURED TONS/DAY
01273	TOTAL ACID PRIORITY POLLUTANTS MG/L
01274	TOTAL BASE-NEUTRAL PRIORITY POLLUTANTS MG/L
01275	TOTAL VOLATILE PRIORITY POLLUTANTS MG/L
01365	ANALYSIS DATE (DIOXIN) (YYMMDD)
04177	SAMPLE STABILIZATION, RECOVERY TEST CODE
04178	FIELD PROTOCOL(CONFDNCE ASSIGNED FIELD SAMPLE) CODE
04179	SAMPLE STATION LOCKED CODE
04180	CONDITION OF STATION SITE CODE
04181	LABORATORY QA/QC PLAN CONFIDENCE CODE
04182	SAMPLE TYPE CODE
04183	SAMPLE REMARKS CODE
30333	BAG MESH SIZE, BEDLOAD SAMPLER, MM
34772	NPDES NUMBER, CROSS REFERENCE CODE
34785	GAGE TYPE, METHOD CODE

STORET Code	Description of STORET Administrative Parameters
45575	GC MAKE AND MODEL INFORMATION CODE
45576	GC DETECTOR TYPE CODE
45577	GC COLUMN TYPE CODE
45580	METHOD OF ANALYSIS CODE
45581	LABORATORY LOCATION CODE
46107	SAMPLE LOCATION CODE (TREATMENT PLANT OPERATION)
46390	TOXICITY CHARACTERISTIC LEACHING PROCEDURE P OR F
46396	PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS YES OR NO
46397	PROCESS TO FURTHER REDUCE PATHOGENS YES OR NO
47001	PERMIT EXPIRATION DATE (JULIAN CALENDAR)
47044	OBSERVATIONS,WASTE SITE-SEVERITY OF PROBLEMS CODE
47460	SUBSAMPLE - DECIMAL FRACTION OF WHOLE NUMBER
47477	COMPOSITION AND/OR DISPOSITION OF CATCH NUM CODE
70231	CURRENT DIRECTION (DEGREES FROM DOWNSTREAM FLOW)
71999	SAMPLE PURPOSE CODE
72032	NUMBER OF SPILLWAY GATES OPEN
73672	DATE OF ANALYSIS YYMMDD
73673	DATE OF EXTRACTION YYMMDD
74031	GRANT, PROJECT COST ELIGIBLE FOR CONSTRUCTION
74032	GRANT, AMOUNT OF PL 660 GRANT FOR THIS PROJECT
74033	GRANT, FEDERAL, OTHER THAN PL 660 GRANT
74034	GRANT, FUTURE PL 660 WHICH MAY APPLY TO THIS PROJ
74035	GRANT, TOTAL FEDERAL, WHICH APPLIES TO THIS PROJ
74036	GRANT, PROJ NUMBER ASSIGNED TO THIS APPLICATION
74037	GRANT, TYPE OF PROJECT TO WHICH GRANT APPLIES
74038	GRANT, STATUS OF PROJECT TO WHICH GRANT APPLIES
74039	PCS/STORET WATER QUALITY FILE INTERFACE YR/MO/DAY
74040	SURVEY NUMBER YYMMNO
74041	STORET STORAGE TRANSACTION DATE YR/MO/DAY

STORET Code	Description of STORET Administrative Parameters
74050	RADIOACTIVITY, GENERAL (PERMIT)
74051	ALGICIDES, GENERAL (PERMIT)
74052	CHLORINATED HYDROCARBONS, GENERAL (PERMIT)
74053	PESTICIDES, GENERAL (PERMIT)
74056	COLIFORM, TOTAL, GENERAL (PERMIT)
74065	STREAM FLOW CLASS
74066	ANNUAL RUNOFF
74067	SOIL CLASSIFICATION
74068	WATER QUALITY DESIGNATED USE CLASSIFICATION (IA)
74100	PRIMARY 1972 SIC CODE
74101	SECONDARY 1972 SIC CODE
74102	SECONDARY 1972 SIC CODE
74103	SECONDARY 1972 SIC CODE
74200	SAMPLE PRESERVATION METHODS ONE OR MORE IN COMB.
74205	LAND RESOURCE AREA (IOWA)
74206	SOIL EROSION POTENTIAL (IOWA)
74209	WATER QUALITY INDEX - STATE OF ILLINOIS, EPA
74210	FOREST STREAM WATER QUALITY INDEX CALC. NUMBER
74990	FISH SPECIES NUMERIC CODE - F&W SERVICE
74995	ANATOMY CODE
75000	SPECIES CODE-REMARK=SEX (M=MALE,F=FEMALE,U=UNK.)
81028	WITHDRAWAL OF GROUNDWATER (MILLION GAL/DAY)
82258	WATER CLASSIFICATION CODE (1-9) CODE
82292	DATA RELAY GROUND STATION SOURCE NODE CODE, CODE
82309	CONTAMINATION SOURCE POSSIBLE CODES NUMERIC CODE
82310	DEPTH CONFIDENCE IN REPORTED VALUES NUMERIC CODES
82373	FREQUENCY OF SAMPLING M=MON,Q=QUAR,Y=YR,R=RNFFCODE
82519	DRILLER REGISTRATION NUMBER ALPHA-NUMERIC CODE
82562	NARRATIVE REQUIREMENT EXCEEDANCES INTEGER

STORET Code	Description of STORET Administrative Parameters
82576	DAILY EXCURSION TIME, WATER MIN
82577	MONTHLY EXCURSION TIME, WATER TOTAL MIN
82578	DAY/MAXIMUM EXCURSION TIME, WATER MIN
82579	CODE NUMBER FOR PERSON COLLECTING SAMPLE
84002	CODE, GENERAL INFORMATION - ALPHA, NUMERIC CODE
84003	WATER SHED ID NUMBER (IOWA)
84005	FISH SPECIES CODE-FISH & WILDLIFE SER
84006	OWNERSHIP CLASSIFICATION OF LAKE, ILLINOIS SYSTEM
84010	PUBLIC ACCESS TO LAKE ILLINOIS SYSTEM
84011	CONFIDENCE CODE FOR GLC CONFIRMATION CODE
84012	PATIENT PARAMETERS (AGE, SEX, WT, ETC.) CODE
84013	SAMPLE PARAMETERS D=DESIGN SPECIMEN, S=SURPLUS
84027	CODE NUMBER FOR AGENCY COLLECTING SAMPLE
84028	CODE NO FOR AGENCY ANALYZING SAMPLE
84029	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE FIELD
84033	EGD ANALYTICAL DATA COMPLETENESS Y=YES N=NO CODE
84034	EGD SMPL NO.(SMPL.IDENT) NUMERIC=SCS ALPH+4NUM=JRB
84035	EGD SAMPLE CLASSIFICATION CATEGORY ALPHA CODE
84036	EGD INDUSTRIAL CATEGORY NUMERIC CODE
84037	EGD INDUSTRIAL CATEGORY NAME ALPHA CODE
84038	EGD LABORATORY NUMERIC CODE
84039	EGD LABORATORY NAME ALPHA CODE
84040	EGD SAMPLE STATUS (1-5,9,AND BLANK) NUMERIC CODE
84041	EGD ACID STATUS (1-5,9,AND BLANK) NUMERIC CODE
84042	EGD BASE STATUS (1-5,9AND BLANK) NUMERIC CODE
84043	EGD PESTICIDE STATUS (1-5,9,AND BLANK) NUMERIC CODE
84044	EGD VOA FRACT. STATUS INDICATOR (1-5,9,BLANK) CODE
84045	EGD ACID EXTRACT DATE (YYMMDD) NUMERIC CODE
84046	EGD BASE EXTRACTION DATE (YYMMDD) NUMERIC CODE

STORET Code	Description of STORET Administrative Parameters
84047	EGD PESTICIDE EXTRACTION DATE (YYMMDD) NUMERIC CODE
84048	EGD VOA FRACTION INJECTION DATE YYMMDD NUMERIC CODE
84049	EGD ACID CONC. FACTOR (FIVE NUMERIC DIGITS) CODE
84050	EGD BASE CONC.FACTOR (FIVE NUMERIC DIGITS) CODE
84051	EGD PESTICIDE CONC.FACTOR (FIVE NUMERIC DIGITS) CODE
84052	EGD VOA FRACTION CONC. FACTOR (5 NUMERIC DIGITS) CODE
84053	SAMPLE TYPE AND FREQUENCY OF COLLECTION CODE
84054	LITHOLOGY ALPHA-NUMERIC CODE
84055	AVAILABLE LOGS ALPHA-NUMERIC CODE
84056	WATER USE CATEGORY ALPHA-NUMERIC CODE
84057	INSPECTION TYPE ALPHA-NUMERIC CODE
84058	HYDROGEOLOGIC SYSTEM ALPHA-NUMERIC CODE
84059	WELL OWNERSHIP ALPHA-NUMERIC CODE
84060	TOPOGRAPHY ALPHA-NUMERIC CODE
84061	WELL USE ALPHA-NUMERIC CODE
84062	MEASURING POINT DESCRIPTION ALPHA-NUMERIC CODE
84063	DRILLING METHOD ALPHA-NUMERIC CODE
84064	WELL DATA AVAILABILITY ALPHA-NUMERIC CODE
84065	PERMIT COMPLIANCE DATA ALPHA-NUMERIC CODE
84067	NATURE OF MONITORING ALPHA-NUMERIC CODE
84073	REPLACES EXISTING WELL ALPHA-NUMERIC CODE
84074	AQUIFER TYPE (SEE USGS HANDBOOK) ALPHA CODE
84075	WELL PERMIT NUMBER ALPHA-NUMERIC CODE
84076	TSD MONITORING WELL TYPE ALPHA CODE
84077	TSD MONITORING WELL SAMPLING METHOD ALPHA CODE
84083	POLLUTION VERIFICATION ALPHA CODE
84084	WELL SAMPLE PURPOSE ALPHA CODE
84090	SAMPLE FILE CONTROL PROJECT IDENTIFICATION A-CODE
84091	INFILTRATION DATE/BEGINNING 'YYMMDD'

STORET Code	Description of STORET Administrative Parameters
84092	INFILTRATION DATE/ENDING 'YYMMDD'
84093	ENFORCEMENT FORM #2-C,DATA IDENTIFICATION CODE
84102	SAMPLE SPECIES-SUB ID ALPHA CODE
84103	DIOXIN LABORATORY ALPHA CODE
84104	DIOXIN STUDY ALPHA CODE
84112	SOURCE OF GEOHYDROLOGIC DATA CODE
84119	SOURCE OF EVACUATION DATA CODE
84121	REGULATING AGENCY CODE
84122	SAMPLE PURPOSE CODE
84126	SOURCE OF DEPTH DATA CODE
84127	METHOD OF DEPTH MEASUREMENT CODE
84128	SOURCE OF WATER-LEVEL DATA CODE
84129	DATA QUALITY
84141	LAKE, PHYSICAL CONDITION AT SAMPLE TIME, 1-5, CODE
84142	LAKE,RECREATIONAL SUITABILITY @ SMPL TIME,1-5, CODE
84164	SAMPLER TYPE, CODE
85300	PROBLEM CODE NES SURVEY
85327	WATER LEVEL AT SAMPLE COLLECTION TIME-CODE-NES
85332	CLOUD COVER AT SAMPLE COLLECTION TIME-CODE-NES
85553	WELL COMPLETION DATE (MONTH/YEAR)
85554	WELL WORKOVER DATE, LATEST (MONTH/YEAR)

Appendix E

STORET Parameters Not Suitable for Statistical Analysis

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
00001	X-SEC. LOC., HORIZ (FT. FROM R BANK LOOK UPSTR.)
00002	X-SEC. LOC., HORIZ (% FROM R BANK LOOK UPSTR.)
00003	SAMPLING STATION LOCATION, VERTICAL (FEET)
00005	X-SEC. LOC., VERTICAL (PERCENT OF TOTAL DEPTH)
00006	DISTANCE FROM LOCATION IN X MILES
00007	DISTANCE FROM LOCATION IN Y MILES
00008	NUMBER USED IN SAMPLE ACCOUNTING PROCEDURE
00009	X-SEC. LOC.(FT FROM LEFT BANK LOOKING DOWNSTRM)
00027	CODE NO FOR AGENCY COLLECTING SAMPLE
00028	CODE NO FOR AGENCY ANALYZING SAMPLE
00033	WEATHER CODE FOR OCEAN-OBSERV. (WMO CODE 4677)
00037	WIND FORCE (BEAUFORT UNITS)
00038	WIND DIRECTION (WMO CODES 0885 + 0887)
00041	WEATHER (WMO CODE 4501)
00042	ALTITUDE IN FEET ABOVE MEAN SEA LEVEL
00043	CLOUD TYPE (WMO CODE 0500)
00044	CLOUD AMOUNT (WMO CODE 2700)
00047	TOTAL PARTIAL PRESSURE DISSOLVED GASES (MM HG)
00048	TOTAL PARTIAL PRESSURE DISSOLVED GASES (% SAT)
00049	SURFACE AREA IN SQUARE MILES
00050	EVAPORATION, TOTAL (INCHES PER DAY)
00051	SURFACE AREA IN SQUARE FEET
00053	SURFACE AREA, ACRES
00054	RESERVOIR STORAGE - ACRE FEET
00063	SAMPLING POINTS, NUMBER OF IN A CROSS SECTION
00067	TIDE STAGE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
00069	SEA WAVES(0=NONE;1=0-3";2=4-20";3=21-48";4=4-8')
00097	SAMPLING STATION LOCATION, VERTICAL (FEET)
00098	SAMPLING STATION LOCATION, VERTICAL (METERS)
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI
00115	SAMPLE TREATMENT CODE (1=RAW,2=TREATED)
01300	OIL-GREASE (SEVERITY)
01305	DETERGENT SUDS (SEVERITY)
01310	GAS BUBBLES (SEVERITY)
01315	SLUDGE, FLOATING (SEVERITY)
01320	GARBAGE, FLOATING (SEVERITY)
01325	ALGAE, FLOATING MATS (SEVERITY)
01330	ODOR, ATMOSPHERIC (SEVERITY)
01331	TASTE (SEVERITY)
01335	SEWAGE SOLIDS, FRESH, FLOATING (SEVERITY)
01340	FISH, DEAD (SEVERITY)
01345	DEBRIS, FLOATING (SEVERITY)
01350	TURBIDITY (SEVERITY)
01351	FLOW, STRM,1DRY,2LOW,3NORM,4FLOOD,5ABOVE NORM,CODE
01355	ICE COVER, FLOATING OR SOLID (SEVERITY)
03595	BIOASSAY (96 HR), EFFLUENT, TOTAL CODE
03596	BIOASSAY (48 HR), EFFLUENT, TOTAL CODE
03597	BIOASSAY (24 HR), EFFLUENT, TOTAL CODE
03598	TOXICITY, EFFLUENT, TOTAL CODE
03599	TOXICITY, CHOICE OF SPECIES, EFFLUENT CODE
03600	TOXICITY, TROUT, EFFLUENT, TOTAL CODE
03601	TOXICITY, SAND DOLLAR, EFFLUENT CODE
03602	BIOCHEMICAL OXYGEN DEMAND, EFFLUENT, TOTAL CODE
03603	SOLIDS, TOTAL SUSPENDABLE, EFFLUENT, TOTAL CODE
03605	FLOW METER CALIBRATION, WATER CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
03717	ONCORHYNCHUS MYKISS, WATER CODE
04117	TETHER LINE USED FOR COLLECTING SAMPLE CODE
04160	HALOCARBONS, PURGEABLE, SCAN, EFFLUENT CODE
04161	HALOCARBONS, PURGEABLE, SCAN, SLUDGE CODE
04162	AROMATIC, PURGEABLE, SCAN, EFFLUENT CODE
04163	AROMATIC, PURGEABLE, SCAN, SLUDGE CODE
04164	PHENOLIC, TOTAL, SCAN, EFFLUENT CODE
04165	PHENOLIC, TOTAL, SCAN, SLUDGE CODE
04166	PCB, TOTAL, SCAN, EFFLUENT CODE
04167	PCB, TOTAL, SCAN, SLUDGE CODE
04174	FREE LIQUIDS IN SEWAGE SLUDGE CODE
34765	AVIAN NUMERICAL SPECIES CODE (BIRDS)
34766	MAMMALIAN NUMERICAL SPECIES CODE
34771	MACROPHYTE, INSTREAM, VISUAL SIGHTING CODE
34773	ODOR, AMBIENT WATER CODE
34774	FISH, INSTREAM, VISUAL SIGHTING CODE
34775	STREAMBANK CHANNEL ALTERATIONS CODE
34776	HYDRAULIC STRUCTURES, INSTREAM CODE
34780	LAND USE, ADJACENT STREAM CODE
34781	SAMPLE POINTS, # OF LONGTDNL TRANSECTS, REACH CODE
34782	STREAM STAGE TREND CODE
34789	HABITATS, TYPES SAMPLED CODE
45613	FLOATING SOLIDS/VISIBLE FOAM, VISUAL, YES=1, NO=0, CODE
45614	SANITARY WASTE DISCHARGE ASSESSMENT, YES=1, NO=0, CODE
45615	INTERMITTENT DISCHARGE ASSESSMENT, YES=1, NO=0,CODE
46001	WATER APPEARANCE CODE (BASED ON FIELD ASSESSMENT)
46478	EQUIPMENT INSPECTION, VISUAL CODE
46486	TOXICITY,ACUTE 24HR(STATIC)CERIODAPHNIA (P/F) CODE
47454	FLOW METER REVOLUTIONS NUMBER

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
47455	LATITUDE, STARTING, OF A SAMPLE TOW DDMMSS
47456	LONGITUDE, STARTING, OF A SAMPLE TOW DDDMMSS
47457	LATITUDE, FINISHING, OF A SAMPLE TOW DDMMSS
47458	LONGITUDE, FINISHING, OF A SAMPLE TOW DDDMMSS
47459	LENGTH FREQUENCY NUMBER
47461	TIME THAT THE EQUIPMENT WAS SAMPLING MINUTES
47476	DIRECTION OF TOW IN RELATION TO CURRENT NUM CODE
50044	HYDROGRAPH LIMB, 1BASE, 2RISING, 3PEAK, 4FALLING, CODE
61390	DIATOMS,FIRST DOMINANT SPECIES OF UNITS - CODE
61391	DIATOMS,SECOND DOMINANT SPECIES OF UNITS - CODE
61392	DIATOMS,THIRD DOMINANT SPECIES OF UNITS - CODE
61393	DIATOMS,FOURTH DOMINANT SPECIES OF UNITS - CODE
70220	WAVE DIRECTION (WMO CODES 0885 + 0887)
70222	WAVE HEIGHT (WMO CODE 1555)
70223	WAVE PERIOD (WMO CODE 3155)
71090	BIVALVE SPECIES CODE
71500	EQUITABILITY INDEX,BENTHIC MACROINVER CODE
72000	ELEVATION OF LAND SURFACE DATUM (FT. ABOVE MSL)
72001	DEPTH, TOTAL OF HOLE (FT BELOW LAND SURFACE DATUM)
72002	DEPTH TO TOP OF WATER-BEARING ZONE SAMPLED (FT)
72003	DEPTH TO BOTTOM OF WATER-BEARING ZONE SAMPLED (FT)
72004	PUMP OR FLOW PERIOD PRIOR TO SAMPLING MINUTES
72005	SAMPLE SOURCE CODE (BM WELL DATA)
72006	SAMPLING CONDITION CODE (BM WELL DATA)
72007	FORMATION NAME CODE (BM WELL DATA)
72017	SERIES CODE (BM WELL DATA)
72018	SYSTEM CODE (BM WELL DATA)
72111	DIRECT READOUT GROUND STATN TRANSMIT EROR CODE NUM
74054	FECAL STREPTOCOCCI, GENERAL (PERMIT)

