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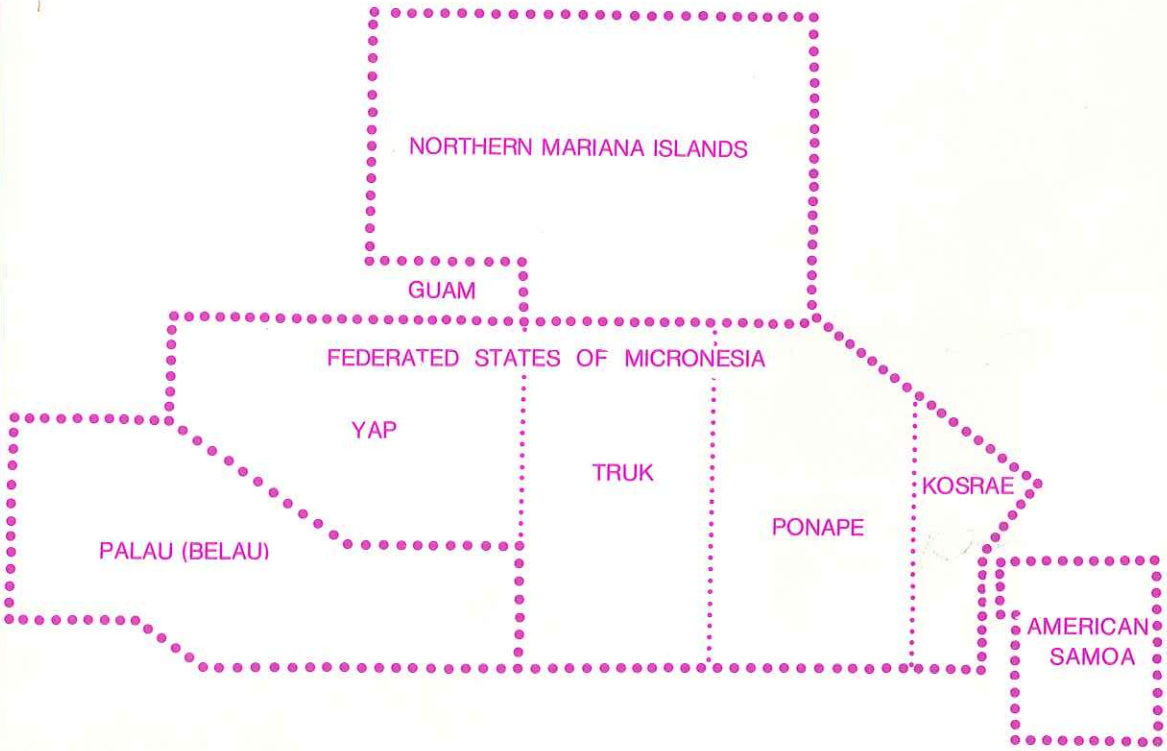
Water Resources Data Hawaii and other Pacific Areas Water Year 1984

Volume 2. Guam, Northern Mariana Islands, Federated States of Micronesia, Palau, and American Samoa

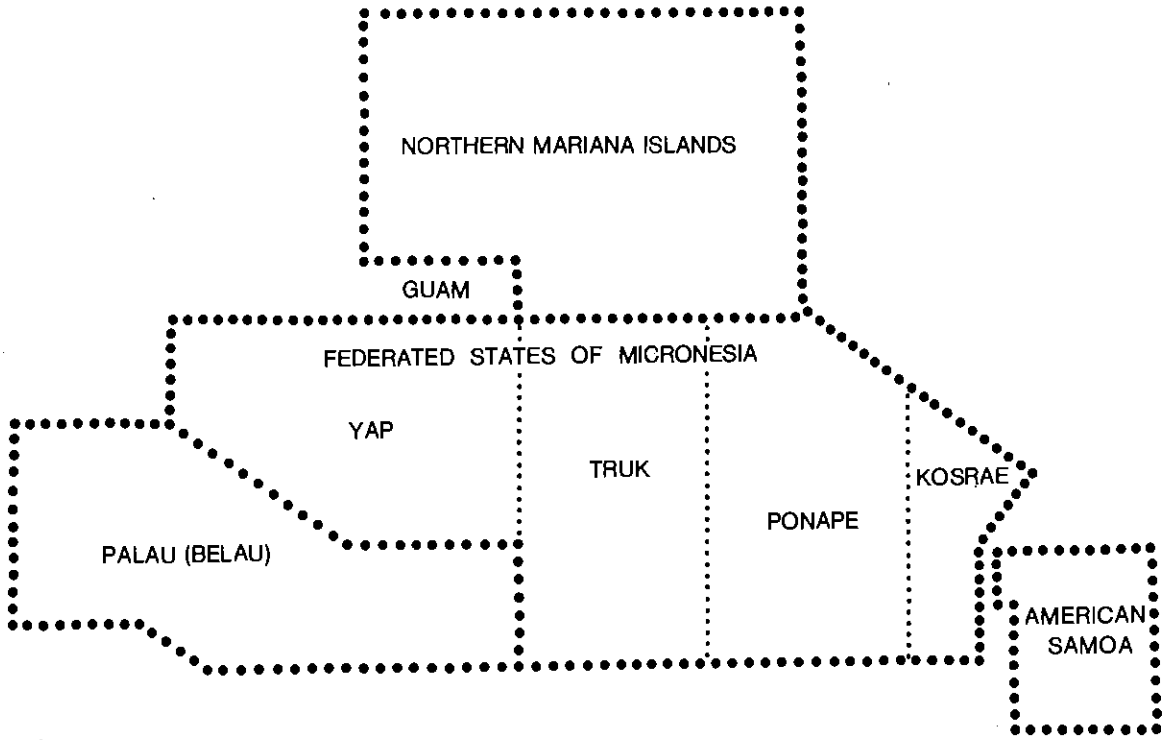


U.S. GEOLOGICAL SURVEY WATER-DATA REPORT HI-84-2
Prepared in cooperation with the Governments of Guam, Northern Mariana Islands, Federated States of Micronesia, Palau, American Samoa, and with other agencies

Water Resources Data Hawaii and other Pacific Areas Water Year 1984

Volume 2. Guam, Northern Mariana Islands, Federated States of Micronesia, Palau, and American Samoa

by Salwyn S. Chinn, Grace A. Tateishi, and Johnson J.S. Yee



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UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

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Honolulu, Hawaii 96850

1985

PREFACE

This volume of the annual hydrologic data report of Hawaii and other Pacific Areas is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Hawaii and other Pacific Areas are contained in two volumes:

Volume 1. Hawaii
Volume 2. Guam, Northern Mariana Islands, Federated States of Micronesia, Palau, and American Samoa.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

David A. Beck	Isao Yamashiro
Gregg N. Ikehara	Rose M. Maruoka
Lodie T. Piniol	Leonora K. Onaga

This report was prepared in cooperation with the Governments of Guam, Northern Mariana Islands, Federated States of Micronesia, Palau, American Samoa, and with other agencies under the general supervision of Stanley F. Kapustka, District Chief, Hawaii.

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. USGS/WRD/HD-85/269	2.	3. Recipient's Accession No.

4. Title and Subtitle Water Resources Data for Hawaii and other Pacific Areas, Water Year 1984. Volume 2.	5. Report Date September 1985 6.
7. Author(s) Salwyn S. Chinn, Grace A. Tateishi, and Johnson J. S. Yee	8. Performing Organization Rept. No. USGS-WDR-HI-84-02
9. Performing Organization Name and Address U.S. Geological Survey, Water Resources Division 300 Ala Moana Blvd., Room 6110 Honolulu, Hawaii 96850	10. Project/Task/Work Unit No. 11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address U.S. Geological Survey, Water Resources Division 300 Ala Moana Blvd., Room 6110 Honolulu, Hawaii 96850	13. Type of Report & Period Covered Annual - Oct. 1, 1983 to Sept. 30, 1984 14.

15. Supplementary Notes

Prepared in cooperation with the Governments of Guam, Northern Mariana Islands, Federated States of Micronesia, Palau Islands, American Samoa, and with other agencies.

16. Abstract (Limit: 200 words)

Volume 2 of water resources data for the 1984 water year for other Pacific areas consists of records of stage, discharge, and water quality of streams and springs; stage of 2 lakes and a reservoir; and water levels and water quality in wells. This report contains discharge records for 32 gaging stations; stage only record for 3 gaging stations; water quality for 14 gaging stations; 14 partial-record stations; water temperature for 32 gaging stations; and water levels for 37 observation wells and water quality for 113 ground-water sites. Also included are 19 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating Governments and Federal agencies in other Pacific areas.

17. Document Analysis a. Descriptors

*Pacific area, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Chemical analyses, Sediments, Reservoirs, Water temperatures, Sampling sites, Water levels.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement No restriction on distribution. This report may be purchased from: National Technical Information Service Springfield, VA 22161	19. Security Class (This Report) UNCLASSIFIED 20. Security Class (This Page) UNCLASSIFIED	21. No. of Pages 152 22. Price

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Letters after station name designate type of data:
(d) discharge, (e) stage or gage height, (c) chemical,
(t) temperature

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Letters after well number designate type of data:
(c) chemical, (t) water temperature, (w) water level

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WATER RESOURCES DATA FOR HAWAII AND OTHER PACIFIC AREAS, 1984

Volume 2

INTRODUCTION

Water resources data for the 1984 water year for Hawaii and other Pacific areas consist of records of stage, discharge, and water quality of streams, springs, and reservoir; and water-levels and water quality of wells. This report contains discharge records for 32 gaging stations; stage only records for 3 gaging stations; water quality for 14 gaging stations, 14 partial-record stations, water temperature for 32 stations; and water levels for 37 observation wells and water quality for 113 ground-water sites. Also included are data for 19 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, Territorial, and Federal agencies in the Pacific areas.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960 (June 30, 1960, for Hawaii and other Pacific Areas), these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. The records for other Pacific areas were contained in one volume entitled "Surface Water Supply of Mariana, Caroline, and Samoa Islands." Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground Water Levels in the United States." Water-supply papers are available in the libraries of the principal cities in the United States or may be purchased from the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia, 22202.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report HI-84-2."

In this volume, the spelling of names, drainage areas, and locations for most stations in Palau, Yap, Truk, Ponape, and Kosrae differ from those used in "Water Resources Data for Hawaii and other Pacific Areas", 1968 to 1980. These had been based on 1954 U.S. Army Map Service series W 856 maps with a scale of 1:25,000 and 10-meter contours (International spheroid). The revised names and figures were based on the 1981 USGS maps with 1:10,000 scale and 5-meter contours (Clarke spheroid of 1866).

The water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161. Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (808) 546-8331.

COOPERATION

The U.S. Geological Survey has had cooperative agreements for the systematic collection of streamflow records with the Government of Guam since 1953, with the Government of American Samoa since 1957, and with the other Pacific Islands since 1968. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Government of Guam, R. J. Bordallo, Governor.
Government of Northern Mariana Islands, P. P. Tenorio, Governor.
Federated States of Micronesia, T. Nakayama, President.
  State of Yap, J. A. Mangefel, Governor.
  State of Truk, Erhart Aten, Governor.
  State of Ponape, Resio Moses, Governor.
  State of Kosrae, Yosiwo George, Governor.
Republic of Palau, A. R. Oiterong, President.
Government of American Samoa, A. P. Lutali, Governor.

Assistance in the form of funds or services was given by the Public Works, U.S. Navy, and the Corps of Engineers, U.S. Army.

SUMMARY OF HYDROLOGIC CONDITIONS

Based on the records at six index streams in the area covered by this volume, as shown in figure 1; the annual mean runoff for 1984 water year was in the normal range at the index stations on Guam, Babelthuap, and Kosrae, and in the deficient range (flow in the lower 25 percent of record) at the stations on Yap, Ponape and Tutuila.

Streamflow at the Ylig River near Yona, Guam (fig. 2) was normal for November through March and June through September; and deficient for the October, April, and May. Annual mean runoff was 81 percent of the median.

At the Diongradid River (fig. 2) on the island of Babelthuap, Palau Islands, monthly mean was excessive (flow in the upper 25 percent of record) for November, December, and September; normal for October and January through June; and deficient July and August. Annual mean runoff was 105 percent of the annual median.

On the island of Yap, Caroline Islands, streamflow at the Qaringeel Stream (fig. 3) was excessive for November and February; normal for October, January, March, April, and August; and deficient for December, May through July, and September. Annual mean runoff was 66 percent of the annual median.

Streamflow at the Nanpil River in Ponape (fig. 3) was excessive for January; normal for October through December, February, March, June, August, and September; and deficient for April, May, and July. Annual mean discharge was 80 percent of the annual median.

On the island of Kosrae, streamflow at the Melo River (fig. 4) was excessive for October, November, January, February, and June; normal for December, March, and August; and deficient for April, May, July, and September. Annual mean discharge was 102 percent of the annual median.

At Tutuila, American Samoa, streamflow at Aasu (fig. 4) was excessive for March; normal for October, December through February, April through June, and September; and deficient for November, July and August. Annual mean runoff was 84 percent of the annual median.

DEFINITION OF TERMS

Definition of terms related to streamflow, water-quality, and other hydrologic data are defined as follows:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies withing 24 hours when incubated at 35°C + 0.5°C on M-Endoagar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

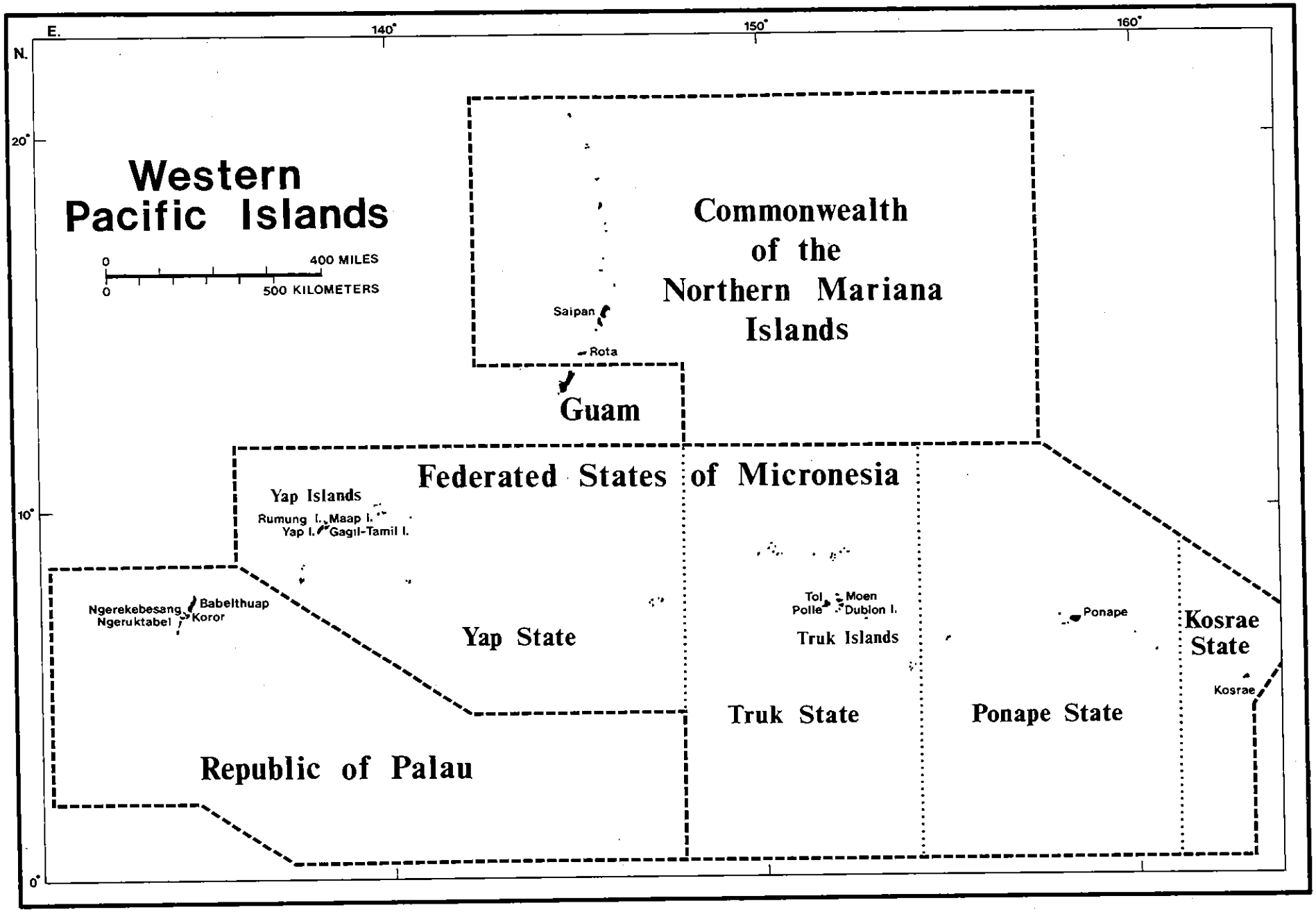
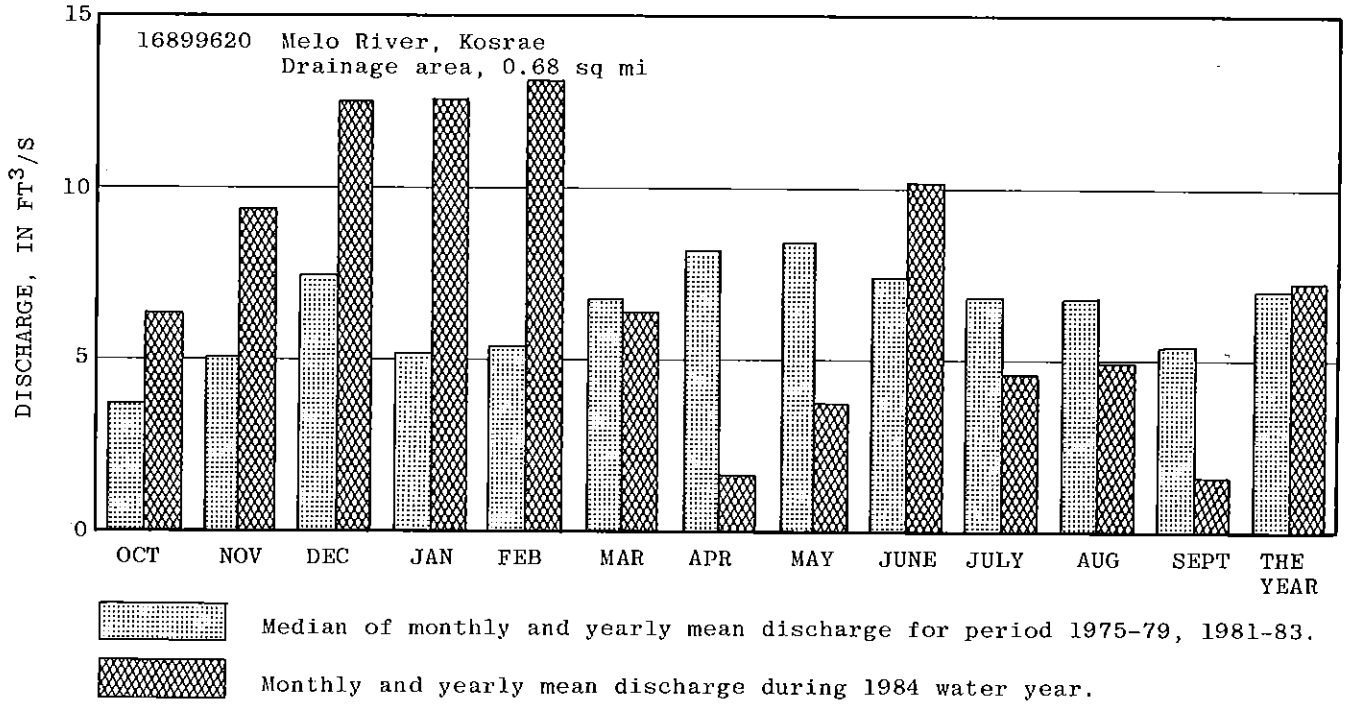


FIGURE 1.--LOCATIONS OF WESTERN PACIFIC ISLANDS.



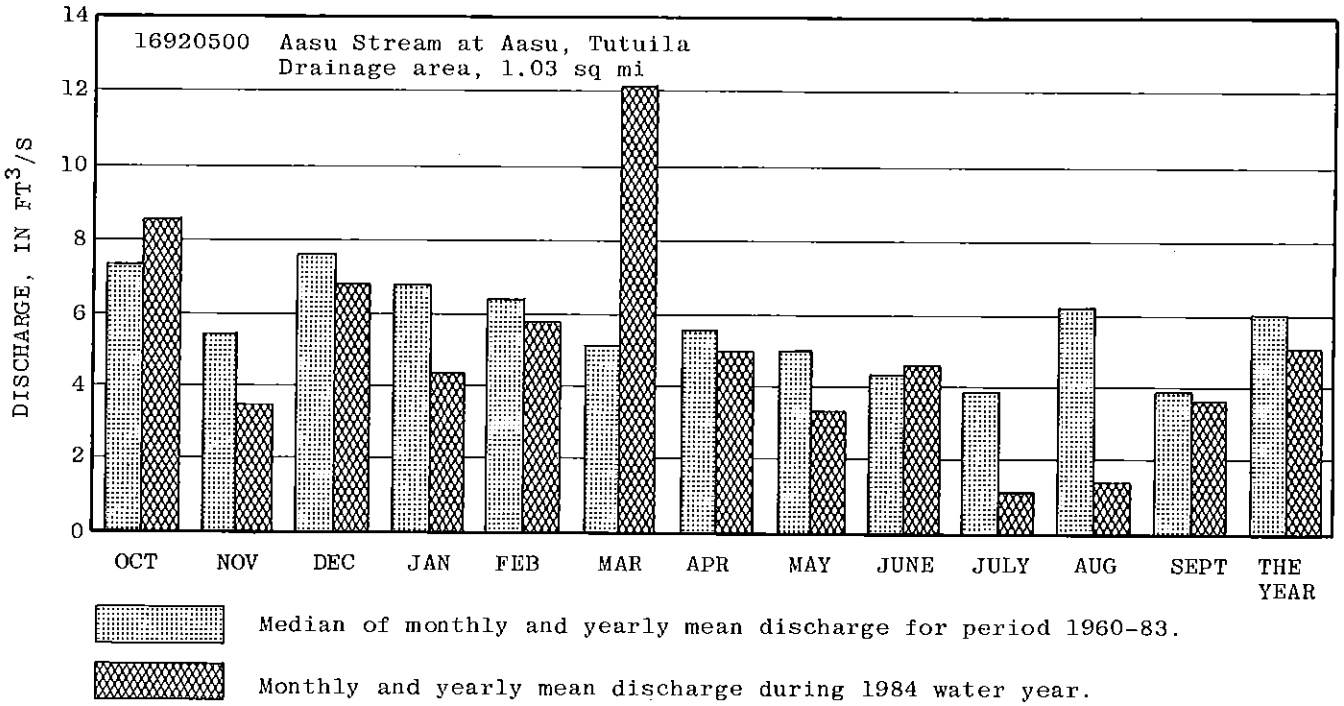


FIGURE 4.--DISCHARGE DURING 1984 WATER YEAR COMPARED WITH MEDIAN DISCHARGE FOR REPRESENTATIVE STREAMS ON KOSRAE AND TUTUILA.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliter of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF streptococcus agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any time, expressed as the weight per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (grams per square meter).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters of liters (L).

CFS-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons or 2,447 cubic meters.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common pigments in plants.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuing record station is a specified site which meets one or all conditions listed:

1. When chemical samples are collected daily or monthly for 10 or more months during the water year.

2. When water temperature records include observations taken one or more times daily.

3. When sediment discharge records include those periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic average of individual daily mean discharges during a specified period.

Instantaneous discharge is the discharge at a particular instant of time. If this discharge is reported instead of the daily mean, the heading of the discharge column in the table is "DISCHARGE (CFS)."

Dissolved is that material in a representative water sample which passes through a 0.45 micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Microgram per gram (µg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Microgram per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligram per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (Pc,pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radio active disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times milligrams per liter times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weight concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Suspended recoverable is the amount of a given constituent that is in solution after the part of a respresentative water-suspended sediment sample that is retained on a 0.45 micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituents.

Total recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed Nephelometric turbidity units (NTU).

WDR is used as an abbreviation for "Water-Data Reports" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Records are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all main-stream stations are listed before the first main-stream station. Stations on tributaries to tributaries are listed in a similar manner. In the lists of gaging stations and water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station, partial-record station, and water-quality station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 16858000 which appears just to the left of the station name includes the 2-digit number "16" plus the 6-digit downstream order number "858000." In this report, the records are listed in downstream order by islands. Locations of the stations are shown in figures 5-15.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 16.

The local well-numbering system for Pacific Areas was restructured to contain eight digits based on a non-arbitrary, unique one-minute grid system. One-minute parallel lines for both latitude and longitude are drawn on the map resulting in one-minute grids. Each grid is designated by a four-digit number. The first two digits represent minutes of latitude for the grid and the second two digits represent minutes of longitude for that grid.

To distinguish wells within a minute grid, two digits are added following the 4-digit minute-grid numbers with a dash separator. These two-digit numbers are assigned with the oldest well dug within the grid as 01 and increase chronologically, with few exceptions, to the latest dug.

Since it is possible to have a same 6-digit number for wells on different islands, a 2-digit number distinguishing each of the islands or geographic areas is added in front of the 6-digit number with a dash separator. For example, in the number 18-2647-01, the first two digits designate an island of geographic area, then the 4-digit minute-grid numbers followed by a 2-digit sequential number. See figure 17.

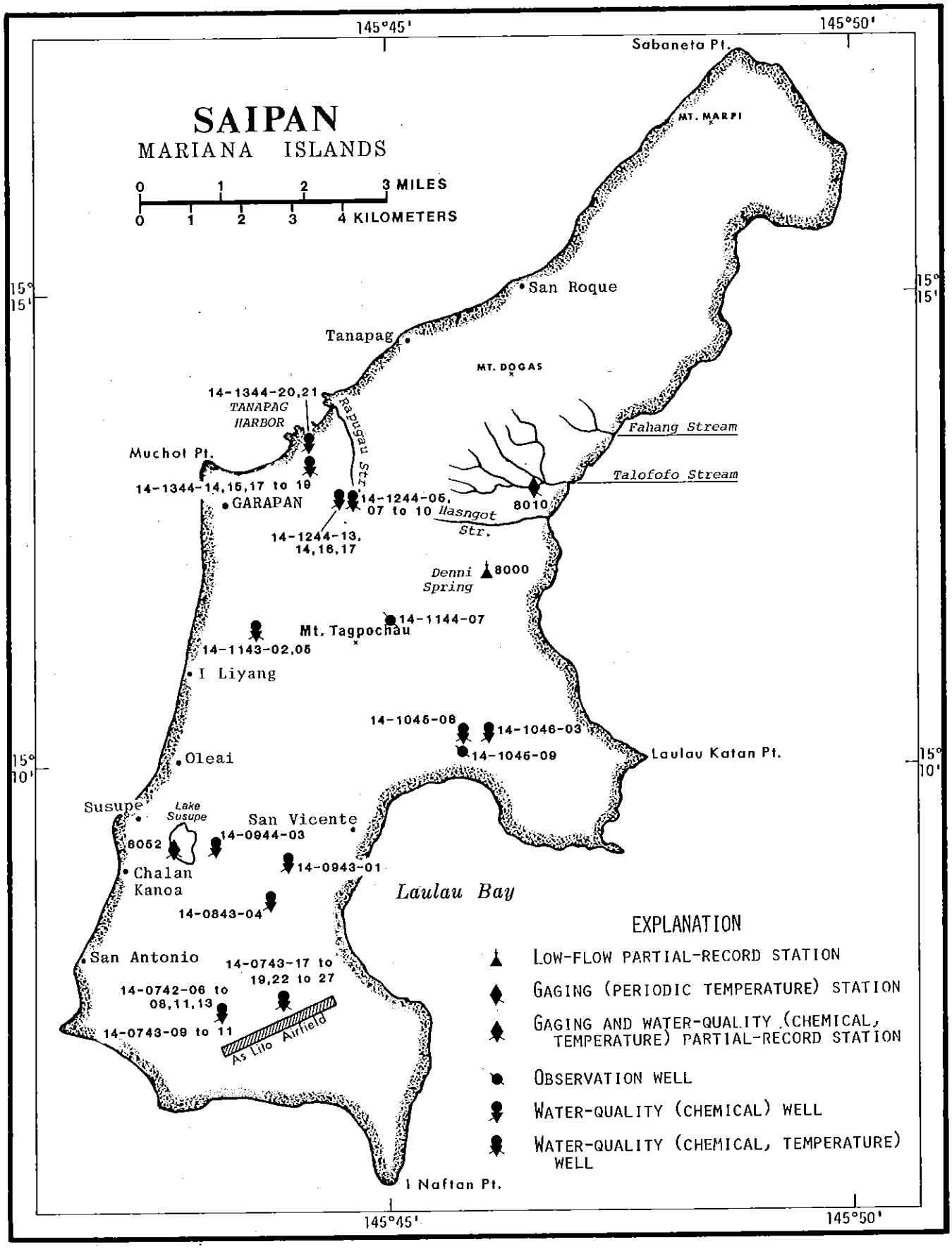


FIGURE 5.--LOCATIONS OF GAGING STATIONS, OBSERVATION WELLS, AND WATER-QUALITY ON SAIPAN.

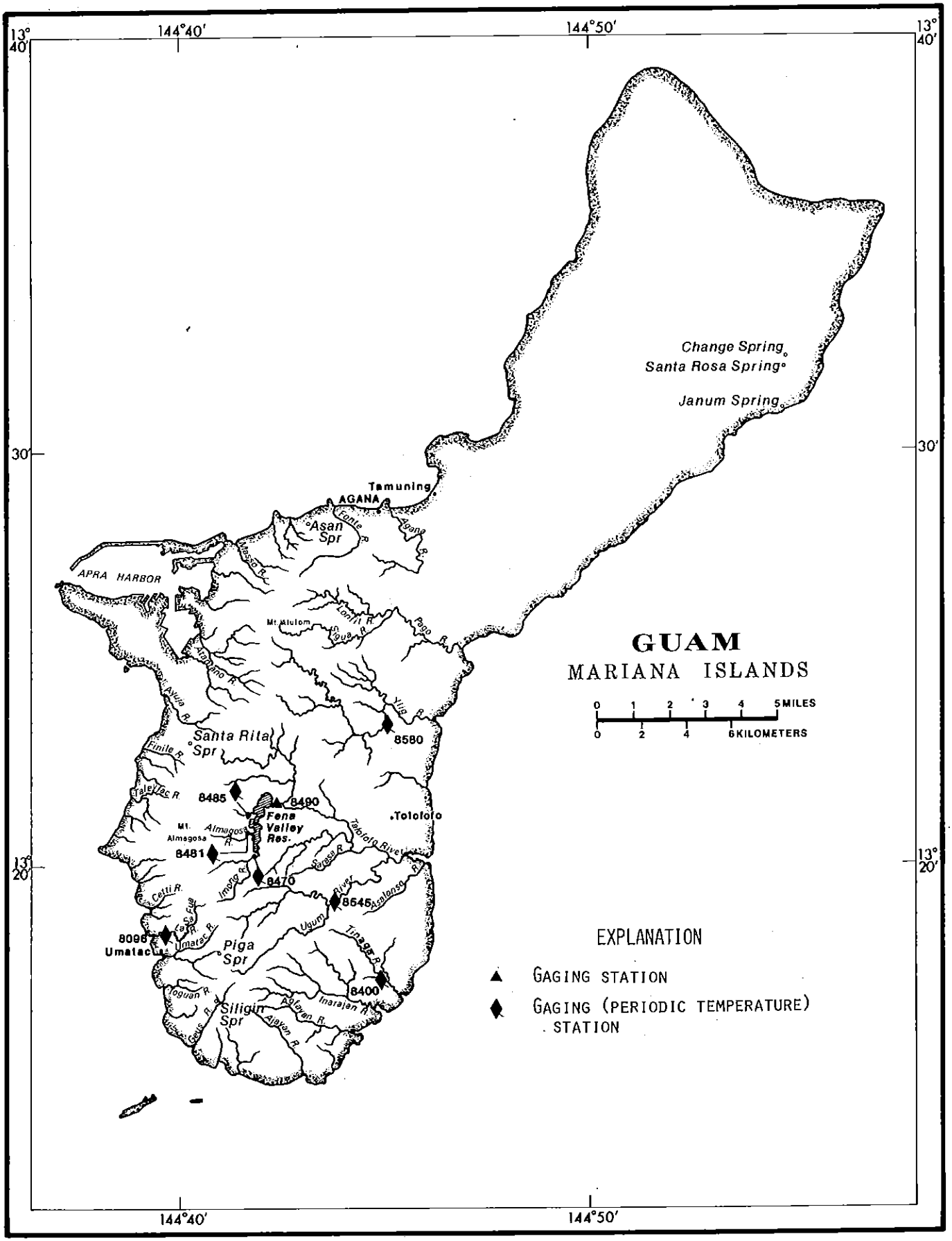


FIGURE 6.--LOCATIONS OF GAGING STATIONS ON GUAM.

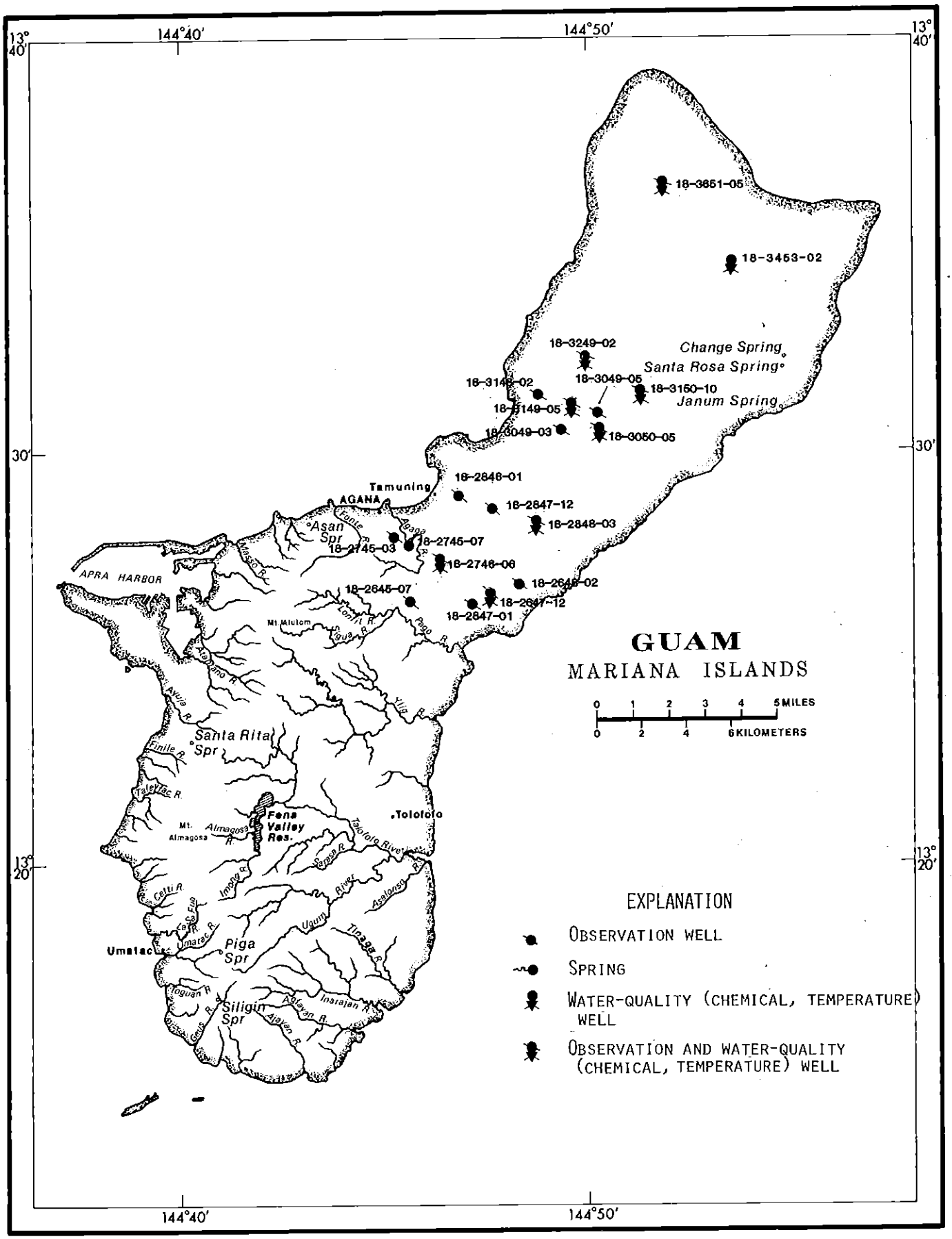


FIGURE 7.--LOCATIONS OF OBSERVATION WELLS AND WATER-QUALITY SITES ON GUAM.

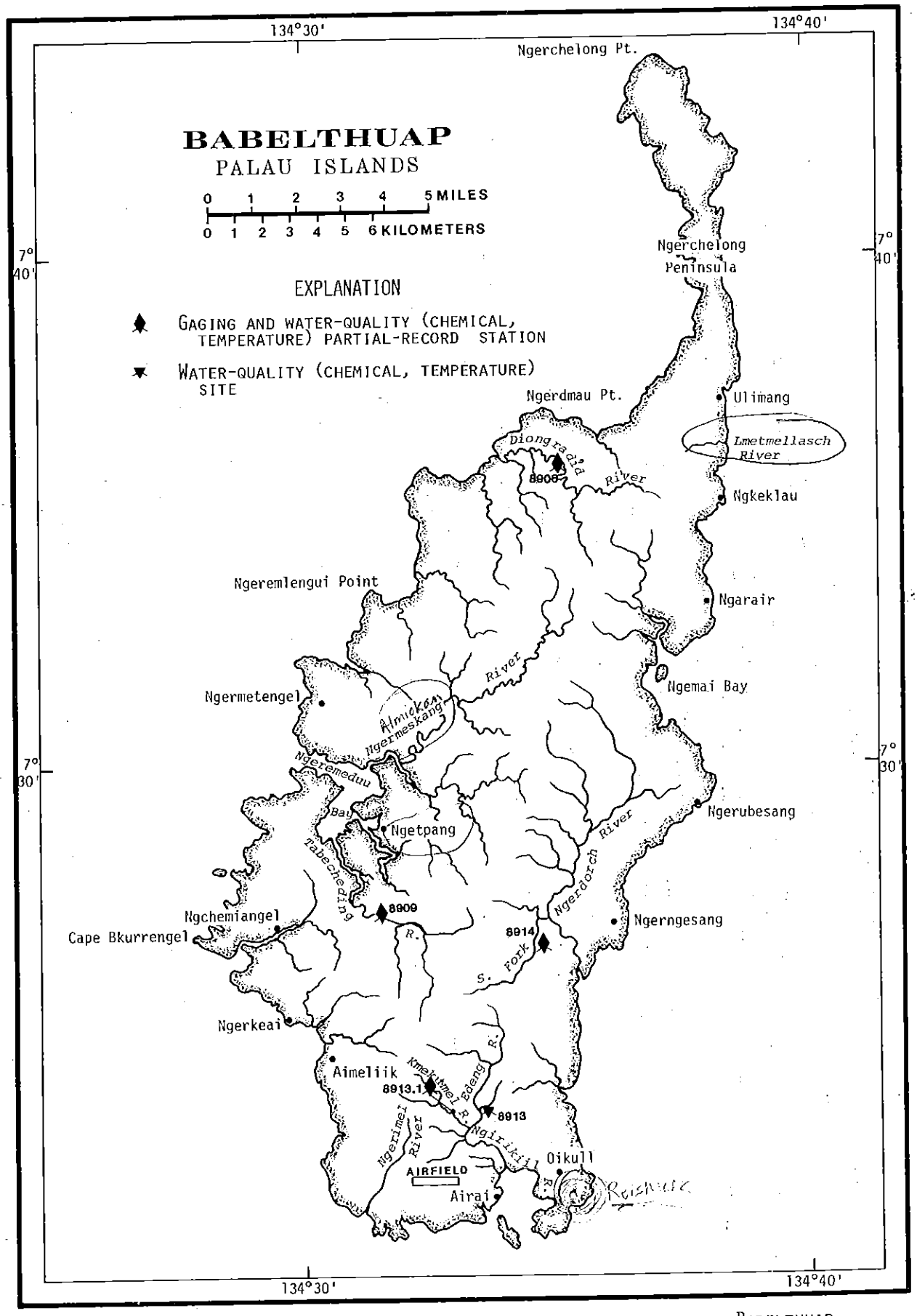


FIGURE 8.--LOCATIONS OF GAGING STATIONS AND WATER-QUALITY SITES ON BABELTHUAP.

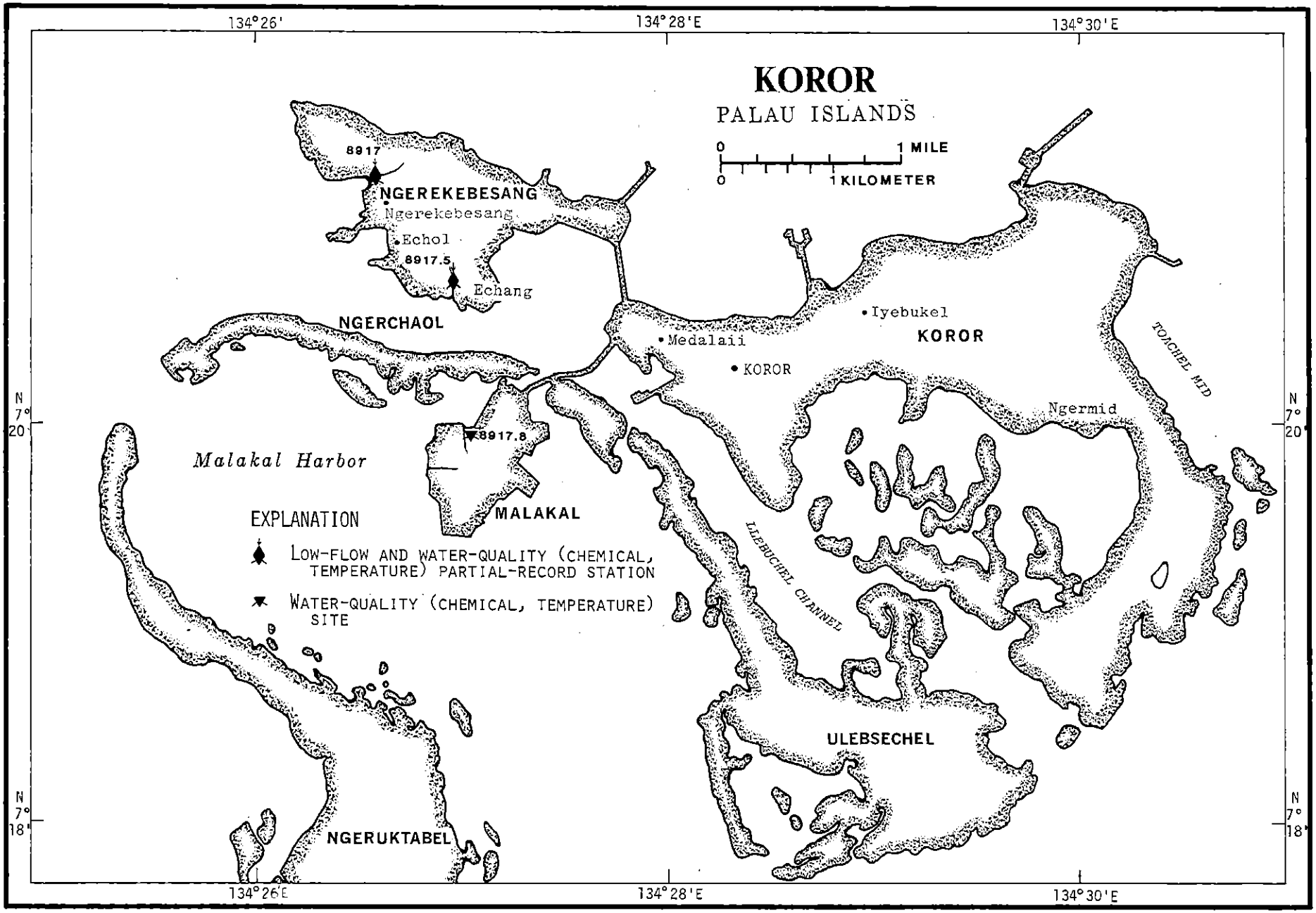


FIGURE 9.--LOCATIONS OF LOW-FLOW PARTIAL-RECORD STATIONS AND WATER-QUALITY SITES ON KOROR.