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
74055	FECAL COLIFORM, GENERAL (PERMIT)
80889	ACTIVATED SLUDGE PROCESS MODIFICATION CODE
81024	DRAINAGE AREA IN SQUARE MILES (SQ. MI.)
81637	SHELLFISH SPECIES NUMERIC CODE
82289	LAGOON OBSERVATION, VISUAL, Y=YES N=NO CODE
82398	SAMPLING METHOD (CODES)
82524	STORAGE COEFFICIENT NUMERICAL CODE
82923	ATMOSPHERIC DEPOSITION TYPE, WET CODE
83205	ATMOSPHERIC DEPOSITION TYPE, BULK CODE
84000	GEOLOGIC AGE CODE (SEE USGS CATALOG)
84001	AQUIFER NAME CODE (SEE USGS CATALOG)
84004	LAKE TYPE ILLINOIS CLASSIFICATION SYSTEM
84007	ANATOMY ALPHA CODE
84008	LIFE STYLE/HABITAT OF THE INDIVIDUALS IN THE SAMPLE
84009	SHELLFISH SPECIES ALPHANUMERIC CODE
84014	SPECIES SEX CODE
84030	CLOUD AMOUNT ALPHA WEATHER CODES
84031	PHYSICAL WEATHER ALPHA WEATHER CODES
84032	STREAM CONDITION ALPHA WEATHER CODES
84066	OIL AND GREASE, VISUAL, ALPHA-NUMERIC CODE
84068	SERIES CODE ALPHA-NUMERIC CODE
84069	FORMATION CODE ALPHA-NUMERIC CODE
84070	METHOD OF TESTING WELL YIELD ALPHA-NUMERIC CODE
84071	WATER LEVEL MEASUREMENT CONDITIONS ALPHA-NUM CODE
84072	WATER LEVEL MEASUREMENT METHOD ALPHA-NUMERIC CODE
84078	GIARDIA LAMBLIA, 2HSO4 OR SUC GRAD, MICRO, CODE
84079	BACTERIA, CELLUOLYTIC, AEROBIC-ANAEROBIC, RT 5-7, CODE
84080	BACTERIA, HYDROCARBONOCLASTIC, SHAKE INC 32C/WK, CODE
84081	YERSINIA ENTEROCOLITICA, SB BROTH, MAC AGAR,22C, CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
84082	SALMONELLA/SHIGELLA, QUANT OR QUAL, HVF OR SWAB, CODE
84085	ORGANICS, VOLATILE, DETECTED, NUMERIC CODE, CODE
84086	MACROINVERTEBRATE SPECIES NUMERIC CODE
84087	MACROINVERTEBRATE HABITAT CODE
84088	BIOLOGY 1 MACROINVERTEBRATE CODE
84089	BIOLOGY 2 MACROINVERTEBRATE CODE
84094	PHYTOPLANKTON SPECIES CODE, NUMERIC
84095	PHYTOPLANKTON SPECIES CODE, ALPHA
84096	SEVERITY OF NON-PLANKTON ALGAE-MAT COVERAGE CODE
84097	LAGOON MOUTH CONDITION CODE
84098	COLOR OF NON-PLANKTONIC ALGAE CODE
84099	WATER - RELATIVE WATER LEVEL CODE
84100	SEX(1-MALE,2-FEMALE,3-MIXED,4-UNKNOWN) NUM CODE
84101	METAFORM, BENTHIC, ADULT(A), PUPAE(P), LARVAE(L) CODE
84105	OIL-SEPARATOR OBSERVATION ASSESS (0=DID NOT,1=DID)
84106	EVAPORAT/BED OBS ASSESS (0=DID NOT LOOK, 1=DID LOOK)
84107	AREA INSPECTION, VISUAL (0=DID NOT, 1=DID) CODE
84108	DRAIN FIELD INSPECTION ASSESS (0=DID NOT, 1=DID) CODE
84109	SLUDGE BUILD-UP IN WATER (0=DID NOT OBS, 1=OBS) CODE
84110	POND OBSERVATION ASSESS WATER (0=DID NOT, 1=DID) CODE
84111	LITHOLOGIC MODIFIER CODE
84113	WELL INTAKE FINISH CODE
84114	WELL CASING MATERIAL CODE
84115	TYPE OF MATERIAL FROM WHICH OPENING IS MADE CODE
84116	DRILLING FLUID CODE
84117	TYPE OF SURFACE SEAL CODE
84118	METHOD OF DEVELOPMENT CODE
84120	PACKING MATERIAL CODE
84124	METHOD OF EVACUTAION CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
84125	METHOD OF WATER-LEVEL MEASUREMENT CODE
84130	OUTFALL OBSERVATION, VISUAL, Y=YES N=NO CODE
84131	SAMPLING METHOD, CONFIDENCE CODE (A,B,C,D) CODE
84132	STREAMBANK, VEGETATIVE STABILITY RATING CODE
84133	STREAMBANK, STABILITY (BANK EROSION) RATING CODE
84134	PARTICLES, DEGREE SURROUNDED BY FINE SEDIMENT, CODE
84135	STREAMSIDE, (SHORELINE) COVER RATING CODE
84136	CANOPY TYPE CODE
84137	CHANNEL STABILITY RATING CODE (E,G,F,P) CODE
84138	COLIFORM, TOTAL, WATER, WHOLE, MPN, PRES=1, ABSNT=2, CODE
84139	ENTEROBACTER AGGLOMERANS, WTR, MF, PRES=1, ABSNT=2, CODE
84140	KLEBSIELLA PNEUMONIAE, WTR, WH, MF, PRES=1, ABSNT=2, CODE
84143	WELL, PURGING CONDITION CODE
84144	WELL, SELECTION CRITERIA CODE
84145	PROJECT COMPONENT CODE
84146	LAND USE, PREDOMINANT, WITHIN 100 FT OF WELL, CODE
84147	LAND USE, PREDOMINANT, 1/4 MI.RADIUS OF WELL, CODE
84148	LAND USE, PREDMNT., FRAC., WITHIN 1/4 MI OF WELL, CODE
84149	LAND USE, CHANGE, LAST 10 YRS, WITHIN 1/4MI WELL, CODE
84150	HABITAT QUALITY INDEX RATING CODE
84151	AQUATIC LIFE, USE CLASSES CODE
84152	STREAM, STAGE CLASS CODE
84153	STREAMBANKS, GRAZING DAMAGE CODE
84154	CHANNEL, MAJOR ALTERATIONS CODE
84155	RIFFLE/RUNS, OCCURRENCE CODE
84156	POOL, DESCRIPTION CODE
84157	SANDBARS, LARGE, OCCURRENCE CODE
84158	LAND USE, NEAR STREAM, PREDOMINANT CODE
84159	STREAM,COVER (INSTREAM SHELTER FOR ADULT FISH), CODE

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
84160	STREAM, DEGRADATION RATING CODE
84161	STREAM, ORDER CODE
84162	LAND RESOURCE AREA CODE
84163	FLOW, STREAM, CLASSIFICATION CODE
84165	DISCHARGE EVENT OBSERVATION, YES=1 NO=0, CODE
84166	STORM HYDROGRAPH, DIRECTION, (RISE,FALL), CODE
84167	MICROSCOPIC EXAMINATION CODE
84168	AVIAN SPECIES ALPHA CODE (BIRDS)
84169	MAMMALIAN ALPHA SPECIES CODE
84170	ALPHA AGE TEXT CODE
84200	LATITUDE/LONGITUDE COORDINATES OF WELL, METHOD CODE
84201	NATIONAL REFERENCE DATUM, ALTITUDE(VERTICAL) CODE
84202	ALTITUDE METHOD CODE
85000	STREAM MILE, ACTUAL MILES
85014	HABITAT, 1970 ACRES THIS TYPE FOR THIS STATION
85015	HAB., ESTIMATED ACRES THIS TYPE THIS STATION
85016	HAB., ESTIMATED ACRES THIS TYPE THIS STA. BY 1990
85017	HAB., ESTIMATED ACRES THIS TYPE THIS STA. BY 2000
85018	TYPE CODES: 1=CLEAR CUT/2=SELECT CUT/3=RNGE DEVLP
85019	ACRES, NO. ALTERED FROM 1965-1970 (0-5 YEARS OLD)
85020	ACRES, NO. ALTERED 1960-1965 (5-10 YEARS OLD)
85021	ACRES, NO. ALTERED 1955-1960 (10-15 YEARS OLD)
85022	ACRES, NO. ALTERED 1950-1955 (15-20 YEARS OLD)
85023	ACRES, NO. ALTERED BEFORE 1950 (20+ YEARS OLD)
85024	ACRES,PREDICTED YRLY.AVE.TO BE ALTERED IN FUTURE
85025	LANDOWNERS, CODES FOR ALL IN STATE OF OREGON
85026	ACRES, CURRENT OWNED THIS LANDOWNER THIS STATION
85027	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 1980
85028	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 1990

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85029	ACRES, ESTIMATED OWNED BY L-O THIS STA. BY 2000
85030	LAND USES, CODES FOR ALL IN STATE OF OREGON
85031	ACRES, CURRENT DEDICATED TO THIS USE THIS STATION
85032	ACRES, ESTM. DEDICTD TO THIS USE THIS STA BY 1980
85033	ACRES, ESTM. DEDICTD TO THIS USE THIS STA BY 1990
85034	ACRES, ESTM. DEDICTD TO THIS USE BY YR.2000 --STA.
85035	HAB., INDICATED ANIMAL USES THIS TYPE IN WINTER
85036	HAB., INDICATED ANIMAL USES THIS TYPE IN SPRING
85037	HAB., INDICATED ANIMAL USES THIS TYPE IN SUMMER
85038	HAB., INDICATED ANIMAL USES THIS TYPE IN FALL
85039	HAB., INDICATED ANML USES THIS TYPE FOR WINTERING
85040	HAB., INDICATED ANML USES THIS TYPE FOR FEEDING
85041	HAB., INDICATED ANML USES TYPE FOR REARING YOUNG
85042	HAB., INDICATED BIRD USES THIS TYPE FOR NESTING
85043	HAB., INDICATED ANML USES THIS TYPE FOR SHELTER
85044	HAB., INDICATED ANML USES THIS TYPE FOR REST AREA
85045	ANML, SHOWS PRESENCE/ABSNC OF COMMENTS ON THIS ANML
85046	HAB.,ACRES OCCUPIED BY THIS ANML THIS UNIT & CO.
85050	ANIMALS ARE NOT PRESENT THIS STATION
85051	ANIMALS, ONLY A FEW ARE PRESENT THIS STATION
85052	ANIMALS COMMONLY SEEN; USE MODERATE THIS STATION
85053	ANIMALS FREQUENTLY SEEN; USE HEAVY THIS STATION
85070	OWNERSHIP (.1) AND ACCESS (.2) BY YEAR
85071	PRIVATE OWNERSHIP AND ACCESS MILEAGE
85072	FEDERAL OWNERSHIP AND ACCESS MILEAGE
85073	STATE OWNERSHIP AND ACCESS MILEAGE
85074	COUNTY OWNERSHIP AND ACCESS MILEAGE
85075	CITY OWNERSHIP AND ACCESS MILEAGE
85076	WATER YEAR DATA REFERS TO

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85077	CALENDAR YEAR DATA REFERS TO
85088	MONTHS POLLUTION IS A PROBLEM JAN THRU JUNE
85089	MONTHS POLLUTION IS A PROBLEM JULY TO DECEMBER
85090	MAN-CAUSED CHANNEL CHANGE IN MILES
85091	STREAM BANK HABITAT DESTROYED IN MILES
85092	STREAMBED SILTED IN MILES
85093	TURBIDITY PROBLEM IN MILES
85094	SEVERITY: 1=ELIMINATES 2=INTERFERES 3=NO PROBLEM
85095	DURATION OF TURBIDITY PROBLEM IN MONTHS
85096	SEASON OF NATURAL DRY CHANNEL 1=SP 2=SU 3=F 4=W
85097	NATURAL DRY CHANNEL IN MILES
85098	MAN-CAUSED DRY CHANNEL SEASON 1=SP 2=SU 3=F 4=W
85099	MAN-CAUSED DRY CHANNEL IN MILES
85100	YEAR BARRIER IS PRESENT
85101	NUMBER OF NATURAL BARRIERS
85102	MILES BLOCKED BY NATURAL BARRIERS
85103	NUMBER OF NATURAL BARRIERS TO BE REMOVED
85104	NUMBER OF DAMS AND MAN CAUSED OBSTRUCTIONS
85105	MILES BLOCKED BY DAMS OR MAN CAUSED OBSTRUCTIONS
85106	NUMBER OF DAMS TO BE ALTERED
85107	MILES OF STREAM OCCUPIED BY IMPOUNDMENT
85108	LOWER END OF SECTION COVERED BY THIS FORM
85109	UPPER END OF SECTION COVERED BY THIS FORM
85110	LOWER LIMIT THIS SPECIES THIS FORM BY RIVER MILE
85111	UPPER LIMIT THIS SPECIES THIS FORM BY RIVER MILE
85112	STREAM SURVEY:1=COMPLETE 2=INCOMPLETE 3=NONE
85113	ABUNDANCE: 1=FSHWY/TAG&R 2=SURVEY 3=EST PLUS 4=EST
85114	ABUNDANCE: N=S&ST 1=ABUNDANT 4=SCARCE RGH FSH 3=SCARCE
85116	SQUARE YARDS OF SPAWNING AREA IN 1970

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85117	SQUARE YARDS OF SPAWNING AREA IN 1980
85118	SQUARE YARDS OF SPAWNING AREA IN 1990
85119	SQUARE YARDS OF SPAWNING AREA IN 2000
85120	MILES OF REARING AREA IN 1970
85121	MILES OF REARING AREA IN 1980
85122	MILES OF REARING AREA IN 1990
85123	MILES OF REARING AREA IN 2000
85124	CATCH BY SPORT ANGLING IN 1970
85125	RECREATION DAYS SPENT ANGLING IN 1970
85126	RECREATION DAYS SPENT ANGLING IN 1980
85127	RECREATION DAYS SPENT ANGLING IN 1990
85128	RECREATION DAYS SPENT ANGLING IN 2000
85129	CONTRIBUTION TO COMMERCIAL CATCH IN 1970
85130	PERCENT OF TOTAL FISHING DONE FROM BOAT IN 1970
85131	PERCENT OF TOTAL FISHING DONE FROM BANK IN 1970
85132	PERCENT OF TOTAL FISHING DONE WITH LURE IN 1970
85133	PERCENT OF TOTAL FISHING DONE WITH BAIT IN 1970
85134	PERCENT OF TOTAL FISHING DONE WITH A FLY IN 1970
85146	YEAR THIS FACTOR HAS A LIMITING EFFECT
85157	MAN DAYS OF WATER SKIING
85158	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85159	MAN DAYS OF BOATING OTHER THAN ANGLING
85160	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85161	MAN DAYS OF SWIMMING
85162	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NO ACTIVITY
85163	SEVERITY: 1=INTERFERES 2=NO INTER. 3=NOT PRESENT
85165	NUMBER OF MONTHS SUSPENDED SOLIDS ARE A PROBLEM
85167	NUMBER OF MONTHS PLANKTON IS A PROBLEM
85168	1=ELIMINATE PROD 2=REDUCE 3=NO INTER. 4=NOT PRES

STORET Code	Description of STORET Parameters Not Suitable for Statistical Analysis
85169	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85170	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85171	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85172	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85173	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85174	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85175	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85176	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85177	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85178	1=ELIMINATE PROD 2=UNDESIRABLE 3=REDUCE 4=NO PROB
85179	YEAR THIS NUMBER OF FACILITIES PRESENT
85180	NUMBER OF BOAT RAMPS
85181	NUMBER OF MOORAGES
85182	NUMBER OF PICNIC AREAS
85183	NUMBER OF CAMP AREAS
85184	NUMBER OF RESORTS
85185	YEAR THIS ZONED AREA PRESENT
85186	ACRES SET ASIDE FOR OTHER BOATING
85187	ACRES SET ASIDE FOR WATER SKIING
85188	MILES OF SHORE LOST TO ACCESS BY HOME SITES
85189	TOTAL MILES OF SHORELINE
85193	WILL RECR BE INC BY RELEASE OF FINGERL 0=NO 1=YES
85195	CATCH AND RECREATION ESTIMATE 1=BEST 4=POOREST
85333	PRECIPITATION-SAMPLE COLLECTION TIME-CODE- NES
85538	GAMMA SCAN DATE (YR,MO,DAY)
85539	DATE OF REPORT (YR,MO,DAY)
85658	TIME NIGHT CO2 HR
85661	TIME, INTERVAL DAY CO2 HR

Appendix F

National EPA Water Quality Criteria Summary[1]

The following table presents the national water quality criteria that were used to assess water quality data on a station-by-station basis and within the entire study area. Criteria are, for the most part, maximum values (except for dissolved oxygen, pH, and as noted). Criteria exist in any of four categories: Fresh Acute, Drinking Water, Marine Acute, and Other. Acute criteria are the highest 1-hour average concentrations which should not result in unacceptable impacts to aquatic organisms in either fresh or marine waters, respectively. The Drinking Water criteria are intended for human consumption; while the Other criteria represents National Park Service or other concerns. Parameters are listed in ascending order by STORET code. It is important to note that similar parameters often have non-consecutive codes. Consequently, scanning the entire list is necessary to obtain the criteria for all parameters of a particular type (eg. lead, copper, etc.). Refer to the Parameter Period of Record Tabulation to obtain the STORET code for any parameter measured in the park.

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
	00070				50[t]	TURBIDITY, JACKSON CANDLE UNITS	JTU	Physical
	00076				50[t]	TURBIDITY, HACH TURBIDIMETER, FORMAZIN TUR. UNITS	FTU	Physical
14808798	00154		250[s]			SULFATE (AS S) WHOLE WATER	MG/L	General Inorganic
7782447	00299				4.0[u]	OXYGEN, DISSOLVED, ANALYSIS BY PROBE	MG/L	Dissolved Oxygen
7782447	00300				4.0[u]	OXYGEN, DISSOLVED	MG/L	Dissolved Oxygen
	00400				≤6.5, ≥9.0[#]	PH	SU	Physical
	00403				≤6.5, ≥9.0[#]	PH, LAB	SU	Physical
	00406				≤6.5, ≥9.0[#]	PH, FIELD	SU	Physical

[1]Sources: (1) U.S. Environmental Protection Agency, Quality Criteria for Water 1995, Final Draft; (2) U.S. Environmental Protection Agency, 40 CFR 141 - National Primary Drinking Water Regulations, and 40 CFR 143 - National Secondary Drinking Water Regulations, July 1, 1994; and (3) Others as Noted in Footnotes.

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
471341	00409				<200[=]	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS	UEQ/L	General Inorganic
17778880	00613		1			NITRITE NITROGEN, DISSOLVED AS N	MG/L	Nitrogen
17778880	00615		1			NITRITE NITROGEN, TOTAL AS N	MG/L	Nitrogen
17778880	00618		10			NITRATE NITROGEN, DISSOLVED AS N	MG/L	Nitrogen
17778880	00620		10			NITRATE NITROGEN, TOTAL AS N	MG/L	Nitrogen
17778880	00628		10			NITRITE + NITRATE, SUSPENDED AS N	MG/L	Nitrogen
17778880	00630		10			NITRITE PLUS NITRATE, TOTAL 1 DET.	MG/L	Nitrogen
17778880	00631		10			NITRITE PLUS NITRATE, DISSOLVED 1 DET.	MG/L	Nitrogen
57125	00718	22	200	1.0		CYANIDE, WEAK ACID, DISSOCIABLE, WATER, WHOLE	UG/L	General Inorganic
57125	00719	22	200	1.0		CYANIDE, FREE,IN WATER&WASTEWATERS, HBG METHOD	UG/L	General Inorganic
57125	00720	0.022	0.2	0.001		CYANIDE, TOTAL	MG/L	General Inorganic
57125	00722	0.022	0.2	0.001		CYANIDE, FREE (AMENABLE TO CHLORINATION)	MG/L	General Inorganic
57125	00723	22	200	1.0		CYANIDE, DISSOLVED STD METHOD	UG/L	General Inorganic
57125	00724	22	200	1.0		CYANIDE COMPLEXED TO A RANGE OF COMPNDS, WATER	UG/L	General Inorganic
16887006	00940	860	250[s]			CHLORIDE,TOTAL IN WATER	MG/L	General Inorganic
16887006	00941	860	250[s]			CHLORIDE, DISSOLVED IN WATER	MG/L	General Inorganic
14808798	00945		250[s]			SULFATE, TOTAL (AS SO4)	MG/L	General Inorganic
14808798	00946		250[s]			SULFATE, DISSOLVED (AS SO4)	MG/L	General Inorganic
1332214	00948		7000000			ASBESTOS, WHOLE SAMPLE	CNT/L	General Inorganic
16984488	00950		4.0			FLUORIDE, DISSOLVED AS F	MG/L	General Inorganic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
16984488	00951		4.0			FLUORIDE, TOTAL AS F	MG/L	General Inorganic
7782414	00953		4000			FLUORINE, TOTAL	UG/L	General Inorganic
7440382	00978	360	50	69		ARSENIC, TOTAL RECOVERABLE IN WATER AS AS	UG/L	Metal
7782492	00981	20	50	300		SELENIUM,TOTAL RECOVERABLE IN WATER AS SE	UG/L	Metal
7440280	00982	1400*	2.0	2130*		THALLIUM, TOTAL RECOVERABLE IN WATER AS TL	UG/L	Metal
7782492	00990	20	50	300		SELENITE, TOTAL RECOVERABLE INORGANIC	UG/L	Metal
7440382	00991	360	50	69		ARSENIC, TOTAL RECOVERABLE TRIVALENT INORGANIC	UG/L	Metal
7440382	00995	360	50	69		ARSENIC, INORGANIC DISS	UG/L	Metal
7440382	00996	360	50	69		ARSENIC, INORGANIC SUSP	UG/L	Metal
7440382	00997	360	50	69		ARSENIC, INORGANIC TOT	UG/L	Metal
7440417	00998	130*	4.0			BERYLLIUM,TOTAL RECOVERABLE IN WATER AS BE	UG/L	Metal
7440382	01000	360	50	69		ARSENIC, DISSOLVED	UG/L	Metal
7440382	01001	360	50	69		ARSENIC, SUSPENDED	UG/L	Metal
7440382	01002	360	50	69		ARSENIC, TOTAL	UG/L	Metal
7440393	01005		2000			BARIUM, DISSOLVED	UG/L	Metal
7440393	01006		2000			BARIUM, SUSPENDED	UG/L	Metal
7440393	01007		2000			BARIUM, TOTAL	UG/L	Metal
7440393	01009		2000			BARIUM,TOTAL RECOVERABLE IN WATER AS BA	UG/L	Metal
7440417	01010	130*	4.0			BERYLLIUM, DISSOLVED	UG/L	Metal
7440417	01011	130*	4.0			BERYLLIUM, SUSPENDED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440417	01012	130*	4.0			BERYLLIUM, TOTAL	UG/L	Metal
7440439	01025	3.9+	5.0	43		CADMIUM, DISSOLVED	UG/L	Metal
7440439	01026	3.9+	5.0	43		CADMIUM, SUSPENDED	UG/L	Metal
7440439	01027	3.9+	5.0	43		CADMIUM, TOTAL	UG/L	Metal
7440473	01030		100			CHROMIUM, DISSOLVED	UG/L	Metal
7440473	01031		100			CHROMIUM, SUSPENDED	UG/L	Metal
7440473	01032	16	100	1100		CHROMIUM, HEXAVALENT	UG/L	Metal
16065831	01033	1700+	100	10300*		CHROMIUM, TRI-VAL	UG/L	Metal
7440473	01034		100			CHROMIUM, TOTAL	UG/L	Metal
7440508	01040	18+	1300a	2.9		COPPER, DISSOLVED	UG/L	Metal
7440508	01041	18+	1300a	2.9		COPPER, SUSPENDED	UG/L	Metal
7440508	01042	18+	1300a	2.9		COPPER, TOTAL	UG/L	Metal
7439921	01049	82+	15a	220		LEAD, DISSOLVED	UG/L	Metal
7439921	01050	82+	15a	220		LEAD, SUSPENDED	UG/L	Metal
7439921	01051	82+	15a	220		LEAD, TOTAL	UG/L	Metal
7440280	01057	1400*	2.0	2130*		THALLIUM, DISSOLVED	UG/L	Metal
7440280	01058	1400*	2.0	2130*		THALLIUM, SUSPENDED	UG/L	Metal
7440280	01059	1400*	2.0	2130*		THALLIUM, TOTAL	UG/L	Metal
7440020	01065	1400+	100	75		NICKEL, DISSOLVED	UG/L	Metal
7440020	01066	1400+	100	75		NICKEL, SUSPENDED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440020	01067	1400[+]	100	75		NICKEL, TOTAL	UG/L	Metal
7440020	01074	1400[+]	100	75		NICKEL, TOTAL RECOVERABLE IN WATER AS NI	UG/L	Metal
7440224	01075	4.1[+]	100[s]	0.12		SILVER, DISSOLVED	UG/L	Metal
7440224	01076	4.1[+]	100[s]	0.12		SILVER, SUSPENDED	UG/L	Metal
7440224	01077	4.1[+]	100[s]	0.12		SILVER, TOTAL	UG/L	Metal
7440224	01079	4.1[+]	100[s]	0.12		SILVER, TOTAL RECOVERABLE IN WATER AS AG	UG/L	Metal
7440508	01089	0.018[+]	1.3[a]	0.0029		COPPER AS SUSPENDED BLACK OXIDE IN WATER	MG/L	General Inorganic
7440666	01090	120[+]	5000[s]	95		ZINC, DISSOLVED	UG/L	Metal
7440666	01091	120[+]	5000[s]	95		ZINC, SUSPENDED	UG/L	Metal
7440666	01092	120[+]	5000[s]	95		ZINC, TOTAL	UG/L	Metal
7440666	01094	120[+]	5000[s]	95		ZINC, TOTAL RECOVERABLE IN WATER AS ZN	UG/L	Metal
7440360	01095	88[p]	6.0	1500[p]		ANTIMONY, DISSOLVED	UG/L	Metal
7440360	01096	88[p]	6.0	1500[p]		ANTIMONY, SUSPENDED	UG/L	Metal
7440360	01097	88[p]	6.0	1500[p]		ANTIMONY, TOTAL	UG/L	Metal
7440439	01113	3.9[+]	5.0	43		CADMIUM,TOTAL RECOVERABLE IN WATER AS CD	UG/L	Metal
7439921	01114	82[+]	15[a]	220		LEAD, TOTAL RECOVERABLE IN WATER AS PB	UG/L	Metal
7440473	01118		100			CHROMIUM TOTAL RECOVERABLE IN WATER AS CR	UG/L	Metal
7440508	01119	18[+]	1300[a]	2.9		COPPER, TOTAL RECOVERABLE IN WATER AS CU	UG/L	Metal
7440280	01124	1400[*]	2.0	2130[*]		THALLIUM, ACID SOLUBLE, WATER, WHOLE	UG/L	Metal
7440280	01128	1400[*]	2.0	2130[*]		THALLIUM, TOTAL RECOVERABLE <95%	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782492	01145	20	50	300		SELENIUM, DISSOLVED	UG/L	Metal
7782492	01146	20	50	300		SELENIUM, SUSPENDED	UG/L	Metal
7782492	01147	20	50	300		SELENIUM, TOTAL	UG/L	Metal
7782492	01167	20	50	300		SELENIUM, ACID SOLUBLE, WATER, WHOLE	UG/L	Metal
18540299	01220	16	100	1100		CHROMIUM, HEXAVALENT, DISSOLVED	UG/L	Metal
7440360	01268	88[p]	6.0	1500[p]		ANTIMONY (SB), WATER, TOTAL RECOVERABLE	UG/L	Metal
57125	01291	22	200	1.0		CYANIDE, FILTERABLE, TOTAL IN WATER	UG/L	General Inorganic
7440666	01303	0.120[+]	5.0[s]	0.095		ZINC, POTENTIALLY DISSOLVED WATER	MG/L	Metal
7440224	01304	0.0041[+]	0.1[s]	0.00012		SILVER, POTENTIALLY DISSOLVED WATER	MG/L	Metal
7440508	01306	0.018[+]	1.3[a]	0.0029		COPPER, POTENTIALLY DISSOLVED WATER	MG/L	Metal
18540299	01307	0.016	0.1	1.1		CHROMIUM, HEXAVALENT, POTENTIALLY DISSOLVED	MG/L	Metal
7440382	01309	0.36	0.05	0.069		ARSENIC, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440393	01311		2.0			BARIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440417	01312	0.13[*]	0.004			BERYLLIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440439	01313	0.0039[+]	0.005	0.043		CADMIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
16065831	01314	1.7[+]	0.1	10.3[*]		CHROMIUM, TRIVALENT, POTENTIALLY DISSOLVED	MG/L	Metal
7439921	01318	0.082[+]	0.015[a]	0.220		LEAD, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7439976	01321	0.0024	0.002	0.0021		MERCURY, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440020	01322	1.4[+]	0.1	0.075		NICKEL, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7782492	01323	0.020	0.050	0.300		SELENIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440280	01324	1.4*	0.002	2.13*		THALLIUM, POTENTIALLY, DISSOLVED, WATER	MG/L	Metal
7440611	01326		0.020c			URANIUM, POTENTIALLY DISSOLVED, WATER	MG/L	Metal
7440224	01523	4.1+	100s	0.12		SILVER, IONIC	UG/L	Metal
50328	03648		0.2			BENZO (A) PYRENE, LIQUID FRACTION, ELUTRIATE	UG/L	General Organic
122349	04035		4.0			SIMAZINE, DISSOLVED, WATER, TOTAL RECOVERABLE	UG/L	Pesticide
10028178	04124		20r			TRITIUM, TOTAL, WATER	PC/ML	Radiological
10028178	07000		20000r			TRITIUM, TOTAL	PC/L	Radiological
10028178	07005		20000r			TRITIUM, DISSOLVED	PC/L	Radiological
10028178	07010		20000r			TRITIUM, SUSPENDED	PC/L	Radiological
	09501		5.0			RADIUM 226, TOTAL	PC/L	Radiological
	09503		5.0			RADIUM 226, DISSOLVED	PC/L	Radiological
	09505		5.0			RADIUM 226, SUSPENDED	PC/L	Radiological
	11500		5.0			RADIUM 226 + RADIUM 228, DISSOLVED	PC/L	Radiological
	11501		5.0			RADIUM 228, TOTAL	PC/L	Radiological
	11503		5.0			RADIUM 226 + RADIUM 228, TOTAL	PC/L	Radiological
10098972	13501		8.0r			STRONTIUM 90, TOTAL	PC/L	Radiological
10098972	13503		8.0r			STRONTIUM 90, DISSOLVED	PC/L	Radiological
10098972	13505		8.0r			STRONTIUM 90, SUSPENDED	PC/L	Radiological
7782492	22675	20	50	300		SELENIUM, DISSOLVED ORGANIC	UG/L	Metal
7782492	22676	20	50	300		SELENIUM, HEXAVALENT, DISSOLVED	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782492	22677	20	50	300		SELENIUM, TETRAVALENT, DISSOLVED	UG/L	Metal
7440382	22678	360	50	69		ARSENIC, DISSOLVED ORGANIC	UG/L	Metal
7440382	22679	850*	50	2319*		ARSENIC, PENTAVALENT,DISSOLVED	UG/L	Metal
7440382	22680	360	50	69		ARSENIC, TRIVALENT, DISSOLVED	UG/L	Metal
7440611	22703		20[c]			URANIUM, NATURAL DISSOLVED	UG/L	Metal
7440611	22705		20[c]			URANIUM, NATURAL SUSPENDED	UG/L	Metal
7440611	22706		20[c]			URANIUM, TOTAL AS U308	UG/L	Metal
7440611	22708		0.020[c]			URANIUM, NATURAL, TOTAL	MG/L	Radiological
7440611	28011		20[c]			URANIUM, NATURAL, TOTAL	UG/L	Radiological
88857	30191		7.0			DINOSEB, WATER, WHOLE RECOVERABLE	UG/L	Pesticide
75990	30200		200			DALAPON, WATER, WHOLE RECOVERABLE	UG/L	Pesticide
106934	30203		0.05			ETHANE, 1,2-DIBROMO-, WATER, WHOLE, RECOVERABLE	UG/L	Pesticide
	31501		1.0[n]		1000[b]	COLIFORM, TOTAL, MEMBRANE FILTER, IMMED.	CFU/100ML	Bacteriological
	31503		1.0[n]		1000[b]	COLIFORM, TOTAL, MEMBRANE FILTER, DELAY. M-ENDO	CFU/100ML	Bacteriological
	31504		1.0[n]		1000[b]	COLIFORM, TOTAL, MEMBRANE FILTER, IMMED. LES-ENDO	CFU/100ML	Bacteriological
	31505		1.0[n]		1000[b]	COLIFORM, TOTAL, MPN, CONF. TEST 35C (TUBE 31506)	MPN/100ML	Bacteriological
	31506		1.0[n]		1000[b]	COLIFORM, TOTAL, MPN, CONF. TEST, TUBE CONFIG	MPN/100ML	Bacteriological
	31507		1.0[n]		1000[b]	COLIFORM, TOTAL, MPN, COMP. TEST 35C (TUBE 31508)	MPN/100ML	Bacteriological
	31508		1.0[n]		1000[b]	COLIFORM, TOTAL, MPN, COMP. TEST, TUBE CONFIG	MPN/100ML	Bacteriological
	31613				200^	FECAL COLIFORM, MEMBRANE FILTER, AGAR	CFU/100ML	Bacteriological