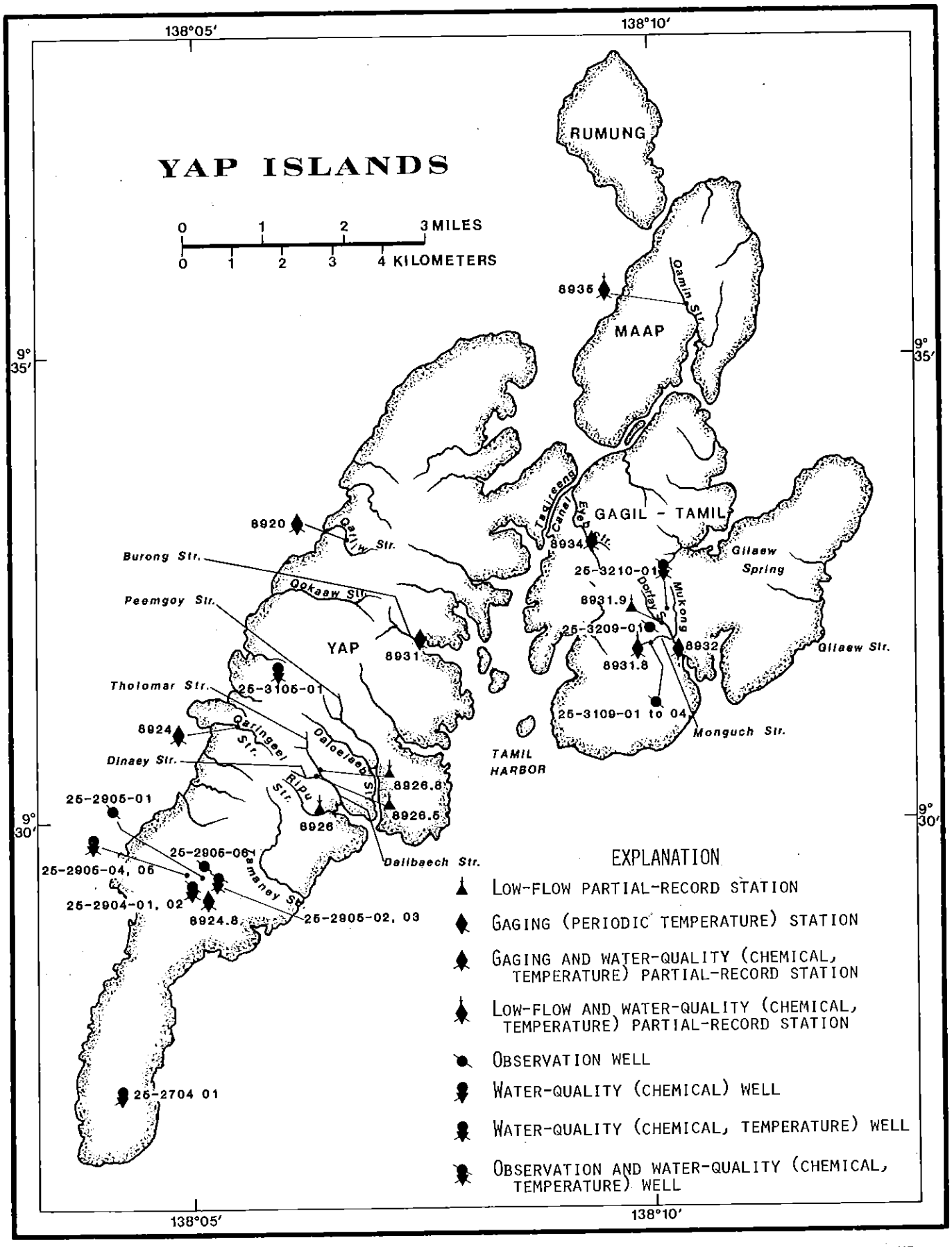


FIGURE 10.--LOCATIONS OF GAGING, LOW-FLOW PARTIAL-RECORD STATIONS, OBSERVATION WELLS AND WATER-QUALITY SITES ON YAP ISLANDS.

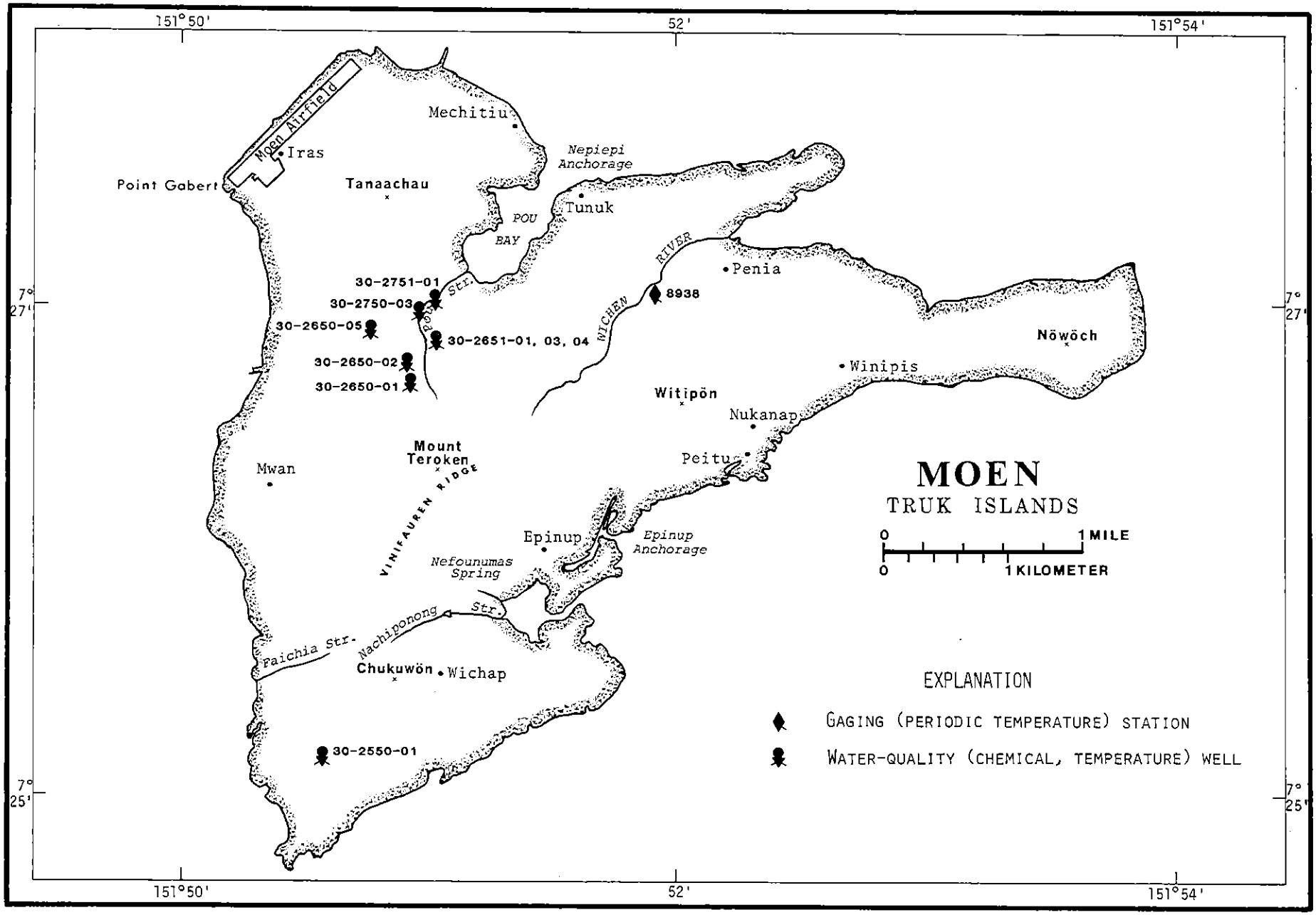


FIGURE 11.--LOCATIONS OF GAGING STATION, WELLS, AND WATER-QUALITY SITES ON MOEN.

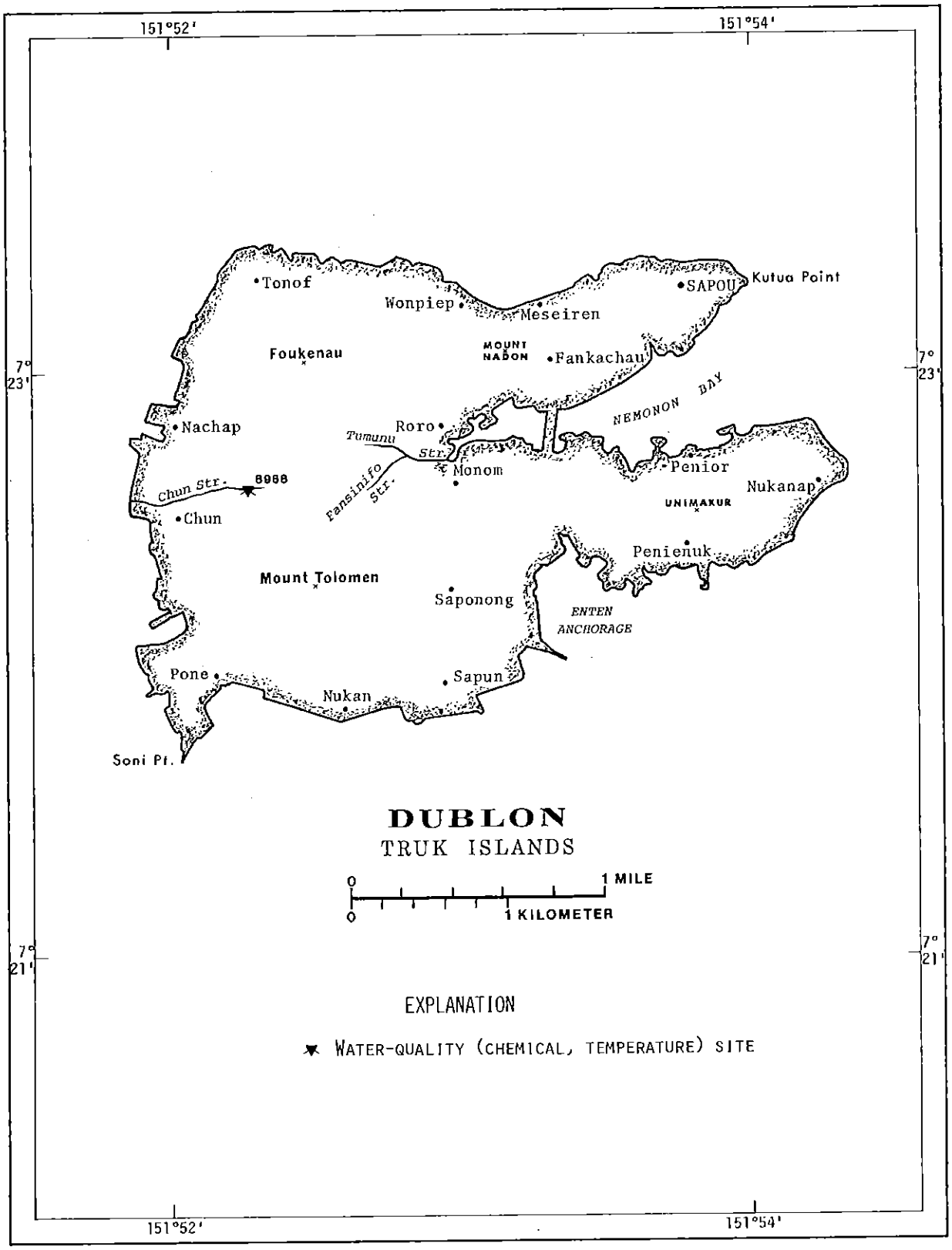


FIGURE 12.--LOCATION OF WATER-QUALITY SITE ON DUBLON.

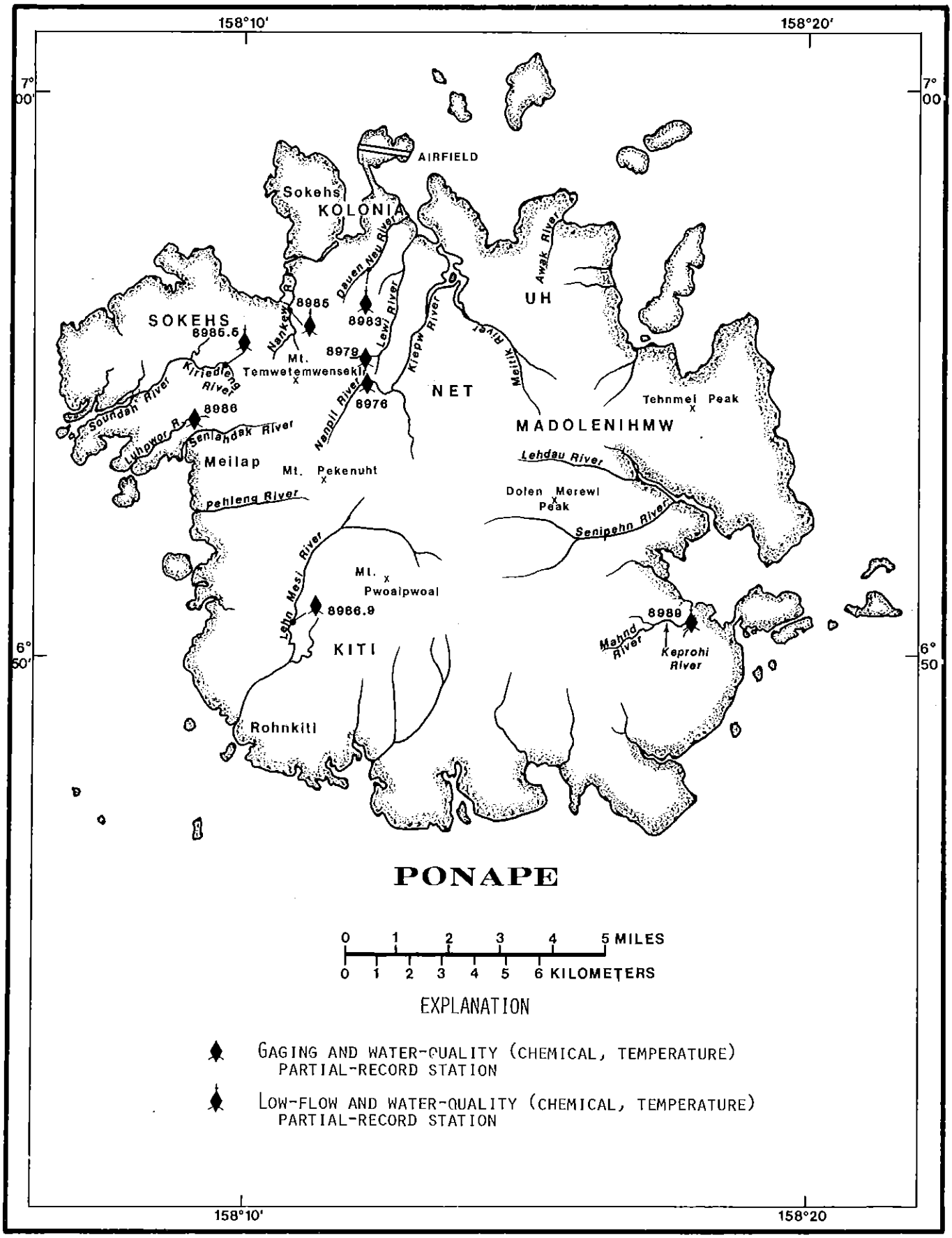


FIGURE 13.--LOCATIONS OF GAGING, LOW-FLOW PARTIAL-RECORD STATIONS, AND WATER-QUALITY SITES ON PONAPE.

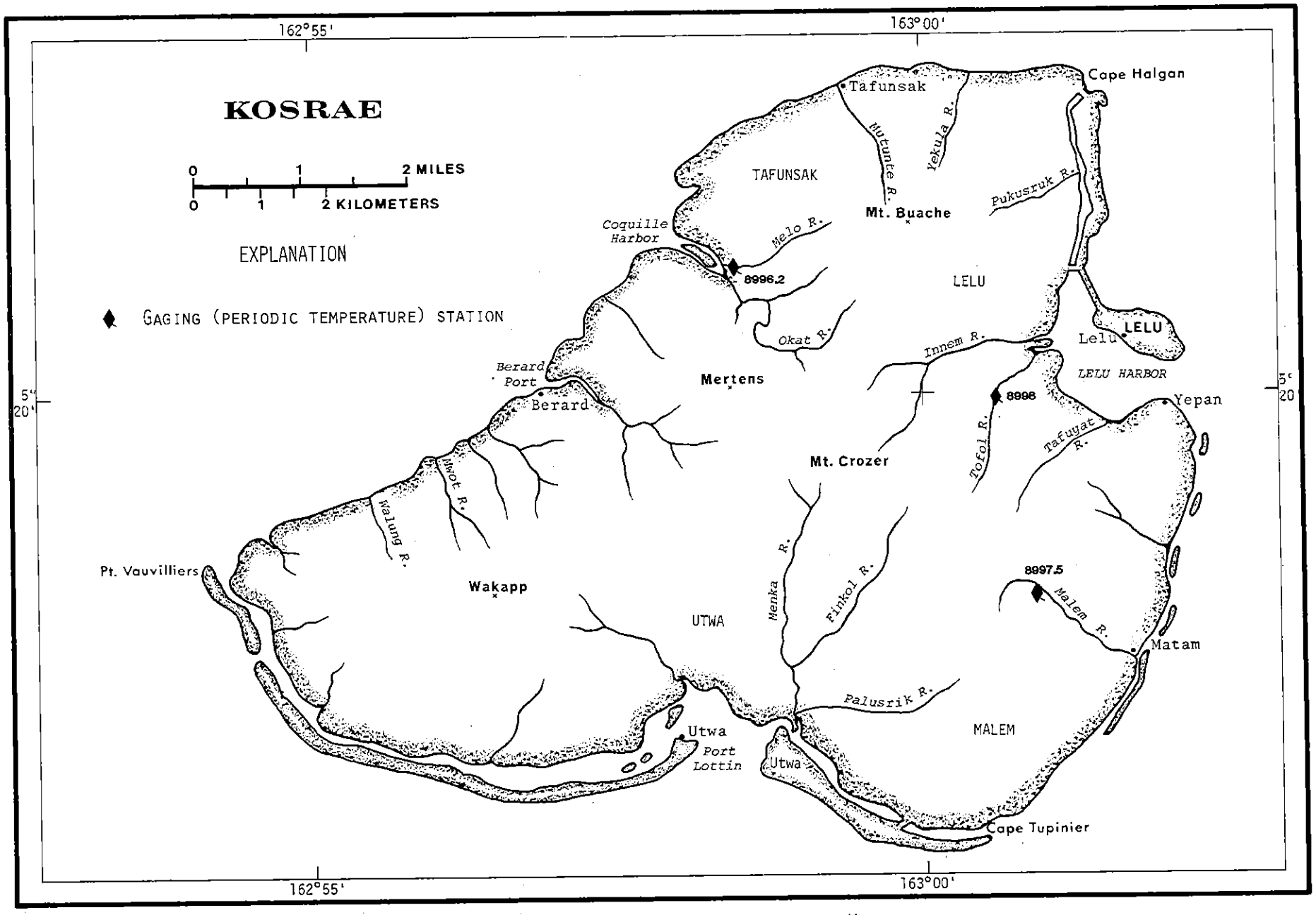


FIGURE 14.--LOCATIONS OF GAGING STATIONS ON KOSRAE.

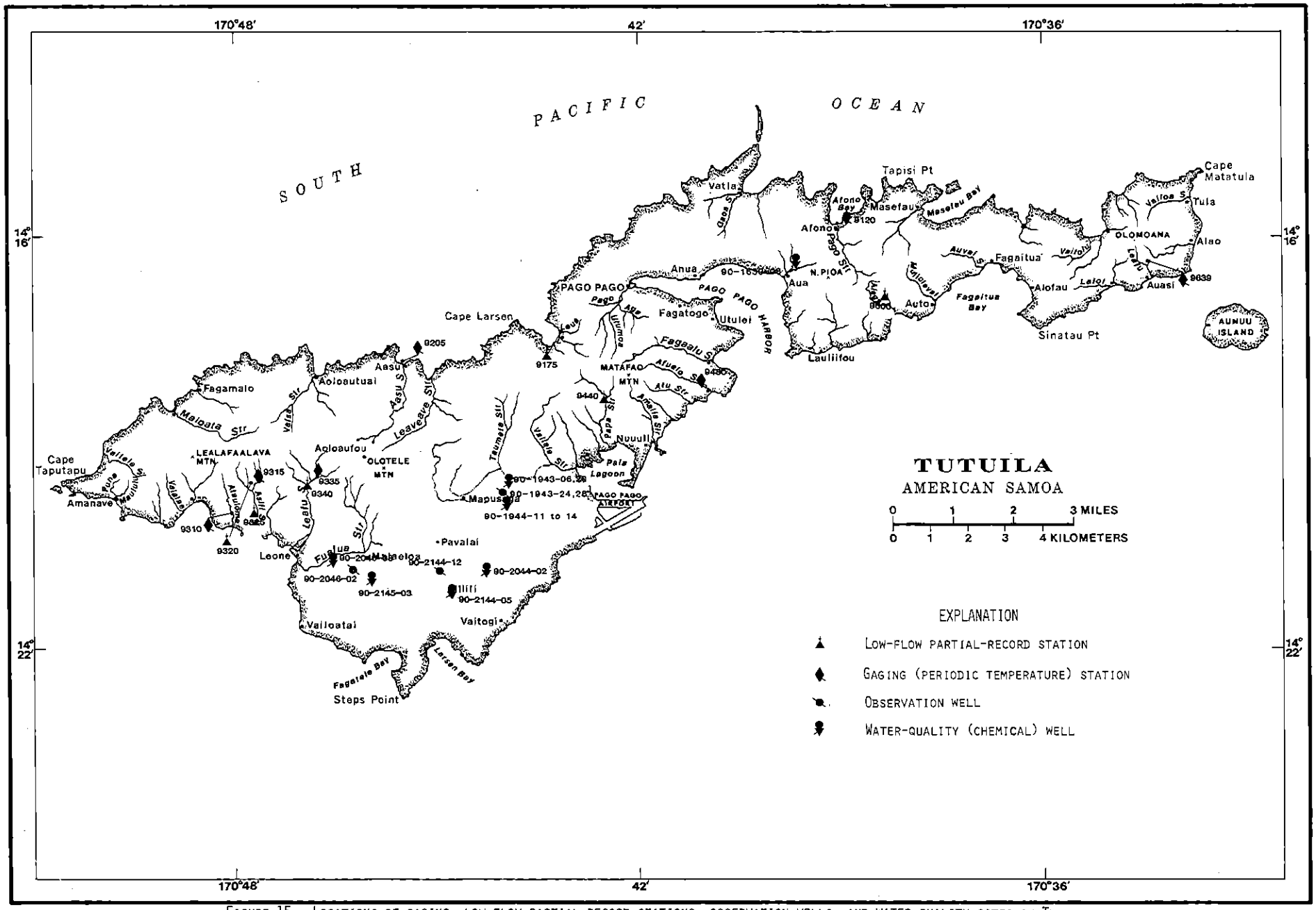


FIGURE 15.--LOCATIONS OF GAGING, LOW-FLOW PARTIAL-RECORD STATIONS, OBSERVATION WELLS, AND WATER-QUALITY SITES ON TUTUILA.

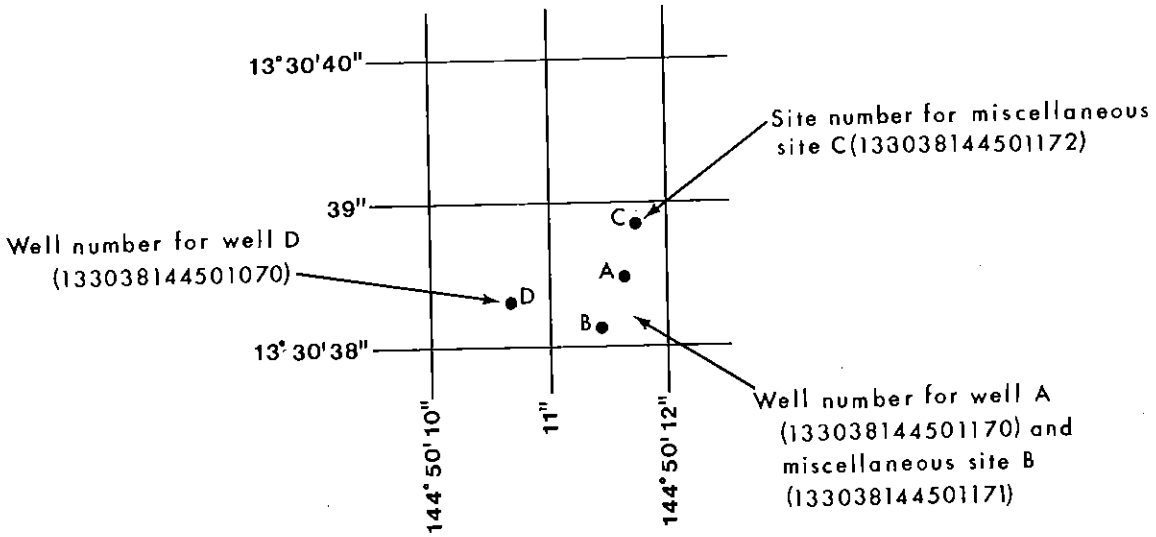


FIGURE 16.--SKETCH SHOWING SYSTEM FOR NUMBERING WELLS AND MISCELLANEOUS SITES.

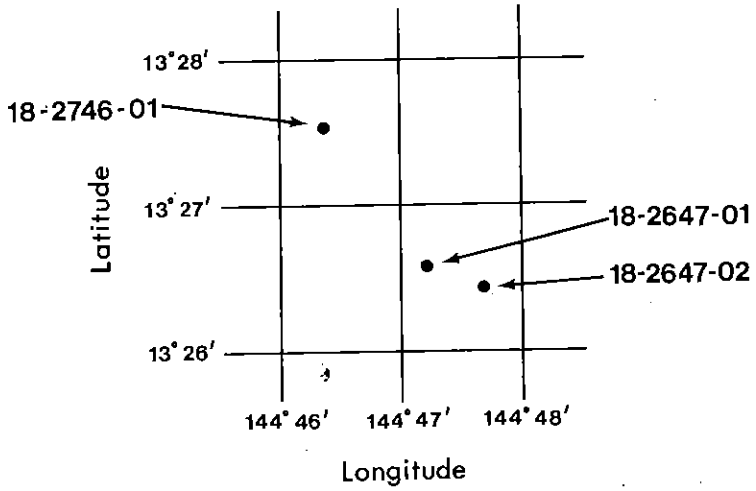


FIGURE 17.--SKETCH SHOWING LOCAL WELL NUMBERING SYSTEM.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to computed daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations, in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging station on lakes and reservoirs, a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharge were revised. If the drainage area has been revised, the report in which the revised figures was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE", it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations, peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected.

For most gaging station on lakes and reservoirs, the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Records of discharge collected by agencies other than the Geological Survey

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of water-data sites not published by the Geological Survey. Information on records available at specific sites can be obtained upon request.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Publications

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Hawaii and other Pacific areas for the period October 1959 to September 1965, are in Water-Supply Paper 1937.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 (June 1950, for Hawaii), and the second series covers the period October 1950 to September 1960 (July 1950 to June 1960, for Hawaii and other Pacific areas). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Hawaii and other Pacific areas are compiled in Water-Supply Paper 1319 through June 1950, in 1739 and 1751 for July 1950 to June 1960, in 1937 for October 1959 to September 1965, and 2137 for October 1966 to September 1970.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The water-quality records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives periods of record for the various types of water-quality data (chemical, specific conductance, biological determination, water temperatures, sediment discharge), period of record, and extremes of pertinent data, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water-quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration time 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Publications

The annual series of water-supply papers that contain information on quality of surface waters in Hawaii and other Pacific areas are listed below.

Water year	WSP No.	Water year	WSP No.	Water year	WSP No.
1964	1966	1967	2016	1970	2160
1965	1966	1968	2016		
1966	1996	1969	2150		

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figures 16 and 17.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom). To show the intraday variation in the ground-water levels caused by local pumping and tidal fluctuations, instantaneous maximum and minimum water levels are given with the mean water levels for the day.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature—influential factors, field measurement, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peok discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peok discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5, 1967. 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing,* by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A11. *Measurement of dischorge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 198D. 106 pages.

3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water,* by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples,* edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments,* by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis,* by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels,* by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

MARIANA ISLANDS, ISLAND OF SAIPAN

16801000 SOUTH FORK TALOFOFO STREAM

LOCATION.--Lat 15°12'48" N., long 145°46'17" E., Hydrologic Unit 20100006, on left bank 0.4 mi upstream from confluence with Middle and North Forks, 1.4 mi south of Ogso Dogas, and 2.2 mi southeast of Tanapag.

DRAINAGE AREA.--0.64 mi^2. Area at site used prior to Mar. 31, 1971, 0.73 mi^2.

PERIOD OF RECORD.--October 1968 to current year. Low-flow records not equivalent prior to Mar. 31, 1971, due to undetermined amount of underflow between sites.

REVISED RECORDS.--WDR HI-78-2: 1976-77(M), WDR HI-82-2: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Mar. 31, 1971. Altitude of gage is 60 ft, from topographic map. Prior to Mar. 31, 1971, at site 0.2 mi downstream at different datum.

REMARKS.--Records fair. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years (water years 1972-84), 1.35 ft^3/s (978 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,100 ft^3/s, Aug. 4, 1976, gage height, 8.15 ft, from rating curve extended above 59 ft^3/s on basis of slope-area measurements at gage heights 7.30 and 8.15 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 404 ft^3/s Sept. 24, gage height, 4.51 ft, no other peak above base of 400 ft^3/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	.30	.53	.06	.04	.04	.05	.13	.00	.23	6.5	1.4
2	1.2	.30	.34	.11	.08	.02	.01	.03	.00	.24	2.3	2.0
3	.42	.24	.20	.07	.06	.02	.01	.35	.00	.38	1.8	1.2
4	.30	.20	.22	.06	.04	.02	.01	.07	.00	1.3	1.2	1.0
5	.30	.18	.27	.06	.03	.02	.01	.51	.00	.66	.76	.88
6	1.1	.18	.18	.05	.04	.02	.01	.12	.00	.42	.70	2.7
7	1.6	.16	.16	.05	.04	.02	.01	.07	.00	.30	.58	1.6
8	1.1	.14	.14	.04	.03	.02	.01	.04	.00	.22	.50	1.1
9	.76	.12	.14	.04	.04	.01	.01	.02	.00	.22	.46	.94
10	1.3	.12	.12	.04	.03	.02	.01	.02	.00	.14	.38	.82
11	.76	.12	.11	.05	.02	.02	.08	.02	.00	1.1	2.2	.70
12	.62	.14	.11	.05	.02	.01	.03	.02	.00	.88	1.0	.66
13	.76	.12	.10	.04	.02	.02	.01	.01	.00	.50	.88	.66
14	1.2	.18	.11	.04	.03	.01	.01	.01	.00	.34	15	.62
15	.76	.22	.26	.06	.04	.02	.01	.01	.62	.24	8.1	.54
16	.54	.18	.18	.04	.04	.01	.00	.01	.07	.22	2.9	.50
17	.58	.24	.14	.04	.02	.01	.00	.01	.08	.18	1.8	.50
18	.50	.18	.12	.04	.02	.02	.00	.01	.08	.14	9.1	.70
19	.42	.16	.12	.04	.04	.02	.00	.01	.45	.11	2.9	.54
20	.46	.14	.11	.05	.06	.01	.00	.01	.24	.17	9.8	.50
21	2.1	.24	.12	.10	.10	.01	.00	.00	2.7	.38	5.4	3.8
22	1.8	.46	.11	.04	.04	.01	.00	.00	.46	.11	4.1	1.2
23	1.4	.27	.11	.04	.03	.04	.00	.01	.27	.10	3.0	.82
24	1.3	.22	.11	.03	.04	.02	.00	.01	.16	.11	2.3	31
25	1.2	.20	.11	.06	.04	.02	.00	.01	.18	.08	3.9	12
26	.82	.16	.11	.04	.04	.02	.00	.01	.18	.08	5.6	6.9
27	.62	.16	.10	.04	.04	.01	.00	.01	.38	1.2	5.4	3.3
28	.62	.14	.08	.04	.06	.01	.03	.01	.18	.38	3.7	3.0
29	.46	.12	.07	.04	.04	.01	.06	.00	.12	.18	3.0	4.0
30	.38	.11	.07	.03	---	.01	.02	.00	.10	11	2.1	2.0
31	.30	---	.06	.03	---	.01	---	.00	---	4.8	1.7	---
TOTAL	26.33	5.70	4.71	1.52	1.17	.53	.39	1.54	6.27	26.41	109.06	87.58
MEAN	.85	.19	.15	.049	.040	.017	.013	.050	.21	.85	3.52	2.92
MAX	2.1	.46	.53	.11	.10	.04	.08	.51	2.7	11	15	31
MIN	.30	.11	.06	.03	.02	.01	.00	.00	.00	.08	.38	.50
AC-FT	52	11	9.3	3.0	2.3	1.1	.8	3.1	12	52	216	174

CAL YR 1983	TOTAL	60.41	MEAN	.166	MAX	2.1	MIN	.01	AC-FT	120
WTR YR 1984	TOTAL	271.21	MEAN	.740	MAX	31	MIN	.00	AC-FT	538

16805200 LAKE SUSUPE

LOCATION.--Lat 15°09'15" N., long 145°42'42" E., Hydrologic Unit 20100006, on west shore, at the end of Sugar Mill Road, 0.5 mi southeast from the Administration building, Northern Marianas Government.

PERIOD OF RECORD.--February 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Water-level records good.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.61 ft Oct. 19, 1982; lowest, 0.70 ft, June 13, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 12, 1978, reached a stage of 7.6 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Highest water level, 3.57 ft, Aug. 29; lowest, 1.76 ft Mar. 31.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.24	2.60	2.37	2.14	1.98	1.99	1.97	1.98	2.12	2.52	3.11	3.38
2	2.32	2.61	2.36	2.13	2.04	2.01	2.01	1.97	2.11	2.54	3.07	3.34
3	2.31	2.58	2.34	2.12	2.10	2.00	2.01	1.97	2.10	2.57	3.03	3.30
4	2.31	2.55	2.33	2.11	2.10	1.99	2.00	1.98	2.09	2.73	2.98	3.21
5	2.30	2.53	2.34	2.09	2.09	1.98	2.00	1.99	2.08	2.81	2.95	3.13
6	2.33	2.51	2.32	2.07	2.08	1.96	1.99	2.04	2.08	2.78	2.93	3.08
7	2.43	2.55	2.29	2.06	2.08	1.94	1.99	2.05	2.10	2.75	2.90	3.02
8	2.44	2.53	2.28	2.04	2.07	1.94	1.98	2.09	2.11	2.72	2.87	3.03
9	2.42	2.52	2.25	2.03	2.05	1.93	1.97	2.09	2.11	2.72	2.86	3.09
10	2.53	2.49	2.23	2.02	2.05	1.91	1.96	2.08	2.12	2.71	2.86	3.05
11	2.54	2.49	2.21	2.00	2.02	1.90	1.98	2.09	2.13	2.72	2.97	2.99
12	2.53	2.49	2.19	1.99	2.00	1.89	1.98	2.12	2.16	2.75	3.07	2.97
13	2.52	2.48	2.17	1.98	1.99	1.88	1.97	2.11	2.19	2.74	3.12	2.97
14	2.49	2.48	2.15	1.97	2.00	1.87	1.96	2.10	2.20	2.71	3.16	2.95
15	2.46	2.49	2.16	1.98	1.99	1.86	1.95	2.11	2.28	2.69	3.25	2.95
16	2.44	2.47	2.19	1.97	1.97	1.85	1.99	2.11	2.52	2.67	3.27	2.97
17	2.45	2.45	2.18	1.99	1.94	1.84	2.00	2.12	2.65	2.65	3.23	2.93
18	2.47	2.43	2.17	1.99	1.93	1.84	2.00	2.11	2.67	2.64	3.25	2.90
19	2.46	2.40	2.15	1.98	1.92	1.83	1.99	2.11	2.69	2.63	3.27	2.88
20	2.43	2.38	2.20	1.98	1.92	1.80	1.98	2.11	2.72	2.62	3.23	2.87
21	2.46	2.40	2.27	2.03	1.94	1.79	1.97	2.10	2.71	2.62	3.32	2.88
22	2.46	2.53	2.27	2.05	1.96	1.79	1.96	2.10	2.68	2.61	3.38	2.93
23	2.47	2.52	2.27	2.04	1.98	1.81	1.94	2.10	2.64	2.60	3.38	2.94
24	2.53	2.50	2.25	2.03	2.03	1.82	1.94	2.14	2.62	2.61	3.35	3.06
25	2.66	2.47	2.23	2.03	2.02	1.81	1.92	2.15	2.59	2.61	3.36	3.37
26	2.65	2.44	2.23	2.03	2.01	1.81	1.90	2.17	2.57	2.61	3.49	3.49
27	2.63	2.41	2.20	2.03	2.00	1.80	1.89	2.17	2.54	2.65	3.54	3.45
28	2.64	2.39	2.19	2.02	2.00	1.79	1.95	2.16	2.54	2.67	3.53	3.38
29	2.63	2.40	2.17	2.00	1.99	1.78	1.99	2.13	2.53	2.80	3.56	3.34
30	2.60	2.38	2.15	1.99	---	1.77	1.98	2.13	2.52	2.90	3.52	3.25
31	2.57	---	2.15	1.98	---	1.77	---	2.12	---	3.09	3.44	---
MEAN	2.47	2.48	2.23	2.03	2.01	1.87	1.97	2.09	2.37	2.69	3.20	3.10
MAX	2.66	2.61	2.37	2.14	2.10	2.01	2.01	2.17	2.72	3.09	3.56	3.49
MIN	2.24	2.38	2.15	1.97	1.92	1.77	1.89	1.97	2.08	2.52	2.86	2.87

CAL YR 1983	MEAN	1.53	MAX	2.66	MIN	.71
WTR YR 1984	MEAN	2.38	MAX	3.56	MIN	1.77

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAR				
29...	0840	12900	29.0	4000
MAY				
01...	1255	13100	32.0	4100

16809600 LA SA FUA RIVER NEAR UMATAC

LOCATION.--Lat 13°18'23" N., long 144°39'45" E., Hydrologic Unit 20100003, on left bank 0.6 mi north of Sanchez School in Umatac and 0.8 mi upstream from mouth.

DRAINAGE AREA.--1.06 mi^2.

PERIOD OF RECORD.--April 1953 to July 1960, October 1976 to April 1984 (discontinued). Prior to October 1976, published as Fouha River near Umatac.

GAGE.--Water-stage recorder. Altitude of gage is 120 ft, from topographic map.

REMARKS.--Records fair. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years (water years 1954-59, 1977-83), 4.38 ft^3/s (3,170 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,440 ft^3/s Sept. 27, 1978, gage height, 6.05 ft, from rating curve extended above 109 ft^3/s by test on model of station site; minimum, 0.12 ft^3/s June 13, 1979, during short regulation of flow at diversion upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period October 1983 to April 1984, 512 ft^3/s Oct. 22, gage height, 4.32 ft, no other peak above base of 650 ft^3/s; minimum, 0.45 ft^3/s, Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1983 TO APRIL 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	25	11	1.5	.92	.78	.76	---				
2	3.5	10	7.2	1.3	2.1	.77	.70	---				
3	2.7	36	7.9	1.1	.87	.85	.70	---				
4	2.6	8.7	3.8	1.0	.78	.75	.67	---				
5	2.1	4.8	3.0	1.0	.74	.75	.67	---				
6	1.9	3.7	2.7	.96	.73	.72	.67	---				
7	1.8	3.0	2.5	.95	1.0	.70	.89	---				
8	1.6	2.6	2.2	.92	.76	.69	.70	---				
9	1.6	2.3	2.0	.96	.70	.69	.76	---				
10	1.4	2.0	2.0	1.1	.83	.69	.67	---				
11	1.4	3.1	2.2	1.4	12	.70	.64	---				
12	1.2	2.4	1.8	.96	1.7	.68	.61	---				
13	1.5	1.9	1.6	.89	1.1	.63	.61	---				
14	1.1	1.9	1.5	.86	1.1	.65	.64	---				
15	1.0	5.4	1.5	1.1	.94	.61	.61	---				
16	.95	26	3.5	.83	.88	.62	.61	≠.54				
17	2.3	5.1	3.0	.85	.85	.62	.58	---				
18	12	3.4	9.3	2.7	.85	.62	1.9	---				
19	3.2	2.7	2.7	2.2	.84	.61	.73	---				
20	4.0	2.4	2.1	1.1	.83	.58	.73	---				
21	12	12	1.8	.97	.79	.58	.61	---				
22	37	3.4	1.9	.92	.78	.61	.61	---				
23	8.5	13	1.6	.98	.80	.58	.61	---				
24	5.0	41	1.4	.85	.85	.70	.55	---				
25	20	8.9	1.4	.82	.83	.89	.52	---				
26	8.9	4.8	1.3	.80	.78	1.1	.52	---				
27	17	4.2	1.3	.78	.76	1.1	.52	---				
28	7.8	3.6	1.2	.77	.74	.93	.52	---				
29	4.4	5.7	1.2	.78	.73	.85	.55	---				
30	3.3	5.4	1.1	.73	---	.76	.55	---				
31	2.9	---	1.3	.71	---	.73	---	---				
TOTAL	178.35	254.4	89.0	32.79	37.58	22.54	20.41	---				
MEAN	5.75	8.48	2.87	1.06	1.30	.73	.68	---				
MAX	37	41	11	2.7	12	1.1	1.9	---				
MIN	.95	1.9	1.1	.71	.70	.58	.52	---				
AC-FT	354	505	177	65	75	45	40	---				

CAL YR 1983 TOTAL 974.51 MEAN 2.67 MAX 42 MIN .23 AC-FT 1930

≠ Result of discharge measurement.

16840000 TINAGA RIVER NEAR INARAJAN

LOCATION.--Lat 13°17'10" N., long 144°45'04" E., Hydrologic Unit 20100003, on right bank 0.3 mi upstream from mouth, 0.9 mi northeast of Inarajan, and 4.5 mi south of Talofofo.

DRAINAGE AREA.--1.89 mi².

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1969, published as Pauliluc River near Inarajan.

REVISED RECORDS.--WSP 2137: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft, from topographic map.

REMARKS.--Records good. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--32 years, 5.59 ft³/s (4,050 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,980 ft³/s Oct. 15, 1953, gage height, 13.11 ft, from rating curve extended above 210 ft³/s; minimum, 0.15 ft³/s May 16, 21-23, 29, 1966, June 13, 29, 30, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 470 ft³/s Sept. 25, gage height, 4.56 ft, no other peak above base of 400 ft³/s; minimum, 0.38 ft³/s June 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	7.9	20	2.6	1.3	.93	.93	1.5	.46	.94	9.7	8.7
2	3.8	8.2	9.0	2.9	1.4	.93	.83	1.2	.45	.83	41	5.5
3	3.5	51	7.8	2.9	1.4	.93	.74	.81	.43	1.0	7.1	4.8
4	3.5	11	5.3	2.5	1.3	.85	.69	.66	.42	1.7	4.3	4.5
5	3.7	6.1	4.5	2.3	1.3	.81	.69	.58	.41	1.4	3.0	4.2
6	3.3	5.3	4.3	2.2	1.3	.81	.65	.54	.43	1.1	2.9	4.0
7	3.1	4.7	4.2	2.0	1.3	.81	.77	.62	.41	1.2	2.6	3.7
8	3.1	4.3	4.0	1.8	1.3	.83	.65	.58	.40	1.3	2.4	5.0
9	2.9	4.0	3.7	1.8	1.3	.81	.62	.54	.40	1.2	3.9	33
10	2.7	3.8	3.4	1.8	1.3	.79	.62	1.2	.53	1.1	2.9	11
11	2.5	3.6	3.2	2.0	2.2	.76	.61	1.0	.51	1.0	2.7	6.6
12	2.4	4.0	3.2	2.0	2.2	.74	.60	.81	.44	.88	2.8	4.5
13	2.9	3.8	3.2	2.0	1.8	.70	.58	.76	.43	1.1	2.5	4.5
14	2.4	3.8	3.0	2.0	1.7	.70	.60	.66	.50	1.7	2.2	4.3
15	2.5	3.6	2.9	2.1	1.5	.69	.60	.64	.44	.94	4.7	4.3
16	2.4	18	3.7	2.0	1.5	.68	.58	.61	.69	.81	6.7	16
17	2.5	6.9	4.0	2.0	1.4	.65	.57	.57	2.5	.79	8.3	6.9
18	9.0	4.5	4.2	2.3	1.3	.76	.56	.53	3.6	.74	35	15
19	4.1	4.3	3.8	2.3	1.2	.74	.54	.56	2.5	.69	6.7	11
20	3.9	4.2	3.3	2.2	1.2	.74	.59	.62	2.5	.70	4.3	7.2
21	4.5	3.8	2.9	2.1	1.1	.71	.52	.60	2.8	1.0	5.1	12
22	4.4	3.6	2.9	2.1	1.1	.71	.50	.52	2.0	1.2	32	25
23	4.1	4.2	2.6	2.1	1.1	.69	.49	.54	1.4	1.0	9.9	30
24	3.8	36	2.6	2.0	1.0	.91	.48	.52	1.2	.83	6.4	33
25	5.1	8.2	2.6	1.8	1.0	.80	.48	.51	1.1	1.5	6.3	102
26	5.6	5.3	2.5	1.7	1.0	.88	.47	.53	.92	1.8	4.9	11
27	4.2	4.5	2.5	1.7	.93	1.1	.47	.49	.89	1.3	18	8.5
28	4.2	4.8	2.9	1.6	.93	1.2	.46	.47	.85	1.0	6.2	7.0
29	3.9	4.6	2.6	1.5	.93	1.1	.55	.51	.85	6.5	4.7	6.7
30	3.4	4.9	2.5	1.4	---	1.1	.98	.47	.86	2.0	4.2	6.5
31	3.1	---	2.3	1.3	---	.95	---	.47	---	18	26	---
TOTAL	114.4	242.9	129.6	63.0	38.29	25.81	18.42	20.62	31.32	57.25	279.4	406.4
MEAN	3.69	8.10	4.18	2.03	1.32	.83	.61	.67	1.04	1.85	9.01	13.5
MAX	9.0	51	20	2.9	2.2	1.2	.98	1.5	3.6	18	41	102
MIN	2.4	3.6	2.3	1.3	.93	.65	.46	.47	.40	.69	2.2	3.7
AC-FT	227	482	257	125	76	51	37	41	62	114	554	806

CAL YR 1983	TOTAL	879.70	MEAN	2.41	MAX	51	MIN	.36	AC-FT	1740
WTR YR 1984	TOTAL	1427.41	MEAN	3.90	MAX	102	MIN	.40	AC-FT	2830

16847000 IMONG RIVER NEAR AGAT

LOCATION.--Lat 13°20'17" N., long 144°41'55" E., Hydrologic Unit 20100003, on left bank 500 ft upstream from Fena Valley Reservoir, 1.4 mi south of Fena Dam spillway, and 4.1 mi southeast of Agat School.

DRAINAGE AREA.--1.95 mi².

PERIOD OF RECORD.--March 1960 to March 1971. October 1971 to current year.

REVISED RECORDS.--WSP 2137: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 120 ft, from topographic map.