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
	31614				200^	FECAL COLIFORM, MPN, TUBE CONFIGURATION	MPN/100ML	Bacteriological
	31615				200^	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	MPN/100ML	Bacteriological
	31616				200^	FECAL COLIFORM, MEMBRANE FILTER, BROTH, 44.5C	CFU/100ML	Bacteriological
	31617				200^	FECAL COLIFORM, MPN, EIJKMAN, 44.5C (TUBE 31618)	MPN/100ML	Bacteriological
	31625				200^	FECAL COLIFORM, MF, M-FC, 0.7 UM	CFU/100ML	Bacteriological
	31648				126^	E. COLI, MTEC, MF	CFU/100ML	Bacteriological
	31649				33^	ENTEROCOCCI, ME, MF	CFU/100ML	Bacteriological
67663	32003	28900*	100[t]			CARBON CHLOROFORM AND CARBON ALCOHOL EXTRS.,TOTAL	UG/L	General Organic
67663	32005	28900*	100[t]			CARBON CHLOROFORM EXTRACTABLES	UG/L	General Organic
67663	32021	28900*	100[t]			CARBON CHLOROFORM EXTRACTS, ETHER INSOLUBLES OF	UG/L	General Organic
67663	32022	28900*	100[t]			CARBON CHLOROFORM EXTRACTS, WATER SOLUBLES OF	UG/L	General Organic
75274	32101		100[t]			BROMODICHLOROMETHANE, WHOLE WATER	UG/L	General Organic
56235	32102	35200*	5.0	50000*		CARBON TETRACHLORIDE, WHOLE WATER	UG/L	General Organic
107062	32103	118000*	5.0	113000*		1,2-DICHLOROETHANE,WHOLE WATER	UG/L	General Organic
75252	32104		100[t]			BROMOFORM, WHOLE WATER	UG/L	General Organic
124481	32105		100[t]			DIBROMOCHLOROMETHANE, WHOLE WATER	UG/L	General Organic
67663	32106	28900*	100[t]			CHLOROFORM, WHOLE WATER	UG/L	General Organic
56235	32260	35.2*	0.005	50*		CARBON TETRACHLORIDE EXTRACTABLES	MG/L	General Organic
67663	32270	28.9*	0.1[t]			CHLOROFORM EXTRACTABLES TOTAL	MG/L	General Organic
108883	34010	17500*	1000	6300*		TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXTR.	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
1330207	34020		10000			XYLENES IN WTR SMPLE GC-MS, HEXADECONE EXTR.	UG/L	General Organic
83329	34205	1700*		970*		ACENAPHTHENE, TOTAL	UG/L	General Organic
83329	34206	1700*		970*		ACENAPHTHENE, DISSOLVED	UG/L	General Organic
83329	34207	1700*		970*		ACENAPHTHENE, SUSPENDED	UG/L	General Organic
107028	34210	68*		55*		ACROLEIN, TOTAL	UG/L	Pesticide
107028	34211	68*		55*		ACROLEIN, DISSOLVED	UG/L	Pesticide
107028	34212	68*		55*		ACROLEIN, SUSPENDED	UG/L	Pesticide
107131	34215	7550*				ACRYLONITRILE, TOTAL	UG/L	General Organic
107131	34216	7550*				ACRYLONITRILE, DISSOLVED	UG/L	General Organic
107131	34217	7550*				ACRYLONITRILE, SUSPENDED	UG/L	General Organic
71432	34235	5300*	5.0	5100*		BENZENE, DISSOLVED	UG/L	General Organic
71432	34236	5300*	5.0	5100*		BENZENE, SUSPENDED	UG/L	General Organic
92875	34239	2500*				BENZIDINE, DISSOLVED	UG/L	General Organic
92875	34240	2500*				BENZIDINE, SUSPENDED	UG/L	General Organic
58899	34265	2.0	0.2	0.16		R-BHC (LINDANE) GAMMA, DISSOLVED	UG/L	Pesticide
58899	34266	2.0	0.2	0.16		R-BHC (LINDANE) GAMMA, SUSPENDED	UG/L	Pesticide
75252	34288		100[t]			BROMOFORM, DISSOLVED	UG/L	General Organic
75252	34289		100[t]			BROMOFORM, SUSPENDED	UG/L	General Organic
56235	34297	35200*	5.0	50000*		CARBON TETRACHLORIDE, DISSOLVED	UG/L	General Organic
56235	34298	35200*	5.0	50000*		CARBON TETRACHLORIDE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
108907	34301		100			CHLOROBENZENE, TOTAL	UG/L	General Organic
108907	34302		100			CHLOROBENZENE, DISSOLVED	UG/L	General Organic
108907	34303		100			CHLOROBENZENE, SUSPENDED	UG/L	General Organic
124481	34306		100[t]			CHLORODIBROMOMETHANE, TOTAL	UG/L	General Organic
124481	34307		100[t]			CHLORODIBROMOMETHANE, DISSOLVED	UG/L	General Organic
124481	34308		100[t]			CHLORODIBROMOMETHANE, SUSPENDED	UG/L	General Organic
67663	34316	28900[*]	100[t]			CHLOROFORM, DISSOLVED	UG/L	General Organic
67663	34317	28900[*]	100[t]			CHLOROFORM, SUSPENDED	UG/L	General Organic
57125	34325	0.022	0.2	0.001		CYANIDE, SUSPENDED	MG/L	General Inorganic
75274	34328		100[t]			DICHLOROBROMOMETHANE, DISSOLVED	UG/L	General Organic
75274	34329		100[t]			DICHLOROBROMOMETHANE, SUSPENDED	UG/L	General Organic
122667	34346	270[*]				1,2-DIPHENYLHYDRAZINE, TOTAL	UG/L	General Organic
122667	34347	270[*]				1,2-DIPHENYLHYDRAZINE, DISSOLVED	UG/L	General Organic
122667	34348	270[*]				1,2-DIPHENYLHYDRAZINE, SUSPENDED	UG/L	General Organic
33213659	34356	0.22		0.034		ENDOSULFAN, BETA, TOTAL	UG/L	Pesticide
33213659	34357	0.22		0.034		ENDOSULFAN, BETA, DISSOLVED	UG/L	Pesticide
33213659	34358	0.22		0.034		ENDOSULFAN, BETA, SUSPENDED	UG/L	Pesticide
959988	34361	0.22		0.034		ENDOSULFAN, ALPHA, TOTAL	UG/L	Pesticide
959988	34362	0.22		0.034		ENDOSULFAN, ALPHA, DISSOLVED	UG/L	Pesticide
959988	34363	0.22		0.034		ENDOSULFAN, ALPHA, SUSPENDED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
100414	34371	32000*	700	430*		ETHYLBENZENE, TOTAL	UG/L	General Organic
100414	34372	32000*	700	430*		ETHYLBENZENE, DISSOLVED	UG/L	General Organic
100414	34373	32000*	700	430*		ETHYLBENZENE, SUSPENDED	UG/L	General Organic
206440	34376	3980*		40*		FLUORANTHENE, TOTAL	UG/L	General Organic
206440	34377	3980*		40*		FLUORANTHENE, DISSOLVED	UG/L	General Organic
206440	34378	3980*		40*		FLUORANTHENE, SUSPENDED	UG/L	General Organic
77474	34386	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, TOTAL	UG/L	General Organic
77474	34387	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, DISSOLVED	UG/L	General Organic
77474	34388	7.0*	50	7.0*		HEXACHLOROCYCLOPENTADIENE, SUSPENDED	UG/L	General Organic
87683	34391	90*		32*		HEXACHLOROBUTADIENE, TOTAL	UG/L	General Organic
87683	34392	90*		32*		HEXACHLOROBUTADIENE, DISSOLVED	UG/L	General Organic
87683	34393	90*		32*		HEXACHLOROBUTADIENE, SUSPENDED	UG/L	General Organic
67721	34396	980*		940*		HEXACHLOROETHANE, TOTAL	UG/L	General Organic
67721	34397	980*		940*		HEXACHLOROETHANE, DISSOLVED	UG/L	General Organic
67721	34398	980*		940*		HEXACHLOROETHANE, SUSPENDED	UG/L	General Organic
118741	34401	6.0[p]	1.0			HEXACHLOROBENZENE, DISSOLVED	UG/L	General Organic
118741	34402	6.0[p]	1.0			HEXACHLOROBENZENE, SUSPENDED	UG/L	General Organic
193395	34403		0.40[c]			INDENO (1,2,3-CD) PYRENE, TOTAL	UG/L	General Organic
193395	34404		0.40[c]			INDENO (1,2,3-CD) PYRENE, DISSOLVED	UG/L	General Organic
193395	34405		0.40[c]			INDENO (1,2,3-CD) PYRENE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
78591	34408	117000*		12900*		ISOPHORONE, TOTAL	UG/L	Pesticide
78591	34409	117000*		12900*		ISOPHORONE, DISSOLVED	UG/L	Pesticide
78591	34410	117000*		12900*		ISOPHORONE, SUSPENDED	UG/L	Pesticide
75092	34423		5.0			METHYLENE CHLORIDE, TOTAL	UG/L	General Organic
75092	34424		5.0			METHYLENE CHLORIDE, DISSOLVED	UG/L	General Organic
75092	34425		5.0			METHYLENE CHLORIDE, SUSPENDED	UG/L	General Organic
91203	34443	2300*		2350*		NAPHTHALENE, DISSOLVED	UG/L	General Organic
91203	34444	2300*		2350*		NAPHTHALENE, SUSPENDED	UG/L	General Organic
98953	34447	27000*		6680*		NITROBENZENE, TOTAL	UG/L	General Organic
98953	34448	27000*		6680*		NITROBENZENE, DISSOLVED	UG/L	General Organic
98953	34449	27000*		6680*		NITROBENZENE, SUSPENDED	UG/L	General Organic
59507	34452	30*				PARACHLOROMETA CRESOL, TOTAL	UG/L	General Organic
59507	34453	30*				PARACHLOROMETA CRESOL, DISSOLVED	UG/L	General Organic
59507	34454	30*				PARACHLOROMETA CRESOL, SUSPENDED	UG/L	General Organic
87865	34459	20***	1.0	13		PCP (PENTACHLOROPHENOL), DISSOLVED	UG/L	Pesticide
87865	34460	20***	1.0	13		PCP (PENTACHLOROPHENOL), SUSPENDED	UG/L	Pesticide
85018	34461	30p		7.7p		PHENANTHRENE, TOTAL	UG/L	General Organic
85018	34462	30p		7.7p		PHENANTHRENE, DISSOLVED	UG/L	General Organic
85018	34463	30p		7.7p		PHENANTHRENE, SUSPENDED	UG/L	General Organic
108952	34466	10200*		5800*		PHENOL, DISSOLVED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
108952	34467	10200*		5800*		PHENOL, SUSPENDED	UG/L	General Organic
127184	34475	5280*	5.0	10200*		TETRACHLOROETHYLENE, TOTAL	UG/L	General Organic
127184	34476	5280*	5.0	10200*		TETRACHLOROETHYLENE, DISSOLVED	UG/L	General Organic
127184	34477	5280*	5.0	10200*		TETRACHLOROETHYLENE, SUSPENDED	UG/L	General Organic
108883	34481	17500*	1000	6300*		TOLUENE, DISSOLVED	UG/L	General Organic
108883	34482	17500*	1000	6300*		TOLUENE, SUSPENDED	UG/L	General Organic
79016	34485	45000*	5.0	2000*		TRICHLOROETHYLENE, DISSOLVED	UG/L	General Organic
79016	34486	45000*	5.0	2000*		TRICHLOROETHYLENE, SUSPENDED	UG/L	General Organic
75014	34493		2.0			VINYL CHLORIDE, DISSOLVED	UG/L	General Organic
75014	34494		2.0			VINYL CHLORIDE, SUSPENDED	UG/L	General Organic
75354	34501		7.0			1,1-DICHLOROETHYLENE, TOTAL	UG/L	General Organic
75354	34502		7.0			1,1-DICHLOROETHYLENE, DISSOLVED	UG/L	General Organic
75354	34503		7.0			1,1-DICHLOROETHYLENE, SUSPENDED	UG/L	General Organic
71556	34506		200	31200*		1,1,1-TRICHLOROETHANE, TOTAL	UG/L	General Organic
71556	34507		200	31200*		1,1,1-TRICHLOROETHANE, DISSOLVED	UG/L	General Organic
71556	34508		200	31200*		1,1,1-TRICHLOROETHANE, SUSPENDED	UG/L	General Organic
79005	34511		5.0			1,1,2-TRICHLOROETHANE, TOTAL	UG/L	General Organic
79005	34512		5.0			1,1,2-TRICHLOROETHANE, DISSOLVED	UG/L	General Organic
79005	34513		5.0			1,1,2-TRICHLOROETHANE, SUSPENDED	UG/L	General Organic
79345	34516			9020*		1,1,2,2-TETRACHLOROETHANE, TOTAL	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
79345	34517			9020*		1,1,2,2-TETRACHLOROETHANE, DISSOLVED	UG/L	General Organic
79345	34518			9020*		1,1,2,2-TETRACHLOROETHANE, SUSPENDED	UG/L	General Organic
107062	34531	118000*	5.0	113000*		1,2-DICHLOROETHANE, TOTAL	UG/L	General Organic
107062	34532	118000*	5.0	113000*		1,2-DICHLOROETHANE, DISSOLVED	UG/L	General Organic
107062	34533	118000*	5.0	113000*		1,2-DICHLOROETHANE, SUSPENDED	UG/L	General Organic
95501	34536		600			1,2-DICHLOROBENZENE, TOTAL	UG/L	General Organic
95501	34537		600			1,2-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
95501	34538		600			1,2-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic
78875	34541		5.0			1,2-DICHLOROPROPANE, TOTAL	UG/L	General Organic
78875	34542		5.0			1,2-DICHLOROPROPANE, DISSOLVED	UG/L	General Organic
78875	34543		5.0			1,2-DICHLOROPROPANE, SUSPENDED	UG/L	General Organic
156605	34546		100			TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER	UG/L	General Organic
156605	34547		100			TRANS-1,2-DICHLOROETHENE, DISSOLVED	UG/L	General Organic
156605	34548		100			TRANS-1,2-DICHLOROETHENE, SUSPENDED	UG/L	General Organic
120821	34551		70			1,2,4-TRICHLOROBENZENE, TOTAL	UG/L	General Organic
120821	34552		70			1,2,4-TRICHLOROBENZENE, DISSOLVED	UG/L	General Organic
120821	34553		70			1,2,4-TRICHLOROBENZENE, SUSPENDED	UG/L	General Organic
541731	34566		600			1,3-DICHLOROBENZENE, TOTAL	UG/L	General Organic
541731	34567		600			1,3-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
541731	34568		600			1,3-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
106467	34571		75			1,4-DICHLOROBENZENE, TOTAL	UG/L	General Organic
106467	34572		75			1,4-DICHLOROBENZENE, DISSOLVED	UG/L	General Organic
106467	34573		75			1,4-DICHLOROBENZENE, SUSPENDED	UG/L	General Organic
95578	34586	4380*				2-CHLOROPHENOL, TOTAL	UG/L	General Organic
95578	34587	4380*				2-CHLOROPHENOL, DISSOLVED	UG/L	General Organic
95578	34588	4380*				2-CHLOROPHENOL, SUSPENDED	UG/L	General Organic
120832	34601	2020*				2,4-DICHLOROPHENOL, TOTAL	UG/L	General Organic
120832	34602	2020*				2,4-DICHLOROPHENOL, DISSOLVED	UG/L	General Organic
120832	34603	2020*				2,4-DICHLOROPHENOL, SUSPENDED	UG/L	General Organic
105679	34606	2120*				2,4-DIMETHYLPHENOL, TOTAL	UG/L	General Organic
105679	34607	2120*				2,4-DIMETHYLPHENOL, DISSOLVED	UG/L	General Organic
105679	34608	2120*				2,4-DIMETHYLPHENOL, SUSPENDED	UG/L	General Organic
121142	34611	330*		590*		2,4-DINITROTOLUENE, TOTAL	UG/L	General Organic
121142	34612	330*		590*		2,4-DINITROTOLUENE, DISSOLVED	UG/L	General Organic
121142	34613	330*		590*		2,4-DINITROTOLUENE, SUSPENDED	UG/L	General Organic
72548	34651	0.6*		3.6*		P,P'-DDD, DISSOLVED	UG/L	Pesticide
72548	34652	0.6*		3.6*		P,P'-DDD, SUSPENDED	UG/L	Pesticide
72559	34653	1050*		14*		P,P'-DDE, DISSOLVED	UG/L	Pesticide
72559	34654	1050*		14*		P,P'-DDE, SUSPENDED	UG/L	Pesticide
50293	34655	1.1		0.13		P,P'-DDT, DISSOLVED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
50293	34656	1.1		0.13		P,P'-DDT, SUSPENDED	UG/L	Pesticide
1746016	34675	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), TOT	UG/L	General Organic
1746016	34676	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), DISS	UG/L	General Organic
1746016	34677	0.01*	0.00003			2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN(TCDD), SUSP	UG/L	General Organic
108952	34694	10200*		5800*		PHENOL (C6H5OH) - SINGLE COMPOUND, TOTAL	UG/L	General Organic
91203	34696	2300*		2350*		NAPHTHALENE, TOTAL	UG/L	General Organic
75990	38432		200			DALAPON, WATER, TOTAL	UG/L	Pesticide
75990	38433		200			DALAPON, WATER, DISSOLVED	UG/L	Pesticide
75990	38434		200			DALAPON, WATER, SUSPENDED	UG/L	Pesticide
96128	38437		0.2			DIBROMOCHLOROPROPANE, WATER, TOTAL	UG/L	Pesticide
96128	38438		0.2			DIBROMOCHLOROPROPANE, WATER, DISSOLVED	UG/L	Pesticide
96128	38439		0.2			DIBROMOCHLOROPROPANE WATER, SUSPENDED	UG/L	Pesticide
96128	38760		0.2			DBCP, WATER, TOTAL	UG/L	Pesticide
96128	38761		0.2			DBCP, WATER, DISSOLVED	UG/L	Pesticide
96128	38762		0.2			DBCP, WATER, SUSPENDED	UG/L	Pesticide
88857	38779		7.0			DINOSEB, DISSOLVED	UG/L	Pesticide
88857	38780		7.0			DINOSEB, SUSPENDED	UG/L	Pesticide
23135220	38865		200			OXAMYL, TOTAL	UG/L	Pesticide
23135220	38866		200			OXAMYL, DISSOLVED	UG/L	Pesticide
23135220	38867		200			OXAMYL, SUSPENDED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
145733	38926		100			ENDOTHALL, WHOLE WATER SAMPLE	UG/L	Pesticide
2921882	38932	0.083		0.011		CHLORPYRIFOS, TOTAL RECOVERABLE	UG/L	Pesticide
2921882	38933	0.083		0.011		CHLORPYRIFOS, DISSOLVED	UG/L	Pesticide
2163806	38935		50			MONOSODIUM METHANEARSONATE (MSMA)	UG/L	Pesticide
2921882	39012	0.083		0.011		DURSBAN, FLAME PHOTOMETRIC, WATER SAMPLE	UG/L	Pesticide
56382	39015	0.065				ETHYLPARATHION, FLAME IONIFATION, WATER SAMPLE	UG/L	Pesticide
122349	39025		4.0			SIMAZINE, COULSON CONDUCTIVITY WATER SAMPLE	UG/L	Pesticide
87865	39032	20***	1.0	13		PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE	UG/L	Pesticide
1912249	39033		3.0			ATRAZINE IN WHOLE WATER SAMPLE	UG/L	Pesticide
118741	39039	6.0[P]	1.0			HEXACHLOROBENZENE WATER SAMPLE, ELECTRON CPT	UG/L	Pesticide
93721	39045		50			2,4,5-TP INCLUDES ACIDS & SALTS WATER SAMPLE	UG/L	Pesticide
116063	39053		3.0			ALDICARB IN WHOLE WATER	UG/L	Pesticide
122349	39055		4.0			SIMAZINE IN WHOLE WATER	UG/L	Pesticide
117817	39100	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER	UG/L	General Organic
117817	39103	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, DISSOLVED	UG/L	General Organic
117817	39104	2000*	6.0			BIS(2-ETHYLHEXYL) PHTHALATE, SUSPENDED	UG/L	General Organic
	39117	0.94*		2.994*		PHTHLATE ESTERS IN WATER	MG/L	General Organic
75014	39175		2.0			VINYL CHLORIDE-WHOLE WATER SAMPLE	UG/L	General Organic
79016	39180	45000*	5.0	2000*		TRICHLOROETHYLENE-WHOLE WATER SAMPLE	UG/L	General Organic
50293	39300	1.1		0.13		P,P' DDT IN WHOLE WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
72548	39310	0.6*		3.6*		P,P' DDD IN WHOLE WATER SAMPLE	UG/L	Pesticide
72559	39320	1050*		14*		P,P' DDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
309002	39330	3.0		1.3		ALDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
309002	39331	3.0		1.3		ALDRIN IN FILT. FRAC. OF WAT. SAMP.	UG/L	Pesticide
309002	39332	3.0		1.3		ALDRIN IN SUSP. FRAC. OF WAT. SAMP.	UG/L	Pesticide
58899	39340	2.0	0.2	0.16		GAMMA-BHC(LINDANE), WHOLE WATER	UG/L	Pesticide
58899	39341	2.0	0.2	0.16		GAMMA-BHC(LINDANE), DISSOLVED	UG/L	Pesticide
58899	39342	2.0	0.2	0.16		GAMMA-BHC(LINDANE), SUSPENDED	UG/L	Pesticide
57749	39350	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), WHOLE WATER	UG/L	Pesticide
57749	39352	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), DISSOLVED	UG/L	Pesticide
57749	39353	2.4	2.0	0.09		CHLORDANE(TECH MIX & METABS), SUSPENDED	UG/L	Pesticide
72548	39360	0.6*		3.6*		DDD IN WHOLE WATER SAMPLE	UG/L	Pesticide
72548	39361	0.6*		3.6*		DDD IN FILT. FRAC. OF WATER SMAPLE	UG/L	Pesticide
72548	39362	0.6*		3.6*		DDD IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72559	39365	1050*		14*		DDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
72559	39366	1050*		14*		DDE IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72559	39367	1050*		14*		DDE IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
50293	39370	1.1		0.13		DDT IN WHOLE WATER SAMPLE	UG/L	Pesticide
50293	39371	1.1		0.13		DDT IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
50293	39372	1.1		0.13		DDT IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
60571	39380	2.5		0.71		DIELDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
60571	39381	2.5		0.71		DIELDRIN IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
60571	39382	2.5		0.71		DIELDRIN IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
115297	39388	0.22		0.034		ENDOSULFAN IN WHOLE WATER SAMPLE	UG/L	Pesticide
72208	39390	0.18	2.0	0.037		ENDRIN IN WHOLE WATER SAMPLE	UG/L	Pesticide
72208	39391	0.18	2.0	0.037		ENDRIN IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
72208	39392	0.18	2.0	0.037		ENDRIN IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
8001352	39400	0.73	3.0	0.21		TOXAPHENE IN WHOLE WATER SAMPLE	UG/L	Pesticide
8001352	39401	0.73	3.0	0.21		TOXAPHENE IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
8001352	39402	0.73	3.0	0.21		TOXAPHENE IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
76448	39410	0.52	0.4	0.053		HEPTACHLOR IN WHOLE WATER SAMPLE	UG/L	Pesticide
76448	39411	0.52	0.4	0.053		HEPTACHLOR IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
76448	39412	0.52	0.4	0.053		HEPTACHLOR IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
1024573	39420	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE	UG/L	Pesticide
1024573	39421	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN FILT. FRAC. WATER SAMPLE	UG/L	Pesticide
1024573	39422	0.52	0.2	0.053		HEPTACHLOR EPOXIDE IN SUSP. FRAC. WATER SAMPLE	UG/L	Pesticide
72435	39478		40			METHOXYCHLOR IN WHOLE WATER DISSOLVED	UG/L	Pesticide
72435	39479		40			METHOXYCHLOR IN WHOLE WATER SUSPENDED	UG/L	Pesticide
72435	39480		40			METHOXYCHLOR IN WHOLE WATER SAMPLE	UG/L	Pesticide
56382	39540	0.065				PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
56382	39542	0.065				PARATHION IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
56382	39543	0.065				PARATHION IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
1912249	39630		3.0			ATRAZINE(AATREX) IN WHOLE WATER SAMPLE	UG/L	Pesticide
1912249	39632		3.0			ATRAZINE DISSOLVED IN WATER	PPB	Pesticide
118741	39700	6.0[P]	1.0			HEXACHLOROBENZENE IN WHOLE WATER SAMPLE	UG/L	General Organic
87683	39702	90[*]		32[*]		HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE	UG/L	General Organic
1918021	39720		500			PICLORAM IN WHOLE WATER SAMPLE	UG/L	Pesticide
94757	39730		70			2,4-D IN WHOLE WATER SAMPLE	UG/L	Pesticide
94757	39732		70			2,4-D IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
94757	39733		70			2,4-D IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
93721	39760		50			SILVEX IN WHOLE WATER SAMPLE	UG/L	Pesticide
93721	39762		50			SILVEX IN FILT. FRAC. OF WATER SAMPLE	UG/L	Pesticide
93721	39763		50			SILVEX IN SUSP. FRAC. OF WATER SAMPLE	UG/L	Pesticide
58899	39782	2.0	0.2	0.16		LINDANE IN WHOLE WATER SAMPLE	UG/L	Pesticide
1071836	39941		700			ROUNDUP IN WHOLE WATER SAMPLE (GLYPHOSATE)	UG/L	Pesticide
7782505	45650	0.019		0.013		CHLORINE, IN ORGANIC COMPOUNDS, WATER, WHOLE	MG/L	General Inorganic
56382	46315	0.065				ETHYL PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide
58899	46322	2.0	0.2	0.16		LINDANE PLUS ISOMERS IN WHOLE WATER SAMPLE	UG/L	Pesticide
76448	46326	0.52	0.4	0.053		HEPTACHLOR AND METABOLITES IN WHOLE H2O SAMPLE	UG/L	Pesticide
15972608	46342		2.0			ALACHLOR (LASSO), WATER, DISSOLVED	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7782505	46472	0.019		0.013		CHLORINE, TOTAL RESIDUAL, AVERAGE VALUE, WATER	MG/L	General Inorganic
7782505	46473	0.019		0.013		CHLORINE, FREE AVAILABLE, AVERAGE VALUE, WATER	MG/L	General Inorganic
57125	46479	22	200	1.0		CYANIDE, DISSOLVED, WATER	UG/L	General Inorganic
7440382	46551	360	50	69		ARSENIC, FIELD ACIDIFIED W/HNO3, LAB FILTERED	UG/L	Metal
7440393	46558		2000			BARIUM, FIELD ACIDIFIED W/HNO3-LAB FILT	UG/L	Metal
7440439	46559	3.9[+]	5.0	43		CADMIUM,FIELD ACIDIFIED-HNO3-LAB FILTER	UG/L	Metal
7440473	46560		100			CHROMIUM, FIELD ACIDIFIED-HNO3-LAB FILT.	UG/L	Metal
7440508	46562	18[+]	1300[a]	2.9		COPPER, FIELD ACIDIFIED-HNO3- LAB FILTER.	UG/L	Metal
7439921	46564	82[+]	15[a]	220		LEAD, FIELD ACIDIFIED-HNO3-LAB FILTERED	UG/L	Metal
7440224	46566	4.1[+]	100[s]	0.12		SILVER, FIELD ACIDIFIED-HNO3-LAB FILTER.	UG/L	Metal
7440666	46567	120[+]	5000[s]	95		ZINC, EXTRACTABLE, FIELD ACID W/HNO3,LAB FILTR	UG/L	Metal
56382	49011	0.065				UNKNOWNS AS PARATHION IN WHOLE WATER SAMPLE	UG/L	Pesticide
7782505	50058	0.019		0.013		CHLORINE DOSE	MG/L	General Inorganic
7782505	50060	0.019		0.013		CHLORINE, TOTAL RESIDUAL	MG/L	General Inorganic
7782505	50064	0.019		0.013		CHLORINE, FREE AVAILABLE	MG/L	General Inorganic
7782505	50066	0.019		0.013		CHLORINE, COMBINED AVAILABLE	MG/L	General Inorganic
7782505	50074	0.019		0.013		CHLORITE, WHOLE WATER	MG/L	General Inorganic
	61215				200[^]	FECAL COLIFORM, GENERAL #/100ML	#/100ML	Bacteriological
16887006	70352	860	250[s]			CHLORIDE, ORGANIC	MG/L	General Organic
14797558	71850		44			NITRATE NITROGEN, TOTAL (AS NO3)	MG/L	Nitrogen