REMARKS.--Records fair. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years (water years 1961-70, 1972-84), 9.91 ft³/s (7,180 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,100 ft³/s Sept. 27, 1978, gage height, 11.3 ft, from outside floodmarks, and from rating curve extended above 58 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.37 ft³/s May 21, 22, 26, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,660 ft³/s Aug. 1, gage height, 5.91 ft, no other peak above base of 1,400 ft³/s; minimum, 1.6 ft³/s for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	19	20	4.8	3.3	2.5	2.3	1.6	1.6	2.1	31	13
2	6.1	14	13	4.4	5.8	2.4	2.2	1.6	1.7	1.8	100	8.8
3	5.6	24	8.9	4.1	3.2	2.4	2.1	1.6	1.6	2.1	17	7.7
4	5.4	14	7.5	4.1	3.1	2.2	2.0	1.6	1.6	3.7	10	6.8
5	5.2	9.0	6.5	4.1	3.0	2.2	2.0	1.6	1.6	2.4	8.0	6.4
6	4.9	7.5	6.0	4.1	3.0	2.2	2.0	1.6	1.6	2.1	6.5	7.9
7	4.7	6.7	6.0	3.8	3.3	2.2	2.3	1.8	1.6	1.9	5.5	11
8	4.7	6.1	5.8	3.8	2.7	2.2	2.1	1.6	1.6	1.8	5.0	9.0
9	4.5	6.0	5.4	3.8	2.6	2.2	2.0	1.6	1.6	1.8	6.0	20
10	4.4	5.8	5.3	4.1	2.7	2.2	1.8	1.7	2.4	1.8	4.5	14
11	4.4	6.6	5.6	4.4	13	2.2	1.8	2.0	2.1	8.0	5.2	8.0
12	3.9	7.2	5.4	3.8	3.9	2.2	1.8	1.6	2.8	7.0	4.0	15
13	4.9	5.8	5.0	3.8	3.2	2.2	1.8	1.7	1.9	4.7	3.4	6.0
14	3.9	5.8	5.0	3.5	3.0	2.2	2.0	1.6	1.8	2.9	3.4	6.3
15	3.7	6.1	5.0	3.8	2.9	2.2	1.8	1.9	1.8	2.4	11	17
16	3.5	25	6.6	3.2	2.8	2.2	1.8	1.7	3.9	4.7	17	11
17	5.1	9.9	6.0	3.2	2.8	2.2	1.8	1.6	3.8	3.6	27	7.5
18	12	7.0	7.5	4.8	2.8	2.2	1.8	1.6	9.6	2.6	48	10
19	6.2	5.9	5.7	4.4	2.7	2.2	1.8	1.8	2.8	2.3	14	23
20	5.6	5.5	5.4	4.1	2.6	2.2	1.8	1.7	4.4	2.4	9.7	18
21	10	6.8	5.1	3.5	2.4	2.1	1.6	1.6	3.0	6.5	18	22
22	16	5.7	5.7	3.5	2.4	2.1	1.6	1.7	2.5	8.0	41	32
23	10	7.8	5.1	3.8	2.4	2.0	1.6	1.8	2.2	4.3	20	21
24	9.4	39	4.8	3.2	2.5	2.2	1.6	1.6	2.1	3.1	11	30
25	17	15	4.8	3.0	2.4	2.5	1.6	1.6	2.1	2.6	8.7	56
26	12	8.8	4.8	3.0	2.4	2.5	1.6	1.6	1.9	2.5	9.7	16
27	19	7.2	4.4	3.0	2.4	2.9	1.7	1.9	1.8	2.3	39	12
28	12	6.9	4.4	3.0	2.3	2.6	1.7	1.6	1.8	2.0	12	11
29	7.6	6.0	4.1	3.0	2.3	2.5	1.6	1.6	1.9	15	8.5	10
30	6.2	12	4.1	3.0	---	2.3	1.8	1.6	1.8	6.0	7.2	9.4
31	5.7	---	4.4	3.0	---	2.2	---	1.6	---	46	18	---
TOTAL	230.5	312.1	193.3	115.1	93.9	70.6	55.4	51.7	72.9	160.4	529.3	445.8
MEAN	7.44	10.4	6.24	3.71	3.24	2.28	1.85	1.67	2.43	5.17	17.1	14.9
MAX	19	39	20	4.8	13	2.9	2.3	2.0	9.6	46	100	56
MIN	3.5	5.5	4.1	3.0	2.3	2.0	1.6	1.6	1.6	1.8	3.4	6.0
AC-FT	457	619	383	228	186	140	110	103	145	318	1050	884

CAL YR 1983	TOTAL	1747.6	MEAN	4.79	MAX	39	MIN	1.2	AC-FT	3470
WTR YR 1984	TOTAL	2331.0	MEAN	6.37	MAX	100	MIN	1.6	AC-FT	4620

16848100 ALMAGOSA RIVER NEAR AGAT

LOCATION.--Lat 13°20'43" N., long 144°41'36" E., Hydrologic Unit 20100003, on right bank 400 ft upstream from Fena Valley Reservoir and 3.5 mi southeast of Agat.

DRAINAGE AREA.--1.32 mi^2.

PERIOD OF RECORD.--April 1972 to current year.

REVISED RECORD.--WDR HI-75-1: Drainage area. WDR HI-76-1: 1972(P), 1973(M), 1974-75(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 155 ft, from topographic map.

REMARKS.--Records fair. Up to 3.9 ft^3/s diverted upstream for domestic use. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 5.81 ft^3/s (4,210 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,650 ft^3/s Sept. 27, 1978, gage height, 7.78 ft, from rating curve extended above 46 ft^3/s on basis of slope-area measurement at gage height 7.32 ft; minimum, 0.13 ft^3/s June 27, July 11, 12, 14, 16, 17, 1979, June 3-9, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 632 ft^3/s Sept. 24, gage height, 4.88 ft, no peak above base of 700 ft^3/s; minimum, 0.13 ft^3/s June 3-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	12	16	1.3	.84	.55	.45	.27	.18	.39	18	7.2
2	2.4	9.3	10	1.2	1.2	.52	.39	.27	.18	.35	67	5.1
3	1.9	15	6.7	1.1	.79	.53	.36	.24	.15	.39	18	4.1
4	1.7	13	4.8	.98	.74	.51	.35	.24	.13	1.7	8.7	3.7
5	1.2	7.0	3.8	.93	.68	.50	.33	.24	.13	.89	5.5	2.8
6	1.1	4.7	3.1	.87	.66	.49	.33	.24	.13	.63	4.4	2.7
7	1.0	3.4	2.9	.87	.79	.49	.34	.24	.13	.43	3.4	2.6
8	1.1	2.6	2.3	.85	.66	.49	.33	.24	.13	.35	3.0	2.0
9	1.2	2.0	1.9	.87	.64	.49	.36	.21	.15	.31	3.6	6.8
10	1.3	1.6	1.7	1.0	.75	.48	.32	.24	.29	.24	2.6	6.4
11	1.2	2.8	1.6	1.0	3.2	.45	.31	.35	.31	3.8	3.0	3.9
12	1.1	3.9	1.3	.91	.92	.44	.30	.27	.31	3.2	2.7	4.7
13	1.6	2.0	1.4	.85	.77	.43	.30	.31	.24	1.3	2.2	3.2
14	1.3	1.7	1.2	.83	.75	.42	.49	.24	.27	.74	2.0	2.8
15	1.1	1.9	1.2	1.0	.68	.41	.34	.31	.21	.52	5.6	5.5
16	.89	15	1.8	.85	.66	.41	.31	.31	.47	1.1	5.2	3.0
17	1.3	7.8	1.5	.85	.65	.40	.30	.39	.52	.79	11	2.3
18	5.3	4.8	1.7	1.1	.62	.40	.29	.27	2.3	.58	38	6.4
19	2.5	3.5	1.3	.91	.62	.39	.29	.24	.43	.43	15	12
20	2.1	2.7	1.2	.82	.61	.39	.28	.21	.62	.47	7.2	13
21	2.1	2.9	1.1	.80	.61	.39	.28	.21	.47	.95	10	16
22	4.2	2.3	1.6	.84	.60	.42	.28	.21	.35	.95	19	22
23	6.9	3.1	1.3	.93	.60	.39	.28	.27	.35	.84	17	17
24	4.2	26	1.3	.77	.60	.45	.28	.21	.39	.52	9.0	25
25	5.6	13	1.3	.76	.61	.54	.30	.18	.52	.47	6.1	66
26	6.5	7.0	1.3	.75	.56	.53	.29	.18	.35	.43	8.3	21
27	9.4	4.9	1.3	.71	.56	.64	.39	.21	.27	.39	35	12
28	8.7	3.9	1.1	.73	.53	.53	.35	.18	.27	.39	14	10
29	5.3	3.5	1.1	.71	.52	.49	.35	.18	.39	1.6	8.2	7.0
30	3.7	5.6	1.0	.68	---	.45	.31	.18	.35	.74	5.4	5.5
31	2.7	---	1.3	.66	---	.41	---	.15	---	25	10	---
TOTAL	93.59	188.9	81.1	27.43	22.42	14.43	9.88	7.49	10.99	50.89	368.1	301.7
MEAN	3.02	6.30	2.62	.88	.77	.47	.33	.24	.37	1.64	11.9	10.1
MAX	9.4	26	16	1.3	3.2	.64	.49	.39	2.3	25	67	66
MIN	.89	1.6	1.0	.66	.52	.39	.28	.15	.13	.24	2.0	2.0
AC-FT	186	375	161	54	44	29	20	15	22	101	730	598

CAL YR 1983	TOTAL	707.42	MEAN	1.94	MAX	26	MIN	.18	AC-FT	1400
WTR YR 1984	TOTAL	1176.92	MEAN	3.22	MAX	67	MIN	.13	AC-FT	2330

16848500 MAULAP RIVER NEAR AGAT

LOCATION.--Lat 13°21'14" N., long 144°41'44" E., Hydrologic Unit 20100003, on right bank 100 ft from Fena Valley Reservoir and 3.2 mi southeast of Agat.

DRAINAGE AREA.--1.15 mi².

PERIOD OF RECORD.--January 1972 to current year.

REVISED RECORDS.--WRD Hawaii 1973: 1972. WRD HI-75-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 130 ft, from topographic map.

REMARKS.--Records good. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 4.99 ft³/s (3,620 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s Sept. 27, 1978, gage height, 9.2 ft, from rating curve extended above 23 ft³/s, on basis of slope-area measurements at gage heights 8.21 ft and 9.2 ft; minimum, 0.31 ft³/s June 28 to July 1, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,210 ft³/s Sept. 24, gage height, 6.96 ft, no other peak above base of 600 ft³/s; minimum, 0.40 ft³/s May 28, June 9, 10, 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	23	23	2.7	1.6	1.1	.80	.69	.60	.75	14	6.9
2	3.6	11	6.6	2.4	2.3	1.0	.70	.63	.72	.68	39	5.1
3	3.5	14	5.5	2.1	1.6	1.1	.68	.59	.59	.75	8.2	4.3
4	3.2	7.5	4.3	1.8	1.4	.99	.68	.57	.56	8.1	4.9	4.4
5	2.7	5.8	3.7	1.7	1.3	.99	.68	.56	.56	1.8	3.7	3.6
6	3.1	5.0	3.5	1.7	1.2	.98	.68	.56	.70	1.9	3.1	6.3
7	2.8	4.3	3.7	1.6	1.4	.98	.68	.54	.58	1.5	2.6	6.1
8	2.7	3.8	3.3	1.6	1.2	.98	.68	.55	.59	1.1	2.7	3.9
9	2.4	3.5	2.9	1.6	1.2	1.0	.68	.54	.60	.91	4.4	5.0
10	2.5	3.2	3.3	1.8	1.3	1.0	.68	.55	.74	.82	2.4	4.8
11	2.4	8.1	3.3	2.2	5.8	.97	.61	.73	.67	6.3	2.6	3.6
12	2.4	7.9	3.1	1.8	1.7	.94	.61	.65	.57	4.3	2.3	7.1
13	5.7	3.8	2.7	1.7	1.4	.92	.61	.76	.51	2.8	1.8	3.7
14	2.6	3.7	2.7	1.7	1.4	.91	.96	.59	.52	1.7	1.6	3.4
15	2.3	4.4	2.7	1.8	1.3	.90	.68	.96	.51	1.2	9.7	6.8
16	2.2	17	3.7	1.6	1.2	.89	.68	.66	1.3	3.1	7.0	3.7
17	4.1	5.4	2.9	1.6	1.2	.85	.61	.59	1.6	2.1	12	3.3
18	10	4.9	2.9	2.0	1.2	.87	.61	.58	5.3	1.6	40	4.0
19	4.8	4.2	2.7	1.7	1.1	.85	.61	.57	.89	1.4	8.4	10
20	4.1	3.8	2.4	1.6	1.1	.85	.54	.59	1.3	1.2	5.9	15
21	4.7	4.2	2.3	1.6	1.1	.86	.54	.61	1.0	2.1	13	14
22	5.6	3.8	2.4	1.5	1.1	.89	.54	.58	1.0	2.1	15	18
23	4.7	5.1	2.4	1.6	1.1	.81	.54	.65	1.0	1.8	8.3	9.1
24	4.0	19	2.2	1.4	1.1	.89	.54	.56	1.0	1.2	5.9	36
25	6.9	5.5	2.2	1.4	1.1	1.1	.54	.52	1.8	1.2	4.7	50
26	5.5	4.6	2.2	1.4	1.0	1.0	.54	.51	1.0	1.1	6.8	11
27	12	4.4	2.2	1.3	1.0	1.3	.54	.55	.75	1.3	27	7.4
28	5.8	4.0	2.0	1.3	.99	.96	.54	.53	.68	1.3	7.0	7.2
29	4.5	4.0	2.0	1.3	.98	.85	1.0	.52	.68	2.5	5.3	5.9
30	4.4	7.1	1.9	1.3	---	.80	.94	.53	.61	1.7	4.4	5.5
31	3.7	---	2.5	1.2	---	.75	---	.51	---	18	17	---
TOTAL	132.7	206.0	113.2	52.0	41.37	29.28	19.72	18.53	28.93	78.31	290.7	275.1
MEAN	4.28	6.87	3.65	1.68	1.43	.94	.66	.60	.96	2.53	9.38	9.17
MAX	12	23	23	2.7	5.8	1.3	1.0	.96	5.3	18	40	50
MIN	2.2	3.2	1.9	1.2	.98	.75	.54	.51	.51	.68	1.6	3.3
AC-FT	263	409	225	103	82	58	39	37	57	155	577	546

CAL YR 1983	TOTAL	945.62	MEAN	2.59	MAX	24	MIN	.31	AC-FT	1880
WTR YR 1984	TOTAL	1285.84	MEAN	3.51	MAX	50	MIN	.51	AC-FT	2550

16849000 FENA DAM SPILLWAY NEAR AGAT

LOCATION.--Lat 13°21'28" N., long 144°42'12" E., Hydrologic Unit 20100003, on left bank 3.5 mi southeast of Agat and 5.8 mi southwest of Yona.

DRAINAGE AREA.--5.88 mi².

PERIOD OF RECORD.--September 1951 to July 1952, November 1952 to current year. Daily mean gage heights published since October 1973.

REVISED RECORDS.--WSP 2137: Drainage area. WDR HI-78-2: 1977(M, m).

GAGE.--Water-stage recorder and concrete-dam control. Datum of gage is 111.35 ft above mean sea level (from U.S. Navy construction plans).

REMARKS.--Gage-height records fair. About 10 ft³/s is diverted from Fena Valley Reservoir and tributary springs for military and civilian use. Discharge records represent flow over spillway only.

AVERAGE DISCHARGE.--20 years (1953-73), 17.9 ft³/s (12,970 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined, occurred Oct. 15, 1953 (gage height, at least 4.5 ft); no flow for many days each year. Minimum recorded gage height, -21.86 ft, Aug. 4, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily gage height, 0.65 ft, Sept. 25; minimum, -18.30 ft July 29.

GAGE HEIGHT (FEET AT DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-12.96	-9.75	-3.52	-2.19	-3.31	-4.78	-7.68	-11.17	-14.99	-17.23	-16.93	-4.09
2	-12.92	-9.25	-2.89	-2.15	-3.27	-4.87	-7.80	-11.30	-15.11	-17.33	-14.08	-3.92
3	-12.88	-8.85	-2.69	-2.16	-3.28	-4.94	-7.90	-11.43	-15.23	-17.42	-13.12	-3.81
4	-12.85	-8.30	-2.58	-2.19	-3.33	-5.01	-7.98	-11.57	-15.36	-17.37	-12.84	-3.71
5	-12.84	-8.07	-2.50	-2.21	-3.38	-5.10	-8.11	-11.69	-15.51	-17.35	-12.77	-3.63
6	-12.86	-7.93	-2.42	-2.25	-3.45	-5.22	-8.24	-11.32	-15.63	-17.41	-12.73	-3.55
7	-12.86	-7.84	-2.36	-2.29	-3.49	-5.30	-8.36	-11.96	-15.74	-17.50	-12.71	-3.40
8	-12.85	-7.81	-2.31	-2.34	-3.56	-5.40	-8.46	-12.08	-15.88	-17.60	-12.71	-3.27
9	-12.86	-7.79	-2.28	-2.40	-3.63	-5.49	-8.58	-12.21	-16.01	-17.70	-12.64	-3.12
10	-12.87	-7.79	-2.24	-2.41	-3.70	-5.56	-8.71	-12.35	-16.13	-17.82	-12.62	-2.81
11	-12.88	-7.70	-2.20	-2.39	-3.53	-5.65	-8.81	-12.45	-16.18	-17.73	-12.59	-2.67
12	-12.91	-7.45	-2.17	-2.41	-3.47	-5.76	-8.91	-12.57	-16.29	-17.41	-12.57	-2.57
13	-12.85	-7.42	-2.17	-2.46	-3.53	-5.89	-9.04	-12.68	-16.38	-17.37	-12.59	-2.44
14	-12.84	-7.39	-2.20	-2.50	-3.58	-6.00	-9.14	-12.81	-16.47	-17.40	-12.63	-2.33
15	-12.86	-7.34	-2.18	-2.53	-3.64	-6.10	-9.24	-12.90	-16.54	-17.48	-12.52	-2.22
16	-12.91	-6.80	-2.13	-2.58	-3.70	-6.20	-9.34	-13.02	-16.56	-17.55	-12.14	-1.98
17	-12.89	-6.44	-2.09	-2.64	-3.77	-6.31	-9.45	-13.18	-16.52	-17.55	-11.78	-1.91
18	-12.65	-6.30	-2.07	-2.64	-3.84	-6.42	-9.58	-13.30	-16.27	-17.62	-10.30	-1.65
19	-12.51	-6.20	-2.03	-2.65	-3.91	-6.53	-9.70	-13.43	-16.27	-17.71	-9.40	-1.15
20	-12.39	-6.16	-2.04	-2.69	-3.99	-6.64	-9.84	-13.54	-16.34	-17.77	-9.16	-0.95
21	-12.30	-6.09	-2.08	-2.72	-4.05	-6.75	-9.96	-13.66	-16.35	-17.80	-8.89	-0.30
22	-12.15	-6.02	-2.09	-2.75	-4.13	-6.85	-10.08	-13.78	-16.42	-17.77	-8.31	.30
23	-11.88	-5.94	-2.08	-2.79	-4.20	-6.95	-10.20	-13.86	-16.50	-17.81	-7.40	.40
24	-11.74	-5.22	-2.09	-2.84	-4.29	-7.05	-10.32	-13.96	-16.57	-17.88	-7.09	.40
25	-11.55	-4.64	-2.10	-2.88	-4.38	-7.11	-10.45	-14.08	-16.60	-17.97	-6.95	.65
26	-11.21	-4.44	-2.12	-2.93	-4.47	-7.19	-10.58	-14.21	-16.67	-18.05	-6.79	.50
27	-10.90	-4.32	-2.13	-2.99	-4.55	-7.23	-10.72	-14.34	-16.78	-18.16	-5.79	.40
28	-10.47	-4.19	-2.16	-3.06	-4.63	-7.32	-10.84	-14.47	-16.88	-18.25	-5.25	.40
29	-10.30	-4.13	-2.19	-3.13	-4.71	-7.39	-10.95	-14.59	-17.00	-18.21	-5.03	.40
30	-10.20	-3.92	-2.22	-3.20	---	-7.48	-11.05	-14.73	-17.14	-18.15	-4.90	.35
31	-10.13	---	-2.19	-3.27	---	-7.58	---	-14.88	---	-17.50	-4.51	---
MEAN	-12.23	-6.72	-2.27	-2.60	-3.82	-6.20	-9.33	-13.02	-16.21	-17.67	-10.31	-1.72
MAX	-10.13	-3.92	-2.03	-2.15	-3.27	-4.78	-7.68	-11.17	-14.99	-17.23	-4.51	.65
MIN	-12.96	-9.75	-3.52	-3.27	-4.71	-7.58	-11.05	-14.88	-17.14	-18.25	-16.93	-4.09

CAL YR 1983	MEAN	-10.69	MAX	-.05	MIN	-21.83
WTR YR 1984	MEAN	-8.54	MAX	.65	MIN	-18.25

16854500 UGUM RIVER ABOVE TALOFOFO FALLS, NEAR TALOFOFO

LOCATION.--Lat 13°19'16" N., long 144°44'01" E., Hydrologic Unit 20100003, about 300 ft upstream from Talofofo Falls, 0.9 mi north of NASA Tracking Station, and 3.5 mi southwest of main intersection in Talofofo village.

DRAINAGE AREA.--5.76 mi^2.

PERIOD OF RECORD.--June 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 130 ft, from topographic map.

REMARKS.--Records good. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 23.3 ft^3/s (16,880 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,890 ft^3/s Feb. 26, 1980, gage height, 14.2 ft, from flood-marks, from rating curve extended above 350 ft^3/s on basis of slope-area measurement at gage height 14.2 ft; minimum, 3.4 ft^3/s, June 27, 1978, July 14, 18, 19, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 2	0100	*1610	7.85
Sept. 25	0030	1480	7.57

Minimum discharge, 4.0 ft^3/s June 4-6, 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	59	57	16	9.8	7.5	6.7	5.2	4.2	6.7	23	33
2	19	45	40	16	13	7.3	6.4	4.9	4.2	5.4	186	23
3	17	124	40	14	9.8	7.8	6.1	4.9	4.2	5.3	31	20
4	17	49	28	13	9.4	7.3	6.1	4.7	4.2	6.4	16	20
5	16	32	23	13	9.2	7.3	5.9	4.7	4.0	5.4	12	18
6	15	27	21	13	9.0	7.0	5.8	4.7	4.5	5.6	12	19
7	15	24	21	12	11	6.8	6.2	4.9	4.3	6.0	11	39
8	14	22	21	12	9.4	6.8	5.9	4.9	4.2	5.0	11	23
9	14	21	20	12	8.9	6.6	5.9	4.8	4.0	4.8	23	105
10	13	20	19	12	8.8	6.6	5.8	6.6	4.5	4.6	14	45
11	13	22	20	14	31	6.4	5.7	5.3	6.3	4.6	13	27
12	12	25	18	12	12	6.4	5.6	4.9	4.7	5.1	13	22
13	16	20	17	12	9.9	6.6	5.4	5.0	4.6	5.0	11	24
14	13	19	17	11	9.8	6.8	5.9	4.7	4.6	4.9	10	37
15	12	20	17	12	9.4	6.8	5.7	5.1	5.0	4.4	23	33
16	12	79	23	11	9.0	6.8	5.4	4.8	10	6.5	40	27
17	14	33	21	11	8.7	6.6	5.4	4.7	14	6.2	102	21
18	47	24	31	14	8.7	6.6	5.2	4.7	15	4.8	114	42
19	20	22	19	14	8.7	6.5	5.2	4.8	7.6	4.5	38	49
20	18	20	18	12	8.5	6.3	5.5	4.9	11	5.0	23	35
21	32	33	17	11	8.2	6.3	5.2	4.7	7.9	7.2	30	48
22	50	23	16	11	8.1	6.3	5.0	4.7	6.2	18	106	105
23	34	33	16	12	8.0	6.3	5.0	5.3	5.4	6.9	51	73
24	39	119	16	11	8.2	7.4	5.0	4.9	5.5	5.3	32	72
25	56	46	15	9.8	8.2	7.8	5.0	4.4	6.4	4.9	24	217
26	40	30	14	9.8	7.8	7.5	5.0	4.3	5.7	4.9	22	53
27	53	25	22	9.5	7.5	9.1	5.0	4.4	5.1	4.7	69	41
28	38	25	15	9.2	7.3	7.3	5.0	4.4	5.0	4.6	30	37
29	24	22	14	9.0	7.0	7.4	4.9	4.4	4.9	43	22	35
30	21	34	14	9.0	---	7.0	5.6	4.3	4.8	14	19	33
31	19	---	15	8.8	---	6.5	---	4.3	---	71	62	---
TOTAL	743	1097	665	366.1	284.3	215.7	166.5	149.3	182.0	290.7	1193	1376
MEAN	24.0	36.6	21.5	11.8	9.80	6.96	5.55	4.82	6.07	9.38	38.5	45.9
MAX	56	124	57	16	31	9.1	6.7	6.6	15	71	186	217
MIN	12	19	14	8.8	7.0	6.3	4.9	4.3	4.0	4.4	10	18
AC-FT	1470	2180	1320	726	564	428	330	296	361	577	2370	2730

CAL YR 1983	TOTAL	5160.5	MEAN	14.1	MAX	124	MIN	3.5	AC-FT	10240
WTR YR 1984	TOTAL	6728.6	MEAN	18.4	MAX	217	MIN	4.0	AC-FT	13350

16858000 YLIG RIVER NEAR YONA

LOCATION.--Lat 13°23'28" N., long 144°45'06" E., Hydrologic Unit 20100003, on right bank 2.2 mi upstream from mouth, 1.9 mi southwest of Yona, and 5.6 mi south of Agana.

DRAINAGE AREA.--6.48 mi².

PERIOD OF RECORD.--June 1952 to current year.

REVISED RECORDS.--WSP 1937: 1957-58. WSP 2137: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 20 ft, from topographic map.

REMARKS.--Records fair. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--32 years, 28.0 ft³/s (20,290 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,900 ft³/s Sept. 9, 1963, gage height, 19.77 ft, from floodmarks, from rating curve extended above 830 ft³/s on basis of slope-area measurements at gage heights 11.24 ft and 15.87 ft, maximum gage height, 22.80 ft Feb. 26, 1980; minimum, 0.07 ft³/s May 20, 1973, but may have been less during period of diversion from gage pool May 15 to June 20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,930 ft³/s Aug. 2, gage height, 13.00 ft, from rating curve extended above 155 ft³/s, no peak above base of 2,000 ft³/s; minimum, 0.26 ft³/s June 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	56	69	29	5.7	4.0	1.9	1.2	.57	12	64	87
2	22	44	41	19	9.7	3.7	1.7	.91	.61	10	340	39
3	21	91	35	18	6.0	3.6	1.5	.81	.55	11	43	32
4	18	40	29	12	5.2	3.4	1.4	.74	.42	91	53	30
5	16	33	25	11	4.8	3.1	1.4	.66	.33	23	36	26
6	18	34	23	9.8	4.5	3.0	1.3	.58	.46	17	29	30
7	17	26	24	9.2	4.7	2.9	1.3	.67	.38	19	25	35
8	14	24	21	8.5	4.6	2.8	1.3	.74	.33	14	23	33
9	13	22	18	8.2	4.2	2.7	1.1	.66	.30	12	22	75
10	31	20	17	9.1	4.1	2.9	1.2	.64	.41	9.8	19	39
11	17	26	19	10	21	2.7	1.0	.69	.87	117	20	29
12	17	21	16	8.1	7.5	2.5	1.0	1.3	1.1	29	16	44
13	46	20	15	7.5	5.6	2.3	.97	.96	.93	30	15	31
14	20	23	14	7.2	6.6	2.2	1.5	.68	41	25	14	66
15	17	23	13	8.7	5.5	2.1	1.7	.59	18	19	18	60
16	17	100	53	6.9	4.8	2.1	1.1	.63	42	19	34	74
17	25	32	23	6.6	4.5	2.0	.99	.55	42	17	195	26
18	62	29	18	11	4.2	2.0	.91	.78	128	14	267	51
19	29	24	16	13	4.1	1.9	.84	.95	23	12	49	25
20	30	22	14	7.7	4.1	1.8	.78	1.0	55	12	36	35
21	33	22	13	6.9	3.9	1.7	.77	.77	20	15	48	131
22	30	20	13	7.9	4.1	1.8	.72	.60	14	14	53	105
23	29	21	13	7.5	3.8	2.1	.73	.82	12	11	38	54
24	42	129	12	6.4	3.8	1.8	.71	.76	11	9.4	35	73
25	36	31	11	5.9	17	2.2	.74	.66	19	20	31	273
26	32	25	11	5.7	5.4	2.3	.71	.62	14	19	59	52
27	32	26	11	5.4	4.5	4.5	.75	.61	22	14	146	39
28	27	26	9.6	5.3	3.9	2.6	.77	.61	13	12	39	36
29	24	21	8.9	5.3	3.7	2.6	1.0	.61	11	16	32	32
30	22	50	8.8	5.0	---	2.2	1.8	.57	10	14	28	28
31	21	---	11	4.7	---	2.0	---	.52	---	170	144	---
TOTAL	799	1081	625.3	286.5	171.5	79.5	33.59	22.89	502.26	827.2	1971	1690
MEAN	25.8	36.0	20.2	9.24	5.91	2.56	1.12	.74	16.7	26.7	63.6	56.3
MAX	62	129	69	29	21	4.5	1.9	1.3	128	170	340	273
MIN	13	20	8.8	4.7	3.7	1.7	.71	.52	.30	9.4	14	25
AC-FT	1580	2140	1240	568	340	158	67	45	996	1640	3910	3350

CAL YR 1983	TOTAL	4765.96	MEAN	13.1	MAX	296	MIN	.10	AC-FT	9450
WTR YR 1984	TOTAL	8089.74	MEAN	22.1	MAX	340	MIN	.30	AC-FT	16050

16890600 DIONGRADID RIVER, BABELTHUAP

LOCATION.--Lat 07°36'04" N., long 134°35'02" E., Hydrologic Unit 20100006, on right bank 0.3 mi upstream from left-bank tributary, 0.9 mi southeast of Ngetbong village school, and 2.4 mi upstream from confluence with Ngerchetang River.

DRAINAGE AREA.--4.45 mi^2.

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1980, published as Adeiddo River.

REVISED RECORDS.--WDR HI-75-1: 1970(M), 1972-73(P). WDR HI-81-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 15 ft, from topographic map.

REMARKS.--Records poor. No diversion above station.

AVERAGE DISCHARGE.--15 years, 32.4 ft^3/s (23,470 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft^3/s Jan. 22, 1975, gage height, 15.44 ft, from rating curve extended above 410 ft^3/s on basis of field estimate at gage height 15.44 ft; minimum, 2.1 ft^3/s Apr. 14-17, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 904 ft^3/s Sept. 18, gage height, 8.82 ft, no other peak above base of 600 ft^3/s; minimum, 9.7 ft^3/s May 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	50	87	25	59	22	16	11	36	35	22	23
2	42	43	89	24	52	21	17	11	24	40	28	38
3	60	45	62	21	57	19	15	39	18	50	25	25
4	45	47	58	22	53	22	15	19	41	38	30	38
5	41	42	52	19	61	23	15	14	31	31	40	27
6	40	38	47	19	52	21	15	13	25	31	35	25
7	45	36	45	26	47	21	14	14	28	29	30	26
8	77	35	47	19	43	26	13	12	30	29	40	26
9	58	40	41	18	42	26	15	12	35	26	60	28
10	50	54	47	16	42	29	27	11	30	25	45	25
11	48	45	40	16	42	26	23	11	38	24	35	22
12	48	48	36	20	39	24	25	11	30	27	30	23
13	55	42	34	19	47	24	22	11	25	23	28	22
14	45	38	64	14	40	21	18	11	23	24	25	33
15	43	40	73	16	38	21	16	11	27	23	23	36
16	40	54	53	22	34	20	21	10	25	20	22	65
17	38	50	51	18	32	24	18	12	24	18	21	54
18	40	45	56	55	30	19	17	10	32	20	20	200
19	45	42	55	42	29	19	15	10	28	19	30	140
20	36	50	47	40	33	21	16	10	38	21	50	100
21	34	45	43	32	29	18	18	10	50	22	35	80
22	32	42	41	30	26	17	16	20	70	21	27	70
23	30	40	38	41	26	19	15	11	54	20	24	60
24	28	45	36	42	23	19	13	9.9	60	21	22	56
25	35	50	36	51	22	36	13	9.7	80	19	21	54
26	45	45	32	44	28	22	13	13	64	22	21	50
27	50	42	30	40	30	19	12	25	50	25	24	54
28	54	45	30	60	24	20	12	14	56	30	24	46
29	45	48	32	52	26	18	12	13	45	25	20	41
30	38	60	27	58	---	19	11	16	39	23	21	38
31	35	---	26	54	---	16	---	15	---	21	27	---
TOTAL	1362	1346	1455	975	1106	672	488	419.6	1156	802	905	1525
MEAN	43.9	44.9	46.9	31.5	38.1	21.7	16.3	13.5	38.5	25.9	29.2	50.8
MAX	77	60	89	60	61	36	27	39	80	50	60	200
MIN	28	35	26	14	22	16	11	9.7	18	18	20	22
AC-FT	2700	2670	2890	1930	2190	1330	968	832	2290	1590	1800	3020

CAL YR 1983	TOTAL	10893.5	MEAN	29.8	MAX	213	MIN	2.1	AC-FT	21610
WTR YR 1984	TOTAL	12211.6	MEAN	33.4	MAX	200	MIN	9.7	AC-FT	24220

16890600 DIONGRADID RIVER, BABELTHUAP--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT					MAY				
04...	1355	41	29.0	26.0	25...	1425	9.4	28.0	26.0
NOV					JUN				
30...	1315	52	--	26.0	29...	1220	40	27.0	26.0
FEB					AUG				
14...	1420	39	27.0	25.5	22...	1300	25	29.0	26.0
MAR					SEP				
14...	1320	21	28.0	26.0	26...	1305	52	29.0	26.0
27...	1400	19	28.0	26.0					
APR									
24...	1215	13	29.0	26.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR												
27...	1400	19	54	7.8	26.0	23	4	5.4	2.2	3.3	24	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR											
27...	.20	19	1.5	4.3	<.10	15	43	.06	<.10	110	8

< Actual value is known to be less than the value shown.

16890900 TABECHEDING RIVER, BABELTHUAP

LOCATION.--Lat 07°27'03" N., long 134°31'29" E., Hydrologic Unit 20100006, on left bank 0.2 mi downstream from waterfall, 1.5 mi upstream from boat landing, and 1.6 mi east of forestry station.

DRAINAGE AREA.--6.07 mi².

PERIOD OF RECORD.--October 1970 to current year. Prior to OCtober 1980, published as Tabagaten River.

REVISED RECORDS.--WDR HI-81-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft, from topographic map.

REMARKS.--Records fair except those above 500 ft³/s, which are poor.

AVERAGE DISCHARGE.--14 years, 48.4 ft³/s (35,070 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,580 ft³/s Dec. 23, 1973, gage height, 8.79 ft, from rating curve extended above 290 ft³/s; minimum, 0.57 ft³/s Apr. 19, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft³/s Sept. 18, gage height, 6.12 ft, no other peak above base of 900 ft³/s; minimum, 9.2 ft³/s May 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	118	167	24	91	23	22	14	28	36	26	35
2	45	181	158	24	71	20	22	13	22	37	171	44
3	88	68	76	21	82	19	20	25	20	112	46	34
4	52	59	59	42	62	24	18	16	88	48	66	80
5	74	51	48	28	85	22	19	14	48	40	59	41
6	85	42	44	22	58	20	18	12	36	38	44	36
7	100	36	95	50	47	54	18	13	33	54	36	66
8	110	32	114	28	42	95	15	12	67	33	149	45
9	65	33	77	48	43	97	17	11	37	30	80	49
10	55	50	106	33	42	88	143	12	33	27	56	55
11	50	36	76	27	90	57	64	11	62	27	51	44
12	50	42	60	108	46	93	45	12	55	25	46	45
13	80	63	50	74	55	57	37	12	37	24	39	36
14	67	35	85	45	87	46	31	16	38	24	34	36
15	48	31	101	44	107	39	28	16	53	21	30	42
16	47	46	134	99	71	34	26	12	38	19	28	182
17	47	76	85	47	54	46	26	15	43	17	25	83
18	39	90	72	165	47	33	25	12	101	20	23	250
19	34	70	62	97	43	31	21	11	74	17	33	350
20	30	83	51	109	42	42	20	10	70	18	200	90
21	28	62	47	68	37	28	20	12	57	16	63	75
22	27	49	41	54	36	24	22	133	115	15	47	60
23	24	43	36	75	39	24	22	23	198	20	38	50
24	23	50	33	112	30	24	18	15	114	16	33	45
25	25	76	30	128	26	116	16	16	125	28	29	40
26	52	50	28	110	27	38	18	17	95	27	28	36
27	45	44	25	80	32	30	18	88	70	19	36	32
28	36	47	38	214	25	28	16	34	56	24	31	30
29	33	50	33	114	27	25	16	25	47	21	24	29
30	30	44	29	145	---	32	15	24	42	22	43	27
31	35	---	24	97	---	25	---	24	---	17	48	---
TOTAL	1572	1757	2084	2332	1544	1334	816	685	1902	892	1662	2067
MEAN	50.7	58.6	67.2	75.2	53.2	43.0	27.2	22.1	63.4	28.8	53.6	68.9
MAX	110	181	167	214	107	116	143	133	198	112	200	350
MIN	23	31	24	21	25	19	15	10	20	15	23	27
AC-FT	3120	3490	4130	4630	3060	2650	1620	1360	3770	1770	3300	4100

CAL YR 1983	TOTAL	14642.54	MEAN	40.1	MAX	381	MIN	.68	AC-FT	29040
WTR YR 1984	TOTAL	18647	MEAN	50.9	MAX	350	MIN	10	AC-FT	36990

16890900 TABECHEDING RIVER, BABELTHUAP--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT					APR				
11...	1130	51	26.0	25.5	26...	1045	19	28.0	26.0
NOV					MAY				
16...	1150	31	27.0	25.5	26...	1215	17	--	26.0
FEB					AUG				
13...	1350	52	27.5	25.0	09...	1155	79	--	26.0
MAR					SEP				
13...	1335	54	--	26.0	19...	1145	223	27.5	26.0
28...	1100	30	28.0	26.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR												
28...	1100	30	57	7.4	26.0	23	0	4.3	2.9	3.8	26	.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR											
28...	.30	23	1.7	3.4	<.10	18	48	.07	<.10	140	10

< Actual value is known to be less than the value shown.

16891310 KMEKUMEL RIVER, BABELTHUAP

LOCATION.--Lat 07°23'14" N., long 134°32'42" E., Hydrologic Unit 20100006, 0.5 mi upstream from confluence with Edeng River and 1.1 mi north of Palau Mission Academy.

DRAINAGE AREA.--1.44 mi².

PERIOD OF RECORD.--September 1978 to current year. Low-flow partial-record station operated "at mouth" 1970-78. Prior to October 1980, published as Kumekumeyel River.

REVISED RECORDS.--WDR HI-81-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 96.44 ft, from stadia survey.

REMARKS.--Records good. No diversion above gage.

AVERAGE DISCHARGE.--6 years, 9.21 ft³/s (6,670 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,560 ft³/s Apr. 13, 1979, gage height, 10.53 ft, from rating curve extended above 106 ft³/s on basis of slope-area measurement at gage height 10.53 ft; minimum, 0.18 ft³/s Apr. 14-17, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 463 ft³/s July 25, gage height, 6.37 ft, no other peak above base of 450 ft³/s; minimum, 2.1 ft³/s May 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	6.6	38	5.9	15	5.2	8.6	2.7	11	7.7	15	7.5
2	9.0	9.7	24	5.2	15	4.6	6.8	2.6	7.0	8.1	55	11
3	13	6.8	14	4.8	15	4.4	6.1	9.6	6.2	21	22	7.9
4	11	8.8	11	5.5	12	4.8	5.5	4.3	30	10	21	20
5	10	7.3	9.2	4.8	14	6.9	6.8	3.5	18	9.2	20	9.5
6	21	6.1	8.1	4.4	11	6.6	5.7	3.2	14	9.0	15	8.4
7	23	5.5	21	5.5	9.5	8.4	5.2	3.2	11	8.8	13	7.9
8	22	5.2	16	4.3	8.8	15	4.6	2.9	23	6.8	40	8.1
9	16	5.5	14	5.5	9.2	9.5	5.3	2.9	14	6.1	18	8.8
10	14	7.7	12	4.4	8.8	9.5	22	2.7	12	5.7	20	7.9
11	12	6.4	17	4.1	9.2	11	15	2.6	25	5.8	19	6.8
12	9.9	10	12	13	8.4	15	11	3.9	21	7.0	15	6.1
13	28	12	10	8.6	12	11	11	2.7	22	5.5	13	5.5
14	18	8.4	12	6.4	16	9.5	9.2	2.9	19	8.2	11	5.3
15	13	7.5	13	9.9	15	7.9	8.1	2.6	21	5.7	9.7	5.7
16	11	8.1	12	23	13	7.3	7.3	2.4	15	5.0	8.6	9.9
17	10	12	10	11	10	11	6.6	2.7	13	5.0	7.9	7.0
18	9.2	15	9.7	24	9.2	7.3	6.1	2.4	40	9.1	7.3	29
19	8.4	14	11	17	8.4	7.3	5.5	3.0	22	5.2	7.5	38
20	7.5	14	9.0	24	8.8	8.1	5.3	2.4	17	4.6	29	14
21	6.8	10	7.7	14	7.9	6.1	5.0	3.2	14	4.4	12	11
22	6.4	9.0	7.0	12	7.0	5.7	5.2	17	14	4.6	9.2	9.5
23	6.1	8.1	6.2	15	9.0	5.9	5.0	5.3	24	7.6	8.1	8.1
24	5.5	9.0	6.1	24	6.4	5.5	4.3	4.1	17	4.8	7.0	7.7
25	8.0	9.9	6.2	20	5.9	30	3.9	3.7	15	33	6.2	6.6
26	8.4	7.9	5.3	21	6.4	11	3.9	4.6	13	20	5.9	6.1
27	9.0	7.0	5.2	16	6.8	8.8	3.5	35	12	14	7.4	5.5
28	7.9	6.4	7.9	28	5.3	9.7	3.2	11	9.9	12	5.7	5.2
29	6.8	9.1	6.4	18	6.1	7.7	3.2	7.9	9.2	11	5.0	4.6
30	5.9	7.3	5.3	18	---	11	2.7	7.3	8.8	9.7	15	4.4
31	6.1	---	5.0	16	---	7.7	---	6.8	---	8.4	9.9	---
TOTAL	352.1	260.3	351.3	393.3	289.1	279.4	201.6	171.1	498.1	283.0	458.4	293.0
MEAN	11.4	8.68	11.3	12.7	9.97	9.01	6.72	5.52	16.6	9.13	14.8	9.77
MAX	28	15	38	28	16	30	22	35	40	33	55	38
MIN	5.5	5.2	5.0	4.1	5.3	4.4	2.7	2.4	6.2	4.4	5.0	4.4
AC-FT	698	516	697	780	573	554	400	339	988	561	909	581

CAL YR 1983	TOTAL	2341.94	MEAN	6.42	MAX	101	MIN	.18	AC-FT	4650
WTR YR 1984	TOTAL	3830.7	MEAN	10.5	MAX	55	MIN	2.4	AC-FT	7600

16891310 KMEKUMEL RIVER, BABELTHUAP--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT					MAY				
05...	1545	12	26.5	25.5	16...	1320	2.7	30.0	26.5
25...	1520	5.4	27.5	26.0	JUN				
DEC					19...	1230	20	28.0	26.0
22...	1240	7.0	28.0	26.0	JUL				
MAR					24...	1305	4.8	27.5	26.0
06...	1150	8.2	27.5	25.5	SEP				
APR					17...	1320	6.7	28.0	26.0
16...	1355	7.2	27.5	26.0					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR												
25...	1545	17	59	7.3	26.0	26	4	6.5	2.4	3.1	20	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR											
25...	.30	22	2.8	4.1	<.10	15	47	.06	<.10	97	11

< Actual value is known to be less than the value shown.

16892000 QATLIW STREAM, YAP

LOCATION.--Lat 07°26'19" N., long 138°06'41" E., Hydrologic Unit 20100006, on right bank 90 ft below confluence tributary, 1.3 mi wy, 0.5 mi upstream from mouth, and 2.6 mi northwest of Colonia.

DRAINAGE AREA.--2.31 mi².

PERIOD OF RECORD.--January 1982 to current year.

REVISED Water-stage recorder and concrete control. Altitude of gage is 40 ft, from topographic map.

GAGE RARKS.--Records fair. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 874 ft³/s June 21, 1982, gage height, 5.96 ft, from rating curve extended above 10 ft³/s; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 348 ft³/s Nov. 17, gage height, 4.14, no other peak above base of 200 ft³/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.10	3.7	.03	2.2	.13	.00	.00	.00	.10	.34	.30
2	2.0	.06	1.2	.02	1.9	.08	.00	.00	.00	.19	1.3	.10
3	.75	.07	.34	.02	1.3	.13	.00	.00	.00	.92	13	.18
4	.35	5.5	.11	.02	.66	7.5	.00	.00	.00	.92	5.7	5.4
5	.20	.88	.06	.01	.08	1.5	.00	.00	.00	.50	.88	1.0
6	.15	.27	.04	.01	.03	.16	.00	.00	.00	1.0	.70	.81
7	5.0	.10	.02	.01	.02	.10	.00	.00	.00	.20	.30	.70
8	2.0	.08	.02	.01	.01	.82	.00	.00	.00	.10	1.2	.19
9	.70	.19	.04	.01	.01	.39	.00	.00	.00	1.0	.70	.16
10	.30	.08	.13	.01	6.3	.39	.00	.00	.00	.70	.70	.11
11	.20	.05	.06	.01	2.9	1.0	.00	.00	.00	.50	2.7	.10
12	.40	.05	.40	11	2.2	.16	.00	.00	.00	1.5	2.9	.27
13	.62	.05	.45	3.1	.82	.06	.00	.00	.00	1.0	1.4	.16
14	1.0	.04	.40	.34	1.1	.04	.00	.00	.00	1.7	.63	1.3
15	.19	.03	1.8	.51	.39	.04	.00	.00	.55	.57	2.3	4.5
16	.10	.05	.45	.39	.11	.04	.00	.00	.30	2.5	.70	1.3
17	.06	15	.23	.11	.05	.03	.00	.00	1.8	.88	.70	2.0
18	2.1	1.2	.11	.11	.06	.02	.00	.00	.39	.19	.19	2.7
19	1.1	.30	.08	6.9	.04	.02	.00	.00	.62	.10	.13	4.6
20	.27	.08	.08	1.2	.03	.02	.00	.00	3.6	.04	.11	.88
21	.23	.06	.06	.19	1.8	.01	.00	.00	.27	.04	.08	1.3
22	.13	.04	.05	.10	1.1	.01	.00	.00	.16	.03	.06	.94
23	.08	.11	.04	.06	.13	.00	.00	.00	.10	.01	.04	1.8
24	.08	7.2	.04	4.3	.05	.00	.00	.00	.06	.01	.04	4.3
25	.06	9.1	.04	1.5	.04	.00	.00	.00	5.5	.01	.52	.51
26	.11	1.3	.04	.82	5.7	.00	.00	.00	2.8	.02	2.2	.08
27	.27	.23	.06	1.1	7.9	.00	.00	.00	.30	.06	.63	.04
28	.45	.63	.76	1.3	18	.00	.00	.00	.10	.08	3.6	.03
29	.13	.30	.16	1.2	1.8	.01	.00	.00	.23	.06	4.7	.02
30	.08	2.0	.06	.82	---	.00	.00	.00	.13	2.6	8.1	.02
31	.30	---	.04	.57	---	.00	---	.00	---	.45	1.8	---
TOTAL	19.61	45.15	11.07	35.78	56.73	12.66	.00	.00	16.91	17.98	58.35	35.80
MEAN	.63	1.50	.36	1.15	1.96	.41	.00	.00	.56	.58	1.88	1.19
MAX	5.0	15	3.7	11	18	7.5	.00	.00	5.5	2.6	13	5.4
MIN	.06	.03	.02	.01	.01	.00	.00	.00	.00	.01	.04	.02
AC-FT	39	90	22	71	113	25	.00	.00	34	36	116	71

CAL YR 1983	TOTAL	273.26	MEAN	.75	MAX	30	MIN	.00	AC-FT	542
WTR YR 1984	TOTAL	310.04	MEAN	.85	MAX	18	MIN	.00	AC-FT	615

16892000 QATLIW STREAM, YAP--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT					MAR				
12...	1130	.48	28.0	25.5	15...	1000	.04	26.5	25.0
NOV					22...	0920	.01	26.5	25.0
03...	0935	.06	28.0	26.0	JUN				
28...	1150	.63	27.5	26.0	28...	1145	.08	27.5	26.5
DEC					AUG				
14...	1155	.15	27.0	26.0	13...	1250	1.2	27.5	26.5
JAN					SEP				
18...	1135	.08	26.5	26.0	05...	1435	.69	28.0	26.5
FEB					25...	1105	.49	28.0	26.0
29...	1310	1.1	26.0	25.5					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR												
22...	0920	.01	190	6.6	25.0	83	8	10	14	10	21	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR											
22...	.30	75	4.5	14	<.10	25	120	.17	<.10	68	46

< Actual value is known to be less than the value shown.

16892400 QARINGEEL STREAM, YAP

LOCATION.--Lat 09°31'02" N., long 138°05'31" E., Hydrologic Unit 20100006, on right bank at Qaringeel and 0.3 mi southwest of Dalipeebinaew School.

DRAINAGE AREA.--0.24 mi².

PERIOD OF RECORD.--April 1968 to current year. Prior to October 1980, published as Aringel Stream.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft, from topographic map.

REMARKS.--Records fair. No diversion above station.

AVERAGE DISCHARGE.--16 years, 1.07 ft³/s (775 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 674 ft³/s July 13, 1981, gage height, 7.82 ft, from rating curve extended above 20 ft³/s; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 512 ft³/s Nov. 17, gage height, 7.01 ft, no other peak above base of 200 ft³/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	.14	1.5	.04	.31	.30	.00	.00	.00	.10	.08	.45
2	1.5	.14	.81	.02	.20	.14	.00	.00	.00	.13	1.8	.14
3	.58	.08	.62	.04	.11	.07	.00	.00	.00	1.0	15	.10
4	.27	6.7	.33	.02	.06	7.6	.00	.00	.00	1.0	2.7	1.7
5	.14	.73	.16	.01	.04	.90	.00	.00	.00	1.9	.51	1.0
6	.11	.33	.10	.01	.03	.42	.00	.00	.00	1.3	.25	.48
7	.51	.14	.05	.01	.01	.36	.00	.00	.00	.42	.16	.45
8	.45	.08	.04	.01	.01	.39	.00	.00	.00	.16	.36	.25
9	.25	2.6	.02	.03	.01	.25	.00	.00	.00	.11	.36	.74
10	.14	.33	.05	.06	7.0	.16	.00	.00	.00	.08	.58	1.2
11	.10	.11	.03	.02	1.4	.30	.00	.00	.00	.06	3.8	1.3
12	.08	.05	.01	5.3	.91	.14	.00	.00	.07	.14	2.2	4.1
13	5.0	.03	.03	1.5	.84	.08	.00	.00	.03	.10	1.6	.88
14	2.6	.02	.04	.27	1.6	.05	.00	.00	.51	.75	.58	1.1
15	.62	.01	.74	.18	.54	.03	.00	.00	1.1	.36	.88	1.4
16	.23	.01	.30	.18	.20	.02	.00	.00	.97	.13	3.7	.51
17	.18	21	.11	.13	.10	.02	.00	.00	.42	.07	1.1	.39
18	2.3	.88	.05	.23	.07	.01	.00	.00	.13	.04	.45	.36
19	.69	.39	.02	9.5	.02	.01	.00	.00	.08	.06	.33	4.2
20	.33	.23	.01	.82	.02	.01	.00	.00	4.6	.02	.48	.69
21	.33	.73	.01	.25	3.7	.01	.00	.00	1.5	.01	.20	.36
22	.51	.33	.01	.13	1.8	.01	.00	.00	.51	.01	.16	.69
23	.27	.45	.01	.08	.78	.01	.00	.00	.33	.01	.16	1.0
24	.16	5.2	.01	1.4	.23	.01	.00	.00	.30	.01	.13	1.8
25	.10	5.8	.05	.36	.14	.00	.00	.00	3.3	.01	1.2	.44
26	.08	1.3	.01	.16	7.1	.00	.00	.00	2.6	.01	2.3	.20
27	.08	.39	.01	.14	3.0	.00	.00	.00	.58	.01	2.2	.11
28	.06	.25	2.4	.11	13	.00	.00	.00	.20	.01	2.3	.06
29	.03	.36	.73	.07	1.0	.00	.00	.00	.11	.01	3.8	.06
30	.01	2.4	.25	.08	---	.00	.00	.00	.10	.05	6.4	.07
31	.39	---	.10	.06	---	.00	---	.00	---	.08	1.4	---
TOTAL	18.28	51.21	8.61	21.22	44.23	11.30	.00	.00	17.44	8.15	57.17	26.23
MEAN	.59	1.71	.28	.68	1.53	.36	.00	.00	.58	.26	1.84	.87
MAX	5.0	21	2.4	9.5	13	7.6	.00	.00	4.6	1.9	15	4.2
MIN	.01	.01	.01	.01	.01	.00	.00	.00	.00	.01	.08	.06
AC-FT	36	102	17	42	88	22	.00	.00	35	16	113	52

CAL YR 1983	TOTAL	297.90	MEAN	.82	MAX	41	MIN	.00	AC-FT	591
WTR YR 1984	TOTAL	263.84	MEAN	.72	MAX	21	MIN	.00	AC-FT	523

16892400 QARINGEEL STREAM, YAP--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT					MAR				
12...	1415	.10	28.0	26.0	15...	1445	.04	27.5	27.0
NOV					22...	1105	.01	--	28.5
03...	1050	.12	27.5	26.0	JUN				
28...	1005	.26	27.0	26.0	28...	1040	.23	27.5	26.0
DEC					AUG				
14...	1340	.02	27.5	27.0	13...	1105	1.8	26.5	26.0
JAN					SEP				
18...	1025	.30	26.5	25.5	05...	1245	1.3	28.5	27.0
FEB					25...	1220	.46	28.5	27.0
29...	1150	.93	26.0	25.5					

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR												
22...	1105	.01	179	6.9	28.5	73	4	7.9	13	9.2	21	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR											
22...	.40	69	2.7	14	<.10	25	110	.15	.16	79	7

< Actual value is known to be less than the value shown.

16892480 AIRPORT POND, YAP

LOCATION.--Lat 09°29'14" N., long 138°05'08" E., Hydrologic Unit 20100006, on northwest shore of pond, behind Pacific Missionary Aviation facilities, and north of former landing strip.

PERIOD OF RECORD.--October 1983 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Highest water level, 34.09 ft, Nov. 17; lowest, 28.19 ft, June 1.

GAGE HEIGHT (FEET AT DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.98	32.91	32.91	32.61	32.32	32.96	31.97	---	✓28.2	29.50	31.00	33.10
2	32.99	32.96	32.89	32.59	32.32	32.88	31.91	---	---	29.60	31.20	33.02
3	32.96	32.95	32.87	32.57	32.28	32.82	31.87	---	---	29.80	32.05	32.96
4	32.91	33.34	32.83	32.54	32.24	32.99	31.84	---	---	30.00	32.58	32.96
5	32.88	33.20	32.81	32.50	32.19	32.98	31.80	---	---	30.15	32.63	32.94
6	32.84	33.07	32.77	32.45	32.14	32.91	31.74	---	---	30.26	32.64	32.90
7	32.96	32.99	32.73	32.47	32.10	32.87	31.69	---	---	30.40	32.69	32.88
8	33.02	32.93	32.72	32.46	32.05	32.85	31.63	---	---	30.30	32.79	32.85
9	32.97	33.03	32.69	32.43	32.00	32.82	31.56	---	---	30.31	32.83	32.82
10	32.92	32.99	32.72	32.40	32.11	32.79	31.50	---	---	30.32	32.85	32.84
11	32.99	32.92	32.72	32.37	32.29	32.80	31.46	---	---	30.31	32.91	32.90
12	33.05	32.87	32.68	32.43	32.29	32.79	31.44	---	---	30.34	33.27	32.95
13	33.04	32.82	32.71	32.65	32.31	32.75	31.42	---	---	30.35	33.15	32.90
14	33.14	32.78	32.72	32.62	32.33	32.70	31.38	✓29.5	---	30.33	33.05	32.85
15	33.07	32.73	32.83	32.60	32.33	32.67	31.33	---	---	30.31	32.99	32.90
16	33.00	32.73	32.84	32.57	32.30	32.63	31.31	---	---	30.29	33.03	33.00
17	32.93	33.57	32.80	32.52	32.26	32.60	31.26	---	---	30.27	33.03	33.05
18	32.89	33.26	32.77	32.50	32.23	32.57	31.19	---	---	30.23	32.97	33.00
19	32.86	33.10	32.73	32.61	32.20	32.51	31.13	---	---	30.21	32.95	32.95
20	32.85	33.00	32.69	32.67	32.15	32.46	31.06	---	✓28.9	30.17	32.98	32.90
21	32.86	33.00	32.66	32.64	32.22	32.42	31.01	---	---	30.18	32.95	32.90
22	32.83	32.93	32.63	32.60	32.49	32.37	30.96	---	---	30.17	32.90	32.95
23	32.81	32.89	32.59	32.57	32.54	32.34	30.90	---	---	30.12	32.87	33.00
24	32.79	32.94	32.58	32.58	32.51	32.30	30.84	---	---	30.10	32.85	33.05
25	32.76	33.09	32.58	32.57	32.48	32.25	30.76	---	---	30.08	32.86	32.97
26	32.74	33.05	32.55	32.52	32.54	32.22	30.70	---	---	30.44	32.96	32.92
27	32.73	32.98	32.49	32.51	32.59	32.17	30.65	---	---	30.85	32.99	32.87
28	32.70	32.92	32.62	32.47	32.88	32.12	30.55	---	✓29.3	30.85	32.95	32.83
29	32.68	32.92	32.68	32.42	33.06	32.12	30.50	---	---	30.85	32.97	32.80
30	32.65	32.91	32.66	32.36	---	32.07	30.45	---	---	30.96	33.29	32.78
31	32.91	---	32.64	32.33	---	32.02	---	---	---	31.00	33.20	---
MEAN	32.89	32.99	32.71	32.52	32.34	32.57	31.26	---	---	30.29	32.79	32.92
MAX	33.14	33.57	32.91	32.67	33.06	32.99	31.97	---	---	31.00	33.29	33.10
MIN	32.65	32.73	32.49	32.33	32.00	32.02	30.45	---	---	29.50	31.00	32.78

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 20...	1350	111	8.7	32.0	50	9	15	3.0	12	34	.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 20...	.80	41	8.5	20	<.10	2.3	86	.12	<.10	29	2

✓ Staff-gage reading.
< Actual value is known to be less than the value shown.

16893100 BURONG STREAM, YAP

LOCATION.--Lat 09°32'05" N., long 138°07'19" E., Hydrologic Unit 20100006, on left bank at Dugor, 0.25 mi upstream from mouth, and 0.5 mi northeast of Mount Gamuw.

DRAINAGE AREA.--0.23 mi².

PERIOD OF RECORD.--April 1968 to current year.

REVISED RECORDS.--WDR HI-79-2: Drainage area, 1968-78(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft, from topographic map.

REMARKS.--Records good. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 0.919 ft³/s (666 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 550 ft³/s June 21, 1982, gage height, 5.45 ft, from rating curve extended above 15 ft³/s; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 117 ft³/s Nov. 17, gage height, 3.54 ft, no other peak above base of 100 ft³/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.05	4.8	.05	.08	.37	.00	.00	.00	.00	.14	.34
2	1.5	.04	.92	.03	.11	.14	.00	.00	.00	.00	1.0	.14
3	.53	.04	.37	.03	.09	.10	.00	.00	.00	.46	10	.09
4	.24	2.1	.16	.02	.08	4.6	.00	.00	.00	.53	4.0	1.1
5	.16	.53	.10	.01	.04	1.2	.00	.00	.00	.34	.50	1.0
6	.11	.27	.07	.01	.02	.30	.00	.00	.00	.65	.27	1.7
7	7.7	.11	.05	.01	.01	.16	.00	.00	.00	.14	.16	1.4
8	2.6	.08	.03	.01	.01	.24	.00	.00	.00	.03	.16	.34
9	.75	.14	.03	.01	.00	.22	.00	.00	.00	.57	.20	.16
10	.34	.09	.04	.01	1.8	.22	.00	.00	.00	.44	.24	.13
11	.20	.05	.03	.01	2.4	1.3	.00	.00	.00	.33	.92	.09
12	.18	.03	.03	6.0	.60	.44	.00	.00	.00	.53	2.3	.27
13	2.0	.02	.16	1.9	.34	.18	.00	.00	.00	.30	.90	.18
14	1.6	.01	.14	.27	1.2	.13	.00	.00	.00	.20	.47	1.5
15	.40	.01	.95	.18	.40	.08	.00	.00	.42	.10	1.2	1.7
16	.18	.01	.34	.24	.14	.06	.00	.00	.40	.05	.95	.57
17	.11	8.1	.14	.11	.09	.03	.00	.00	.29	.01	.90	4.0
18	2.9	.85	.09	.16	.07	.02	.00	.00	.22	.00	.34	2.7
19	1.0	.40	.06	6.1	.05	.01	.00	.00	.73	.00	.16	3.9
20	.37	.16	.05	1.0	.04	.01	.00	.00	2.6	.00	.13	.80
21	.22	.10	.03	.27	1.6	.00	.00	.00	.30	.00	.09	.57
22	.16	.08	.02	.13	1.1	.00	.00	.00	.11	.00	.07	.53
23	.18	.09	.01	.09	.27	.00	.00	.00	.03	.00	.05	.62
24	.20	2.3	.02	2.3	.11	.00	.00	.00	.01	.00	.02	3.0
25	.13	6.0	.02	.44	.08	.00	.00	.00	3.9	.00	.36	.50
26	.11	1.3	.01	.18	3.9	.00	.00	.00	1.4	.00	2.0	.20
27	.16	.57	.01	.11	5.2	.00	.00	.00	.27	.00	.85	.10
28	.11	1.0	.87	.09	13	.00	.00	.00	.07	.35	2.6	.07
29	.08	.44	.37	.04	1.4	.00	.00	.00	.02	.10	3.2	.05
30	.05	1.1	.14	.03	---	.00	.00	.00	.01	3.0	5.9	.03
31	.05	---	.08	.02	---	.00	---	.00	---	.37	1.1	---
TOTAL	24.48	26.07	10.14	19.86	34.23	9.81	.00	.00	10.78	8.50	41.18	27.78
MEAN	.79	.87	.33	.64	1.18	.32	.00	.00	.36	.27	1.33	.93
MAX	7.7	8.1	4.8	6.1	13	4.6	.00	.00	3.9	3.0	10	4.0
MIN	.05	.01	.01	.01	.00	.00	.00	.00	.00	.00	.02	.03
AC-FT	49	52	20	39	68	19	.00	.00	21	17	82	55

CAL YR 1983	TOTAL	212.54	MEAN	.58	MAX	22	MIN	.00	AC-FT	422
WTR YR 1984	TOTAL	212.83	MEAN	.58	MAX	13	MIN	.00	AC-FT	422

16893400 EYEB STREAM, GAGIL-TAMIL

LOCATION.--Lat 09°33'02" N., long 138°09'03" E., Hydrologic Unit 20100006, on left bank 0.6 mi southeast of the Tagireeng Canal bridge and 1.2 mi northwest of the Coast Guard LORAN Station.

DRAINAGE AREA.--0.22 mi^2.

PERIOD OF RECORD.--January 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 15 ft, from topographic map.

REMARKS.--Records fair. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 490 ft^3/s June 21, 1982, gage height, 6.22 ft, from rating curve extended above 14 ft^3/s; minimum, 0.01 ft^3/s for many days in May 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 85 ft^3/s Feb. 28; gage height 3.32 ft, no peak above base of 150 ft^3/s; minimum, 0.05 ft^3/s May 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.83	2.2	.59	1.3	2.7	.30	.13	.09	.69	2.0	2.3
2	3.0	1.3	1.7	.54	1.1	2.0	.27	.13	.09	.90	2.7	1.9
3	2.1	1.2	1.5	.59	.83	1.5	.25	.13	.09	1.2	11	1.7
4	1.7	2.3	1.2	.59	1.1	6.2	.25	.11	.07	1.4	9.0	5.1
5	2.0	1.5	1.1	.59	.69	2.4	.30	.11	.07	.90	3.4	2.2
6	1.5	1.1	.97	.54	.59	1.9	.27	.11	.07	.83	3.2	1.7
7	8.0	.97	.90	.54	.54	1.7	.27	.11	.07	.69	2.2	1.6
8	5.5	.90	.90	.54	.54	1.7	.27	.09	.07	.54	2.0	1.3
9	2.5	2.1	.83	.59	.54	1.4	.25	.09	.07	.44	2.4	1.3
10	2.0	1.2	.97	.59	3.4	1.2	.25	.09	.16	.44	2.0	1.2
11	2.0	.97	.97	.49	2.7	1.3	.27	.07	.34	.39	3.7	1.0
12	2.6	.83	1.2	9.9	2.0	1.0	.25	.07	.64	.39	4.7	1.3
13	2.1	.83	1.5	2.8	1.3	.90	.29	.07	.39	.34	2.4	1.0
14	2.2	.76	1.2	1.3	2.0	.76	.24	.07	.24	.69	2.0	1.4
15	1.5	.69	2.2	1.3	1.3	.69	.24	.07	.50	.69	2.1	2.6
16	1.3	.69	1.3	1.1	1.0	.69	.29	.05	1.4	.44	2.3	1.3
17	1.3	3.2	1.1	.86	.90	.64	.24	.05	.90	.39	2.1	1.5
18	3.9	1.7	.90	.83	1.0	.59	.24	.05	.64	.44	1.5	2.0
19	2.0	1.3	.76	5.7	.83	.54	.24	.07	.69	.34	1.4	2.6
20	1.4	1.0	.64	1.9	.69	.49	.24	.07	1.5	.29	1.7	1.6
21	1.3	.97	.69	1.3	2.1	.45	.24	.07	1.3	.29	1.6	1.6
22	1.6	.90	.64	1.0	1.5	.50	.19	.07	1.0	.29	1.3	1.7
23	1.6	.97	.59	.97	.90	.60	.19	.19	.76	.44	1.3	1.6
24	1.3	1.6	.59	3.8	.69	.50	.16	.24	.64	.39	1.3	3.0
25	1.0	5.4	.54	1.5	.64	.45	.16	.19	2.3	.39	2.0	1.5
26	1.2	2.2	.54	1.2	2.7	.40	.16	.16	3.0	.39	3.6	1.3
27	1.3	1.5	.54	1.1	7.3	.35	.16	.13	1.4	.39	2.0	1.2
28	1.0	1.4	1.5	1.1	25	.40	.16	.11	.76	2.2	2.4	1.3
29	.90	1.4	1.1	.90	5.0	.50	.13	.11	.69	1.9	3.7	1.3
30	.90	1.7	.83	.76	---	.40	.13	.09	1.0	1.1	6.3	1.1
31	.97	---	.69	.76	---	.35	---	.07	---	1.1	3.5	---
TOTAL	62.97	43.41	32.29	46.27	70.18	35.20	6.90	3.17	20.94	21.31	92.8	52.2
MEAN	2.03	1.45	1.04	1.49	2.42	1.14	.23	.10	.70	.69	2.99	1.74
MAX	8.0	5.4	2.2	9.9	25	6.2	.30	.24	3.0	2.2	11	5.1
MIN	.90	.69	.54	.49	.54	.35	.13	.05	.07	.29	1.3	1.0
AC-FT	125	86	64	92	139	70	14	6.3	42	42	184	104

CAL YR 1983	TOTAL	396.37	MEAN	1.09	MAX	26	MIN	.01	AC-FT	786
WTR YR 1984	TOTAL	487.64	MEAN	1.33	MAX	25	MIN	.05	AC-FT	967

16893400 EYEB STREAM, GAGIL-TAMIL--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT					APR				
11...	1210	1.9	28.0	27.5	11...	0950	.28	27.0	25.5
NOV					24...	1320	.18	29.5	27.5
01...	1240	.82	28.0	27.0	MAY				
24...	1135	1.5	27.0	26.0	17...	1100	.04	28.0	27.5
DEC					31...	0935	.07	28.0	27.0
13...	1400	1.6	28.0	27.0	JUN				
JAN					13...	1330	.36	28.0	27.0
04...	1325	.58	27.5	26.5	27...	1325	1.4	27.0	26.5
17...	1240	.83	27.5	26.5	JUL				
FEB					24...	1005	.39	27.5	26.0
07...	1400	.53	27.0	26.0	AUG				
29...	0930	5.7	26.5	26.0	10...	1440	1.8	28.5	27.0
MAR					31...	0930	3.8	26.0	25.5
16...	1305	.71	27.5	27.0	SEP				
21...	1515	.50	27.5	26.5	24...	1235	2.9	28.5	26.5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR												
21...	1515	.50	60	6.7	26.5	18	0	3.6	2.2	4.9	37	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR											
21...	.10	19	7.9	6.8	<.10	8.3	48	.06	<.10	2500	190

< Actual value is known to be less than the value shown.

16893800 WICHEN RIVER AT ALTITUDE 18 M, MOEN

LOCATION.--Lat 07°27'01" N., long 151°51'56" E., Hydrologic Unit 20100006, on left bank at Peniesence, 0.3 mi upstream from mouth, and 1.4 mi west of Saint Xaviers Academy.

DRAINAGE AREA.--0.57 mi².

PERIOD OF RECORD.--April 1955 to March 1956 (published as "at Peniesence"), June 1968 to January 1980, May 1980 to May 1983, February to September 1984. All figures of discharge above 3 ft³/s prior to April 1956, published in WSP 1751, are unreliable and should not be used.

REVISED RECORDS.--WSP 2137, WDR HI-79-2: Drainage area.

GAGE.--Water-stage recorder and concrete control since Mar. 29, 1973. Altitude of gage is 60 ft, from topographic map. Prior to Apr. 1, 1956, nonrecording gage at site 100 ft downstream at different datum.

REMARKS.--Records good. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 3.05 ft³/s (2,210 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 910 ft³/s June 4, 1972, gage height, 6.80 ft, from rating curve extended above 28 ft³/s; minimum, 0.01 ft³/s Apr. 16-19, 1977, Apr. 8, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period February to September, 188 ft³/s Mar. 10, gage height, 3.15 ft, no peak above base of 200 ft³/s; minimum, 0.03 ft³/s May 11, July 28 to Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					.50	.55	.45	.19	1.6	.30	.05	2.1
2					.45	.55	.37	.15	7.0	.30	.11	6.5
3					.45	.55	.55	.15	4.3	.24	.08	4.0
4					.40	.45	1.2	.11	2.4	.24	.19	2.8
5					.40	.55	1.0	.11	2.0	.19	.19	2.4
6					.45	.88	.55	.11	1.3	.15	.19	2.0
7					.40	1.2	.45	.08	1.0	.15	.15	1.8
8					.45	.88	.88	.05	.88	.15	.11	1.3
9					2.1	1.3	2.0	.08	2.1	.11	.24	1.2
10					1.3	29	4.0	.05	8.6	.11	.88	1.3
11					.76	6.2	2.3	.05	3.8	.08	4.7	.88
12					1.6	3.3	1.3	12	2.3	.08	1.6	.76
13					18	2.3	1.0	4.4	1.8	.11	.76	.76
14					7.1	3.3	.65	1.8	1.5	.08	2.0	.65
15					4.0	3.3	.55	2.1	1.5	.15	1.3	.55
16					2.6	2.1	.37	1.3	1.2	.15	1.3	.55
17					2.0	1.6	15	2.1	.88	.08	3.6	.55
18					1.5	1.3	5.5	2.8	1.0	.11	2.4	.55
19					1.3	.88	2.8	2.0	1.0	.30	7.1	.76
20					1.2	.76	2.0	1.3	1.0	.37	6.5	1.8
21					1.0	.65	1.3	.76	.76	.19	4.0	1.3
22					1.5	.55	1.0	.65	1.6	.15	5.6	2.3
23					1.3	.45	.88	.55	1.5	.11	5.0	4.5
24					1.0	.37	.65	.45	1.2	.08	4.0	2.8
25					1.0	.37	.55	4.3	1.0	.08	3.1	1.8
26					.76	.30	.37	2.1	.76	.08	2.4	1.5
27					1.3	.30	.37	1.3	.65	.05	2.3	1.2
28					.88	.30	.30	1.2	.55	.05	2.0	1.5
29					.76	.24	.24	2.0	.45	.05	1.8	1.2
30					---	2.1	.24	2.0	.37	.05	3.1	.76
31					---	.76	---	1.6	---	.08	2.3	---
TOTAL					56.46	67.34	48.82	47.84	56.00	4.42	69.05	52.07
MEAN					1.95	2.17	1.63	1.54	1.87	.14	2.23	1.74
MAX					18	29	15	12	8.6	.37	7.1	6.5
MIN					.40	.24	.24	.05	.37	.05	.05	.55
AC-FT					112	134	97	95	111	8.8	137	103

16897600 NANPIL RIVER

LOCATION.--Lat 06°55'09" N., long 158°11'59" E., Hydrologic Unit 20100006, on left bank 0.1 mi upstream from diversion dam and 1.3 mi upstream from Kiepw River.

DRAINAGE AREA.--3.00 mi².

PERIOD OF RECORD.--March 1970 to current year. Prior to October 1980, published as Nanepil River.

REVISED RECORDS.--WDR HI-76-1: 1970(M), 1971-72(P), 1973(M), 1974(P), 1975(M). WDR HI-81-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 370 ft, from topographic map.

REMARKS.--Records fair. No diversion above station.

AVERAGE DISCHARGE.--14 years, 44.6 ft³/s (32,310 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,820 ft³/s Aug. 4, 1976, gage height, 9.68 ft, from rating curve extended above 168 ft³/s on basis of slope-area measurement at gage height 9.68 ft; minimum, 0.54 ft³/s Apr. 19, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,270 ft³/s Aug. 20, gage height 6.73 ft, no peak above above base of 3,200 ft³/s; minimum, 2.0 ft³/s May 11, 12, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	19	21	37	30	13	5.3	6.0	50	9.3	46	32
2	48	87	20	27	22	17	4.4	5.3	34	6.9	56	30
3	26	63	25	23	17	23	4.4	4.9	31	7.3	22	38
4	23	33	22	81	13	13	6.4	4.5	20	5.8	28	27
5	17	20	107	34	12	35	6.0	3.7	15	5.3	18	18
6	12	19	39	42	42	19	13	3.3	11	4.5	31	34
7	29	21	37	46	34	12	46	2.9	77	16	22	40
8	41	14	74	46	21	10	120	2.9	93	7.7	12	25
9	32	12	28	38	16	22	38	2.5	89	12	31	35
10	30	19	16	52	14	205	22	2.3	50	7.1	24	61
11	17	41	11	101	45	65	37	2.1	100	7.3	13	40
12	11	109	14	80	132	30	33	2.5	37	7.1	16	26
13	8.5	53	148	52	74	18	22	2.5	28	5.8	42	18
14	6.9	31	83	106	53	13	19	6.0	35	6.9	51	43
15	7.3	167	51	106	44	9.5	14	9.1	37	6.2	42	27
16	6.4	34	93	74	89	7.6	12	5.2	107	4.5	118	94
17	53	18	110	50	37	6.2	16	3.5	37	4.1	58	42
18	50	32	48	87	25	24	14	2.7	30	6.4	100	25
19	17	74	30	58	47	20	11	2.4	78	76	39	48
20	29	80	31	97	31	9.3	7.3	2.1	36	25	219	37
21	45	45	23	44	91	6.4	6.0	7.5	31	26	55	64
22	48	28	32	64	63	5.4	5.4	11	91	24	33	42
23	27	133	42	88	36	4.9	28	5.4	29	26	96	26
24	197	34	32	46	38	5.1	13	3.5	19	17	47	15
25	67	19	25	30	25	5.3	7.1	3.5	16	10	26	14
26	31	12	18	28	87	5.4	5.8	37	42	7.3	21	91
27	19	85	14	28	68	4.7	8.1	17	26	11	17	41
28	96	73	28	48	27	4.9	21	17	14	93	61	21
29	43	33	26	76	17	25	13	53	11	46	39	28
30	34	26	24	38	---	13	7.8	22	13	17	36	66
31	19	---	20	38	---	8.0	---	12	---	15	27	---
TOTAL	1189.1	1434	1292	1765	1250	659.7	566.0	265.3	1287	523.5	1446	1148
MEAN	38.4	47.8	41.7	56.9	43.1	21.3	18.9	8.56	42.9	16.9	46.6	38.3
MAX	197	167	148	106	132	205	120	53	107	93	219	94
MIN	6.4	12	11	23	12	4.7	4.4	2.1	11	4.1	12	14
AC-FT	2360	2840	2560	3500	2480	1310	1120	526	2550	1040	2870	2280

CAL YR 1983	TOTAL	9579.23	MEAN	26.2	MAX	271	MIN	.59	AC-FT	19000
WTR YR 1984	TOTAL	12825.6	MEAN	35.0	MAX	219	MIN	2.1	AC-FT	25440

16897600 NANPIL RIVER--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT				
13...	1245	8.2	31.0	24.0
26...	1140	31	28.0	24.0
NOV				
09...	1130	10	28.0	24.0
JAN				
05...	1115	43	29.0	25.0
25...	1335	27	28.0	24.5
FEB				
29...	1130	17	28.0	24.0
MAR				
14...	0955	13	28.0	24.0
APR				
10...	1045	22	28.0	24.0
MAY				
09...	1110	2.6	30.0	25.0
22...	1040	12	27.0	24.0
JUN				
21...	1135	40	28.0	24.0
JUL				
03...	1020	10	31.5	24.0
17...	1005	4.1	28.0	24.0
AUG				
16...	1005	89	28.0	24.0
30...	1050	27	28.0	23.0
SEP				
24...	1010	18	30.0	23.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JAN									
25...	1335	27	24	6.2	24.5	6	1.2	.74	2.3

DATE	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN									
25...	45	.4	.10	2.3	4.1	<.10	5.5	47	1

< Actual value is known to be less than the value shown.

16897900 LEWI RIVER

LOCATION.--Lat 06°55'32" N., long 158°12'18" E., Hydrologic Unit 20100006, on right bank at road and pipeline crossing, 300 ft upstream from right-bank tributary, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--0.46 mi².

PERIOD OF RECORD.--March 1970 to current year. Prior to October 1980, published as Lui River.

REVISED RECORDS.--WDR HI-81-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 290 ft, from topographic map.

REMARKS.--Records good. No diversion above station.

AVERAGE DISCHARGE.--14 years, 5.31 ft³/s (3,850 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s Aug. 4, 1976, gage height, 5.92 ft, from rating curve extended above 37 ft³/s, on basis of slope-area measurement at gage height 5.92 ft; minimum, 0.02 ft³/s Apr. 18, 19, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 228 ft³/s Oct. 24, gage height, 3.42 ft, no peak above base of 500 ft³/s; minimum, 0.16 ft³/s May 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	2.5	2.8	3.2	3.9	1.7	.65	.49	11	1.2	5.4	1.8
2	5.1	7.8	3.1	2.5	2.6	2.1	.52	.43	3.8	.95	8.0	1.6
3	2.5	8.6	3.4	1.6	2.1	2.6	.49	.36	2.4	1.0	3.6	1.4
4	2.0	4.2	3.1	11	1.6	1.5	.65	.33	1.4	.85	4.7	1.2
5	1.4	2.5	12	3.9	1.4	2.0	.55	.30	.90	.70	2.3	.95
6	1.4	2.1	4.7	6.3	2.6	1.4	.52	.27	.70	.60	3.9	2.4
7	3.1	3.9	4.3	5.0	3.2	1.0	1.2	.24	7.0	.70	2.8	2.5
8	1.5	3.2	9.7	5.2	2.2	.95	7.1	.24	13	.92	1.3	1.6
9	1.4	2.3	3.1	5.4	1.6	1.6	3.1	.22	9.4	1.4	1.5	2.2
10	1.4	5.0	2.0	6.1	1.3	30	1.8	.20	4.8	.75	2.0	2.6
11	.90	7.8	1.6	12	2.2	8.5	3.1	.20	9.1	1.2	1.0	1.7
12	.80	20	2.1	12	11	3.8	2.7	.22	4.5	2.1	.80	1.4
13	.65	6.9	20	5.8	7.0	2.2	1.6	.22	2.6	1.4	.95	1.2
14	.60	4.4	8.7	11	6.0	1.6	1.5	.36	2.5	1.0	1.3	1.2
15	.65	29	5.7	12	4.1	1.4	1.0	.33	2.7	.85	1.2	1.0
16	.55	4.5	12	7.5	9.0	1.1	1.0	.24	12	.60	11	14
17	9.3	2.7	22	5.8	4.1	1.0	1.0	.20	3.1	.52	5.5	5.0
18	5.6	6.2	6.2	18	2.8	4.1	.85	.20	2.0	.52	20	2.3
19	1.8	11	3.4	12	6.0	2.9	.65	.20	11	3.9	5.2	2.4
20	1.8	10	5.3	20	3.8	1.4	.52	.18	3.8	2.2	25	3.1
21	5.6	5.8	3.8	6.3	8.3	1.0	.46	.46	3.1	2.4	6.1	6.8
22	1.9	3.8	4.2	8.8	9.5	.85	.43	.95	17	1.5	4.4	5.6
23	3.4	18	4.5	16	3.8	.70	1.7	.36	3.6	1.0	15	2.6
24	46	4.5	3.6	6.4	3.2	.70	.90	.27	2.1	.80	5.8	1.6
25	9.9	2.8	3.5	3.8	2.5	.90	.52	.33	1.8	.55	3.5	2.0
26	4.1	2.0	2.1	4.7	14	.80	.46	4.4	4.7	.49	2.5	17
27	2.5	8.9	1.6	4.4	11	.60	.70	1.8	3.4	.55	1.8	5.8
28	14	9.8	2.8	7.9	3.5	.75	1.6	1.4	1.8	13	3.8	2.9
29	8.6	4.5	2.3	11	2.2	1.1	1.0	5.3	1.4	5.6	2.8	2.4
30	4.4	3.5	1.9	4.2	---	1.1	.60	2.0	1.5	1.7	4.9	7.0
31	2.5	---	1.6	6.7	---	1.1	---	1.0	---	1.3	2.9	---
TOTAL	157.35	208.2	167.1	246.5	136.5	82.45	38.87	23.70	148.10	52.25	160.95	105.25
MEAN	5.08	6.94	5.39	7.95	4.71	2.66	1.30	.76	4.94	1.69	5.19	3.51
MAX	46	29	22	20	14	30	7.1	5.3	17	13	25	17
MIN	.55	2.0	1.6	1.6	1.3	.60	.43	.18	.70	.49	.80	.95
AC-FT	312	413	331	489	271	164	77	47	294	104	319	209

CAL YR 1983	TOTAL	1109.46	MEAN	3.04	MAX	46	MIN	.02	AC-FT	2200
WTR YR 1984	TOTAL	1527.22	MEAN	4.17	MAX	46	MIN	.18	AC-FT	3030

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT				
13...	1055	.68	31.0	25.0
18...	1350	4.1	31.0	26.0
26...	1005	4.3	28.0	24.0
NOV				
09...	0950	2.2	28.0	24.0
30...	1330	3.3	28.0	25.0
DEC				
06...	1445	4.0	29.0	25.0
JAN				
05...	0925	4.3	28.0	24.0
18...	0900	6.8	28.0	24.0
25...	1440	3.3	29.0	26.0
FEB				
29...	1325	2.2	28.0	25.0
MAR				
14...	1130	1.6	29.0	25.0
APR				
10...	1215	1.8	28.0	25.0
MAY				
09...	1240	.21	29.0	25.0
22...	1230	3.0	28.0	24.0
JUN				
21...	1000	3.4	29.0	24.0
JUL				
03...	1200	1.1	29.0	25.0
17...	1145	.52	29.0	25.0
AUG				
16...	1150	12	28.0	24.0
30...	1210	2.0	28.0	24.0
SEP				
24...	1225	1.7	30.0	24.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
JAN												
25...	1440	3.3	36	6.6	26.0	13	0	2.2	1.8	2.4	29	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN											
25...	.10	13	2.7	3.7	<.10	9.8	31	.04	<.10	63	3

< Actual value is known to be less than the value shown.

16898600 LUHPWOR RIVER

LOCATION.--Lat 06°54'09" N., long 158°09'07" E., Hydrologic Unit 20100006, on left bank about 300 ft upstream from 50-ft waterfall, 0.2 mi downstream from highway bridge, and 0.2 mi west of Pwakorokot Hill.

DRAINAGE AREA.--0.72 mi².

PERIOD OF RECORD.--September 1972 to current year. Prior to October 1980, published as Lupwor River.

REVISED RECORDS.--WDR HI-81-2: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 145 ft, from topographic map.

REMARKS.--Records fair. No diversion above station.

AVERAGE DISCHARGE.--12 years, 8.66 ft³/s (6,270 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,090 ft³/s Aug. 4, 1976, gage height, 8.26 ft, from rating curve extended above 47 ft³/s, on basis of estimate of peak flow; minimum, 0.13 ft³/s May 4, 5, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 304 ft³/s Nov. 3, gage height, 4.48 ft, no peak above base of 750 ft³/s; minimum, 0.62 ft³/s May 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	7.1	5.5	5.9	7.6	4.0	1.5	1.4	4.7	3.7	7.6	7.6
2	12	15	5.3	4.3	6.0	4.3	1.4	1.2	4.2	3.2	10	7.1
3	7.8	40	5.2	3.5	4.8	4.8	1.4	1.2	4.0	2.8	5.9	5.9
4	6.2	13	4.7	16	4.0	3.6	1.6	1.1	3.0	2.4	6.6	5.3
5	4.8	8.3	19	7.8	4.0	5.5	1.5	1.0	2.3	2.2	5.5	6.8
6	3.9	7.1	9.0	8.8	6.8	3.9	1.5	1.0	2.0	2.0	5.1	13
7	4.2	6.8	8.5	11	6.4	3.1	3.1	.96	8.8	2.2	4.0	9.8
8	3.4	8.3	12	12	4.8	2.8	18	.96	16	2.0	3.5	7.6
9	3.5	6.4	6.2	9.9	4.1	3.4	7.3	.84	16	2.6	4.6	7.7
10	3.7	6.8	5.0	12	3.6	33	4.3	.80	11	1.8	4.2	9.5
11	2.9	6.9	4.1	20	5.1	15	5.0	.80	16	1.8	3.2	8.8
12	2.5	17	4.2	21	18	8.3	4.6	1.0	8.0	1.8	2.8	6.9
13	2.3	12	26	13	14	5.9	3.7	.84	6.2	1.7	3.4	5.9
14	2.0	7.8	18	18	13	4.5	3.2	1.4	5.9	1.7	6.6	8.2
15	2.3	38	11	23	11	3.6	2.7	1.2	6.2	1.5	6.6	6.0
16	1.8	11	16	15	17	3.2	2.6	1.0	13	1.4	34	4.8
17	3.0	7.3	23	12	10	2.8	3.2	.80	6.8	1.3	16	4.8
18	4.9	8.8	14	21	7.1	3.9	2.4	.74	5.9	1.5	27	5.2
19	2.7	15	8.8	14	10	3.5	2.0	.71	12	10	14	11
20	10	16	9.8	24	7.6	2.6	1.6	.68	8.3	4.2	38	7.8
21	13	13	6.9	13	14	2.1	1.5	1.0	7.3	5.0	15	12
22	5.7	9.0	6.4	15	12	1.9	1.4	1.4	19	4.6	9.3	9.6
23	8.2	32	6.8	17	8.6	1.8	3.0	1.1	8.3	3.8	33	6.2
24	30	10	5.7	12	7.6	1.7	2.1	.92	6.0	3.1	14	4.8
25	9.9	6.8	4.8	8.3	5.9	1.8	1.6	1.0	5.0	2.6	8.3	4.5
26	11	5.5	3.8	6.9	8.2	1.8	1.4	2.7	9.1	2.7	7.7	11
27	7.1	13	3.3	6.6	11	1.6	1.6	1.6	6.6	3.8	6.0	7.6
28	25	14	3.7	8.0	6.0	1.9	2.8	1.6	4.6	7.6	13	5.3
29	14	7.6	3.7	14	4.8	2.5	2.2	3.4	3.9	6.0	10	11
30	14	6.4	3.5	8.0	---	2.2	1.6	2.0	3.8	3.8	9.8	11
31	7.8	---	3.4	9.6	---	1.7	---	1.5	---	3.5	8.6	---
TOTAL	245.6	375.9	267.3	390.6	243.0	142.7	91.8	37.85	233.9	98.3	343.3	232.7
MEAN	7.92	12.5	8.62	12.6	8.38	4.60	3.06	1.22	7.80	3.17	11.1	7.76
MAX	30	40	26	24	18	33	18	3.4	19	10	38	13
MIN	1.8	5.5	3.3	3.5	3.6	1.6	1.4	.68	2.0	1.3	2.8	4.5
AC-FT	487	746	530	775	482	283	182	75	464	195	681	462

CAL YR 1983	TOTAL	2059.19	MEAN	5.64	MAX	84	MIN	.16	AC-FT	4080
WTR YR 1984	TOTAL	2702.95	MEAN	7.39	MAX	40	MIN	.68	AC-FT	5360

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT				
12...	1245	2.4	29.0	25.0
17...	1320	2.9	30.0	26.0
27...	1110	7.5	29.0	25.0
NOV				
23...	1430	24	29.0	24.0
DEC				
22...	1045	6.4	28.0	24.0
JAN				
05...	1415	7.5	28.0	24.0
17...	1445	11	29.0	25.0
26...	0930	7.2	28.0	24.0
FEB				
28...	1355	5.6	29.0	26.0
MAR				
15...	1115	3.9	28.0	24.0
APR				
09...	1205	7.5	29.0	25.0
MAY				
15...	1220	1.6	28.0	24.0
23...	1230	1.1	28.0	24.0
JUN				
01...	1055	1.4	28.5	26.5
25...	1205	5.2	28.0	24.0
JUL				
05...	1005	2.2	28.0	24.0
24...	1450	3.1	29.0	25.0
SEP				
25...	0910	4.9	29.0	24.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
JAN											
26...	0930	7.2	6.8	24.0	14	0	3.0	1.7	2.6	28	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN											
26...	.10	16	2.1	3.5	<.10	12	35	.05	.85	130	6

< Actual value is known to be less than the value shown.

16898690 LEHN MESI RIVER

LOCATION.--Lat 06°50'41" N., long 158°11'02" E., Hydrologic Unit 20100006, on left bank 3.2 mi upstream from mouth, 1.7 mi southwest of Mount Tolenpwoaipwoai, and 4.5 mi south of Mount Temwetemwensekir.

DRAINAGE AREA.--2.31 mi^2.

PERIOD OF RECORD.--November 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 260 ft, from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,740 ft^3/s, May 8, 1982, gage height, 10.14 ft, from rating curve extended above 126 ft^3/s; minimum, 4.5 ft^3/s for several days in April and May, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,020 ft^3/s, Feb. 26, gage height, 5.78 ft, no peak above base of 3,000 ft^3/s; minimum, 8.1 ft^3/s May 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	46	49	70	66	50	22	17	87	26	47	90
2	102	242	54	50	55	60	19	17	60	23	51	66
3	83	142	49	40	49	70	18	14	98	46	28	48
4	58	94	38	150	40	50	27	13	49	32	29	39
5	43	69	162	50	35	90	22	11	36	27	32	35
6	80	66	64	70	100	60	31	10	29	21	164	44
7	136	70	55	80	80	50	71	10	209	58	59	34
8	67	47	93	80	60	40	205	8.9	235	30	36	27
9	67	40	58	60	48	58	82	8.5	135	38	92	129
10	58	41	41	80	50	364	51	8.1	99	23	78	109
11	41	66	34	200	100	175	94	8.1	198	24	44	120
12	36	183	67	100	200	88	55	9.3	66	23	46	64
13	30	104	370	81	150	59	39	8.9	57	20	121	54
14	28	70	151	150	100	44	32	33	76	18	88	40
15	27	187	132	150	80	40	32	46	67	19	83	39
16	26	67	154	100	150	32	34	23	215	20	253	92
17	157	53	179	75	80	29	57	14	81	18	148	59
18	77	117	94	130	50	64	44	12	60	44	111	58
19	39	200	98	80	90	59	32	11	126	113	70	87
20	106	170	79	150	60	32	23	9.7	123	35	171	61
21	135	118	64	80	150	28	19	26	72	34	115	171
22	47	74	55	100	100	25	16	22	170	31	76	96
23	44	312	81	150	70	21	55	15	65	32	111	51
24	222	99	54	100	70	26	30	12	50	29	76	38
25	132	66	47	70	50	24	19	19	56	22	56	32
26	172	48	36	60	150	27	16	115	95	19	42	218
27	76	179	32	55	130	21	21	42	57	21	51	86
28	191	138	58	114	70	24	46	66	38	67	174	54
29	100	66	56	118	60	76	32	84	32	50	87	45
30	88	51	40	74	---	43	22	47	32	25	61	144
31	55	---	35	75	---	27	---	33	---	21	91	---
TOTAL	2738	3225	2579	2942	2493	1856	1266	773.5	2773	1009	2691	2230
MEAN	88.3	108	83.2	94.9	86.0	59.9	42.2	25.0	92.4	32.5	86.8	74.3
MAX	222	312	370	200	200	364	205	115	235	113	253	218
MIN	26	40	32	40	35	21	16	8.1	29	18	28	27
AC-FT	5430	6400	5120	5840	4940	3680	2510	1530	5500	2000	5340	4420

CAL YR 1983	TOTAL	20257.2	MEAN	55.5	MAX	370	MIN	4.5	AC-FT	40180
WTR YR 1984	TOTAL	26575.5	MEAN	72.6	MAX	370	MIN	8.1	AC-FT	52710

NOTE.--No gage-height record Dec. 30 to Jan. 12, Jan. 14-27, Feb. 4-8, and Feb. 11 to Mar. 8.