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
14797558	71851		44			NITRATE NITROGEN, DISSOLVED (AS NO3)	MG/L	Nitrogen
14797650	71855		3.3			NITRITE NITROGEN, TOTAL (AS NO2)	MG/L	Nitrogen
14797650	71856		3.3			NITRITE NITROGEN, DISSOLVED (AS NO2)	MG/L	Nitrogen
7439976	71890	2.4	2.0	2.1		MERCURY, DISSOLVED	UG/L	Metal
7439976	71895	2.4	2.0	2.1		MERCURY, SUSPENDED	UG/L	Metal
7439976	71900	2.4	2.0	2.1		MERCURY, TOTAL	UG/L	Metal
7439976	71901	2.4	2.0	2.1		MERCURY,TOTAL RECOVERABLE IN WATER AS HG	UG/L	Metal
7440439	71946	3.9[+]	5.0	43		CADMIUM, EXTRACTABLE	UG/L	Metal
7440473	71947		100			CHROMIUM, EXTRACTABLE	UG/L	Metal
7439921	71949	82[+]	15[a]	220		LEAD, EXTRACTABLE	UG/L	Metal
7440666	71950	120[+]	5000[s]	95		ZINC, EXTRACTABLE	UG/L	Metal
7440508	71951	18[+]	1300[a]	2.9		COPPER, EXTRACTABLE	UG/L	Metal
1336363	76011	2000	500	10000		PCBS, SUSPENDED, WATER	NG/L	General Organic
1336363	76012	2000	500	10000		PCBS, TOTAL RECOVERABLE, WATER	NG/L	General Organic
156592	77093		70			CIS-1,2-DICHLOROETHYLENE, WHOLE WATER	UG/L	General Organic
100425	77128		100			STYRENE, WHOLE WATER	UG/L	General Organic
106489	77296			29700[*]		P-CHLOROPHENOL, WHOLE WATER	UG/L	General Organic
106934	77651		0.05			1,2-DIBROMOETHANE, WHOLE WATER	UG/L	General Organic
95954	77687	100[p]		240[p]		2,4,5-TRICHLOROPHENOL, WHOLE WATER	UG/L	General Organic
935955	77769			440[*]		2,3,5,6-TETRACHLOROPHENOL, WHOLE WATER	UG/L	General Organic

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
103231	77903		400			BIS (2-ETHYLHEXYL) ADIPATE, WHOLE WATER	UG/L	General Organic
18540299	78247	16	100	1100		CHROMIUM, HEXAVALENT, TOTAL RECOVERABLE	UG/L	Metal
57125	78248	22	200	1.0		CYANIDE, TOTAL RECOVERABLE, WATER, WHOLE	UG/L	Metal
	78456	11*		12*		HALOMETHANES, SUMMATION, WHOLE WATER	MG/L	General Organic
14808798	78462		250[s]			SULFATE, WATER, DISSOLVED AS S	MG/L	Metal
85007	78885		20			DIQUAT DIBROMIDE (REGLONE) WHOLE WATER SAMPLE	UG/L	Pesticide
7440611	80020		20[c]			URANIUM, DISS. BY EXTRACTION FLUOROMETRIC	UG/L	Radiological
16065831	80357	1700	100	10300*		CHROMIUM, TRIVALENT, DISSOLVED	UG/L	Metal
57125	81208	0.022	0.2	0.001		CYANIDE,FREE (NOT AMENABLE TO CHLORINATION)	MG/L	General Inorganic
608731	81283	100*		0.34*		BENZENEHEXACHLORIDE, WHOLE WATER	UG/L	Pesticide
88857	81287		7.0			DNBP(C10H12N2O5), WHOLE WATER SAMPLE	UG/L	Pesticide
26638197	81327	23000*	5.0	10300*		DICHLOROPROPANE, WHOLE WATER SAMPLE	UG/L	General Organic
25321226	81333	1120*		1970*		DICHLOROBENZENE ISOMER, WHOLE WATER SAMPLE	UG/L	General Organic
2921882	81403	0.083		0.011		DURSBAN (CHLOROPYRIFOS) WHOLE WATER SAMPLE	UG/L	Pesticide
1563662	81405		40			CARBOFURAN (EURADAN) WHOLE WATER SAMPLE	UG/L	Pesticide
76017	81501	7240*		390*		PENTACHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
25321226	81524	1120*		1970*		DICHLOROBENZENE, WHOLE WATER SAMPLE	UG/L	General Organic
25322207	81549	9320*				TETRACHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
26638197	81703	23*	0.005*	10.3*		DICHLOROPROPANE, WHOLE WATER SAMPLE	MG/L	General Organic
7440508	81750	18+	1300[a]	2.9		COPPER, INTERSTITIAL WATERFROM SEDIMENTS	UG/L	Metal

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
7440020	81752	1400[+]	100	75		NICKEL, INTERSTITIAL WATER FROM SEDIMENTS	UG/L	Metal
7440666	81754	120[+]	5000[s]	95		ZINC, INTERSTITIAL WATER FROM SEDIMENTS	UG/L	Metal
25323891	81853	18000[*]				TRICHLOROETHANE, WHOLE WATER SAMPLE	UG/L	General Organic
7439976	81931	2.4	2.0	2.1		MERCURY (HG) SUSPENDED FRACTION OF WATER	UG/G	Metal
7440666	81933	120[+]	5000[s]	95		ZINC (ZN) SUSPENDED FRACTION OF WATER	UG/G	Metal
7439921	81936	82[+]	15[a]	220		LEAD (PB) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440439	81937	3.9[+]	5.0	43		CADMIUM (CD) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440473	81938		100			CHROMIUM (CR) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440508	81939	18[+]	1300[a]	2.9		COPPER (CU) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440666	81940	120[+]	5000[s]	95		ZINC (ZN) DISSOLVED CATIONIC SPECIES	UG/L	Metal
7440473	81941		100			CHROMIUM (CR) DISSOLVED ANIONIC SPECIES	UG/L	Metal
7440508	81942	18[+]	1300[a]	2.9		COPPER (CU) DISSOLVED ANIONIC SPECIES	UG/L	Metal
7440666	81943	120[+]	5000[s]	95		ZINC (ZN) DISSOLVED ANIONIC SPECIES	UG/L	Metal
	82078				50[t]	TURBIDITY, FIELD	NTU	Physical
	82079				50[t]	TURBIDITY, LAB	NTU	Physical
88857	82226		7.0			2 SECONDARY BUTYL 4,6-DINITROPHENOL	UG/L	Pesticide
16887006	82295	860000	250000[s]			CHLORIDE DISSOLVED AS CL IN WATER	UG/L	General Inorganic
72435	82350		40			METHOXYCHLOR, DISSOLVED IN WATER	UG/L	Pesticide
72435	82351		40			METHOXYCHLOR, SUSPENDED IN WATER	UG/L	Pesticide
115297	82354	0.22		0.034		ENDOSULFAN, DISSOLVED IN WATER	UG/L	Pesticide

C.A.S. Number	STORET Code	FRESH ACUTE	DRINKING WATER	MARINE ACUTE	OTHER	PARAMETER DESCRIPTION	UNITS	CATEGORY
115297	82355	0.22		0.034		ENDOSULFAN, SUSPENDED IN WATER	UG/L	Pesticide
57125	82573	0.022	0.2	0.001		CYANIDE/CHLORINATION IN WATER	MG/L	General Inorganic
1646873	82586		4.0			ALDICARB SULFOXIDE, WATER, TOTAL RECOVERABLE	UG/L	General Organic
1646884	82587		2.0			ALDICARB SULFONE, WHOLE WATER, TOTAL RECOVERABLE	UG/L	General Organic
23135220	82613		200			OXAMYL, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
1563662	82615		40			CARBOFURAN, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
116063	82619		3.0			ALDICARB, WHOLE WATER, TOTAL RECOVERABLE	UG/L	Pesticide
33213659	82624	0.22		0.034		ENDOSULFAN, BETA, WH WATER, TOTAL RECOVERABLE	UG/L	Pesticide
96128	82625		0.2			DIBROMOCHLOROPROPANE, WATER, TOTAL RECOVERABLE	UG/L	Pesticide
7440382	82702	360	50	69		ARSENIC, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440393	82703		2			BARIUM, FIELD ACIDIFIED, DECANTED, WATER	MG/L	Metal
7440417	82704	130*	4.0			BERYLLIUM, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440439	82705	3.9+	5.0	43		CADMIUM, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440473	82706		100			CHROMIUM, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440508	82708	18+	1300[a]	2.9		COPPER, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7439921	82711	82+	15[a]	220		LEAD, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7439976	82713	2.4	2.0	2.1		MERCURY, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440020	82715	1400+	100	75		NICKEL, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440224	82716	4.1+	100[s]	0.12		SILVER, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal
7440666	82719	120+	5000[s]	95		ZINC, FIELD ACIDIFIED, DECANTED, WATER	UG/L	Metal

Footnote Key:

[*]Insufficient Data to Develop Criteria. Value Presented is the L.O.E.L. - Lowest Observed Effect Level.

[+]Hardness Dependent Criteria (100 mg/L $CaCO_3$ Used).

[***]pH Dependent Criteria (7.8 pH Used).

[=]Rule of thumb criterion used by the NPS Air Quality Division for determining sensitivity to acid deposition.

[^]Freshwater bathing criterion, EPA geometric mean based on at least 5 samples equally spaced over a 30-day period; Enterococci marine water bathing criterion 35 CFU/100 ml.

[#]EPA freshwater aquatic life chronic criterion; marine criterion is ≤6.5, ≥8.5.

[!]Arizona state standard.

[a]EPA action level, 40 CFR 141.80.

[b]California and Florida state bathing water standards.

[c]A Compilation of Water Quality Goals, California Regional Water Quality Control Board Central Valley Region, Sacramento, California, September, 1991.

[n]Total coliform drinking water maximum contaminant level (1 cfu/100ml or 1 mpn/100ml) was not used in water quality criteria comparisons.

[p]Proposed Criterion.

[r]Average annual concentration assumed to produce a total body or organ dose of 4 mrem/year, 40 CFR 141.16.

[s]EPA National Secondary Drinking Water Regulation, 40 CFR 143.

[t]The maximum contaminant level for the sum of the concentrations of trihalomethanes is 100 µg/L, 40 CFR 141.12.

[u]Coldwater criterion one day minimum; warmwater criterion seven day mean minimum.

Appendix G

Inventory Data Evaluation and Analysis (IDEA)
Servicewide Inventory and Monitoring Program "Level I"
Parameter Groups

The following table provides the Servicewide Inventory and Monitoring Program's "Level I" water quality inventory parameter groups (National Park Service 1993). In order to determine the presence and/or absence of data for each of these parameter groups in the park, the parameter groups had to be defined by STORET parameter codes. This table provides the STORET codes and parameter descriptions for each parameter comprising one of the Servicewide Inventory and Monitoring Program's "Level I" water quality parameter groups. Additional parameters could have been incorporated into each group, but an effort was made to represent each group with the parameters deemed to most likely occur in STORET and parks. The Toxic Elements Parameter Group was defined as the EPA's Clean Water Act Section 304(a) Priority Toxic Pollutants (40 CFR 131.36). Parameters are listed in ascending order of STORET code within each parameter group. It is important to note that similar parameters often have non-consecutive codes. Consequently, scanning the entire list is necessary to find all the parameters of a particular type (eg. lead, copper, etc.). Refer to the Parameter Period of Record Tabulation to obtain the STORET code for any parameter measured in the park.

STORET Code	Water Temperature Parameter Group	C.A.S. Number
00010	TEMPERATURE, WATER (DEGREES CENTIGRADE)	-
00011	TEMPERATURE, WATER (DEGREES FAHRENHEIT)	-
STORET Code	**Flow Parameter Group[1]**	**C.A.S. Number**
00056	FLOW RATE, GALLONS/DAY	-
00058	FLOW RATE, GALLONS/MIN.	-
00059	FLOW RATE, INSTANTANEOUS, GALLONS/MINUTE	-
00060	FLOW, STREAM, MEAN DAILY CFS	-
00061	FLOW, STREAM, INSTANTANEOUS CFS	-
00065	STAGE, STREAM (FEET)	-
00067	TIDE STAGE CODE	-
00072	STAGE, STREAM (METERS)	-

[1]Tide stage is included in the Flow Parameter Group for coastal parks.

STORET Code	Clarity/Turbidity Parameter Group	C.A.S. Number
00070	TURBIDITY, (JACKSON CANDLE UNITS)	-
00075	TURBIDITY, HELLIGE (PPM AS SILICON DIOXIDE)	-
00076	TURBIDITY, HACH TURBIDIMETER (FORMAZIN TURB UNIT)	-
00077	TRANSPARENCY, SECCHI DISC (INCHES)	-
00078	TRANSPARENCY, SECCHI DISC (METERS)	-
00530	RESIDUE, TOTAL NONFILTRABLE (MG/L)	-
82078	TURBIDITY, FIELD NEPHELOMETRIC TURBIDITY UNITS NTU	-
82079	TURBIDITY, LAB NEPHELOMETRIC TURBIDITY UNITS, NTU	-

STORET Code	Conductivity Parameter Group	C.A.S. Number
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM @ 25C)	-
00095	SPECIFIC CONDUCTANCE (UMHOS/CM @ 25C)	-
00096	SALINITY AT 25 DEGREES C (MG/ML)	-
00480	SALINITY - PARTS PER THOUSAND	-

STORET Code	Dissolved Oxygen Parameter Group	C.A.S. Number
00299	OXYGEN, DISSOLVED, ANALYSIS BY PROBE (MG/L)	7782447
00300	OXYGEN, DISSOLVED (MG/L)	7782447
00301	OXYGEN, DISSOLVED, PERCENT OF SATURATION	7782447
00389	OXYGEN, DISSOLVED, LAB ANAL. BY PROBE OF FIELD SAMPLE (MG/L)	7782447

STORET Code	pH Parameter Group	C.A.S. Number
00400	PH (STANDARD UNITS)	-
00403	PH, LAB (STANDARD UNITS)	-
00406	PH, FIELD (STANDARD UNITS)	-

STORET Code	Alkalinity Parameter Group	C.A.S. Number
00409	ALKALINITY, TOTAL, LOW LEVEL GRAN ANALYSIS (μEQ/L)	471341
00410	ALKALINITY, TOTAL (MG/L AS CACO3)	471341
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)	77098
00430	ALKALINITY, CARBONATE (MG/L AS CACO3)	471341
00435	ACIDITY, TOTAL (MG/L AS CACO3)	471341
00440	BICARBONATE ION (MG/L AS HCO3)	71523
00445	CARBONATE ION (MG/L AS CO3)	3812326

STORET Code	Nitrate/Nitrogen Parameter Group	C.A.S. Number
00600	NITROGEN, TOTAL (MG/L AS N)	17778880
00602	NITROGEN, DISSOLVED (MG/L AS N)	17778880
00605	NITROGEN, ORGANIC, TOTAL (MG/L AS N)	17778880
00607	NITROGEN, ORGANIC, DISSOLVED (MG/L AS N)	17778880
00608	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)	17778880
00610	NITROGEN, AMMONIA, TOTAL (MG/L AS N)	17778880
00612	AMMONIA, UNIONZED (MG/L AS N)	7664417
00618	NITRATE NITROGEN, DISSOLVED (MG/L AS N)	17778880
00620	NITRATE NITROGEN, TOTAL (MG/L AS N)	17778880
00623	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)	17778880
00625	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)	17778880
00630	NITRITE PLUS NITRATE, TOTAL 1 DET. (MG/L AS N)	17778880
00631	NITRITE PLUS NITRATE, DISSOLVED 1 DET. (MG/L AS N)	17778880
71845	NITROGEN, AMMONIA, TOTAL (MG/L AS NH4)	14798039
71846	NITROGEN, AMMONIA, DISSOLVED (MG/L AS NH4)	14798039
71850	NITRATE NITROGEN, TOTAL (MG/L AS NO3)	14797558
71851	NITRATE NITROGEN, DISSOLVED (MG/L AS NO3)	14797558
71855	NITRITE NITROGEN, TOTAL (MG/L AS NO2)	14797650
71856	NITRITE NITROGEN, DISSOLVED (MG/L AS NO2)	14797650

STORET Code	Phosphate/Phosphorus Parameter Group	C.A.S. Number
00650	PHOSPHATE, TOTAL (MG/L AS PO4)	14265442
00655	PHOSPHATE, POLY (MG/L AS PO4)	14265442
00660	PHOSPHATE, ORTHO (MG/L AS PO4)	14265442
00665	PHOSPHORUS, TOTAL (MG/L AS P)	7723140
00666	PHOSPHORUS, DISSOLVED (MG/L AS P)	7723140
00670	PHOSPHORUS, TOTAL ORGANIC (MG/L AS P)	7723140
00671	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (MG/L AS P)	7723140
70505	PHOSPHORUS, TOTAL, COLORIMETRIC METHOD (MG/L AS P)	7723140
70507	PHOSPHORUS, IN TOTAL ORTHOPHOSPHATE (MG/L AS P)	7723140

STORET Code	Sulfates/Total Dissolved Solids/Hardness Parameter Group	C.A.S. Number
00900	HARDNESS, TOTAL (MG/L AS CACO3)	471341
00945	SULFATE, TOTAL (MG/L AS SO4)	14808798
00946	SULFATE, DISSOLVED (MG/L AS SO4)	14808798
70300	RESIDUE, TOTAL FILTRABLE (DRIED AT 180C), (MG/L)	-

STORET Code	Chlorophyll Parameter Group	C.A.S. Number
32209	CHLOROPHYLL A (UG/L) FLUOROMETRIC CORRECTED	479618
32210	CHLOROPHYLL A (UG/L) TRICHROMATIC UNCORRECTED	479618
32211	CHLOROPHYLL A (UG/L) SPECTROPHOTOMETRIC ACID METH.	479618
32217	CHLOROPHYLL A (UG/L) FLUOROMETRIC UNCORRECTED	479618
32223	CHLOROPHYLL A (MG/M2) SPECTROPHOTOMETRIC CORRECTED	479618
32228	CHLOROPHYLL A (MG/M2) PERIPHYTON SPECTRO.	479618
32229	CHLOROPHYLL A (MG/M2) FLUOR. CORRECTED, SUBSTRATER	479618
32230	CHLOROPHYLL A (MG/L)	479618

STORET Code	Bacteria Parameter Group	C.A.S. Number
00111	RATIO OF FECAL COLIFORM TO FECAL STREPTOCOCCI	-
31501	COLIFORM, TOT, MEMBRANE FILTER, IMMED., M-ENDO MED,35C	-
31503	COLIFORM, TOT, MEMBRANE FILTER, DELAY, M-ENDO MED, 35C	-
31504	COLIFORM, TOT, MEMBRANE FILTER, IMMED., LES-ENDO AGAR, 35C	-
31505	COLIFORM, TOT, MPN, CONFIRMED TEST,35C(TUBE 31506)	-
31506	COLIFORM, TOT, MPN, CONFIRMED TEST, TUBE CONFIG.	-
31507	COLIFORM, TOT, MPN, COMPLETED TEST,35C(TUBE 31508)	-
31508	COLIFORM, TOT, MPN, COMPLETED TEST, TUBE CONFIG.	-
31613	FECAL COLIFORM, MEMBR, FILTER,M-FC AGAR,44.5C,24HR	-
31614	FECAL COLIFORM, MPN, TUBE CONFIGURATION	-
31615	FECAL COLIFORM, MPN, EC MED, 44.5C (TUBE 31614)	-
31616	FECAL COLIFORM, MEMBR FILTER, M-FC BROTH, 44.5C	-
31617	FECAL COLIFORM, MPN,EIJKMAN TEST,44.5C(TUBE 31618)	-
31625	FECAL COLIFORM, MF, M-FC, 0.7 UM	-
31648	E. COLI - MTEC-MF	-
31649	ENTEROCOCCI- ME-MF	-
31673	FECAL STREPTOCOCCI, MBR FILT, KF AGAR, 35C, 48HR	-
31676	FECAL STREPTOCOCCI, MPN, KF BROTH, TUBE CONFIG.	-
31677	FECAL STREPTOCOCCI, MPN, AD-EVA, 35C (TUBE 31678)	-
31751	PLATE COUNT, TOTAL, TPC AGAR, 35C, 24 HRS	-
61214	FECAL STREPTOCOCCI, GENERAL #/100ML	-
61215	FECAL COLIFORM, GENERAL #/100ML	-

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants)	C.A.S. Number
00718	CYANIDE, WEAK ACID, DISSOC. WATER, WHOLE (UG/L)	57125
00719	CYANIDE, FREE, IN WATER & WASTEWATERS, HBG (UG/L)	57125
00720	CYANIDE, TOTAL (MG/L AS CN)	57125
00722	CYANIDE, FREE (AMENABLE TO CHLORINATION) (MG/L)	57125

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
00723	CYANIDE, DISSOLVED STD METHOD (UG/L)	57125
00724	CYANIDE COMPLEXED TO A RANGE OF COMPNDS (UG/L)	57125
00969	CHRYSOTILE ASBESTOS FIBERS/LITER	1332214
00973	AMPHIBOLE ASBESTOS FIBERS/LITER	1332214
00976	AMBIGUOUS ASBESTOS FIBERS/LITER	1332214
00977	NON-AMPHIBOLE NON-CHRYSOTILE ASBESTOS FIBERS/LITER	1332214
00978	ARSENIC, TOTAL RECOVERABLE IN WATER AS AS	7440382
00981	SELENIUM, TOTAL RECOVERABLE IN WATER AS SE (UG/L)	7782492
00982	THALLIUM, TOTAL RECOVERABLE IN WATER AS (UG/L)	7440280
00990	SELENITE, TOTAL RECOVERABLE INORGANIC (UG/L)	7782492
00991	ARSENIC, TOTAL RECOVER. TRIVALENT INORGANIC (UG/L)	7440382
00995	ARSENIC, INORGANIC DISSOLVED (UG/L AS AS)	7440382
00996	ARSENIC, INORGANIC SUSPENDED (UG/L AS AS)	7440382
00997	ARSENIC, INORGANIC TOTAL (UG/L AS AS)	7440382
00998	BERYLLIUM, TOTAL RECOVERABLE IN WATER AS BE (UG/L)	7440417
01000	ARSENIC, DISSOLVED (UG/L AS AS)	7440382
01001	ARSENIC, SUSPENDED (UG/L AS AS)	7440382
01002	ARSENIC, TOTAL (UG/L AS AS)	7440382
01010	BERYLLIUM, DISSOLVED (UG/L AS BE)	7440417
01011	BERYLLIUM, SUSPENDED (UG/L AS BE)	7440417
01012	BERYLLIUM, TOTAL (UG/L AS BE)	7440417
01025	CADMIUM, DISSOLVED (UG/L AS CD)	7440439
01026	CADMIUM, SUSPENDED (UG/L AS CD)	7440439
01027	CADMIUM, TOTAL (UG/L AS CD)	7440439
01030	CHROMIUM, DISSOLVED (UG/L AS CR)	7440473
01031	CHROMIUM, SUSPENDED (UG/L AS CR)	7440473
01032	CHROMIUM, HEXAVALENT (UG/L AS CR)	7440473
01033	CHROMIUM, TRI-VAL (UG/L AS CR)	16065831
01034	CHROMIUM, TOTAL (UG/L AS CR)	7440473

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
01040	COPPER, DISSOLVED (UG/L AS CU)	7440508
01041	COPPER, SUSPENDED (UG/L AS CU)	7440508
01042	COPPER, TOTAL (UG/L AS CU)	7440508
01049	LEAD, DISSOLVED (UG/L AS PB)	7439921
01050	LEAD, SUSPENDED (UG/L AS PB)	7439921
01051	LEAD, TOTAL (UG/L AS PB)	7439921
01057	THALLIUM, DISSOLVED (UG/L AS TL)	7440280
01058	THALLIUM, SUSPENDED (UG/L AS TL)	7440280
01059	THALLIUM, TOTAL (UG/L AS TL)	7440280
01065	NICKEL, DISSOLVED (UG/L AS NI)	7440020
01066	NICKEL, SUSPENDED (UG/L AS NI)	7440020
01067	NICKEL, TOTAL (UG/L AS NI)	7440020
01074	NICKEL, TOTAL RECOVERABLE IN WATER AS NI (UG/L)	7440020
01075	SILVER, DISSOLVED (UG/L AS AG)	7440224
01076	SILVER, SUSPENDED (UG/L AS AG)	7440224
01077	SILVER, TOTAL (UG/L AS AG)	7440224
01079	SILVER, TOTAL RECOVERABLE IN WATER AS AG (UG/L)	7440224
01089	COPPER AS SUSPENDED BLACK OXIDE IN WATER (MG/L)	7440508
01090	ZINC, DISSOLVED (UG/L AS ZN)	7440666
01091	ZINC, SUSPENDED (UG/L ZN)	7440666
01092	ZINC, TOTAL (UG/L AS ZN)	7440666
01094	ZINC, TOTAL RECOVERABLE IN WATER AS ZN (UG/L)	7440666
01095	ANTIMONY, DISSOLVED (UG/L AS SB)	7440360
01096	ANTIMONY, SUSPENDED (UG/L AS SB)	7440360
01097	ANTIMONY, TOTAL (UG/L AS SB)	7440360
01113	CADMIUM, TOTAL RECOVERABLE IN WATER AS CD (UG/L)	7440439
01114	LEAD, TOTAL RECOVERABLE IN WATER AS PB (UG/L)	7439921
01118	CHROMIUM, TOTAL RECOVERABLE IN WATER AS CR (UG/L)	7440473
01119	COPPER,TOTAL RECOVERABLE IN WATER AS CU (UG/L)	7440508

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
01124	THALLIUM, ACID SOLUBLE, WATER, WHOLE (UG/L)	7440280
01128	THALLIUM,TOTAL RECOVERABLE <95%, UG/L AS TL	7440280
01138	SELENIUM, IN WATER, LBS/DAY	7782492
01145	SELENIUM, DISSOLVED (UG/L AS SE)	7782492
01146	SELENIUM, SUSPENDED (UG/L AS SE)	7782492
01147	SELENIUM, TOTAL (UG/L AS SE)	7782492
01167	SELENIUM, ACID SOLUBLE, WATER, WHOLE (UG/L)	7782492
01220	CHROMIUM, HEXAVALENT, DISSOLVED IN (UG/L AS CR)	18540299
01252	ARSENIC, LB/DAY/CFS STREAM FLOW	7440382
01253	CADMIUM, LB/DAY/CFS STREAM FLOW	7440439
01254	CHROMIUM, TOTAL (LBS/DAY/CFS STREAM FLOW)	7740473
01255	CHROMIUM, HEXAVALENT, LB/DAY/CFS STREAM FLOW	18540299
01256	COPPER, LB/DAY/CFS STREAM FLOW	7440508
01257	CYANIDE LB/DAY/CFS STREAM FLOW	57125
01259	LEAD, LB/DAY/CFS STREAM FLOW	7439921
01260	MERCURY, LB/DAY/CFS STREAM FLOW	7439976
01261	NICKEL, LB/DAY/CFS STREAM FLOW	7440020
01263	SILVER, LB/DAY/CFS STREAM FLOW	7440224
01264	ZINC LB/DAY/CFS STREAM FLOW	7440666
01268	ANTIMONY, (SB), WATER, TOTAL RECOVERABLE (UG/L)	7440360
01291	CYANIDE, FILTERABLE, TOTAL IN WATER (UG/L)	57125
01303	ZINC, POTENTIALLY DISSOLVED WATER (MG/L)	7440666
01304	SILVER, POTENTIALLY DISSOLVED WATER (MG/L)	7440224
01306	COPPER, POTENTIALLY DISSOLVED WATER (MG/L)	7440508
01307	CHROMIUM, HEXAVALENT, POTENT. DISS. WATER (MG/L)	18540299
01309	ARSENIC, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440382
01312	BERYLLIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440417
01313	CADMIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440439

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
01314	CHROMIUM, TRIVALENT, POTENT., DISS., WATER (MG/L)	16065831
01318	LEAD, POTENTIALLY, DISSOLVED, WATER (MG/L)	7439921
01321	MERCURY, POTENTIALLY, DISSOLVED, WATER (MG/L)	7439976
01322	NICKEL, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440020
01323	SELENIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7782492
01324	THALLIUM, POTENTIALLY, DISSOLVED, WATER (MG/L)	7440280
01523	SILVER, IONIC (UG/L)	7440224
22675	SELENIUM, DISSOLVED ORGANIC (UG/L)	7782492
22676	SELENIUM, HEXAVALENT, DISSOLVED (UG/L)	7782492
22677	SELENIUM, TETRAVALENT, DISSOLVED	7782492
22678	ARSENIC, DISSOLVED ORGANIC (UG/L)	7440382
22679	ARSENIC, PENTAVALENT, DISSOLVED (UG/L)	7440382
22680	ARSENIC, TRIVALENT, DISSOLVED (UG/L)	7440382
30197	2-CHLOROETHYLVINYL ETHER,WATER,WHL,RECOVER (UG/L)	110758
30201	CHLOROMETHANE, WATER, WHOLE, RECOVERABLE (UG/L)	74873
30202	BROMOMETHANE, WATER, WHOLE, RECOVERABLE (UG/L)	74839
32003	CARBON CHLOROFORM AND CARBON ALCOHOL EXT. (UG/L)	67663
32005	CARBON CHLOROFORM EXTRACTABLES (UG/L)	67663
32021	CARBON CHLOROFORM EXTRACTS, ETHER INSOLUBLE (UG/L)	67663
32022	CARBON CHLOROFORM EXTRACTS, WATER SOLUBLES (UG/L)	67663
32101	BROMODICHLOROMETHANE, WHOLE WATER (UG/L)	75274
32102	CARBON TETRACHLORIDE, WHOLE WATER, (UG/L)	56235
32103	1,2-DICHLOROETHANE, WHOLE WATER (UG/L)	107062
32104	BROMOFORM, WHOLE WATER, (UG/L)	75252
32105	DIBROMOCHLOROMETHANE, WHOLE WATER, (UG/L)	124481
32106	CHLOROFORM, WHOLE WATER (UG/L)	67663
32260	CARBON TETRACHLORIDE EXTRACTABLES (MG/L)	56235
32270	CHLOROFORM EXTRACTABLES TOTAL IN MG PER LITER	67663

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34010	TOLUENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	108883
34030	BENZENE IN WTR SMPLE GC-MS, HEXADECONE EXT. (UG/L)	71432
34198	BHC-DELTA, WATER, WHOLE (LBS/DAY)	319868
34200	ACENAPHTHYLENE, TOTAL (UG/L)	208968
34201	ACENAPHTHYLENE, DISSOLVED (UG/L)	208968
34202	ACENAPHTHYLENE, SUSPENDED (UG/L)	208968
34205	ACENAPHTHENE, TOTAL (UG/L)	83329
34206	ACENAPHTHENE, DISSOLVED (UG/L)	83329
34207	ACENAPHTHENE, SUSPENDED (UG/L)	83329
34210	ACROLEIN, TOTAL (UG/L)	107028
34211	ACROLEIN, DISSOLVED (UG/L)	107028
34212	ACROLEIN, SUSPENDED (UG/L)	107028
34215	ACRYLONITRILE, TOTAL (UG/L)	107131
34216	ACRYLONITRILE, DISSOLVED (UG/L)	107131
34217	ACRYLONITRILE, SUSPENDED (UG/L)	107131
34220	ANTHRACENE, TOTAL (UG/L)	120127
34221	ANTHRACENE, DISSOLVED (UG/L)	120127
34222	ANTHRACENE, SUSPENDED (UG/L)	120127
34225	ASBESTOS (FIBROUS) TOTAL (UG/L)	1332214
34226	ASBESTOS (FIBROUS) DISSOLVED (UG/L)	1332214
34227	ASBESTOS (FIBROUS) SUSPENDED (UG/L)	1332214
34230	BENZO(B)FLUORANTHENE, WHOLE WATER (UG/L)	205992
34231	BENZO(B)FLUORANTHENE, DISSOLVED (UG/L)	205992
34232	BENZO(B)FLUORANTHENE, SUSPENDED (UG/L)	205992
34235	BENZENE, DISSOLVED (UG/L)	71432
34236	BENZENE, SUSPENDED (UG/L)	71432
34239	BENZIDINE, DISSOLVED (UG/L)	92875
34240	BENZIDINE, SUSPENDED (UG/L)	92875

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34242	BENZO(K)FLUORANTHENE, TOTAL (UG/L)	207089
34243	BENZO(K)FLUORANTHENE, DISSOLVED (UG/L)	207089
34244	BENZO(K)FLUORANTHENE, SUSPENDED (UG/L)	207089
34247	BENZO-A-PYRENE, TOTAL (UG/L)	50328
34248	BENZO-A-PYRENE, DISSOLVED (UG/L)	50328
34249	BENZO-A-PYRENE, SUSPENDED (UG/L)	50328
34253	A-BHC-ALPHA, DISSOLVED (UG/L)	319846
34254	A-BHC-ALPHA, SUSPENDED (UG/L)	319846
34255	B-BHC-BETA, DISSOLVED (UG/L)	319857
34256	B-BHC-BETA, SUSPENDED (UG/L)	319857
34259	DELTA BENZENE HEXACHLORIDE, TOTAL (UG/L)	319868
34260	DELTA BENZENE HEXACHLORIDE, DISSOLVED (UG/L)	319868
34261	DELTA BENZENE HEXACHLORIDE, SUSPENDED (UG/L)	319868
34265	R-BHC (LINDANE) GAMMA, DISSOLVED (UG/L)	58899
34266	R-BHC (LINDANE) GAMMA, SUSPENDED (UG/L)	58899
34273	BIS (2-CHLOROETHYL) ETHER, TOTAL (UG/L)	111444
34274	BIS (2-CHLOROETHYL) ETHER, DISSOLVED (UG/L)	111444
34275	BIS (2-CHLOROETHYL) ETHER, SUSPENDED (UG/L)	111444
34278	BIS (2-CHLOROETHOXY) METHANE, TOTAL (UG/L)	111911
34279	BIS (2-CHLOROETHOXY) METHANE, DISSOLVED (UG/L)	111911
34280	BIS (2-CHLOROETHOXY) METHANE, SUSPENDED (UG/L)	111911
34288	BROMOFORM, DISSOLVED (UG/L)	75252
34289	BROMOFORM, SUSPENDED (UG/L)	75252
34292	N-BUTYL BENZYL PHTHALATE, WHOLE WATER (UG/L)	85687
34293	N-BUTYL BENZYL PHTHALATE, DISSOLVED (UG/L)	85687
34294	N-BUTYL BENZYL PHTHALATE, SUSPENDED (UG/L)	85687
34297	CARBON TETRACHLORIDE, DISSOLVED (UG/L)	56235
34298	CARBON TETRACHLORIDE, SUSPENDED (UG/L)	56235

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34301	CHLOROBENZENE, TOTAL (UG/L)	108907
34302	CHLOROBENZENE, DISSOLVED (UG/L)	108907
34303	CHLOROBENZENE, SUSPENDED (UG/L)	108907
34306	CHLORODIBROMOMETHANE, TOTAL (UG/L)	124481
34307	CHLORODIBROMOMETHANE, DISSOLVED (UG/L)	124481
34308	CHLORODIBROMOMETHANE, SUSPENDED (UG/L)	124481
34311	CHLOROETHANE, TOTAL (UG/L)	75003
34312	CHLOROETHANE, DISSOLVED (UG/L)	75003
34313	CHLOROETHANE, SUSPENDED (UG/L)	75003
34316	CHLOROFORM, DISSOLVED (UG/L)	67663
34317	CHLOROFORM, SUSPENDED (UG/L)	67663
34320	CHRYSENE, TOTAL (UG/L)	218019
34321	CHRYSENE, DISSOLVED (UG/L)	218019
34322	CHRYSENE, SUSPENDED (UG/L)	218019
34325	CYANIDE, SUSPENDED (MG/L)	57125
34327	DI-N-BUTYL PHTHALATE, DISSOLVED (UG/L)	84742
34328	DICHLOROBROMOMETHANE, DISSOLVED (UG/L)	75274
34329	DICHLOROBROMOMETHANE, SUSPENDED (UG/L)	75274
34336	DIETHYL PHTHALATE, TOTAL (UG/L)	84662
34337	DIETHYL PHTHALATE, DISSOLVED (UG/L)	84662
34338	DIETHYL PHTHALATE, SUSPENDED (UG/L)	84662
34341	DIMETHYL PHTHALATE, TOTAL (UG/L)	131113
34342	DIMETHYL PHTHALATE, DISSOLVED (UG/L)	131113
34343	DIMETHYL PHTHALATE, SUSPENDED (UG/L)	131113
34346	1,2-DIPHENYLHYDRAZINE, TOTAL (UG/L)	122667
34347	1,2-DIPHENYLHYDRAZINE, DISSOLVED (UG/L)	122667
34348	1,2-DIPHENYLHYDRAZINE, SUSPENDED (UG/L)	122667
34351	ENDOSULFAN SULFATE, TOTAL (UG/L)	1031078