16898690 LEHN MESI RIVER--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
JAN 27...	1200	51	6.9	25.0	18	3	3.9	1.9	2.6	24	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 27...	.40	15	1.4	3.1	<.10	9.4	32	.04	<.10	38	3

< Actual value is known to be less than the value shown.

16899620 MELO RIVER

LOCATION.--Lat 05°20'30" N., long 162°58'33" E., Hydrologic Unit 20100006, on left bank 0.5 mi upstream from mouth and 1.3 mi southwest of Mount Mutunte.

DRAINAGE AREA.--0.68 mi².

PERIOD OF RECORD.--October 1974 to September 1979, June 1980 to current year.

REVISED RECORDS.--WRD HI-81-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 20 ft, from topographic map.

REMARKS.--Records poor. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years (water years 1975-79, 1981-84), 6.75 ft³/s (4,890 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 784 ft³/s Mar. 22, 1976, gage height, 5.78 ft, from rating curve extended above 17 ft³/s; minimum, 0.11 ft³/s for several days in April 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 374 ft³/s Nov. 15, gage height, 3.92 ft, no other peak above base of 300 ft³/s; minimum, 0.18 ft³/s May 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	3.0	17	12	11	12	1.3	1.2	12	3.4	20	2.6
2	6.7	3.4	17	13	8.1	5.5	1.3	.83	9.7	3.2	11	2.4
3	6.9	2.6	15	8.1	6.2	4.3	1.2	.59	11	3.2	7.8	2.1
4	5.2	3.8	15	8.4	5.2	3.6	1.2	.59	18	3.0	6.7	2.0
5	9.2	7.0	10	6.2	7.4	3.0	1.0	.51	9.7	2.8	7.2	1.7
6	9.4	22	8.1	6.9	28	2.5	1.2	.46	31	2.6	5.0	1.5
7	9.6	7.5	6.2	7.0	11	4.1	1.2	.42	17	2.5	4.3	1.3
8	6.9	5.0	5.5	5.5	13	2.8	1.2	.34	12	2.4	4.5	1.1
9	7.2	4.1	4.5	4.7	23	3.9	1.0	.30	12	6.2	7.5	1.0
10	5.9	5.9	3.8	7.9	13	30	.92	.26	9.1	3.0	4.7	1.1
11	5.0	5.0	3.8	15	13	11	.75	.78	6.4	2.8	3.9	.85
12	4.7	4.1	3.4	7.5	10	10	.67	.84	5.7	3.0	3.9	.67
13	4.1	3.5	8.2	6.4	13	11	.59	.93	14	3.9	3.6	.60
14	3.6	3.0	5.9	6.9	25	6.9	.67	3.3	20	2.7	3.8	.60
15	6.3	40	5.0	6.9	30	5.5	1.2	2.6	12	2.5	6.7	.55
16	22	15	17	5.5	14	4.5	1.5	1.3	13	2.2	3.6	1.0
17	8.1	10	8.1	14	15	6.7	.83	3.0	18	2.0	3.4	.80
18	5.9	7.0	12	7.2	9.4	8.8	12	5.0	10	2.2	4.3	1.0
19	4.7	10	11	7.0	7.5	4.7	5.0	2.0	17	2.1	4.0	2.0
20	4.1	15	33	6.9	17	4.1	2.2	5.5	18	2.5	3.6	4.8
21	3.9	10	15	13	44	3.6	1.7	10	12	12	3.6	1.7
22	3.8	7.5	9.4	10	16	3.2	1.5	4.5	8.8	3.8	3.0	1.2
23	6.0	7.0	8.1	34	9.7	2.6	1.3	3.2	6.4	6.4	2.7	1.0
24	7.0	6.0	13	18	6.9	2.4	1.2	4.1	8.4	3.8	2.5	1.1
25	5.7	5.5	31	12	6.4	2.1	1.2	4.1	10	3.6	2.3	1.1
26	3.8	5.5	33	11	5.2	1.8	2.1	4.4	5.7	3.8	5.7	1.7
27	3.9	7.0	17	31	4.5	2.0	1.7	7.5	4.5	3.4	3.8	1.5
28	4.7	10	19	52	3.6	1.8	1.3	14	3.9	27	3.6	1.5
29	3.2	30	16	18	3.0	1.7	1.0	19	3.6	9.4	3.0	1.9
30	2.6	20	9.7	14	---	1.6	1.7	9.2	3.4	5.9	2.7	9.9
31	3.6	---	7.5	15	---	1.6	---	7.9	---	7.5	3.0	---
TOTAL	198.7	285.4	388.2	391.0	379.1	169.3	51.63	118.65	342.3	144.8	155.4	52.27
MEAN	6.41	9.51	12.5	12.6	13.1	5.46	1.72	3.83	11.4	4.67	5.01	1.74
MAX	22	40	33	52	44	30	12	19	31	27	20	9.9
MIN	2.6	2.6	3.4	4.7	3.0	1.6	.59	.26	3.4	2.0	2.3	.55
AC-FT	394	566	770	776	752	336	102	235	679	287	308	104

CAL YR 1983	TOTAL	1947.10	MEAN	5.33	MAX	40	MIN	.13	AC-FT	3860
WTR YR 1984	TOTAL	2676.75	MEAN	7.31	MAX	52	MIN	.26	AC-FT	5310

16899750 MALEM RIVER

LOCATION.--Lat 05°17'35" N., long 163°00'54" E., Hydrologic Unit 20100006, on left bank 0.9 mi upstream from mouth and 2.0 mi southeast of Mount Finkol.

DRAINAGE AREA.--0.76 mi².

PERIOD OF RECORD.--July 1971 to March 1981, March 1982 to current year.

REVISED RECORDS.--WDR HI-81-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 95 ft, from stadia survey.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISHCARGE.--11 years (1972-80, 1983-84), 6.71 ft³/s (4,860 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s Mar. 22, 1976, gage height, 6.20 ft, from rating curve extended above 110 ft³/s; minimum, 0.07 ft³/s Apr. 30, May 1, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 350 ft³/s Feb. 20, gage height, 4.58 ft, no other peak above base of 350 ft³/s; minimum, 0.18 ft³/s May 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	1.9	11	7.3	11	11	1.6	.90	5.5	3.2	15	1.3
2	5.9	2.0	10	12	8.0	9.9	1.4	.76	3.5	2.7	8.2	1.1
3	5.3	1.7	9.9	9.0	6.4	7.7	1.4	.97	12	3.3	5.7	.97
4	4.1	1.5	11	9.3	6.4	7.0	1.3	1.1	21	2.6	5.7	.90
5	5.3	2.5	8.2	7.0	7.5	6.8	1.4	.97	4.9	2.2	6.1	.76
6	6.6	15	6.6	6.6	28	6.4	1.4	.69	35	2.0	4.1	.90
7	4.7	4.0	5.1	5.5	10	7.0	1.4	.97	21	1.9	3.8	.83
8	3.5	3.0	4.9	4.5	7.7	5.9	1.3	.83	13	1.8	3.3	.83
9	4.3	2.5	3.6	5.3	11	6.1	1.3	.76	9.3	4.5	4.5	.76
10	4.1	4.0	3.2	9.6	9.0	41	1.3	.43	7.5	2.7	3.3	1.1
11	6.0	3.3	3.2	15	8.5	11	1.2	.69	5.3	2.4	2.7	.76
12	4.3	2.7	3.2	7.3	7.5	9.3	.97	1.0	4.5	1.8	2.6	.83
13	4.3	2.5	8.3	6.1	7.3	13	.97	1.3	22	2.0	2.1	1.4
14	3.2	2.5	4.7	5.3	9.9	6.6	1.1	.97	16	1.8	2.3	1.4
15	2.7	30	3.5	4.7	16	4.9	1.4	1.2	11	1.8	12	1.0
16	7.4	10	10	4.1	11	4.3	1.3	.58	8.8	1.8	3.3	1.4
17	4.1	7.0	5.3	8.6	11	5.5	.90	4.5	14	1.8	2.3	.90
18	3.0	5.0	3.5	5.1	8.8	8.8	8.0	4.6	8.2	2.2	2.1	1.9
19	2.4	7.0	4.1	4.5	7.2	4.3	4.8	1.2	19	1.7	2.1	.76
20	2.1	10	16	3.8	41	3.5	1.4	2.9	20	2.7	2.3	1.6
21	3.1	7.0	7.3	9.3	69	3.2	1.0	9.5	11	14	2.1	.90
22	2.4	5.5	4.3	6.6	20	3.2	1.0	3.3	7.7	3.2	1.8	.53
23	5.3	5.0	4.1	21	12	3.0	.97	2.4	5.9	13	1.7	.48
24	5.9	4.0	6.8	14	8.8	2.7	.97	3.8	8.6	3.4	1.6	.69
25	5.9	3.5	15	9.6	9.0	2.7	.63	4.5	21	2.1	1.4	.63
26	3.3	3.5	25	7.0	7.0	2.4	1.3	3.5	10	1.9	2.0	2.8
27	2.7	5.0	11	12	8.0	2.4	1.3	3.6	6.6	1.7	1.9	1.4
28	3.6	7.0	12	34	5.5	2.1	.90	12	4.9	36	1.6	1.3
29	2.6	20	9.6	12	4.5	2.1	.76	10	4.3	9.8	1.3	1.5
30	2.0	13	6.8	12	---	2.0	1.4	4.7	3.6	5.5	1.1	3.3
31	2.2	---	5.3	20	---	1.8	---	3.6	---	4.1	1.4	---
TOTAL	133.3	191.6	242.5	298.1	377.0	207.6	46.07	88.22	345.1	141.6	111.4	34.93
MEAN	4.30	6.39	7.82	9.62	13.0	6.70	1.54	2.85	11.5	4.57	3.59	1.16
MAX	11	30	25	34	69	41	8.0	12	35	36	15	3.3
MIN	2.0	1.5	3.2	3.8	4.5	1.8	.63	.43	3.5	1.7	1.1	.48
AC-FT	264	380	481	591	748	412	91	175	685	281	221	69

CAL YR 1983	TOTAL	1449.82	MEAN	3.97	MAX	42	MIN	.07	AC-FT	2880
WTR YR 1984	TOTAL	2217.42	MEAN	6.06	MAX	69	MIN	.43	AC-FT	4400

NOTE.--No gage-height record Nov. 2 to Dec. 1.

16899800 TOFOL RIVER

LOCATION.--Lat 05°19'10" N., long 163°00'24" E., Hydrologic Unit 20100006, on left bank 25 ft downstream from right-bank tributary, 0.9 mi upstream from mouth, and 1.3 mi northeast of Mount Finkol.

DRAINAGE AREA.--0.53 mi².

PERIOD OF RECORD.--June 1971 to September 1979, March 1980 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 98 ft, from stadia survey.

REMARKS.--Records fair. Water is diverted through 8-in pipe from dam above station for domestic use. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years (1971-79, 1981-84), 5.70 ft³/s (4,130 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,560 ft³/s Nov. 10, 1981, gage height, 5.97 ft, from rating curve extended above 79 ft³/s; minimum, 0.01 ft³/s Apr. 1, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 272 ft³/s Feb. 20, gage height, 3.56 ft, no peak above base of 450 ft³/s; minimum, 0.09 ft³/s May 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	1.8	12	7.3	12	12	1.0	.34	4.3	2.8	13	1.2
2	6.4	1.9	12	11	8.9	7.8	.88	.26	3.2	2.7	7.1	1.0
3	5.2	1.7	11	8.6	7.1	5.0	.82	.28	7.2	2.8	5.5	1.0
4	4.3	1.7	11	8.1	5.9	4.3	.76	.26	14	2.5	5.0	.94
5	7.8	2.3	8.4	6.6	6.2	3.5	.70	.28	4.7	2.1	5.5	.88
6	6.6	17	6.6	6.8	22	2.9	.66	.26	26	2.0	4.0	.82
7	5.0	4.5	5.5	5.7	9.7	3.6	1.1	.18	17	1.9	3.5	.82
8	4.2	3.1	4.7	4.7	7.8	2.8	.76	.14	10	1.8	3.2	.76
9	4.3	2.5	4.2	5.8	10	2.8	.62	.18	7.3	4.3	3.8	.70
10	4.0	5.2	3.8	8.7	8.9	25	.54	.18	6.4	2.7	2.7	.82
11	3.6	3.8	3.8	12	8.5	8.6	.54	.46	4.7	2.6	2.3	.76
12	3.8	3.3	3.3	7.3	7.8	7.1	.46	.46	3.8	2.2	2.1	.66
13	4.0	2.7	5.3	6.2	7.1	8.1	.46	.54	14	2.2	1.9	.58
14	3.2	2.7	3.8	5.7	9.5	5.2	.50	.71	11	1.8	3.5	.50
15	3.5	30	3.6	5.5	19	4.3	.70	.62	7.8	1.6	7.3	.50
16	6.6	10	11	5.3	11	3.6	.62	.38	7.1	1.5	2.6	.66
17	4.8	7.0	5.9	7.6	14	4.8	.46	2.3	14	1.4	1.9	.50
18	3.6	5.0	4.7	4.8	10	7.6	4.9	2.8	7.8	1.7	2.0	.66
19	2.9	7.0	5.4	4.3	8.9	4.0	2.1	.94	13	1.5	2.1	.54
20	2.7	10	14	3.6	31	3.2	.88	2.7	20	1.9	1.9	3.4
21	2.7	7.0	7.8	7.0	65	2.8	.66	6.1	12	13	1.9	.70
22	2.3	5.5	5.7	6.2	22	2.6	.62	1.8	8.4	3.3	1.5	.54
23	2.7	5.0	4.8	20	13	2.3	.50	1.1	6.4	7.4	1.4	.46
24	2.7	4.5	8.9	14	9.5	2.1	.46	1.8	7.0	3.3	1.3	.50
25	2.9	4.0	17	9.7	11	1.9	.46	1.9	12	2.6	1.2	.50
26	2.2	4.0	23	8.8	7.1	1.8	.80	1.6	6.2	2.2	1.5	.82
27	2.0	5.0	11	14	7.1	1.7	.54	1.4	4.7	2.5	1.2	.76
28	2.3	7.5	12	34	5.5	1.5	.54	7.4	3.8	29	1.3	.76
29	1.8	20	11	15	4.3	1.2	.38	6.5	3.5	9.7	1.2	.82
30	1.7	15	7.6	12	---	1.1	.38	3.1	3.2	5.9	1.1	2.8
31	1.9	---	6.2	17	---	1.0	---	2.3	---	4.7	1.5	---
TOTAL	123.7	200.7	255.0	293.3	369.8	146.2	24.80	49.27	270.5	127.6	96.0	26.36
MEAN	3.99	6.69	8.23	9.46	12.8	4.72	.83	1.59	9.02	4.12	3.10	.88
MAX	12	30	23	34	65	25	4.9	7.4	26	29	13	3.4
MIN	1.7	1.7	3.3	3.6	4.3	1.0	.38	.14	3.2	1.4	1.1	.46
AC-FT	245	398	506	582	733	290	49	98	537	253	190	52

CAL YR 1983	TOTAL	1223.69	MEAN	3.35	MAX	30	MIN	.02	AC-FT	2430
WTR YR 1984	TOTAL	1983.23	MEAN	5.42	MAX	65	MIN	.14	AC-FT	3930

16912000 PAGO STREAM AT AFONO

LOCATION.--Lat 14°16'03" S., long 170°39'02" W., Hydrologic Unit 20100001, on left bank 0.2 mi south of Afono and 0.3 mi upstream from mouth.

DRAINAGE AREA.--0.60 mi^2.

PERIOD OF RECORD.--October 1958 to current year. Prior to July 1960, published as Afono Stream at Afono.

REVISED RECORDS.--WSP 1937: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 30 ft, from topographic map.

REMARKS.--Records good. About 0.06 ft^3/s is diverted above station for domestic use in Afono. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years (water years 1960-84), 3.40 ft^3/s (2,460 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft^3/s July 5, 1969, gage height, 5.49 ft, from rating curve extended above 52 ft^3/s; minimum, 0.11 ft^3/s Sept. 15, 16, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 210 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec. 27	1400	*785	4.75
Mar. 27	0400	223	3.32
Sept. 9	2200	350	3.75

Minimum discharge, 0.13 ft^3/s Aug. 17-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.7	5.1	2.8	1.4	1.2	2.7	.70	.28	.32	.19	.23
2	.70	3.6	2.4	2.2	1.1	1.6	2.1	1.0	.32	.32	.19	2.2
3	7.1	18	1.6	1.8	.78	15	1.8	.78	1.4	.28	.20	4.4
4	3.2	4.0	1.2	1.7	.78	6.7	1.7	.78	5.4	.25	.44	1.2
5	1.0	2.2	1.0	1.4	.70	3.2	1.4	1.0	3.8	.25	.25	.49
6	1.2	1.7	1.1	1.3	.55	3.3	1.4	2.9	1.8	.28	.23	.25
7	7.8	1.3	3.8	1.3	.70	2.4	1.2	4.0	4.4	.25	.20	.25
8	2.1	.96	3.0	1.1	.78	3.4	1.0	1.8	2.5	.25	.20	.43
9	1.8	.78	3.0	1.0	.55	3.8	.96	1.1	1.2	.25	.20	27
10	2.1	.70	2.2	1.1	.43	3.4	.87	1.0	1.5	.23	.22	13
11	.96	.62	2.1	1.7	.37	1.9	.87	.78	3.4	.25	.20	12
12	.49	.55	6.0	1.2	.49	5.5	1.0	.70	1.8	.25	.28	6.5
13	.32	.43	6.5	.96	5.3	3.0	.78	.62	1.3	.23	.22	3.8
14	.23	1.4	2.5	.78	2.2	2.4	.70	.55	1.1	.22	.17	2.8
15	.22	1.3	1.8	.78	1.0	3.0	.70	.49	.87	.22	.16	1.8
16	.22	31	1.6	.78	.70	5.2	.62	.49	.70	.22	.16	1.2
17	.23	8.1	1.4	1.6	.55	3.4	1.0	.49	.62	.22	.15	.96
18	4.2	5.2	1.1	1.8	.49	11	.87	3.2	.55	.37	.15	.78
19	15	3.2	1.1	1.3	.55	7.0	.70	1.6	.55	.23	.15	.62
20	4.4	2.2	1.0	3.6	.62	3.0	2.9	.87	.49	.23	.15	.55
21	1.8	1.7	.96	6.4	.49	2.2	10	.70	.43	.22	.15	.49
22	1.1	1.3	1.2	2.4	.43	2.4	13	.55	.43	.20	.14	.43
23	.78	1.1	1.7	1.6	.43	2.1	2.5	.49	1.7	.22	.16	.32
24	24	.87	12	2.1	.43	1.9	1.8	.49	1.3	.22	.16	.32
25	6.5	.87	9.0	3.4	.32	17	1.2	.49	.78	.23	.33	.28
26	16	.70	12	1.7	.28	31	1.1	.37	.87	.22	.16	.25
27	4.2	.55	61	1.8	4.9	57	1.0	.32	.96	.84	6.5	.28
28	3.2	.49	10	1.2	8.8	9.9	.96	.32	.62	.28	4.1	.28
29	2.1	.49	14	1.1	2.1	5.7	.87	.32	.49	.20	2.5	.25
30	1.8	7.0	5.7	1.1	---	4.0	.78	.32	.37	.19	.78	.23
31	1.3	---	4.0	1.2	---	3.0	---	.32	---	.19	.37	---
TOTAL	117.45	106.01	181.06	54.20	38.22	225.6	58.48	29.54	41.93	8.13	19.46	83.59
MEAN	3.79	3.53	5.84	1.75	1.32	7.28	1.95	.95	1.40	.26	.63	2.79
MAX	24	31	61	6.4	8.8	57	13	4.0	5.4	.84	6.5	27
MIN	.22	.43	.96	.78	.28	1.2	.62	.32	.28	.19	.14	.23
AC-FT	233	210	359	108	76	447	116	59	83	16	39	166

CAL YR 1983	TOTAL	723.61	MEAN	1.98	MAX	61	MIN	.12	AC-FT	1440
WTR YR 1984	TOTAL	963.67	MEAN	2.63	MAX	61	MIN	.14	AC-FT	1910

16920500 AASU STREAM AT AASU

LOCATION.--Lat 14°17'51" S., long 170°45'30" W., Hydrologic Unit 20100001, on right bank at Aasu and 200 ft upstream from mouth.

DRAINAGE AREA.--1.03 mi².

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 1937: Drainage area. WSP 2137: 1959-60(P), 1961(M), 1962-65(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5 ft, by hand levels from high-tide mark.

REMARKS.--Records fair. Small diversion above station for domestic use. Recording rain gage located at station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years (water years 1960-84), 6.05 ft³/s (4,380 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 498 ft³/s Sept. 7, 1972, gage height, 5.16 ft, from rating curve extended above 20 ft³/s on basis of slope-area measurement at gage height 4.57 ft; minimum, 0.12 ft³/s Oct. 21, 23, 24, 27, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 404 ft³/s Dec. 27, gage height, 4.78 ft, no other peak above base of 180 ft³/s; minimum, 0.42 ft³/s Aug. 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	5.8	3.8	11	4.9	6.7	11	3.2	1.5	1.7	.74	4.6
2	5.5	4.9	2.8	8.8	3.8	6.4	7.0	3.2	1.6	1.7	.74	4.9
3	13	4.3	2.7	7.4	3.4	14	6.0	3.0	4.4	1.6	.72	5.5
4	15	3.8	2.4	6.4	3.2	13	5.0	3.4	14	1.5	.90	4.0
5	11	3.6	2.2	5.5	3.0	11	4.5	4.1	14	1.4	.80	3.4
6	9.8	3.2	2.2	4.6	2.8	9.5	3.7	3.4	6.7	1.4	.76	3.0
7	13	4.2	2.4	4.6	2.8	8.1	3.2	4.2	8.4	1.4	.76	3.0
8	8.8	3.4	3.0	3.8	2.7	7.8	3.0	2.8	6.4	1.3	1.1	3.0
9	9.2	2.8	2.5	3.4	2.4	6.7	3.1	2.5	5.2	1.3	.74	5.5
10	9.2	2.7	2.2	3.6	2.2	5.8	2.9	14	6.5	1.2	.68	4.6
11	7.0	2.5	2.1	3.3	2.7	5.2	3.2	6.7	6.4	1.2	.64	7.7
12	6.1	2.2	4.1	2.8	5.8	4.6	2.7	4.3	5.2	1.3	.64	8.8
13	5.2	2.1	5.2	3.2	3.4	4.0	2.6	3.4	4.9	1.2	.60	5.8
14	4.6	3.0	3.4	2.5	2.7	5.5	2.6	3.2	4.0	1.2	.56	4.6
15	4.6	2.7	3.0	2.4	2.2	7.3	2.5	3.0	3.6	1.2	.56	4.0
16	4.0	11	3.0	2.2	2.2	13	2.4	3.0	3.4	1.1	.52	3.8
17	3.6	6.1	3.2	2.2	11	9.2	2.3	2.8	3.2	1.1	.47	3.6
18	6.8	4.6	3.0	2.5	13	13	2.2	4.3	3.0	1.4	.47	3.2
19	15	3.8	2.5	3.0	9.5	9.0	5.0	2.7	2.8	1.2	.47	3.0
20	10	3.4	2.4	3.0	7.4	7.5	6.0	2.4	2.7	1.0	.47	2.8
21	7.4	3.0	2.2	3.2	12	6.5	14	2.7	2.5	1.0	.47	2.5
22	6.1	2.8	2.2	2.7	9.2	10	13	2.4	2.7	1.0	.47	2.4
23	5.8	2.8	2.2	2.2	9.0	18	7.5	2.2	3.0	1.0	.52	2.2
24	16	2.5	5.2	4.3	7.8	20	6.5	2.2	2.5	1.1	.47	2.2
25	14	2.4	7.6	6.6	6.7	28	6.0	2.2	2.1	.95	.63	1.9
26	11	2.2	18	7.0	5.8	40	5.0	1.9	3.1	.95	.47	1.8
27	9.5	2.1	45	7.4	7.6	37	4.5	1.8	2.5	1.6	2.8	2.2
28	8.4	2.1	24	4.3	13	25	4.3	1.8	1.9	.95	11	1.9
29	7.0	1.9	20	3.8	8.4	15	4.0	1.7	1.9	.81	4.6	1.7
30	6.4	5.4	15	3.8	---	12	3.6	1.9	1.8	.74	4.6	1.6
31	5.5	---	12	6.1	---	10	---	1.7	---	.74	4.7	---
TOTAL	265.6	107.3	211.5	137.6	170.6	388.8	149.3	102.1	131.9	37.24	44.07	109.2
MEAN	8.57	3.58	6.82	4.44	5.88	12.5	4.98	3.29	4.40	1.20	1.42	3.64
MAX	16	11	45	11	13	40	14	14	14	1.7	11	8.8
MIN	3.6	1.9	2.1	2.2	2.2	4.0	2.2	1.7	1.5	.74	.47	1.6
AC-FT	527	213	420	273	338	771	296	203	262	74	87	217

CAL YR 1983	TOTAL	1357.14	MEAN	3.72	MAX	45	MIN	.38	AC-FT	2690
WTR YR 1984	TOTAL	1855.21	MEAN	5.07	MAX	45	MIN	.47	AC-FT	3680

NOTE.--No gage-height record Mar. 18 to Apr. 27 and Aug. 2-16.

16931000 ATAULOMA STREAM AT AFAO

LOCATION.--Lat 14°20'10" S., long 170°48'02" W., Hydrologic Unit 20100001, on left bank at Afao, 100 ft upstream from highway bridge, and 300 ft upstream from mouth.

DRAINAGE AREA.--0.24 mi².

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 1937: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 20 ft, by hand levels from high-tide mark.

REMARKS.--Records good. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years (water years 1960-84), 1.44 ft³/s (1,040 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 815 ft³/s Oct. 28, 1979, gage height, 4.47 ft, from rating curve extended above 30 ft³/s; minimum, 0.04 ft³/s Oct. 24-26, 28-31, Nov. 1, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 475 ft³/s Dec. 27, gage height, 3.67 ft, no other peak above base of 180 ft³/s; minimum, 0.15 ft³/s Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	.33	.40	.87	.94	1.2	1.6	.69	.40	.33	.24	.36
2	1.6	.33	.30	.64	.74	1.1	1.3	.59	.44	.33	.24	.30
3	4.0	.33	.44	.54	.59	13	1.2	.59	1.4	.33	.27	.54
4	1.8	.30	.30	.44	.49	5.1	1.3	.87	3.3	.30	.30	.27
5	1.3	.30	.30	.36	.40	1.9	1.1	.80	4.2	.30	.27	.24
6	1.1	.27	.36	.36	.36	1.3	1.0	.64	1.6	.30	.24	.27
7	1.1	1.2	.30	.44	.36	1.0	.94	.69	4.9	.30	.30	.27
8	.74	.49	.36	.36	.36	5.0	.87	.64	1.6	.27	.36	.40
9	.80	.40	.30	.33	.33	3.5	.87	.59	1.1	.27	.27	1.7
10	.80	.33	.27	.44	.33	1.8	.94	7.1	1.3	.27	.24	.74
11	.59	.27	.27	.40	.44	1.2	.80	1.3	.94	.27	.24	8.2
12	.44	.33	.36	.30	3.8	1.2	.87	.94	.74	.30	.24	2.0
13	.40	.27	.36	.58	1.2	1.3	.80	.80	.74	.27	.24	1.0
14	.36	.55	.24	.33	.69	1.1	.74	.69	.59	.27	.21	3.1
15	.44	1.3	.24	.42	.64	2.2	1.0	.59	.59	.27	.21	1.4
16	.40	17	.24	.33	.59	4.9	.74	.64	.59	.61	.21	.87
17	.54	2.1	.33	.36	4.8	2.3	2.1	.64	.54	.33	.21	.69
18	2.5	.87	.27	.33	2.2	3.1	1.4	1.7	.54	.40	.21	.59
19	5.0	.80	.27	1.0	1.7	1.8	1.3	.80	.49	.33	.21	.54
20	2.1	.69	.27	.74	1.2	1.3	1.3	.59	.49	.30	.21	.49
21	1.2	.54	.24	.74	6.5	1.0	5.4	.59	.44	.30	.21	.40
22	.87	.49	.21	.59	1.9	7.1	4.6	.54	.44	.30	.21	.36
23	.64	.59	.21	.40	1.4	3.9	2.0	.49	.77	.30	.21	.33
24	.59	.40	.33	.72	1.3	7.1	2.1	.49	.49	.30	.21	.33
25	1.3	.40	.65	2.0	1.0	6.4	1.0	.59	.44	.27	.19	.33
26	.74	.36	7.8	.94	.87	18	.94	.49	.78	.27	.17	.30
27	.64	.33	29	2.4	1.9	13	.87	.44	.36	.30	.44	1.4
28	.64	.33	3.9	1.0	5.2	4.1	.80	.44	.36	.27	9.6	.59
29	.44	.33	1.3	.74	1.8	3.0	.69	.49	.36	.24	1.1	.40
30	.36	.54	.87	1.5	---	1.9	.87	.54	.33	.21	.40	.36
31	.36	---	.87	1.3	---	1.6	---	.44	---	.21	.51	---
TOTAL	39.09	32.77	51.56	21.90	44.03	122.4	41.44	27.43	31.26	9.32	18.17	28.77
MEAN	1.26	1.09	1.66	.71	1.52	3.95	1.38	.88	1.04	.30	.59	.96
MAX	5.3	17	29	2.4	6.5	18	5.4	7.1	4.9	.61	9.6	8.2
MIN	.36	.27	.21	.30	.33	1.0	.69	.44	.33	.21	.17	.24
AC-FT	78	65	102	43	87	243	82	54	62	18	36	57

CAL YR 1983	TOTAL	306.13	MEAN	.84	MAX	29	MIN	.15	AC-FT	607
WTR YR 1984	TOTAL	468.14	MEAN	1.28	MAX	29	MIN	.17	AC-FT	929

16931500 ASILI STREAM AT ALTITUDE 330 FT NEAR ASILI

LOCATION.--Lat 14°19'34" S., long 170°47'38" W., Hydrologic Unit 20100001, on right bank 1.3 mi northwest of Leone, 1.5 mi southwest of Aoloaufou, and 0.8 mi upstream from mouth.

DRAINAGE AREA.--0.32 mi².

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 330 ft, from topographic map.

REMARKS.--Records good. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 2.45 ft³/s (1,780 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 635 ft³/s, Oct. 28, 1980, gage height, 4.73 ft, from rating curve extended above 14 ft³/s; minimum, 0.20 ft³/s Aug. 16, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 460 ft³/s Oct. 9, gage height, 4.35 ft, no other peak above base of 205 ft³/s; minimum, 0.22 ft³/s Aug. 21-24, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	1.5	1.0	3.0	2.0	3.2	3.8	1.1	.71	.71	.37	1.2
2	5.9	1.4	.83	2.3	1.7	9.8	2.2	1.1	.84	.67	.40	1.5
3	7.5	1.4	2.2	2.0	1.4	9.4	2.0	1.0	1.8	.67	.37	1.8
4	6.2	1.2	1.0	1.7	1.3	8.4	1.9	1.2	4.0	.64	.46	1.2
5	4.5	1.2	.99	1.5	1.2	5.9	1.5	1.4	5.4	.61	.37	1.0
6	3.6	1.1	1.0	1.4	1.1	4.2	1.3	3.3	2.8	.64	.37	.99
7	3.6	1.3	1.1	1.4	1.1	3.2	1.2	1.5	4.5	.64	.43	.87
8	2.3	.99	1.2	1.2	.99	3.8	1.2	1.3	3.2	.61	.43	.92
9	3.1	.99	.99	1.2	.87	3.0	1.1	1.2	2.3	.58	.34	1.6
10	2.9	.87	.91	1.3	.83	2.3	1.2	8.6	2.8	.58	.34	.95
11	2.3	.83	.87	1.3	1.1	1.9	1.0	3.1	2.2	.58	.31	5.4
12	2.0	.91	2.2	1.0	3.9	1.8	1.4	2.3	1.9	.61	.31	3.1
13	1.7	.79	1.6	1.1	2.7	1.6	.95	1.8	1.7	.55	.31	2.5
14	1.5	1.6	1.2	.95	1.5	1.4	.95	1.6	1.2	.52	.31	3.2
15	1.5	1.4	1.2	.95	1.2	2.0	1.2	1.4	1.2	.52	.28	2.0
16	1.4	8.7	1.1	.87	1.2	4.6	.98	1.2	1.1	.58	.28	1.7
17	1.3	2.7	1.4	.97	4.1	3.0	.92	1.3	1.0	.52	.28	1.5
18	2.9	2.0	1.0	.95	2.9	4.4	.87	2.4	.95	.68	.28	1.3
19	5.7	1.7	.99	1.7	2.3	3.2	1.5	1.2	.91	.52	.25	1.2
20	3.1	1.5	.91	1.4	1.8	2.5	1.0	1.1	.87	.49	.25	1.1
21	2.3	1.3	.83	1.3	4.0	2.2	4.1	1.1	.83	.52	.22	.99
22	2.0	1.3	.83	1.1	2.7	5.8	6.0	.99	.83	.46	.22	.95
23	1.9	1.3	.83	.91	3.0	6.6	1.9	.95	1.4	.46	.25	.87
24	3.1	1.1	1.1	1.9	2.3	5.9	2.3	.91	1.1	.46	.25	.83
25	3.6	1.1	1.8	3.8	1.9	8.3	1.6	1.0	.79	.43	.34	.79
26	5.1	1.0	5.7	2.3	1.7	15	1.4	.83	1.7	.43	.25	.71
27	3.9	.95	28	2.8	3.0	16	1.3	.79	.99	.49	1.4	1.5
28	3.2	.91	11	1.7	7.9	8.4	1.2	.75	.83	.43	10	.87
29	2.4	.87	7.1	1.7	4.5	5.4	1.2	.81	.75	.40	2.8	.67
30	2.0	2.2	4.8	2.3	---	3.9	1.6	.92	.75	.37	1.3	.64
31	1.8	---	3.5	2.9	---	3.0	---	.75	---	.37	1.8	---
TOTAL	102.9	46.11	89.18	50.90	66.19	160.1	50.77	48.90	51.35	16.74	25.57	43.85
MEAN	3.32	1.54	2.88	1.64	2.28	5.16	1.69	1.58	1.71	.54	.82	1.46
MAX	8.6	8.7	28	3.8	7.9	16	6.0	8.6	5.4	.71	10	5.4
MIN	1.3	.79	.83	.87	.83	1.4	.87	.75	.71	.37	.22	.64
AC-FT	204	91	177	101	131	318	101	97	102	33	51	87

CAL YR 1983	TOTAL	544.62	MEAN	1.49	MAX	28	MIN	.22	AC-FT	1080
WTR YR 1984	TOTAL	752.56	MEAN	2.06	MAX	28	MIN	.22	AC-FT	1490

16933500 LEAFU STREAM AT ALTITUDE 370 FT, NEAR LEONE

LOCATION.--Lat 14°19'31" S., long 170°46'50" W., Hydrologic Unit 20100001, on left bank 900 ft upstream from village stream intake, 1.1 mi north of Leone, and 1.0 mi southwest of Aoloaufou.

DRAINAGE AREA.--0.31 mi².

PERIOD OF RECORD.--October 1977 to current year.

REVISED RECORDS.--WDR HI-79-2: 1978(P).

GAGE.--Water-stage recorder. Altitude of gage is 370 ft, from topographic map.

REMARKS.--Records good. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 4.47 ft³/s (3,240 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 370 ft³/s Mar. 17, 1981, gage height, about 6.4 ft, from rating curve extended above 48 ft³/s; minimum, 0.32 ft³/s Aug. 9, 1983, Aug. 21, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 27	1230	*342	6.12	Mar. 26	2330	227	4.97
Mar. 3	2000	161	4.31	Aug. 28	1030	194	4.64

Minimum discharge, 0.32 ft³/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	2.9	2.8	5.0	3.6	5.3	7.0	1.9	1.1	1.2	.62	2.8
2	14	2.5	2.0	4.0	3.0	4.9	4.2	1.8	1.1	1.2	.62	3.2
3	17	2.4	3.9	3.2	2.8	16	3.7	1.7	1.8	1.2	.56	3.5
4	13	2.0	2.1	2.8	2.5	15	3.4	1.7	5.7	1.1	.74	2.4
5	8.1	1.8	1.9	2.4	2.4	9.5	2.8	2.4	7.4	1.1	.66	2.2
6	6.6	1.8	1.9	2.2	2.0	7.0	2.5	2.9	4.3	1.1	.62	2.0
7	6.0	1.7	2.6	2.2	2.1	5.4	2.3	2.4	6.8	1.1	.66	1.9
8	4.7	1.6	2.3	1.8	1.9	4.6	2.1	1.9	4.9	.98	.86	1.9
9	5.2	1.5	1.9	1.8	1.7	4.2	2.0	1.7	4.1	.94	.56	5.0
10	4.7	1.4	1.8	1.8	1.6	3.4	2.1	8.4	5.5	.94	.52	2.4
11	3.8	1.3	1.7	1.8	2.0	3.1	1.8	3.9	4.3	.98	.52	9.4
12	3.3	1.4	6.0	1.4	6.4	3.0	2.3	3.1	3.5	.98	.52	5.4
13	2.9	1.2	4.0	1.5	2.7	2.5	1.7	2.8	3.4	.90	.48	3.8
14	2.7	2.6	2.7	1.3	2.0	3.2	1.7	2.4	2.7	.90	.45	3.3
15	2.5	1.8	2.3	2.3	1.8	5.4	1.9	2.3	2.5	.86	.45	2.8
16	2.2	12	2.2	1.4	1.7	9.0	1.6	2.2	2.2	.86	.42	2.4
17	2.0	3.4	2.4	1.4	10	5.0	1.6	2.0	2.1	.82	.42	2.2
18	4.2	2.5	2.0	1.8	10	7.9	1.4	3.8	1.9	1.1	.42	1.9
19	11	2.4	1.8	3.0	6.8	5.4	5.6	2.0	1.8	.86	.39	1.8
20	5.5	2.2	1.7	2.9	5.1	4.5	2.8	1.8	1.7	.82	.39	1.6
21	4.3	2.0	1.6	2.2	9.0	3.9	9.4	1.7	1.6	.90	.36	1.5
22	3.6	1.9	1.6	1.8	5.4	7.6	8.7	1.6	1.6	.78	.39	1.4
23	3.5	1.9	1.4	1.6	5.4	13	4.8	1.5	2.4	.74	.42	1.3
24	7.6	1.7	2.5	3.5	4.2	14	4.4	1.4	1.6	.74	.42	1.2
25	6.3	1.6	3.9	5.3	3.6	22	3.4	1.5	1.7	.74	.60	1.2
26	8.0	1.5	15	3.8	3.2	38	2.9	1.3	3.3	.70	.39	1.1
27	5.9	1.4	45	4.8	5.3	36	2.7	1.2	1.8	.74	2.6	2.2
28	5.6	1.3	26	3.1	14	21	2.4	1.2	1.4	.66	23	1.4
29	4.3	1.2	16	3.1	6.1	13	2.2	1.2	1.4	.62	5.3	1.1
30	3.6	7.6	9.2	3.0	---	8.5	2.2	1.3	1.3	.62	3.1	.98
31	3.1	---	6.5	5.3	---	6.2	---	1.2	---	.59	3.3	---
TOTAL	199.2	72.5	178.7	83.5	128.3	307.5	97.6	68.2	86.9	27.77	50.76	75.28
MEAN	6.43	2.42	5.76	2.69	4.42	9.92	3.25	2.20	2.90	.90	1.64	2.51
MAX	24	12	45	5.3	14	38	9.4	8.4	7.4	1.2	23	9.4
MIN	2.0	1.2	1.4	1.3	1.6	2.5	1.4	1.2	1.1	.59	.36	.98
AC-FT	395	144	354	166	254	610	194	135	172	55	101	149

CAL YR 1983	TOTAL	1051.49	MEAN	2.88	MAX	45	MIN	.36	AC-FT	2090
WTR YR 1984	TOTAL	1376.21	MEAN	3.76	MAX	45	MIN	.36	AC-FT	2730

16948000 AFUELO STREAM AT MATUU

LOCATION.--Lat 14°18'07" S., long 170°41'07" W., Hydrologic Unit 20100001, on left bank 0.2 mi northwest of Matuu and 0.3 mi upstream from mouth.

DRAINAGE AREA.--0.25 mi².

PERIOD OF RECORD.--March 1958 to current year. Prior to July 1960, published as Matuu Stream at Matuu.

REVISED RECORDS.--WSP 1937: Drainage area. WSP 2137: 1958-65.

GAGE.--Water-stage recorder. Altitude of gage is 80 ft, from topographic map.

REMARKS.--Records fair. Small diversion above station for domestic use since September 1972. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 1.45 ft³/s (1,050 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 502 ft³/s Apr. 29, 1975, gage height, 4.59 ft, from rating curve extended above 26 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.01 ft³/s Sept. 16, 17, 20-26, 28, 29, 1975, Apr. 5-7, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 27	1400	*324	3.82
Mar. 27	0200	285	3.63

Minimum discharge, 0.02 ft³/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.24	.46	.50	1.4	.28	.70	.17	.06	.08	.06	.08
2	.55	.20	.17	.36	.59	.28	.50	.23	.07	.09	.05	1.5
3	4.4	1.9	.26	.23	.33	12	.50	.17	1.6	.06	.06	2.0
4	1.2	.51	.11	.19	.23	3.5	.42	.17	5.5	.06	.13	.35
5	.25	.33	.25	.16	.79	2.0	.33	.25	3.6	.06	.08	.21
6	.21	.14	.84	.16	.36	1.2	.30	.25	.70	.05	.07	.16
7	1.1	.13	.83	.21	.21	.75	.17	.68	2.0	.07	.06	.14
8	.39	.08	2.5	.14	.28	.67	.17	.23	.75	.04	.55	.14
9	.70	.09	.91	.11	.17	4.2	.19	.16	.28	.08	.11	12
10	.60	.09	.26	.16	.16	1.5	.17	4.9	.52	.06	.07	2.4
11	.21	.14	.14	.98	.17	.60	.17	.85	.60	.08	.06	8.1
12	.14	.08	.40	.21	.42	.66	.19	.30	.28	.06	.81	3.2
13	.09	.06	.48	.17	.17	.60	.16	.16	.17	.05	.13	1.7
14	.08	.33	.25	.11	.13	.42	.14	.14	.13	.04	.08	1.3
15	.09	.19	.13	.65	.11	2.9	.14	.11	.10	.06	.06	.55
16	.29	16	.11	.25	.11	5.1	.16	.11	.09	.70	.06	.30
17	.28	1.8	.23	.16	.30	1.4	.55	.13	.09	.10	.05	.21
18	4.5	1.4	.14	.14	.11	6.9	.17	.96	.10	.17	.05	.14
19	6.2	1.3	.11	.19	.21	2.1	.69	.21	.09	.08	.05	.16
20	1.7	.75	.13	1.3	.37	.91	.89	.13	.08	.07	.04	.11
21	.50	.36	.07	1.2	1.4	.55	5.1	.09	.08	.05	.03	.09
22	.25	.21	.08	1.4	.42	.67	5.9	.08	.08	.05	.03	.08
23	.19	.25	.07	.46	.17	1.8	.70	.08	.29	.06	.04	.08
24	4.8	.14	7.3	2.0	.13	5.4	.69	.07	.11	.05	.04	.09
25	1.5	.14	2.9	1.7	.09	13	.33	.08	.09	.06	.11	.06
26	.75	.11	24	.65	.08	22	.25	.07	.75	.06	.04	.07
27	.33	.09	24	4.8	.59	37	.23	.05	.25	.44	3.0	.10
28	.25	.08	4.4	.75	3.8	5.1	.41	.05	.10	.11	18	.06
29	.16	.08	7.5	.36	.85	2.1	.23	.06	.08	.06	2.5	.04
30	.10	1.1	1.7	1.1	---	1.1	.19	.07	.08	.04	1.0	.03
31	.09	---	.75	3.2	---	.80	---	.07	---	.06	1.5	---
TOTAL	32.70	28.32	81.48	24.00	14.15	137.49	20.74	11.08	18.72	3.10	28.92	35.45
MEAN	1.05	.94	2.63	.77	.49	4.44	.69	.36	.62	.10	.93	1.18
MAX	6.2	16	24	4.8	3.8	37	5.9	4.9	5.5	.70	18	12
MIN	.08	.06	.07	.11	.08	.28	.14	.05	.06	.04	.03	.03
AC-FT	65	56	162	48	28	273	41	22	37	6.1	57	70

CAL YR 1983	TOTAL	293.59	MEAN	.80	MAX	26	MIN	.02	AC-FT	582
WTR YR 1984	TOTAL	436.15	MEAN	1.19	MAX	37	MIN	.03	AC-FT	865

16963900 LEAFU STREAM NEAR AUASI

LOCATION.--Lat 14°16'27" S., long 170°34'26" W., Hydrologic Unit 20100001, on right bank 35 ft upstream from upper village intake, 0.1 mi north of Auasi, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--0.11 mi².

PERIOD OF RECORD.--February 1972 to current year.

REVISED RECORDS.--WDR HI-75-1: 1972(P), 1973-74.

GAGE.--Water-stage recorder. Altitude of gage is 120 ft, from topographic map.

REMARKS.--Records fair. No diversion above station. Periodic determinations of water temperature for the current year are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 0.33 ft³/s (239 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 234 ft³/s Dec. 5, 1980, gage height, 4.43 ft, from recorded range in stage, from rating curve extended above 19 ft³/s; minimum, 0.02 ft³/s several days in 1976 and many days in 1983, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec. 27	1500	48	2.57
Jan. 22	0900	*62	2.77
Apr. 22	0230	44	2.50

Minimum discharge, 0.02 ft³/s for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.11	.39	.23	.05	.07	.11	.06	.03	.04	.02	.03
2	.04	.13	.17	.13	.04	.77	.11	.05	.03	.03	.02	.04
3	.11	.17	.11	.08	.04	.66	.11	.05	.11	.03	.02	.06
4	.05	.09	.07	.07	.04	.36	.07	.06	.15	.03	.02	.04
5	.04	.05	.07	.06	.04	.46	.07	.40	.11	.03	.02	.04
6	.08	.04	.07	.04	.04	.21	.12	.20	.07	.03	.02	.04
7	.09	.04	.07	.05	.04	.11	.06	.17	.15	.03	.02	.04
8	.04	.04	.11	.04	.04	.21	.06	.11	.09	.03	.02	.07
9	.03	.04	.11	.04	.04	.11	.06	.08	.06	.03	.02	2.0
10	.03	.04	.14	.04	.04	.08	.06	.11	.05	.03	.02	.41
11	.04	.04	.17	.04	.04	.06	.07	.08	.05	.03	.02	2.1
12	.04	.04	.19	.03	.04	.07	.04	.07	.05	.03	.03	.39
13	.04	.04	.26	.03	.04	.06	.04	.06	.05	.03	.03	.11
14	.04	.07	.15	.03	.04	.06	.04	.06	.04	.03	.03	.06
15	.04	.08	.11	.03	.04	.08	.04	.05	.04	.03	.03	.04
16	.04	1.7	.08	.03	.04	.13	.04	.05	.04	.03	.03	.04
17	.04	.17	.08	.14	.04	.09	.04	.06	.04	.03	.03	.04
18	.14	.09	.07	.26	.04	.45	.04	.11	.04	.04	.03	.03
19	.34	.17	.07	.08	.04	.43	.04	.06	.05	.03	.03	.03
20	.17	.08	.07	.83	.06	.17	.11	.05	.05	.03	.03	.03
21	.11	.05	.07	.47	.04	.11	.50	.05	.05	.03	.03	.03
22	.11	.04	.08	2.8	.04	.08	2.6	.05	.07	.03	.03	.03
23	.11	.04	.11	.36	.04	.07	.21	.04	.09	.03	.03	.03
24	.15	.04	.13	.24	.03	.06	.13	.04	.05	.03	.03	.03
25	.13	.04	.37	.17	.03	.76	.08	.04	.08	.03	.04	.03
26	.28	.04	1.0	.09	.03	2.7	.07	.04	.07	.03	.04	.03
27	.13	.04	3.5	.08	.09	3.9	.08	.04	.04	.03	.05	.03
28	.09	.03	.47	.06	.46	.61	.07	.04	.04	.03	.03	.03
29	.08	.03	.76	.05	.21	.26	.07	.05	.03	.03	.03	.03
30	.09	.59	.87	.04	---	.17	.06	.05	.04	.03	.03	.03
31	.11	---	.53	.08	---	.13	---	.04	---	.02	.03	---
TOTAL	2.87	4.17	10.45	6.72	1.80	13.49	5.20	2.42	1.86	.94	.86	5.94
MEAN	.093	.14	.34	.22	.062	.44	.17	.078	.062	.030	.028	.20
MAX	.34	1.7	3.5	2.8	.46	3.9	2.6	.40	.15	.04	.05	2.1
MIN	.03	.03	.07	.03	.03	.06	.04	.04	.03	.02	.02	.03
AC-FT	5.7	8.3	21	13	3.6	27	10	4.8	3.7	1.9	1.7	12

CAL YR 1983	TOTAL	36.13	MEAN	.10	MAX	3.5	MIN	.02	AC-FT	72
WTR YR 1984	TOTAL	56.72	MEAN	.15	MAX	3.9	MIN	.02	AC-FT	113

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of base flow or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations and the second is a table of low-flow measurements made at miscellaneous sites.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1984

Station No.	Station name	Location	Drainage area mi²	Period of record	Measurements: Date	Measurements: Discharge (ft³/s)
		Mariana Islands, Island of Saipan				
1680000	Denni Spring	Lat 15°11'48" N., long 145°45'52" E., 2.8 mi southeast of Tanapag, 3.1 mi east of Garapan, and 5.6 mi northeast of Chalan Kanoa.	-	1952-54≠, 1968-83≠, 1984	11-28-83 1- 5-84 2-22-84 3-28-84 5- 2-84 6-15-84 8- 5-84	0.52 .27 .25 .15 .17 .08 .70
		Caroline Islands, Palau Islands				
*16891700	Unnamed west coast stream, Ngerekebesang	Lat 07°21'14" N., long 134°27'10" E., 50 ft downstream from reservoir, 200 ft upstream from mouth, and 0.25 mi northwest of Ngerekesang Village community center.	.02	1970-79 1982, 1984	3-24-84	.05
*16891750	Unnamed south coast stream, Ngerekebesang	Lat 07°20'42" N., long 134°26'54" E., at Echang Village, 200 ft upstream from mouth and 0.5 mi southeast of Ngerekebesang Village community center.	.02	1970-79, 1981-82, 1984	3-24-84	.08
		Caroline Islands, Yap Islands				
16892600	Ripu Stream, Yap	Lat 09°30'10" N., long 138°06'24" E., 300 ft upstream from mouth and 0.3 mi southwest of Gitaem water-treatment plant.	.29	1968-84	11- 3-83	.38
16892650	Dinaey Stream, Yap	Lat 09°30'32" N., long 138°06'15" E., at upper Gitaem Reservoir, 0.4 mi northwest of water-treatment plant.	.04	1980-84	11- 3-83	.13
16892680	Tholomar Stream above reservoir, Yap	Lat 09°30'37" N., long 138°06'18" E., about 500 ft upstream from upper Gitaem Reservoir and 1.4 mi southwest of Colonia.	.10	1965≠, 1968-74≠, 1980-84	11- 3-83	.27
*16893180	Monguch Stream, Gagil-Tamil	Lat 09°31'59" N., long 138°09'57" E., 0.7 mi northeast of Tamel Elementary School and 1.0 mi south of Coast Guard LORAN station.	.18	1980-84	11- 1-83 3-21-84	.38 .28
16893190	Dorfay Stream, Gagil-Tamil	Lat 09°32'08" N., long 138°10'13" E., 0.2 mi upstream from mouth and 0.9 mi northeast of Tamilang Elementary School.	.20	1981-84	11- 1-83	.16
*16893500	Qamin Stream, Maap	Lat 09°35'57" N., long 138°10'15" E., 0.25 mi southeast of Qamin and 0.8 mi upstream from mouth.	.19	1980-81, 1984	3-21-84	.05

* Also a water-quality partial-record station.
≠ Operated as a continuous-record gaging station.
≠ At station 16892700, 800 ft downstream.

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station No.	Station name	Location	Drainage area mi²	Period of record	Measurements Date	Measurements Discharge (ft³/s)
		Caroline Islands, Island of Ponape				
*16898300	Dauen Neu River	Lat 06°56'47" N., long 158°11'55" E. 0.48 mi southwest of Ponape Island Central School and 1.7 mi upstream from bridge at mouth.	0.75	1970-75≠, 1975-76, 1981-82, 1984	11-23-83	22.8
					11-30-83	8.79
					1-25-84	10.5
					3-15-84	1.24
					4- 9-84	2.22
					5-15-84	.33
					5-24-84	.61
					7- 9-84	4.06
					7-24-84	2.55
					8-31-84	5.16
					9-26-84	4.81
*16898500	Nankewi River	Lat 06°56'03" N., long 158°10'46" E., at highway bridge 350 ft west of Sekere School.	1.48	1971-73, 1975-77, 1981-84	1-26-84	23.5
*16898550	Kiriedleng River	Lat 06°55'17" N., long 158°09'48" E., at small right-bank tributary, 300 ft downstream from road bridge, and 1.4 mi northwest of Mount Temwetemwensekir.	.73	1972-73, 1975-77, 1981-84	1-26-84	8.49
*16898900	Keprohi River	Lat 06°50'40" N., long 158°17'57" E., 150 ft upstream from road bridge and 0.46 mi northeast of Ponape Agriculture Trade School.	2.05	1981-84	1-26-84	17.6
		Samoa Islands, Island of Tutuila				
16917500	Leele Stream at mouth at Fagasa	Lat 14°17'28" S., long 170°43'09" W., on left bank at Fagasa and 200 ft upstream from mouth.	.23	1966-76≠, 1977, 1981-84	8-17-84	.08
16932000	Asili Stream near Asili	Lat 14°19'46" S., long 170°47'42" W., 0.4 mi north of Asili and 0.5 mi upstream from mouth.	.55	1959-61, 1963-65, 1968, 1970, 1974-77, 1981-84	8-22-84	.11
16932500	Asili Stream at Asili	Lat 14°20'04" S., long 170°47'40" W., 100 ft upstream from highway bridge at Asili and 0.1 mi upstream from mouth.	.66	1958-59≠, 1960-61, 1963-65, 1967-69, 1974-77, 1981-84	8-22-84	.30
16934000	Leafu Stream near Leone	Lat 14°19'47" S., long 170°46'55" W., 30 ft upstream from reservoir, 0.9 mi upstream from mouth, and 1.0 mi north of Leone.	.69	1959-64, 1968-69, 1971-74, 1976-77, 1981-84	8-21-84	.56
16944000	Papa Stream near Nuuuli	Lat 14°18'31" S., long 170°42'29" W., 0.3 mi upstream from Tauese Stream and 0.9 mi northwest of Nuuuli.	.57	1959-61, 1963-64, 1967-68, 1974-78, 1981-84	8-21-84	.07
16960000	Alega Stream at Alega	Lat 14°16'58" S., long 170°38'19" W., on left bank 300 ft upstream from left-bank tributary, 0.2 mi northwest of Alega, and 0.3 mi upstream from mouth.	.19	1958-76≠, 1977-78, 1981-84	8-17-84	.27

* Also a water-quality partial-record station.
≠ Operated as a continuous-record gaging station.

DISCHARGE MEASUREMENTS MADE AT MISCELLANEOUS SITES DURING WATER YEAR 1984

Stream	Tributary to	Location	Drainage area mi²	Measured previously (water years)	Measurements Date	Measurements Discharge (ft³/s)
		Caroline Islands, Island of Ponape				
Pwadapwad River	Lehn Mesi River	Lat 06°50'03" N., long 158°10'07" E., 0.77 mi above confluence with Lehn Mesi River and 1,200 ft northeast of Church at Nan Paremwed Village.	0.35		1-27-84	1.66
Pahlap River	Pacific Ocean	Lat 06°51'00" N., long 158°17'40" E., at highway bridge 0.95 mi northwest of Ponape Agriculture Trade School.	.67		1-26-84	4.82

Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAROLINE ISLANDS, PALAU ISLANDS

16891700 UNNAMED WEST COAST STREAM, NGEREKEBESANG

LOCATION.--Lat 07°21'14" N., long 134°27'10" E., Hydrologic Unit 20100006, 50 ft downstream from reservoir, 200 ft upstream from mouth, and 0.25 mi northwest of Ngerekesang Village community center.

DRAINAGE AREA.--0.02 mi².

PERIOD OF RECORD.--Water years 1970-79, 1982, current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR 24...	1500	.05	103	7.1	28.0	36	1	9.6	3.0	6.9	29	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 24...	.30	35	1.9	9.9	<.10	23	76	.10	.12	55	3

16891750 UNNAMED SOUTH COAST STREAM, NGEREKEBESANG

LOCATION.--Lat 07°20'42" N., long 134°26'54" E., Hydrologic Unit 20100006, at Echang Village, 200 ft upstream from mouth, and 0.5 mi southeast of Ngerekebesang Village community center.

DRAINAGE AREA.--0.02 mi².

PERIOD OF RECORD.--Water years 1970-79, 1981-82, current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR 24...	1550	.08	45	6.9	27.0	12	0	2.3	1.4	4.1	43	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 24...	.20	12	2.6	5.5	<.10	17	40	.05	<.10	150	12

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAROLINE ISLANDS, YAP ISLANDS

16893180 MONGUCH STREAM, GAGIL-TAMIL

LOCATION.--Lat 09°31'59" N., long 138°09'57" E., Hydrologic Unit 20100006, 0.7 mi northeast of Tamel Elementary School and 1.0 mi south Coast Guard LORAN station.

DRAINAGE AREA.--0.18 mi².

PERIOD OF RECORD.--Water years 1980 to current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR 21...	0915	.30	33	5.3	26.5	4	2	.61	.61	4.2	69	.9

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 21...	.10	2.0	3.4	7.1	<.10	4.5	22	.03	<.10	110	48

16893500 QAMIN STREAM, MAAP

LOCATION.--Lat 09°35'57" N., long 138°10'15" E., Hydrologic Unit 20100006, 0.25 mi southeast of Qamin and 0.8 mi upstream from mouth.

DRAINAGE AREA.--0.19 mi².

PERIOD OF RECORD.--Water years 1980-81, current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR 21...	1335	.05	148	7.5	27.5	43	10	6.4	6.6	11	35	.7

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 21...	.30	33	12	15	<.10	20	91	.12	.18	230	27

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAROLINE ISLANDS, ISLAND OF PONAPE

16898300 DAUEN NEU RIVER

LOCATION.--Lat 06°56'47" N., long 158°11'55" E., Hydrologic Unit 20100006, 0.48 mi southwest of Ponape Island Central School and 1.7 mi upstream from bridge at mouth.

DRAINAGE AREA.--0.75 mi².

PERIOD OF RECORD.--Water years 1970-76, 1981-82, current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
JAN 25...	1000	10	84	6.6	24.0	35	14	9.1	3.1	3.1	16	.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 25...	.10	22	5.9	4.4	<.10	7.6	47	.06	5.2	39	12

16898500 NANKEWI RIVER

LOCATION.--Lat 06°56'03" N., long 158°10'46" E., Hydrologic Unit 20100006, at highway bridge 350 ft west of Sekere School.

DRAINAGE AREA.--1.48 mi².

PERIOD OF RECORD.--Water years 1971-73, 1975-77, 1981 to current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
JAN 26...	1100	24	6.8	26.0	20	2	5.4	1.7	3.0	24	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 26...	.40	19	3.1	4.0	<.10	12	41	.06	.24	98	8

< Actual value is known to be less than the value shown.

16898550 KIRIEDLENG RIVER

LOCATION.--Lat 06°55'17" N., long 158°09'48" E., Hydrologic Unit 20100006, at small right-bank tributary, 300 ft downstream from road bridge, and 1.4 mi northwest of Mount Temwetemwensekir.

DRAINAGE AREA.--0.73 mi².

PERIOD OF RECORD.--Water years 1972-73, 1975-77, 1981 to current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM
JAN 26...	1000	8.5	37	6.4	25.5	14	0	3.0	1.6	2.9	31

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 26...	.3	.20	15	2.0	3.9	<.10	13	36	.05	46	5

16898900 KEPROHI RIVER

LOCATION.--Lat 06°50'40" N., long 158°17'57" E., Hydrologic Unit 20100006, 150 ft upstream from road bridge and 0.46 mi northeast of Ponape Agriculture Trade School.

DRAINAGE AREA.--2.05 mi².

PERIOD OF RECORD.--Water years 1981 to current year.

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
JAN 26...	1440	18	6.9	27.0	15	0	2.6	2.1	2.9	29	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 26...	.20	16	1.6	4.1	<.10	11	34	.05	.11	55	3

< Actual value is known to be less than the value shown.

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAROLINE ISLANDS, PALAU ISLANDS

16891190 NGERIMEL RESERVOIR, BABELTHUAP (LAT 07°22'00" N., LONG 134°32'08" E.)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 24...	1240	69	7.5	30.5	25	0	5.1	2.9	4.2	27	.4

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 24...	.30	27	1.7	4.6	<.10	19	54	.07	<.10	140	2

16891300 EDENG RIVER, BABELTHUAP (LAT 07°23'00" N., LONG 134°33'07" E.)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 24...	1155	17	74	7.7	26.5	28	0	5.8	3.3	4.1	24	.3

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 24...	.20	30	2.2	4.3	<.10	20	58	.08	<.10	170	7

16891780 UNNAMED NORTH COAST STREAM, MALAKAL (LAT 07°19'51" N., LONG 134°27'33" E.)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 24...	1405	.03	83	7.1	27.0	30	10	7.8	2.6	5.8	29	.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 24...	.60	20	7.1	7.9	<.10	15	59	.08	.33	110	23

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAROLINE ISLANDS, PALAU ISLANDS--Continued

16891800 ELODESACHEL SPRING, KOROR (LAT 07°20'44" N., LONG 134°31'04" E.)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR 24...	1315	.30	135	7.9	26.0	60	0	18	3.6	4.7	15	.3

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 24...	.20	59	6.4	5.3	<.10	20	94	.13	<.10	450	28

CAROLINE ISLANDS, YAP ISLANDS

093144138054470 MAGAF STREAM, YAP (LAT 09°31'44" N., LONG 138°05'44" E.)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD-SORP-TION RATIO
MAR 22...	1040	E.01	262	7.0	26.0	120	3	24	14	9.2	15	.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAR 22...	.30	115	5.0	13	<.10	27	160	.22	.31	960	430

< Actual value is known to be less than the value shown.
E Estimated value.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CAROLINE ISLANDS, TRUK ISLANDS

16896800 CHUN STREAM, DUBLON (LAT 07°22'30" N., LONG 151°51'43" E.)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM
FEB 28...	1100	95	6.9	27.5	33	0	6.2	4.3	5.1	25

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)
FEB 28...	.4	.40	37	2.1	6.2	<.10	21	68	.09	<.10

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
FEB 28...	70	<1	<100	<10	<1	10	<1	4	1000	100

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FEB 28...	1	<10	85	<.1	<1	6	<1	<1	10

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MARIANA ISLANDS, ISLAND OF SAIPAN

16801000 - SF TALOFOFO STREAM, SAIPAN (LAT 15 12 58 LONG 145 46 31)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
18...	1505	.44	27.5	26.0
NOV				
22...	1015	.42	27.5	26.5
JAN , 1984				
05...	1030	.06	28.5	25.0
AUG				
02...	1450	1.3	--	26.0

MARIANA ISLANDS, ISLAND OF GUAM

16809600 - LA SA FUA RIVER NEAR UMATAC, GUAM (LAT 13 18 23 LONG 144 39 45)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1983				
09...	1300	2.3	28.0	27.0
DEC				
14...	1200	1.6	28.0	27.0
JAN , 1984				
13...	1225	.97	28.5	27.5
FEB				
22...	1405	.84	28.5	27.5
MAR , 1984				
19...	1055	.60	28.5	27.0
APR				
24...	1305	.55	28.5	27.0
MAY				
16...	1430	.54	29.0	27.0

16840000 - TINAGA RIVER NR INARAJAN, GUAM (LAT 13 17 10 LONG 144 45 04)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1983				
10...	1600	3.7	27.5	26.0
DEC				
12...	1335	3.1	28.5	27.5
JAN , 1984				
11...	1340	2.1	28.5	27.5
FEB				
21...	1405	1.1	28.0	27.0
MAR				
14...	1500	.73	28.5	27.5
APR				
10...	1145	.61	29.0	27.0
MAY , 1984				
14...	1225	.68	29.0	27.0
JUN				
19...	1225	2.5	28.5	27.0
JUL				
10...	1235	1.1	29.0	27.5
AUG				
15...	1620	6.2	27.0	25.0
SEP				
13...	1215	4.5	27.0	25.0

16847000 - IMONG RIVER NR AGAT, GUAM (LAT 13 20 17 LONG 144 41 55)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
12...	1005	3.8	28.5	27.0
NOV				
16...	1240	55	26.5	25.5
DEC				
19...	1050	5.9	28.5	27.0
JAN , 1984				
16...	1110	3.1	29.0	27.0
APR , 1984				
03...	1145	2.0	29.0	27.5
26...	1210	1.6	28.5	27.0
MAY				
22...	1205	1.8	28.5	27.0
SEP				
14...	1125	11	27.5	26.5

16848100 -ALMAGOSA RIVER NEAR AGAT, GUAM (LAT 13 20 43 LONG 144 41 36)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1983				
16...	1525	17.6	27.0	25.5
DEC				
19...	1240	1.21	29.0	26.0
JAN , 1984				
16...	1240	.92	29.0	27.0
FEB				
28...	1205	.60	27.5	26.5
APR				
03...	1335	.37	29.0	27.5
APR , 1984				
26...	1320	.32	28.5	27.0
MAY				
22...	1410	.24	28.5	27.0
JUL				
06...	1120	.50	27.5	27.0
SEP				
14...	1335	3.34	27.5	26.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MARIANA ISLANDS, ISLAND OF GUAM--Continued

16848500 - MAULAP RIVER NEAR AGAT, GUAM (LAT 13 21 14 LONG 144 41 44)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
12...	1325	2.1	30.5	28.0
NOV				
16...	1020	8.0	26.5	25.5
DEC				
19...	1415	2.6	28.5	26.5
JAN , 1984				
16...	1340	1.5	29.0	27.0
APR				
03...	1550	.65	29.0	27.5
26...	1515	.56	28.5	27.0
MAY , 1984				
22...	1550	.60	28.5	27.0
JUL				
06...	1410	1.2	29.5	27.5
AUG				
14...	1100	1.8	--	26.0
SEP				
14...	1535	3.3	27.5	26.5

16854500 - UGUM RIVER AB TALOFOFO FALLS,NR TALOFOFO, GUAM (LAT 13 19 16 LONG 144 44 01)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1983				
08...	1130	22	28.5	27.0
DEC				
13...	1105	19	28.5	27.5
JAN , 1984				
17...	1035	12	28.5	27.0
FEB				
22...	1105	7.6	28.0	27.0
MAR				
14...	1210	7.1	29.0	28.0
APR , 1984				
24...	1540	4.9	29.0	28.0
MAY				
15...	1310	5.6	28.5	27.0
JUN				
21...	1505	7.9	29.0	27.5
JUL				
11...	1150	4.8	29.5	27.0
SEP				
26...	1405	48	27.5	26.0

16858000 - YLIG RIVER NR YONA, GUAM (LAT 13 23 28 LONG 144 45 06)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1983				
07...	1400	24	28.0	27.0
DEC				
13...	1420	14	28.5	27.5
JAN , 1984				
11...	1535	9.1	28.5	27.5
FEB				
21...	1215	3.8	28.0	27.0
MAR				
15...	1340	2.1	28.5	27.0
APR , 1984				
10...	1450	1.1	29.0	27.0
MAY				
14...	1545	.67	29.0	27.0
JUN				
19...	1405	21	28.5	27.0
JUL				
10...	1410	9.8	29.0	27.0

CAROLINE ISLANDS, YAP ISLANDS

16893100 - BURONG STREAM, YAP, YAP ISLANDS (LAT 09 32 05 LONG 138 07 19)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
07...	1020	1.8	28.0	26.0
NOV				
01...	1350	.05	27.5	27.0
24...	1025	3.9	27.0	26.0
DEC				
14...	1020	.17	26.5	26.0
JAN , 1984				
17...	1345	.10	27.5	26.0
FEB				
29...	1045	1.3	26.5	25.0
MAR , 1984				
12...	1420	.31	27.5	26.5
JUN				
28...	0915	.13	27.0	25.5
AUG				
13...	0905	1.2	26.5	25.5
31...	1100	1.1	27.0	26.5
SEP				
25...	1355	.40	28.5	26.0

CAROLINE ISLANDS, TRUK ISLANDS

16893800 - WICHEN RIVER AT ALT 18M, MOEN, TRUK ISLANDS (LAT 07 27 01 LONG 151 51 56)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
FEB , 1984				
07...	1200	.39	28.0	27.0
MAR				
02...	1145	.47	--	28.0
13...	0915	2.4	--	26.0
JUN , 1984				
11...	1040	3.5	28.0	26.5

CAROLINE ISLANDS, ISLAND OF KOSRAE

16899620 - MELO RIVER, KOSRAE (LAT 05 20 30 LONG 162 58 33)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1983				
03...	1550	19	27.0	25.5
FEB , 1984				
01...	1615	12	27.5	26.0
MAR , 1984				
05...	1625	2.5	27.0	26.5
JUN				
07...	0930	23	27.0	26.5

16899750 - MALEM RIVER, KOSRAE (LAT 05 17 35 LONG 163 00 54)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1983				
01...	1620	11	28.0	26.0
JAN , 1984				
17...	1630	6.1	--	26.0
31...	1655	17	27.5	25.5
FEB				
13...	1140	5.5	27.5	26.0
27...	1630	6.9	27.5	26.0
MAR , 1984				
20...	1300	3.3	27.0	25.5
26...	1335	2.2	27.0	25.5
MAY				
23...	1145	3.1	--	26.5
JUN				
05...	1630	3.9	26.5	25.5
07...	1455	22	26.5	25.5

16899800 - TOFOL RIVER, KOSRAE (LAT 05 19 10 LONG 163 00 24)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
DEC , 1983				
01...	1410	11	28.0	26.0
04...	1605	9.4	27.0	25.5
JAN , 1984				
25...	1130	9.8	--	26.0
FEB				
01...	1000	12	26.5	25.5
14...	1000	9.5	--	25.5
FEB , 1984				
28...	1020	5.2	27.5	26.0
MAR				
19...	1005	3.5	27.0	25.5
27...	1625	1.5	26.0	25.5
MAY				
23...	1450	.81	--	26.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SAMOA ISLANDS, ISLAND OF TUTUILA

16912000 - PAGO STREAM AT AFONO, TUTUILA (LAT 14 16 03 LONG 170 39 02)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
04...	1425	2.2	25.0	24.0
13...	1215	.34	24.0	24.0
19...	1525	21	25.0	24.5
NOV				
08...	0950	.91	24.0	22.0
DEC				
01...	1035	5.7	25.0	24.0
19...	1500	1.0	25.0	23.0
JAN , 1984				
05...	0915	1.4	--	24.0
24...	0955	1.2	25.0	23.0
FEB				
10...	0835	.48	27.0	25.0
15...	0900	1.1	28.0	26.0
MAR , 1984				
15...	0935	2.8	26.0	24.0
APR				
25...	1325	1.2	26.0	24.0
MAY				
31...	1050	.34	26.0	24.5
JUN				
29...	0905	.48	25.0	23.0
JUL				
13...	0910	.23	26.0	24.0
AUG				
17...	1050	.18	24.0	22.0
30...	1025	.78	25.0	24.0
SEP				
12...	1005	6.9	26.0	24.0

16920500 - AASU STREAM AT AASU, TUTUILA (LAT 14 17 51 LONG 170 45 30)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
25...	0800	14	25.5	24.0
NOV				
29...	0825	1.9	26.0	25.0
JAN , 1984				
11...	0840	3.8	25.0	23.0
FEB				
08...	0920	2.8	25.0	23.0
MAR				
07...	0830	8.1	26.0	24.0
APR				
27...	0945	4.3	24.0	22.0
APR , 1984				
28...	0855	4.2	27.0	25.0
MAY				
22...	0845	2.4	26.0	24.0
JUL				
03...	0920	1.6	24.0	22.5
AUG				
16...	1210	.56	23.0	21.0
SEP				
28...	0830	1.9	26.0	24.0

16931000 - ATAULOMA STREAM AT AFAO, TUTUILA (LAT 14 20 10 LONG 170 48 02)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
04...	0810	1.8	26.0	24.0
26...	0920	.63	24.0	22.0
NOV				
09...	0820	.41	24.0	22.0
DEC				
02...	0735	.31	25.0	24.0
14...	0915	.24	27.0	25.0
JAN , 1984				
12...	1230	.30	24.0	22.0
20...	0815	.59	24.0	22.0
FEB				
22...	0915	1.9	26.0	24.0
MAR , 1984				
28...	1115	3.9	25.0	23.0
MAY				
04...	0920	.48	28.0	26.0
JUN				
12...	1010	.74	26.0	24.5
JUL				
18...	1025	.56	26.0	25.0
AUG				
24...	0850	.21	24.0	23.0
SEP				
05...	0920	.23	25.0	23.0

16931500 - ASILI STR AT ALT 330 FT (100M) NR ASILI,TUTUILA (LAT 14 19 34 LONG 170 47 38)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
NOV , 1983				
01...	0845	1.6	24.0	22.0
22...	0800	1.2	25.0	24.0
DEC				
08...	0910	.91	26.0	23.0
FEB , 1984				
01...	0840	1.9	24.0	22.0
MAR				
09...	0850	2.5	24.0	22.0
APR				
24...	0940	2.0	26.0	22.0
MAY , 1984				
30...	0950	.71	25.5	24.0
JUN				
13...	1030	2.0	26.0	24.0
JUL				
11...	0920	.50	24.0	23.0
AUG				
15...	0920	.28	24.0	22.0
SEP				
19...	0920	1.2	24.0	22.0

SAMOA ISLANDS, ISLAND OF TUTUILA--Continued

16933500 - LEAFU STR AT ALT 370 FT (113M) NR LEONE, TUTUILA (LAT 14 19 31 LONG 170 46 50)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
13...	0840	2.9	24.0	22.0
NOV				
02...	0815	2.7	24.0	22.0
18...	0810	2.6	26.0	24.0
DEC				
07...	1010	1.8	24.0	22.0
22...	0830	1.5	26.0	24.0
JAN , 1984				
17...	0955	1.5	24.0	22.0
31...	0900	4.5	25.0	23.0
APR				
11...	1040	1.9	24.0	22.0
MAY , 1984				
15...	1010	2.4	26.0	24.0
JUN				
21...	0930	1.6	25.0	24.0
JUL				
10...	1020	.94	24.0	23.0
25...	0935	.71	26.0	24.0
AUG				
21...	1015	.36	25.0	23.0
SEP				
25...	0930	1.2	24.0	22.0

16948000 - AFUELO STREAM AT MATUU, TUTUILA (LAT 14 18 07 LONG 170 41 07)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
19...	1305	10	25.0	24.0
NOV				
02...	1110	.15	24.0	22.0
22...	1110	.21	25.0	24.0
DEC				
14...	1200	.23	24.0	22.0
28...	1135	3.4	26.0	24.0
JAN , 1984				
19...	1310	.19	26.0	24.0
FEB				
02...	0910	.66	25.0	21.0
MAR				
13...	0820	.72	24.0	22.0
APR , 1984				
06...	0900	.27	24.0	22.0
24...	1210	.63	26.0	22.0
MAY				
30...	1230	.07	25.5	24.0
JUL				
06...	0915	.05	26.0	23.0
AUG				
14...	1010	.08	24.0	21.0
21...	1255	.04	25.0	23.0
SEP				
05...	1130	.21	25.0	23.0

16963900 - LEAFU STREAM NEAR AUASI, TUTUILA (LAT 14 16 27 LONG 170 34 26)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)
OCT , 1983				
19...	0825	.38	26.0	24.0
NOV				
08...	0735	.04	24.0	22.0
23...	0800	.05	26.0	24.0
DEC				
06...	0930	.07	26.0	25.0
09...	0910	.10	23.0	21.0
20...	1220	.08	24.0	22.0
29...	0835	.82	24.0	22.0
JAN , 1984				
19...	0925	.07	26.0	24.0
25...	1140	.14	26.0	24.0
APR , 1984				
26...	1115	.04	24.0	22.0
MAY				
10...	1125	.30	26.0	24.0
JUL				
05...	1020	.03	25.0	23.0
24...	0945	.02	26.0	24.0
AUG				
10...	0910	.02	24.0	22.0
SEP				
18...	0950	.03	24.0	22.0

MARIANA ISLANDS, ISLAND OF SAIPAN

151032145460370. Local number, 14-1045-09 Hakmang Well 78.

LOCATION.--Lat 15°10'22" N., long 145°45'51" E., Hydrologic Unit 20100006, 0.8 mi west-southwest of the Hakmang Communication station and 2.3 mi northeast of San Vicente Village. Owner: Government of the Northern Mariana Islands.

AQUIFER.--Tagpochau Limestone.

WELL CHARACTERISTICS.--Drilled artesian well, depth 369 ft, diameter 12 in.

DATUM.--Altitude of land-surface datum is 229 ft. Measuring point: Top of casing, about 230 ft above mean sea level.

PERIOD OF RECORD.--Water-level recorder, March 1973 to May 1976, March 1977 to September 1978, December 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.58 ft above mean sea level, Sept. 17, 1975; lowest, 18.40 ft above mean sea level, Aug. 24, 1982.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.09	19.15	19.17	19.06	19.22	19.21	19.21	19.24	19.27	19.29	18.72	---
2	19.08	19.15	19.16	19.05	19.24	19.22	19.21	19.25	19.26	19.31	18.90	---
3	19.10	19.14	19.14	19.07	19.26	19.24	19.22	19.25	19.26	19.31	18.95	---
4	19.11	19.15	19.15	19.07	19.24	19.24	19.22	19.26	19.27	19.33	18.94	---
5	19.12	19.16	19.14	19.09	19.24	19.26	19.22	19.25	19.27	19.36	18.93	---
6	19.12	19.15	19.14	19.08	19.26	19.24	19.24	19.24	19.29	19.36	18.97	---
7	19.12	19.14	19.14	19.09	19.24	19.23	19.24	19.25	19.31	19.34	18.96	---
8	19.08	19.14	19.13	19.10	19.24	19.24	19.24	19.27	19.32	19.36	18.98	---
9	19.08	19.13	19.13	19.11	19.21	19.22	19.25	19.28	19.31	19.37	18.98	---
10	19.08	19.14	19.15	19.12	19.23	19.20	19.25	19.27	19.30	19.36	18.96	---
11	19.08	19.14	19.16	19.13	19.22	19.17	19.27	19.28	19.30	19.37	18.98	---
12	19.04	19.14	19.16	19.16	19.23	19.16	19.27	19.28	19.29	19.37	19.01	---
13	19.04	19.14	19.16	19.14	19.24	19.17	19.26	19.29	19.31	19.36	19.01	18.85
14	19.02	19.16	19.17	19.14	19.25	19.18	19.27	19.29	19.32	19.36	---	18.86
15	19.02	19.17	19.18	19.14	19.23	19.19	19.29	19.31	19.32	19.37	---	18.85
16	19.04	19.15	19.17	19.16	19.20	19.20	19.29	19.30	19.32	19.38	---	18.86
17	19.04	19.17	19.18	19.18	19.22	19.21	19.28	19.29	19.34	19.39	---	18.87
18	19.05	19.18	19.19	19.19	19.23	19.22	19.27	19.28	19.35	19.40	---	18.85
19	19.08	19.18	19.17	19.20	19.24	19.24	19.27	19.28	19.35	19.41	---	18.85
20	19.10	19.18	19.16	19.17	19.24	19.24	19.26	19.26	19.36	19.42	---	18.84
21	19.13	19.17	19.14	19.20	19.24	19.25	19.25	19.25	19.34	19.44	---	18.83
22	19.13	19.18	19.14	19.22	19.24	19.24	19.24	19.26	19.33	19.42	---	18.83
23	19.16	19.18	19.13	19.24	19.24	19.23	19.26	19.27	19.33	19.42	---	18.84
24	19.16	19.15	19.14	19.23	19.24	19.24	19.23	19.27	19.34	19.42	---	19.71
25	19.16	19.15	19.12	19.23	19.25	19.20	19.20	19.27	19.32	19.43	---	18.86
26	19.14	19.16	19.13	19.21	19.23	19.16	19.20	19.28	19.31	19.43	---	18.72
27	19.14	19.16	19.11	19.21	19.22	19.16	19.21	19.28	19.29	19.44	---	18.91
28	19.16	19.17	19.09	19.20	19.19	19.18	19.21	19.28	19.28	19.46	---	18.97
29	19.16	19.16	19.09	19.20	19.19	19.18	19.23	19.27	19.29	19.50	---	18.98
30	19.14	19.16	19.08	19.19	---	19.18	19.22	19.27	19.28	19.79	---	19.00
31	19.15	---	19.08	19.20	---	19.18	---	19.27	---	18.66	---	---
MEAN	19.10	19.16	19.14	19.15	19.23	19.21	19.24	19.27	19.31	19.38	---	---
MAX	19.16	19.18	19.19	19.24	19.26	19.26	19.29	19.31	19.36	19.79	---	---
MIN	19.02	19.13	19.08	19.05	19.19	19.16	19.20	19.24	19.26	18.66	---	---

MARIANA ISLANDS, ISLAND OF SAIPAN

151130145445970. Local number, 14-1144-07 Akgak Well 31.

LOCATION.--Lat 15°11'30" N., long 145°44'59" E., Hydrologic Unit 20100006, 1.2 mi south of Capitol Hill and 2.5 mi north of San Vicente Village. Owner: Government of the Northern Mariana Islands.

AQUIFER.--Tagpochau Limestone.

WELL CHARACTERISTICS.--Drilled perched water-table well, depth 290 ft, diameter 12 in.

DATUM.--Altitude of land-surface datum is 615 ft. Measuring point: Top of casing, 615.37 ft above mean sea level.

PERIOD OF RECORD.--Water-level recorder, July 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 407.97 ft above mean sea level, Dec. 24, 1982; lowest, 371.34 ft above mean sea level, July 21, 1984.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	377.26	377.02	376.70	375.56	374.24	373.18	372.56	372.24	371.82	371.68	371.66	374.40
2	377.26	376.98	376.65	375.52	374.21	373.13	372.55	372.20	371.83	371.66	371.68	374.50
3	377.26	376.96	376.61	375.48	374.18	373.11	372.54	372.19	371.83	371.62	371.68	374.70
4	377.25	376.94	376.51	375.44	374.11	373.09	372.53	372.20	371.83	371.57	371.68	374.90
5	377.22	376.94	376.45	375.41	374.09	373.03	372.52	372.17	371.84	371.56	371.64	375.00
6	377.22	376.94	376.40	375.37	374.05	373.02	372.51	372.13	371.85	371.56	371.62	375.10
7	377.21	376.93	376.35	375.33	374.02	373.01	372.49	372.11	371.87	371.54	371.60	375.30
8	377.20	376.92	376.32	375.29	373.99	372.97	372.48	372.09	371.88	371.51	371.58	375.40
9	377.26	376.92	376.31	375.24	373.96	372.92	372.47	372.06	371.89	371.48	371.57	375.50
10	377.27	376.91	376.29	375.22	373.92	372.87	372.46	372.04	371.93	371.45	371.54	375.70
11	377.24	376.91	376.25	375.18	373.86	372.83	372.44	372.01	371.94	371.42	371.54	376.00
12	377.21	376.90	376.21	375.13	373.83	372.79	372.43	372.00	371.95	371.45	371.53	376.20
13	377.19	376.89	376.19	375.05	373.79	372.77	372.41	372.01	371.99	371.44	371.53	376.40
14	377.23	376.88	376.13	375.00	373.73	372.71	372.41	371.97	372.18	371.41	371.67	376.60
15	377.23	376.85	376.14	374.96	373.69	372.66	372.43	371.94	372.30	371.60	371.89	376.70
16	377.20	376.84	376.11	374.91	373.65	372.63	372.43	371.92	372.37	371.76	372.09	376.80
17	377.16	376.82	376.07	374.88	373.63	372.62	372.42	371.91	372.34	371.64	372.22	376.90
18	377.11	376.81	376.04	374.84	373.64	372.62	372.42	371.90	372.20	371.53	372.29	377.00
19	377.09	376.78	376.01	374.81	373.60	372.61	372.42	371.89	372.13	371.42	372.42	377.00
20	377.07	376.74	375.98	374.76	373.55	372.61	372.41	371.88	372.11	371.38	372.59	377.10
21	377.05	376.71	375.94	374.71	373.52	372.60	372.47	371.88	372.09	371.36	372.69	377.20
22	377.04	376.68	375.91	374.68	373.50	372.60	372.47	371.87	372.01	371.48	372.70	377.40
23	377.08	376.66	375.89	374.63	373.45	372.60	372.42	371.86	371.94	371.44	372.77	377.60
24	377.07	376.66	375.84	374.58	373.43	372.59	372.39	371.85	371.98	371.46	373.00	377.80
25	377.06	376.66	375.83	374.53	373.39	372.59	372.37	371.83	371.88	371.61	373.10	378.10
26	377.05	376.65	375.79	374.50	373.34	372.58	372.35	371.83	371.82	371.78	373.30	378.40
27	377.04	376.67	375.77	374.44	373.32	372.57	372.32	371.82	371.79	371.91	373.50	378.60
28	377.04	376.70	375.73	374.41	373.29	372.57	372.30	371.82	371.77	371.84	373.70	378.70
29	377.03	376.69	375.71	374.36	373.22	372.57	372.28	371.82	371.74	371.76	373.90	378.80
30	377.02	376.70	375.67	374.33	---	372.57	372.27	371.82	371.70	371.69	374.10	378.90
31	377.02	---	375.64	374.30	---	372.57	---	371.82	---	371.63	374.30	---
MEAN	377.15	376.82	376.11	374.93	373.73	372.76	372.43	371.97	371.96	371.57	372.36	376.62
MAX	377.27	377.02	376.70	375.56	374.24	373.18	372.56	372.24	372.37	371.91	374.30	378.90
MIN	377.02	376.65	375.64	374.30	373.22	372.57	372.27	371.82	371.70	371.36	371.53	374.40

WTR YR 1984 MEAN 374.03 MAX 378.90 MIN 371.36

MARIANA ISLANDS, ISLAND OF GUAM

132624144452771. Local number, 18-2645-07 Ordot Well A-20.

LOCATION.--Lat 13°26'24" N., long 144°45'27" E., Hydrologic Unit 20100003, at Ordot School, 1.4 mi west of junction of Routes 4 and 10, Ordot. Owner: Government of Guam.

AQUIFER.--Mariana Limestone and Alutom formation.

WELL CHARACTERISTICS.--Drilled parabasal water-table well, depth reported 120 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 137 ft. Measuring point: Top of casing, 141.74 ft above mean sea level.

PERIOD OF RECORD.--Water-level recorder, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 54.03 ft above mean sea level, Oct. 21, 1980; lowest, 32.76 ft above mean sea level, June 21, 22, 1984.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.93	38.89	39.97	39.54	37.32	35.72	34.27	33.45	32.94	33.01	34.33	40.79
2	37.01	38.89	40.05	39.45	37.26	35.67	34.23	33.41	32.93	33.01	34.41	40.91
3	37.04	38.93	40.10	39.36	37.20	35.63	34.20	33.39	32.92	33.02	34.58	41.07
4	37.08	39.07	40.20	39.28	37.12	35.59	34.17	33.36	32.90	33.03	34.71	41.19
5	37.12	39.24	40.25	39.19	37.07	35.54	34.14	33.34	32.90	33.03	34.84	41.29
6	37.14	39.37	40.30	39.12	37.01	35.49	34.11	33.32	32.90	33.04	35.00	41.38
7	37.16	39.50	40.35	39.06	36.94	35.42	34.08	33.30	32.89	33.06	35.25	41.41
8	37.14	39.63	40.40	38.98	36.88	35.37	34.05	33.28	32.88	33.09	35.45	41.42
9	37.13	39.73	40.45	38.90	36.82	35.32	34.02	33.26	32.87	33.12	35.65	41.43
10	37.10	39.81	40.50	38.82	36.75	35.27	34.00	33.24	32.86	33.17	35.85	41.44
11	37.08	39.84	40.50	38.74	36.70	35.22	33.95	33.23	32.85	33.23	36.11	41.56
12	37.08	39.83	40.45	38.67	36.65	35.16	33.93	33.21	32.83	33.30	36.32	41.69
13	37.10	39.79	40.45	38.61	36.60	35.12	33.89	33.20	32.83	33.38	36.54	41.77
14	37.15	39.76	40.40	38.53	36.55	35.07	33.87	33.19	32.82	33.48	36.74	41.84
15	37.23	39.71	40.40	38.46	36.49	35.01	33.84	33.17	32.81	33.57	36.91	41.87
16	37.32	39.65	40.35	38.37	36.42	34.97	33.82	33.15	32.80	33.64	37.08	41.89
17	37.35	39.63	40.29	38.31	36.37	34.92	33.79	33.14	32.80	33.73	37.20	41.88
18	37.37	39.65	40.25	38.23	36.32	34.87	33.76	33.13	32.79	33.79	37.37	41.82
19	37.39	39.72	40.23	38.15	36.27	34.83	33.74	33.11	32.78	33.85	37.69	41.76
20	37.46	39.78	40.22	38.09	36.22	34.78	33.72	33.09	32.77	33.89	38.04	41.65
21	37.51	39.82	40.21	38.02	36.17	34.73	33.69	33.08	32.76	33.94	38.32	41.58
22	37.61	39.83	40.18	37.93	36.13	34.69	33.67	33.06	32.77	33.99	38.56	41.53
23	37.76	39.81	40.14	37.87	36.10	34.66	33.64	33.04	32.80	34.02	38.82	41.51
24	37.92	39.78	40.09	37.83	36.05	34.62	33.63	33.03	32.84	34.04	39.10	41.58
25	38.10	39.77	40.05	37.77	35.99	34.57	33.59	33.02	32.87	34.08	39.31	41.70
26	38.26	39.78	39.97	37.71	35.93	34.52	33.59	33.00	32.89	34.11	39.53	41.86
27	38.45	39.82	39.90	37.65	35.88	34.47	33.55	32.99	32.92	34.14	39.73	42.07
28	38.62	39.84	39.82	37.59	35.83	34.43	33.52	32.98	32.94	34.18	39.97	42.30
29	38.73	39.87	39.75	37.54	35.77	34.38	33.49	32.96	32.97	34.21	40.22	42.48
30	38.81	39.93	39.68	37.46	---	34.35	33.46	32.95	32.99	34.23	40.41	42.69
31	38.87	---	39.61	37.38	---	34.32	---	32.94	---	34.27	40.68	---
MEAN	37.55	39.62	40.18	38.41	36.51	34.99	33.85	33.16	32.86	33.60	37.25	41.65
MAX	38.87	39.93	40.50	39.54	37.32	35.72	34.27	33.45	32.99	34.27	40.68	42.69
MIN	36.93	38.89	39.61	37.38	35.77	34.32	33.46	32.94	32.76	33.01	34.33	40.79

WTR YR 1984 MEAN 36.63 MAX 42.69 MIN 32.76

MARIANA ISLANDS, ISLAND OF GUAM

132644144480871. Local number, 18-2648-02 BPM Well 1.

LOCATION.--Lat 13°26'44" N., long 144°48'08" E., Hydrologic Unit 20100003, on lot number 2287, 0.2 mi southeast of junction of Routes 15 and 10, Mangilao. Owner: Ana P. Diaz.

AQUIFER.--Coralline Limestone, probably Miocene age.