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34352	ENDOSULFAN SULFATE, DISSOLVED (UG/L)	1031078
34353	ENDOSULFAN SULFATE, SUSPENDED (UG/L)	1031078
34356	ENDOSULFAN, BETA, TOTAL (UG/L)	33213659
34357	ENDOSULFAN, BETA, DISSOLVED (UG/L)	33213659
34358	ENDOSULFAN, BETA, SUSPENDED (UG/L)	33213659
34361	ENDOSULFAN, ALPHA, TOTAL (UG/L)	959988
34362	ENDOSULFAN, ALPHA, DISSOLVED (UG/L)	959988
34363	ENDOSULFAN, ALPHA, SUSPENDED (UG/L)	959988
34371	ETHYLBENZENE, TOTAL (UG/L)	100414
34372	ETHYLBENZENE, DISSOLVED (UG/L)	100414
34373	ETHYLBENZENE, SUSPENDED (UG/L)	100414
34376	FLUORANTHENE, TOTAL (UG/L)	206440
34377	FLUORANTHENE, DISSOLVED (UG/L)	206440
34378	FLUORANTHENE, SUSPENDED (UG/L)	206440
34381	FLUORENE, TOTAL (UG/L)	86737
34382	FLUORENE, DISSOLVED (UG/L)	86737
34383	FLUORENE, SUSPENDED (UG/L)	86737
34386	HEXACHLOROCYCLOPENTADIENE, TOTAL (UG/L)	77474
34387	HEXACHLOROCYCLOPENTADIENE, DISSOLVED (UG/L)	77474
34388	HEXACHLOROCYCLOPENTADIENE, SUSPENDED (UG/L)	77474
34391	HEXACHLOROBUTADIENE, TOTAL (UG/L)	87683
34392	HEXACHLOROBUTADIENE, DISSOLVED (UG/L)	87683
34393	HEXACHLOROBUTADIENE, SUSPENDED (UG/L)	87683
34396	HEXACHLOROETHANE, TOTAL (UG/L)	67721
34397	HEXACHLOROETHANE, DISSOLVED (UG/L)	67721
34398	HEXACHLOROETHANE, SUSPENDED (UG/L)	67721
34401	HEXACHLOROBENZENE, DISSOLVED (UG/L)	118741
34402	HEXACHLOROBENZENE, SUSPENDED (UG/L)	118741

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34403	INDENO (1,2,3-CD) PYRENE, TOTAL (UG/L)	193395
34404	INDENO (1,2,3-CD) PYRENE, DISSOLVED (UG/L)	193395
34405	INDENO (1,2,3-CD) PYRENE, SUSPENDED (UG/L)	193395
34408	ISOPHORONE, TOTAL (UG/L)	78591
34409	ISOPHORONE, DISSOLVED (UG/L)	78591
34410	ISOPHORONE, SUSPENDED (UG/L)	78591
34413	METHYL BROMIDE, TOTAL (UG/L)	74839
34414	METHYL BROMIDE, DISSOLVED (UG/L)	74839
34415	METHYL BROMIDE, SUSPENDED (UG/L)	74839
34418	METHYL CHLORIDE, TOTAL (UG/L)	74873
34419	METHYL CHLORIDE, DISSOLVED (UG/L)	74873
34420	METHYL CHLORIDE, SUSPENDED (UG/L)	74873
34423	METHYLENE CHLORIDE, TOTAL (UG/L)	75092
34424	METHYLENE CHLORIDE, DISSOLVED (UG/L)	75092
34425	METHYLENE CHLORIDE, SUSPENDED (UG/L)	75092
34428	N-NITROSODI-N-PROPYLAMINE, TOTAL (UG/L)	621647
34429	N-NITROSODI-N-PROPYLAMINE, DISSOLVED (UG/L)	621647
34430	N-NITROSODI-N-PROPYLAMINE, SUSPENDED (UG/L)	621647
34433	N-NITROSODIPHENYLAMINE, TOTAL (UG/L)	86306
34434	N-NITROSODIPHENYLAMINE, DISSOLVED (UG/L)	86306
34435	N-NITROSODIPHENYLAMINE, SUSPENDED (UG/L)	86306
34438	N-NITROSODIMETHYLAMINE, TOTAL (UG/L)	62759
34439	N-NITROSODIMETHYLAMINE, DISSOLVED (UG/L)	62759
34440	N-NITROSODIMETHYLAMINE, SUSPENDED (UG/L)	62759
34443	NAPHTHALENE, DISSOLVED (UG/L)	91203
34444	NAPHTHALENE, SUSPENDED (UG/L)	91203
34447	NITROBENZENE, TOTAL (UG/L)	98953
34448	NITROBENZENE, DISSOLVED (UG/L)	98953

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34449	NITROBENZENE, SUSPENDED (UG/L)	98953
34452	PARACHLOROMETA CRESOL, TOTAL (UG/L)	59507
34453	PARACHLOROMETA CRESOL, DISSOLVED (UG/L)	59507
34454	PARACHLOROMETA CRESOL, SUSPENDED (UG/L)	59507
34457	PCB - 1242, DISSOLVED (UG/L)	53469219
34458	PCB - 1242, SUSPENDED (UG/L)	53469219
34459	PCP (PENTACHLOROPHENOL), DISSOLVED (UG/L)	87865
34460	PCP (PENTACHLOROPHENOL), SUSPENDED (UG/L)	87865
34461	PHENANTHRENE, TOTAL (UG/L)	85018
34462	PHENANTHRENE, DISSOLVED (UG/L)	85018
34463	PHENANTHRENE, SUSPENDED (UG/L)	85018
34466	PHENOL, DISSOLVED (UG/L)	108952
34467	PHENOL, SUSPENDED (UG/L)	108952
34469	PYRENE, TOTAL (UG/L)	129000
34470	PYRENE, DISSOLVED (UG/L)	129000
34471	PYRENE, SUSPENDED (UG/L)	129000
34475	TETRACHLOROETHYLENE, TOTAL (UG/L)	127184
34476	TETRACHLOROETHYLENE, DISSOLVED (UG/L)	127184
34477	TETRACHLOROETHYLENE, SUSPENDED (UG/L)	127184
34481	TOLUENE, DISSOLVED (UG/L)	108883
34482	TOLUENE, SUSPENDED (UG/L)	108883
34485	TRICHLOROETHYLENE, DISSOLVED (UG/L)	79016
34486	TRICHLOROETHYLENE, SUSPENDED (UG/L)	79016
34493	VINYL CHLORIDE, DISSOLVED (UG/L)	75014
34494	VINYL CHLORIDE, SUSPENDED (UG/L)	75014
34496	1,1-DICHLOROETHANE, TOTAL (UG/L)	75343
34497	1,1-DICHLOROETHANE, DISSOLVED (UG/L)	75343
34498	1,1-DICHLOROETHANE, SUSPENDED (UG/L)	75343

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34501	1,1-DICHLOROETHYLENE, TOTAL (UG/L)	75354
34502	1,1-DICHLOROETHYLENE, DISSOLVED (UG/L)	75354
34503	1,1-DICHLOROETHYLENE, SUSPENDED (UG/L)	75354
34506	1,1,1-TRICHLOROETHANE, TOTAL (UG/L)	71556
34507	1,1,1-TRICHLOROETHANE, DISSOLVED (UG/L)	71556
34508	1,1,1-TRICHLOROETHANE, SUSPENDED (UG/L)	71556
34511	1,1,2-TRICHLOROETHANE, TOTAL (UG/L)	79005
34512	1,1,2-TRICHLOROETHANE, DISSOLVED (UG/L)	79005
34513	1,1,2-TRICHLOROETHANE, SUSPENDED (UG/L)	79005
34516	1,1,2,2-TETRACHLOROETHANE, TOTAL (UG/L)	79345
34517	1,1,2,2-TETRACHLOROETHANE, DISSOLVED (UG/L)	79345
34518	1,1,2,2-TETRACHLOROETHANE, SUSPENDED (UG/L)	79345
34521	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, TOTAL (UG/L)	191242
34522	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, DISS. (UG/L)	191242
34523	BENZO(GHI)PERYLENE1,12-BENZOPERYLENE, SUSP. (UG/L)	191242
34526	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, TOTAL (UG/L)	56553
34527	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, DISS. (UG/L)	56553
34528	BENZO(A)ANTHRACENE1,2-BENZANTHRACENE, SUSP. (UG/L)	56553
34531	1,2-DICHLOROETHANE, TOTAL (UG/L)	107062
34532	1,2-DICHLOROETHANE, DISSOLVED (UG/L)	107062
34533	1,2-DICHLOROETHANE, SUSPENDED (UG/L)	107062
34536	1,2-DICHLOROBENZENE, TOTAL (UG/L)	95501
34537	1,2-DICHLOROBENZENE, DISSOLVED (UG/L)	95501
34538	1,2-DICHLOROBENZENE, SUSPENDED (UG/L)	95501
34541	1,2-DICHLOROPROPANE, TOTAL (UG/L)	78875
34542	1,2-DICHLOROPROPANE, DISSOLVED (UG/L)	78875
34543	1,2-DICHLOROPROPANE, SUSPENDED (UG/L)	78875
34546	TRANS-1,2-DICHLOROETHENE, TOTAL, IN WATER (UG/L)	156605

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34547	TRANS-1,2-DICHLOROETHENE, DISSOLVED (UG/L)	156605
34548	TRANS-1,2-DICHLOROETHENE, SUSPENDED (UG/L)	156605
34551	1,2,4-TRICHLOROBENZENE, TOTAL (UG/L)	120821
34552	1,2,4-TRICHLOROBENZENE, DISSOLVED (UG/L)	120821
34553	1,2,4-TRICHLOROBENZENE, SUSPENDED (UG/L)	120821
34556	1,2,5,6-DIBENZANTHRACENE, TOTAL (UG/L)	53703
34557	1,2,5,6-DIBENZANTHRACENE, DISSOLVED (UG/L)	53703
34558	1,2,5,6-DIBENZANTHRACENE, SUSPENDED (UG/L)	53703
34561	1,3-DICHLOROPROPENE, TOTAL (UG/L)	542756
34562	1,3-DICHLOROPROPENE, DISSOLVED (UG/L)	542756
34563	1,3-DICHLOROPROPENE, SUSPENDED (UG/L)	542756
34566	1,3-DICHLOROBENZENE, TOTAL (UG/L)	541731
34567	1,3-DICHLOROBENZENE, DISSOLVED (UG/L)	541731
34568	1,3-DICHLOROBENZENE, SUSPENDED (UG/L)	541731
34571	1,4-DICHLOROBENZENE, TOTAL (UG/L)	106467
34572	1,4-DICHLOROBENZENE, DISSOLVED (UG/L)	106467
34573	1,4-DICHLOROBENZENE, SUSPENDED (UG/L)	106467
34576	2-CHLOROETHYL VINYL ETHER, TOTAL (UG/L)	110758
34577	2-CHLOROETHYL VINYL ETHER, DISSOLVED (UG/L)	110758
34578	2-CHLOROETHYL VINYL ETHER, SUSPENDED (UG/L)	110758
34581	2-CHLORONAPHTHALENE, TOTAL (UG/L)	91587
34582	2-CHLORONAPHTHALENE, DISSOLVED (UG/L)	91587
34583	2-CHLORONAPHTHALENE, SUSPENDED (UG/L)	91587
34586	2-CHLOROPHENOL, TOTAL (UG/L)	95578
34587	2-CHLOROPHENOL, DISSOLVED (UG/L)	95578
34588	2-CHLOROPHENOL, SUSPENDED (UG/L)	95578
34591	2-NITROPHENOL, TOTAL (UG/L)	88755
34592	2-NITROPHENOL, DISSOLVED (UG/L)	88755

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34593	2-NITROPHENOL, SUSPENDED (UG/L)	88755
34596	DI-N-OCTYL PHTHALATE, TOTAL (UG/L)	117840
34597	DI-N-OCTYL PHTHALATE, DISSOLVED (UG/L)	117840
34598	DI-N-OCTYL PHTHALATE, SUSPENDED (UG/L)	117840
34601	2,4-DICHLOROPHENOL, TOTAL (UG/L)	120832
34602	2,4-DICHLOROPHENOL, DISSOLVED (UG/L)	120832
34603	2,4-DICHLOROPHENOL, SUSPENDED (UG/L)	120832
34606	2,4-DIMETHYLPHENOL, TOTAL (UG/L)	105679
34607	2,4-DIMETHYLPHENOL, DISSOLVED (UG/L)	105679
34608	2,4-DIMETHYLPHENOL, SUSPENDED (UG/L)	105679
34611	2,4-DINITROTOLUENE, TOTAL (UG/L)	121142
34612	2,4-DINITROTOLUENE, DISSOLVED (UG/L)	121142
34613	2,4-DINITROTOLUENE, SUSPENDED (UG/L)	121142
34616	2,4-DINITROPHENOL, TOTAL (UG/L)	51285
34617	2,4-DINITROPHENOL, DISSOLVED (UG/L)	51285
34618	2,4-DINITROPHENOL, SUSPENDED (UG/L)	51285
34621	2,4,6-TRICHLOROPHENOL, TOTAL (UG/L)	88062
34622	2,4,6-TRICHLOROPHENOL, DISSOLVED (UG/L)	88062
34623	2,4,6-TRICHLOROPHENOL, SUSPENDED (UG/L)	88062
34626	2,6-DINITROTOLUENE, TOTAL (UG/L)	606202
34627	2,6-DINITROTOLUENE, DISSOLVED (UG/L)	606202
34628	2,6-DINITROTOLUENE, SUSPENDED (UG/L)	606202
34631	3,3'-DICHLOROBENZIDINE, TOTAL (UG/L)	91941
34632	3,3'-DICHLOROBENZIDINE, DISSOLVED (UG/L)	91941
34633	3,3'-DICHLOROBENZIDINE, SUSPENDED (UG/L)	91941
34636	4-BROMOPHENYL PHENYL ETHER, TOTAL (UG/L)	101553
34637	4-BROMOPHENYL PHENYL ETHER, DISSOLVED (UG/L)	101553
34638	4-BROMOPHENYL PHENYL ETHER, SUSPENDED (UG/L)	101553

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34641	4-CHLOROPHENYL PHENYL ETHER, TOTAL (UG/L)	7005723
34642	4-CHLOROPHENYL PHENYL ETHER, DISSOLVED (UG/L)	7005723
34643	4-CHLOROPHENYL PHENYL ETHER, SUSPENDED (UG/L)	7005723
34646	4-NITROPHENOL, TOTAL (UG/L)	100027
34647	4-NITROPHENOL, DISSOLVED (UG/L)	100027
34648	4-NITROPHENOL, SUSPENDED (UG/L)	100027
34651	P,P'-DDD, DISSOLVED (UG/L)	72548
34652	P,P'-DDD, SUSPENDED (UG/L)	72548
34653	P,P'-DDE, DISSOLVED (UG/L)	72559
34654	P,P'-DDE, SUSPENDED (UG/L)	72559
34655	P,P'-DDT, DISSOLVED (UG/L)	50293
34656	P,P'-DDT, SUSPENDED (UG/L)	50293
34657	DNOC (4,6-DINITRO-ORTHO-CRESOL), TOTAL (UG/L)	534521
34658	DNOC (4,6-DINITRO-ORTHO-CRESOL), DISSOLVED (UG/L)	534521
34659	DNOC (4,6-DINITRO-ORTHO-CRESOL), SUSPENDED (UG/L)	534521
34662	PCB - 1221, DISSOLVED (UG/L)	11104282
34663	PCB - 1221, SUSPENDED (UG/L)	11104282
34665	PCB - 1232, DISSOLVED (UG/L)	11141165
34666	PCB - 1232, SUSPENDED (UG/L)	11141165
34671	PCB - 1016, TOTAL (UG/L)	12674112
34672	PCB - 1016, DISSOLVED (UG/L)	12674112
34673	PCB - 1016, SUSPENDED (UG/L)	12674112
34675	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD),TOT(UG/L)	1746016
34676	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)DISS(UG/L)	1746016
34677	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)SUSP(UG/L)	1746016
34694	PHENOL(C6H5OH)-SINGLE COMPOUND TOTAL (UG/L)	108952
34696	NAPHTHALENE, TOTAL (UG/L)	91203
34750	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)TOT(PG/L)	1746016

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
34751	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)DISS(PG/L)	1746016
34752	2,3,7,8-TETRACHLORODIBENZO-PDIOXIN(TCDD)SUSP(PG/L)	1746016
39032	PCP (PENTACHLOROPHENOL) WHOLE WATER SAMPLE (UG/L)	87865
39039	HEXACHLOROBENZENE WATER SAMPLE,ELECTRON CPT (UG/L)	118741
39100	BIS(2-ETHYLHEXYL) PHTHALATE, WHOLE WATER (UG/L)	117817
39103	BIS(2-ETHYLHEXYL) PHTHALATE, DISSOLVED, (UG/L)	117817
39104	BIS(2-ETHYLHEXYL) PHTHALATE, SUSPENDED, (UG/L)	117817
39107	PHTHALATES,DIETHYLHEXYL SUS.FRAC.WTR DWT (MG/KG)	117817
39110	DI-N-BUTYL PHTHALATE, WHOLE WATER (UG/L)	84742
39114	DI-N-BUTYL PHTHALATE, SUSPENDED (UG/L)	84742
39115	PHTHALATES,DIBUTYL SUS.FRAC.WATER DWT (UG/KG)	84742
39120	BENZIDINE IN WHOLE WATER SAMPLE (UG/L)	92875
39175	VINYL CHLORIDE-WHOLE WATER SAMPLE (UG/L)	75014
39180	TRICHLOROETHYLENE-WHOLE WATER SAMPLE (UG/L)	79016
39300	P,P' DDT IN WHOLE WATER SAMPLE (UG/L)	50293
39310	P,P' DDD IN WHOLE WATER SAMPLE (UG/L)	72548
39320	P,P' DDE IN WHOLE WATER SAMPLE (UG/L)	72559
39330	ALDRIN IN WHOLE WATER SAMPLE (UG/L)	309002
39331	ALDRIN IN FILT. FRAC. OF WAT. SAMP. (UG/L)	309002
39332	ALDRIN IN SUSP. FRAC. OF WAT. SAMP. (UG/L)	309002
39336	BHC-ALPHA, WATER, WHOLE (LBS/DAY)	319846
39337	ALPHA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	319846
39338	BETA BENZENE HEXACHLORIDE IN WHOLE WATER (UG/L)	319857
39340	GAMMA-BHC(LINDANE), WHOLE WATER (UG/L)	58899
39341	GAMMA-BHC(LINDANE), DISSOLVED (UG/L)	58899
39342	GAMMA-BHC(LINDANE), SUSPENDED (UG/L)	58899
39344	BHC-GAMMA, WATER, WHOLE (LBS/DAY)	58899
39350	CHLORDANE(TECH MIX & METABS), WHOLE WATER (UG/L)	57749