WELL CHARACTERISTICS.--Drilled basal water-table well, depth reported 235 ft, casing diameter 12 in.

DATUM.--Altitude of land-surface datum is 210 ft. Measuring point: Top of casing, 209.86, revised, ft above mean sea level.

PERIOD OF RECORD.--Occasional measurements, February 1972 to December 1973.
Water level recorder, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.45 ft above mean sea level, May 22, 1976; lowest, 1.89 ft above mean sea level, Feb. 11, 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.65	2.68	2.57	2.43	2.60	2.68	2.89	2.90	2.97	2.97	2.94	3.25
2	2.66	2.69	2.58	2.43	2.64	2.69	2.92	2.91	2.97	2.96	2.94	3.23
3	2.66	2.76	2.58	2.44	2.64	2.69	2.88	2.92	2.97	2.96	2.95	3.19
4	2.66	2.76	2.58	2.45	2.65	2.72	2.87	2.92	2.98	2.95	2.95	3.16
5	2.66	2.76	2.57	2.45	2.67	2.72	2.87	2.92	2.98	2.96	2.95	3.13
6	2.67	2.76	2.56	2.47	2.68	2.72	2.88	2.90	2.99	2.95	2.93	3.09
7	2.68	2.78	2.54	2.49	2.68	2.71	2.86	2.89	2.99	2.95	2.93	3.05
8	2.68	2.79	2.52	2.50	2.68	2.71	2.84	2.88	2.98	2.95	2.94	3.06
9	2.68	2.77	2.51	2.52	2.68	2.73	2.83	2.89	2.99	2.95	2.95	3.05
10	2.69	2.75	2.50	2.54	2.68	2.72	2.83	2.91	2.99	2.96	2.93	3.08
11	2.69	2.73	2.51	2.56	2.67	2.70	2.80	2.91	2.97	2.96	2.91	3.09
12	2.69	2.71	2.50	2.55	2.68	2.68	2.81	2.89	2.94	2.95	2.89	3.08
13	2.69	2.70	2.50	2.56	2.68	2.68	2.81	2.90	2.93	2.95	2.87	3.09
14	2.69	2.70	2.49	2.57	2.68	2.69	2.82	2.90	2.92	2.96	2.86	3.10
15	2.69	2.70	2.51	2.58	2.68	2.72	2.83	2.92	2.91	2.96	2.86	3.08
16	2.69	2.69	2.52	2.58	2.68	2.74	2.84	2.92	2.91	2.96	2.86	3.05
17	2.68	2.69	2.55	2.59	2.68	2.76	2.85	2.90	2.91	2.96	2.92	3.03
18	2.65	2.69	2.56	2.60	2.69	2.77	2.85	2.88	2.92	2.96	2.98	3.03
19	2.65	2.69	2.54	2.59	2.71	2.78	2.84	2.87	2.93	2.97	3.04	3.04
20	2.65	2.69	2.50	2.60	2.72	2.79	2.83	2.85	2.94	2.98	3.08	3.00
21	2.66	2.69	2.50	2.60	2.72	2.79	2.83	2.83	2.96	2.99	3.12	2.96
22	2.66	2.69	2.50	2.62	2.72	2.79	2.82	2.81	2.97	2.99	3.14	2.96
23	2.66	2.71	2.47	2.63	2.72	2.79	2.83	2.81	2.97	2.97	3.16	3.00
24	2.66	2.70	2.47	2.64	2.72	2.79	2.84	2.82	2.98	2.97	3.18	3.02
25	2.71	2.66	2.45	2.63	2.72	2.80	2.82	2.85	3.01	2.95	3.20	3.04
26	2.70	2.63	2.44	2.63	2.73	2.80	2.83	2.88	3.02	2.94	3.22	3.08
27	2.71	2.62	2.45	2.62	2.71	2.81	2.85	2.89	3.01	2.93	3.25	3.11
28	2.69	2.60	2.44	2.61	2.69	2.81	2.87	2.91	3.00	2.92	3.29	3.11
29	2.68	2.59	2.42	2.59	2.68	2.83	2.88	2.94	2.99	2.93	3.34	3.08
30	2.68	2.57	2.41	2.60	---	2.84	2.90	2.96	2.97	2.94	3.31	3.04
31	2.68	---	2.42	2.59	---	2.87	---	2.98	---	2.94	3.29	---
MEAN	2.68	2.70	2.51	2.56	2.69	2.75	2.85	2.89	2.97	2.96	3.04	3.08
MAX	2.71	2.79	2.58	2.64	2.73	2.87	2.92	2.98	3.02	2.99	3.34	3.25
MIN	2.65	2.57	2.41	2.43	2.60	2.68	2.80	2.81	2.91	2.92	2.86	2.96

WTR YR 1984 MEAN 2.80 MAX 3.34 MIN 2.41

MARIANA ISLANDS, ISLAND OF GUAM

132824144464271. Local number, 18-2846-01 ACEORP Tunnel.

LOCATION.--Lat 13°28'24" N., long 144°46'42" E., Hydrologic Unit 20100003, behind Navy Telephone Exchange, 0.35 mi southwest of junction of Routes 1 and 14, Tamuning. Owner: U.S. Navy, Public Works Department.

AQUIFER.--Mariana Limestone.

WELL CHARACTERISTICS.--Dug basal water-table well consisting of an inclined shaft, three skimming tunnels, and a large pump room. Tunnels 1 and 2 are 150 ft each and tunnel 3 is 700 ft in length.

DATUM.--Altitude of land-surface datum is 180 ft. Measuring point: Top of wooden recorder shelf, 9.28 ft above mean sea level.

PERIOD OF RECORD.--Water-level recorder, October 1954 to May 1965, March 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.95 ft above mean sea level, May 22, 1976; lowest, 1.70 ft above mean sea level, Feb. 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.54	2.49	2.48	2.36	2.58	2.63	2.69	2.69	2.76	2.82	2.85	3.05
2	2.54	2.56	2.48	2.38	2.57	2.65	2.69	2.71	2.75	2.81	2.94	3.02
3	2.58	2.61	2.42	2.45	2.57	2.63	2.66	2.72	2.75	2.81	2.92	2.97
4	2.55	2.65	2.43	2.44	2.56	2.60	2.65	2.71	2.77	2.81	2.89	2.92
5	2.54	2.68	2.42	2.42	2.56	2.58	2.67	2.70	2.77	2.81	2.84	2.87
6	2.53	2.66	2.39	2.41	2.60	2.57	2.68	2.67	2.78	2.80	2.81	2.86
7	2.53	2.70	2.38	2.43	2.63	2.56	2.67	2.66	2.80	2.78	2.82	2.86
8	2.51	2.79	2.34	2.47	2.59	2.57	2.65	2.66	2.83	2.77	2.85	2.87
9	2.47	2.73	2.32	2.47	2.58	2.58	2.65	2.66	2.82	2.79	2.84	2.89
10	2.45	2.67	2.31	2.47	2.64	2.55	2.66	2.68	2.80	2.81	2.80	2.92
11	2.45	2.61	2.33	2.48	2.64	2.52	2.67	2.71	2.77	2.82	2.75	2.93
12	2.42	2.54	2.33	2.50	2.65	2.51	2.68	2.72	2.75	2.84	2.72	2.92
13	2.42	2.51	2.32	2.47	2.67	2.50	2.67	2.72	2.76	2.85	2.68	2.93
14	2.40	2.50	2.32	2.47	2.67	2.57	2.66	2.73	2.78	2.85	2.66	2.93
15	2.40	2.49	2.38	2.47	2.63	2.60	2.66	2.74	2.81	2.83	2.65	2.90
16	2.39	2.50	2.39	2.46	2.59	2.62	2.69	2.73	2.79	2.82	2.71	2.89
17	2.39	2.53	2.39	2.47	2.59	2.63	2.71	2.71	2.81	2.81	2.84	2.89
18	2.39	2.52	2.40	2.47	2.61	2.62	2.72	2.70	2.82	2.82	2.93	2.89
19	2.39	2.51	2.39	2.49	2.61	2.63	2.70	2.68	2.82	2.84	3.02	2.89
20	2.41	2.50	2.40	2.52	2.59	2.64	2.70	2.66	2.83	2.85	3.02	2.85
21	2.46	2.55	2.43	2.52	2.66	2.64	2.67	2.64	2.85	2.84	2.99	2.84
22	2.49	2.55	2.45	2.52	2.66	2.64	2.65	2.62	2.85	2.82	3.04	2.96
23	2.52	2.57	2.44	2.54	2.64	2.63	2.65	2.63	2.84	2.81	3.07	2.96
24	2.53	2.56	2.42	2.53	2.62	2.73	2.65	2.65	2.84	2.80	3.10	2.95
25	2.52	2.51	2.36	2.50	2.61	2.76	2.63	2.68	2.85	2.81	3.12	3.07
26	2.51	2.48	2.34	2.52	2.58	2.76	2.62	2.70	2.86	2.80	3.14	3.12
27	2.48	2.45	2.36	2.51	2.56	2.73	2.67	2.71	2.85	2.78	3.20	3.07
28	2.48	2.44	2.34	2.53	2.56	2.70	2.69	2.72	2.84	2.79	3.23	2.98
29	2.49	2.41	2.32	2.59	2.56	2.69	2.70	2.73	2.82	2.83	3.22	2.91
30	2.47	2.44	2.34	2.59	---	2.67	2.69	2.75	2.82	2.84	3.17	2.84
31	2.46	---	2.36	2.57	---	2.66	---	2.77	---	2.86	3.09	---
MEAN	2.47	2.56	2.38	2.48	2.61	2.62	2.67	2.70	2.81	2.82	2.93	2.93
MAX	2.58	2.79	2.48	2.59	2.67	2.76	2.72	2.77	2.86	2.86	3.23	3.12
MIN	2.39	2.41	2.31	2.36	2.56	2.50	2.62	2.62	2.75	2.77	2.65	2.84

WTR YR 1984 MEAN 2.66 MAX 3.23 MIN 2.31

MARIANA ISLANDS, ISLAND OF GUAM

132813144472771. Local number, 18-2847-12 Barrigada Well 2 (A-16).

LOCATION.--Lat 13°28'13" N., long 144°47'27" E., Hydrologic Unit 20100003, at Carbullido School, 0.6 mi west of junction of Routes 8 and 10, Barrigada. Owner: Public Utility Agency of Guam.

AQUIFER.--Mariana Limestone, probably Pliocene age.

WELL CHARACTERISTICS.--Drilled basal water-table well, depth reported 215 ft, diameter 12 in.

DATUM.--Altitude of land-surface datum is 207 ft. Measuring point: Top of casing, 208.00 ft above mean sea level.

PERIOD OF RECORD.--Water-level recorder, June 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.71 ft above mean sea level, May 22, 1976; lowest, 2.83 ft above mean sea level, Feb. 11, 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.53	3.47	3.46	3.34	3.53	3.56	3.63	3.67	3.72	3.76	3.79	4.11
2	3.52	3.55	3.47	3.34	3.54	3.59	3.64	3.69	3.72	3.75	3.86	4.06
3	3.54	3.58	3.45	3.38	3.55	3.58	3.62	3.70	3.72	3.75	3.88	4.02
4	3.54	3.63	3.43	3.40	3.55	3.55	3.61	3.70	3.72	3.75	3.87	3.98
5	3.54	3.69	3.43	3.39	3.55	3.54	3.61	3.69	3.72	3.75	3.83	3.94
6	3.55	3.70	3.41	3.38	3.57	3.53	3.63	3.67	3.72	3.74	3.79	3.90
7	3.57	3.64	3.38	3.40	3.60	3.53	3.62	3.64	3.73	3.74	3.78	3.87
8	3.56	3.66	3.35	3.42	3.58	3.54	3.61	3.64	3.77	3.71	3.79	3.88
9	3.52	3.76	3.33	3.43	3.56	3.55	3.60	3.65	3.77	3.72	3.79	3.88
10	3.50	3.71	3.32	3.43	3.60	3.54	3.60	3.66	3.76	3.74	3.76	3.90
11	3.49	3.67	3.32	3.45	3.61	3.51	3.63	3.69	3.73	3.74	3.72	3.91
12	3.47	3.61	3.32	3.46	3.62	3.49	3.63	3.70	3.71	3.76	3.70	3.90
13	3.46	3.57	3.32	3.45	3.63	3.47	3.64	3.71	3.70	3.77	3.67	3.91
14	3.45	3.55	3.31	3.44	3.64	3.51	3.63	3.71	3.72	3.77	3.64	3.92
15	3.45	3.54	3.35	3.44	3.61	3.54	3.64	3.72	3.72	3.76	3.64	3.91
16	3.43	3.53	3.37	3.44	3.58	3.56	3.66	3.72	3.72	3.75	3.65	3.89
17	3.43	3.55	3.38	3.44	3.57	3.57	3.68	3.71	3.73	3.74	3.75	3.88
18	3.43	3.55	3.38	3.45	3.59	3.58	3.67	3.69	3.76	3.75	3.84	3.88
19	3.43	3.53	3.38	3.45	3.59	3.59	3.66	3.68	3.76	3.76	3.96	3.89
20	3.46	3.52	3.37	3.48	3.56	3.59	3.66	3.67	3.76	3.77	3.98	3.86
21	3.48	3.54	3.39	3.49	3.60	3.60	3.65	3.64	3.78	3.78	3.98	3.83
22	3.50	3.56	3.41	3.48	3.61	3.59	3.62	3.63	3.78	3.76	4.00	4.03
23	3.52	3.57	3.40	3.50	3.60	3.59	3.62	3.62	3.78	3.74	4.03	4.06
24	3.54	3.58	3.40	3.51	3.59	3.64	3.62	3.64	3.78	3.75	4.06	4.02
25	3.53	3.54	3.35	3.48	3.58	3.67	3.60	3.65	3.79	3.75	4.08	4.08
26	3.51	3.51	3.32	3.49	3.57	3.68	3.60	3.66	3.80	3.74	4.10	4.15
27	3.49	3.48	3.33	3.49	3.54	3.67	3.63	3.68	3.79	3.73	4.15	4.14
28	3.48	3.47	3.32	3.50	3.53	3.65	3.66	3.68	3.78	3.73	4.23	4.07
29	3.49	3.43	3.31	3.53	3.52	3.64	3.66	3.69	3.76	3.75	4.27	4.01
30	3.51	3.43	3.32	3.54	---	3.63	3.67	3.71	3.76	3.79	4.22	3.93
31	3.49	---	3.33	3.53	---	3.61	---	3.72	---	3.80	4.17	---
MEAN	3.50	3.57	3.37	3.45	3.58	3.58	3.63	3.68	3.75	3.75	3.90	3.96
MAX	3.57	3.76	3.47	3.54	3.64	3.68	3.68	3.72	3.80	3.80	4.27	4.15
MIN	3.43	3.43	3.31	3.34	3.52	3.47	3.60	3.62	3.70	3.71	3.64	3.83

WTR YR 1984 MEAN 3.64 MAX 4.27 MIN 3.31

MARIANA ISLANDS, ISLAND OF GUAM

133032144491871. Local number, 18-3049-03 Harmon Loop School Well M-10A.

LOCATION.--Lat 13°30'32" N., long 144°49'18" E., Hydrologic Unit 20100003, at Harmon Loop School, Dededo. Owner: Public Utility Agency of Guam.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, depth reported 288 ft, casing diameter 8 in.

DATUM.--Altitude of land-surface datum is 227 ft. Measuring point: Top edge of casing, 228.62, revised, ft above mean sea level.

REMARKS.--Well was abandoned in 1973 because of oil taste and high iron content.

PERIOD OF RECORD.--Water-level recorder, January 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.61 ft above mean sea level, May 23, 1976; lowest, 1.94 ft above mean sea level, Feb. 10-12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.74	2.63	2.62	2.49	2.67	2.73	2.79	2.84	2.92	2.95	2.94	3.14
2	2.73	2.66	2.61	2.48	2.67	2.77	2.80	2.84	2.92	2.94	2.94	3.10
3	2.75	2.72	2.57	2.54	2.67	2.74	2.78	2.86	2.91	2.93	2.95	3.05
4	2.73	2.76	2.56	2.54	2.66	2.72	2.77	2.88	2.93	2.92	2.95	3.02
5	2.73	2.80	2.56	2.52	2.66	2.70	2.78	2.88	2.93	2.91	2.95	2.97
6	2.73	2.78	2.54	2.51	2.69	2.69	2.79	2.87	2.93	2.91	2.93	2.94
7	2.74	2.82	2.52	2.53	2.74	2.67	2.79	2.86	2.95	2.89	2.93	2.93
8	2.72	2.95	2.49	2.56	2.70	2.68	2.77	2.82	2.96	2.89	2.94	2.93
9	2.68	2.93	2.47	2.57	2.69	2.69	2.77	2.84	2.96	2.90	2.95	2.93
10	2.65	2.88	2.45	2.55	2.76	2.67	2.77	2.85	2.95	2.96	2.86	2.95
11	2.65	2.82	2.46	2.57	2.77	2.64	2.78	2.86	2.93	2.96	2.83	2.97
12	2.63	2.75	2.46	2.60	2.76	2.63	2.79	2.87	2.90	2.95	2.79	2.97
13	2.62	2.73	2.45	2.58	2.76	2.61	2.79	2.88	2.89	2.95	2.77	2.97
14	2.61	2.69	2.45	2.57	2.76	2.65	2.80	2.89	2.90	2.96	2.76	2.97
15	2.60	2.69	2.50	2.57	2.73	2.69	2.80	2.90	2.90	2.96	2.75	2.96
16	2.59	2.68	2.51	2.56	2.69	2.71	2.82	2.89	2.89	2.96	2.78	2.95
17	2.58	2.71	2.51	2.57	2.69	2.72	2.83	2.88	2.88	2.96	2.83	2.94
18	2.58	2.71	2.52	2.57	2.71	2.73	2.84	2.87	2.89	2.96	2.90	2.94
19	2.58	2.69	2.52	2.58	2.74	2.74	2.83	2.85	2.90	2.97	2.98	2.94
20	2.60	2.69	2.52	2.61	2.72	2.75	2.83	2.84	2.92	2.98	3.02	2.93
21	2.63	2.72	2.53	2.61	2.76	2.75	2.81	2.82	2.93	2.99	3.02	2.89
22	2.65	2.74	2.55	2.61	2.78	2.75	2.79	2.80	2.95	2.99	3.04	2.89
23	2.68	2.76	2.54	2.63	2.76	2.74	2.79	2.79	2.95	2.97	3.08	2.91
24	2.69	2.75	2.54	2.63	2.74	2.80	2.80	2.80	2.95	2.97	3.13	2.92
25	2.69	2.70	2.49	2.61	2.73	2.84	2.79	2.83	2.96	2.95	3.16	2.99
26	2.67	2.68	2.46	2.61	2.71	2.83	2.78	2.84	2.97	2.94	3.18	3.03
27	2.65	2.66	2.49	2.61	2.68	2.81	2.80	2.85	2.96	2.93	3.25	3.02
28	2.64	2.64	2.48	2.62	2.67	2.80	2.82	2.85	2.96	2.92	3.30	3.00
29	2.65	2.60	2.45	2.67	2.67	2.80	2.84	2.88	2.95	2.93	3.30	2.95
30	2.64	2.61	2.46	2.69	---	2.78	2.84	2.90	2.95	2.94	3.27	2.89
31	2.63	---	2.48	2.67	---	2.77	---	2.93	---	2.94	3.18	---
MEAN	2.66	2.73	2.51	2.58	2.72	2.73	2.80	2.86	2.93	2.94	2.99	2.97
MAX	2.75	2.95	2.62	2.69	2.78	2.84	2.84	2.93	2.97	2.99	3.30	3.14
MIN	2.58	2.60	2.45	2.48	2.66	2.61	2.77	2.79	2.88	2.89	2.75	2.89

WTR YR 1984 MEAN 2.78 MAX 3.30 MIN 2.45

MARIANA ISLANDS, ISLAND OF GUAM

133047144500171. Local number, 18-3049-05 Well M-11.

LOCATION.--Lat 13°30'49" N., long 144°49'58" E., Hydrologic Unit 20100003, at intersection of Harmon Loop School Road and Route 1 at Dededo. Owner: Public Utility Agency of Guam.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, depth reported 325 ft, casing diameter 8 in.

DATUM.--Altitude of land-surface datum is 294 ft. Measuring point: Top of casing, 295.82 ft above mean sea level.

PERIOD OF RECORD.--Water-level recorder, July 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.76 ft above mean sea level, Oct. 2, 1980; lowest, 2.46 ft above mean sea level, Feb. 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.45	3.27	3.29	3.07	3.24	3.27	3.34	3.34	3.44	3.50	3.55	4.05
2	3.42	3.29	3.29	3.07	3.24	3.31	3.36	3.35	3.43	3.50	3.55	3.96
3	3.40	3.34	3.26	3.11	3.23	3.30	3.34	3.36	3.44	3.48	3.55	3.90
4	3.39	3.37	3.24	3.13	3.22	3.28	3.32	3.37	3.45	3.48	3.63	3.86
5	3.38	3.52	3.23	3.12	3.22	3.27	3.33	3.36	3.45	3.47	3.66	3.79
6	3.38	3.61	3.21	3.10	3.25	3.26	3.35	3.33	3.45	3.47	3.61	3.81
7	3.38	3.63	3.19	3.11	3.27	3.26	3.35	3.31	3.46	3.46	3.60	3.73
8	3.37	3.69	3.17	3.14	3.25	3.26	3.33	3.30	3.48	3.45	3.59	3.70
9	3.34	3.68	3.13	3.17	3.24	3.28	3.32	3.31	3.49	3.46	3.61	3.69
10	3.30	3.61	3.12	3.16	3.28	3.26	3.32	3.33	3.48	3.51	3.57	3.70
11	3.29	3.53	3.12	3.17	3.30	3.23	3.33	3.37	3.46	3.53	3.54	3.82
12	3.28	3.48	3.12	3.19	3.30	3.22	3.34	3.38	3.44	3.54	3.50	4.00
13	3.26	3.44	3.11	3.18	3.30	3.19	3.35	3.38	3.44	3.55	3.47	4.00
14	3.25	3.39	3.09	3.17	3.32	3.22	3.34	3.39	3.44	3.55	3.45	3.94
15	3.24	3.37	3.14	3.17	3.32	3.26	3.34	3.41	3.43	3.54	3.44	3.89
16	3.23	3.35	3.13	3.14	3.30	3.27	3.36	3.40	3.43	3.55	3.43	3.84
17	3.21	3.37	3.12	3.15	3.29	3.29	3.38	3.39	3.43	3.54	3.47	3.84
18	3.21	3.38	3.12	3.15	3.29	3.29	3.39	3.37	3.43	3.55	3.52	3.88
19	3.21	3.44	3.12	3.15	3.31	3.30	3.38	3.36	3.43	3.56	4.03	3.88
20	3.22	3.45	3.12	3.19	3.28	3.31	3.36	3.34	3.45	3.57	4.40	3.85
21	3.24	3.47	3.13	3.19	3.31	3.31	3.34	3.32	3.47	3.57	4.22	3.80
22	3.26	3.47	3.15	3.19	3.33	3.31	3.32	3.31	3.49	3.55	4.10	3.73
23	3.28	3.47	3.14	3.21	3.32	3.31	3.31	3.30	3.49	3.54	4.33	3.70
24	3.28	3.46	3.15	3.22	3.30	3.33	3.31	3.32	3.51	3.53	4.34	3.77
25	3.31	3.42	3.10	3.18	3.28	3.39	3.29	3.33	3.51	3.53	4.24	3.86
26	3.34	3.38	3.06	3.19	3.27	3.39	3.28	3.35	3.53	3.53	4.17	3.91
27	3.33	3.36	3.08	3.20	3.25	3.37	3.30	3.36	3.52	3.52	4.13	4.12
28	3.32	3.33	3.07	3.21	3.25	3.34	3.32	3.38	3.52	3.52	4.12	4.32
29	3.32	3.30	3.05	3.25	3.24	3.34	3.33	3.39	3.50	3.55	4.24	4.22
30	3.31	3.29	3.05	3.26	---	3.33	3.34	3.42	3.50	3.57	4.27	4.05
31	3.29	---	3.06	3.25	---	3.32	---	3.43	---	3.57	4.16	---
MEAN	3.31	3.44	3.14	3.17	3.28	3.29	3.34	3.36	3.47	3.52	3.82	3.89
MAX	3.45	3.69	3.29	3.26	3.33	3.39	3.39	3.43	3.53	3.57	4.40	4.32
MIN	3.21	3.27	3.05	3.07	3.22	3.19	3.28	3.30	3.43	3.45	3.43	3.69

WTR YR 1984 MEAN 3.42 MAX 4.40 MIN 3.05

MARIANA ISLANDS, ISLAND OF GUAM

133119144491771. Local number, 18-3149-05 Exploratory Well Ex-7.

LOCATION.--Lat 13°31'19" N., long 144°49'17" E., Hydrologic Unit 20100003, 200 ft east of junction of Routes 1 and 3, Wettengel. Owner: Government of Guam.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 698 ft, borehole diameter 8 in, casing diameter 6 in, cased to 10 ft.

DATUM.--Altitude of land-surface datum is 283 ft. Measuring point: Top of 6-in diameter surface casing, 283.31 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: Occasional measurements, August 1981 to May 1983.
Water-level recorder, June 1983 to current year.
WATER QUALITY: 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.78 ft above mean sea level, Aug. 12, 1981, Aug. 28, 29, 1984; lowest, 2.78 ft above mean sea level, June 6, 7, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.13	3.06	3.04	2.94	3.14	3.16	3.22	3.29	3.35	3.41	3.40	3.58
2	3.13	3.10	3.02	2.94	3.13	3.19	3.22	3.30	3.36	3.40	3.40	3.54
3	3.13	3.16	2.99	3.00	3.12	3.16	3.20	3.31	3.36	3.39	3.40	3.50
4	3.12	3.18	2.99	3.00	3.12	3.14	3.19	3.30	3.38	3.39	3.39	3.46
5	3.12	3.21	2.98	2.98	3.12	3.13	3.21	3.29	3.38	3.37	3.37	3.41
6	3.14	3.20	2.96	2.98	3.15	3.13	3.22	3.26	3.39	3.38	3.32	3.38
7	3.15	3.26	2.95	3.00	3.18	3.13	3.21	3.24	3.41	3.35	3.33	3.37
8	3.14	3.36	2.92	3.02	3.15	3.14	3.20	3.23	3.39	3.35	3.36	3.37
9	3.11	3.33	2.89	3.03	3.15	3.15	3.21	3.25	3.41	3.35	3.38	3.38
10	3.09	3.25	2.88	3.02	3.20	3.13	3.22	3.26	3.40	3.36	3.35	3.40
11	3.07	3.19	2.88	3.04	3.20	3.10	3.24	3.28	3.37	3.37	3.32	3.41
12	3.05	3.14	2.88	3.06	3.20	3.08	3.23	3.29	3.35	3.40	3.28	3.41
13	3.04	3.12	2.88	3.06	3.20	3.07	3.23	3.29	3.34	3.40	3.25	3.42
14	3.04	3.11	2.87	3.05	3.19	3.12	3.23	3.30	3.36	3.41	3.24	3.43
15	3.03	3.10	2.91	3.05	3.17	3.15	3.24	3.32	3.36	3.40	3.23	3.42
16	3.01	3.10	2.93	3.03	3.14	3.17	3.26	3.31	3.34	3.39	3.26	3.40
17	3.01	3.11	2.95	3.05	3.13	3.18	3.28	3.29	3.34	3.39	3.32	3.38
18	3.01	3.11	2.96	3.04	3.15	3.18	3.27	3.28	3.34	3.39	3.36	3.38
19	3.01	3.11	2.96	3.06	3.17	3.19	3.27	3.26	3.34	3.41	3.43	3.38
20	3.03	3.11	2.97	3.08	3.15	3.20	3.28	3.24	3.35	3.42	3.47	3.37
21	3.06	3.14	2.98	3.09	3.19	3.20	3.30	3.21	3.38	3.42	3.47	3.33
22	3.09	3.15	2.99	3.08	3.20	3.20	3.28	3.19	3.39	3.40	3.49	3.33
23	3.11	3.18	2.99	3.11	3.19	3.18	3.28	3.19	3.39	3.39	3.52	3.35
24	3.12	3.16	2.98	3.11	3.17	3.25	3.28	3.22	3.41	3.38	3.57	3.36
25	3.11	3.11	2.93	3.09	3.15	3.28	3.24	3.24	3.42	3.39	3.61	3.43
26	3.09	3.09	2.92	3.10	3.14	3.28	3.23	3.27	3.43	3.38	3.65	3.47
27	3.07	3.09	2.94	3.10	3.12	3.25	3.26	3.29	3.42	3.37	3.71	3.46
28	3.07	3.05	2.93	3.11	3.11	3.23	3.28	3.29	3.42	3.38	3.73	3.44
29	3.07	3.02	2.92	3.15	3.10	3.21	3.29	3.30	3.41	3.41	3.73	3.40
30	3.06	3.02	2.93	3.16	---	3.19	3.29	3.32	3.41	3.42	3.69	3.34
31	3.05	---	2.93	3.14	---	3.18	---	3.33	---	3.42	3.62	---
MEAN	3.08	3.14	2.94	3.05	3.16	3.17	3.25	3.27	3.38	3.39	3.44	3.41
MAX	3.15	3.36	3.04	3.16	3.20	3.28	3.30	3.33	3.43	3.42	3.73	3.58
MIN	3.01	3.02	2.87	2.94	3.10	3.07	3.19	3.19	3.34	3.35	3.23	3.33

WTR YR 1984 MEAN 3.22 MAX 3.73 MIN 2.87

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
18...	0935	290	2990	27.0	800
18...	1005	390	2790	26.0	750
18...	1040	420	31900	26.0	13000
18...	1115	450	42300	26.0	18000
APR					
20...	1055	290	4140	27.0	1100
20...	1130	390	3740	26.0	1000
20...	1210	410	5660	26.0	1400
20...	1245	430	40800	26.0	16000

MARIANA ISLANDS, ISLAND OF GUAM

133224144495271. Local number, 18-3249-02 Finegayan Exploratory Well Ex-10.

LOCATION.--Lat 13°32'24" N., long 144°49'52" E., Hydrologic Unit 20100003, near NAVCAMS Housing area.
Owner: Government of Guam.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 704.5 ft, uncased hole diameter 8 in.

DATUM.--Altitude of land-surface datum is 348 ft. Measuring point: Top of surface casing, 348.54 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: Occasional measurements, September 1981 to May 1984.
Water-level recorder, June 1984 to current year.
WATER QUALITY: 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.49 ft above mean sea level, Aug. 27, 1984; lowest measured, 1.97 ft above mean sea level, Feb. 24, 1983.

WATER LEVL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	3.07	3.09	3.07	3.19
2								---	3.05	3.10	3.09	3.14
3								---	3.04	3.09	3.08	3.07
4								---	3.06	3.07	3.05	3.04
5								---	3.07	3.07	3.05	3.01
6								---	3.07	3.05	3.00	3.00
7						h2.88		---	3.09	3.02	3.01	3.00
8								---	3.11	3.02	3.05	3.01
9								---	3.10	3.03	3.07	3.01
10								h3.02	3.06	3.06	3.02	3.03
11								---	3.04	3.08	2.98	3.05
12								---	3.02	3.10	2.94	3.06
13								---	3.02	3.11	2.92	3.06
14								---	3.03	3.11	2.92	3.06
15								---	3.04	3.10	2.91	3.05
16							h3.05	---	3.03	3.09	2.93	3.04
17								---	3.01	3.08	2.99	3.03
18								---	3.01	3.10	3.03	3.04
19		h2.73						---	3.03	3.11	3.09	3.05
20								---	3.04	3.11	3.13	3.01
21								---	3.06	3.11	3.12	2.97
22								---	3.07	3.07	3.13	2.96
23								---	3.08	3.07	3.17	2.98
24								---	3.09	3.07	3.23	3.01
25								2.95	3.10	3.07	3.27	3.10
26								2.95	3.11	3.07	3.31	3.13
27								2.96	3.10	3.05	3.37	3.09
28								2.96	3.09	3.07	3.37	3.06
29								2.99	3.08	3.11	3.36	2.97
30								3.01	3.09	3.11	3.31	2.90
31								3.04	---	3.10	3.24	---
MEAN								---	3.06	3.08	3.10	3.04
MAX								---	3.11	3.11	3.37	3.19
MIN								---	3.01	3.02	2.91	2.90

h Tape measurement.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
19...	0920	365	3550	27.0	950
19...	0955	400	2640	27.0	670
19...	1025	470	24000	27.0	8800
19...	1055	490	42000	26.5	18000
APR					
16...	1115	365	2260	27.0	450
16...	1150	400	1930	27.0	440
APR					
16...	1225	460	10200	26.5	3100
16...	1300	470	27300	26.5	9600
16...	1335	480	42300	26.5	16000

MARIANA ISLANDS, ISLAND OF GUAM

132615144470571. Local number, 18-2647-01 Father Duenas Well.

LOCATION.--Lat 13°26'15" N., long 144°47'05" E., Hydrologic Unit 20100003, at Father Duenas Memorial School, Chalan Pago-Ordot. Owner: Government of Guam.

AQUIFER.--Mariana Limestone.

WELL CHARACTERISTICS.--Drilled parabasal water-table well, casing diameter 8 in.

DATUM.--Altitude of land-surface datum is 179 ft. Measuring point: Top of casing, 179.86 ft above mean sea level.

PERIOD OF RECORD.--March 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.37 ft above mean sea level, Oct. 24, 1980; lowest measured, 6.08 ft above mean sea level, Aug. 5, 1980.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 10	7.26	APR 11	7.02	JUN 8	7.16	JUL 9	7.00	AUG 9	7.03	SEP 6	7.53
MAR 7	7.00	MAY 9	7.07								

132626144471771. Local number, 18-2647-12 Exploratory Well Ex-4.

LOCATION.--Lat 13°26'26" N., long 144°47'17" E., Hydrologic Unit 20100003, in Tai Mangilao near Father Duenas Memorial High School. Owner: Government of Guam.

AQUIFER.--Argillaceous member of the Marianas Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 400 ft, borehole diameter 8 in, casing casing diameter 6 in, cased to 400 ft.

DATUM.--Altitude of land-surface datum is 152 ft. Measuring point: Top of casing, 153.71 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: Occasional measurements, March 1981 to April 1982, February 1983 to current year.
Water-level recorder, May to November 1982.

WATER QUALITY: 1981, 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.08 ft above mean sea level, Aug. 17, 1981; lowest, measured, 4.82 ft above mean sea level, Aug. 23, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 9	5.69	APR 11	5.15	MAY 9	5.19	JUN 8	5.31	AUG 9	5.38	SEP 6	6.16
MAR 7	5.11	19	5.22	11	5.24	JUL 9	5.26				

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
09...	1250	170	724	28.0	50
09...	1325	370	752	28.0	50
09...	1405	389	34800	28.0	14000
APR					
19...	1315	170	690	26.5	43
19...	1345	375	13000	26.5	4200
19...	1420	380	24000	26.5	8600
19...	1500	389	23700	26.5	8200
SEP					
17...	1320	170	763	28.0	52
17...	1400	300	755	28.0	51
17...	1435	340	761	28.0	52
17...	1505	360	758	28.0	48
17...	1550	380	32900	27.5	11000
17...	1625	390	43600	27.5	16000

132758144450571. Local number, 18-2745-03 Agana Well 147.

LOCATION.--Lat 13°27'58" N., long 144°45'05" E., Hydrologic Unit 20100003, on Route 4, 0.6 mi south of junction of Routes 1 and 4 in Agana. Owner: Government of Guam.

AQUIFER.--Mariana Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, depth when drilled, 186 ft, when measured in May 1973, 29 ft, casing diameter 6 in.

DATUM.--Altitude of land-surface datum is 33 ft. Measuring point: Top of casing, 33.22 ft above mean sea level.

PERIOD OF RECORD.--August 1955 to May 1960, January 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.42 ft above mean sea level, Oct. 14, 1955; lowest measured, 6.83 ft above mean sea level, June 20, 1978.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 9	8.57	APR 11	8.44	JUN 8	8.02	JUL 9	8.11	AUG 9	8.19	SEP 6	8.74
MAR 7	8.50	MAY 9	8.26								

132742144452971. Local number, 18-2745-07 Agana Springs.

LOCATION.--Lat 13°27'42" N., long 144°45'29" E., Hydrologic Unit 20100003, near Sinajana on the edge of Agana Swamp.

AQUIFER.--Mariana Limestone.

WELL CHARACTERISTICS.--Basal ground water issues from an opening in the Mariana Limestone. The water level is measured in a pool with a concrete spillway.

DATUM.--Altitude of land-surface datum is 10 ft. Measuring point: Edge of concrete spillway, 8.80 ft above mean sea level.

PERIOD OF RECORD.--April 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Lowest water level measured, 6.04 ft above mean sea level, June 8, 1984.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 9	8.35	APR 11	6.66	JUN 8	6.04	JUL 9	6.42	AUG 9	7.54	SEP 6	8.39
MAR 7	6.92	MAY 9	6.40								

MARIANA ISLANDS, ISLAND OF GUAM

132736144461671. Local number, 18-2746-06 Chochogo Well Ex-1.

LOCATION.--Lat 13°27'36" N., long 144°46'16" E., Hydrologic Unit 20100003, near San Miguel School, Chochogo.

AQUIFER.--Mariana Limestone: Agana argillaceous member.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 597 ft, casing diameter 6 in, cased to 300 ft.

DATUM.--Altitude of land-surface datum is 94 ft. Measuring point: Top of PVC casing, 96.50 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: November 1980 to current year.
WATER QUALITY: 1981, 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.52 ft above mean sea level, Sept. 28, 1982; lowest measured, 6.14 ft above mean sea level, June 22, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, NOVEMBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 15	7.39	APR 17	6.41	MAY 15	6.36	JUL 9	6.51	AUG 9	7.18	SEP 6	7.90
MAR 7	6.23	MAY 9	6.34	JUN 8	6.33						

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
15...	1005	110	720	27.0	52
15...	1040	340	21800	26.5	8200
15...	1120	355	24700	26.5	9800
15...	1150	370	28100	26.0	11000
APR					
17...	0935	110	940	27.0	43
17...	1000	340	27800	26.0	9600
17...	1035	355	33700	26.0	12000
17...	1110	360	33100	26.0	12000
17...	1145	370	46100	26.0	18000
SEP					
13...	1010	110	703	27.5	36
13...	1040	200	742	27.0	47
SEP					
13...	1115	300	15600	26.5	4900
13...	1155	330	26100	26.5	8800
13...	1225	340	28300	26.5	9600
13...	1300	350	28900	26.5	9800
13...	1335	365	30400	26.5	10000
13...	1420	375	35000	26.5	12000
13...	1455	400	42700	26.5	15000
13...	1535	450	42300	26.5	15000
13...	1615	550	49600	26.0	18000

MARIANA ISLANDS, ISLAND OF GUAM

132806144481871. Local number, 18-2848-03 Barrigada Exploratory Well Ex-9.

LOCATION.--Lat 13°28'06" N., long 144°48'18" E., Hydrologic Unit 20100003, near P.C. Lujan Elementary School Radio Barrigada. Owner: Government of Guam.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 513 ft, borehole diameter 8 in.

DATUM.--Altitude of land-surface datum is 238 ft. Measuring point: Top of surface casing, 239.41 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: September 1981 to current year.
WATER QUALITY: 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.45 ft above mean sea level, Oct. 28, 1981; lowest, measured, 2.29 ft above mean sea level, Feb. 18, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 14	2.90	DEC 20	2.81	APR 11	3.13	APR 23	3.11	JUN 8	3.26	AUG 9	3.20
DEC 19	2.78	MAR 7	3.03	13	3.14	MAY 9	3.03	JUL 9	3.22	SEP 6	3.29

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
14...	1055	260	3140	28.0	880
14...	1135	350	8160	27.5	2400
14...	1220	355	15900	27.5	5500
14...	1310	370	35000	27.5	13000
DEC					
20...	1210	240	3960	29.0	1200
20...	1250	260	3220	29.0	920
20...	1320	290	2930	28.5	800
20...	1350	320	2680	28.0	710
20...	1420	345	4530	28.0	1300
20...	1500	350	8930	28.0	2600
20...	1540	365	30600	28.0	11000
20...	1615	380	38500	27.5	15000
20...	1645	450	47300	27.5	19000
APR					
13...	1110	260	3590	28.0	880
13...	1210	350	11900	28.0	3600
APR					
13...	1245	360	31800	28.0	11000
13...	1315	365	35400	27.5	13000
13...	1350	370	38500	28.0	14000
SEP					
18...	1505	260	3350	28.5	920
18...	1535	320	2970	28.5	800
18...	1610	330	2940	28.5	800
19...	0950	340	2940	28.5	800
19...	1020	350	14800	28.0	4600
19...	1055	360	32200	28.0	11000
19...	1130	380	42500	28.0	15000
19...	1210	400	48500	28.0	18000
19...	1255	500	51500	28.0	19000

MARIANA ISLANDS, ISLAND OF GUAM

133034144500871. Local number, 18-3050-05 Macheche Rd. Well Ex-6.

LOCATION.--Lat 13°30'34" N., long 144°50'08" E., Hydrologic Unit 20100003, in Macheche area, Dededo.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 407 ft, uncased hole diameter 12 in. Well deepened to 462 ft on Aug. 7, 1981.

DATUM.--Altitude of land-surface datum is 309 ft. Measuring point: Top of surface casing, 309.41 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: February 1978 to current year.
WATER QUALITY: 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.09 ft above mean sea level, Aug. 16, 1978; lowest measured, 2.61 ft above mean sea level, Feb. 2, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 16	3.23	APR 19	3.44	JUN 8	3.54	JUL 10	3.49	AUG 9	3.48	SEP 6	3.48
MAR 7	3.28	MAY 9	2.71								

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
16...	0845	330	436	26.0	22
16...	0930	440	399	25.5	16
16...	1005	457	43500	25.5	18000
APR					
19...	1015	330	420	26.0	27
19...	1050	440	383	26.0	22
19...	1130	450	45000	26.0	17000
19...	1205	457	47000	25.5	18000
SEP					
11...	1435	330	399	27.0	14
11...	1515	440	632	26.5	86
11...	1550	450	48700	26.5	18000
11...	1635	445	36100	26.0	12000
12...	0855	445	33900	26.5	12000
12...	0935	455	49900	26.5	18000

MARIANA ISLANDS, ISLAND OF GUAM

133115144484971. Local number, 18-3148-02 Harmon Well 1 (107).

LOCATION.--Lat 13°31'15" N., long 144°48'49" E., Hydrologic Unit 20100003, 500 ft north of junction of Routes 1 and 16, Dededo. Owner: Government of Guam.

AQUIFER.--Mariana Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 289 ft, diameter 10 in.

DATUM.--Altitude of land-surface datum is 268 ft. Measuring point: Top of casing, 267.96 ft above mean sea level.

PERIOD OF RECORD.--Water-level recorder: March 1973 to May 1983.
Occasional measurements: June 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.34 ft above mean sea level, May 22, 1976; lowest, 1.84 ft above mean sea level, Feb. 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 9	2.83	APR 11	2.90	JUN 8	3.01	JUL 9	2.82	AUG 9	2.89	SEP 6	2.81
MAR 7	2.73	MAY 9	2.93								

MARIANA ISLANDS, ISLAND OF GUAM

133120144505471. Local number, 18-3150-10 Ghura-Dededo Monitoring Well.

LOCATION.--Lat 13°31'20" N., long 144°50'54" E., Hydrologic Unit 20100003, in the Dededo Well Field, PUAG, Dededo. Owner: Government of Guam.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 785 ft, uncased hole diameter 12 in.

DATUM.--Altitude of land-surface datum is 393 ft. Measuring point: Top of surface casing, 393.90 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: Water-level recorder, November 1982 to February 1983.
Occasional measurements, March 1980 to August 1982, March 1983 to current year.
WATER QUALITY: 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.36 ft above mean sea level, May 11, 1981, June 12, 1981; lowest measured, 1.40 ft above mean sea level, Dec. 17, 1982.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 17	2.09	APR 12	2.18	MAY 17	2.17	JUL 10	2.31	AUG 9	2.28	SEP 6	2.32
MAR 7	2.07	MAY 9	2.20	JUN 8	2.29						

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
17...	0925	400	874	27.0	120
17...	1005	520	2260	26.5	580
17...	1050	530	7490	26.5	2300
17...	1210	540	38700	26.5	19000
APR					
12...	1310	400	820	27.0	120
12...	1400	520	675	27.5	76
12...	1450	530	10600	27.0	3200
12...	1530	535	32700	27.0	12000
12...	1610	540	43200	27.0	17000
SEP					
20...	0825	400	833	26.5	120
20...	0910	450	647	27.0	64
20...	0950	500	694	27.0	82
20...	1035	520	5470	27.0	1600
20...	1115	530	14000	27.0	4400
20...	1200	540	48500	27.0	18000
20...	1240	550	52200	27.0	19000
20...	1325	600	52200	27.0	19000
20...	1410	200	52200	27.0	19000
20...	1505	775	52000	26.5	19000

MARIANA ISLANDS, ISLAND OF GUAM

133628144513271. Local number, 18-3651-05 Northwest Field Exploratory Well Ex-8.

LOCATION.--Lat 13°36'28" N., long 144°51'32" E., Hydrologic Unit 20100003, in old Air Force Housing area in Northwest Field.

AQUIFER.--Barrigada Limestone.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 658 ft, diameter 8 in.

DATUM.--Altitude of land-surface datum is 461 ft. Measuring point: Top of surface casing 462.49 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: September 1981 to current year.
WATER QUALITY: 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.86 ft above mean sea level, June 8, 1984; lowest, 1.88 ft above mean sea level, Feb. 28, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	2.54	APR 18	2.80	MAY 24	2.71	JUL 10	2.81	AUG 9	2.77	SEP 6	2.70
MAR 7	2.62	MAY 9	2.74	JUN 8	2.86						

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
NOV					
18...	1300	480	630	26.5	70
18...	1340	550	485	26.0	31
18...	1420	605	21900	25.5	7900
18...	1500	610	30300	25.5	12000
APR					
18...	1130	480	550	26.5	51
18...	1220	550	453	26.0	26
APR					
18...	1305	600	16700	26.0	5500
18...	1350	605	24500	25.5	8500
18...	1440	610	34100	25.5	12000

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

133451144534071 - 18-3453-02 AIR FORCE MON. WELL, GUAM

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
SEP					
11...	1025	495	710	26.0	20

CAROLINE ISLANDS, YAP ISLANDS

093204138095970. Local number, 25-3209-01 Dorfay 6-in Well, Gagil-Tamil.

LOCATION.--Lat 09°32'04" N., long 138°09'59" E., Hydrologic Unit 20100006, 0.8 mi northeast of the Tamilang Elementary School and 0.8 mi south of the Coast Guard LORAN Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 170 ft, casing diameter 6 in.