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
39352	CHLORDANE(TECH MIX & METABS), DISSOLVED (UG/L)	57749
39353	CHLORDANE(TECH MIX & METABS), SUSPENDED (UG/L)	57749
39360	DDD IN WHOLE WATER SAMPLE (UG/L)	72548
39361	DDD IN FILT. FRAC. OF WATER SMAPLE (UG/L)	72548
39362	DDD IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72548
39365	DDE IN WHOLE WATER SAMPLE (UG/L)	72559
39366	DDE IN FILT. FRAC. OF WATER SAMPLE (UG/L)	72559
39367	DDE IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72559
39370	DDT IN WHOLE WATER SAMPLE (UG/L)	50293
39371	DDT IN FILT. FRAC. OF WATER SAMPLE (UG/L)	50293
39372	DDT IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	50293
39380	DIELDRIN IN WHOLE WATER SAMPLE (UG/L)	60571
39381	DIELDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	60571
39382	DIELDRIN IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	60571
39390	ENDRIN IN WHOLE WATER SAMPLE (UG/L)	72208
39391	ENDRIN IN FILT. FRAC. OF WATER SAMPLE (UG/L)	72208
39392	ENDRIN IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	72208
39400	TOXAPHENE IN WHOLE WATER SAMPLE (UG/L)	8001352
39401	TOXAPHENE IN FILT. FRAC. OF WATER SAMPLE (UG/L)	8001352
39402	TOXAPHENE IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	8001352
39410	HEPTACHLOR IN WHOLE WATER SAMPLE (UG/L)	76448
39411	HEPTACHLOR IN FILT. FRAC. OF WATER SAMPLE (UG/L)	76448
39412	HEPTACHLOR IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	76448
39420	HEPTACHLOR EPOXIDE IN WHOLE WATER SAMPLE (UG/L)	1024573
39421	HEPTACHLOR EPOXIDE IN FILT. FRAC. WAT. SAM. (UG/L)	1024573
39422	HEPTACHLOR EPOXIDE IN SUSP. FRAC. WAT. SAM. (UG/L)	1024573
39488	PCB - 1221 IN THE WHOLE WATER SAMPLE (UG/L)	11104282
39492	PCB - 1232 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11141165

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
39496	PCB - 1242 PCB SERIES WHOLE WATER SAMPLE (UG/L)	53469219
39500	PCB - 1248 PCB SERIES WHOLE WATER SAMPLE (UG/L)	12672296
39501	PCB - 1248 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	12672296
39502	PCB - 1248 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	12672296
39504	PCB - 1254 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11097691
39505	PCB - 1254 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11097691
39506	PCB - 1254 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	11097691
39508	PCB - 1260 PCB SERIES WHOLE WATER SAMPLE (UG/L)	11096825
39509	PCB - 1260 IN FILT. FRAC. OF WATER SAMPLE (UG/L)	11096825
39510	PCB - 1260 IN SUSP. FRAC. OF WATER SAMPLE (UG/L)	11096825
39700	HEXACHLOROBENZENE IN WHOLE WATER SAMPLE (UG/L)	118741
39702	HEXACHLOROBUTADIENE IN WHOLE WATER SAMPLE (UG/L)	87683
39782	LINDANE IN WHOLE WATER SAMPLE (UG/L)	58899
39920	DNOC IN WHOLE WATER SAMPLE (UG/L)	534521
46322	LINDANE PLUS ISOMERS IN WHOLE WATER SAMPLE (UG/L)	58899
46323	DELTA-BHC IN WHOLE WATER SAMPLE (UG/L)	319868
46326	HEPTACHLOR AND METABOLITES IN WH. H2O SAMP. (UG/L)	76448
46479	CYANIDE, DISSOLVED, WATER (UG/L)	57125
46551	ARSENIC, FIELD ACIDIFIED W/HNO3, LAB FILT. (UG/L)	7440382
46559	CADMIUM, FIELD ACIDIFIED-HNO3-LAB FILTER (UG/L-CD)	7440439
46560	CHROMIUM, FIELD ACIDIFIED-HN03-LAB FILT. (UG/L-CR)	7440473
46562	COPPER, FIELD ACIDIFIED-HNO3-LAB FILTER. (UG/L-CU)	7440508
46564	LEAD, FIELD ACIDIFIED-HNO3-LAB FILTERED (UG/L-PB)	7439921
46566	SILVER, FIELD ACIDIFIED-HNO3-LAB FILTER.(UG/L-AG)	7440224
46567	ZINC, EXTRACT. FIELD ACID W/HNO3, LAB FILT. (UG/L)	7440666
70012	PARACHLOROMETA CRESOL, WATER, WHOLE (LBS/DAY)	59507
70017	HEXACHLOROCYCLOPENTADIENE, WATER, WHOLE (LBS/DAY)	77474
70021	LEAD, (TCLP), WATER, TOTAL (MG/L)	7439921

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
71890	MERCURY, DISSOLVED (UG/L AS HG)	7439976
71895	MERCURY, SUSPENDED (UG/L AS HG)	7439976
71900	MERCURY, TOTAL (UG/L AS HG)	7439976
71901	MERCURY, TOTAL RECOVERABLE IN WATER AS HG (UG/L)	7439976
71946	CADMIUM, EXTRACTABLE (UG/L AS CD)	7440439
71947	CHROMIUM, EXTRACTABLE (UG/L AS CR)	7440473
71949	LEAD, EXTRACTABLE (UG/L AS PB)	7439921
71950	ZINC, EXTRACTABLE (UG/L AS ZN)	7440666
71951	COPPER, EXTRACTABLE (UG/L AS CU)	7440508
73063	CHLOROGUAIACOL,4-, TOTAL, WATER (UG/L)	16766306
73522	PROPANE, 2,2'-OXYBIS(1-CHLORO)- TOTAL (UG/L)	108601
77163	1,3-DICHLOROPROPENE-1, WHOLE WATER (UG/L)	542756
77354	1,1-DICHLORO-2,2-DIFLUOROETHANE WHOLE WATER (UG/L)	471432
77771	3-CHLORO-4-HYDROXYBENZOPHENONE, WHOLE WATER (UG/L)	55191203
78113	ETHYL BENZENE WHOLE WATER SAMPLE (UG/L)	100414
78124	BENZENE IN WATER (VOLATILE ANALYSIS) (UG/L)	71432
78131	TOLUENE IN WHOLE WATER (VOLATILE ANALYSIS) (UG/L)	108883
78208	2,4-DINITRO-O-CRESOL IN WHOLE WATER SAMPLE (UG/L)	534521
78247	CHROMIUM, HEXAVALENT, TOTAL RECOVERABLE, WT (UG/L)	18540299
78248	CYANIDE, TOTAL RECOVERABLE, WATER, WHOLE (UG/L)	57125
80357	CHROMIUM, TRIVALENT, DISSOLVED, AS CR	16065831
81208	CYANIDE, FREE (NOT AMEN. TO CHLORINATION) (MG/L)	57125
81210	CYANIDE - STATE OF ILLINOIS (MG/L)	57125
81214	CADMIUM - STATE OF ILLINOIS (MG/L)-COLD	7440439
81215	CHROMIUM - STATE OF ILLINOIS (MG/L), COLD DIGEST	18540299
81216	CHROMIUM(TRI)-STATE OF ILLINOIS (MG/L)-COLD DIGEST	16065831
81217	CHROMIUM, TOTAL - STATE OF ILLINOIS (MG/L) COLD DIGEST	7440473
81218	COPPER, STATE OF ILLINOIS, MG/L, COLD DIGEST	7440508

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
81220	LEAD, STATE OF ILLINOIS, MG/L, COLD DIGEST	7439921
81222	NICKEL - STATE OF ILLINOIS, MG/L, COLD DIGEST	7440020
81223	SILVER, STATE OF ILLINOIS, MG/L, COLD DIGEST	7440224
81224	ZINC - STATE OF ILLINOIS, MG/L, COLD DIGEST	7440666
81642	SILVER (AG) IN WATER POUNDS PER DAY (LBS/DAY)	7440224
81750	COPPER, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440508
81751	LEAD, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7439921
81752	NICKEL, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440020
81753	CADMIUM, INTERSTITIAL WATER FROM SEDIMENT	7440439
81754	ZINC, INTERSTITIAL WATER FROM SEDIMENTS (UG/L)	7440666
81766	HEPTACHLOR EPOXIDE IN EPILITHIC ALGAE SED. (UG/KG)	1024573
81931	MERCURY (HG) SUSPENDED FRACTION OF WATER (UG/G)	7439976
81932	CADMIUM (CD) SUSPENDED FRACTION OF WATER (UG/G)	7440439
81933	ZINC (ZN) SUSPENDED FRACTION OF WATER (UG/G)	7440666
81934	LEAD (PB) SUSPENDED FRACTION OF WATER (UG/G)	7439921
81936	LEAD (PB) DISSOLVED CATIONIC SPECIES (UG/L)	7439921
81937	CADMIUM (CD) DISSOLVED CATIONIC SPECIES (UG/L)	7440439
81938	CHROMIUM, DISSOLVED CATIONIC SPECIES (UG/L)	7440473
81939	COPPER (CU) DISSOLVED CATIONIC SPECIES (UG/L)	7440508
81940	ZINC (ZN) DISSOLVED CATIONIC SPECIES (UG/L)	7440666
81941	CHROMIUM, DISSOLVED ANIONIC SPECIES (UG/L)	7440473
81942	COPPER (CU) DISSOLVED ANIONIC SPECIES (UG/L)	7440508
81943	ZINC (ZN) DISSOLVED ANIONIC SPECIES (UG/L)	7440666
82058	CHROMIUM, TOTAL, PERCENT REMOVAL	7440473
82399	CHROMIUM, HEXAVALENT (KG/BATCH)	18540299
82512	M,P-DICHLOROBENZENE (MEASURES 1,3&1,4) TOT. (UG/L)	541731
82573	CYANIDE/CHLORINATION IN WATER (MG/L)	57125
82621	HEXACHLOROBENZENE, WATER, TOTAL RECOVER. (UG/L)	118741

STORET Code	Toxic Elements (EPA Section 304(a) Priority Toxic Pollutants) cont.-	C.A.S. Number
82622	ENDRIN ALDEHYDE, WH. WATER, TOTAL RECOVER. (UG/L)	7421934
82623	ENDOSULFAN SULFATE, WATER, TOTAL RECOVER. (UG/L)	1031078
82624	ENDOSULFAN, BETA, WH. WATER, TOTAL RECOVER. (UG/L)	33213659
82626	1,2-DIPHENYLHYDRAZINE, WATER, TOTAL RECOVER. (UG/L)	122667
82627	PARACHLOROMETA CRESOL, WATER, TOTAL RECOVER. (UG/L)	59507
82702	ARSENIC, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440382
82704	BERYLLIUM, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440417
82705	CADMIUM, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440439
82706	CHROMIUM, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440473
82708	COPPER, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440508
82711	LEAD, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7439921
82713	MERCURY, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7439976
82715	NICKEL, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440020
82716	SILVER, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440224
82719	ZINC, FIELD ACIDIFIED, DECANTED, WATER (UG/L)	7440666
85006	ZINC, TOTAL - (#/DAY)	7440666
85007	CHROMIUM, TOTAL (#/DAY)	7440473
85010	NICKEL, TOTAL - (#/DAY)	7440020
85013	MERCURY, TOTAL - (#/DAY)	7439976

Appendix H

Literature Cited

Code of Federal Regulations. 1994. Protection of Environment. 40 CFR Parts 100 to 149. Revised as of July 1, 1994. Published by the Office of the Federal Register, National Archives and Records Administration. U.S. Government Printing Office, Washington, D.C. 20402.

Gilbert, R. O. 1987. Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold Co., New York, NY. 320p.

GKY and Associates. 1990. Dam Inventory Database and Retrieval Software: Final Report. U.S. Environmental Protection Agency, Water Quality Analysis Branch. Under Contract #68-03-3339.

Kunkle, S. and J. Wilson. 1984. Specific Conductance and pH Measurements in Surface Waters: An Introduction for Park Natural Resource Specialists. Water Resources Field Support Laboratory Report No. 84-3. National Park Service, Water Resources Division, Fort Collins, Colorado 80525. 51p.

National Park Service. 1993. Strategic Plan for Conducting Baseline Natural Resource Inventories in the National Park Service. National Park Service, Washington Office, Servicewide Inventory and Monitoring Program, Washington, D.C. Unpublished. 17p.

U.S. Environmental Protection Agency. 1995. Quality Criteria for Water 1995. Final Draft. Office of Water Regulations and Standards, Washington, D.C.

U.S. Environmental Protection Agency. 1989. STORET User Handbook. U.S. Environmental Proteciton Agency, Office of Water, Washington, D.C. 20460.

U.S. Environmental Protection Agency. 1992. Office of Water Environmental and Program Information Systems Compendium. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. 20460. 152p.

U.S. Environmental Protection Agency. 1993. Technical Description of the Reach File. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. 20460. 23p.

U.S. Geological Survey. 1982. A U.S. Geological Survey Data Standard: Codes for the Identification of Hydrologic Units in the United States and Caribbean Outlying Areas. Geological Survey Circular 878-A. U.S. Geological Survey, Water Resources Division, Reston, VA. 22092. 115p.

U.S. Geological Survey 1992. Hydro-Climatic Data Network: A U.S. Geological Survey Streamflow Data Set for the United States for the Study of Climate Variations 1874-1988. Open File Report 92-129/USGS Water Supply Paper No. 2406. U.S. Geological Survey, Water Resources Division, Reston, VA. 22092. 193p.

Ward, R. C., J. C. Loftis, and G. B. McBride. 1990. Design of Water Quality Monitoring Systems. Van Nostrand Reinhold Co., New York, NY. 231p.

Appendix I

Selected General Water Quality References

American Public Health Association. 1989. Standard Methods for the Examination of Water and Wastewater (17th ed.). Washington, D.C. 1476p.

Drever, J. I. 1982. The Geochemistry of Natural Waters. Prentice-Hall, Inc., Englewood Cliffs, NJ. 388p.

Dunne, T. and L. B. Leopold. 1978. Water in Environmental Planning. W.H. Freeman and Company, San Francisco, CA. 818p.

Everett, L. G. 1980. Groundwater Monitoring. General Electric Co., Schenectady, NY. 440p.

Fetter, C. W. 1988. Applied Hydrogeology (2nd ed.). MacMillan Publishing Co., New York, NY. 592p.

Flora, M. D., T. E. Ricketts, J. Wilson, and S. Kunkle. 1984. Water Quality Criteria: An Overview for Park Natural Resource Specialists. WRFSL Report No. 84-4. National Park Service, Water Resources Field Support Laboratory, Fort Collins, CO. 46p.

Gilbert, R. O. 1987. Statistical Methods for Environmental Pollution Monitoring. Van Nostrand Reinhold Co., New York, NY. 320p.

Hem, J. D. 1985. Study and Interpretation of the Chemical Characteristics of Natural Water (3rd ed.). U.S. Geological Survey Water-Supply Paper 2254. U.S. Government Printing Office, Washington, D.C. 263p.

Kunkle, S., W. S. Johnson, and M. Flora. 1987. Monitoring Stream Water Quality for Land-Use Impacts: A Training Manual for Natural Resource Management Specialists. Water Resources Division, National Park Service, Fort Collins, CO. 102p.

Kunkle, S. and J. Wilson. 1984. Specific Conductance and pH Measurements in Surface Waters: An Introduction for Park Natural Resource Specialists. Water Resources Field Support Laboratory Report No. 84-3. National Park Service, Water Resources Division, Fort Collins, Colorado 80525. 51p.

Merritt, R. W., and K. W. Cummins (eds.). 1984. An Introduction to the Aquatic Insects of North America (2nd ed.). Kendall/Hunt Publishing Co., Dubuque, IA. 44p.

Morel, F. M. 1983. Principles of Aquatic Chemistry. John Wiley & Sons, Inc., New York, NY. 446p.

Nielsen, D. M. (ed.). 1991. Practical Handbook of Ground-Water Monitoring. Lewis Publishers, Inc. Chelsea, MI. 717p.

Ponce, S. L. 1980a. Statistical Methods Commonly Used in Water Quality Data Analysis. WSDG Technical Paper WSDG-TP-00001. U.S. Department of Agriculture, Forest Service, Watershed Systems Development Group, Fort Collins, CO. 136p.

Ponce, S. L. 1980b. Water Quality Monitoring Programs. WSDG Technical Paper WSDG-TP-00002. U.S. Department of Agriculture, Forest Service, Watershed Systems Development Group, Fort Collins, CO. 68p.

Rand, G. M. and S. R. Petrocelli (eds.). 1985. Fundamentals of Aquatic Toxicology. Hemisphere Publishing Co., New York, NY. 666p.

Rantz, S. E. and others. 1982. Measurement and Computation of Streamflow: Volume 1. Measurement of Stage and Discharge. Volume 2. Computation of Discharge. U.S. Department of the Interior, Geological Survey Water Supply Paper 2175. 631p.

Stednick, J.D. and D. M. Gilbert. 1998. Water Quality Inventory Protocol: Riverine Environments. National Park Service, Water Resources Division Technical Report NPS/NRWRD/NRTR-98/177. Fort Collins, CO. 103p.

Stednick, J. D. 1991. Wildland Water Quality Sampling and Analysis. Academic Press, Inc., San Diego, CA. 217p.

United Nations Educational, Scientific and Cultural Organization (UNESCO). 1978. Water Quality Surveys: A Guide for the Collection and Interpretation of Water Quality Data. IHD-WHO Working Group on the Quality of Water, Paris, France. 350p.

U.S. Department of the Interior. 1977. National Handbook of Recommended Methods for Water-Data Acquisition. U.S. Geological Survey, Office of Water-Data Coordination, Reston, VA. 990p.

U.S. Environmental Protection Agency. 1978. Microbiological Methods for Monitoring the Environment: Water and Wastes. R. H. Border, J. A. Winter, and P. W. Scarpino. EPA-600/8-78-017. Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 338p.

U.S. Environmental Protection Agency. 1979b. Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-020. (Revised March 1983). Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 460p.

U.S. Environmental Protection Agency. 1983. Water Quality Standards Handbook. Office of Water Regulations and Standards, Washington, D.C. 218p.

U.S. Environmental Protection Agency. 1995. Quality Criteria for Water 1995. Final Draft. Office of Water Regulations and Standards, Washington, D.C.

U.S. Environmental Protection Agency. 1989. Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish. J. L. Plafkin, M. T. Barbour, K. D. Porter, S. K. Gross, and R. M. Hughes. EPA-444/4-89-001. Office of Water Regulations and Standards, Assessment and Watershed Protection Division, Washington, D.C. 162p.

U.S. Environmental Protection Agency. 1990. Macroinvertebrate Field and Laboratory Methods for Evaluating the Biological Integrity of Surface Waters. D. J. Klemm, P. A. Lewis, F. Fulk, and J. M. Lazorchak. EPA-600/4-90-030. Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 256p.

U.S. Environmental Protection Agency. 1991a. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (4th ed.). C. I. Weber, ed. EPA-600/4-90-027. Office of Research and Development, Environmental Monitoring Systems Laboratory, Cincinnati, OH. 293p.

U.S. Environmental Protection Agency. 1991b. Monitoring Guidelines to Evaluate Effects of Forestry Activities on Streams in the Pacific Northwest and Alaska. L. H. MacDonald, A. W.Smart, and R. C. Wissmar. EPA-910/9-91-001. Region 10, Seattle, WA. 162p.

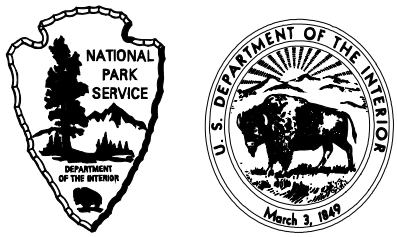
U.S. Environmental Protection Agency. 1993. Guide to Federal Water Quality Programs and Information. T. Stuart and N. P. Ross. EPA-230-B-93-001. Office of Strategic Planning and Environmental Data, Environmental Statistics and Information Division. Washington, D.C. 194p.

Verschueren, K. 1983. Handbook of Environmental Data on Organic Chemicals (2nd ed.). Van Nostrand Reinhold Co., New York, NY. 1310p.

Viessman W. and M. J. Hammer. 1985. Water Supply and Pollution Control (4th ed.). Harper and Row, Publishers, Inc. New York, NY. 797p.

Ward, R. C., J. C. Loftis, and G. B. McBride. 1990. Design of Water Quality Monitoring Systems. Van Nostrand Reinhold Co., New York, NY. 231p.

Wetzel, R. G. 1983. Limnology (2nd ed.). Sanders College Publishing, Philadelphia, PA. 767p.



As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The Department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.