DATUM.--Altitude of land-surface datum is 29 ft. Measuring point: Top of casing, 30.92 ft above mean sea level.

PERIOD OF RECORD.--Occasional measurements, July 1982 to April 1983.
Water level recorder, May 1983 to current.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.32 ft above mean sea level, Dec. 22, 1982; lowest, 15.67 ft above mean sea level, June 10, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.32	18.97	19.38	18.76	18.97	19.49	18.46	17.79	17.05	19.16	19.11	19.64
2	19.40	19.00	19.47	18.75	18.98	19.35	18.42	17.76	17.05	19.36	19.22	19.51
3	19.44	19.05	19.35	18.73	18.95	19.27	18.39	17.72	17.01	19.52	19.50	19.39
4	19.37	19.28	19.28	18.72	18.94	19.39	18.36	17.68	16.97	19.59	19.77	19.40
5	19.32	19.32	19.22	18.71	18.91	19.52	18.36	17.65	17.01	19.48	19.65	19.44
6	19.26	19.26	19.16	18.67	18.87	19.43	18.35	17.62	17.05	19.46	19.69	19.37
7	19.51	19.19	19.10	18.67	18.84	19.35	18.32	17.58	17.03	19.37	19.65	19.33
8	19.67	19.13	19.06	18.64	18.82	19.30	18.27	17.54	17.04	19.28	19.60	19.25
9	19.57	19.21	19.02	18.64	18.79	19.25	18.25	17.49	17.08	19.22	19.58	19.28
10	19.45	19.25	18.98	18.63	18.86	19.21	18.23	17.46	17.15	19.17	19.60	19.34
11	19.38	19.18	18.97	18.60	19.13	19.19	18.20	17.42	17.30	19.10	19.59	19.31
12	19.34	19.10	18.94	18.81	19.17	19.16	18.16	17.37	17.60	19.11	19.76	19.38
13	19.32	19.05	18.96	19.22	19.17	19.09	18.19	17.35	17.76	19.07	19.70	19.41
14	19.33	19.00	18.96	19.17	19.22	19.04	18.21	17.31	17.79	19.09	19.59	19.33
15	19.31	18.96	19.04	19.11	19.24	19.00	18.19	17.27	17.79	19.19	19.56	19.54
16	19.25	18.91	19.06	19.08	19.16	18.98	18.18	17.24	17.95	19.14	19.60	19.58
17	19.20	19.00	19.04	19.03	19.10	18.94	18.21	17.20	18.10	19.09	19.78	19.54
18	19.33	19.07	18.99	19.02	19.04	18.89	18.16	17.17	18.16	19.05	19.68	19.54
19	19.45	19.08	18.94	19.26	18.99	18.86	18.10	17.12	18.32	19.00	19.58	19.45
20	19.35	19.04	18.89	19.35	18.96	18.81	18.11	17.09	18.61	18.94	19.55	19.44
21	19.25	18.99	18.86	19.27	18.94	18.77	18.09	17.04	18.79	18.91	19.53	19.53
22	19.25	18.95	18.82	19.16	19.03	18.73	18.06	16.98	18.86	18.86	19.44	19.54
23	19.22	18.92	18.77	19.09	19.02	18.72	18.02	17.12	18.91	18.84	19.40	19.53
24	19.18	18.98	18.75	19.27	18.99	18.70	18.00	17.15	18.94	18.81	19.35	19.71
25	19.16	19.34	18.76	19.33	18.94	18.67	17.98	17.10	19.17	18.85	19.33	19.67
26	19.12	19.35	18.74	19.25	19.05	18.63	17.95	17.05	19.37	18.97	19.50	19.53
27	19.13	19.28	18.70	19.18	19.31	18.60	17.92	17.08	19.33	18.97	19.47	19.38
28	19.12	19.21	18.77	19.11	19.58	18.57	17.88	17.09	19.22	18.97	19.40	19.26
29	19.07	19.14	18.87	19.06	19.65	18.57	17.85	17.09	19.14	18.96	19.51	19.05
30	19.02	19.16	18.86	19.01	---	18.54	17.81	17.08	19.16	18.95	19.68	18.97
31	19.00	---	18.80	18.97	---	18.50	---	17.05	---	19.00	19.75	---
MEAN	19.29	19.11	18.98	18.98	19.06	18.98	18.16	17.31	18.02	19.11	19.55	19.42
MAX	19.67	19.35	19.47	19.35	19.65	19.52	18.46	17.79	19.37	19.59	19.78	19.71
MIN	19.00	18.91	18.70	18.60	18.79	18.50	17.81	16.98	16.97	18.81	19.11	18.97

WTR YR 1984 MEAN 18.83 MAX 19.78 MIN 16.97

092919138045670. Local number, 25-2904-01 Yugamanman Well 1 (Fraq-Lamaer), Yap.

LOCATION.--Lat 09°29'19" N., long 138°04'57" E., Hydrologic Unit 20100006, 800 ft southwest of the Communication Station, and 800 ft northwest of the U.S. Weather Bureau station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 92 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 42 ft. Measuring point: Top of casing, 42.68 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: July 1982 to current year.
WATER QUALITY: 1984.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.09 ft above mean sea level, Sept. 23, 1983; lowest measured, 12.24 ft above mean sea level, May 13, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	28.66	NOV 8	28.18	DEC 13	27.52	FEB 8	25.03	APR 9	24.01	JUL 24	25.70
OCT 11	28.55	NOV 15	27.90	DEC 19	27.71	FEB 24	26.98	APR 24	22.05	AUG 24	28.20
OCT 19	28.42	NOV 22	29.04	JAN 5	26.31	MAR 8	28.42	MAY 14	19.18	SEP 6	28.80
OCT 21	28.19	NOV 28	29.17	JAN 18	26.30	MAR 16	27.23	JUN 20	24.60	SEP 24	29.51
NOV 3	28.18	DEC 7	28.05	FEB 1	25.57	MAR 23	26.25	JUN 28	26.78		

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 23...	0850	49	7.7	29.0	10	0	2.7	.86	5.9	54	.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 23...	.40	18	2.0	3.7	<.10	.9	27	.04	<.10	20	51

< Actual value is known to be less than the value shown.

CAROLINE ISLANDS, YAP ISLANDS

092920138050270. Local number, 25-2905-02 Timlang Well 2, Yap.

LOCATION.--Lat 09°29'18" N., long 138°05'01" E., Hydrologic Unit 20100006, 600 ft south of the Communication Station, and 300 west of the U.S. Weather Bureau Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 80 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 39 ft. Measuring point: Top of casing, 40.43 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: July 1982 to current year.
WATER QUALITY: 1984.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.88 ft above mean sea level, Sept. 1, 1982; lowest measured, 11.38 ft above mean sea level, May 13, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	32.50	NOV 8	32.85	DEC 13	30.61	FEB 8	26.29	APR 9	25.07	JUL 24	27.46
OCT 11	32.68	NOV 15	31.28	DEC 19	31.54	FEB 24	29.39	APR 24	22.81	AUG 24	33.06
OCT 19	32.17	NOV 22	33.05	JAN 5	28.47	MAR 8	32.69	MAY 14	19.82	SEP 6	33.71
OCT 21	31.68	NOV 28	33.63	JAN 18	28.22	MAR 16	30.65	JUN 20	24.65	SEP 24	35.11
NOV 3	31.77	DEC 7	31.84	FEB 1	27.05	MAR 23	28.77	JUN 28	29.88		

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 23...	0835	42	6.5	29.5	12	5	3.1	.93	4.3	44	.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 23...	.30	7.0	1.3	7.5	.20	.4	23	.03	<.10	460	220

< Actual value is known to be less than the value shown.

CAROLINE ISLANDS, YAP ISLANDS

092616138050670. Local number 25-2905-03 Timlang Well 3, Yap

LOCATION.--Lat 09°29'16" N., long 138°05'05" E., Hydrologic Unit 20100006, 800 ft south-southeast of the Communication Station, and 100 ft southeast of the U.S. Weather Bureau Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 88 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 43 ft. Measuring point: Top of casing, 44.22 ft above mean sea level.

REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--
WATER LEVEL: September 1982 to current year.
WATER QUALITY: 1982, 1984.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.03 ft above mean sea level, July 29, 1982; lowest measured, 12.76 ft above mean sea level, May 13, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 12	26.65	MAY 14	22.09	JUN 28	29.61	AUG 24	32.60	SEP 24	34.28
APR 24	25.24	JUN 1	17.92	JUL 24	28.14	SEP 6	32.33		

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 20...	1440	57	5.2	29.5	15	9	3.8	1.3	6.9	50	.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 20...	.20	6.0	3.1	10	<.10	7.1	36	.05	.57	230	21

< Actual value is known to be less than the value shown.

092926138050470. Local number, 25-2905-06 Communication Well 2, Yap.

LOCATION.--Lat 09°29'25" N., long 138°05'03" E., Hydrologic Unit 20100006, 75 ft north of the Communication Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 81 ft, diameter 2 in.

DATUM.--Altitude of land-surface datum is 39 ft. Measuring point: Top of casing, 39.40 ft above mean sea level.

PERIOD OF RECORD.--December 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.40 ft above mean sea level, June 8, 1982; lowest measured, 9.90 ft above mean sea level, May 27, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	27.64	NOV 8	27.81	DEC 13	26.73	FEB 8	29.15	APR 12	22.81	JUL 24	25.07
OCT 11	27.58	NOV 15	27.15	DEC 19	27.10	FEB 24	25.70	APR 24	21.30	AUG 24	27.70
OCT 19	27.40	NOV 22	28.06	JAN 5	25.45	MAR 8	28.14	MAY 14	18.51	SEP 6	28.72
OCT 21	27.29	NOV 28	27.29	JAN 18	25.14	MAR 16	26.94	JUN 20	23.04	SEP 24	28.78
NOV 3	26.83	DEC 7	27.54	FEB 1	24.53	MAR 20	26.12	JUN 28	26.57		

093159138095870. Local number 25-3109-01 Monguch Well 1, Gagil-Tamil.

LOCATION.--Lat 09°31'59" N., long 138°09'58" E., Hydrologic Unit 20100006, 0.6 mi northeast of the Tamilang Elementary School, and 1.0 mi south of the Coast Guard LORAN Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled observation well, depth reported 85 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 19.5 ft. Measuring point: Top of casing, 21.38 ft above mean sea level.

PERIOD OF RECORD.--July 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, overflowing casing for many days each year; lowest measured, 18.19 ft above mean sea level, May 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	21.32	APR 9	21.32	MAY 17	19.49	JUN 27	j	AUG 30	j
MAR 21	21.30	APR 24	20.48	JUN 13	20.23	AUG 10	j	SEP 24	j

j Water overflowing casing.

093159138095870. Local number, 25-3109-02 Monguch Well 2, Gagil-Tamil.

LOCATION.--Lat 09°31'59" N., long 138°09'58" E., Hydrologic Unit 20100006, 0.6 mi north of the Tamilang Elementary School, and 1.0 mi south of the Coast Guard LORAN Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 95 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 24 ft. Measuring point: Top of casing, 26.47 ft above mean sea level.

PERIOD OF RECORD.--July 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.79 ft above mean sea level, Aug. 10, 1984; lowest measured, 20.19 ft above mean sea level, May 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	24.43	APR 9	23.27	MAY 17	21.97	JUN 27	24.07	AUG 30	24.25
MAR 21	23.95	APR 24	22.85	JUN 13	22.42	AUG 10	24.79	SEP 24	23.64

093157138095670. Local number, 25-3109-03 Thilung Well 1 (Monguch 3), Gagil-Tamil.

LOCATION.--Lat 09°31'57" N., long 138°09'56" E., Hydrologic Unit 20100006, 0.6 mi north of the Tamilang Elementary School, and 1.1 mi south of the Coast Guard LORAN Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 115 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 26 ft. Measuring point: Top of casing, 28.16 ft above mean sea level.

PERIOD OF RECORD.--July 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.58 ft above mean sea level, Sept. 1, 1982; lowest measured, 23.29 ft above mean sea level, Feb. 21, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 21	25.31	APR 24	23.97	JUN 13	23.36	JUL 23	24.29	AUG 30	23.74
APR 9	24.46	MAY 17	24.00	JUN 27	25.37	AUG 10	26.25	SEP 24	25.97

CAROLINE ISLANDS, YAP ISLANDS

093154138095370. Local number, 25-3109-04 Thilung Well 2 (Monguch 4), Gagil-Tamil.

LOCATION.--Lat 09°31'54" N., long 138°09'53" E., Hydrologic Unit 20100006, 0.5 mi north of the Tamilang Elementary School, and 1.1 mi south of the Coast Guard LORAN Station.

AQUIFER.--Tamil Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 105 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 33 ft. Measuring point: Top of casing, 34.82 ft above mean sea level.

PERIOD OF RECORD.--July 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.53 ft above mean sea level, Sept. 24, 1984; lowest measured, 22.95 ft above mean sea level, May 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	28.96	APR 24	26.77	JUN 13	25.26	JUL 23	28.38	AUG 30	28.84
MAR 21	28.37	MAY 17	25.67	JUN 27	28.38	AUG 10	29.49	SEP 24	29.53
APR 9	27.39								

CAROLINE ISLANDS, YAP ISLANDS

093217138101270. Local number, 25-3210-01 Mukong Well, Gagil-Tamil.

LOCATION.--Lat 09°32'17" N., long 138°10'12" E., Hydrologic Unit 20100006, 0.6 mi south of the Coast Guard LORAN Station, and 1.1 mi north-northeast of the Tamilang Elementary School.

AQUIFER.--Coral formation in the Tamil-Volcanics.

WELL CHARACTERISTICS.--Drilled water-table well, depth reported 120 ft, diameter 6 in.

DATUM.--Altitude of land-surface datum is 24 ft. Measuring point: Top of casing, 25.83 ft above mean sea level.

PERIOD OF RECORD.--
WATER LEVEL: July 1982 to current year.
WATER QUALITY: 1984.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.19 ft above mean sea level, Sept. 1, 1982; lowest measured, 12.68 ft above mean sea level, May 12, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	15.67	DEC 13	15.26	FEB 27	15.32	APR 9	14.57	JUN 27	14.81	AUG 30	15.75
OCT 21	15.58	JAN 4	14.98	MAR 16	15.33	APR 24	14.24	JUL 23	15.03	SEP 24	15.73
NOV 13	15.23	FEB 15	15.17	MAR 21	15.16	MAY 17	13.63	AUG 10	15.62		

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
MAR 21...	1230	8.7	29.0	9	0	2.8	.50	79	92	12	5.2

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 21...	176	1.6	11	.60	.7	210	.28	.15	87	8

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

092703138041170 - 25-2704-01 WUGEEM, YAP

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
MAR 22...	1830	212	6.1	70	0	12	9.8	18	36	1	.30

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 22...	71	7.0	19	<.10	46	150	.21	.30	30	57

092903138051170 - 25-2905-04 LAMAER, YAP

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 23...	1000	61	5.4	29.0	17	5	3.6	1.9	5.5	41	.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 23...	.20	12	2.5	8.5	<.10	12	42	.06	.16	750	35

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

092920138043570 - 25-2905-05 COMMUNICATION BLDG WELL 1, YAP

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 20...	1515	122	6.8	30.0	43	0	8.0	5.5	7.8	28	.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 20...	.40	49	1.6	8.6	<.10	54	120	.16	.19	19	6

093144138054670 - 25-3105-01 MAGAF, YAP

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
MAR 22...	1030	305	6.4	27.5	130	3	21	20	12	16	.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
MAR 22...	.40	132	4.5	18	<.10	50	210	.28	.13	160	59

< Actual value is known to be less than the value shown.

CAROLINE ISLANDS, TRUK ISLANDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

STATION NUMBER	LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	DATE OF SAMPLE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
072517151505770	30-2550-01	07 25 10	151 50 33	84-02-08	1030	172	28.0	9.0
072658151511970	30-2650-01	07 26 46	151 50 56	84-02-08	0830	148	27.5	12
072654151511870	30-2650-02	07 26 50	151 50 55	84-02-08	0825	180	28.5	12
072704151511070	30-2650-05	07 26 57	151 50 47	84-02-08	0950	180	28.5	16
072702151512570	30-2651-01	07 26 54	151 51 01	84-02-08	0840	400	28.5	37
072706151512470	30-2651-03	07 26 58	151 51 00	84-02-08	0910	400	28.5	49
072705151512670	30-2651-04	07 26 58	151 51 02	84-02-08	0900	2170	28.5	650
072708151512170	30-2750-03	07 27 01	151 50 56	84-02-07	1510	270	29.0	25
072710151512570	30-2751-01	07 27 03	151 51 01	84-02-08	0925	260	28.5	26

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

082522151444070 - 31-2544-02 NOMWIN W2, HALL IS, TRUK IS

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 16...	1615	1900	6.9	28.0	140	37	160	71	485	63	260	.40

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
MAR 16...	5.2	24	40	2	<100	10	<1	20	<1	6	100	40

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAR 16...	59	2	<10	62	0	62	.1	1	2	<1	<1	20

083325151535670 - 31-3353-06 FANANU W6, NOMWIN ATOLL, HALL IS

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 16...	1000	4000	6.9	27.5	140	75	490	20	366	150	930	.30

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
MAR 16...	2.4	1.9	30	1	<100	<10	<1	20	<1	2	80	0

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAR 16...	80	<1	10	130	130	.1	<1	<1	<1	<1	30

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

083618152144070 - 31-3614-04 RUO W4, HALL IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 04...	1700	1550	6.7	27.0	150	30	140	7.8	484	71	180	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
MAR 04...	6.5	<.10	20	4	<100	<10	3	10	<1	5	80	50

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAR 04...	30	<1	<10	34	34	<.1	<1	4	<1	<1	40

084111152203770 - 31-4120-14 MURILO W14, HALL IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 04...	0930	975	7.1	27.0	120	18	63	2.7	358	20	110	.60

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
MAR 04...	4.1	<.10	30	<1	<100	<10	<1	<10	1	2	160	110

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAR 04...	52	<1	<10	77	0	77	<.1	<1	3	<1	<1	20

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

083503150242070 - 32-3524-05 PISARACH W5, MAGUR IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 21...	1100	950	6.8	27.5	130	15	61	13	335	22	100	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
MAR 21...	1.4	12	30	<1	<100	<10	<1	20	<1	2	20	0

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAR 21...	19	4	<10	62	62	.1	<1	<1	<1	<1	10

083504149392070 - 32-3539-01 ULUL W1, MAGUR IS, TRUK IS

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 23...	1230	1750	7.0	28.5	100	34	200	25	330	65	320	.40

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
MAR 23...	7.6	16	30	2	<100	<10	<1	20	<1	6	50	30

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
MAR 23...	23	3	10	65	65	<.1	2	8	<1	<1	140

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

072130149115970 - 33-2111-32 PULUWAT W32, WESTERN TRUK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
JAN 31...	1040	571	6.4	27.5	110	6.5	4.2	<.10	313	3.5	5.3	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
JAN 31...	.3	<.10	10	<1	<100	<10	<1	<10	<1	6	300	290

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
JAN 31...	14	9	<10	10	8	2	<.1	<1	4	<1	<1	140

073240149241470 - 33-3224-02 TAMATAM W2, WESTERN TRUK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 03...	0930	1600	7.2	27.0	110	38	170	13	371	87	250	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
FEB 03...	1.6	6.5	30	<1	<100	<10	3	10	<1	5	50	0

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FEB 03...	46	<1	<10	16	0	16	<.1	1	7	<1	<1	530

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

073834149250470 - 33-3825-11 PULAP W11, WESTERN TRUK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 04...	1030	1150	6.7	27.0	130	23	87	1.5	383	28	150	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
FEB 04...	.4	.23	10	<1	<100	<10	<1	20	<1	2	530	360

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FEB 04...	170	<1	<10	21	0	21	<.1	<1	3	<1	<1	30

064148149184070 - 33-4118-07 PULUSUK W7, WESTERN TRUK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 05...	0930	1100	6.9	27.5	130	23	34	75	491	20	39	.30

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)
FEB 05...	2.5	13	20	<1	<100	<10	<1	10	<1	3	30	26

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FEB 05...	2	<10	27	0	27	<.1	<1	5	<1	<1	20

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

052701153272970 - 35-2727-21 KUTTU W21, MORTLOCK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	CHLORIDE, DISSOLVED (MG/L AS CL)
FEB 17...	1015	340	26.5	7.0

052655153272970 - 35-2727-28 KUTTU W28, MORTLOCK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 17...	1115	750	7.4	27.0	83	15	43	7.5	268	29	45	.40

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
FEB 17...	4.4	7.4	30	1	<100	<10	3	<10	<1	3	40	10

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FEB 17...	26	3	<10	57	0	57	.1	1	8	<1	<1	170

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

052918153321470 - 35-2932-18 MOCH W18, MORTLOCK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 18...	1415	800	7.3	27.0	100	15	44	4.0	316	32	43	.20

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
FEB 18...	3.3	5.9	20	1	<100	<10	1	<10	2	5	100	60

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FEB 18...	37	3	<10	46	0	46	<.1	1	13	<1	<1	70

053446153344270 - 35-3434-20 ETAL W20, MORTLOCK IS, TRUK

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
FEB 19...	1200	650	7.1	26.5	96	16	17	2.9	310	11	20	.30

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE)
FEB 19...	1.2	1.8	20	<1	<100	<10	11	<10	<1	6	180	150

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
FEB 19...	34	4	<10	50	0	50	<.1	1	9	<1	<1	50

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

055525153065570 - 35-5506-28 NAMOLUK W28, MORTLOCK IS, TRUK

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB 21...	1100	600	7.1	28.5	110	8.6	11	1.7	300	7.9	8.3	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE)
FEB 21...	3.7	2.7	20	43	<100	<10	5	10	<1	6	50	30

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
FEB 21...	21	4	<10	54	0	54	<.1	1	11	<1	2	30

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070841171011801 - 50-0802-01 LAURA DW1, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
APR											
11...	625	--	28.5	--	--	--	--	--	--	--	--
18...	645	7.2	28.5	310	0	100	14	18	11	.5	1.7

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
APR										
11...	--	--	13	--	--	--	--	--	--	--
18...	314	19	19	.20	5.9	370	.50	.47	21	71

070850171021901 - 50-0802-02 LAURA DW2, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
APR											
18...	650	7.1	27.5	290	0	96	12	30	18	.8	5.7

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
APR										
18...	322	8.8	25	.20	5.0	380	.51	.16	16	16

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070849171011001 - 50-0802-03 LAURA DW3, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
APR											
13...	395	--	30.0	--	--	--	--	--	--	--	--
17...	350	6.9	28.5	170	0	60	5.2	4.6	6	.2	.40

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
APR										
13...	--	--	8.0	--	--	--	--	--	--	--
17...	176	3.7	7.1	.20	.6	190	.25	.16	77	530

070854171011201 - 50-0802-04 LAURA DW4, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
APR											
10...	710	--	28.5	--	--	--	--	--	--	--	--
17...	700	6.6	28.5	340	0	120	9.6	21	12	.5	1.1

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
APR										
10...	--	--	15	--	--	--	--	--	--	--
17...	339	22	18	.20	.8	400	.54	1.8	31	50

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070835171021501 - 50-0802-05 LAURA A-37, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
SEP										
20...	2920	--	--	--	--	--	--	--	--	--
24...	2770	7.9	32.0	520	180	42	100	380	60	7

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP									
20...	--	--	--	750	--	--	--	--	--
24...	30	337	25	720	1.1	<1.0	3.6	100	10

070856171021401 - 50-0802-06 LAURA D-14, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	690	--	--	--	--	--	--	--	--	--	--
24...	690	7.5	29.0	380	0	130	13	20	10	.5	.40

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	4.0	--	--	--	--	--	--	--
24...	396	21	7.1	.20	1.8	430	.59	.60	15	10

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070856171021402 - 50-0802-07 LAURA D-31, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	1030	--	--	--	--	--	--	--	--	--	--
24...	1080	7.5	30.0	400	18	92	42	62	25	1	1.9

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	130	--	--	--	--	--	--	--
24...	385	2.5	120	.70	2.4	550	.75	<.10	10	3

070856171021403 - 50-0802-08 LAURA D-67, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
SEP										
20...	38500	--	--	--	--	--	--	--	--	--
24...	40500	7.7	29.0	4700	4600	290	960	7900	77	51

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP									
20...	--	--	--	14000	--	--	--	--	--
24...	280	125	2000	14000	.80	<1.0	<.10	300	50

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070854171020801 - 50-0802-09 LAURA E-14, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	400	--	--	--	--	--	--	--	--	--	--
24...	--	7.5	30.0	220	0	77	7.4	7.8	7	.2	.70

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	5.0	--	--	--	--	--	--	--
24...	237	5.8	9.5	.10	.5	250	.34	<.10	41	3

070854171020802 - 50-0802-10 LAURA E-42, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	490	--	--	--	--	--	--	--	--	--	--
24...	552	7.8	29.0	210	8	44	24	36	27	1	1.6

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	42	--	--	--	--	--	--	--
24...	201	2.5	54	.60	.4	280	.39	.32	12	5

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070854171020803 - 50-0802-11 LAURA E-55, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
SEP										
20...	15000	--	--	--	--	--	--	--	--	--
24...	15700	7.8	29.0	2000	1800	140	390	2900	75	29

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP									
20...	--	--	--	5000	--	--	--	--	--
24...	150	199	610	5400	1.1	<1.0	<.10	140	30

070854171020001 - 50-0802-12 LAURA F-14, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	560	--	--	--	--	--	--	--	--	--	--
24...	540	7.6	30.0	270	24	91	9.3	15	11	.4	.70

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	26	--	--	--	--	--	--	--
24...	242	4.1	24	.20	.0	290	.39	<.10	56	4

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070854171020002 - 50-0802-13 LAURA F-30, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	980	--	--	--	--	--	--	--	--	--	--
24...	810	7.9	30.0	240	18	74	14	69	38	2	2.2

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	160	--	--	--	--	--	--	--
24...	225	6.3	130	.30	.1	430	.59	<.10	7	3

070854171020003 - 50-0802-14 LAURA F-45, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
SEP										
20...	21300	--	--	--	--	--	--	--	--	--
24...	20100	7.8	31.0	2300	2200	190	450	3600	76	33

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP									
20...	--	--	--	7900	--	--	--	--	--
24...	140	168	860	6800	.50	<1.0	<.10	90	20

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070843171021001 - 50-0802-15 LAURA P-9, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	430	--	--	--	--	--	--	--	--	--	--
24...	458	7.5	31.0	210	0	74	6.0	12	11	.4	.50

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	16	--	--	--	--	--	--	--
24...	214	4.8	15	.20	.4	240	.33	<.10	21	2

070843171021003 - 50-0802-17 LAURA P-25, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	340	--	--	--	--	--	--	--	--	--	--
24...	378	7.6	33.0	180	0	60	7.5	11	12	.4	.50

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	17	--	--	--	--	--	--	--
24...	189	2.8	17	.30	.3	210	.29	<.10	13	1

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070843171021004 - 50-0802-18 LAURA P-53, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
SEP										
20...	9380	--	--	--	--	--	--	--	--	--
24...	9000	7.7	30.0	1100	880	95	200	1600	75	22

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP									
20...	--	--	--	3000	--	--	--	--	--
24...	58	178	320	2900	.90	<1.0	.15	90	10

070917171021101 - 50-0902-01 LAURA I-10, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	423	--	--	--	--	--	--	--	--	--	--
24...	428	7.2	28.5	210	0	75	5.7	7.2	7	.2	.60

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	6.0	--	--	--	--	--	--	--
24...	221	7.8	6.0	.20	.1	240	.32	.89	17	7

< Actual value is known to be less than the value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

070917171021102 - 50-0902-02 LAURA I-25, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)
SEP											
20...	442	--	--	--	--	--	--	--	--	--	--
24...	458	7.4	28.0	200	0	59	14	13	12	.4	1.4

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP										
20...	--	--	14	--	--	--	--	--	--	--
24...	217	6.7	12	.40	.2	240	.32	.49	17	<1

070917171021103 - 50-0902-03 LAURA I-55, MAJURO

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM ADSORPTION RATIO
SEP										
20...	10500	--	--	--	--	--	--	--	--	--
24...	18800	7.8	28.0	1900	1700	150	380	2800	75	28

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
SEP									
20...	--	--	--	3200	--	--	--	--	--
24...	110	216	620	5300	.80	<1.0	.11	130	40

< Actual value is known to be less than the value shown.

SAMOA ISLANDS, ISLAND OF TUTUILA

141945170435401. Local number, 90-1943-24 Tafunafou Observation Well 1.

LOCATION.--Lat 14°19'45" S., long 170°43'54" W., Hydrologic Unit 20100001, 120 ft northwest of Tafunafou village cross road intersection, and 0.7 mi southeast of High School in Mapusaga. Owner: Government of American Samoa.

AQUIFER.--Basalt lava flows of the Leone Volcanics.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 78 ft, casing diameter 4 in.

DATUM.--Altitude of land-surface datum is 73 ft. Measuring point: Top of 4-inch casing, 75.18 ft above mean sea level.

REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level 20.38 ft above mean sea level, may be caused by cascading water in the well following heavy rain, May 13, 1977; lowest 7.37 ft below mean sea level, July 13, 1978.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	2.78	DEC 5	1.12	FEB 6	0.74	APR 9	1.86	JUN 11	2.40	AUG 13	0.58
11	2.14	12	.56	13	.64	16	1.38	18	1.97	20	-.40
17	-.27	19	.48	21	.71	23	2.35	25	1.63	27	1.74
24	2.82	27	1.60	27	1.17	30	2.28	JUL 2	1.45	SEP 4	2.31
31	1.60	JAN 3	1.99	MAR 5	1.33	MAY 7	2.07	9	.21	10	1.81
NOV 7	.32	09	.76	12	1.12	14	1.88	17	1.01	17	2.41
14	-.30	16	.61	19	1.86	21	1.93	23	1.24	24	1.98
21	1.00	23	.58	26	5.72	29	1.64	30	.46		
28	.47	30	.90	APR 2	3.26	JUN 4	1.59	AUG 6	.18		

141948170435701. Local number, 90-1943-28 Tafunafou Observation Well 5.

LOCATION.--Lat 14°19'48" S., long 170°43'57" W., Hydrologic Unit 20100001, 1,000 ft southeast of Tafunafou village, and 1.5 mi northwest of Pago Pago International Airport. Owner: Government of American Samoa.

AQUIFER.--Basalt lava flows of the Leone Volcanics.

WELL CHARACTERISTICS.--Drilled basal water-table well, sounded depth 106 ft, casing diameter 4 in.

DATUM.--Altitude of land-surface datum is 83 ft. Measuring point: Top of 4-inch casing, 85.32 ft above mean sea level.

REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.32 ft above mean sea level, may be caused by cascading water in the well following heavy rain, July 28, 1981; lowest 4.23 ft below mean sea level, Aug. 15, 1977.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	2.26	DEC 5	-1.08	FEB 6	1.85	APR 9	2.09	JUN 11	2.54	AUG 13	1.58
11	1.59	12	-1.31	13	2.03	16	-1.18	18	2.05	20	1.56
17	1.53	19	1.67	21	2.51	23	-.60	25	2.09	27	1.74
24	2.02	27	2.23	27	2.64	30	-.59	JUL 2	2.00	SEP 4	1.78
31	1.75	JAN 3	1.95	MAR 5	2.62	MAY 7	-.73	09	1.87	10	1.87
NOV 7	1.64	09	1.41	12	2.08	14	-.88	17	1.68	17	1.99
14	1.51	16	1.86	19	1.20	21	-.76	23	1.86	24	1.93
21	-1.04	23	1.79	26	3.76	29	-.71	30	1.52		
28	-1.18	30	2.14	APR 2	-.04	JUN 4	-.76	AUG 6	1.71		

SAMOA ISLANDS, ISLAND OF TUTUILA

142057170461501. Local number, 90-2046-02 Puapua Well 47.

LOCATION.--Lat 14°20'57" S., long 170°46'15" W., Hydrologic Unit 20100001, 0.8 mi east of Midkiff School and 1.1 mi west of Futiga village church.

AQUIFER.--Basalt lava flows and sand of the Leone Volcanics underlain by calcareous coastal deposits.

WELL CHARACTERISTICS.--Drilled basal water-table well, depth 190 ft, casing diameter 6 in.

DATUM.--Altitude of land-surface datum is 144 ft. Measuring point: Top of 6-inch casing, 146.25 ft above mean sea level.

REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--December 1979 to August 1984 (discontinued).

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.25 ft above mean sea level, Aug. 13, 1980; lowest 0.12 ft below mean sea level, Dec. 1, 1980.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	2.69	NOV 28	3.02	JAN 23	2.95	MAR 19	3.80	MAY 14	3.04	JUL 9	2.55
11	2.48	DEC 5	2.77	30	3.02	26	5.14	21	2.08	17	2.43
17	2.33	12	2.55	FEB 6	2.99	APR 2	5.00	29	2.97	23	2.40
24	3.21	19	2.45	13	2.86	09	3.48	JUN 4	2.76	30	2.44
31	2.91	27	2.44	21	3.39	16	3.45	11	3.38	AUG 6	1.97
NOV 7	2.54	JAN 3	3.75	27	3.85	23	3.08	18	3.02	13	2.18
14	2.37	09	2.91	MAR 5	4.07	30	3.20	25	2.89		
21	2.73	16	2.78	12	3.83	MAY 7	3.11	JUL 2	2.58		

142102170445601. Local number, 90-2144-12 Iliili test well 115.

LOCATION.--Lat 14°21'02" S., long 170°44'56" W., Hydrologic Unit 20100001, 800 ft northwest of Iliili village church, and 0.5 mi northeast of Futiga village school.

AQUIFER.--Basalt lava flows of the Leone Volcanics underlain by calcareous coastal deposits.

WELL CHARACTERISTICS.--Drilled basal water-table well, well depth 243 ft, casing diameter 4 in.

DATUM.--Altitude of land-surface datum is 216 ft. Measuring point: Top of 4-inch casing, 216.94 ft above mean sea level.

REMARKS.--Water level affected by pumping of nearby well.

PERIOD OF RECORD.--February 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.89 ft above mean sea level, June 15, 1982; lowest 2.56 ft above mean sea level, May 31, 1983.

WATER LEVEL, IN FEET ABOVE MEAN SEA LEVEL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	4.54	DEC 5	4.28	FEB 6	4.67	APR 9	4.88	JUN 11	5.02	AUG 13	4.31
11	4.09	12	4.01	13	4.58	16	4.83	18	4.73	20	4.16
17	4.40	19	4.68	21	5.33	23	4.65	25	4.62	27	4.37
24	4.65	27	4.56	27	5.34	30	4.90	JUL 2	4.59	SEP 4	4.29
31	4.79	JAN 3	5.06	MAR 5	5.55	MAY 7	4.84	09	4.45	10	4.44
NOV 7	5.05	9	4.82	12	5.43	14	5.24	17	4.40	17	4.49
14	3.97	16	4.70	19	5.73	21	4.79	23	4.48	24	4.44
21	4.00	23	5.01	26	6.30	29	4.93	30	4.14		
28	4.18	30	5.04	APR 2	5.82	JUN 4	4.75	AUG 6	4.30		

SAMOA ISLANDS, ISLAND OF TUTUILA

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

141623170393801 - 90-1639-08 AUA W97

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0635	15	06...	0655	15	04...	0710	15
11...	0615	15	13...	0640	15	11...	0715	15
17...	0635	15	21...	0705	15	18...	0720	15
24...	0640	15	27...	0725	15	25...	0715	15
31...	0635	15	MAR			JUL		
NOV			05...	0720	15	02...	0645	15
07...	0635	15	12...	0700	15	09...	0725	23
14...	0620	23	19...	0720	15	17...	0710	23
21...	0620	15	26...	0725	15	23...	0725	23
28...	0630	23	APR			30...	0725	23
DEC			02...	0650	15	AUG		
12...	0635	15	09...	0805	15	06...	0715	23
19...	0715	23	16...	0750	15	13...	0725	15
27...	0650	15	23...	0725	15	20...	1115	23
JAN			30...	0820	15	27...	0750	23
03...	0650	15	MAY			SEP		
09...	0635	23	07...	0725	15	04...	0830	15
16...	0750	15	14...	0655	15	10...	0730	15
23...	0645	15	21...	0725	15	17...	0755	15
30...	0650	15	29...	0720	15			

141945170435301 - 90-1943-06 TAFUNAFOU W33

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0800	68	06...	0820	197	04...	0835	205
11...	1025	68	13...	0755	424	11...	0755	106
17...	0830	159	21...	0815	303	18...	0825	121
24...	0735	98	27...	0805	303	25...	0805	219
NOV			MAR			JUL		
07...	0740	182	05...	0905	128	02...	0745	227
14...	0805	333	12...	0845	144	09...	0820	454
21...	0710	136	19...	0845	128	17...	0800	364
28...	0815	212	26...	0840	61	23...	0820	424
DEC			APR			30...	0815	424
05...	1010	175	02...	0815	68	AUG		
12...	0815	364	16...	0840	136	06...	0815	364
19...	0830	424	23...	0810	212	13...	0805	545
27...	0745	333	30...	0905	205	20...	0720	545
JAN			MAY			SEP		
03...	0820	114	07...	0820	136	10...	0815	394
09...	0805	182	14...	0800	121	17...	0855	394
16...	0845	205	21...	0820	144	24...	0815	364
23...	0820	205	29...	0815	182			
30...	0815	189						

Chloride records are Hach kit field determination by cooperator.

SAMOA ISLANDS, ISLAND OF TUTUILA

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

141928170435201 - 90-1943-20 TAFUNAFOU W81

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0755	23	06...	0835	30	04...	0815	38
11...	1010	23	13...	0815	45	11...	0850	15
17...	0820	30	21...	0800	30	18...	0810	23
24...	0720	23	27...	0900	30	25...	0855	38
31...	0730	23	MAR			JUL		
NOV			05...	0920	23	02...	0730	38
07...	0725	23	12...	0855	23	09...	0800	45
14...	0750	38	19...	0905	23	17...	0745	45
21...	0700	30	26...	0825	15	23...	0800	53
28...	0830	23	APR			30...	0755	53
DEC			02...	0910	23	AUG		
05...	1020	23	09...	0925	30	06...	0755	76
12...	0830	53	16...	0940	23	13...	0750	61
19...	0810	53	23...	0915	30	SEP		
27...	0730	45	30...	0950	30	10...	0805	23
JAN			MAY			17...	0845	23
03...	0830	30	07...	0930	30	24...	0805	30
09...	0820	23	14...	0915	15			
16...	0820	23	21...	0805	15			
23...	0725	30	29...	0850	23			
30...	0840	23						

141952170440201 - 90-1944-11 TAFUNAFOU W61

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0810	364	06...	0740	273	11...	0810	205
11...	1035	424	13...	0725	364	18...	0840	189
24...	0750	394	21...	0840	364	25...	0825	227
31...	0755	394	27...	0835	364	JUL		
NOV			MAR			02...	0755	227
07...	0755	364	05...	0825	303	09...	0830	227
14...	0820	364	12...	0805	303	17...	0820	227
21...	0725	333	19...	0830	303	23...	0840	364
28...	0730	364	26...	0855	121	30...	0830	364
DEC			APR			AUG		
05...	0935	333	02...	0840	121	06...	0855	424
12...	0725	333	16...	0900	167	13...	0820	424
19...	0850	364	23...	0830	197	20...	0740	424
27...	0805	364	30...	0920	303	SEP		
JAN			MAY			10...	0840	454
03...	0740	333	07...	0840	303	17...	0915	454
09...	0720	333	14...	0830	189	24...	0835	394
16...	0900	394	21...	0835	212			
23...	0740	303	29...	0830	219			
30...	0735	394						

Chloride records are Hach kit field determination by cooperator.

SAMOA ISLANDS, ISLAND OF TUTUILA

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

141951170440101 - 90-1944-12 TAFUNAFOU W60

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
DEC			MAR			AUG		
12...	0730	454	05...	0830	576	13...	0815	485
19...	0845	454	JUN			20...	0745	515
27...	0810	485	04...	0900	227	27...	0840	485
JAN			11...	0820	364	SEP		
03...	0745	333	18...	0835	364	04...	0925	485
09...	0725	424	25...	0820	424	10...	0825	515
23...	0745	424	JUL			17...	0910	454
30...	0740	485	17...	0810	424			
FEB			23...	0835	424			
06...	0745	454	30...	0825	515			
13...	0730	515						
21...	0835	515						
27...	0825	515						

141929170441401 - 90-1944-13 MALAEIMI W67

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0840	15	06...	0840	23	04...	0925	23
11...	1300	15	13...	0820	23	11...	0855	15
17...	0910	15	21...	0910	15	18...	0910	15
24...	0805	15	27...	0905	15	25...	0905	15
31...	0835	15	MAR			JUL		
NOV			05...	0925	15	02...	0825	15
07...	0835	15	12...	0905	15	09...	0900	15
14...	0855	23	19...	0910	15	17...	0855	15
21...	0810	15	26...	0925	15	23...	0910	23
28...	0835	15	APR			30...	0900	23
DEC			02...	0945	23	AUG		
05...	1030	15	09...	0930	15	06...	1035	15
12...	0835	23	16...	0950	15	13...	0850	15
19...	0925	23	23...	0920	15	20...	0815	23
27...	0835	15	30...	0955	23	27...	0905	23
JAN			MAY			SEP		
03...	0840	15	07...	0935	15	04...	0955	15
09...	0825	15	14...	0925	15	10...	0910	15
16...	0920	15	21...	1040	15	17...	0945	15
23...	0825	15	29...	0855	15	24...	0855	15
30...	0845	15						

Chloride records are Hach kit field determination by cooperator.

SAMOA ISLANDS, ISLAND OF TUTUILA

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

141924170440401 - 90-1944-14 MALAEIMI W69

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT		
03...	0835	454

142002170444201 (formerly 142100170441701) - 90-2044-02 ILIILI W84

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			APR			JUL		
24...	0955	727	16...	1110	303	30...	1045	606
31...	0955	727	30...	1140	606	AUG		
NOV			MAY			06...	0915	667
07...	1255	727	07...	1105	606	13...	1025	606
DEC			14...	1015	485	20...	0950	606
05...	1150	606	21...	0855	576	27...	1020	485
12...	1025	727	29...	1030	515	SEP		
JAN			JUN			04...	1015	424
03...	1005	576	04...	1130	576	10...	1045	424
30...	1020	515	11...	1030	576	17...	1135	485
MAR			18...	1105	485	24...	1050	454
12...	1030	606	JUL					
19...	1040	606	02...	1020	545			
APR			17...	1035	454			
09...	1050	545	23...	1045	545			

Chloride records are Hach kit field determination by cooperator.

SAMOA ISLANDS, ISLAND OF TUTUILA

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

142042170463001 - 90-2046-03 MALAELOA W70

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0940	23	06...	0930	23	04...	1025	30
11...	1220	30	13...	0905	45	11...	0945	23
17...	1000	23	21...	0955	30	18...	1005	23
24...	0855	23	27...	1000	30	25...	1000	23
31...	0915	23	MAR			JUL		
NOV			05...	1015	23	02...	0920	30
07...	1230	15	12...	0945	23	09...	0950	30
14...	0945	23	19...	0955	23	17...	0945	30
21...	0905	23	26...	1015	23	23...	0955	30
28...	0930	30	APR			30...	0955	30
DEC			02...	1040	23	AUG		
05...	1115	30	09...	1020	30	06...	0945	23
12...	0925	30	16...	1040	30	13...	0940	38
19...	1015	30	23...	1010	30	20...	0905	38
27...	0920	30	30...	1055	30	27...	0955	38
JAN			MAY			SEP		
03...	0920	30	07...	1020	30	04...	1050	38
09...	0905	30	14...	1050	23	10...	1010	23
16...	0955	30	21...	0930	23	17...	1100	30
23...	0910	30	29...	0950	23	24...	1000	30
30...	0945	30						

142110170444601 - 90-2144-05 ILIILI W62

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0955	136	06...	0940	106	04...	1010	84
11...	1145	128	13...	0940	106	11...	1010	53
17...	1010	144	21...	1015	106	18...	1040	91
24...	0910	128	27...	1020	114	25...	1040	106
31...	0930	121	MAR			JUL		
NOV			05...	1030	106	02...	0955	06
07...	1235	136	12...	1010	106	17...	1005	106
14...	1000	144	19...	1020	121	23...	1025	106
21...	0915	121	26...	1025	84	30...	1025	121
28...	0940	136	APR			AUG		
DEC			02...	1215	53	06...	0910	14
05...	1125	136	09...	1030	76	13...	1010	136
19...	1035	114	16...	1055	61	20...	0935	136
27...	0945	114	23...	1045	91	27...	1005	106
JAN			30...	1125	114	SEP		
03...	0930	114	MAY			04...	1105	68
09...	0920	136	07...	1045	91	10...	1015	68
16...	1005	144	14...	0945	84	17...	1110	68
23...	0920	91	21...	0905	98	24...	1005	98
30...	0955	91	29...	1015	98			

Chloride records are Hach kit field determination by cooperator.

SAMOA ISLANDS, ISLAND OF TUTUILA

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

142102170455801 - 90-2145-03 PUAPUA W119

DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)	DATE	TIME	CHLORIDE, DISSOLVED (MG/L AS CL)
OCT			FEB			JUN		
03...	0910	394	27...	0940	136	25...	0935	189
11...	1155	364	MAR			JUL		
NOV			05...	0955	114	02...	0900	205
07...	0900	45	12...	0925	91	09...	0930	227
14...	0925	38	19...	0935	91	17...	0925	394
21...	0840	45	26...	0955	76	23...	0935	394
28...	0910	30	APR			30...	0935	394
DEC			02...	1020	38	AUG		
05...	1055	167	09...	0955	61	06...	0930	394
12...	0905	212	16...	1015	53	13...	0920	454
19...	0955	227	23...	0950	53	20...	0845	515
27...	0900	394	30...	1035	76	27...	0935	454
JAN			MAY			SEP		
03...	0900	167	07...	1005	136	04...	1030	454
16...	0935	152	14...	1025	121	10...	0940	454
23...	0850	167	21...	0910	159	17...	1020	424
30...	0925	152	29...	0930	167	24...	0925	454
FEB			JUN					
06...	0910	98	04...	1005	205			
13...	0845	182	11...	0925	197			
21...	0935	175	18...	0945	167			

Chloride records are Hach kit field determination by cooperator.

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